EA11-004

HONDA

4/27/2012

Q2

Source No.	VIN	[redacted]	Category	Type of Report	Summary
3231151	SHSRD78886		Fire	FIELD REPORT	DRIVERS MASTER SWITCH BURNED UP AND DOOR HARNESS WAS MELTED
3203257	SHSRD78846		Fire	FIELD REPORT	DRIVERS POWER WINDOW SWITCH BURNED UP - MELTED HARNESS
3218107	SHSRD78536		Fire	FIELD REPORT	SWITCH LOOKS MELTED
N032012-03-0101636	SHSRD788X6		Fire	CONSUMER COMPLAINT	SWITCH QUIT WORKING AND WAS MELTED
N012012-03-0101657	SHSRD788X6		Fire	CONSUMER COMPLAINT	DRIVER SIDE WINDOW SWITCH STOPPED HALF WAY. SWITCH WAS MELTED.
N032011-11-1800188	SHSRD68506		Fire	CONSUMER COMPLAINT	DRIVER'S SIDE WINDOW SWITCH CAUGHT ON FIRE AND MELTED THE SWITCH
N012011-11-1800193	SHSRD68506		Fire	CONSUMER COMPLAINT	DRIVER'S SIDE SWITCH CAUGHT ON FIRE YESTERDAY
N012011-09-1302131	SHSRD78856		Fire	CONSUMER COMPLAINT	WINDOW SMOKED AND THEN WOULD NOT OPERATE.
N012011-12-0202795	SHSRD78556		Fire	CONSUMER COMPLAINT	CAR WAS ON FIRE, WHICH STARTED IN THE DOOR.

Tech Line Contact Report

T/L Ref #	Created By	Date Created	Last Edited By	# of Edits
3249994	PAULI	01/30/2012	PAULI	2

	Code	Original Complaint	Probable Cause/Solution
P	7870	LF POWER WINDOW INOP	WAR: R&R P/W SW (CLM 200201)

Resln Source: Warranty **Date:** 01/30/2012
Status: P RCVD **Mileage:** 102,765
Remarks / Requestor: **FE Status:**

Dealer #: **TZ:** EST
Dlr Cont: PAULI **Training %:**
Serv Ph: (716) 691-7800 **Extn:**
Serv Mgr: JOHN SEE
Parts Mgr: JAMES SCHMITT
Dlr Name: DON DAVIS HONDA
2277 NIAGARA FALLS BLV
AMHERST NY 14228

Phone: (716) 691-7800 **Fax #:** 7166914190
DPSM: MALCOLM HOFF **Zone/Dist:** 09A
Previous Dealer/Contact **Date**

VIN: SHSRD78556U[redacted] **Err:**
Year: 2,006 **Model:** CR-V
Tran: 5AT **Trim:** 4WD LX
Doors: 5DR **WD:**
Fact: SWINDON **Country:** ENG
Desc: CR-V 5DR 4WD LX 4CYL 156.0 HP 2.4
WhtBdy: POWER STEERING, ABS, SRS AIRBAG,
Engine #: K24A15504997 **Trans #:** GPPA4003604
Em Type: KA
RO #:
Case Type: Technical
W.O. #:

Tech Line Suggests

1/30/2012 12:36:43 PM PAULI

1
2
3 207154 RO Date: 2012-01-23 Claim Number: 200201
4
5 FAXED SHIP REQUEST

2/2/2012 3:23:25 PM PAULI

6 P/W SW RCVD--FFWD>RICK K

Information from Dealer

E/M FROM RICK K
PLSE P/U SW (CLM 200201)
R&R
35750-S9A-C04ZA SW *NH167L*

Tech Line Contact Report

T/L Ref #	Created By	Date Created	Last Edited By	# of Edits
3225517	PAULI	12/01/2011	PAULI	6

Code	Original Complaint	Probable Cause/Solution
P 7870	POWER WINDOWS	R&R P/W SW,HRNSS, DR PNL

Resln Source: None **Date:**
Status: P RCVD **Mileage:** 133,369
Remarks / Requestor: **FE Status:**

Dealer #:		**TZ:**	EST
Dlr Cont:	PAULI	**Training %:**	
Serv Ph:	(704) 331-0816	**Extn:**	
Serv Mgr:	ERIC TIPPETT		
Parts Mgr:	KENT EWING		
Dlr Name:	METRO HONDA 4918 HIGHWAY 74 WEST INDIAN TRAIL NC 28079		
Phone:	(704) 331-0816	**Fax #:**	7042201553
DPSM:	MARK SIMPSON	**Zone/Dist:**	06K
Previous Dealer/Contact		**Date**	

VIN:	SHSRD68506U[redacted]	**Err:**	
Year:	2,006	**Model:**	CR-V
Tran:	5AT	**Trim:**	2WD LX
Doors:	5DR	**WD:**	
Fact:	SWINDON	**Country:**	ENG
Desc:	CR-V 5DR 2WD LX 4CYL 156.0 HP 2.4		
WhtBdy:	POWER STEERING, ABS, SRS AIRBAG,		
Engine #:	K24A15530597	**Trans #:**	GPLA4005711
Em Type:	KA		
RO #:			
Case Type:	Technical		
W.O. #:			

Tech Line Suggests	Information from Dealer
12/1/2011 10:53:58 AM PAULI	
1	E/M FROM RICK K
2	PLSE P/U PRTS
3	PER FQR FROM MARK SIMPSON
4 WILL P/U	
5 (sas)	
6	ERIC, S/M
7	DONE
8 FAXED SHIP REQUEST	
12/5/2011 9:43:33 AM PAULI	
9 CLM 514741 UPDATED 12/2/11)	(PRTS>RK)
12/5/2011 11:00:15 AM JIMN	
10 PHOTOS WERE RECEIVED OF THE DAMAGE BY FROM THE DPSM.	
11 WARRANTY SHOW CLAIM FOR REPAIR.	
12 PAUL, PLEASE PICK UP PARTS FOR LARRY LINDSAY ASAP.	
12/5/2011 11:16:40 AM PAULI	
13 ADVISED LL, JIM N	
12/5/2011 11:29:01 AM PAULI	
14 (*NOTED, NO DR PNL DELIVERED TO AHM)	

Tech Line Contact Report

T/L Ref #	Created By	Date Created	Last Edited By	# of Edits
3231151	JOHNB	12/14/2011	PAULI	13

	Code	Original Complaint	Probable Cause/Solution
P	7870	POWER WINDOW SW	REPAIR AS NECESSARY;PARTS HERE AT AH

Resln Source: None **Date:**

Status: P RCVD **Mileage:** 76,976

Remarks / Requestor: **FE Status:**

PHOTOS ATTACHED

Dealer #: **TZ:** EST

Dlr Cont: ERIC HERSH **Training %:**

Serv Ph: (610) 967-6500 **Extn:**

Serv Mgr:

Parts Mgr: GREGORY KAPUN

Dlr Name: LEHIGH VALLEY HONDA
675 STATE AVENUE
EMMAUS PA 18049

Phone: (610) 967-6500 **Fax #:** 6109651459

DPSM: STEVEN LUCCESE **Zone/Dist:** 05D

Previous Dealer/Contact **Date**

VIN: SHSRD78886U[redacted] **Err:**

Year: 2,006 **Model:** CR-V

Tran: 5AT **Trim:** 4WD EX

Doors: 5DR **WD:**

Fact: SWINDON **Country:** ENG

Desc: CR-V 5DR 4WD EX 4CYL 156.0 HP 2.4

WhtBdy: P/S, SUN ROOF, ABS, AIR BAG, USA

Engine #: K24A15549509 **Trans #:** GPPA4038889

Em Type: KA

RO #: 454807

Case Type: Technical

W.O. #:

Tech Line Suggests		Information from Dealer
12/14/2011 10:17:45 AM	JOHNB	
1 ORIGINAL COMPLAINT		DRIVERS MASTER SWITCH BURNED UP AND DOOR HARNESS WAS MELTED
2 ISIS SEARCH CRITERIA		[MODEL: CR-V][YEAR: 2006][PUBID: 0][SUBJECT:][KEYWORD: RECALL]
3 CAN YOU VERIFY THE CUSTOMER'S COMPLAINT?		YES
4 ANY PREVIOUS REPAIRS OR PARTS REPLACED?		NONE
5 ANY AFTER MARKET ACCESSORIES INSTALLED?		NONE
6		MASTER POWER WINDOW SW ASSEMBLY MELTED,DOOR HARNESS MELTED
7 NO OTHER DAMAGES		NONE
8 THEN PLEASE TAKE PHOTOS AND SEND THEM VIA ISIS: SERVICE,TECH LINE,IMAGE UPLOAD;IF CANNOT SUCCESSFULLY DO SO,PLEASE TAKE PHOTOS AND SEND TO techline@ahm.honda.com;INCLUDE REF# AND VIN. PLEASE ALSO ATTACH EACH PHOTO AS AN INDIVIDUAL FILE;PLEASE DO NOT EMBED PHOTO(S) WITHIN THE EMAIL ITSELF;PLEASE SEE HSN 03/12E FOR ALL PHOTO RELATED PROCEDURES.		
9 PLEASE CONTACT DPSM,REPAIR AS NECESSARY;WILL WANT DAMAGED PARTS		
10 PENDED PARTS REQUIRED,TO: PAULI		
11 PENDED TO S.M.E.: JIMN		
12 PENDED TO TROYS		
12/14/2011 11:36:53 AM	RUDYG	
13 12/14/2011 11:37:10 AM RUDYG		(ERIC) WHERE DO I SEND PHOTOS?
14 TECHLINE@AHM.HONDA.COM		OK
15 ATTN TROY		OK
12/14/2011 12:08:45 PM	PAULI	
16 WILL P/U PRTS		
17 (sas)		
12/14/2011 12:44:54 PM	RUDYG	
18 12/14/2011 12:45:07 PM RUDYG(RECEIVED PHOTOS, ATTACHED TO CONTACT)		FROM E MAIL: Rebecca Schoedler (610)965-1649 Lehigh Valley Honda Lehigh Valley Hyundai 675 State Rd Emmaus, PA 18049
12/14/2011 1:27:35 PM	PAULI	
19 FAXED SHIP REQUEST		
12/16/2011 11:16:28 AM	PAULI	
20		ERIC S, S/A
21 STATUS/		MY TECH SENT PHOTOS, WE ARE WAITING FOR INSTRUCTIONS TO REPAIR & WHO PAYS?
22 WILL CHCK & ADVISE		
23 REFERRED TO TROY S		
12/16/2011 1:19:03 PM	TROYS	
27 CB LEFT MESSAGE W ERIC TO REF TO DPSM FOR GOOD WILL REPLACEMENT		
12/16/2011 1:19:05 PM	PAULI	
24		(E/M FROM JIM N)
25		PLSE ASK DPSM TO GOODWILL REPAIR
26		WOULD LIKE OLD PRTS.
12/16/2011 1:39:31 PM	PAULI	
28		(E/M>STEVE LUCCESE, DPSM)
12/19/2011 9:23:04 AM	PAULI	
29		PER DPSM
30		AHM GOODWILL= 99%
31		CUST PAY= 1%
32 FAXED SHIP REQUEST		
1/4/2012 10:41:13 AM	JIMN	

33 RECEIVED PARTS AND FORWARDED TO RICK K.
DAMAGE IS ISOLATED TO SOME MELTING ON THE
BOTTOM OF THE SWITCH BODY AND A FEW
TERMINALS ON THE WIRE HARNESS.

1/4/2012 11:06:53 AM PAULI

34 PRTS RCVD--FFWD>JIM N
35 UPDATED CLM 054807

Tech Line Contact Report

T/L Ref #	Created By	Date Created	Last Edited By	# of Edits
3203257	JOHNB	10/06/2011	PAULI	6

	Code	Original Complaint	Probable Cause/Solution
P	7870	MASTR PWR WIND SW MELTED	REPAIR AS NECESSARY;WILL WANT PARTS,PHOTOS

Resln Source: None **Date:**

Status: P RCVD **Mileage:** 23,229

Remarks / Requestor: **FE Status:**

Dealer #: **TZ:** EST

Dlr Cont: JOHN BOYLE **Training %:**

Serv Ph: (216) 932-2400 **Extn:**

Serv Mgr:

Parts Mgr: SCOTT CHYLINSKI

Dlr Name: MOTORCARS HONDA
2953 MAYFIELD ROAD
CLEVELAND HEIGH OH 44118

Phone: (216) 932-2400 **Fax #:** 2169325081

DPSM: RONALD HOPKINS **Zone/Dist:** 04H

Previous Dealer/Contact **Date**

VIN: SHSRD78846U[redacted] **Err:**

Year: 2,006 **Model:** CR-V

Tran: 5AT **Trim:** 4WD EX

Doors: 5DR **WD:**

Fact: SWINDON **Country:** ENG

Desc: CR-V 5DR 4WD EX 4CYL 156.0 HP 2.4

WhtBdy: P/S, SUN ROOF, ABS, AIR BAG, USA

Engine #: K24A15553360 **Trans #:** GPPA4042726

Em Type: KA

RO #: 598866

Case Type: Technical

W.O. #:

Tech Line Suggests		Information from Dealer
10/6/2011 6:37:58 AM	JOHNB	
1 ORIGINAL COMPLAINT		DRIVERS POWER WINDOW SWITCH BURNED UP - MELTED HARNESS. VEHICLE DOES NOT FALL INTO BULLETIN#11-057 DUE TO VIN. WIRING HARNESS # 32751-SCA-A02 SHOWS NOT AVAILABLE. I HAVE TAKEN PICTURES OF BOTH WIRINGHARNESS AND SWITCH WHICH I CAN SEND TO YOU IF NEE DED. ADVISE ON HOW TO PROCEDE. SERVICE MANAGER WANTED ME TO CONTACT YOU.
2 ISIS SEARCH CRITERIA		[MODEL: CR-V][YEAR: 2006][PUBID: 0][SUBJECT:][KEYWORD: WINDOW]
3 CAN YOU VERIFY THE CUSTOMER'S COMPLAINT?		YES
4 ANY PREVIOUS REPAIRS OR PARTS REPLACED?		NONE
5 ANY AFTER MARKET ACCESSORIES INSTALLED?		NONE
6		MASTER POWER WINDOW SW BURNED UP,MELTED,MELTED HARNESS;HARNESS 32751-SCA-A02 IS NOT AVAILABLE
7 DID YOU CONTACT PARTS ANALYSIS		NO
8 PLEASE DO,AS FOR YOUR MELTED SW		YES,THE HSB DOES NOT APPLY
9 HSB 11-057?		CORRECT
10 YOU ARE CORRECT ALSO,HSB DOES NOT APPLY TO UK BUILT CR-V'S...SO YOU HAVE PHOTOS		YES
11 PLEASE TAKE PHOTOS AND SEND THEM VIA ISIS: SERVICE,TECH LINE,IMAGE UPLOAD;IF CANNOT SUCCESSFULLY DO SO,PLEASE TAKE PHOTOS AND SEND TO techline@ahm.honda.com;INCLUDE REF# AND VIN. PLEASE ALSO ATTACH EACH PHOTO AS AN INDIVIDUAL FILE;PLEASE DO NOT EMBED PHOTO(S) WITHIN THE EMAIL ITSELF;PLEASE SEE HSN 03/12E FOR ALL PHOTO RELATED PROCEDURES.		
12 PLEASE REPAIR AS NECESSARY,WILL WANT THE ORIGINAL DAMAGED PARTS;WHO WILL WE CONTACT IN DEALER PARTS TO ARRANGE		ASK FOR SCOTT
13 PLEASE CONTACT YOUR DPSM AS WELL		UNDERSTOOD
14 PENDED PARTS REQUIRED,TO: PAULI		
15 PENDED TO S.M.E.: RICHARDK		
16 PENDED FYI TO: TROYS		
17 PENDED FYI TO: JIMN		
10/6/2011 7:08:09 AM	JOHNB	
18 RECEIVED PHOTOS VIA IMAGE UPLOAD;ATTACHED ALL (14) PHOTOS TO CONTACT		
10/6/2011 7:43:51 AM	TROYS	
19 PENDED TO RK AND JN		
10/6/2011 9:55:25 AM	PAULI	
20 WILL P/U		
21 FAXED SHIP REQUEST		
22 (sas)		
10/13/2011 11:41:06 AM	PAULI	
23		ELMER, S/M
24 STATUS?		DONE
25 REFAXED SHIP REQUEST		
10/21/2011 1:04:34 PM	PAULI	
26 P/W SW RCVD--FFWD>JIM N		

Tech Line Contact Report

T/L Ref #	Created By	Date Created	Last Edited By	# of Edits
3218107	EDB	11/11/2011	PAULI	18

	Code	Original Complaint
P	7870	POWER WINDOW INOP
	P1157	A/F SENSOR1

Probable Cause/Solution

SW OVERHEAT ; REPLACE SW, PANEL, HARNESS

Resln Source: None **Date:**

Status: P RCVD **Mileage:** 90,000

Remarks / Requestor: **FE Status:**

Dealer #: **TZ:** EST

Dlr Cont: TONY **Training %:**

Serv Ph: (732) 721-0449 **Extn:**

Serv Mgr: WILLIAM BREEDEN

Parts Mgr: JOHN SEFCHIK

Dlr Name: DCH ACADEMY HONDA
1101 U.S. HIGHWAY 9 N
OLD BRIDGE NJ 08857

Phone: (732) 721-0449 **Fax #:** 7327215812

DPSM: BILL HALLSWORTH **Zone/Dist:** 05G

Previous Dealer/Contact **Date**

VIN: SHSRD78536U[redacted] **Err:**

Year: 2,006 **Model:** CR-V

Tran: 5AT **Trim:** 4WD LX

Doors: 5DR **WD:**

Fact: SWINDON **Country:** ENG

Desc: CR-V 5DR 4WD LX 4CYL 156.0 HP 2.4

WhtBdy: POWER STEERING, ABS, SRS AIRBAG,

Engine #: K24A15554199 **Trans #:** GPPA4043154

Em Type: KA

RO #:

Case Type: Technical

W.O. #:

Tech Line Suggests	Information from Dealer
11/11/2011 2:10:27 PM EDB	
1 CASE CREATED TO HAVE TOM MCGOVERN GO TO THIS DEALER AND SUPERVISE THIS REPAIR. TAKE PHOTOS OF THE SWITCH, DOOR PANEL AND HARNESS IN THE AS IS CONDITION BEFORE REPAIRS ARE STARTED	
2 THESE PARTS ARE TO BE SENT DIRECTLY TO NHTSA USING AN PRE-ADDRESSED AIRBILL THAT PAUL IKEMOTO WILL SEND TO DEALER NHTSA IS REQUESTING THE PARTS FROM THIS VEHICLE THE PLAN IS TO SEND OUT THE DOOR HARNESS AND THE SWITCH AND THE DOOR PANEL FOR THE DEALER TO USE TO REPAIR THIS VEHICLE DO NOT SEPERATE THE DOOR HARNESS FROM THE WINDOW SWITCH PRESERVE THIS CONNECTION. DISCONNECT FROM THE BODY HARNESS AS A COMPLETE DOOR HARNESS/SWITCH ASSY.	
11/16/2011 4:49:29 PM PAULI	
3 SENT WIRE HRNSS, PREPRINTED FX A/B	A/B 443786253340
4 (P/# 32751-S9A-A02)	
5 ATTN: TONY MARSZALEK, S/M	
6 FYI>KATY E, JR, EDB	
11/17/2011 8:48:59 AM PAULI	
7 (V/M>TONY)	
8 HRNSS SENT TO DLR ALONG W/PRE-PRINTED AIRBILL	
9 WHEN PRTS SENT TO NHTSA, PLSE ADVISE A/B #S	
11/18/2011 8:54:15 AM PAULI	
11 NO CALLBACK	
12	BILL, DPSM
13 PLSE CONTACT DLR TO CONFIRM THEY HAVE A WIRE HARNSS FROM TL.	
14 PLSE CONFIRM THEY HAVE A PARTS LIST FROM AHM	
18 PLSE CONFIRM THEY HAVE PRE-PRINTED AIRBILL TO SEND RPLCD PARTS TO NHTSA	
15	E/M FROM BILL, DPSM
16	I just spoke to Tony. he has a full understanding of what will take place. Harness has arrived and the other parts will be ordered today. Tony will call me when the vehicle arrives at DCH Academy for repair.
17 (FRWD INFO>KATY E, JR, GARY S, RICK K, TOM M	
11/18/2011 8:53:44 AM EDB	
10 EMIALED ZONE AND DPSM REGARDING THIS CASE AND ADVISED THE REPAIRS WILL BE GOODWILL	
11/18/2011 8:54:15 AM PAULI	
19	INFO FROM MARIA, TRS
20	CUST CONTACTED DLR, VERY UPSET.
21 PER KATYE	
22 WE ARE WAITING FOR DIRCTION FROM NHTSA. AHM NOT TO CONTACT CUST UNTIL NHTSA SAYS OK.	
23 (WE ADVISED BILL DPSM THE CURRENT SITUATION AS FYI)	
11/22/2011 2:02:54 PM PAULI	
24	E/M FROM MARIA,TRS
25	S/M stated he informed the customer that he had all the necessary parts for the repair and would like to set up an appointment. The customer informed Tony that he would like to wait for speak with the gentlemen from Washington tomorrow before he makes an appointment.
11/23/2011 12:34:57 PM PAULI	
26 NO CLM.	

11/28/2011 9:37:45 AM	PAULI	
30		E/M FROM KATY E
31		CUST @ DLR TODAY
11/28/2011 9:33:06 AM	EDB	
27	TOM M AT DEALER INITIAL INSPECTION REPORT	Tom McGovern has done his initial inspection at the dealership of the customers CR-V, SHSRD78536U444819. He reports that the vehicle arrived with the drivers window taped in the up position. The switch sticks down when depressed and sticks up when raised. The MIL and the ABS light is illuminated on the dash. It has a P1157 - A/F Sensor range performance Engine code and in the VSA side a 65-1 - Brake fluid level, 66-1 - VSA Pressure Sensor, a 83-1 - EXM/PCM communication error and a 86-1
28		FCAN communication error. Tom reports that the vehicle is in general disrepair with multiple dents around the body anfd the interior is filled with the customers "stuff" At this time they are disassembling the door to take more photosprior to repair. I have advised Toim that we just need to make the window operate as designed. With the window taped up we may find that a regulator may be needed to restore normal operation. At this point we will ignore the other issues this vehicle has unless
29		advised otherwise
32	CALL FROM TOM @ DLR	PULLED THE DOOR PANEL AWAY FROM DOOR AND THE SWITCH LOOKS MELTED SO...
33	REMOVE THE SW AND HARNESS AS AN ASSEMBLY KEPP CONNECTED. PACKAGE IT FOR SHIPPING AND USE THE AB PAUL SENT TO DLR TO SHIP TO NHTSA DIRECT. THEN EVALUATE THE REFULATOR FUNCTION IF IT IS DAMAGED REPLACE IT AS WELL TO RESTORE FUNCTION TO THE DRIVERS DOOR WINDOW.	I AM TAKING PICTURES OF EVERYTHING
11/30/2011 10:53:36 AM	EDB	
34	VEHICLE HAS BEEN REPAIRED AND THE PARTS REMOVED AND SHIPPED TO NHTSA THE DRIVERS WINDOW HAS BEEN RESTORED TO NORMAL OPERATION AS DESIGNED (PHOTOS ATTACHED)	
11/30/2011 11:31:14 AM	PAULI	
35		TONY, S/M
36		SENT PER A/B 8461 4736 9006
37	THANKS	
38	(FYI>EDB, KATY, DPSM)	
12/5/2011 11:35:05 AM	PAULI	
39	(V/M>TONY, S/M)	
40	DLR DIR R&R DR PNL?	
41	PLSE SEND TO NHTSA	
42	207553 RO Date: 2011-11-28 Claim Number: 604819	R&R
43		35750-S9A-C04ZA SW *NH167L*
44		72275-S9A-003 CHANNEL, L. FR.
45		72361-S9A-020 SEAL, L. FR.
46		72450-SCA-E01 MOLDING, L. FR. DOOR
47		83561-SCA-A02 PANEL, L.
48		83580-SCA-G91ZA
49		83583-SCA-A03ZD
50		(SVC DPT)
51	TONY AVAIL?	NO
52		BILL, DPSM
53	NHTSA REQUESTING DOOR PNL. PLSE HAVE DLR ADVISE ME	OK
54		TONY, S/M
55		WE ONLY SEND SW & HRNSS PER FIELD GUY
56	REQ. WAS FOR ALL REPLACED PARTS.	WILL GATHER THE DR PNL & SEND & ADVISE
57	THANKS	
12/7/2011 11:13:14 AM	PAULI	
58		TONY, S/M

59 DR PNL SENT VIA FX 7978 1017 1075
60 FYI>KATY, ED B

AMERICAN HONDA

CUSTOMER RELATIONSHIP MANAGEMENT SYSTEM

Spool Report

Run Date : 04/20/2012

Case Details

Case ID :	N032012-03-0101636	Division :	Honda - Auto	Condition :	Closed	Open Date :	3/1/2012 2:36:20 PM
Case Originator :	Emmitt Chitwood (Team CB)	Sub Division :	Satellite Center	Status :	Closed	Close Date :	3/1/2012 2:51:09 PM
Case Owner :	Emmitt Chitwood (Team CB)	Method :	Phone	Queue :		Days Open :	0
Last Closed By :	Emmitt Chitwood (Team CB)	Point of Origin :	Customer	Wipbin :			
Case Title :	[redacted] POWER WINDOW SWITCH/NON R93			No. of Attachments :	0		

Site / Contact Info :

Site Name : [redacted]
Dealer No. :
Site Phone No. :
Contact Name :
Day Phone No. :
Evening Phone No. :
Cell / Pager No. :
Fax No. :
Address :
City / State / Zip : SELLERSVILLE, PA [redacted]
E Mail :
Svc District / Sls District : /

Product Info :

Unit Owner : [redacted] 2408
VIN Type / No. : US VIN / SHSRD788X6U [redacted]
Model / Year : CR-V / 2006
Model ID / Product Line : RD7886JW / A
Miles / Hours : 114,000
In Service Date : 12/15/2005
Months In Use : 75
Engine Number : K24A15505239
Originating Dealer No. / Name : 206709 / J. L. FREED HONDA
Selling Dealer No. / Name : 206709 / J. L. FREED HONDA
Trim : 4WD EX
No. Of Doors : 5
Transmission Code : 5AT
Exterior Color : GN
Factory Warranty Start / End Date :
Factory Warranty Cancellation Date :
HPP/VSC Coverage Start / End Date :
HPP/VSC Cancellation Date :
Extended Warranty Start / End Date :
Extended Warranty Cancellation Date :

Current Dealer Info :

Current Dealer No. / Name :
Phone No. :
Address :
City / State / Zip :
Svc District / Sls District : /
Warranty Labor Rate / Date : /
Agent Name : Comp Ind. :

Previous Dealer Info :

Dealer #	Dealer Name	Agent Name	Comp Ind.

3rd Party Info :

Party 1 : Not Applicable
Party 2 : Not Applicable
Party 3 : Not Applicable
Party 4 : Not Applicable

Issues :

Issue ID / Title	Status	Issue Type 1	Issue Type 2	Labor Code	Labor Code Desc
N032012-03-0101636-1 / [redacted] - CA	Subcase Close	Campaign	Eligibility	744	Power window swt

AMERICAN HONDA

CUSTOMER RELATIONSHIP MANAGEMENT SYSTEM

Spool Report

Run Date : 04/20/2012

Issue Details

Issue ID :	N032012-03-0101636-1	Disposition:	Information	Condition :	Closed	Wipbin :	
Issue Originator :	Emmitt Chitwood	Type 1 :	Campaign	Status :	Subcase Close	Open Date :	3/1/2012 2:43:16 PM
Issue Owner :	Emmitt Chitwood	Type 2 :	Eligibility	Queue :		Close Date :	3/1/2012 2:43:24 PM

Issue Title : [redacted] - CAMPAIGN - ELIGIBILITY

Coding Info :

Labor Code / Desc : 744 / Power window swt
Condition Code Desc Other 744X
Campaign Code / Desc : /
Temperament Code : Cold
Resolutions : Forward to Call Ctr
Component Category : 13 - Visibility
Previously Published : NO
Fire Indicator : NO
Rollover Indicator : NO
Cosmetic / Sound Quality Indicator : NO
Dealer Coding:

Solution / Linked Resolution Info :

Solution ID : Resolution Title :
Solution Title :

Parts Info :

Part No.	Part Description	BO Reason

Case History

Case ID : N032012-03-0101636 Case Title : [redacted] - POWER WINDOW SWITCH/NON R93

*** CASE CREATE 3/1/2012 2:36:20 PM, echitwoo
Contact = [redacted], Priority = N/A, Status = Solving.

*** CASE MODIFY 3/1/2012 2:41:41 PM, echitwoo
into WIP default and Status of Solving.

*** CASE MODIFY 3/1/2012 2:42:47 PM, echitwoo
into WIP default and Status of Solving.

*** SUBCASE N032012-03-0101636-1 CREATE 3/1/2012 2:43:16 PM, echitwoo
Created in WIP Default with Due Date 3/1/2012 2:43:16 PM.

*** SUBCASE N032012-03-0101636-1 CLOSE 3/1/2012 2:43:24 PM, echitwoo
Status = Solving, Resolution Code = Instruction Given

*** NOTES 3/1/2012 2:51:04 PM, echitwoo, Action Type : Call from Customer
The customer called for campaign reimbursement information. Verified/updated contact information. Verified model, year. The customer stated that she was calling to find out about possible reimbursement for the replacement of her rivers power window switch because her mechanic advised her there was a recall. I verified in CRMS campaign tab, and advised the customer that her vehicle was not part of that recall. The customer stated that she found this hard to accept because she had experienced the exact problem outlined in the recall information she found online. I advised the customer that recalls are VIN specific and hers was not part of this particular recall. I read the customer the background information on the SB and asked if she had experienced this exact problem. The customer stated that she did not ever see or smell smoke but that her switch had quit working and when the mechanic took it out he advised her that it was melted. I apologized to the customer for the inconvenience. The customer requested to speak with Product concerns as she feels that she should be covered regardless of VIN. I transferred her back to the queue with instructions to choose option 7.

*** CASE MODIFY 3/1/2012 2:51:06 PM, echitwoo
into WIP default and Status of Solving.

*** CASE CLOSE 3/1/2012 2:51:09 PM, echitwoo
Status = Closed, Resolution Code = Instruction Given, State = Open

AMERICAN HONDA

CUSTOMER RELATIONSHIP MANAGEMENT SYSTEM

Spool Report

Run Date : 04/20/2012

Case Details

Case ID :	N012012-03-0101657	Division :	Honda - Auto	Condition :	Closed	Open Date :	3/1/2012 2:48:21 PM
Case Originator :	Jennifer Pacheco (Team HB)	Sub Division :	Customer Relations	Status :	Closed	Close Date :	3/1/2012 3:56:06 PM
Case Owner :	Jennifer Pacheco (Team HB)	Method :	Phone	Queue :		Days Open :	0
Last Closed By :	Jennifer Pacheco (Team HB)	Point of Origin :	Customer	Wipbin :			

Case Title : [redacted] - POWER WINDOW SWITCH FAILURE/REIMBURSEMENT No. of Attachments : 0

Site / Contact Info :

Site Name : [redacted]
Dealer No. :
Site Phone No. :
Contact Name :
Day Phone No. :
Evening Phone No. :
Cell / Pager No. :
Fax No. :
Address :
City / State / Zip : SELLERSVILLE, PA [redacted]
E Mail :
Svc District / Sls District : /

Current Dealer Info :

Current Dealer No. / Name :
Phone No. :
Address :
City / State / Zip :
Svc District / Sls District : /
Warranty Labor Rate / Date : /
Agent Name : Comp Ind. :

Previous Dealer Info :

Dealer #	Dealer Name	Agent Name	Comp Ind.

Product Info :

Unit Owner : [redacted] 408
VIN Type / No. : US VIN / SHSRD788X6U [redacted]
Model / Year : CR-V / 2006
Model ID / Product Line : RD7886JW / A
Miles / Hours : 114,000
In Service Date : 12/15/2005
Months In Use : 75
Engine Number : K24A15505239
Originating Dealer No. / Name : 206709 / J. L. FREED HONDA
Selling Dealer No. / Name : 206709 / J. L. FREED HONDA
Trim : 4WD EX
No. Of Doors : 5
Transmission Code : 5AT
Exterior Color : GN
Factory Warranty Start / End Date :
Factory Warranty Cancellation Date :
HPP/VSC Coverage Start / End Date :
HPP/VSC Cancellation Date :
Extended Warranty Start / End Date :
Extended Warranty Cancellation Date :

3rd Party Info :

Party 1 : Not Applicable
Party 2 : Not Applicable
Party 3 : Not Applicable
Party 4 : Not Applicable

Issues :

Issue ID / Title	Status	Issue Type 1	Issue Type 2	Labor Code	Labor Code Desc
N012012-03-0101657-1 [redacted] - PR	Subcase Close	Product	Operation	744	Power window swt

AMERICAN HONDA

CUSTOMER RELATIONSHIP MANAGEMENT SYSTEM

Spool Report

Run Date : 04/20/2012

Issue Details

Issue ID : N012012-03-0101657-1	Disposition: Complaint	Condition : Closed	Wipbin :
Issue Originator : Jennifer Pacheco	Type 1 : Product	Status : Subcase Close	Open Date : 3/1/2012 3:55:49 PM
Issue Owner : Jennifer Pacheco	Type 2 : Operation	Queue :	Close Date : 3/1/2012 3:56:06 PM

Issue Title : [redacted] - PRODUCT - OPERATION

Coding Info :

Labor Code / Desc : 744 / Power window swt
Condition Code Desc Inoperative 7442
Campaign Code / Desc : /
Temperament Code : Please Specify
Resolutions : Documented Concern, Assist Denied
Component Category : 11 - Electrical System
Previously Published : NO
Fire Indicator : NO
Rollover Indicator : NO
Cosmetic / Sound Quality Indicator : NO
Dealer Coding:

Solution / Linked Resolution Info :

Solution ID : Resolution Title :
Solution Title :

Parts Info :

Part No.	Part Description	BO Reason

Case History

Case ID : N012012-03-0101657 Case Title : [redacted] - POWER WINDOW SWITCH FAILURE/REIMBURSEMENT REQ

*** CASE CREATE 3/1/2012 2:48:21 PM, jpacheco
Contact = [redacted] Priority = N/A, Status = Solving.

*** CASE MODIFY 3/1/2012 2:53:29 PM, jpacheco
into WIP default and Status of Solving.

*** CASE MODIFY 3/1/2012 3:22:47 PM, jpacheco
into WIP default and Status of Solving.

*** NOTES 3/1/2012 3:55:26 PM, jpacheco, Action Type : Call from Customer
Updated customer's info.

Customer states that she previously spoke to the recall department because she heard about a recall on the driver side window switch. She said that she had to replace it because it had stopped half way. She was in the rain so she went straight to her mechanic who advised her that her switch melted and was lucky that it didn□t catch fire.

Customer is looking for a reimbursement although she does not fall under the recall. Customer said it was replaced on 3/26/2011 and approximately at 110K miles. She paid $123 for the switch and $50 for labor. She is the second owner and purchased it from the dlrship.

ACS explained that because she was not part of the recall and the failure occurred outside of warranty then AHM would not be able to review assistance at this time.

Customer thanked me and no further assistance was needed.

*** SUBCASE N012012-03-0101657-1 CREATE 3/1/2012 3:55:49 PM, jpacheco
Created in WIP Default with Due Date 3/1/2012 3:55:49 PM.

*** CASE MODIFY 3/1/2012 3:56:00 PM, jpacheco
into WIP default and Status of Solving.

*** CASE CLOSE 3/1/2012 3:56:06 PM, jpacheco
Status = Closed, Resolution Code = Instruction Given, State = Open

*** SUBCASE N012012-03-0101657-1 CLOSE 3/1/2012 3:56:06 PM, jpacheco
Status = Solving, Resolution Code = Instruction Given

AMERICAN HONDA

CUSTOMER RELATIONSHIP MANAGEMENT SYSTEM

Spool Report

Run Date : 04/20/2012

Case Details

Case ID :	N032011-11-1800188	Division :	Honda - Auto	Condition :	Closed	Open Date :	11/18/2011 7:38:08 AM
Case Originator :	Priscilla Samaniego (Team CA)	Sub Division :	Satellite Center	Status :	Closed	Close Date :	11/18/2011 10:42:29
Case Owner :	Claudia Chao (Team CA)	Method :	Phone	Queue :		Days Open :	0
Last Closed By :	Claudia Chao (Team CA)	Point of Origin :	Customer	Wipbin :			
Case Title :	06K[redacted]- WINDOW SWITCH/ FIRE CASE			No. of Attachments :	0		

Site / Contact Info :

Site Name :	[redacted]
Dealer No. :	
Site Phone No. :	
Contact Name :	
Day Phone No. :	
Evening Phone No. :	
Cell / Pager No. :	
Fax No. :	
Address :	
City / State / Zip :	CHARLOTTE, NC[redacted]
E Mail :	N/A
Svc District / Sls District :	/

Product Info :

Unit Owner :	[redacted]4301
VIN Type / No. :	US VIN / SHSRD68506U[redacted]
Model / Year :	CR-V / 2006
Model ID / Product Line :	RD6856EW / A
Miles / Hours :	120,000
In Service Date :	02/28/2006
Months In Use :	69
Engine Number :	K24A15530597
Originating Dealer No. / Name :	207904 / HENDRICK HONDA
Selling Dealer No. / Name :	207904 / HENDRICK HONDA
Trim :	2WD LX
No. Of Doors :	5
Transmission Code :	5AT
Exterior Color :	BK
Factory Warranty Start / End Date :	
Factory Warranty Cancellation Date :	
HPP/VSC Coverage Start / End Date :	
HPP/VSC Cancellation Date :	
Extended Warranty Start / End Date :	
Extended Warranty Cancellation Date :	

Current Dealer Info :

Current Dealer No. / Name :	
Phone No. :	
Address :	
City / State / Zip :	
Svc District / Sls District :	/
Warranty Labor Rate / Date :	/
Agent Name :	Comp Ind. :

Previous Dealer Info :

Dealer #	Dealer Name	Agent Name	Comp Ind.

3rd Party Info :

Party 1 :	Not Applicable	Party 3 :	Not Applicable
Party 2 :	Not Applicable	Party 4 :	Not Applicable

Issues :

Issue ID / Title	Status	Issue Type 1	Issue Type 2	Labor Code	Labor Code Desc
N032011-11-1800188-1 [redacted]	Subcase Close	Product	Operation - "Safety"	744	Power window swt

Issue Details

Issue ID : N032011-11-1800188-1
Disposition: Information
Condition : Closed
Wipbin :
Issue Originator : Claudia Chao
Type 1 : Product
Status : Subcase Close
Open Date : 11/18/2011 10:40:53
Issue Owner : Claudia Chao
Type 2 : Operation - "Safety"
Queue :
Close Date : 11/18/2011 10:42:29
Issue Title : [redacted] - PRODUCT - OPERATION - "SAFETY"

Coding Info :

Labor Code / Desc : 744 / Power window swt
Condition Code Desc Other 744X
Campaign Code / Desc : /
Temperament Code : Cold
Resolutions : Forward to Call Ctr
Component Category : 11 - Electrical System
Previously Published : NO
Fire Indicator : NO
Rollover Indicator : NO
Cosmetic / Sound Quality Indicator : NO
Dealer Coding:

Solution / Linked Resolution Info :

Solution ID : Resolution Title :
Solution Title :

Parts Info :

Part No.	Part Description	BO Reason

Case History

Case ID : N032011-11-1800188 Case Title : 06K[redacted]- WINDOW SWITCH/ FIRE CASE

*** CASE CREATE 11/18/2011 7:38:08 AM, psamanie
Contact =[redacted]Priority = N/A, Status = Solving.

*** CASE MODIFY 11/18/2011 7:38:20 AM, psamanie
into WIP default and Status of Solving.

*** CASE MODIFY 11/18/2011 7:40:14 AM, psamanie
into WIP default and Status of Solving.

*** NOTES 11/18/2011 7:42:12 AM, psamanie, Action Type : Call from Customer
The customer called stating that her driver□s side window switch caught on fire and melted the switch and was advised to contact AHM to report it. I advised that the call will be transferred to product concerns. I wt the call to Lorette.

Customer phone[redacted]

*** CASE MODIFY 11/18/2011 7:42:40 AM, psamanie
into WIP default and Status of Solving.

*** CASE MODIFY 11/18/2011 7:42:53 AM, psamanie
into WIP default and Status of Solving.

*** CASE MODIFY 11/18/2011 7:43:13 AM, psamanie
into WIP default and Status of Solving.

*** CASE ASSIGN 11/18/2011 7:43:36 AM, psamanie
N032011-11-1800188 to cchao, WIP

*** CASE RULE ACTION 11/18/2011 7:43:37 AM, sa
Action Task Assignee of rule Assign Notification fired

*** SUBCASE N032011-11-1800188-1 CREATE 11/18/2011 10:40:53 AM, cchao
Created in WIP Default with Due Date 11/18/2011 10:40:53 AM.

*** NOTES 11/18/2011 10:42:22 AM, cchao, Action Type : Note-General
The case has been reviewed and call was warm transfer to Torrance. The case will now be closed per my Supervisor.

*** SUBCASE N032011-11-1800188-1 CLOSE 11/18/2011 10:42:29 AM, cchao
Status = Solving, Resolution Code = Instruction Given

*** CASE CLOSE 11/18/2011 10:42:29 AM, cchao
Status = Closed, Resolution Code = Instruction Given, State = Open

AMERICAN HONDA

CUSTOMER RELATIONSHIP MANAGEMENT SYSTEM

Spool Report

Run Date : 04/20/2012

Case Details

Case ID :	N012011-11-1800193	Division :	Honda - Auto	Condition :	Closed	Open Date :	11/18/2011 7:39:50 AM
Case Originator :	Loretta Noble (Team HF)	Sub Division :	Customer Relations	Status :	Closed	Close Date :	12/14/2011 1:36:44 PM
Case Owner :	Simon Ng (Team HH)	Method :	Phone	Queue :		Days Open :	26
Last Closed By :	Simon Ng (Team HH)	Point of Origin :	Customer	Wipbin :			

Case Title : 6K--(METRO FIRE) [redacted] DRIVERS SIDE WINDOW SWITCH No. of Attachments : 1

Site / Contact Info :

Site Name : [redacted]
Dealer No. :
Site Phone No. :
Contact Name :
Day Phone No. :
Evening Phone No. :
Cell / Pager No. :
Fax No. :
Address :
City / State / Zip : CHARLOTTE, NC [redacted]
E Mail : N/A
Svc District / Sls District : /

Product Info :

Unit Owner : [redacted]301
VIN Type / No. : US VIN / SHSRD68506U[redacted]
Model / Year : CR-V / 2006
Model ID / Product Line : RD6856EW / A
Miles / Hours : 120,000
In Service Date : 02/28/2006
Months In Use : 69
Engine Number : K24A15530597
Originating Dealer No. / Name : 207904 / HENDRICK HONDA
Selling Dealer No. / Name : 207904 / HENDRICK HONDA
Trim : 2WD LX
No. Of Doors : 5
Transmission Code : 5AT
Exterior Color : BK
Factory Warranty Start / End Date :
Factory Warranty Cancellation Date :
HPP/VSC Coverage Start / End Date :
HPP/VSC Cancellation Date :
Extended Warranty Start / End Date :
Extended Warranty Cancellation Date :

Current Dealer Info :

Current Dealer No. / Name : 207790 / METRO HONDA
Phone No. : 704-331-0816
Address : 4918 HIGHWAY 74 WEST
City / State / Zip : INDIAN TRAIL, NC 28079
Svc District / Sls District : 06K / E06
Warranty Labor Rate / Date : $93.00 /
Agent Name : Comp Ind. :

Previous Dealer Info :

Dealer #	Dealer Name	Agent Name	Comp Ind.
207904	HENDRICK HONDA		

3rd Party Info :

Party 1 : DPSM
Party 2 : Not Applicable
Party 3 : Not Applicable
Party 4 : Not Applicable

Issues :

Issue ID / Title	Status	Issue Type 1	Issue Type 2	Labor Code	Labor Code Desc
N012011-11-1800193-1 / [redacted]	Subcase Close	Product	Operation - "Safety"	745	Electrical test
N012011-11-1800193-2 / [redacted]	Subcase Close	Product	Operation - "Safety"	745	Electrical test

Issue Details

Issue ID : N012011-11-1800193-1
Issue Originator : Loretta Noble
Issue Owner : Loretta Noble
Issue Title : [redacted] - PRODUCT - OPERATION - "SAFETY"

Disposition: Complaint
Type 1 : Product
Type 2 : Operation - "Safety"
Queue :

Condition : Closed
Status : Subcase Close

Wipbin :
Open Date : 11/18/2011 8:00:23 AM
Close Date : 11/18/2011 8:04:19 AM

Coding Info :

Labor Code / Desc : 745 / Electrical test
Condition Code Desc Car Fire 7451
Campaign Code / Desc : /
Temperament Code : Please Specify
Resolutions : Documented Concern
Component Category : 11 - Electrical System
Previously Published : NO
Fire Indicator : YES
Rollover Indicator : NO
Cosmetic / Sound Quality Indicator : NO
Dealer Coding:

Solution / Linked Resolution Info :

Solution ID : Resolution Title :
Solution Title :

Parts Info :

Part No.	Part Description	BO Reason

Issue Details

Issue ID : N012011-11-1800193-2
Issue Originator : Simon Ng
Issue Owner : Simon Ng
Issue Title : [redacted] PRODUCT - OPERATION - "SAFETY"

Disposition: Complaint
Type 1 : Product
Type 2 : Operation - "Safety"
Queue :

Condition : Closed
Status : Subcase Close

Wipbin :
Open Date : 11/21/2011 12:16:30
Close Date : 12/14/2011 1:36:44 PM

Coding Info :

Labor Code / Desc : 745 / Electrical test
Condition Code Desc Car Fire 7451
Campaign Code / Desc : /
Temperament Code : Please Specify
Resolutions : Provided Information, Assist - AHM 100%, Documented Concern
Component Category : 11 - Electrical System
Previously Published : NO
Fire Indicator : NO
Rollover Indicator : NO
Cosmetic / Sound Quality Indicator : NO
Dealer Coding:

Solution / Linked Resolution Info :

Solution ID : Resolution Title :
Solution Title :

Parts Info :

Part No.	Part Description	BO Reason

Case History

Case ID : N012011-11-1800193 Case Title : 6K--(METRO FIRE) [redacted] DRIVERS SIDE WINDOW SWITCH FIRE

*** CASE CREATE 11/18/2011 7:39:50 AM, lnoble
Contact = [redacted], Priority = N/A, Status = Solving.
*** CASE MODIFY 11/18/2011 7:52:30 AM, lnoble
into WIP default and Status of Solving.
*** SUBCASE N012011-11-1800193-1 CREATE 11/18/2011 8:00:23 AM, lnoble
Created in WIP Default with Due Date 11/18/2011 8:00:23 AM.
*** NOTES 11/18/2011 8:02:51 AM, lnoble, Action Type : Call from Customer
verified customer's info
best contact [redacted]

Customer stated the driver's side switch caught on fire yesterday. Customer stated the vehicle was parked in the driveway and went to roll down the window and when she went to start the car she could see the fire and it melted all the buttons. Customer stated she shut the car off and had someone take the fuse out. Customer stated she contacted the insurance company and called the dealership where she purchased the vehicle. Customer stated she has Nationwide Insurance and was advised by the dealership that she had to pay for the repair up front. Customer stated he main concern is to get the window up to get to her dad's house. Customer stated she has liability and collision on the vehicle. Customer stated she thinks the insurance company will cover it. Customer stated someone told her about SB 11-057 for the same problem. Customer stated she purchased the vehicle from Hendrick Honda. Customer stated the vehicle hasn't been serviced lately and the last oil change was about a month ago. Customer stated the vehicle was actually stolen and used in a robbery and rammed the back of the vehicle through a store door. Customer stated the rear of the vehicle had to be fixed. Customer stated it's been a year ago. Customer stated she hasn't had any non Honda equipment or accessories added to her vehicle. Customer stated the vehicle was parked in the driveway and had been parked there over night and happened about yesterday Nov 17th 2011. Customer stated she smelled something burning and she could see there was flames under where the control switches were and even melted part of the unit.

ACS advised the customer to continue working with her insurance company and her case would be documented and dispatched to the appropriate department.

customer understood case dispatched
*** CASE MODIFY 11/18/2011 8:03:07 AM, lnoble
into WIP default and Status of Solving.
*** CASE DISPATCH 11/18/2011 8:04:10 AM, lnoble
from WIP default to Queue Honda Fire.
*** SUBCASE N012011-11-1800193-1 CLOSE 11/18/2011 8:04:19 AM, lnoble
Status = Solving, Resolution Code = Instruction Given
*** CASE MODIFY 11/18/2011 8:04:23 AM, lnoble
into WIP default and Status of Solving.
*** CASE RULE ACTION 11/19/2011 8:04:10 AM, sa
Action Task - Current Owner - 24 hrs of rule Queue Escalation fired
*** CASE RULE ACTION 11/20/2011 8:04:10 AM, sa
Action Task - owners supvsr - 48 hrs of rule Queue Escalation fired
*** CASE ASSIGN 11/21/2011 11:14:02 AM, galbu
N012011-11-1800193 to sng, WIP □"]ü□"]ü"□V0Ú

Case History

Case ID : N012011-11-1800193 Case Title : 6K--(METRO FIRE) - DRIVERS SIDE WINDOW SWITCH FIRE

*** CASE RULE ACTION 11/21/2011 11:14:03 AM, sa
Action Task Assignee of rule Assign Notification fired

*** CASE MODIFY 11/21/2011 12:15:38 PM, sng
into WIP default and Status of Solving.

*** SUBCASE N012011-11-1800193-2 CREATE 11/21/2011 12:16:30 PM, sng
Created in WIP Default with Due Date 11/21/2011 12:16:30 PM.

*** CASE MODIFY 11/21/2011 12:16:32 PM, sng
into WIP default and Status of Solving.

*** CASE MODIFY 11/21/2011 12:16:47 PM, sng
into WIP default and Status of Solving.

*** COMMIT 11/21/2011 12:16:53 PM, sng, Action Type : N/A
=Call Cust (intro)

*** CASE MODIFY 11/21/2011 12:17:06 PM, sng
into WIP default and Status of Solving.

*** NOTES 11/21/2011 12:26:14 PM, sng, Action Type : Note-General
I informed the Fire Investigator about the case and told him that the customer has their Insurance involved. I asked him if he wants AHM to have the customer bring the vehicle to a Honda dealership and if we should cover the repair. I informed him that the vehicle was stolen and used in a robbery 1 year ago.

*** CASE MODIFY 11/21/2011 1:37:20 PM, sng
into WIP default and Status of Solving.

*** NOTES 11/21/2011 1:42:29 PM, sng, Action Type : Call to Customer
I called the customer, and spoke with Jack Reynolds. He said this is a cell phone and he is going back home. I gave him my contact number 1800-999-1009 extension 117742. He said he will have call me when he gets home. I thanked him and the call ended.

*** CASE MODIFY 11/21/2011 1:42:34 PM, sng
into WIP default and Status of Solving.

*** CASE MODIFY 11/21/2011 1:42:38 PM, sng
into WIP default and Status of Solving.

*** CASE MODIFY 11/21/2011 1:42:45 PM, sng
into WIP default and Status of Solving.

*** CASE FULFILL 11/21/2011 2:24:52 PM, sng
Fulfilled for due 11/21/2011 05:00:00 PM.

*** COMMIT 11/21/2011 2:24:54 PM, sng, Action Type : N/A
Cust called back?/Call cust

*** CASE MODIFY 11/21/2011 2:25:08 PM, sng
into WIP default and Status of Solving.

*** NOTES 11/22/2011 12:38:11 PM, sng, Action Type : Note-General
The Fire Investigator let me know that we would be interested in goodwill and collecting the part for this if they get it to the dealer and they do not find

Case History

Case ID : N012011-11-1800193 Case Title : 6K--(METRO FIRE)[redacted] DRIVERS SIDE WINDOW SWITCH FIRE

anything like previous damage or aftermarket wiring into the door harness. He said this one is out of the range that we expect to find so having the part will be something that we should try for if that is possible.
He said the first thing is to get it in to a dealer have it inspected. Then have the dealer hold the parts for us and I will make a Techline contact and have the parts collected from them. He said he is out of the office on Wed but back on Monday.

*** NOTES 11/22/2011 12:41:22 PM, sng, Action Type : Call to Customer

I called the customer,[redacted]and left a message asking her to call me back at 1800-999-1009 extension 117742 to discuss the 2006 CR-V with the window switch concern.

*** NOTES 11/22/2011 12:42:17 PM, sng, Action Type : Call to Customer

I called the customer,[redacted]and got a message stating that the number has been disconnected or is no longer in service.

*** CASE MODIFY 11/22/2011 12:42:24 PM, sng

into WIP *Fire* and Status of Solving.

*** CASE FULFILL 11/22/2011 12:42:27 PM, sng

Fulfilled for [redacted]lue 11/22/2011 05:00:00 PM.

*** COMMIT 11/22/2011 12:42:28 PM, sng, Action Type : N/A

Cust called back?/Call cust

*** CASE MODIFY 11/22/2011 12:42:41 PM, sng

into WIP *Fire* and Status of Solving.

*** CASE MODIFY 11/22/2011 12:42:44 PM, sng

into WIP *Fire* and Status of Solving.

*** CASE MODIFY 11/29/2011 1:48:08 PM, sng

into WIP *Fire* and Status of Solving.

*** NOTES 11/29/2011 1:56:09 PM, sng, Action Type : Call to Dealer

I called Hendrick Honda at (704) 552-2090 and spoke with Patrick. He said he spoke with the customer and set up an appointment to look at the vehicle 11-18-11. He said the customer did not show up. He said the customer said the window switch caught fire but they have not seen it yet. He said he told her that it will be $47.78 to diagnose the vehicle. I told him that I will cover the diagnose and most likely the repair too so that we could get the part for investigation. I told Patrick that I will let them know what we want to do. I asked him for the Service Manager's name. He gave me Penny Chandler. I thanked him and the call ended.

*** NOTES 11/29/2011 2:01:41 PM, sng, Action Type : Call to Customer

I called the customer,[redacted]and a man picked up the phone. I asked to speak with[redacted]He said she is not home. I was able to give him my contact number and the dropped.

I called again and he said the call dropped. The call dropped again.

I called the customer,[redacted]and left a message asking her to call me back at 1800-999-1009 extension 117742 to discuss the 2006 CR-V.

*** CASE MODIFY 11/29/2011 2:01:50 PM, sng

into WIP *Fire* and Status of Solving.

*** CASE MODIFY 11/29/2011 2:01:52 PM, sng

Case History

Case ID : N012011-11-1800193 Case Title : 6K--(METRO FIRE) [redacted] DRIVERS SIDE WINDOW SWITCH FIRE

into WIP *Fire* and Status of Solving.

*** CASE FULFILL 11/29/2011 2:01:56 PM, sng

Fulfilled for [redacted] due 11/29/2011 05:00:00 PM.

*** COMMIT 11/29/2011 2:01:57 PM, sng, Action Type : N/A

Cust called back?/Call cust

*** CASE MODIFY 11/29/2011 2:02:14 PM, sng

into WIP *Fire* and Status of Solving.

*** CASE ADD ATTACHMENT 12/1/2011 7:15:22 AM, crmsuser

Added attatchment ScanDoc 1 with path \\ahmtor10\crms_scandoc\ScanDoc_Final\N012011-11-1800193_1_1.pdf

*** NOTES 12/1/2011 1:48:58 PM, sng, Action Type : Note-General

AHM received pictures from the DPSM. The Fire Investigator is going to investigate to see what we need to do. He said he will let me know what the next steps will be after he reviews the information.

*** NOTES 12/1/2011 1:53:48 PM, sng, Action Type : Field Service

I called the DPSM of 6K and left a message asking him to call me back at my direct line. I told him that I wanted to get an update on the 2006 CR-V with the fire concern at Metro Honda.

*** CASE FULFILL 12/1/2011 2:06:54 PM, sng

Fulfilled for [redacted] due 12/01/2011 05:00:00 PM.

*** COMMIT 12/1/2011 2:07:01 PM, sng, Action Type : N/A

DPSM?/FI?/Cust?

*** CASE MODIFY 12/1/2011 2:07:15 PM, sng

into WIP *Fire* and Status of Solving.

*** CASE MODIFY 12/1/2011 2:07:36 PM, sng

into WIP *Fire* and Status of Solving.

*** NOTES 12/1/2011 2:24:33 PM, sng, Action Type : Field Return Call

The DPSM called me and told me to his understanding the vehicle is repaired and the parts are on the Service Manager's desk. He said the Service Manager's name is Eric Tippett and the vehicle was at Metro Honda. He said the customer went to Compact Car (IRF) and they called Metro Honda about this. He said Metro Honda then called him and he told them to get the car in for inspection. He said he covered the repair. I thanked the DPSM for the help and the call ended.

*** CASE MODIFY 12/1/2011 2:26:30 PM, sng

into WIP *Fire* and Status of Solving.

*** NOTES 12/5/2011 12:56:39 PM, sng, Action Type : Call to Dealer

I called Metro Honda at (704) 331-0816 and left a message for Eric, the Service Manager. I asked him to call me back regarding customer, Vicki Courtemanche with VIN 6U[redacted] I told him that I have spoken with the DPSM about this but I wanted to talk to him also.

*** CASE MODIFY 12/5/2011 12:56:41 PM, sng

into WIP *Fire* and Status of Solving.

*** NOTES 12/6/2011 12:30:18 PM, sng, Action Type : Call to Dealer

I called Metro Honda at (704) 331-0816 and spoke with Eric, the Service Manager. He told me that they repaired the vehicle per DPSM instruction.

Case History

Case ID : N012011-11-1800193 Case Title : 6K--(METRO FIRE) [redacted] - DRIVERS SIDE WINDOW SWITCH FIRE

He said they replaced the master window switch, mirror switch, switch bezel, and door wire harness. He said he thinks they have sent the parts out to AHM.
I thanked him for the information and the call ended.

*** CASE MODIFY 12/6/2011 1:47:47 PM, sng
into WIP *Fire* and Status of Solving.

*** CASE FULFILL 12/6/2011 2:30:32 PM, sng
Fulfilled for [redacted] due 12/06/2011 05:00:00 PM.

*** COMMIT 12/6/2011 2:30:35 PM, sng, Action Type : N/A
Cust called?/Call cust

*** CASE MODIFY 12/6/2011 2:31:19 PM, sng
into WIP *Fire* and Status of Solving.

*** CASE MODIFY 12/6/2011 2:31:33 PM, sng
into WIP *Fire* and Status of Solving.

*** NOTES 12/8/2011 1:20:13 PM, sng, Action Type : Call to Customer
I called the customer, [redacted] and left a message letting her know that I am calling to make sure her 2006 CR-V with the window switch concern is repaired. I asked her to call me back at 1800-999-1009 extension 117742.

*** CASE MODIFY 12/8/2011 1:20:22 PM, sng
into WIP *Fire* and Status of Solving.

*** CASE FULFILL 12/8/2011 1:20:27 PM, sng
Fulfilled for [redacted] due 12/08/2011 05:00:00 PM.

*** COMMIT 12/8/2011 1:20:35 PM, sng, Action Type : N/A
Cust called back?/Close case

*** CASE MODIFY 12/8/2011 1:20:48 PM, sng
into WIP *Fire* and Status of Solving.

*** NOTES 12/14/2011 1:35:54 PM, sng, Action Type : Note-General
The customer has not contacted me back. I will be closing the case until further notice.

*** CASE MODIFY 12/14/2011 1:36:10 PM, sng
into WIP *Fire* and Status of Solving.

*** CASE MODIFY 12/14/2011 1:36:31 PM, sng
into WIP *Fire* and Status of Solving.

*** CASE MODIFY 12/14/2011 1:36:41 PM, sng
into WIP *Fire* and Status of Solving.

*** SUBCASE N012011-11-1800193-2 CLOSE 12/14/2011 1:36:44 PM, sng
Status = Solving, Resolution Code = Instruction Given

*** CASE CLOSE 12/14/2011 1:36:44 PM, sng
Status = Closed, Resolution Code = Instruction Given, State = Open

AMERICAN HONDA

CUSTOMER RELATIONSHIP MANAGEMENT SYSTEM

Spool Report *Run Date :* 04/20/2012

Case Details

Case ID :	N012011-09-1302131	Division :	Honda - Auto	Condition :	Closed	Open Date :	9/13/2011 3:05:42 PM
Case Originator :	Crystal Pillow (Team HA)	Sub Division :	Customer Relations	Status :	Closed	Close Date :	9/13/2011 3:37:27 PM
Case Owner :	Daniel Wentz (Team HD)	Method :	Phone	Queue :		Days Open :	0
Last Closed By :	Daniel Wentz (Team HD)	Point of Origin :	Customer	Wipbin :			

Case Title : [redacted] - DOOR WINDOW SWITCH CONCERN No. of Attachments : 0

Site / Contact Info :

Site Name : [redacted]
Dealer No. :
Site Phone No. :
Contact Name :
Day Phone No. :
Evening Phone No. :
Cell / Pager No. :
Fax No. :
Address :
City / State / Zip : UNIONTOWN, PA [redacted]
E Mail : [redacted]
Svc District / Sls District : /

Product Info :

Unit Owner : [redacted]1215
VIN Type / No. : US VIN / SHSRD78856U[redacted]
Model / Year : CR-V / 2006
Model ID / Product Line : RD7886JW / A
Miles / Hours : 92,000
In Service Date : 05/25/2006
Months In Use : 64
Engine Number : K24A15538020
Originating Dealer No. / Name : 206657 / RALPH HONDA
Selling Dealer No. / Name : 207154 / DON DAVIS HONDA
Trim : 4WD EX
No. Of Doors : 5
Transmission Code : 5AT
Exterior Color : RE
Factory Warranty Start / End Date :
Factory Warranty Cancellation Date :
HPP/VSC Coverage Start / End Date :
HPP/VSC Cancellation Date :
Extended Warranty Start / End Date :
Extended Warranty Cancellation Date :

Current Dealer Info :

Current Dealer No. / Name :
Phone No. :
Address :
City / State / Zip :
Svc District / Sls District : /
Warranty Labor Rate / Date : /
Agent Name : Comp Ind. :

Previous Dealer Info :

Dealer #	Dealer Name	Agent Name	Comp Ind.

3rd Party Info :

Party 1 : Not Applicable
Party 2 : Not Applicable
Party 3 : Not Applicable
Party 4 : Not Applicable

Issues :

Issue ID / Title	Status	Issue Type 1	Issue Type 2	Labor Code	Labor Code Desc
N012011-09-1302131-1 / [redacted] - PRODUC	Subcase Close	Product	Fit/Finish/Quality	744	Power window swt

Issue Details

Issue ID : N012011-09-1302131-1 | Disposition: Complaint | Condition : Closed | Wipbin :
Issue Originator : Crystal Pillow | Type 1 : Product | Status : Subcase Close | Open Date : 9/13/2011 3:10:12 PM
Issue Owner : Crystal Pillow | Type 2 : Fit/Finish/Quality | Queue : | Close Date : 9/13/2011 3:10:19 PM
Issue Title : [redacted] - PRODUCT - FIT/FINISH/QUALITY

Coding Info :

Labor Code / Desc : 744 / Power window swt
Condition Code Desc Other 744X
Campaign Code / Desc : /
Temperament Code : Please Specify
Resolutions : Documented Concern
Component Category : 11 - Electrical System
Previously Published : NO
Fire Indicator : NO
Rollover Indicator : NO
Cosmetic / Sound Quality Indicator : NO
Dealer Coding:

Solution / Linked Resolution Info :

Solution ID : Resolution Title :
Solution Title :

Parts Info :

Part No.	Part Description	BO Reason

Case History

Case ID : N012011-09-1302131 Case Title : [redacted] - DOOR WINDOW SWITCH CONCERN

*** CASE CREATE 9/13/2011 3:05:42 PM, cpillow
Contact = [redacted] Priority = N/A, Status = Solving.

*** CASE MODIFY 9/13/2011 3:05:46 PM, cpillow
into WIP default and Status of Solving.

*** CASE MODIFY 9/13/2011 3:06:24 PM, cpillow
into WIP default and Status of Solving.

*** NOTES 9/13/2011 3:09:16 PM, cpillow, Action Type : Call from Customer
Updated customer contact information. phn#[redacted]

Customer claims that she has a bad switch in her door. Customer claims that the window smoked and now the window will not operate. Customer claims she has heard there was a recall with the same symptoms.

ACS advised customer that ACS doesn't have her VIN as being listed in a recall for a window switch concern, but offered to forward her to the recall dept for further information about the recall she is referring to. Customer accepted transfer. Case closed.

*** CASE MODIFY 9/13/2011 3:09:23 PM, cpillow
into WIP default and Status of Solving.

*** SUBCASE N012011-09-1302131-1 CREATE 9/13/2011 3:10:12 PM, cpillow
Created in WIP Default with Due Date 9/13/2011 3:10:12 PM.

*** SUBCASE N012011-09-1302131-1 CLOSE 9/13/2011 3:10:19 PM, cpillow
Status = Solving, Resolution Code = Instruction Given

*** CASE CLOSE 9/13/2011 3:10:19 PM, cpillow
Status = Closed, Resolution Code = Instruction Given, State = Open

*** CASE REOPEN 9/13/2011 3:21:16 PM, dwentz01
with Condition of Open and Status of Solving.

*** CASE CLOSE 9/13/2011 3:37:27 PM, dwentz01
Status = Closed, Resolution Code = Instruction Given, State = Open

Case Details

Case ID :	N012011-12-0202795	Division :	Honda - Auto	Condition :	Closed	Open Date :	12/2/2011 12:53:50 PM
Case Originator :	Kim Mercado (Team HD)	Sub Division :	Customer Relations	Status :	Closed	Close Date :	1/26/2012 6:06:37 AM
Case Owner :	Walter Menjivar (Team HG)	Method :	Phone	Queue :		Days Open :	55
Last Closed By :	Walter Menjivar (Team HG)	Point of Origin :	Customer	Wipbin :			

Case Title : 06L - [redacted] VEHICLE DOOR FIRE

No. of Attachments : 2

Site / Contact Info :

Site Name : [redacted]
Dealer No. :
Site Phone No. :
Contact Name :
Day Phone No. :
Evening Phone No. :
Cell / Pager No. :
Fax No. :
Address :
City / State / Zip : WAKE FOREST, NC [redacted]
E Mail :
Svc District / Sls District : /

Product Info :

Unit Owner : [redacted] 9520
VIN Type / No. : US VIN / SHSRD78556U [redacted]
Model / Year : CR-V / 2006
Model ID / Product Line : RD7856EW / A
Miles / Hours : 85,000
In Service Date : 08/14/2006
Months In Use : 64
Engine Number : K24A15545711
Originating Dealer No. / Name : 208379 / FOREST CITY HONDA
Selling Dealer No. / Name : 208379 / FOREST CITY HONDA
Trim : 4WD LX
No. Of Doors : 5
Transmission Code : 5AT
Exterior Color : GN
Factory Warranty Start / End Date :
Factory Warranty Cancellation Date :
HPP/VSC Coverage Start / End Date :
HPP/VSC Cancellation Date :
Extended Warranty Start / End Date :
Extended Warranty Cancellation Date :

Current Dealer Info :

Current Dealer No. / Name : 206824 / LEITH HONDA
Phone No. : 919-876-5200
Address : 3940 CAPITAL HILLS DR
City / State / Zip : RALEIGH, NC 27616
Svc District / Sls District : 06L / F06
Warranty Labor Rate / Date : $98.00 /
Agent Name : Comp Ind. :

Previous Dealer Info :

Dealer #	Dealer Name	Agent Name	Comp Ind.

3rd Party Info :

Party 1 : NHTSA
Party 2 : Not Applicable
Party 3 : Not Applicable
Party 4 : Not Applicable

Issues :

Issue ID / Title	Status	Issue Type 1	Issue Type 2	Labor Code	Labor Code Desc
N012011-12-0202795-1 / [redacted] - PR	Subcase Close	Product	Operation	815	Door, Lt front
N012011-12-0202795-2 / [redacted] - PR	Subcase Close	Product	Operation - "Safety"	745	Electrical test

Issue Details

Issue ID : N012011-12-0202795-1
Issue Originator : Kim Mercado
Issue Owner : Kim Mercado
Issue Title : [redacted] - PRODUCT - OPERATION

Disposition: Complaint
Type 1 : Product
Type 2 : Operation
Queue :

Condition : Closed
Status : Subcase Close

Wipbin :
Open Date : 12/2/2011 1:28:43 PM
Close Date : 12/2/2011 1:34:50 PM

Coding Info :

Labor Code / Desc : 815 / Door, Lt front
Condition Code Desc Other 815X
Campaign Code / Desc : /
Temperament Code : Please Specify
Resolutions : Documented Concern
Component Category : 16 - Structure
Previously Published : NO
Fire Indicator : YES
Rollover Indicator : NO
Cosmetic / Sound Quality Indicator : NO
Dealer Coding:

Solution / Linked Resolution Info :

Solution ID : Resolution Title :
Solution Title :

Parts Info :

Part No.	Part Description	BO Reason

Issue Details

Issue ID : N012011-12-0202795-2
Issue Originator : Walter Menjivar
Issue Owner : Walter Menjivar
Issue Title : [redacted] - PRODUCT - OPERATION - "SAFETY"

Disposition: Complaint
Type 1 : Product
Type 2 : Operation - "Safety"
Queue :

Condition : Closed
Status : Subcase Close

Wipbin :
Open Date : 12/5/2011 8:39:49 AM
Close Date : 12/13/2011 6:15:41 AM

Coding Info :

Labor Code / Desc : 745 / Electrical test
Condition Code Desc Car Fire 7451
Campaign Code / Desc : /
Temperament Code : Please Specify
Resolutions : Referred to 3rdParty, Documented Concern, Provided Information
Component Category : 11 - Electrical System
Previously Published : NO
Fire Indicator : NO
Rollover Indicator : NO
Cosmetic / Sound Quality Indicator : NO
Dealer Coding:

Solution / Linked Resolution Info :

Solution ID : Resolution Title :
Solution Title :

Parts Info :

Part No.	Part Description	BO Reason

Case History

Case ID : N012011-12-0202795 Case Title : 06L - [redacted] - VEHICLE DOOR FIRE

*** CASE CREATE 12/2/2011 12:53:50 PM, kmercado
Contact = [redacted], Priority = N/A, Status = Solving.
*** SUBCASE N012011-12-0202795-1 CREATE 12/2/2011 1:28:43 PM, kmercado
Created in WIP Default with Due Date 12/2/2011 1:28:43 PM.
*** NOTES 12/2/2011 1:32:50 PM, kmercado, Action Type : Call from Customer
Case coded in error.
*** SUBCASE N012011-12-0202795-1 MODIFY 12/2/2011 1:34:47 PM, kmercado
into WIP default and Status of Solving.
*** SUBCASE N012011-12-0202795-1 CLOSE 12/2/2011 1:34:50 PM, kmercado
Status = Solving, Resolution Code = Instruction Given
*** CASE MODIFY 12/2/2011 1:34:56 PM, kmercado
into WIP default and Status of Solving.
*** NOTES 12/2/2011 1:35:09 PM, kmercado, Action Type : Call from Customer
Previous Case Number N032011-12-0202685

Verified customer's information

Best contact number [redacted]

The vehicle was unattended and parked in the YMCA parking lot between 12 noon and 1 p.m. on a mild sunny day when the owner was advised during exercise class by someone that his car was on fire in the parking lot. Customer stated that the windows were down a crack. A construction worker was able to extinguish the fire. Fire department came out . Vehicle was initially towed to Leith Honda then transferred to Mini City Auto Body where the vehicle is now. Customer stated she thought the fire started in the door. Customer has contacted the insurance company, USAA, who declared the vehicle was a total loss. Customer states there has not experienced any body damage to the vehicle and has not had any major mechanical repairs. Customer states that she found information on the internet relating to vehicle fires and feels the symptoms described match the experience of her vehicle. Customer wants to know what constitutes a vehicle being included/ not included in a recall. Customer states she will not give up until she has a satisfactory answer.

ACS advised the customer that I cannot verify the information on the internet. ACS advised the customer that there are no outstanding campaign issues. ACS advised the customer that recalls are VIN specific and depends upon the components that were used in during the manufacturing of the vehicle. ACS informed the customer that the case is being forwarded to a CM for review who would be contacting them within 1-2 business days, provided a case number, advised the customer that there are no guarantees of assistance and that each case is reviewed on a case by case basis.

Customer understood, thanked me for the information provided and required no further assistance.
*** CASE DISPATCH 12/2/2011 1:35:09 PM, kmercado
from WIP default to Queue Honda Fire.
*** CASE MODIFY 12/2/2011 1:35:12 PM, kmercado
into WIP default and Status of Solving.
*** CASE ASSIGN 12/2/2011 1:55:35 PM, galbu
N012011-12-0202795 to wmenjiva, WIP CURRENT TIMESTAMP

Case History

Case ID : N012011-12-0202795 Case Title : 06L - [redacted] - VEHICLE DOOR FIRE

*** CASE RULE ACTION 12/2/2011 1:55:36 PM, sa
Action Task Assignee of rule Assign Notification fired

*** SUBCASE N012011-12-0202795-2 CREATE 12/5/2011 8:39:49 AM, wmenjiva
Created in WIP Default with Due Date 12/5/2011 8:39:49 AM.

*** NOTES 12/5/2011 8:52:48 AM, wmenjiva, Action Type : Call to Customer
Contacted the customer at [redacted], no answer. Left her a voice message introducing myself as the Honda RCM handling the case she had opened with AHM regarding an incident she reported on her 2006 CR--V. Asked her to please give me a call back to further discuss her case and provided my contact information.

*** CASE MODIFY 12/5/2011 8:52:54 AM, wmenjiva
into WIP ** Default ** and Status of Solving.

*** COMMIT 12/5/2011 8:52:58 AM, wmenjiva, Action Type : N/A
Made to [redacted] due 12/07/2011 01:30:59 PM.
(Fire) Call cust for 2X

*** CASE MODIFY 12/5/2011 8:53:22 AM, wmenjiva
into WIP ** Default ** and Status of Solving.

*** NOTES 12/7/2011 8:35:13 AM, wmenjiva, Action Type : Call to Customer
Contacted the customer at [redacted] no answer. Left her a voice message introducing myself as the Honda RCM handling the case she had opened with AHM regarding an incident she reported on her 2006 CR--V. Asked her to please give me a call back to further discuss her case and provided my contact information.

*** CASE FULFILL 12/7/2011 8:37:17 AM, wmenjiva
Fulfilled for [redacted] due 12/07/2011 01:30:59 PM.

*** COMMIT 12/7/2011 8:37:20 AM, wmenjiva, Action Type : N/A
Made to [redacted] due 12/16/2011 08:00:21 AM.
(Fire) Sent cust a 10-Day Letter

*** NOTES 12/7/2011 8:38:08 AM, wmenjiva, Action Type : Letter/Fax
Mailed the customer a 10-Day Letter.

*** CASE MODIFY 12/7/2011 8:38:40 AM, wmenjiva
into WIP Fire and Status of Solving.

*** NOTES 12/9/2011 9:44:37 AM, wmenjiva, Action Type : Call from Customer
Picked up voice message from the customer asking for a call back.

*** NOTES 12/9/2011 10:45:26 AM, wmenjiva, Action Type : Call to Customer
RCM contacted the customer (Mrs. [redacted] and introduced myself. Went briefly over the case notes with the customer.
* Asked her if the vehicle was parked at the time of the incident? She said yes. She said that her husband was at the local YMCA.
* Asked her how long had the vehicle been parked and location before the incident? She said abut 45 minutes, per her husband. She said that the vehicle was parked in the first row of parking spaces in front of the YMCA.
* Asked her if her husband was the one that noticed the smoke/fire? She said that the YMCA is going through some construction, and one of the guys working on the construction was the first that noticed the smoke coming out of he vehicle and reported it. She said that this same guy extinguished the fire. She said that the doors were almost halfway cracked open.

Case History

Case ID : N012011-12-0202795 Case Title : 06L - [redacted] - VEHICLE DOOR FIRE

* Asked her husband had witnessed the smoke or fire? She said no, by the time he came out the fire had been extinguished.
* Asked her if there was a fire/police report? She said yes, fire report.
* Asked her if she could provide AHM a copy for our records and provided her the fax number? She said no. She said she rather wait to see what her insurance company would ultimately do for them.
* Asked her where her vehicle was currently and if she was working with her insurance company? She said that her vehicle is at a storage yard. She said that she has been working with her insurance company. She said that they had already sent an adjuster to take pictures and the customer is just waiting for their call with an update on their claim. She said that they had deemed the vehicle totaled.
* Asked her if the customer had taken any pictures? She said that they did not have time to. She wanted it to be noted that the night before they had left their windows cracked open a little and the next morning noticed moisture on the edge of the seats. She believes this might be a cause. She also inquired about the window switch recall Honda had issued? Explained to her that those applied to vehicles that had been manufactured in Japan. Her vehicle had been manufactured in England and was not affected by this recall/update.

Informed her that at this time she should continue working with her insurance company. if her insurance company determines that this might be due to a manufacturer issue they will notify AHM through the proper channels. AHM would then review their report to determine the steps AHM would take then.

She said that when she spoke with her insurance company, she felt that they wanted her to deal with AHM herself on this matter. She said that she felt at the very least that this is something she needed to report to AHM.

Thanked her. Reiterated to her to continue working with her insurance company and allow her insurance company to do all her work. If the insurance company that this might be due to a manufacturer issue they will notify AHM appropriately.

She understood and thanked. She had no further related questions.

*** CASE FULFILL 12/9/2011 10:45:50 AM, wmenjiva

Fulfilled for [redacted] due 12/16/2011 08:00:21 AM.

*** COMMIT 12/9/2011 10:45:53 AM, wmenjiva, Action Type : N/A

Made to [redacted] due 12/15/2011 12:00:54 PM.

(Fire) Review with AHM Fire Engineer

*** CASE MODIFY 12/9/2011 10:46:22 AM, wmenjiva

into WIP Fire and Status of Solving.

*** NOTES 12/13/2011 6:15:11 AM, wmenjiva, Action Type : Note-General

12/12/11: RCM reviewed case with AHM Fire Engineer. Okay to close case. If the customer's insurance company contacts us, we will reopen case and review matter further from there.

*** CASE MODIFY 12/13/2011 6:15:31 AM, wmenjiva

into WIP Fire and Status of Solving.

*** CASE FULFILL 12/13/2011 6:15:35 AM, wmenjiva

Fulfilled for [redacted] due 12/15/2011 12:00:54 PM.

*** CASE MODIFY 12/13/2011 6:15:39 AM, wmenjiva

into WIP Fire and Status of Solving.

*** CASE CLOSE 12/13/2011 6:15:41 AM, wmenjiva

Status = Closed, Resolution Code = Instruction Given, State = Open

*** SUBCASE N012011-12-0202795-2 CLOSE 12/13/2011 6:15:41 AM, wmenjiva

Status = Solving, Resolution Code = Instruction Given

*** CASE REOPEN 12/16/2011 9:14:05 AM, aperez2

Case History

Case ID : N012011-12-0202795 Case Title : 06L [redacted] - VEHICLE DOOR FIRE

with Condition of Open and Status of Solving.

*** NOTES 12/16/2011 9:21:51 AM, aperez2, Action Type : Call from Customer

The best contact number is: work mobile [redacted]

The customer called and stated that he had a case about vehicle door fire that was sent to a CM. He stated that he has been trying to reach the CM and left several voice mails and has not heard back. He stated that he would like assistance regarding the purchase of a new Honda vehicle. He stated that his insurance company is giving him the blue book value of the vehicle. He stated that at this time he does not have the funds to put more money down for another Honda. He stated that he loved the Honda brand and regarding the issue with the fire he still wants to be in the Honda family. He is requesting that he CM calls him back for information or suggestion on how AHM can help him purchase a Honda vehicle. He stated that even though his VIN was not under the recall that pertained to the door fire he feels that AHM should try to assist in some way.

ACS empathized with the customer and stated that his concern has been documented. ACS stated that the CM will be notified that he is requesting a call back. ACS stated that his request has been documented and ACS cannot offer any assistance with the purchase of the vehicle. Customer understood and no further assistance was required.

*** CASE MODIFY 12/16/2011 9:21:55 AM, aperez2

into WIP default and Status of Solving.

*** CASE MODIFY 12/16/2011 9:24:18 AM, aperez2

into WIP default and Status of Solving.

*** CASE CLOSE 12/16/2011 9:24:21 AM, aperez2

Status = Closed, Resolution Code = Instruction Given, State = Open

*** CASE REOPEN 12/19/2011 12:16:17 PM, ssann

with Condition of Open and Status of Solving.

*** NOTES 12/19/2011 12:28:35 PM, ssann, Action Type : Call from Customer

I verified the customer contact information.

The customer best contact number is: [redacted]

The customer called ACS and states that to replace the vehicle he would be thousands of dollars in the whole to have a compensable valve. Customer states that he does not want this to cost him any money. Customer states that he will be happy to be a Honda customer. Customer states that he will prepare fight. Customer states that he has already contacted NHTSA. Customer states that he will go to his local T.V. station to get them involved. He states that he will take this to his state attorneys office if he is not able to get any help. Customer states he expect to pay nothing out of pocket.

ACS advised the customer that at this point of time there will be no assistance with purchasing of a vehicle. Customer states that he do feel that he is on solid ground to make this request. Customer states that he do not want to go to the length that he will go for his family. ACS advised the customer that this point ACS will document his concerns. ACS advised the customer to continue working his insurance company in accordance to their policies.

The customer understood and ended the call.

*** CASE CLOSE 12/19/2011 12:28:52 PM, ssann

Status = Closed, Resolution Code = Instruction Given, State = Open

*** CASE REOPEN 12/19/2011 1:31:02 PM, wmenjiva

Case History

Case ID : N012011-12-0202795 Case Title : 06L - [redacted] VEHICLE DOOR FIRE

with Condition of Open and Status of Solving.

*** NOTES 12/19/2011 1:33:27 PM, wmenjiva, Action Type : Call from Customer

Picked up voice message from the customer's husband, Mr. Curtis Alexander, asking for a call back at [redacted] cell.

*** NOTES 12/19/2011 1:45:13 PM, wmenjiva, Action Type : Call to Customer

Contacted Mr [redacted] and introduced myself. He wanted to know what AHM's position was on this matter, as he felt it was indeed a manufacturer issue.

Provided him with AHM's position and the proper sequence of steps when it comes to reported incidents such as his, ie. referred him to continue working with his insurance company.

He said that the insurance company has chosen not to investigate the incident and will be paying his family the blue book value of the vehicle. However, he wanted to know how to pursue this further as his family will still be left with the cost to replace the vehicle. He said that he reported it to the NHTSA and they will send a team of investigators out there, but he is sure the report will be used to possibly look into expending the recall, it will not benefit his current cause. He understood that the current recall applies to vehicles that were manufactured in Japan, and his vehicle was manufactured in England. He said that he loves Hondas and hopes to continue buying them.

Sympathized with him and informed him that every situation has its process.

He thanked for the follow up call and information.

*** CASE MODIFY 12/19/2011 1:45:17 PM, wmenjiva

into WIP ** Default ** and Status of Solving.

*** CASE CLOSE 12/19/2011 1:45:19 PM, wmenjiva

Status = Closed, Resolution Code = Instruction Given, State = Open

*** CASE REOPEN 1/3/2012 11:45:27 AM, wmenjiva

with Condition of Open and Status of Solving.

*** NOTES 1/3/2012 11:47:05 AM, wmenjiva, Action Type : Note-General

RCM spoke with AHM Fire Engineer who informed me that AHM had received a request from NHTSA on an investigation. AHM FE said that AHM would be attending NHTSA's vehicle inspection.

*** COMMIT 1/3/2012 11:47:14 AM, wmenjiva, Action Type : N/A

Made to [redacted] due 01/12/2012 12:00:15 PM.

(Fire) Awaiting update from AHM FE

*** CASE MODIFY 1/3/2012 11:47:44 AM, wmenjiva

into WIP ** Default ** and Status of Solving.

*** NOTES 1/5/2012 8:30:33 AM, mmillen, Action Type : Letter/Fax

On 1/5/12 ACS received a 1-page letter from Jessica A. Heironimus, State of North Carolina, dated 12/29/11 with 5-pages of supporting documentation.

*** CASE ADD ATTACHMENT 1/5/2012 8:45:18 AM, crmsuser

Added attatchment ScanDoc 1 with path \\ahmtor10\crms_scandoc\ScanDoc_Final\N012011-12-0202795_1.PDF

*** CASE MODIFY 1/5/2012 1:47:55 PM, wmenjiva

into WIP Fire and Status of Solving.

*** CASE MODIFY 1/12/2012 9:36:52 AM, wmenjiva

into WIP Fire and Status of Solving.

*** NOTES 1/12/2012 10:37:59 AM, wmenjiva, Action Type : Note-General

Case History

Case ID : N012011-12-0202795 Case Title : 06L [redacted] - VEHICLE DOOR FIRE

RCM received update from AHM Fire Engineer, who informed me that AHM had send a field engineer to attend the NHTSA investigation on 1/10/12. AHM FE said that he would get an update from the field engineer by tomorrow or early next week on the outcome of the investigation.

*** CASE FULFILL 1/12/2012 10:38:07 AM, wmenjiva

Fulfilled for [redacted] due 01/12/2012 12:00:15 PM.

*** COMMIT 1/12/2012 10:38:09 AM, wmenjiva, Action Type : N/A

Made to [redacted] due 01/19/2012 12:30:10 PM.

(Fire) Awaiting update from AHM FE

*** CASE MODIFY 1/12/2012 10:38:32 AM, wmenjiva

into WIP Fire and Status of Solving.

*** NOTES 1/12/2012 1:59:08 PM, wmenjiva, Action Type : Manager

RCM reviewed letter with RM and AHM Fire Engineer before mailing it to State of North Carolina Dept. of Justice.

*** NOTES 1/12/2012 1:59:34 PM, wmenjiva, Action Type : Letter/Fax

January 12, 2012

Ms. Jessica A. Heironimus
Consumer Protection Specialist
Consumer Protection Division
State of North Carolina
Department of Justice
9001 Mail Service Center
Raleigh, NC 27699-9001

RE: File No. 1116725
[redacted]
Wake forest, NC [redacted]

Dear Ms. [redacted]

In reference to the above listed consumer complaint, American Honda Motor Co. would like to respond to your inquiry.

Mrs. [redacted] contacted American Honda's Automobile Customer Service Department on December 02, 2011, to report a vehicle fire. Mrs. [redacted] concern was documented, and she was referred to continue working with her insurance company (USAA). AHM has since been contacted and invited by the NHTSA to participate in a vehicle investigation scheduled for January 10, 2012.

Thank you very much for this opportunity to respond. Should you have any questions or require additional information, please do not hesitate to contact me. I may be reached from 6:00 a.m. to 2:30 p.m. PST at (800) 999-1009 Ext. 117706.

Sincerely,

Walter Menjivar

Case History

Case ID : N012011-12-0202795 Case Title : 06L - [redacted] VEHICLE DOOR FIRE

Regional Case Manager
Automobile Customer Service
N012011-12-0202795

*** CASE MODIFY 1/12/2012 2:02:37 PM, wmenjiva
into WIP Fire and Status of Solving.

*** NOTES 1/13/2012 6:34:05 AM, wmenjiva, Action Type : Call to Dealer
RCM spoke with Mckenney-Salinas Honda SM-Gary, who informed me that the R.O. indicates that the customer stated that the dome light goes on and off while driving. SM said that he cannot pull up any more information on what the dealer diagnosis was on this issue. SM said that he would try to locate the records elsewhere. Asked SM to please e-mail me a copy of the R.O. once and if he is able to locate a copy.

*** NOTES 1/13/2012 6:38:45 AM, wmenjiva, Action Type : Note-General
AHM Fire Engineer requested that I contact Mckenney-Salinas Honda to gather details on a CP electrical repair performed on 1/13/09.

*** NOTES 1/13/2012 6:40:31 AM, wmenjiva, Action Type : E-mail
RCM updated AHM Fire Engineer about what the dealer had informed me the R.O.# 154616, for an electrical repair, was all about. Advised AHM FE that I had asked the dealer to e-mail me a copy of the complete R.O., if they were able to pull one.

*** CASE MODIFY 1/13/2012 6:40:34 AM, wmenjiva
into WIP Fire and Status of Solving.

*** NOTES 1/13/2012 9:08:04 AM, ejovel, Action Type : Letter/Fax
On 1/13/12 ACS received a 2 page fax from the customer regarding previous concern.

*** CASE ADD ATTACHMENT 1/13/2012 9:15:21 AM, crmsuser
Added attatchment ScanDoc 2 with path \\ahmtor10\crms_scandoc\ScanDoc_Final\N012011-12-0202795_2.PDF

*** NOTES 1/19/2012 10:35:32 AM, wmenjiva, Action Type : Note-General
RCM provided copy of R.O. to AHM Fire Engineer. FE indicated that the pictures and case is still being evaluated by AHM Engineering.

*** CASE FULFILL 1/19/2012 10:35:40 AM, wmenjiva
Fulfilled for [redacted] due 01/19/2012 12:30:10 PM.

*** COMMIT 1/19/2012 10:35:45 AM, wmenjiva, Action Type : N/A
Made to [redacted] due 01/26/2012 12:00:47 PM.
(Fire) Awaiting update from AHM FE

*** CASE MODIFY 1/19/2012 10:36:09 AM, wmenjiva
into WIP Fire and Status of Solving.

*** NOTES 1/26/2012 6:05:50 AM, wmenjiva, Action Type : Note-General
RCM reviewed case with AHM Fire Engineer. Okay to close the case. If the customer's insurance company contacts us, we will reopen case then and review matter further.

*** CASE MODIFY 1/26/2012 6:06:04 AM, wmenjiva
into WIP Fire and Status of Solving.

*** CASE FULFILL 1/26/2012 6:06:27 AM, wmenjiva
Fulfilled for [redacted] due 01/26/2012 12:00:47 PM.

*** CASE MODIFY 1/26/2012 6:06:35 AM, wmenjiva

Case History

Case ID : N012011-12-0202795 Case Title : 06L - [redacted] - VEHICLE DOOR FIRE

into WIP Fire and Status of Solving.

*** CASE CLOSE 1/26/2012 6:06:37 AM, wmenjiva

Status = Closed, Resolution Code = Instruction Given, State = Open

EA11-004

HONDA

4/27/2012

Q6

Attachment #Q6

Labor Operation Number	Labor Operation Number Description
7371B0	DOOR WIRE HARNESS, LEFT FRONT - REPLACE.
Problem Code	Problem Code Description
06401	SHORT CIRCUIT
06601	POOR/NO ELECTRICAL CONTACT

Attachment #Q7

Service Bulletin No. 11-057

Applies To: **2006 CR-V** – ALL VINs Beginning with JHL – Check VIN Status Inquiry **September 23, 2011**

Safety Recall: Driver's Power Window Switch Does Not Work or Works Intermittently

(Supersedes 11-057, dated September 7, 2011, to revise the information marked by the black bars)

REVISION SUMMARY

An example of the customer letter was added.

BACKGROUND

If silicone-based cleaning agents are used near the master power window switch, the residue can adhere to the switch circuit board which may cause accelerated wear. As a result, the switch may overheat and melt, causing smoke, preventing the window to be rolled up or down, and the possibility of a fire.

CUSTOMER NOTIFICATION

Owners of affected vehicles will receive a notification of this campaign. An example of the customer notification is at the end of this service bulletin.

Do an **iN VIN status inquiry** to make sure the vehicle is shown as eligible.

In addition, check for a punch mark above the first character of the engine compartment VIN. A punch mark in that location means this campaign has already been completed.

Some vehicles affected by this campaign may be in your used vehicle inventory. As a matter of federal law, these vehicles **must** be repaired before they are sold.

Should your dealership sell an unrepaired vehicle that subsequently causes injury or damage because of the recalled item, the dealership will be solely responsible to the damaged party, and will be required to defend and indemnify American Honda for any resulting claims. To see if a vehicle in inventory is affected by this recall, do a VIN status inquiry before selling it.

CORRECTIVE ACTION

Replace the driver's power window master switch.

PARTS INFORMATION

Driver's Power Window Master Switch:
P/N 06357-S9A-305

TOOL INFORMATION

KTC Trim Tool Set: T/N SOJATP2014

WARRANTY CLAIM INFORMATION

Operation Number:	7441C8
Flat Rate Time:	0.2 hour
Failed Part:	P/N 35750-S9A-C05ZA
Defect Code:	5WT00
Symptom Code:	R9300
Skill Level:	Repair Technician

REPAIR PROCEDURE

1. Using the appropriate trim tool, start prying at the rear of the driver's switch panel and move forward to release the hooks.

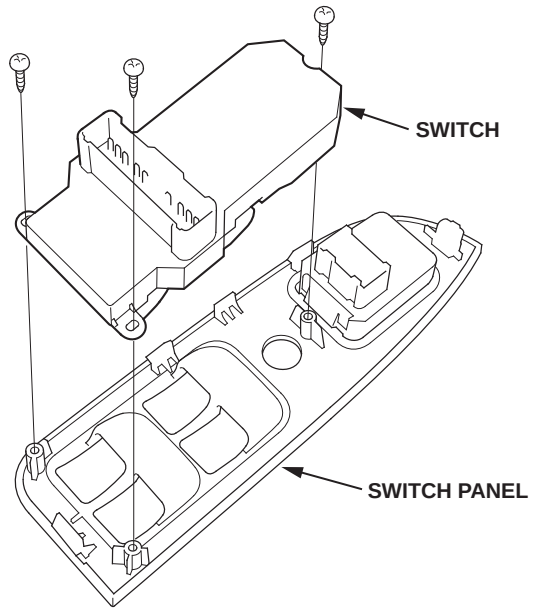
Start prying at the rear and work forward.

Skill Level R REPAIR

CUSTOMER INFORMATION: The information in this bulletin is intended for use only by skilled technicians who have the proper tools, equipment, and training to correctly and safely maintain your vehicle. These procedures should not be attempted by "do-it-yourselfers," and you should not assume this bulletin applies to your vehicle, or that your vehicle has the condition described. To determine whether this information applies, contact an authorized Honda automobile dealer.

2. Disconnect the two connectors from the driver's power window master switch.

3. Remove the three screws that attach the switch to the switch panel.



4. Using the three screws removed in step 3, install the new switch to the switch panel.
5. Reconnect the connectors.
6. Reinstall the driver's switch panel into the door panel.
7. Reset the power window control unit:
   - Turn the ignition switch to ON (II).
   - Move the driver's window all the way down by holding the driver's window switch firmly down; when the window reaches the bottom, hold the driver's window switch down for 2 seconds.
   - Move the driver's window all the way up by holding the driver's window switch firmly up; when the window reaches the top, hold the switch firmly up for 2 seconds.
   - If the window does not work in AUTO, turn the ignition switch to LOCK (0) and repeat step 7.
8. Center-punch a completion mark above the first character of the engine compartment VIN:

Center-punch here.

JHLXXXXXXXXXXXXX

Example of Customer Letter

September 2011

Safety Recall: Driver's Power Window Switch Does Not Work or Works Intermittently- NHTSA Recall 11V-456

Dear CR-V Owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

What is the reason for this notice?
Honda has decided that a defect which relates to motor vehicle safety exists in certain 2006 model year CR-V vehicles. There is a potential failure of the power window master switch which may cause the switch to heat up, resulting in the switch melting, failing to work and producing smoke. In the worst case, the switch cover itself may burn. If the switch fails, the power windows may become inoperative, preventing them from being rolled up or down. The possibility of fire is a potential safety risk.

What should you do?
Call any authorized Honda dealer and make an appointment to have your vehicle repaired. The dealer will replace the power window master switch assembly. This work will be done free of charge. The window switch replacement process may be completed in approximately 12 minutes; however, your vehicle will need to be at the dealer for a longer period of time. We recommend that you plan to leave your vehicle for half a day to allow the dealer flexibility in scheduling.

Who to contact if you experience problems
If you are not satisfied with the service you receive from your Honda dealer, you may write to:

American Honda Motor Co., Inc.
Honda Automobile Customer Service
Mail Stop 500-2N-7A
1919 Torrance Blvd.
Torrance, CA 90501-2746

If you believe that American Honda or the dealer has failed or is unable to remedy the defect in your vehicle, without charge, within a reasonable period of time (60 days from the date you first contact the dealer for a repair appointment), you may submit a complaint to:

Administrator
National Highway Traffic Safety Administration
1200 New Jersey Ave., SE
Washington, DC 20590

Or call the toll-free Safety Hotline at 1-888-327-4236 (TTY 1-800-424-9153), or go to *http://www.safercar.gov*.

What to do if you feel this notice is in error
Our records show that you are the current owner or lessee of a 2006 CR-V involved in this recall. If this is not the case, or the name/address information is not correct, please complete and sign the Information Change Card, and return it in the enclosed postage-paid envelope. We will then update our records.

What If You Already Had Your Vehicle Repaired For This Issue
If you previously paid to have the power window master switch replaced, you may be eligible for reimbursement. Refer to the attached instructions for Reimbursement for the eligibility requirements and the reimbursement procedure.

Lessor Information
Federal law requires that any vehicle lessor receiving this recall notice must forward a copy of this notice to the lesse within 10 days.

If you have questions
If you have any questions about this notice, or need assistance with locating a Honda dealer, please call Honda Automobile Customer Service at 1-800-999-1009, and select option 4.

We apologize for any inconvenience this campaign may cause you.

Sincerely,

American Honda Motor Co., Inc.
Honda Automobile Division

September 7, 2011

Dear Service Manager:

Honda has announced a safety recall campaign for certain 2006 CR-Vs. There is a potential for the driver's power window master switch to become inoperative, preventing the window from being rolled up or down. In the worst case, the power window master switch may overheat and melt, causing smoke, and the possibility of a fire.

Repair Strategy
Replace the driver's power window master switch. For VIN, repair, tools, parts, and warranty information, refer to Service Bulletin 11-057, *Safety Recall: Driver's Power Window Switch Does Not Work or Works Intermittently.*

Some vehicles affected by this campaign may be in your new or used vehicle inventory. As a matter of federal law, these vehicles must be repaired before they are sold. Should a dealership sell an unrepaired vehicle that subsequently causes an injury or damage because of the recalled item, the dealership will be solely responsible to the damaged party, and will be required to defend and indemnify American Honda for any resulting claims.

To see if a vehicle is affected by this campaign, make sure the customer has a notification letter, or do an iN VIN status inquiry. In addition, check for a punch mark above the fifth character of the engine compartment VIN. A punch mark in that location means the vehicle has already been repaired.

Customer Notification
Owners of affected vehicles will receive a notification of this campaign in mid-September.

Parts Information
Driver's power window master switches are available now through open ordering.

Sincerely,

American Honda Motor Co., Inc.
Honda Automobile Division

EA11-004

HONDA

4/27/2012

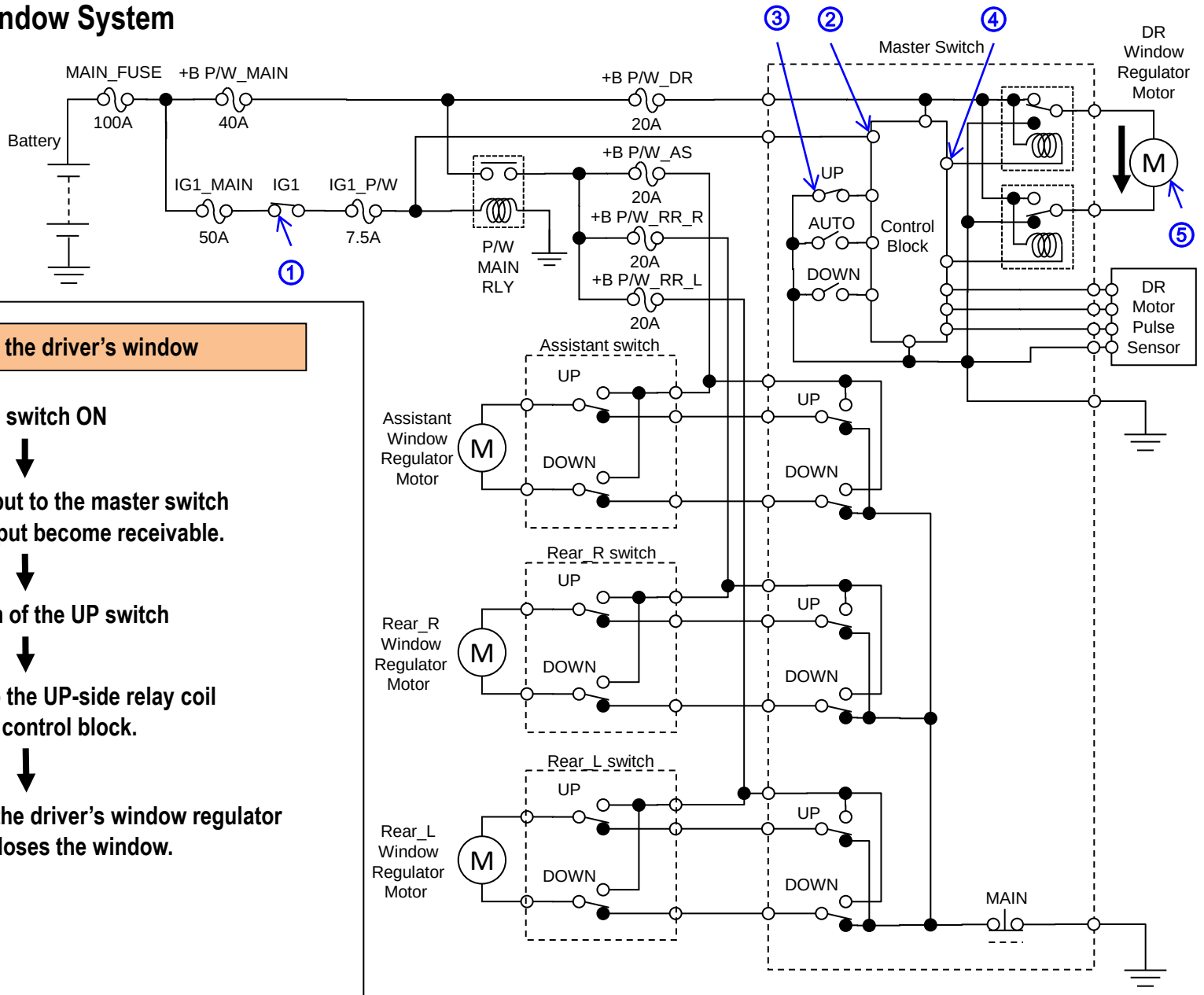
Q9

PW (Operation flow)_120328 1

Power Window System
Operation Flow

HGT's Response

Function : Power Window System
Model : CR-V



Operation: Close the driver's window

①IG1 switch ON

↓

②IG1 signal is input to the master switch and the switch input become receivable.

↓

③Operation of the UP switch

↓

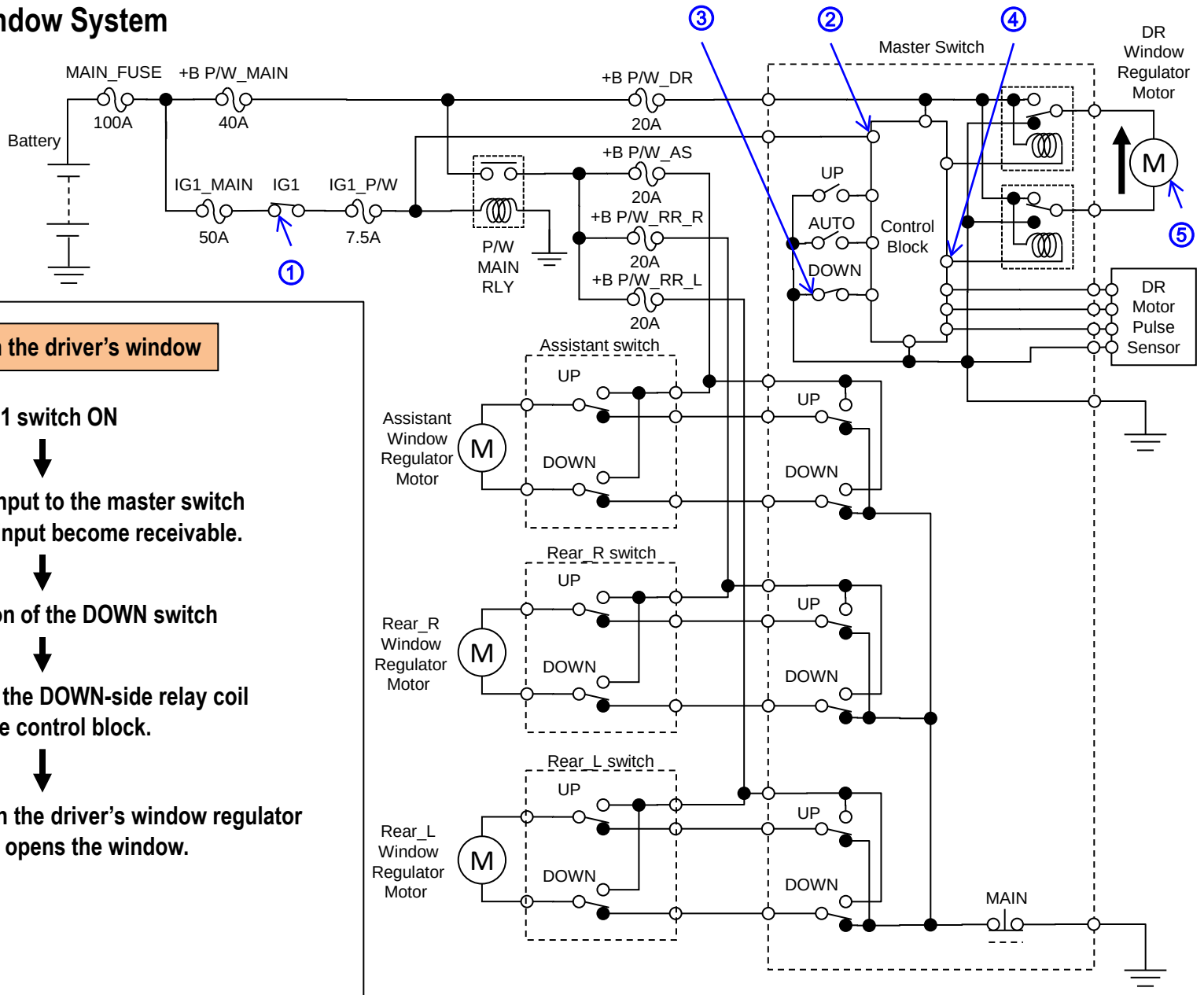
④LO is output to the UP-side relay coil from the control block.

↓

⑤The current flows in the driver's window regulator motor and closes the window.

HGT's Response

Function : Power Window System
Model : CR-V



Operation: Open the driver's window

①IG1 switch ON

↓

②IG1 signal is input to the master switch and the switch input become receivable.

↓

③Operation of the DOWN switch

↓

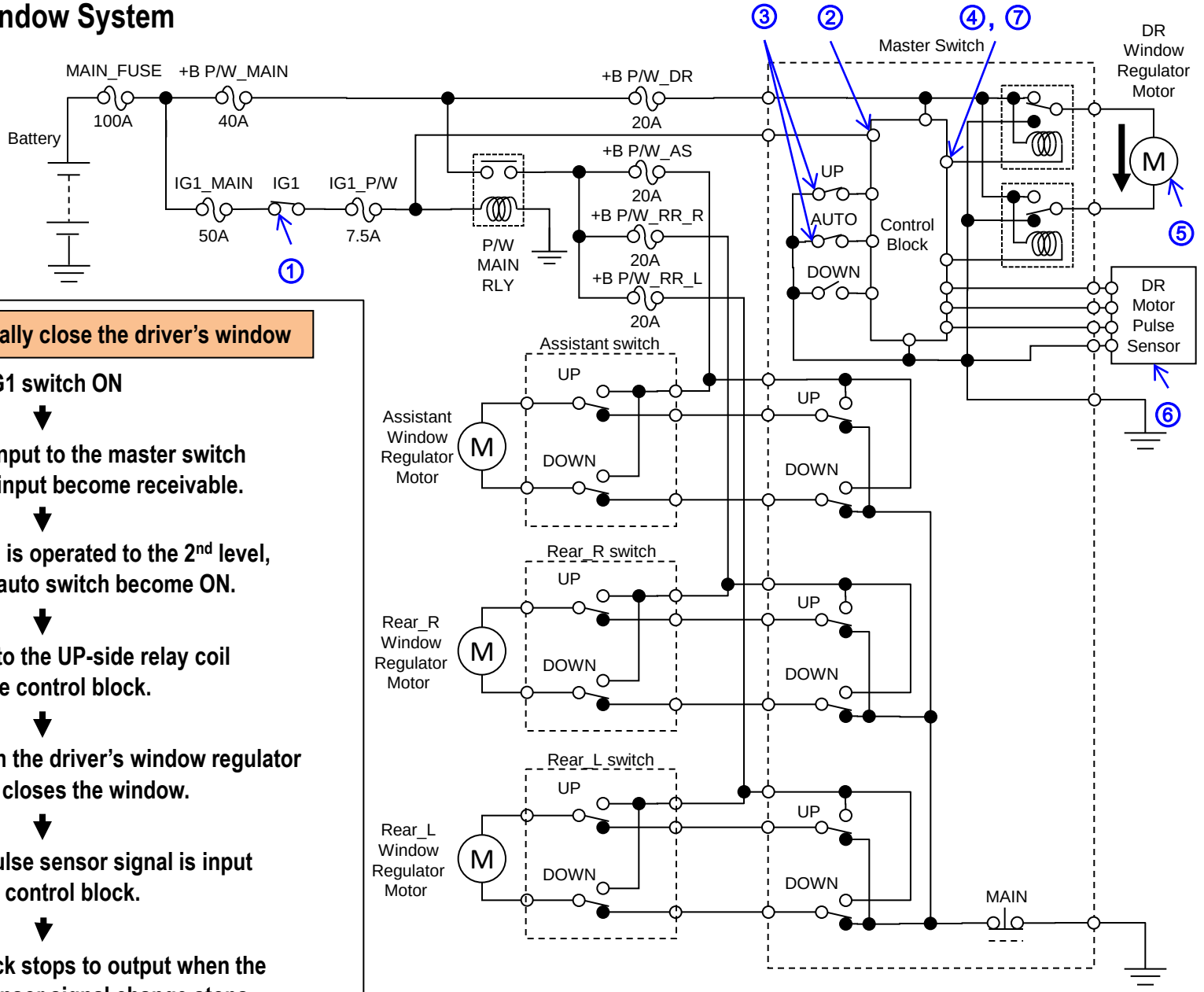
④LO is output to the DOWN-side relay coil from the control block.

↓

⑤The current flows in the driver's window regulator motor and opens the window.

HGT's Response

Function : Power Window System
Model : CR-V



Operation: Automatically close the driver's window

①IG1 switch ON

↓

②IG1 signal is input to the master switch and the switch input become receivable.

↓

③When UP switch is operated to the 2nd level, UP switch and auto switch become ON.

↓

④LO is output to the UP-side relay coil from the control block.

↓

⑤The current flows in the driver's window regulator motor and closes the window.

↓

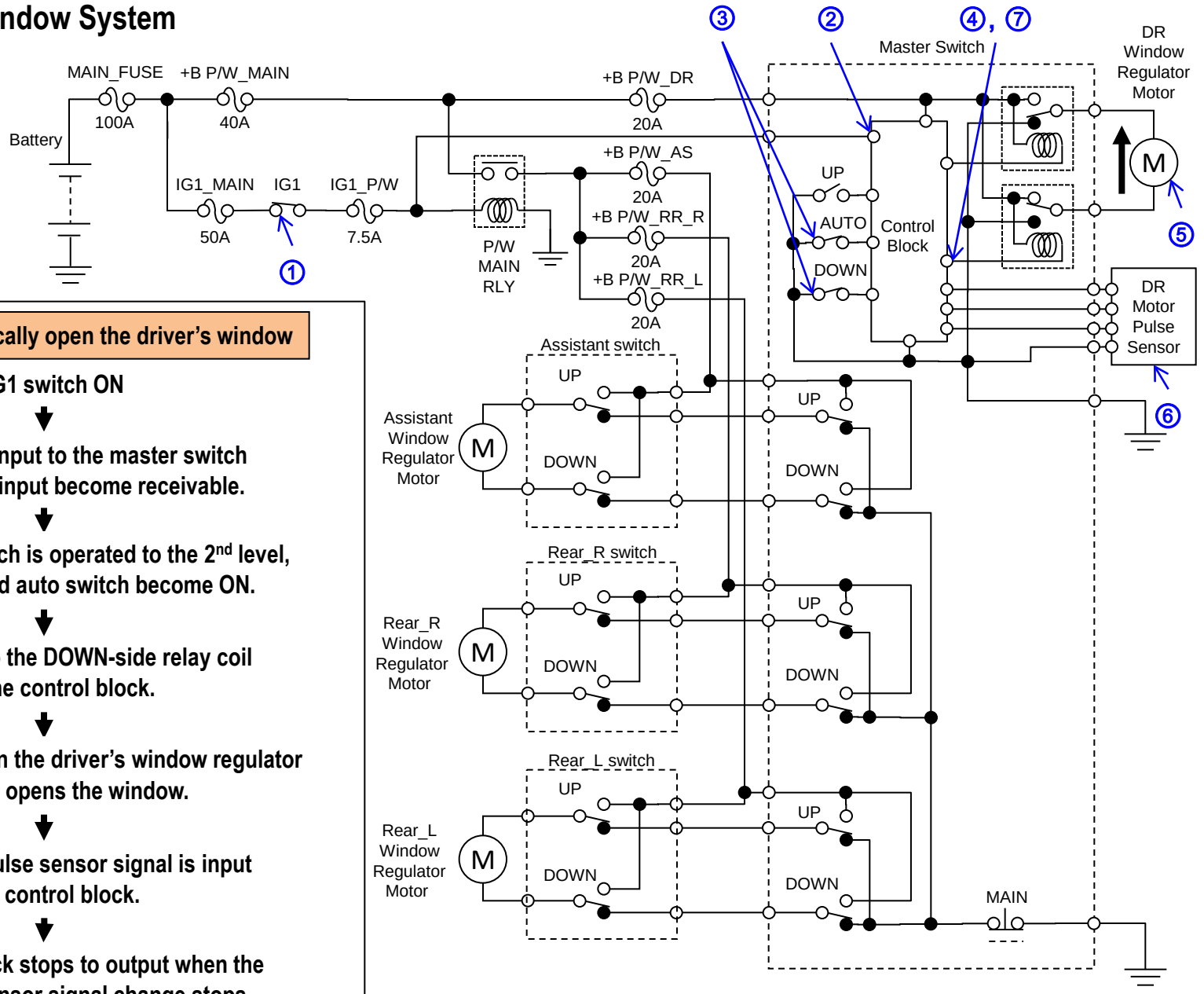
⑥The driver's pulse sensor signal is input to the control block.

↓

⑦The control block stops to output when the driver's pulse sensor signal change stops.

HGT's Response

Function : Power Window System
Model : CR-V



Operation: Automatically open the driver's window

①IG1 switch ON

↓

②IG1 signal is input to the master switch and the switch input become receivable.

↓

③When DOWN switch is operated to the 2nd level, DOWN switch and auto switch become ON.

↓

④LO is output to the DOWN-side relay coil from the control block.

↓

⑤The current flows in the driver's window regulator motor and opens the window.

↓

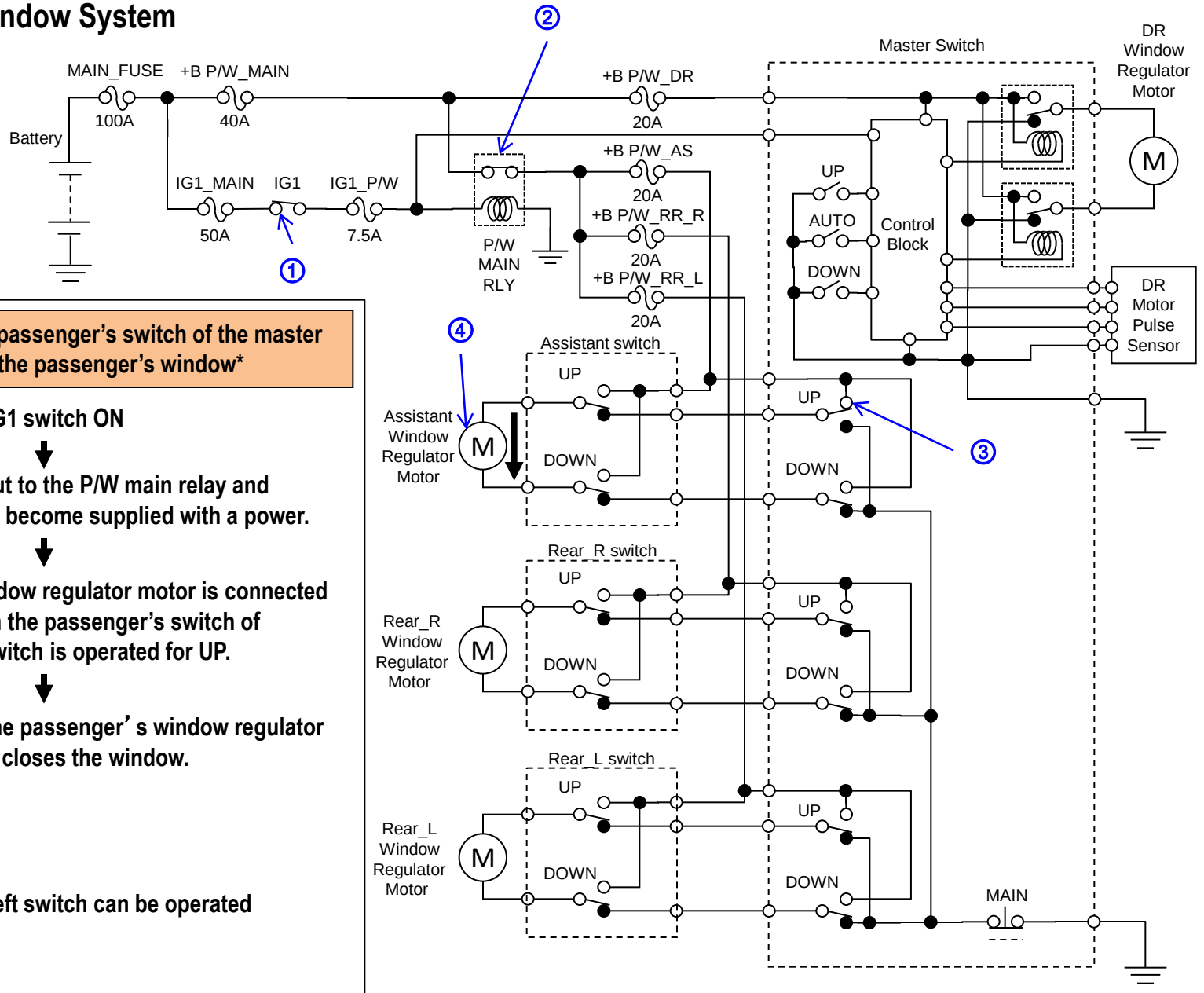
⑥The driver's pulse sensor signal is input to the control block.

↓

⑦The control block stops to output when the driver's pulse sensor signal change stops.

HGT's Response

Function : Power Window System
Model : CR-V



Operation: Operate the passenger's switch of the master switch to close the passenger's window*

①IG1 switch ON

↓

②IG1 signal is input to the P/W main relay and the passenger's circuit become supplied with a power.

↓

③The passenger's window regulator motor is connected to a power when the passenger's switch of the master switch is operated for UP.

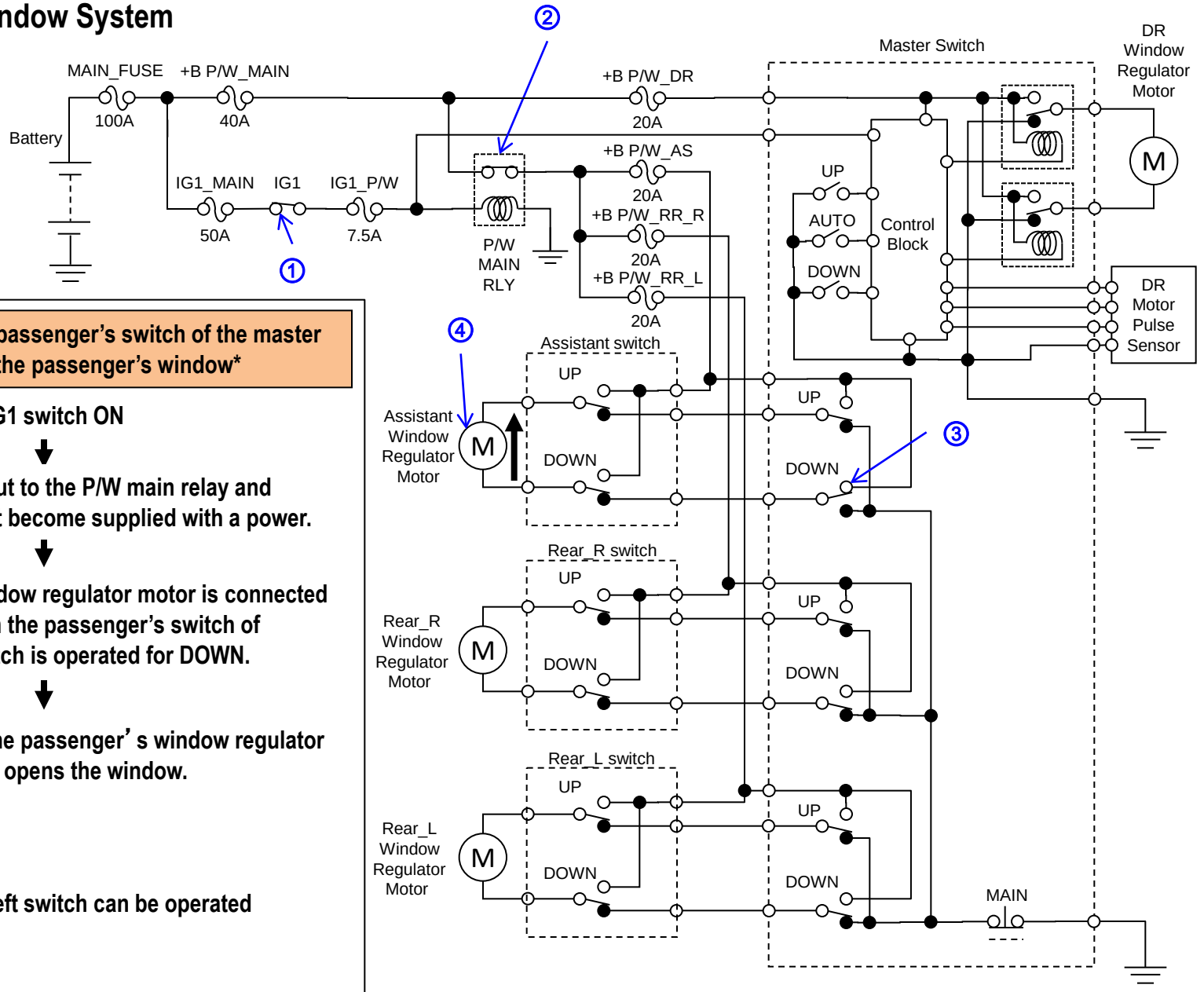
↓

④The current flows in the passenger's window regulator motor and closes the window.

***Rear right and rear left switch can be operated in the same manner.**

HGT's Response

Function : Power Window System
Model : CR-V



Operation: Operate the passenger's switch of the master switch to open the passenger's window*

①IG1 switch ON

↓

②IG1 signal is input to the P/W main relay and the passenger's circuit become supplied with a power.

↓

③The passenger's window regulator motor is connected to a power when the passenger's switch of the master switch is operated for DOWN.

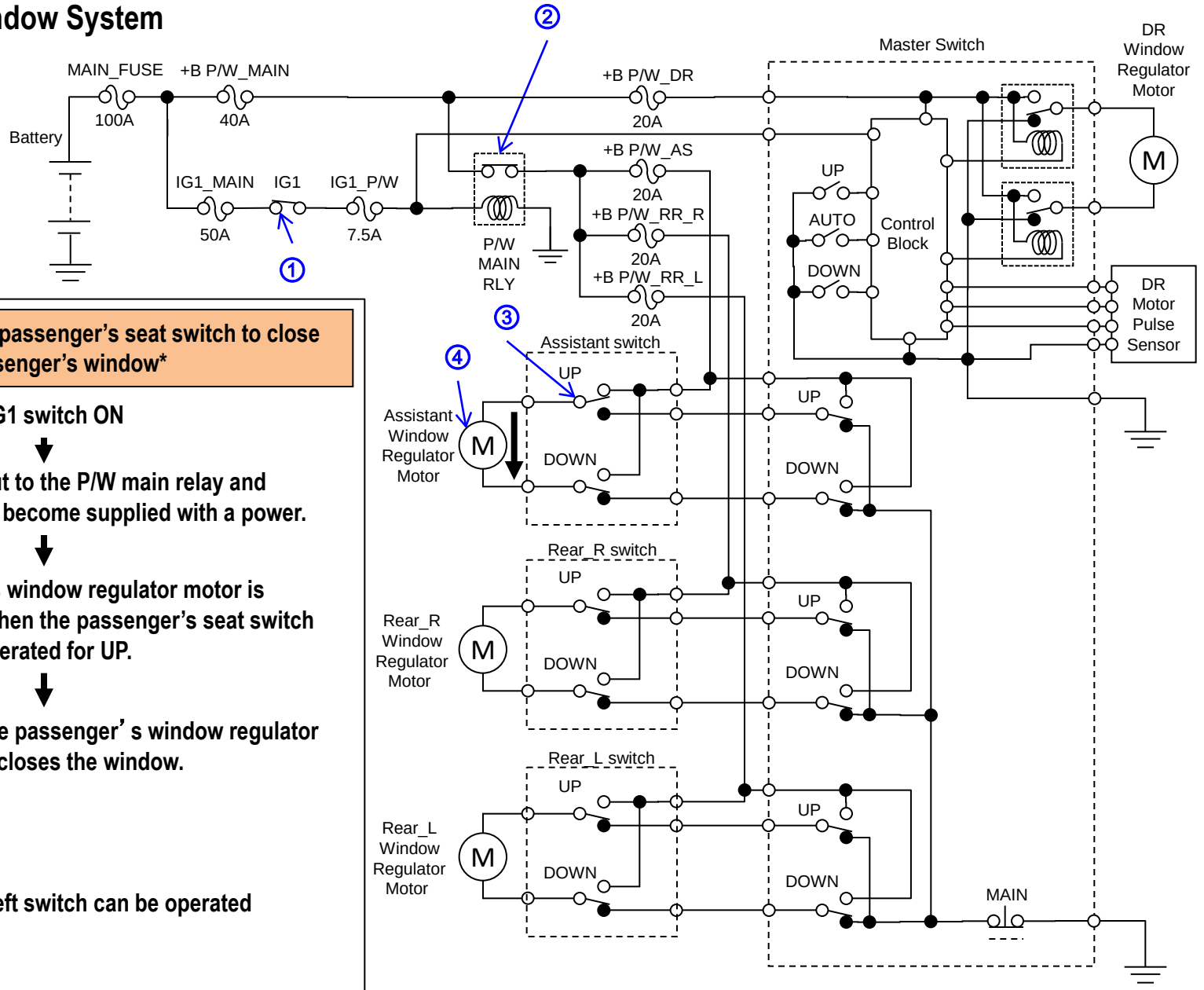
↓

④The current flows in the passenger's window regulator motor and opens the window.

***Rear right and rear left switch can be operated in the same manner.**

HGT's Response

Function : Power Window System
Model : CR-V



Operation: Operate the passenger's seat switch to close the passenger's window*

①IG1 switch ON

↓

②IG1 signal is input to the P/W main relay and the passenger's circuit become supplied with a power.

↓

③The passenger's window regulator motor is connected to a power when the passenger's seat switch is operated for UP.

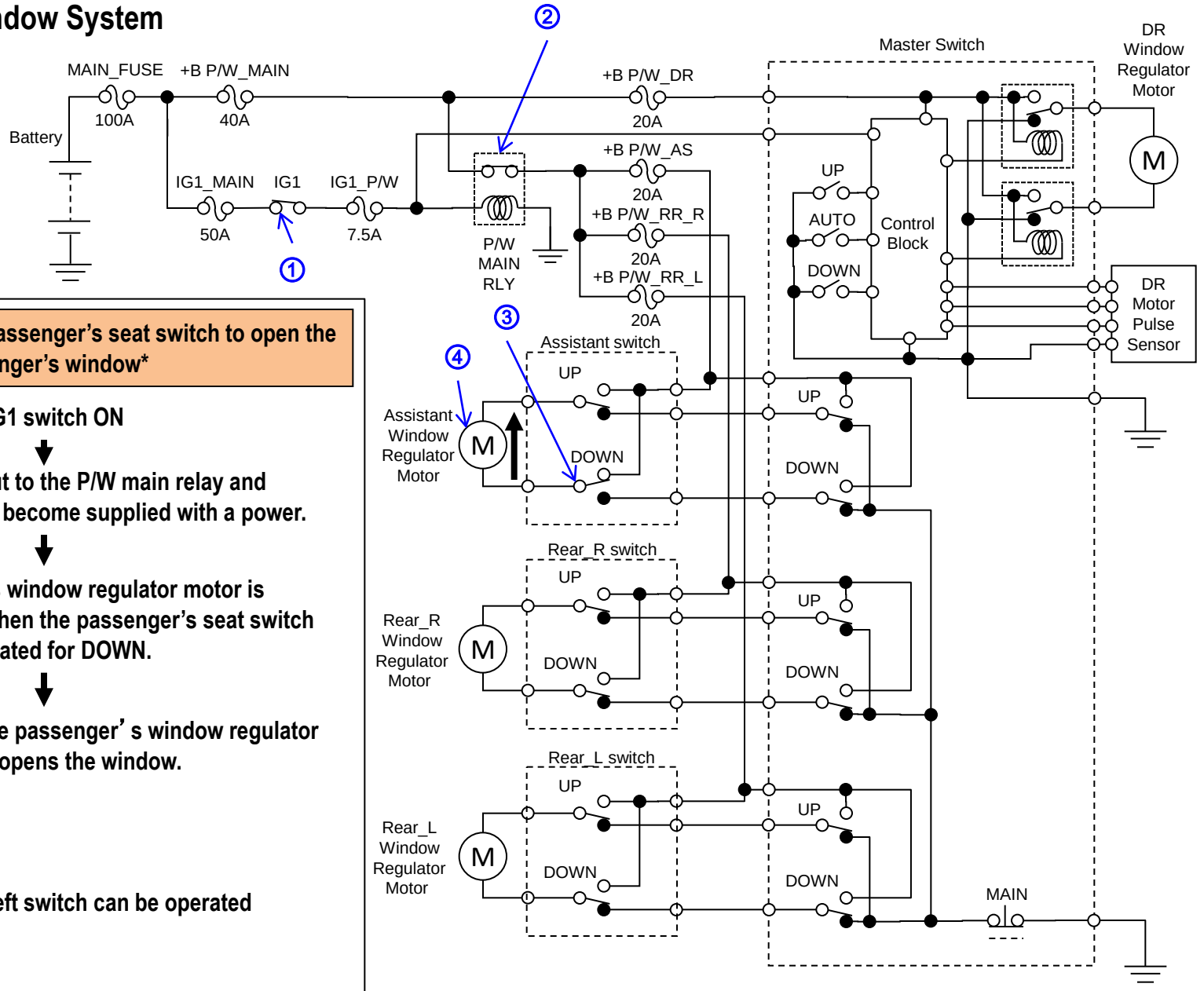
↓

④The current flows in the passenger's window regulator motor and closes the window.

***Rear right and rear left switch can be operated in the same manner.**

HGT's Response

Function : Power Window System
Model : CR-V



Operation: Operate the passenger's seat switch to open the passenger's window*

①IG1 switch ON

↓

②IG1 signal is input to the P/W main relay and the passenger's circuit become supplied with a power.

↓

③The passenger's window regulator motor is connected to a power when the passenger's seat switch is operated for DOWN.

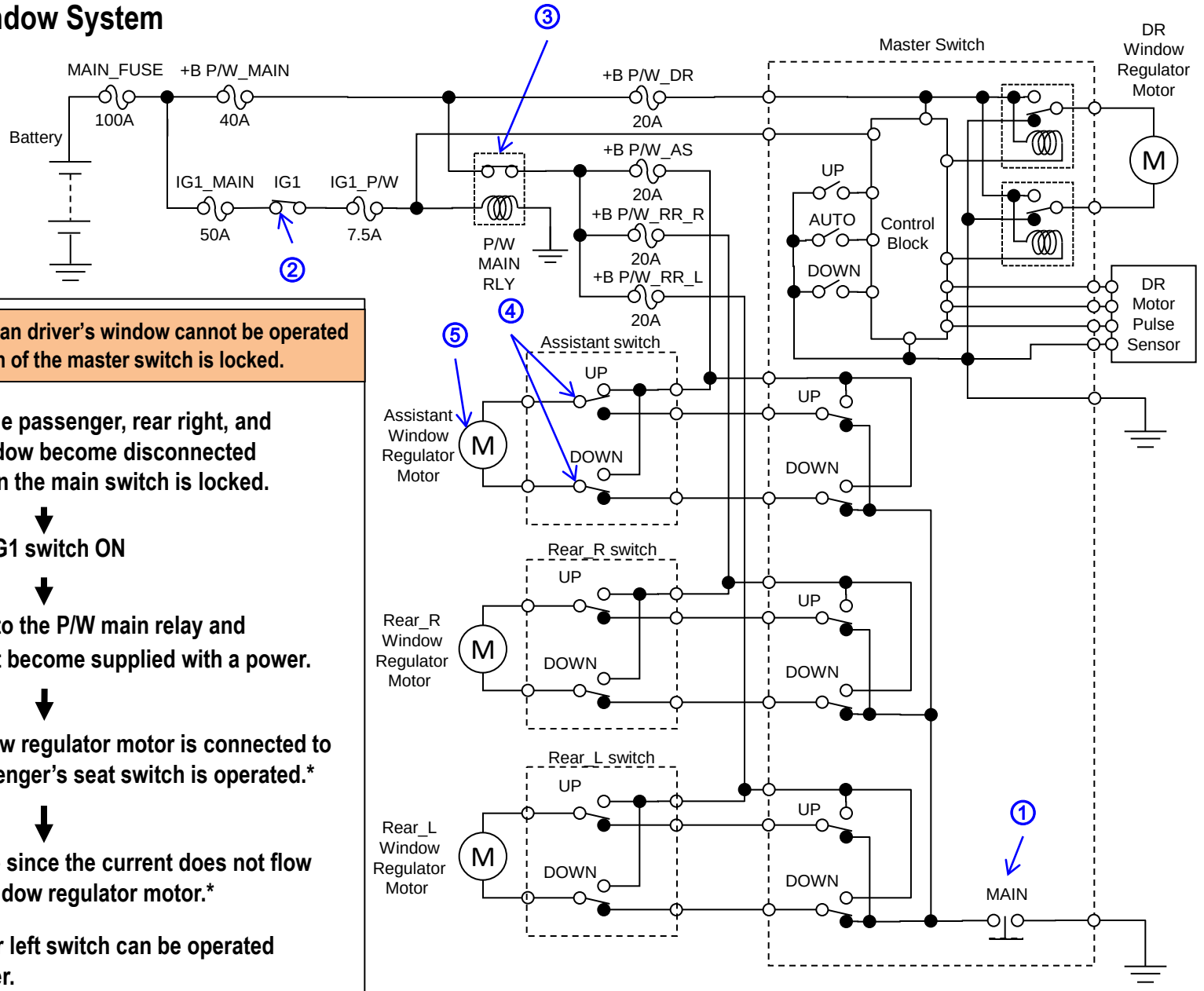
↓

④The current flows in the passenger's window regulator motor and opens the window.

***Rear right and rear left switch can be operated in the same manner.**

HGT's Response

Function : Power Window System
Model : CR-V



Operation: Windows other than driver's window cannot be operated when the main switch of the master switch is locked.

①Each circuit of the passenger, rear right, and rear left side window become disconnected from the GND when the main switch is locked.

↓

②IG1 switch ON

↓

③IG1 signal is input to the P/W main relay and the passenger's circuit become supplied with a power.

↓

④The passenger's window regulator motor is connected to a power when the passenger's seat switch is operated.*

↓

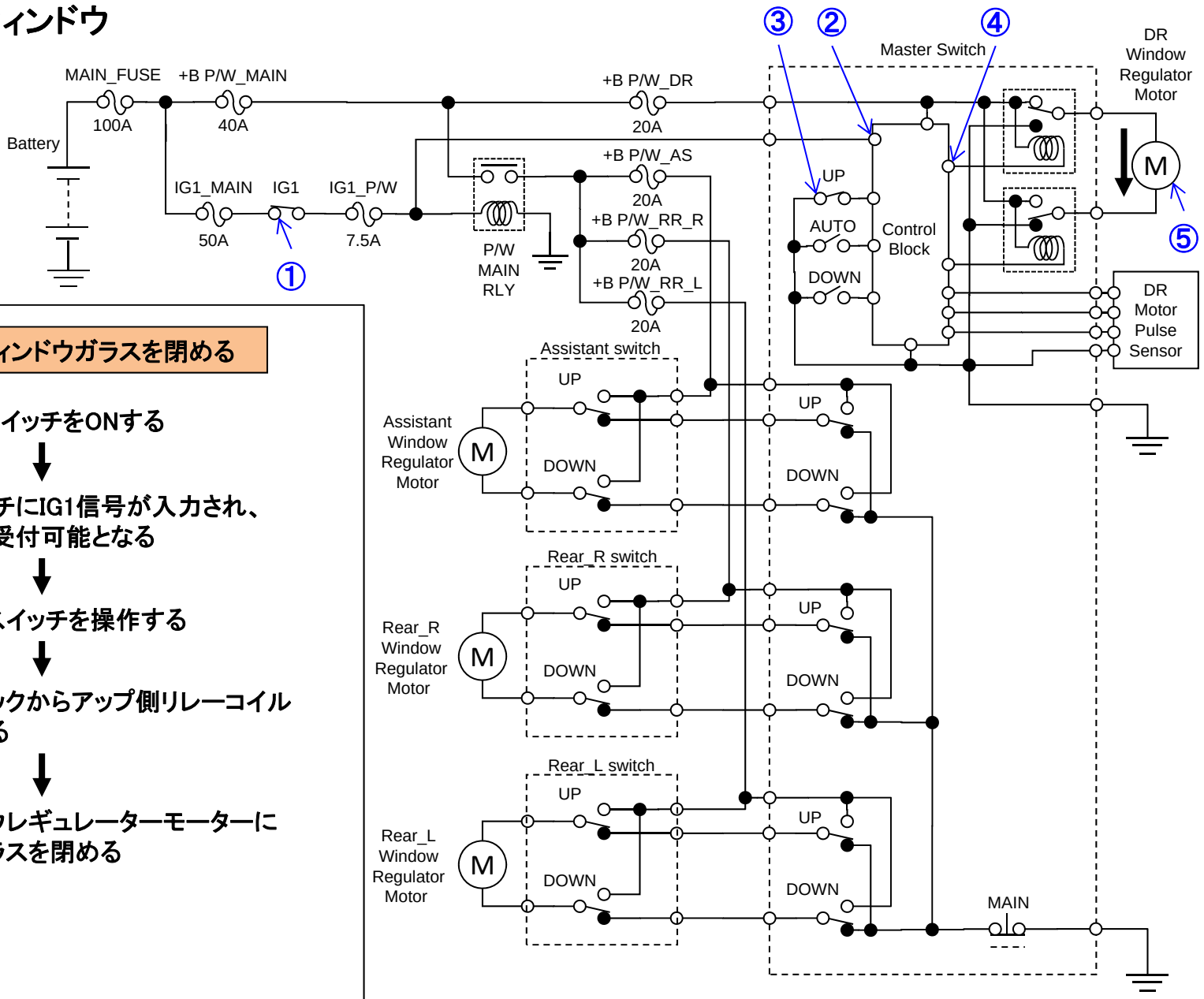
⑤Window is immovable since the current does not flow into the passenger's window regulator motor.*

*Rear right and rear left switch can be operated in the same manner.

パワーウィンドウシステム
動作フロー

HGT回答項目

機能名： パワーウィンドウ
機種名： CR-V



動作：運転席ウィンドウガラスを閉める

①IG1スイッチをONする

↓

②マスタースイッチにIG1信号が入力され、
スイッチ入力を受付可能となる

↓

③アップスイッチを操作する

↓

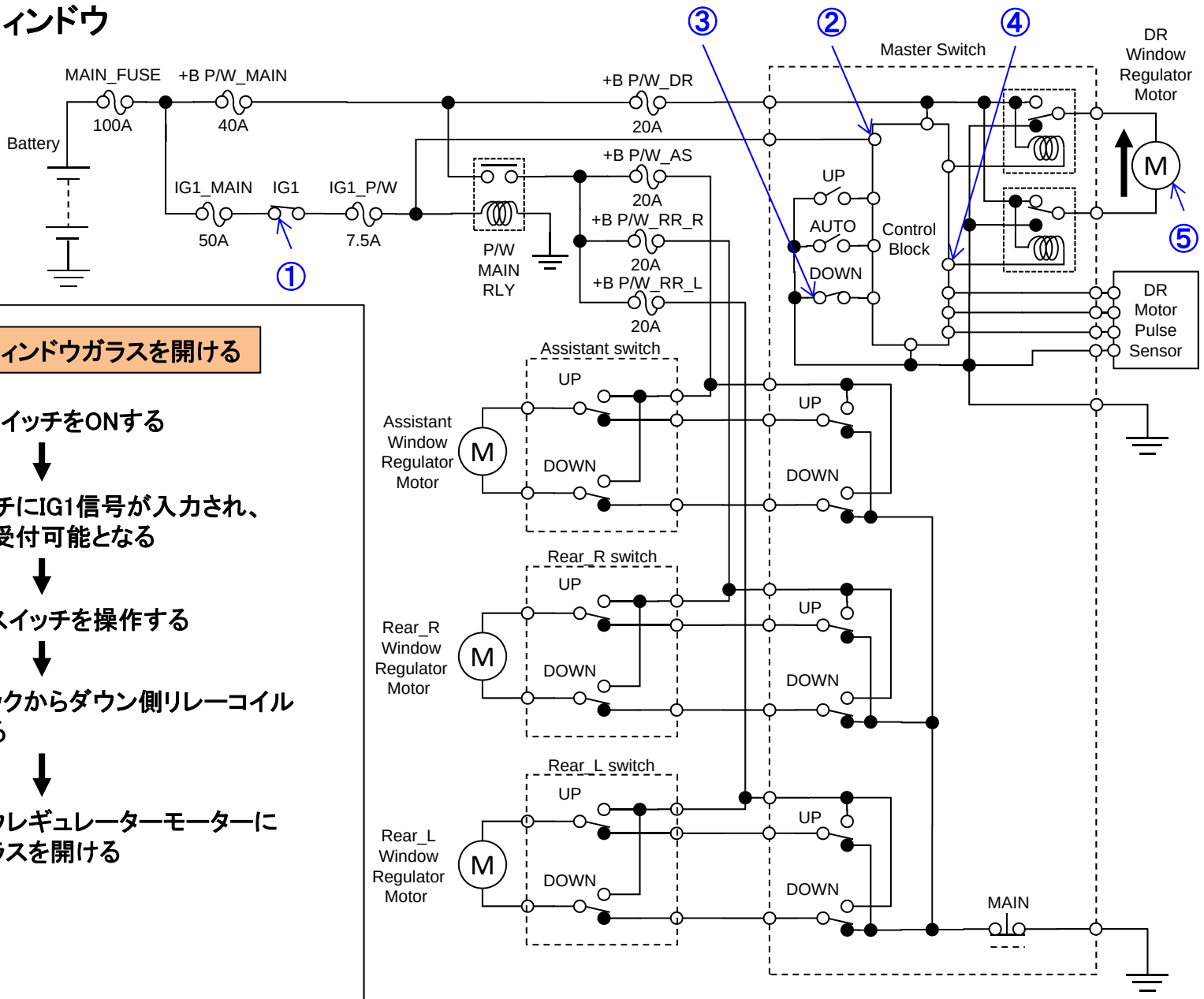
④コントロールブロックからアップ側リレーコイル
にLOが出力される

↓

⑤運転席ウィンドウレギュレーターモーターに
電流が流れガラスを閉める

HGT回答項目

機能名： パワーウィンドウ
機種名： CR-V



動作：運転席ウィンドウガラスを開ける

①IG1スイッチをONする

↓

②マスタースイッチにIG1信号が入力され、
スイッチ入力を受付可能となる

↓

③ダウンスイッチを操作する

↓

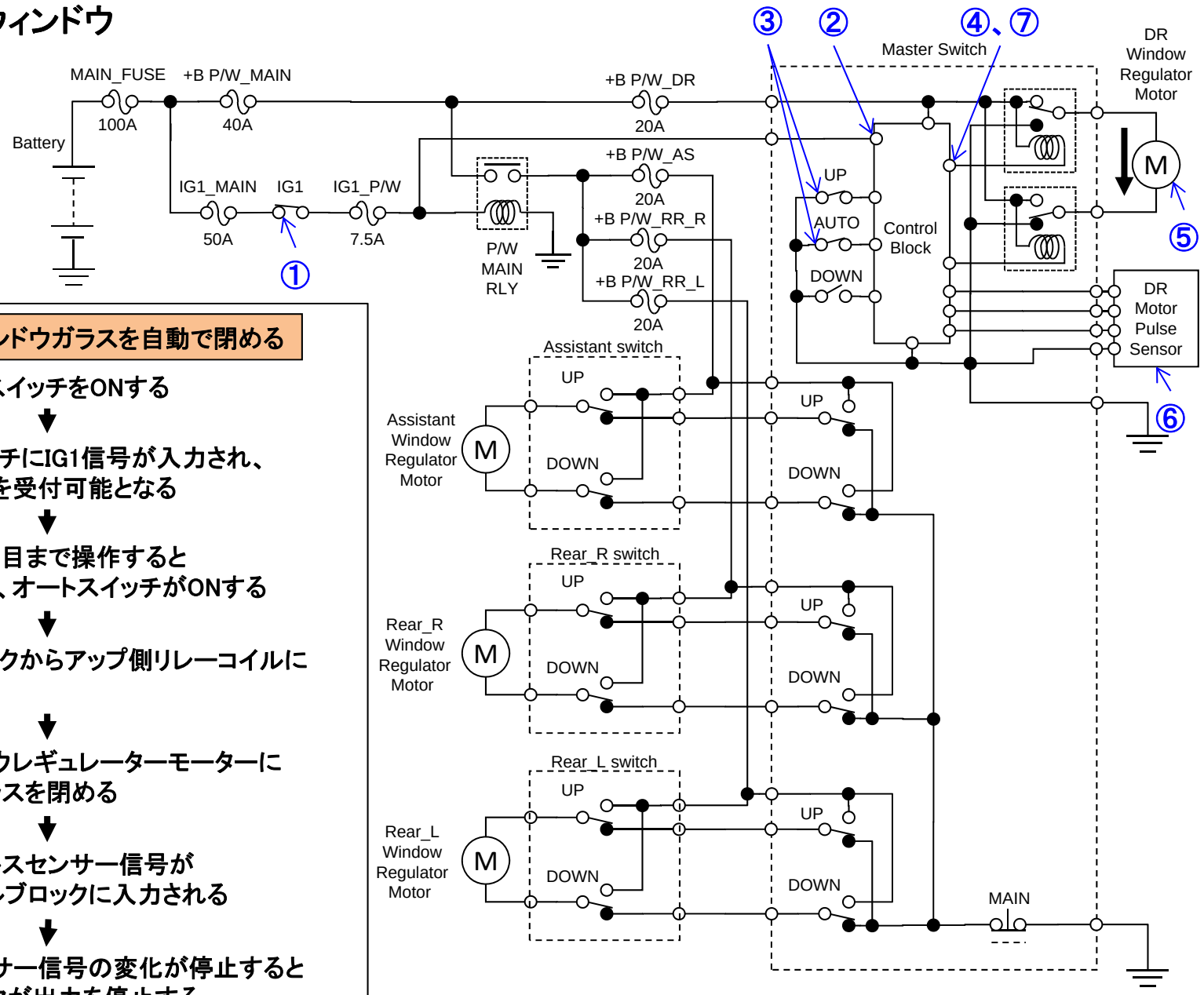
④コントロールブロックからダウン側リレーコイル
にLOが出力される

↓

⑤運転席ウィンドウレギュレーターモーターに
電流が流れガラスを開ける

HGT回答項目

機能名： パワーウィンドウ
機種名： CR-V



動作：運転席ウィンドウガラスを自動で閉める

①IG1スイッチをONする

↓

②マスタースイッチにIG1信号が入力され、
スイッチ入力を受付可能となる

↓

③アップ側を2段目まで操作すると
アップスイッチ、オートスイッチがONする

↓

④コントロールブロックからアップ側リレーコイルに
LOが出力される

↓

⑤運転席ウィンドウレギュレーターモーターに
電流が流れガラスを閉める

↓

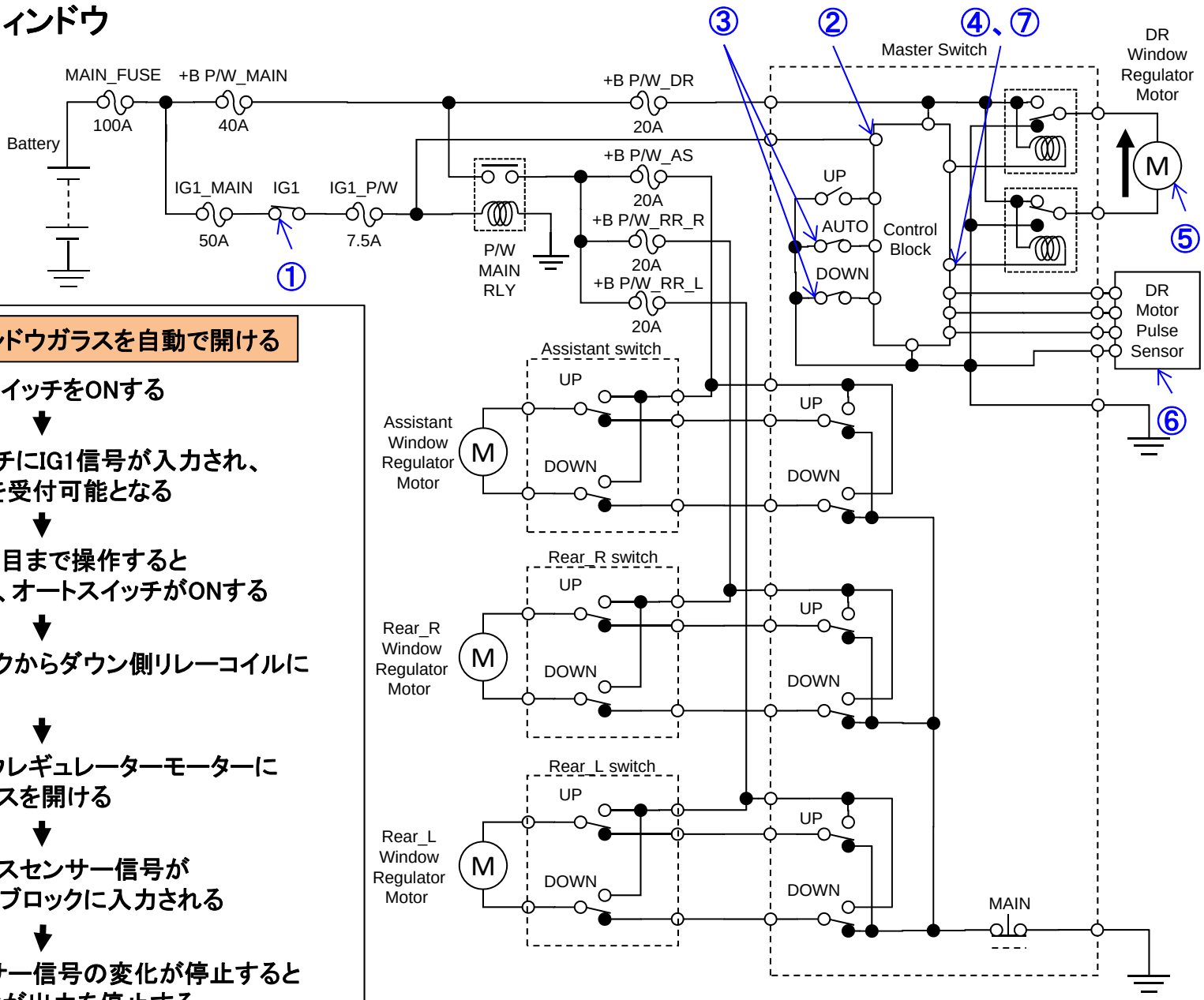
⑥運転席パルスセンサー信号が
コントロールブロックに入力される

↓

⑦運転席パルスセンサー信号の変化が停止すると
コントロールブロックが出力を停止する

HGT回答項目

機能名： パワーウィンドウ
機種名： CR-V



動作：運転席ウィンドウガラスを自動で開ける

①IG1スイッチをONする

↓

②マスタースイッチにIG1信号が入力され、
スイッチ入力を受付可能となる

↓

③ダウン側を2段目まで操作すると
ダウンスイッチ、オートスイッチがONする

↓

④コントロールブロックからダウン側リレーコイルに
LOが出力される

↓

⑤運転席ウィンドウレギュレーターモーターに
電流が流れガラスを開ける

↓

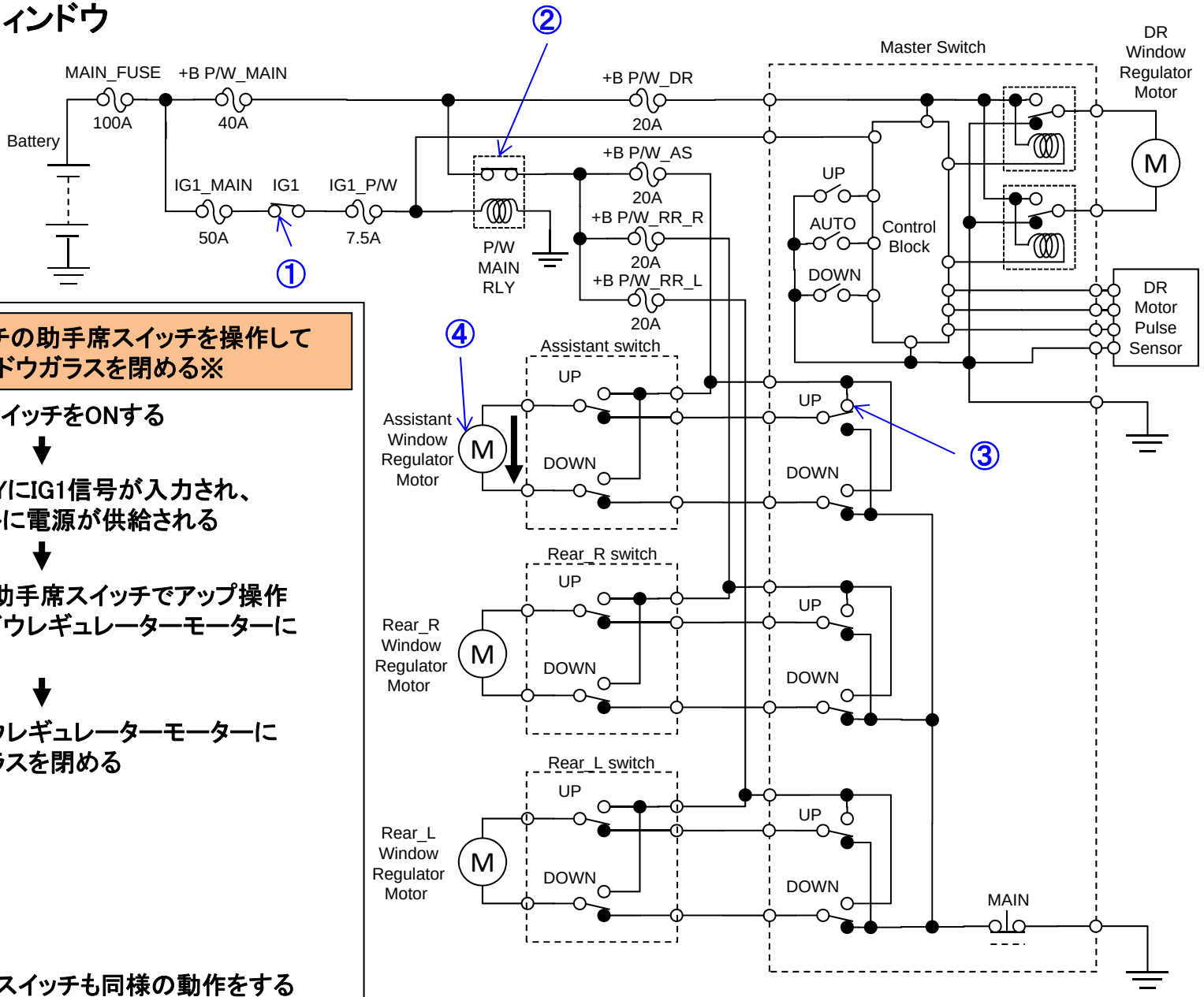
⑥運転席パルスセンサー信号が
コントロールブロックに入力される

↓

⑦運転席パルスセンサー信号の変化が停止すると
コントロールブロックが出力を停止する

HGT回答項目

機能名： パワーウィンドウ
機種名： CR-V



動作：マスタースイッチの助手席スイッチを操作して助手席ウィンドウガラスを閉める※

①IG1スイッチをONする

↓

②P/W MAIN RLYにIG1信号が入力され、助手席用回路に電源が供給される

↓

③マスタースイッチの助手席スイッチでアップ操作すると助手席ウィンドウレギュレーターモーターに電源が接続される

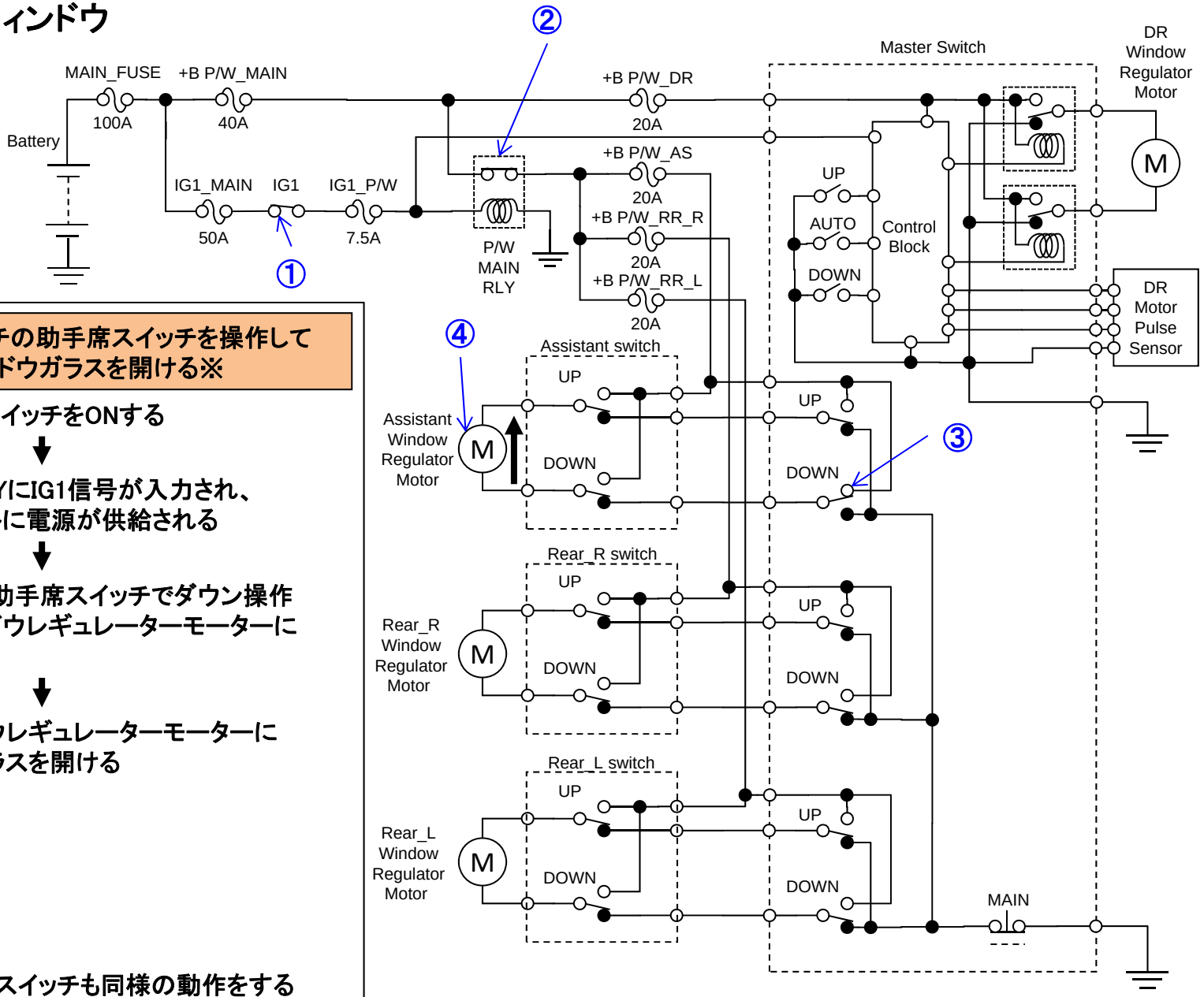
↓

④助手席ウィンドウレギュレーターモーターに電流が流れガラスを閉める

※ 後席右、後席左スイッチも同様の動作をする

HGT回答項目

機能名： パワーウィンドウ
機種名： CR-V



動作：マスタースイッチの助手席スイッチを操作して助手席ウィンドウガラスを開ける※

①IG1スイッチをONする

↓

②P/W MAIN RLYにIG1信号が入力され、助手席用回路に電源が供給される

↓

③マスタースイッチの助手席スイッチでダウン操作すると助手席ウィンドウレギュレーターモーターに電源が接続される

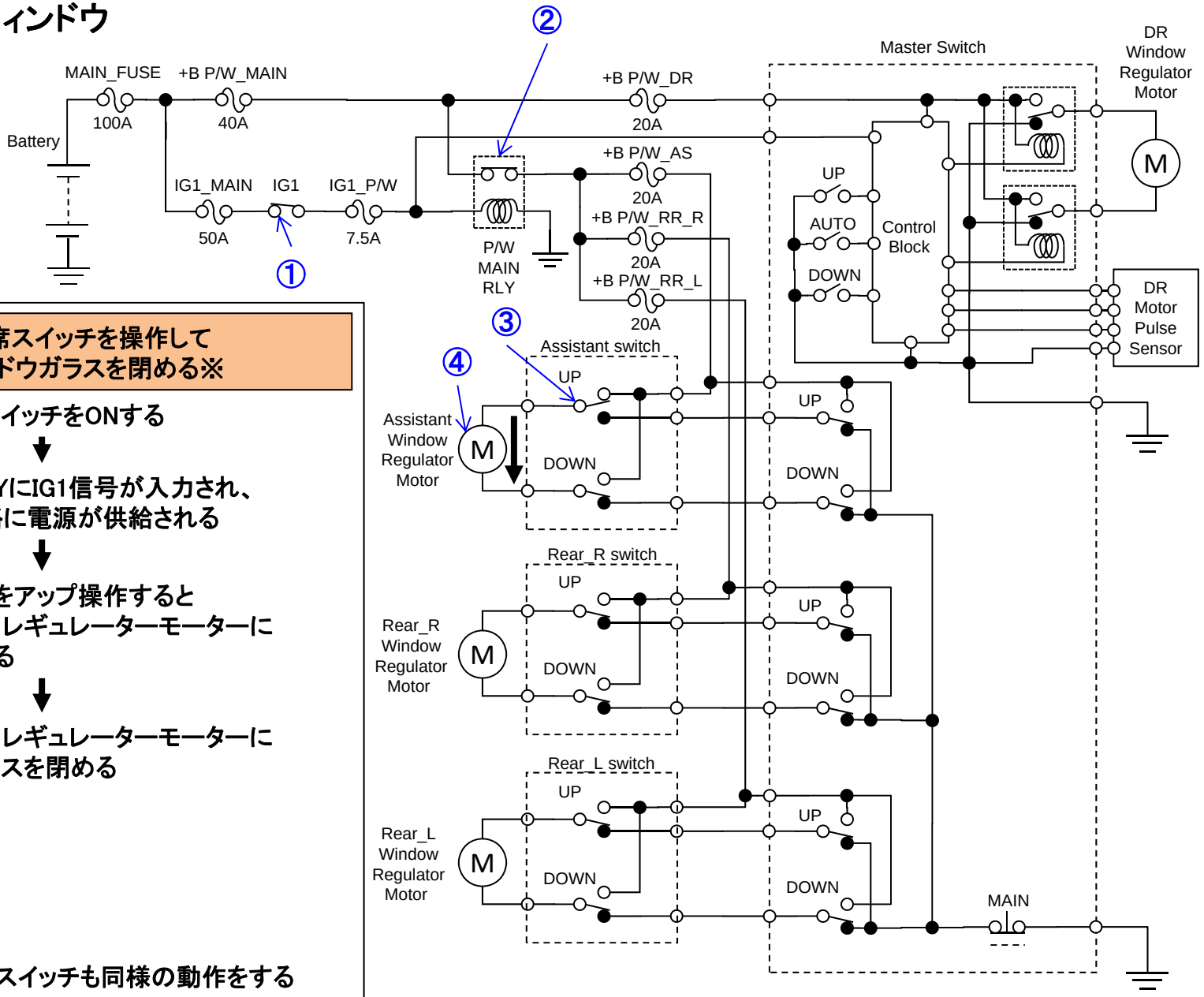
↓

④助手席ウィンドウレギュレーターモーターに電流が流れガラスを開ける

※ 後席右、後席左スイッチも同様の動作をする

HGT回答項目

機能名： パワーウィンドウ
機種名： CR-V



動作：助手席スイッチを操作して
助手席ウィンドウガラスを閉める※

①IG1スイッチをONする

↓

②P/W MAIN RLYにIG1信号が入力され、
助手席用回路に電源が供給される

↓

③助手席スイッチをアップ操作すると
助手席ウィンドウレギュレーターモーターに
電源が接続される

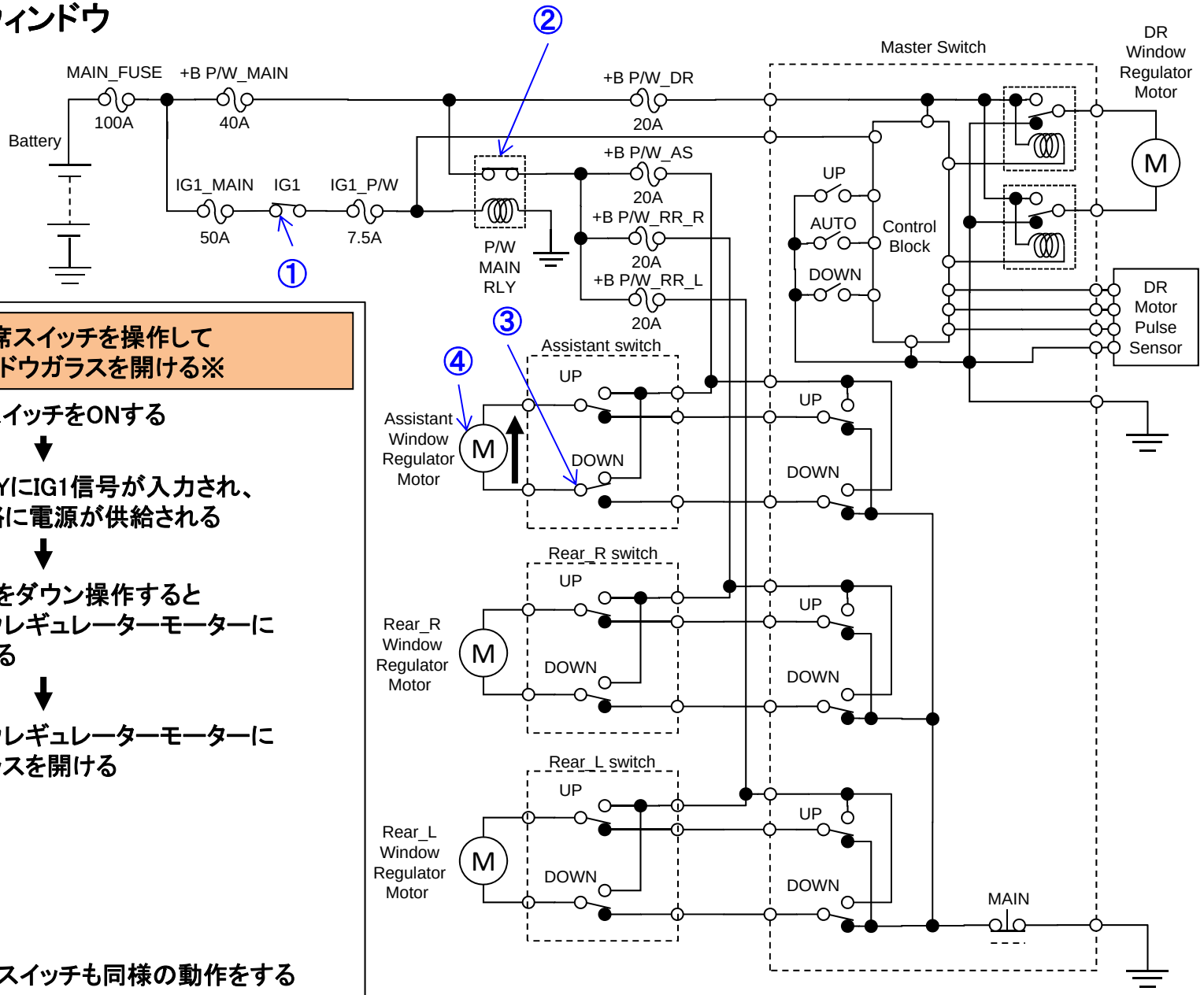
↓

④助手席ウィンドウレギュレーターモーターに
電流が流れガラスを閉める

※ 後席右、後席左スイッチも同様の動作をする

HGT回答項目

機能名： パワーウィンドウ
機種名： CR-V



動作：助手席スイッチを操作して
助手席ウィンドウガラスを開ける※

①IG1スイッチをONする

↓

②P/W MAIN RLYにIG1信号が入力され、
助手席用回路に電源が供給される

↓

③助手席スイッチをダウン操作すると
助手席ウィンドウレギュレーターモーターに
電源が接続される

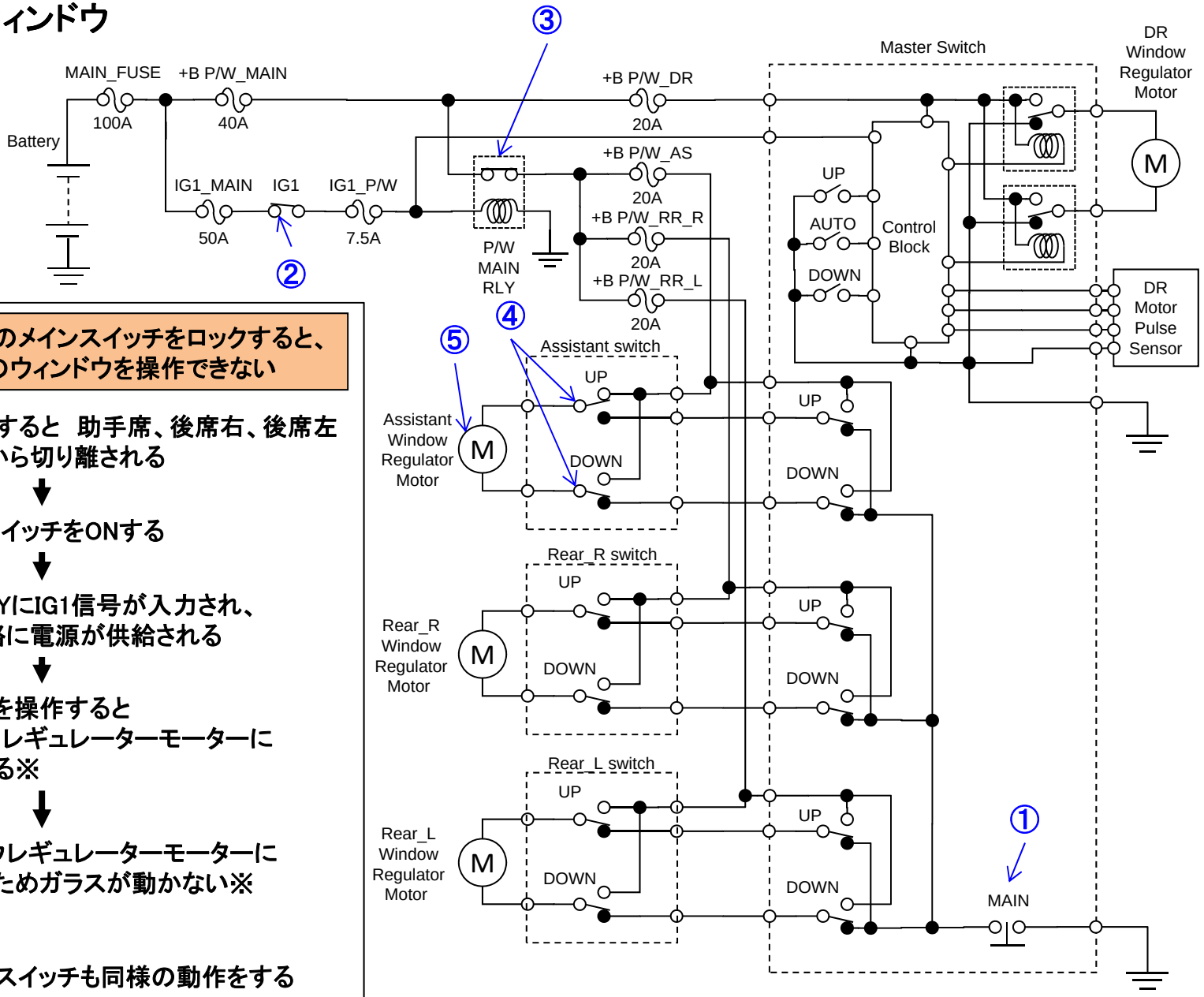
↓

④助手席ウィンドウレギュレーターモーターに
電流が流れガラスを開ける

※ 後席右、後席左スイッチも同様の動作をする

HGT回答項目

機能名： パワーウィンドウ
機種名： CR-V



動作：マスタースイッチのメインスイッチをロックすると、運転席以外の席のウィンドウを操作できない

①メインスイッチをロックすると 助手席、後席右、後席左の各回路がグランドから切り離される

↓

②IG1スイッチをONする

↓

③P/W MAIN RLYにIG1信号が入力され、助手席用回路に電源が供給される

↓

④助手席スイッチを操作すると 助手席ウィンドウレギュレーターモーターに電源が接続される※

↓

⑤助手席ウィンドウレギュレーターモーターに電流が流れないためガラスが動かない※

※ 後席右、後席左スイッチも同様の動作をする

EA11-004

HONDA

4/27/2012

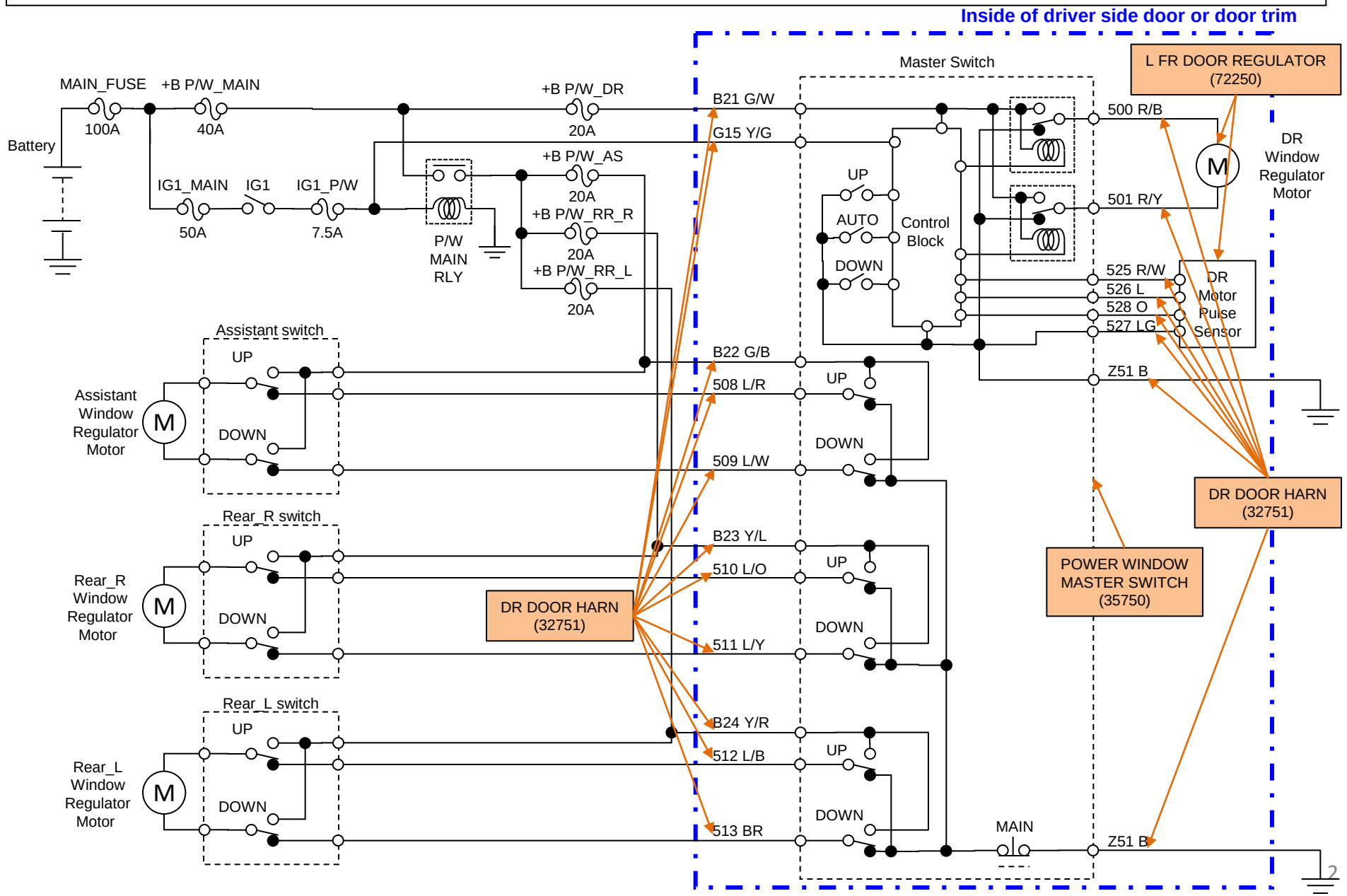
Q9

PW (Wiring diagram)_120328

Power Window System
Wiring Diagram

HGT's response

③ Identify all electrical circuits within the driver's door or the door trim panel that are supplied with battery power.
Provide electrical wiring diagrams or schematics that identify all of the electrical circuits by circuit number, wire color, and components.



HGT’s response

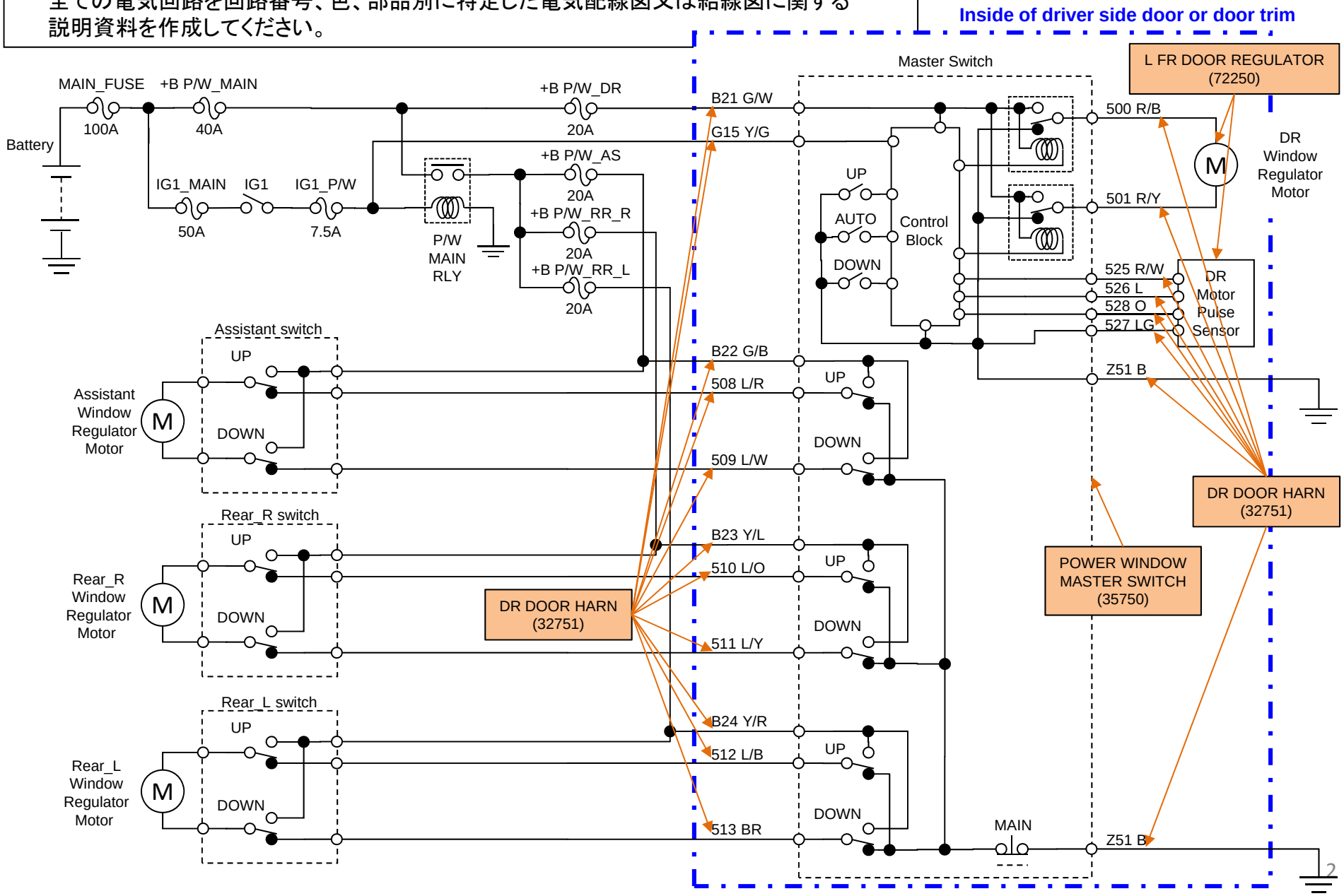
Additional information: Circuit numbers and wire colors

Circuit number	Wire color	
	Abbreviation	Description
B21	G/W	Green / White
G15	Y/G	Yellow / Green
500	R/B	Red / Black
501	R/Y	Red / Yellow
525	R/W	Red / White
526	L	Blue
528	O	Orange
527	LG	Light Green
Z51	B	Black
B22	G/B	Green / Black
508	L/R	Blue / Red
509	L/W	Blue / White
B23	Y/L	Yellow / Blue
510	L/O	Blue / Orange
511	L/Y	Blue / Yellow
B24	Y/R	Yellow / Red
512	L/B	Blue / Black
513	BR	Brown
Z51	B	Black

パワーウィンドウシステム配線図

HGT回答項目

③パワーウインドウシステムにおいてバッテリ電力搭載の運転席側ドア又はドアトリムパネル内の全ての電気回路を回路番号、色、部品別に特定した電気配線図又は結線図に関する説明資料を作成してください。



HGT回答項目

回答③の補足 ： 回路番号と色

回路番号	色	
	略号	説明
B21	G/W	Green / White
G15	Y/G	Yellow / Green
500	R/B	Red / Black
501	R/Y	Red / Yellow
525	R/W	Red / White
526	L	Blue
528	O	Orange
527	LG	Light Green
Z51	B	Black
B22	G/B	Green / Black
508	L/R	Blue / Red
509	L/W	Blue / White
B23	Y/L	Yellow / Blue
510	L/O	Blue / Orange
511	L/Y	Blue / Yellow
B24	Y/R	Yellow / Red
512	L/B	Blue / Black
513	BR	Brown
Z51	B	Black

EA11-004

HONDA

4/27/2012

Q11

120126_SHSRD78536U444819 _Material analysis report

Date of entry: Jan. 26. 2012

Group Investigation and Analysis report

Material & Precise Measurement Section, Electrical System, Material and Precise Measurement BL, Auto Quality Analysis Office

Approved Control No.		1201025		Approved	Confirmed	Prepared
QIS/QIC No.		-	Information source/ other	2012.1.26 高島	2012.1.26	笹井
Y/M	2006	Model Name CR-V	Severity: B			
Group use		06M CR-V (USA) Analysis of attached substances on power window master switch				

Subject Melting of Driver's Power Window Master Switch

Defective Vehicle Information

Part Name : SWITCH ASSY. POWER WINDOW MASTER
Part No:

Type :
Frame No: SHSRD78536U444819

Registration Date: 08/21/2006
Production date: 07/19/2006

Occurrence Date: 11/20/2011
Mileage : 114206mile

Returned Part:
Country : USA

Symptom Code:
Mission No:

Note: Melting was confirmed at the joint of power window master switch and wire harness

Object Check the presence of suger (drinkable water) in the attached substances on the power window master switch.

Conclusion

Sugar (Sucrose) was confirmed on the defective power window master switch.

Necessity of Continuance of analysis: No

Measurement/Testing Method

Measurement/Test date: From Jan.18. 2012 to Jan. 26. 2012

Measurement/Test Location: Inspecting room

Tester : Masaaki Sasai

Measurement/Test part Name: SWITCH ASSY, POWER WINDOW MASTER

Measurement/Test part No:

Measuring instrument/ Test vehicle: Digital Microscope (VHX-600, Keyence), LC-MS (T100LC, JEOL), Capillary Electrophoresis Measuring System (CAPI-3300, Otsuka Electronics), Scanning Electron Microscope (JSM-7000F, JEOL)

Measurement/Test method : Peak detection of Sucrose component by LC/MS

Judgemental Standard: Presence of Sucrose component in the attached substance

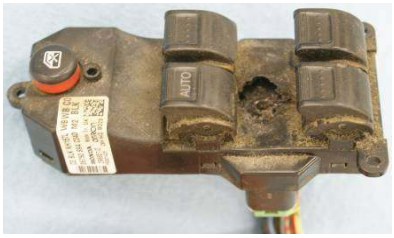
* Supporting document: Attached

Control No.	1201025

Measurement/ Test Results

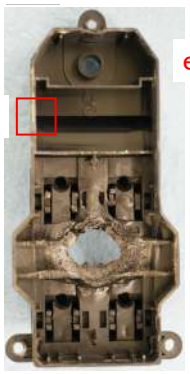
1. Appearance Observation

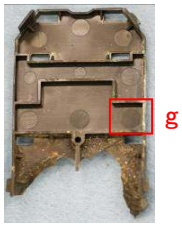
Defective Power Window Master Switch



TOP side

Under side



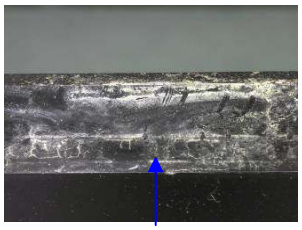


Enlarged view of area a

Enlarged view of area b

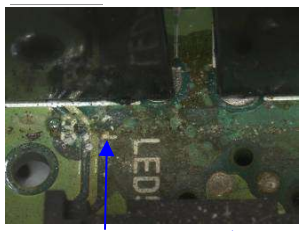
Attached substances confirmed on the top side of the case

Enlarged view of area c



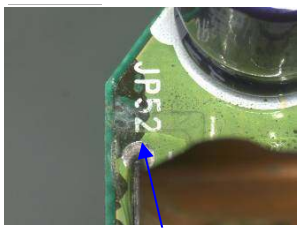
Attached substances confirmed on the side inside the upper case

Enlarged view of area d



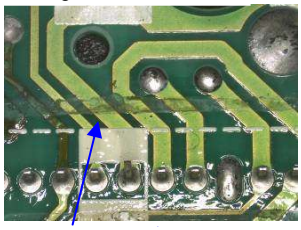
Attached substances confirmed on the rib contact area on the PCB

Enlarged view of area e



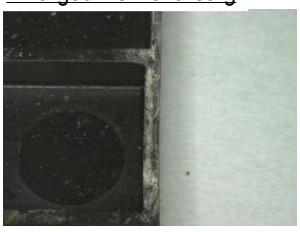
Attached substances confirmed on the rib contact area on the PCB

Enlarged view of area f



Attached substances confirmed on the rib contact area under the PCB

Enlarged view of area g



Attached substances confirmed inside the under case

2. Analysis result of attached elements

Collect an attached substance, attach it on the carbon tape, them measure with the SEM/EDX. Measure 3 collected samples for each area.

Analysis result of attached elements (SEM/EDX) Mass Concentration (%)

Collected Area	n=3	C	O	Na	Mg	Al	Si	P	S	Cl	K	Ca	Fe	Cu	Zn	Sn	Pb
Deposit on the outer surface of the top case (Area a)	1	47.7	29.6	0.9	0.8	0.9	3.2	0.8	0.8	5.9	1.0	5.9	0.5	0.3	0.6	–	1.2
	2	41.4	25.2	1.0	0.9	1.1	2.9	0.4	0.4	12.8	1.8	7.7	2.7	0.1	–	–	1.9
	3	49.4	25.8	0.7	0.5	0.4	1.3	0.6	0.8	8.8	1.2	7.0	0.8	0.2	0.2	0.5	1.7
Deposit on the outer surface of the top case (Area b)	1	34.3	36.9	1.0	0.4	0.7	15.2	0.3	0.5	4.4	1.3	1.8	0.9	0.2	1.0	–	1.0
	2	47.1	29.5	1.6	0.5	0.5	1.3	0.6	1.1	6.6	2.2	5.0	0.3	0.3	1.8	0.1	1.4
	3	44.9	28.5	1.6	0.9	0.8	2.5	0.4	0.7	7.0	2.7	4.2	1.5	0.3	1.5	0.9	1.7
Substance attached on the side of inner surface of the top case (Area c)	1	13.9	28.0	3.6	0.8	0.4	0.5	0.2	0.6	7.6	3.0	1.2	–	6.6	–	32.4	1.4
	2	13.8	26.6	2.9	0.6	0.4	0.3	0.1	0.8	5.7	3.0	1.2	0.2	5.1	0.4	37.8	1.3
	3	13.7	23.9	3.0	1.1	0.5	1.1	0.1	0.7	8.7	3.8	1.8	0.2	5.9	0.2	33.9	1.6
Attached substance on the PCB (Area d)	1	41.4	29.8	7.8	0.4	0.4	0.1	0.3	1.2	1.3	3.9	1.4	0.1	10.0	1.0	–	1.0
	2	34.4	28.2	3.8	0.6	0.9	0.8	0.7	1.3	2.5	7.4	10.3	0.1	6.7	–	1.3	0.9
	3	34.9	26.9	4.8	0.5	0.7	0.2	0.8	0.4	3.0	7.6	5.4	0.2	7.4	0.9	4.1	2.3
Attached substance on the PCB (Area e)	1	24.1	25.7	3.1	1.1	0.4	0.3	0.3	0.6	5.2	1.7	1.7	0.1	32.2	1.9	0.1	1.5
	2	33.0	24.8	1.8	1.0	0.2	0.2	0.2	0.5	3.8	1.2	1.4	0.2	29.3	1.2	–	1.3
	3	55.2	24.6	0.1	4.8	0.2	6.8	0.1	0.1	1.1	0.3	0.8	0.2	4.7	0.1	0.2	0.7
Attached substance under the PCB (Area f)	1	16.2	22.0	–	0.2	–	0.1	0.2	3.0	12.0	0.1	3.3	0.3	38.5	1.5	0.4	2.7
	2	17.0	22.8	–	–	0.2	0.1	0.2	2.8	10.7	0.1	2.9	–	39.3	1.8	–	2.6
	3	18.9	23.2	–	0.1	0.1	0.2	0.4	1.2	13.2	–	0.9	0.1	38.6	1.7	–	2.4
Attached substance inside the under case (Area g)	1	16.2	27.6	3.7	0.6	0.3	0.4	0.3	0.8	4.5	2.4	0.2	–	10.7	0.7	28.4	3.4
	2	16.3	27.5	3.0	0.3	0.4	0.3	–	0.6	3.2	2.1	0.6	–	13.8	0.9	27.7	3.8
	3	10.8	24.3	3.9	0.5	0.5	0.3	0.2	0.8	5.5	3.0	0.5	0.4	12.2	0.6	31.2	5.2

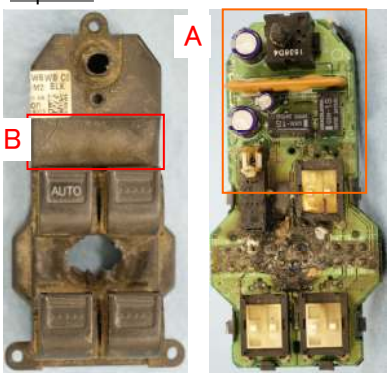
Elements listed above are confirmed in the attached substances collected from each area of the power window master switch.

Measurement/ Test Results

3. Analysis results of attached Ions

Defective Power Window Master Switch

Top side



Under side

Measuring Method

- Extract samples from edges of the PCB (area A) and outer surface of the case (area B) with 400uL ultrapure water.
- Filter the extracted liquid and measure with the Capillary Electrophoresis Measuring System.

Analysis results of attached ions (CE)

【ppm】

Extracted area	Cl	NO_3	SO_4	Formic Acid	Acetic Acid	Lactic Acid	Propionic Acid	NH_4	K	Ca	Na	Mg	Zn
Edges of PCB (Area A)	24.9	0.3	7.5	4.3	7.7	0.1	4.7	0.9	31.0	3.7	14.2	2.8	0.1
Outer surface of the case (Area B)	169.9	2.4	194.6	2.7	44.4	–	21.3	–	377.9	32.8	47.9	37.0	0.7

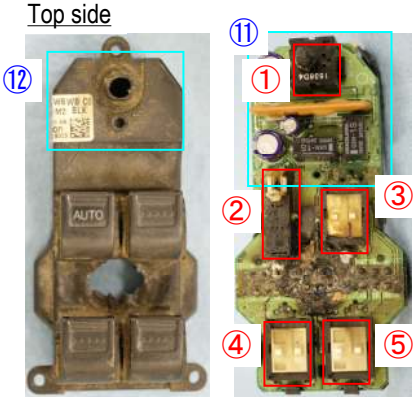
Ions listed above are confirmed on the PCB and outer surface of the case.

Measurement/ Test Results

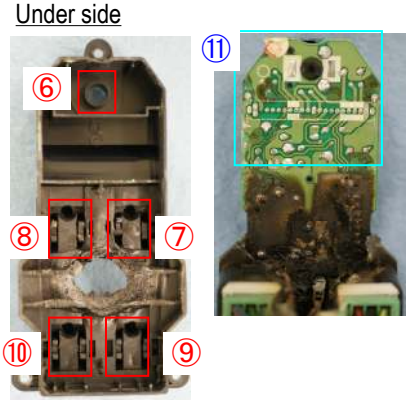
4. Presence of sugar in the attached substances

Defective Power Window Master Switch

Top side



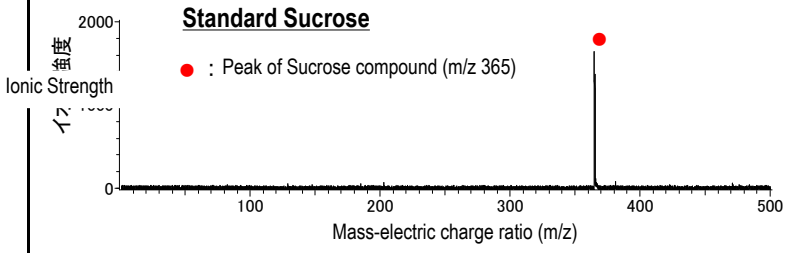
Under side

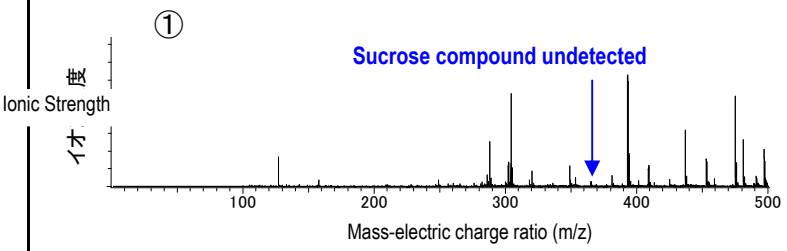


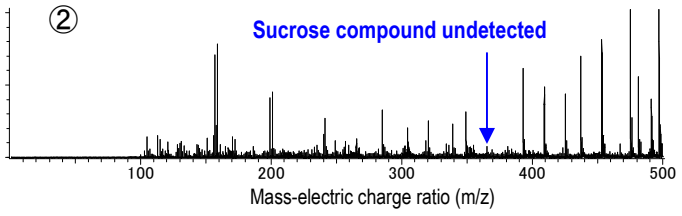
Defective Power Window Master Switch

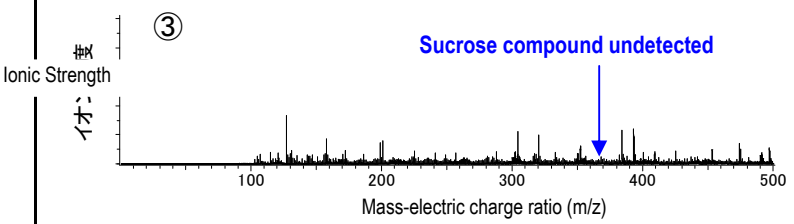
- Wipe surfaces of ① through ⑤ of the PCB SW, ⑥ of the case, and ⑫ with a 1x1cm cloth soaked in 90% methanol. and extract by 2mL 90% methanol, then filter.
- Extract ⑦ through ⑩ of inner case and ⑪ of the PCB by pouring 2ml 90% methanol, then filter the extracted liquid.
- Concentrate each extracted liquid for one night (15hrs) and let methanol evaporate .
- Measure this liquid with LC/MS and check a peak of Sucrose compound (m/z 365).

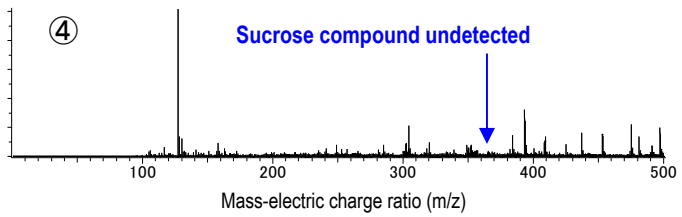
Analysis Results of Extracted liquid mass(LC/MS)

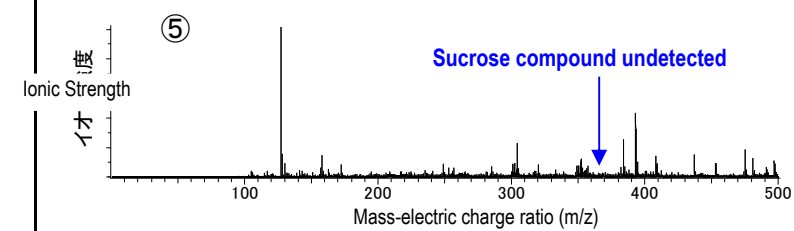


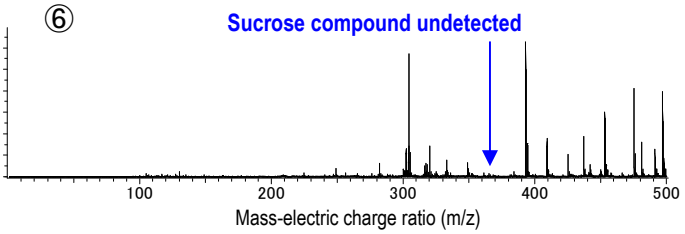












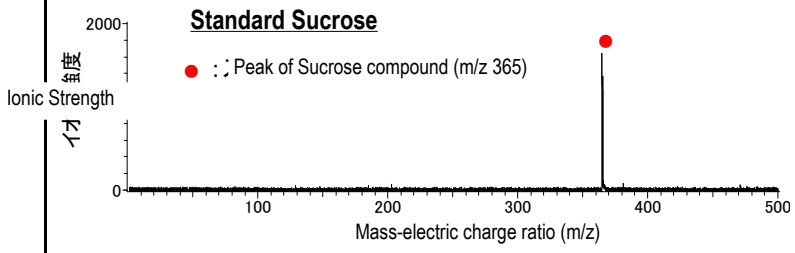
〔Appendix〕

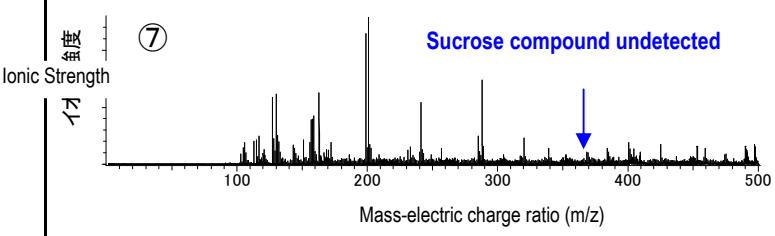
Control No.	1201025

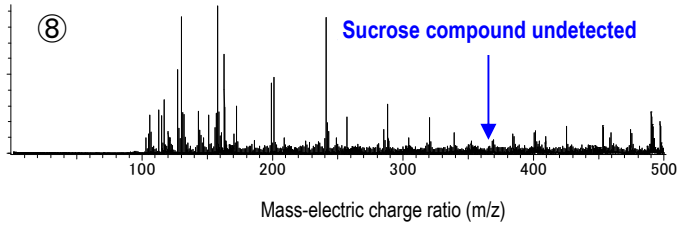
Measurement/ Test Results

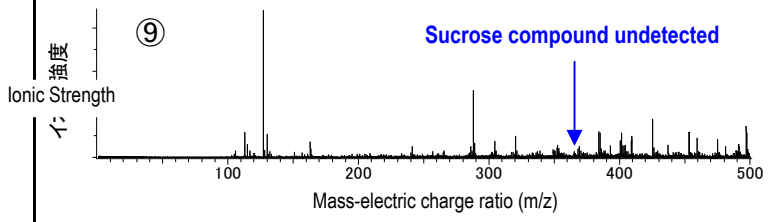
Measure the extracted liquid with LC/MS and check a peak of Sucrose compound.

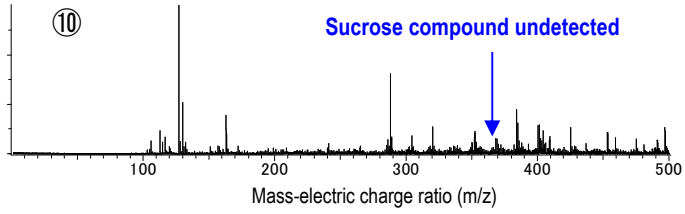
Analysis Results of Extracted liquid mass(LC/MS)

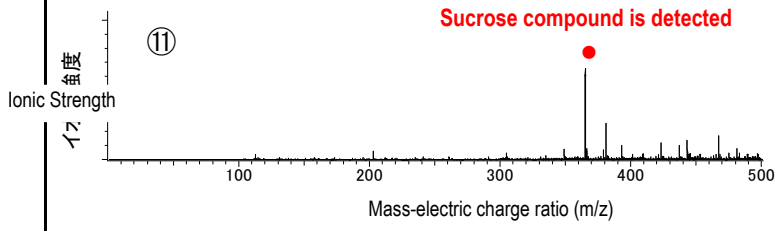


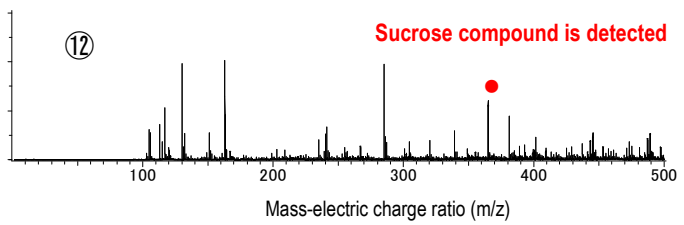












Sugar (Sucrose) was detected in some parts of power window switch. (Area 11 and 12)

起票日:2012年01月26日

グループ「調査解析報告書」

合同解析室 電装・材料・精測 BL 材料精密測定 Gr

承認管理No.		1201025			承認	確認	担当
QIS/QIC No.		-		情報元 その他	2012.1.26 高島	2012.1.26 笹井	笹井
Y/M	2006	シリーズ名	CR-V	重要度 B			
Gr使用欄		06M CR-V(USA) パワーウィンドウマスタースイッチ付着物解析					

〔件 名〕 運転席PWマスタSW溶損

〔不具合車情報〕

部品名	: SWITCH ASSY. POWER WINDOW MASTER	部番	:
型式	:	フレームNo.	: SHSRD78536U444819
登録年月日	: 2006/08/21	製造年月日	: 2006/07/19
発生年月日	: 2011/11/20	走行距離	: 114206mile
返却品	:	国名	: USA
症状コード	:	ミッションNo.	:

〔備 考〕 パワーウィンドウマスタースイッチとワイヤーハーネスの接合部が溶損していた。

〔目 的〕 パワーウィンドウマスタースイッチの糖分(飲料水等)付着有無を確認する。

〔結 論〕

パワーウィンドウマスタースイッチ事象品より、糖分(スクロース成分)が検出された。

★現品の継続解析の要否 否

〔測定・テスト方法〕

測定・テスト年月日 : 2012年 1月 18日 ～ 2012年 1月 26日

測定・テスト場所 : 材料検査室

担当者 : 笹井 将明

測定・テスト部品 : SWITCH ASSY. POWER WINDOW MASTER

測定・テスト部番 :

測定機・テスト車両 : ﾃﾞｼﾞﾀﾙﾏｲｸﾛｽｺｰﾌﾟ(VHX-600 ｷｰｴﾝｽ製)、LC-MS(T100LC JEOL製)

ｷｬﾋﾟﾗﾘｰ電気泳動装置(CAPI-3300 大塚電子製)、走査型電子顕微鏡(JSM-7000F JEOL製)

測定・テスト方法 : LC/MSによるスクロース成分ピークの検出

判断基準 : スクロース成分の付着有無

※別紙添付資料 有り

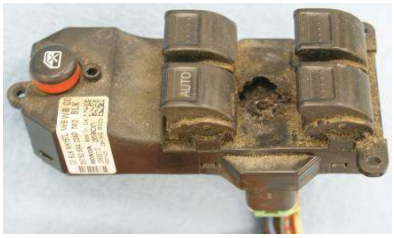
〔添付資料〕

管理No.	1201025

〔測定・テスト結果〕

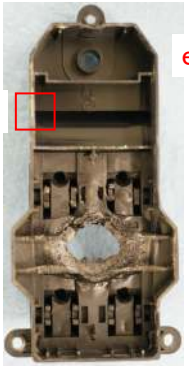
1. 外観観察結果

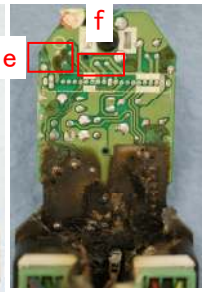
パワーウィンドウマスター
スイッチ事象品

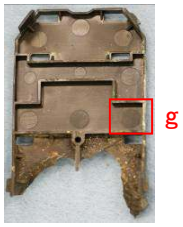


上側

下側



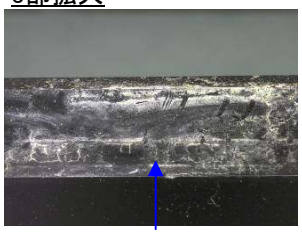




a部拡大

b部拡大

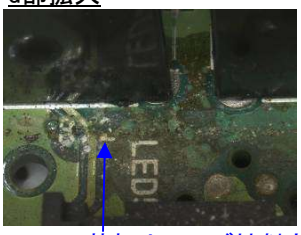
c部拡大



ケース上面に付着物を確認

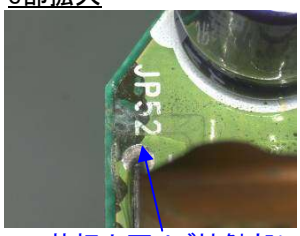
上ケース内側側面に付着物を確認

d部拡大



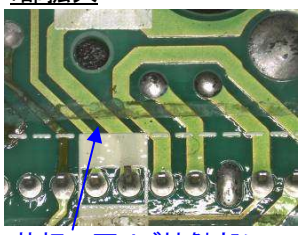
基板上面リブ接触部に
付着物を確認

e部拡大



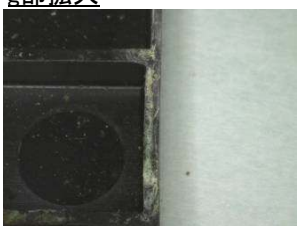
基板上面リブ接触部に
付着物を確認

f部拡大



基板下面リブ接触部に
付着物を確認

g部拡大



下ケース内面に付着物を確認

2. 付着物元素分析結果

付着物を採取し、カーボンテープに張り付け、SEM/EDXにて測定。各箇所付着物をそれぞれ3点ずつ測定。

付着物元素分析結果（SEM/EDX）　　質量濃度【%】

付着物採取箇所	n=3	C	O	Na	Mg	Al	Si	P	S	Cl	K	Ca	Fe	Cu	Zn	Sn	Pb
上ケース外側表面堆積物（a部）	1	47.7	29.6	0.9	0.8	0.9	3.2	0.8	0.8	5.9	1.0	5.9	0.5	0.3	0.6	–	1.2
	2	41.4	25.2	1.0	0.9	1.1	2.9	0.4	0.4	12.8	1.8	7.7	2.7	0.1	–	–	1.9
	3	49.4	25.8	0.7	0.5	0.4	1.3	0.6	0.8	8.8	1.2	7.0	0.8	0.2	0.2	0.5	1.7
上ケース外側表面堆積物（b部）	1	34.3	36.9	1.0	0.4	0.7	15.2	0.3	0.5	4.4	1.3	1.8	0.9	0.2	1.0	–	1.0
	2	47.1	29.5	1.6	0.5	0.5	1.3	0.6	1.1	6.6	2.2	5.0	0.3	0.3	1.8	0.1	1.4
	3	44.9	28.5	1.6	0.9	0.8	2.5	0.4	0.7	7.0	2.7	4.2	1.5	0.3	1.5	0.9	1.7
上ケース内側側面付着物（c部）	1	13.9	28.0	3.6	0.8	0.4	0.5	0.2	0.6	7.6	3.0	1.2	–	6.6	–	32.4	1.4
	2	13.8	26.6	2.9	0.6	0.4	0.3	0.1	0.8	5.7	3.0	1.2	0.2	5.1	0.4	37.8	1.3
	3	13.7	23.9	3.0	1.1	0.5	1.1	0.1	0.7	8.7	3.8	1.8	0.2	5.9	0.2	33.9	1.6
基板上面付着物（d部）	1	41.4	29.8	7.8	0.4	0.4	0.1	0.3	1.2	1.3	3.9	1.4	0.1	10.0	1.0	–	1.0
	2	34.4	28.2	3.8	0.6	0.9	0.8	0.7	1.3	2.5	7.4	10.3	0.1	6.7	–	1.3	0.9
	3	34.9	26.9	4.8	0.5	0.7	0.2	0.8	0.4	3.0	7.6	5.4	0.2	7.4	0.9	4.1	2.3
基板上面付着物（e部）	1	24.1	25.7	3.1	1.1	0.4	0.3	0.3	0.6	5.2	1.7	1.7	0.1	32.2	1.9	0.1	1.5
	2	33.0	24.8	1.8	1.0	0.2	0.2	0.2	0.5	3.8	1.2	1.4	0.2	29.3	1.2	–	1.3
	3	55.2	24.6	0.1	4.8	0.2	6.8	0.1	0.1	1.1	0.3	0.8	0.2	4.7	0.1	0.2	0.7
基板下面付着物（f部）	1	16.2	22.0	–	0.2	–	0.1	0.2	3.0	12.0	0.1	3.3	0.3	38.5	1.5	0.4	2.7
	2	17.0	22.8	–	–	0.2	0.1	0.2	2.8	10.7	0.1	2.9	–	39.3	1.8	–	2.6
	3	18.9	23.2	–	0.1	0.1	0.2	0.4	1.2	13.2	–	0.9	0.1	38.6	1.7	–	2.4
下ケース内側付着物（g部）	1	16.2	27.6	3.7	0.6	0.3	0.4	0.3	0.8	4.5	2.4	0.2	–	10.7	0.7	28.4	3.4
	2	16.3	27.5	3.0	0.3	0.4	0.3	–	0.6	3.2	2.1	0.6	–	13.8	0.9	27.7	3.8
	3	10.8	24.3	3.9	0.5	0.5	0.3	0.2	0.8	5.5	3.0	0.5	0.4	12.2	0.6	31.2	5.2

パワーウィンドウマススイッチ各箇所付着物より、上記の元素を検出した。

〔添付資料〕

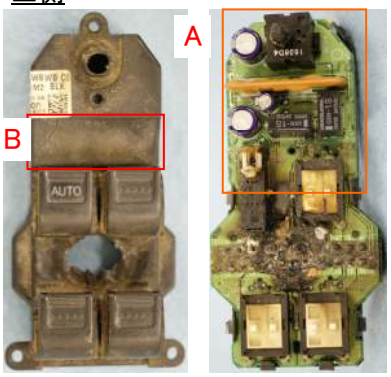
管理No.	1201025

〔測定・テスト結果〕

3. 付着イオン分析結果

パワーウィンドウマスタースイッチ事象品

上側



下側

測定方法

・基板エッジ部（A部付近）及びケース外側表面（B部）を400μLの超純水で抽出。
・抽出液を濾過し、キャピラリー電気泳動にて測定。

付着イオン分析結果（CE）　【ppm】

抽出箇所	Cl	NO_3	SO_4	ギ酸	酢酸	乳酸	プロピオン酸	NH_4	K	Ca	Na	Mg	Zn
基板エッジ部（A部）	24.9	0.3	7.5	4.3	7.7	0.1	4.7	0.9	31.0	3.7	14.2	2.8	0.1
ケース外側表面（B部）	169.9	2.4	194.6	2.7	44.4	−	21.3	−	377.9	32.8	47.9	37.0	0.7

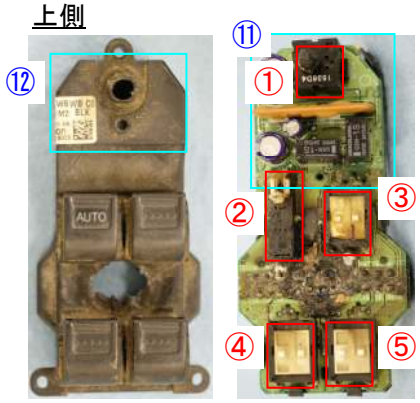
基板及びケース外側表面より上記のイオンが検出された。

〔測定・テスト結果〕

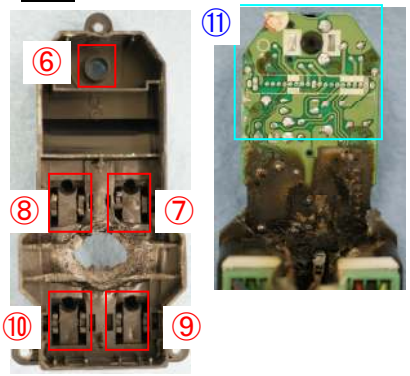
4．糖分付着有無確認結果

パワーウィンドウマススタースイッチ事象品

上側



下側

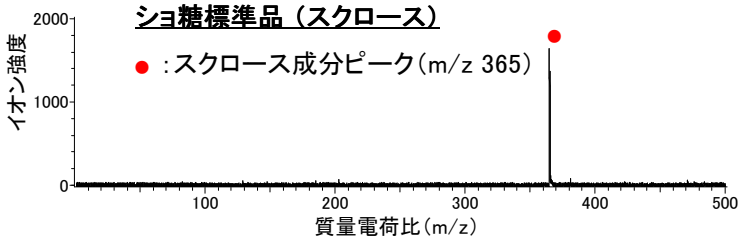


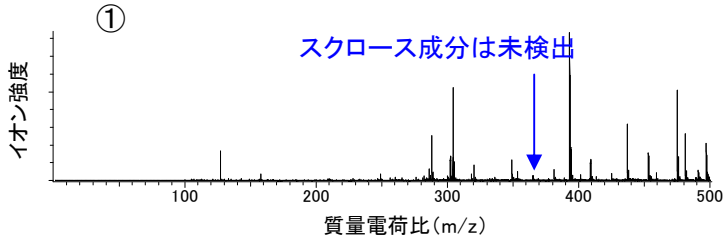
測定方法

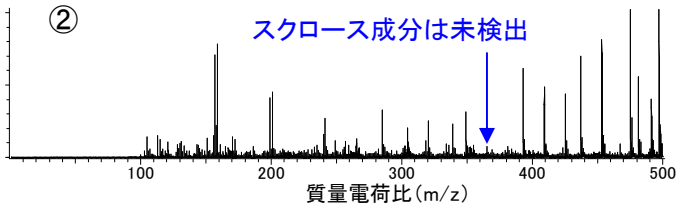
・基板SW部①～⑤及びケース⑥、⑫部は表面を90%メタノールを染み込ませた布（1×1cm）で拭き取り、拭き取った布を90%メタノール2mLで抽出・濾過。
・ケース内側SW部⑦～⑩部及び基板⑪部は90%メタノール2mLを掛け流す様に抽出、抽出液を濾過。
・各抽出液を、一晩（15h程度）濃縮しメタノール分を蒸発させ、水分のみとする。
・この溶液をLC/MSにて測定し、スクロース成分ピーク（m/z 365）の有無を確認した。

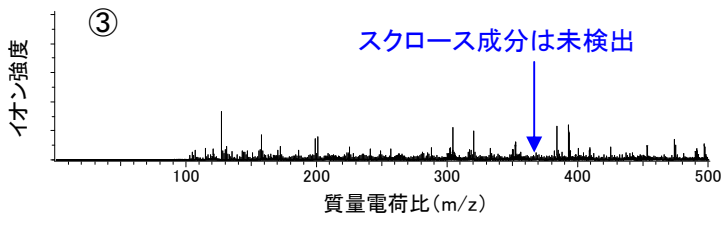
抽出液質量分析結果（LC/MS）

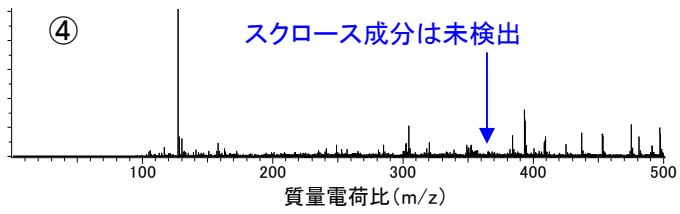
ショ糖標準品（スクロース）

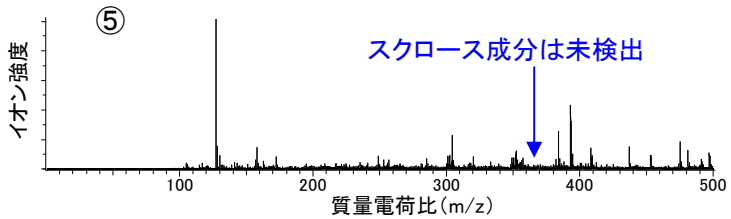


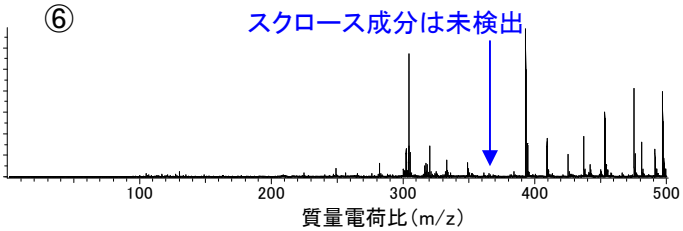












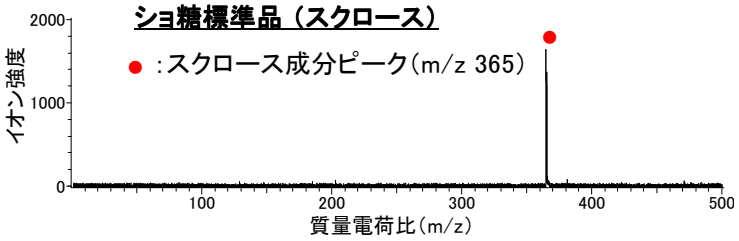
〔添付資料〕

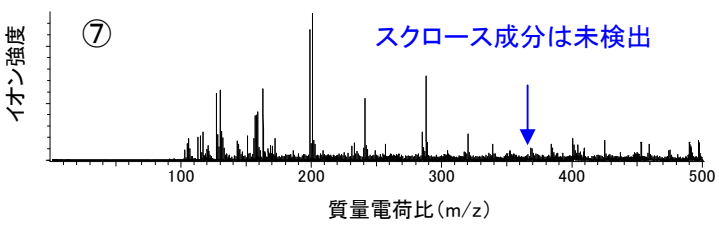
管理No.	1201025

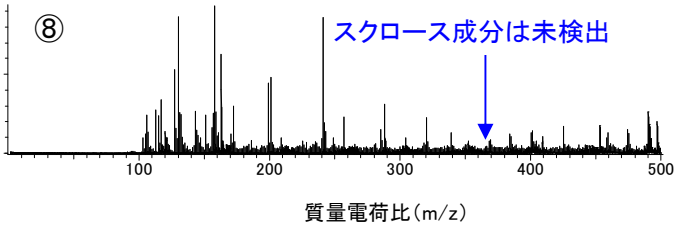
〔測定・テスト結果〕

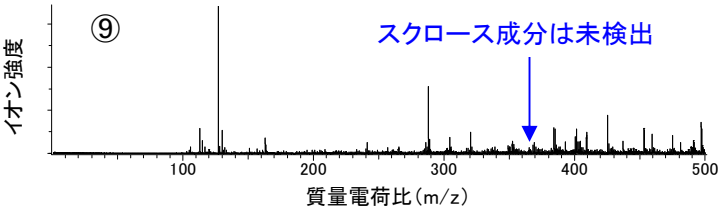
パワーウィンドウスイッチ各箇所抽出液をLC/MSにて測定し、スクロース成分ピークの有無を確認した。

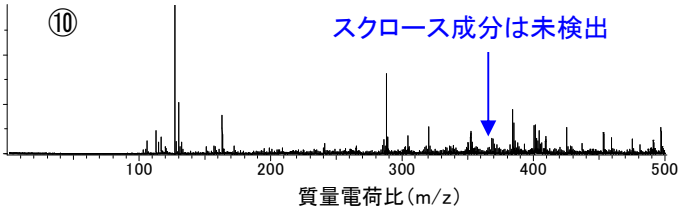
抽出液質量分析結果（LC/MS）

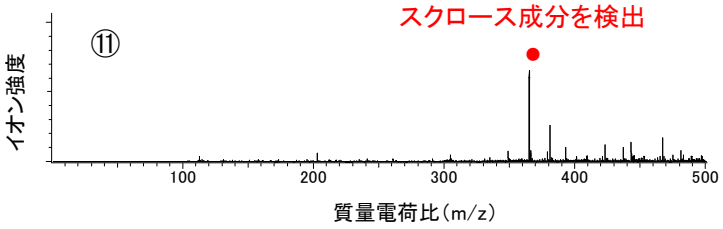


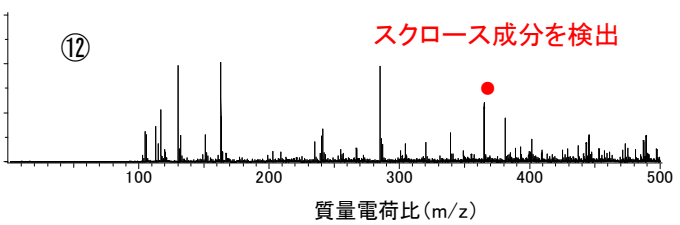












パワーウィンドウマススイッチ各箇所（⑪、⑫部）より、糖分（スクロース）を検出した。

EA11-004

HONDA

4/27/2012

Q11

120206_SHSRD78536U444819_Analysis request

Market Quality Information (Analysis, C/M Request)

Control No:
Issuance Date: February 6, 2012

Address to	Receipt	Severity	Issued by
殿経由 To whom in charge of Quality Assurance Dept. OMRON Automotive Electronics Co. Ltd.	/ 2/6 塚田	A	Honda Motor Co., Ltd Auto Quality Analysis Office Auto Quality Innovation Div.

Type/YM/Name	Subject	Approved	Confirmed	Prepared
RD7/2006 CR-V	Melting of Power Window Master Switch	有富	工藤	松林

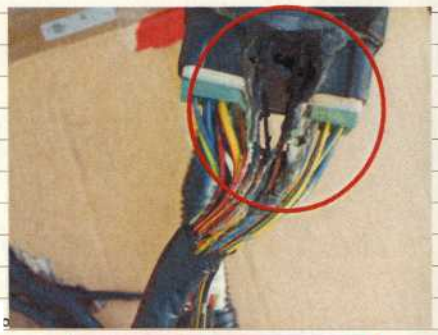
Problem Symptoms

- Power Window Master Switch does not function properly, or does not function.
- Melting of connectors of Power Window Master Switch and Driver Door Wire Harness was confirmed.

Preliminary Analysis Result/Requesting items

《Preliminary Analysis Result》

① Melting of switch connectors was confirmed.
② Confirmed the evidence of liquid within the PCB.
③ Sugar was confirmed as results of componential analysis.
④ Since the SW was damaged by heat, actual vehicle check has not been done.
(On February 6, 2012, The vehicle was checked in the attendance of Tsukada from Quality Assurance Division.)



Melting at connectors

《C/M request》

① Please conduct a analysis on this matter, and provide us with the results including the following items.
- Direct cause and Occurrence mechanism which resulted in the defect and its C/M.
- Similar problem symptoms in the past and whether or not related to this problem.
- Production record and inspection record of the defective part.
- Future occurrence prediction and recurrence prevention C/M

We will request above information to OMRON Automotive Electronics Co. Ltd., the supplier of the SW.

Type of Mission	AT
VIN No.	SHSRD78536U444819
ENGINE No.	-
MISSION No.	-
PART NAME	SWITCH ASSY, POWER WINDOW MASTER
PART NO	35750S-9A-C04ZA
PRODUCTION DATE	July 19, 2006
REGISTRATION DATE	August 21, 2006
OCCURRENCE DATE	Nov. 28, 2011
MILEAGE	114,206Mile
OCC. COUNTRY	U.S.A
USAGE	☐ Commuter ☐ Leisure ☐ Business)
EQUIPMENT	REMODELING: N/A
OTHER INFO (Availability of actual part, attachment etc.)	

Response deadline	February 20, 2012
Response To	PIC: Katsuaki Matsumoto Electrical Analysis BL, Auto Quality Analysis Office, Auto Quality Innovation Div, Quality Innovation Center, Honda Motor Co., Ltd
Response document type	☑ Analysis report ☐ Other ( )
Contact adress	PIC: Katsuaki Matsumoto Electrical Analysis BL, Auto Quality Analysis Office, Auto Quality Innovation Div, Quality Innovation Center, Honda Motor Co., Ltd
Phone number	tel : 028-687-2104 fax : 028-687-2138 e-mail : Katsuaki_Matsumoto@hm.honda.co.jp

* In case of delay in response, please submit an interim report.
* Please attach all related documents to the report.
* Please implement the initial product control for the C/M part.

DATE	Responce Receiving Department	Confirmed	PIC
	Electrical Analysis BL, Auto Quality Analysis Office, Auto Quality Innovation Div, Quality Innovation Center, Honda Motor Co., Ltd		

01064

Retention period of original copy: March, 2022

市場品質情報〔解析・対策 依頼書〕

管理No.:

発行日: 2012年2月6日

宛先		受付	/	塚田
	オムロンオートモーティブエレクトロニクス株式会社 品質保証責任者 殿	受付	2/6	

殿経由

重要度: A

発行部門	本田技研工業株式会社
	四輪品質改革部 合同解析室

型式/YM・通称名	件名
RD7/2006 CR-V	パワーウィンドウ・マスタースイッチ溶損

承認	確認	作成
有富	工藤	松本

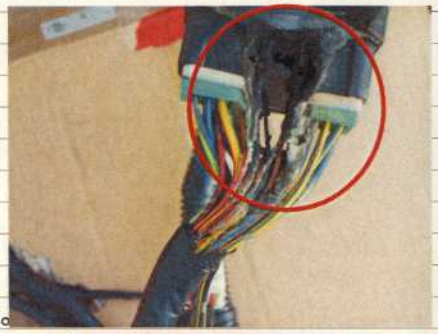
発生状況

・パワーウィンドウ・マスタースイッチが効き悪い、効かない。
・パワーウィンドウ・マスタースイッチとドライバードア・ワイヤーハーネスのコネクターが溶損していた。

一次解析結果／依頼事項

＜一次解析結果＞

① SWコネクタ部に溶融を確認。
② 基板内に液体浸入痕を確認。
③ 成分分析の結果、糖が検出された。
④ SWが溶損しているため、実車確認は未実施。
（2月6日に品質保証部：塚田氏立会いのもと確認）



コネクタ部の溶融

＜対策依頼事項＞

① 解析を行い、以下の項目を含め、結果をレポートにて報告願います。
・直接原因と不具合に至るまでの発生メカニズム及び対策
・過去類似事象との関連の有無
・不具合現品の生産履歴と検査履歴
・今後の発生予想及び再発防止策

以上を取引先〔オムロン（株）〕殿に依頼する。

ミッションタイプ	AT
VIN No.	SHSRD78536U444819
エンジン No.	-
ミッション No.	-
部品名	ｽｲｯﾁASSY.,ﾊﾟﾜｰｳｲﾝﾄﾞｳﾏｽﾀｰ
部品 No.	35750S-9A-C04ZA
製造日	2006年7月19日
登録日	2006年8月21日
不具合発生日	2011年11月28日
距離又は時間	114,206Mile
発生地区	U.S.A
用途	□通勤 □レジャー □商用（ ）
装備	改造：無
その他（現品の有無，添付資料 等）	

回答期限	2012年2月20日
回答宛先	本田技研工業㈱ 品質改革センター 四輪品質改革部 合同解析室 電装BL 松本
回答形式	☑解析レポート □その他（ ）
問合せ先	本田技研工業㈱ 品質改革センター 四輪品質改革部 合同解析室 電装BL 松本
電話番号等	tel：028-687-2104 fax：028-687-2138 e-mail：Katsuaki_Matsumoto@hm.honda.co.jp

＊回答が遅れる場合は、中間報告をお願いします。
＊回答時は必要関連資料も添付して下さい。
＊対策品は初物管理を実施して下さい。

月／日	回答受理部門名	確認	担当
/	本田技研工業㈱ 品質改革センター 四輪品質改革部 合同解析室 電装BL		

01064

原本保存期限： 2022年3月

EA11-004

HONDA

4/27/2012

Q11

120304_Analysis Report

Subject	Power Window Master Switch Heat Damage
Part #	35750-S9A-C040-M2 (Company type: C8H-H42-B2S-UK)
Part name	Power Window Master Switch

Analysis Record [Analysis Report]

OMRON Automotive Electronics Co. Ltd.

3/4/2012

Approved	Confirmed	Prepared
12. 3.4	12. 3.4	12. 3.4
田中	岡崎	五十君

Occurrence situation

(Symptoms, Alleged failure, the number of occurrence, C/M)

Control number: -

Part number: 35750-S9A-C040-M2
Type: RD7
FNo.: SHSRD78536U444819
Model: CR-V
Reg. Date: August 21, 2006
Occ. Date: November 28, 2011
Occ. place: market
Number of occurrence: 1 case
Mileage: 114,206Mile
Problem occurred:
The power window master switch does not function properly, or not function.
Melted connectors of the power window master switch and a
wire harness of the driver's door were found.
Omron plant: Plant in the U.K.
LOT of the returnd product: 2966E1 (Produced on June 29,
Receipt date of the returnd product: February 6, 2012

Confirmed Facts

(Parts check results, factor analysis, and the quality of product)

【1. Returned parts verification results】

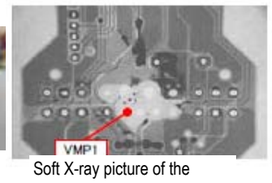
(1) Damaged part check

・Significant damage due to heat was confirmed around the VMP1
terminal as a results of returned condition and PCB condition check.
Loss of VMP1 and VBU terminals is also confirmed.


Full view of PCB (Component side)


Full view of PCB (Soldering sic

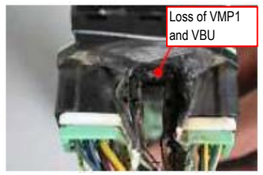
・Damage was confirmed around the VMP1 connector as a result of soft X-ray investigation of the PCB.
・Damage was confirmed on the PCB of VMP1, VBU, SVCC, PG1, IGN, and DR-terminals as a results of material observation performed after connector base removal.



Soft X-ray picture of the

Condition with connector base removed

Enlarged connector view of the component side



Enlarged connector view of the solderring side

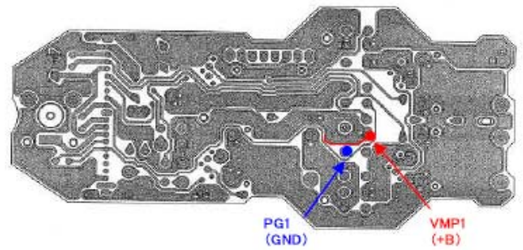
(2) Attachement analysis

・Discoloration and white abnormal substances are confirmed as a result of the PCB check.
・Electrolyte and soldering component are confirmed as a result of analysis of abnormal substances.
・Sucrose and glucose were confirmed from the case and PCB surface.

*Please refer to attached document 1 and other documents for condition and analysis results of the attachement.

【2. Outlook on occurrence cause of heat damage 】

・As a verification results of damaged parts, it was confirmed that heat generated from the PCB around the VMP1 terminal and stopped its progress when the VMP1 terminal which supplies power to the SW came off (melt).
・Heat cause is considered to be liquid which contains sucrose/glucose
and electrolyte from the evidence on the PCB and the analysis results.
It appeared to be that the liquid was attached around the pattern which connects to VMP1 terminal on the PCB, and leaked to adjacent GND terminal.



PG1 terminal (GND) was set near the pattern which is connected to the VMP terminal.
Pattern Gap: Approx. 0.5 mm

Route cause investigation (Occurrence mechanism, reproducibility test, Why-why analysis)

1. Assumed cause

Melting occurred around the VMP1 terminal may be caused by electrical short which led to heat generation. From the liquid mark confirmed on the returned part, it was considered that the short was occurred because of tracking(local heating) caused by the circuit with materials educed from the migration (metal transfer).

Please refer to page 2 in Attached doc 2.

2. Heat cause

From the liquid drop and continuous current flow to the defective part, we could reproduce the condition which is similar to the returned part when salt water was dropped onto the SW. (*Testing with a model similart to 35750-S5A)
Also, we confirmed that there is a possibility of melting when the pattern gap is within 1.5mm from the findings of the tests.

Please refer to page 3 to 5 in Attached doc 2.

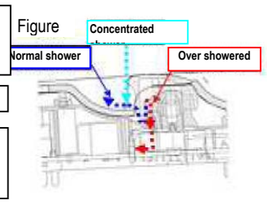
3. Occurrence Mechanism

From the investingation results above, the occurrence mechanism flow of heat damage was considered as shown on the right.
*Please see Pg 6 in Attached doc 2 for details.

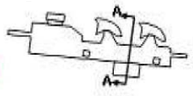
【Occurrence Mechanism】

PW is showered with considerable amount of liquid containing sacrose/glucose and electrolyte
↓
Liquid enters inside the SW from projected area of the case. (Figure 1)
↓
Liquid moves narrow space between PCB and rib and between PCB and terminal block. (Figure 2 and 3) ← Liquid accumulates to where +B pattern and GND land are closely set with the gap below 1.5mm
↓
Liquid accumulates between +B pattern and GND land, and migration occurs.
↓
Insulation resistance between +B pattern and GND land become poor and leak current flows to cause joule heat.
↓
Heat maintains/spreads to cause melting.
↓
When heat reaches 1,000°C, VMP1 terminal (copper), which supplies power to the SW, starts to melt.
↓
VMP1 terminal comes off of the PCB and unables power supply. (Heating stops and PW malfunction occurs)

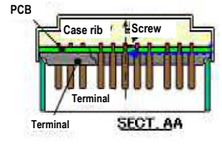
Figure



Figure



Figure



Step		1	2	3	4	5
Contents	Occurrence	Heating and melting from the PCB	Insulation resistance between +B pattern and GND land become poor, causing the leak current to flow.	Migration occurs due to accumulated liquid	・Liquid which moves narrow space between PCB and rib and between PCB and terminal block, and attaches to the area melted. ・Liquid accumulates to where +B pattern and GND land are closely set with the gap below 1.5mm	PW is showered with considerable amount of liquid containing sucrose/glucose and electrolyte. *Repeat 3 to 5
	Outflow					

Appropriate C/M (Detailed C/M, effect, PPA)

C/M effectiveness check (Actual record)

Feedback to Genryu (Reflection to the system and mechanism)

テーマ	パワーウインドウマスタースイッチ溶損
部　番	35750-S9A-C040-M2（当社型式：C8H-H42-BO2S-UK）
部品名	POWER WINDOW MASTER SWITCH

解析記録　〔 解　析　レ　ポ　ー　ト 〕

DU-N-1233017

報告　：　2012年3月4日

作成部門：取引先名　オムロンオートモーティブ エレクトロニクス株式会社　発行日：2012年3月4日

承認	審査	作成
12. 3.4	12. 3.4	12. 3.4
田中	岡崎	五十君

発生状況（現象・訴え内容・発生件数・処置内容）

- ・管理No.　：　-
- ・部番　：　35750-S9A-C040-M2
- ・型式　：　RD7
- ・フレームNo.　：　SHSRD78536U444819
- ・通称名　：　CR-V
- ・登録年月日　：　2006年8月21日
- ・発生年月日　：　2011年11月28日
- ・発生場所　：　市場
- ・発生件数　：　1件
- ・走行距離　：　114,206Mile
- ・発生時の状況　：

パワーウィンドウ・マスタースイッチが効きが悪い、効かない
パワーウィンドウ・マスタースイッチとドライバードア・ワイヤーハーネスのコネクタが溶損していた

- ・オムロン生産工場　：　オムロン イギリス工場
- ・返却品LOT　：　2966E1（2006年6月29日生産）
- ・返却品受領日　：　2012年2月6日

事実の把握（部品の確認結果・要因分析・生産品の品質状況）

1．返却現品の確認結果

(1) 損傷箇所の確認

・返却状態、基板の状態を確認した結果、VMP1端子周辺に発熱による著しい損傷が認められ、VMP1とVBU端子が欠落しておりました。


基板全景（部品面）


基板全景（はんだ面）

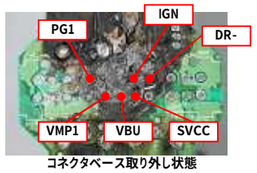
基板部品面_コネクタ部拡大

基板はんだ面_コネクタ部拡大

・基板をソフトX線調査した結果、コネクタ VMP1端子周辺に損傷が認められます。

・コネクタベース取り外しによる実体観察の結果、VMP1,VBU,SVCC, PG1,IGN,DR-端子部の基板に損傷が認められます。

コネクタ部_ソフトX線写真



コネクタベース取り外し状態

(2) 付着物の確認

・基板を確認した結果、変色、及び白色異物が認められます。

・異物分析した結果、電解質成分及びはんだ成分が認められました。

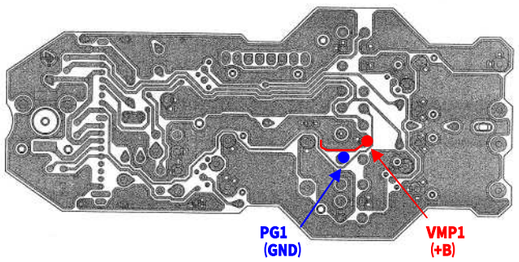
・ケース表面および基板表面より糖が認められました。

※付着物の状態や分析結果は添付資料1、別紙をご参照ください

2．溶損不具合 発生要因の見解

・損傷状態の確認結果より、VMP1端子周辺の基板上より発熱し、VMP1端子が脱落（溶断）して電源供給がされなくなり、溶損の進行が終了したものと考えられます。

・発熱の要因は、基板上の痕跡・分析結果より、糖や電解質を含む液体が基板上のVMP1端子に繋がっているパターン周辺に付着して、隣接するGND端子とリークしたと考えられます。



VMP1端子に繋がっているパターン周辺にPG1端子（GND）が存在
パターンGap：約0.5mm

原因の究明（発生のメカニズム・再現テスト・ナゼナゼ分析）

1．推定要因

VMP1端子を中心に溶損した本不具合は、何らかの要因により当該箇所にて電気的ショート状態→発熱したものと考えます。

ショート状態となった要因は、返却品に液体痕跡が認められることより、液体によるマイグレーション現象（金属移行）によって基板上に析出物による回路が形成され、トラッキング現象（局部発熱）が発生したものと考えます。

添付資料2　p.2をご参照ください

2．発熱要因

不具合箇所への液体供給及び連続通電により、塩水滴下した際に返却品と酷似した状態が発生することを確認しました。※35750-S5A類似機種の結果より

また、溶損要因のパターンGap（間隔）についてテストを行い調査を行った結果、パターンGapが1.5mm以内であると溶損発生の可能性があることを確認しました。

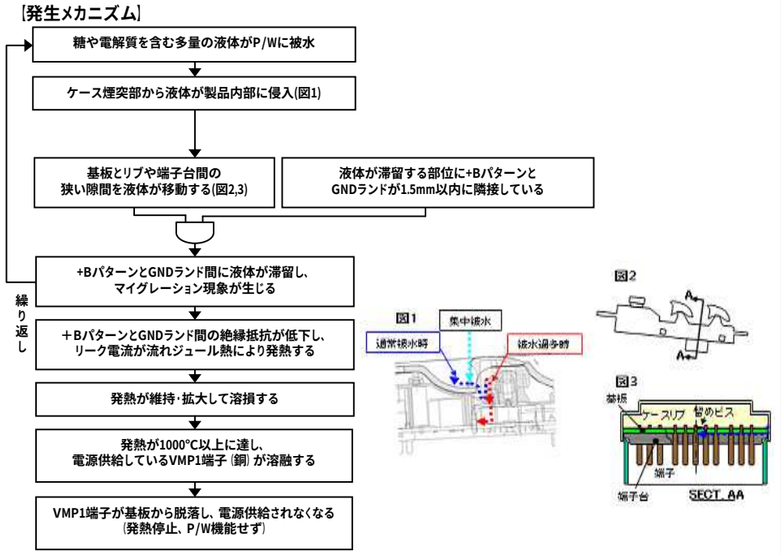
添付資料2　p.3～5をご参照ください

3．発生メカニズム

以上の調査結果より、溶損発生メカニズムは右記流れによると考えます。

※詳細は添付資料2 p.6をご参照ください

【発生メカニズム】



ナゼ・ナゼ分析

ステップ		1	2	3	4	5
内容	発生	基板からの発熱・溶損	基板上の+Bパターン－GNDランド間の絶縁抵抗が低下し、リーク電流が流れた	液体が滞留してマイグレーション現象が起きた	● P/W内部に浸入した液体が、基板とリブや端子台間の隙間を液体が移動し、溶損部に付着した。 ● 液体が滞留する部位に+Bパターンと GNDランド端子が1.5mm以内に隣接する	糖や電解質を含む多量の液体がP/Wにかかった ※3～5の繰り返し
	流出					

適切な対策（対策内容、効果予想、PPA）

対策効果の確認（効果確認）

源流へのフィードバック（体制・仕組みへの反映内容）

原本保存期限：　　年　　月

EA11-004

HONDA

4/27/2012

Q11

120404_Attached document 1

06M CR-V Connector Heat damage

Subject : Melting of Power Window Master Switch

Part Name : POWER WINDOW MASTER SWITCH

Part No. : 35750-S9A-C040-M2

Attached Document No.1

Investigation Results of returned part (attached substances)

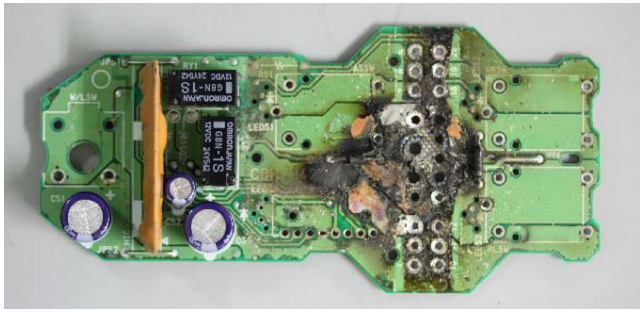
Investigation Results of Returned Parts

～ Appearance ～

- A great amount of dust was attached to the PWS case.
- Discoloration and white abnormal substances were confirmed as a result of PCB check.
- Discoloration and white abnormal substances were confirmed when the connector base was removed to check the PCB condition.

Full view of PCB_01

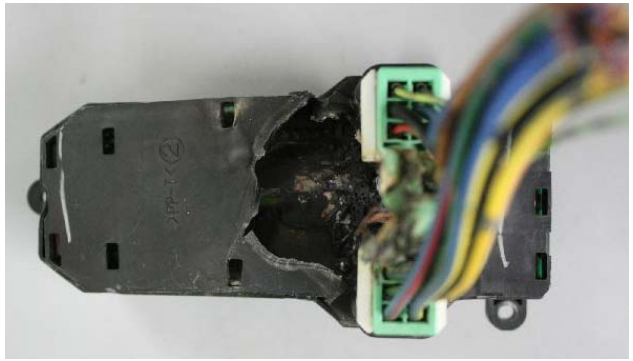
・A great amount of dust was attached to the PWS case.



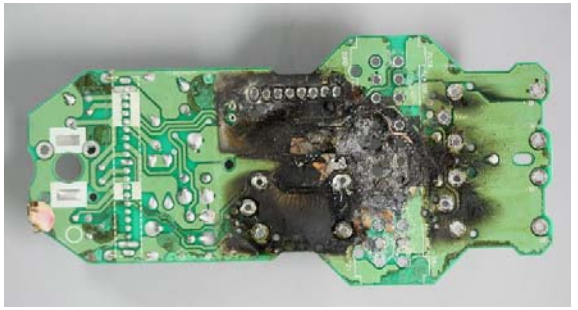
Full view of PCB (Component side)

Discoloration and attachment of white abnormal substances are confirmed on the outer circumstances and the case rib.

*Please refer to next page for details.



Full view of PCB_02



Full view of PCB (Soldering side)

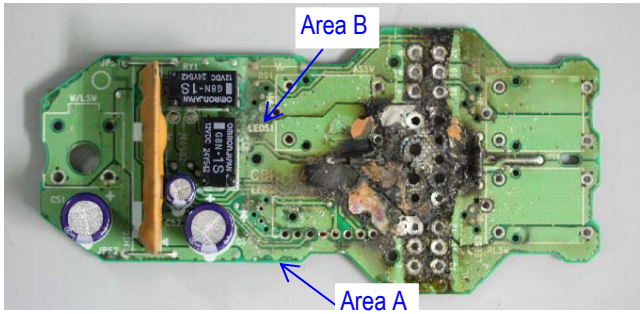
Discoloration and attachment of white abnormal substances are confirmed on the outer circumstances and the case rib.

Discoloration of the PCB and attachment of white abnormal substances are confirmed between the connector base and PCB.

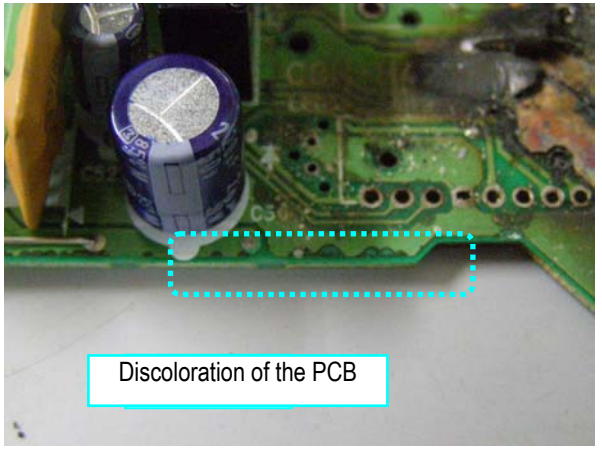
*Please refer to next page for details.

Investigation Results of Returned Parts

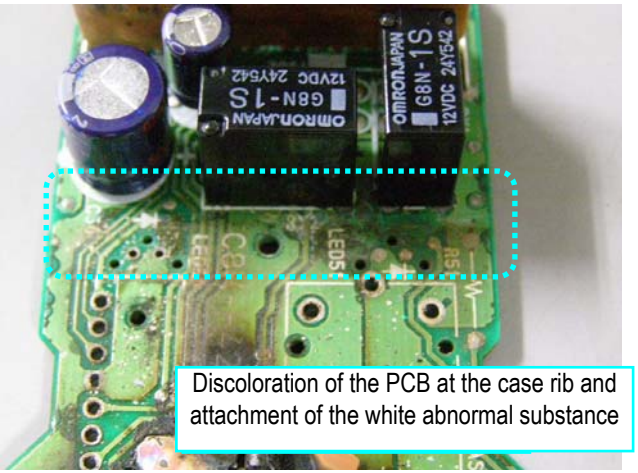
～ Appearance ～



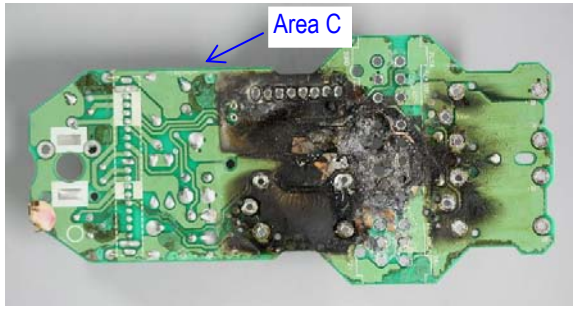
Full view of PCB (Component side)



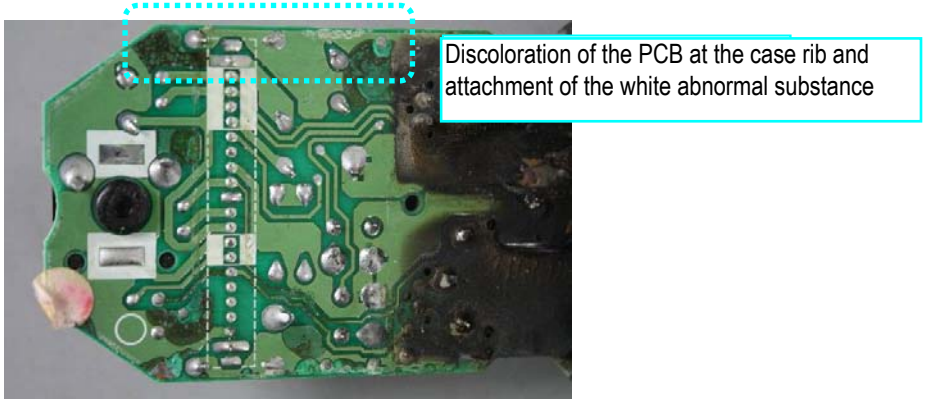
Area A



Area B



Full view of PCB (Soldering side)



Area C

Investigation Results of Returned Parts

～ Appearance ～

Soldering side of the PCB (With connector base removed)

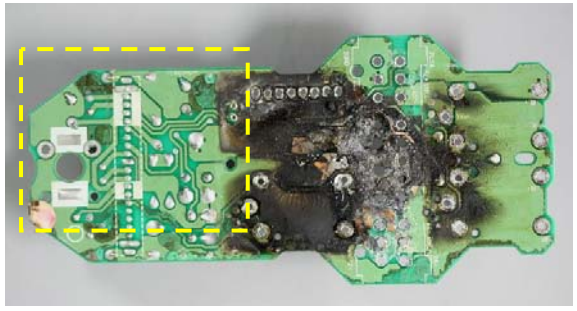
Investigation Results of Returned Parts

Component Analysis of the attached substances

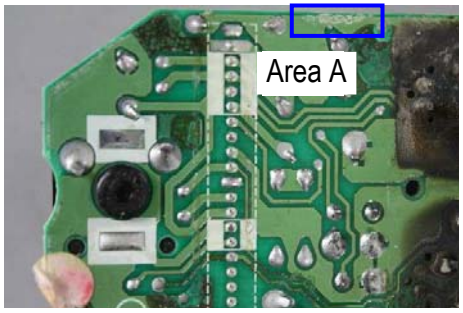
- Electrolyte and metal components (solder and copper) are confirmed from the white abnormal substances on the PCB

Area	Detected element	Ion component
Area A	C, O, Na, Cl, K	Na,Cl
Area B	C, O, Cu, Mg, Al, Pb, Sn,Cl	Mg,Cl

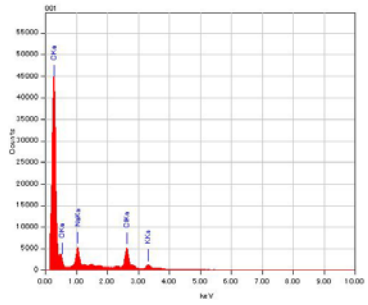
(Analysis method) Collect an attached substance, attach it on the carbon tape, them measure with the SEM/EDX.



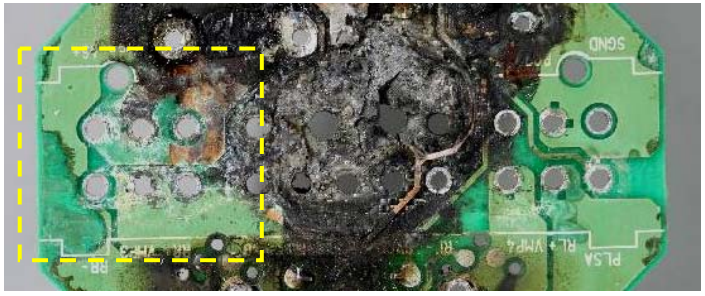
Evidence of liquid on the soldering side of the PCB



Measuring Area A

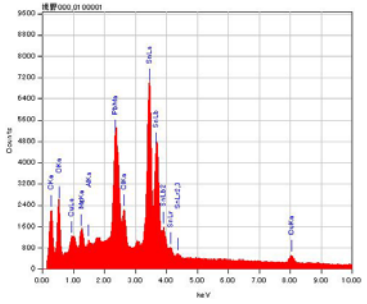


Spectrum of Area A



Evidence of liquid under the connector base

Measuring Area B



Spectrum of Area B

Investigation Results of Returned Parts

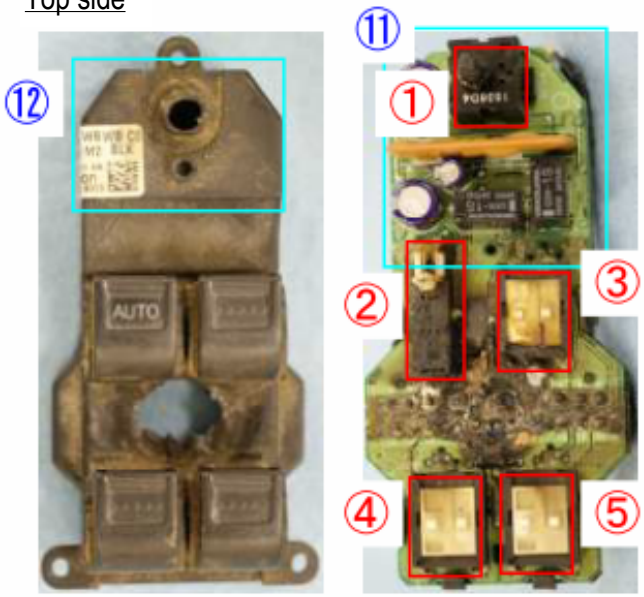
Existence of sugar in attached substances

- Sucrose was confirmed on the surface of the case and PCB. (Refer to the attached document.)

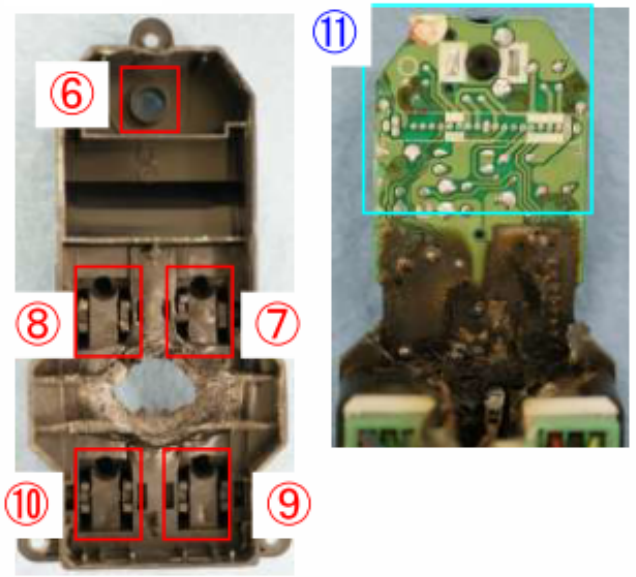
Measuring Area	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫
Existance of Sucrose	No	No	No	No	No	No	No	No	No	No	Yes	Yes

Actual Failed Power Window Master Switch

Top side



Under side

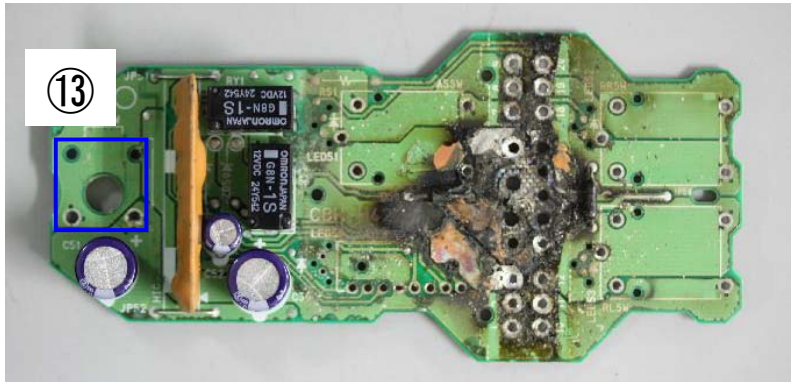


Investigation Results of Returned Parts

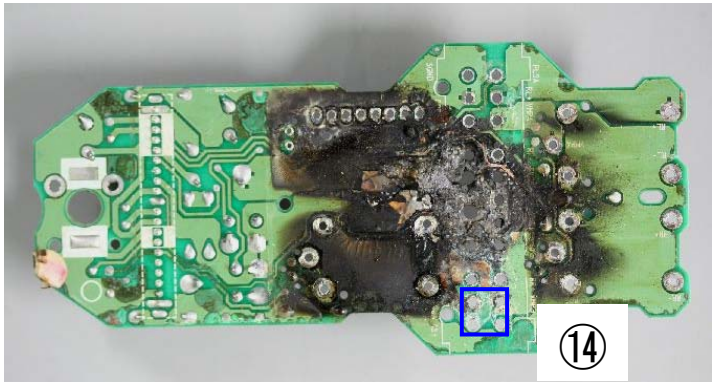
Existence of sugar in attached substances

- Sucrose and Glucose were confirmed on the surface of the PCB under connectors

Measuring Area	⑬	⑭
Existence of Suger	No	Yes (Sucrose and Glucose)

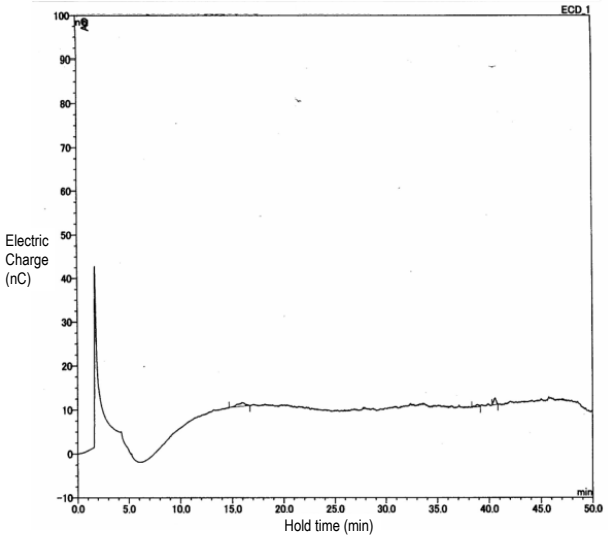


Full view of PCB (Component side)

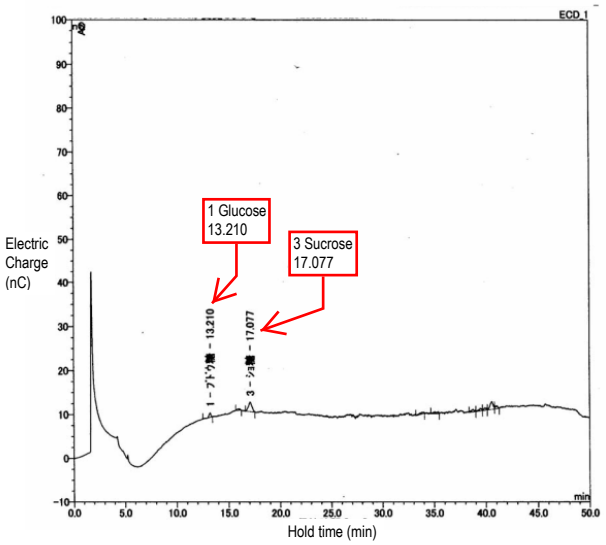


Full view of PCB (Soldering side)

(Analysis method)
Chromatographic measurement (High-performance liquid chromatography) was applied to the solution which was derived and filtered with 0.5mL water.



Chromatograph of ⑬



Chromatograph of ⑭

06M　CR-V　コネクタ部 溶損不具合

件名　　：パワーウインドウマスタースイッチ溶損

部品名　：POWER WINDOW MASTER SWITCH

部品番号：35750-S9A-C040-M2

添付資料1

（返却現品（付着物）の調査結果）

返却現品の調査結果

～外観調査～

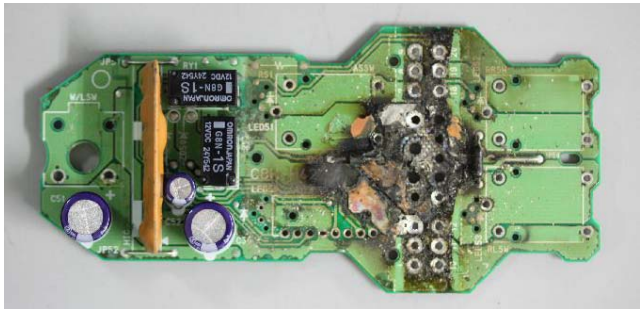
・PWSケースに多量の塵埃付着が認められる。

・基板を確認した結果、変色、及び白色異物が認められる。

・コネクタベースを取り外し基板の状態を確認した結果、変色及び白色異物が認められる。

PWS全景_01

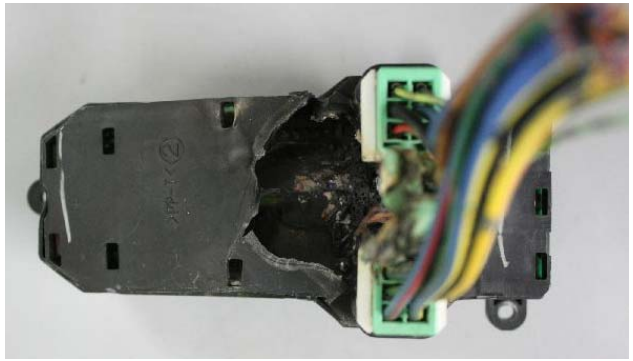
多量の塵埃が付着



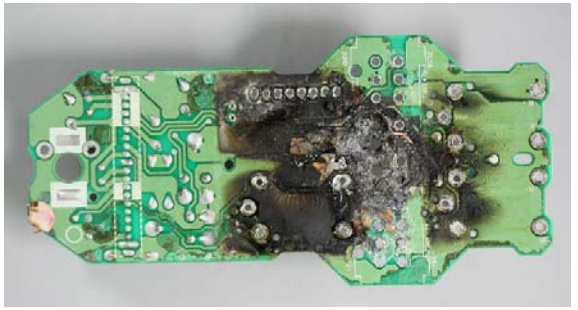
基板全景（部品面）

基板の外周、及びケースリブ上に変色、白色異物の付着が認められる。

※詳細は次シートをご参照ください



PWS全景_02



基板全景（はんだ面）

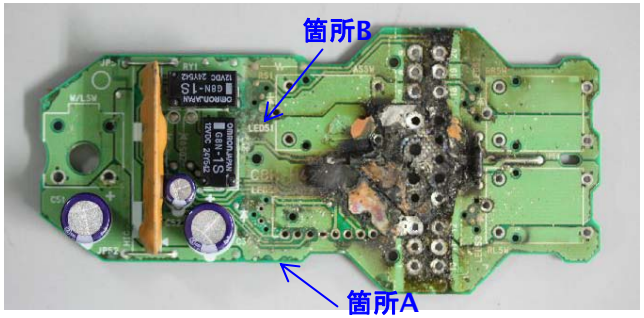
基板の外周、及びカバーリブ上に変色や白色異物の付着が認められる。

コネクタベース－基板間に基板変色及び白色異物を確認

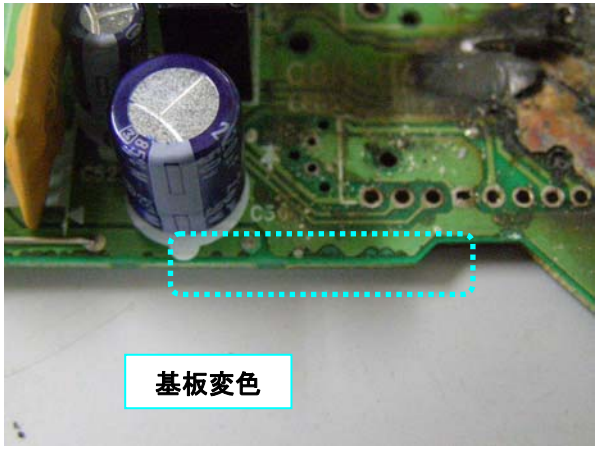
※詳細は次シートをご参照ください

返却現品の調査結果

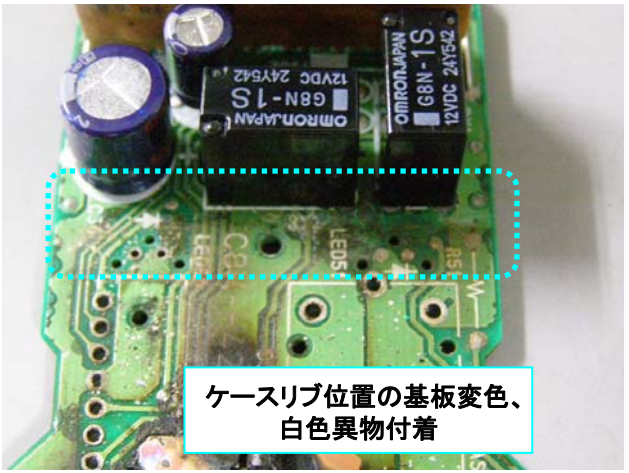
～外観調査～



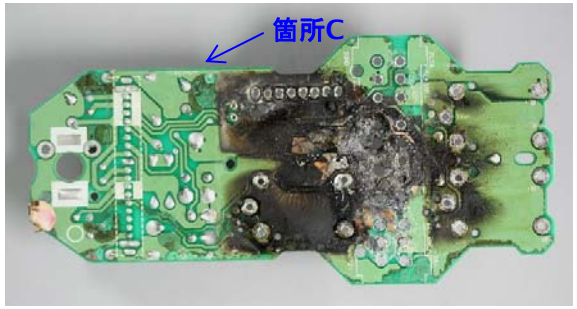
基板全景（部品面）



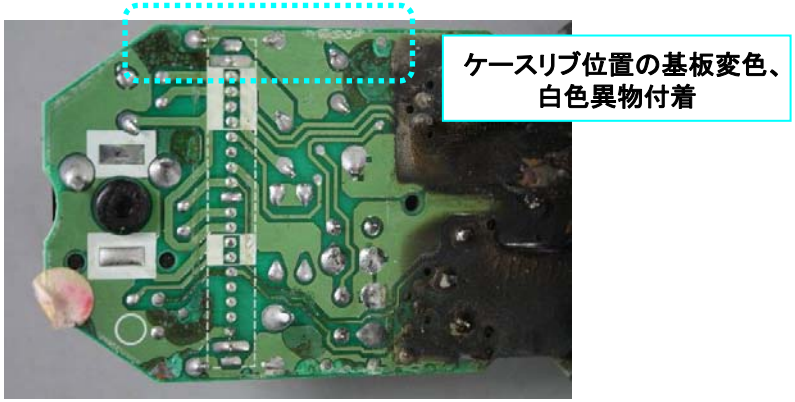
箇所A



箇所B



基板全景（はんだ面）



箇所C

返却現品の調査結果

～外観調査～

基板はんだ面 コネクタ部（コネクタベース取り外し）

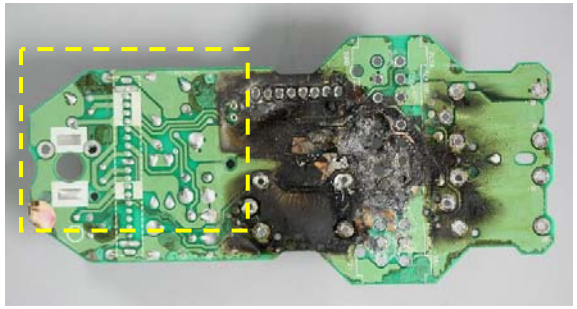
返却現品の調査結果

～付着物 成分分析～

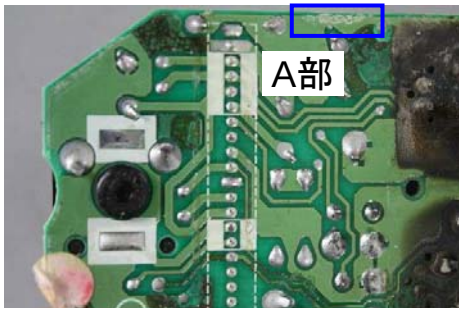
・基板上の白色異物より、電解質成分と金属成分（はんだ、銅）が検出された。

測定箇所	検出元素	イオン成分
A部	C, O, Na, Cl, K	Na,Cl
B部	C, O, Cu, Mg, Al, Pb, Sn,Cl	Mg,Cl

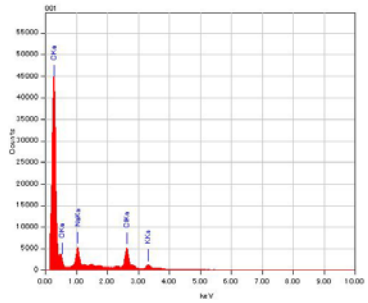
【分析方法】付着物を採取し、カーボンテープに張り付け、SEM/EDXにて測定した。



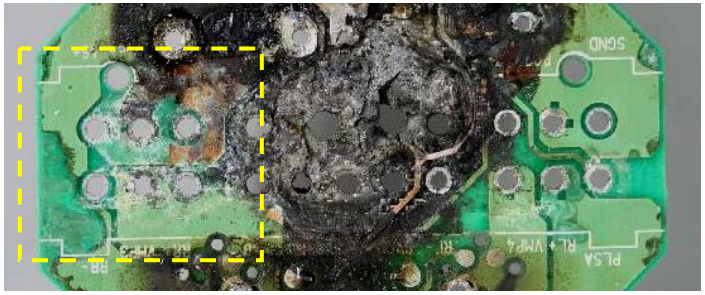
基板はんだ面の液体痕跡



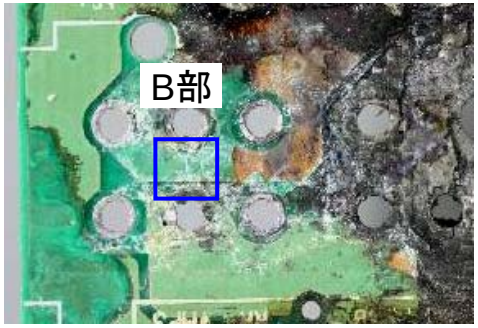
A部測定箇所



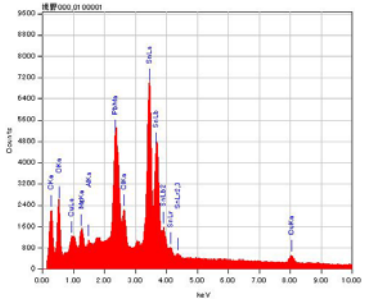
A部のスペクトル



コネクタベース下部の液体痕跡



B部測定箇所



B部のスペクトル

返却現品の調査結果

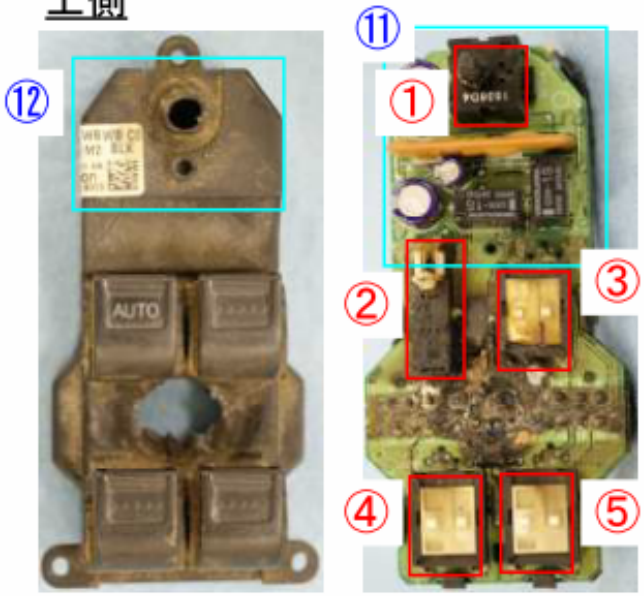
～糖分付着有無確認～

・ケース表面、及び基板表面よりスクロース（糖）が検出された。(別紙をご参照ください)

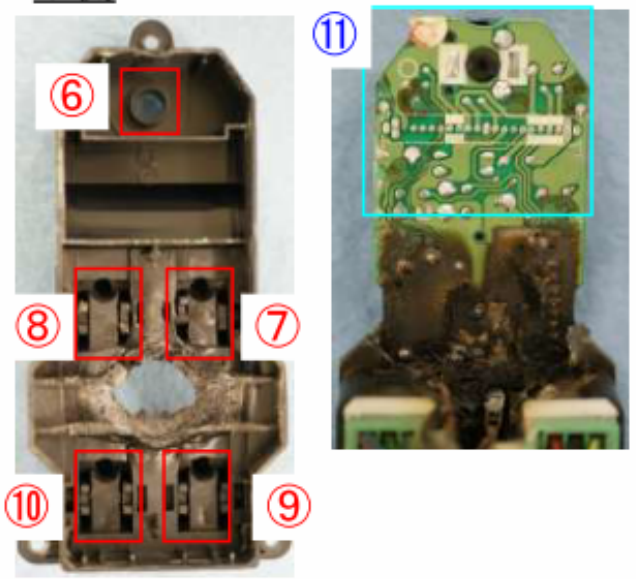
測定箇所	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫
糖の有無	無	無	無	無	無	無	無	無	無	無	有	有

パワーウィンドウマスタースイッチ事象品

上側



下側

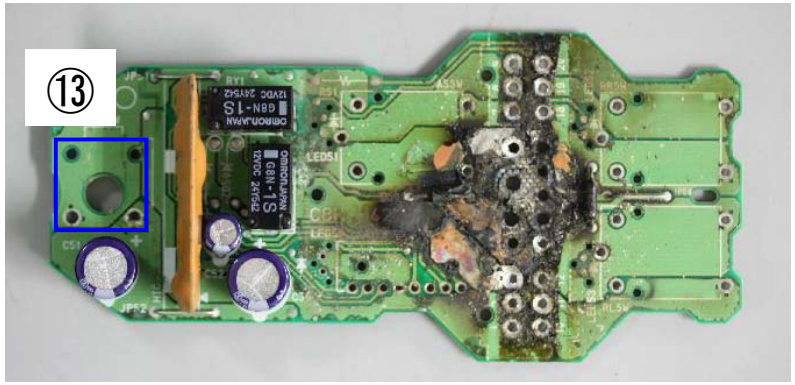


返却現品の調査結果

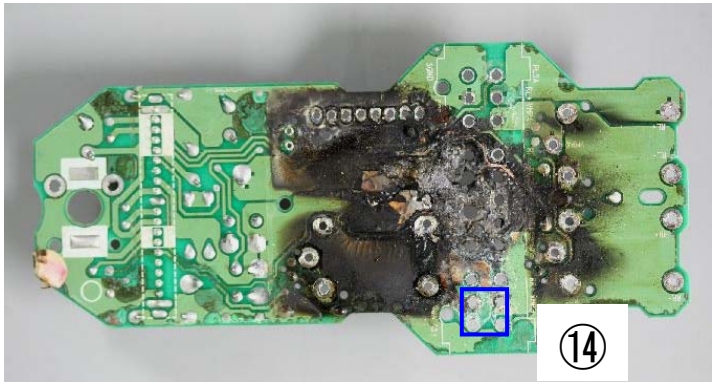
～糖分付着有無確認～

・コネクタ下部の基板表面よりブドウ糖及びショ糖が検出された。

測定箇所	⑬	⑭
糖の有無	無	有（ブドウ糖、ショ糖）

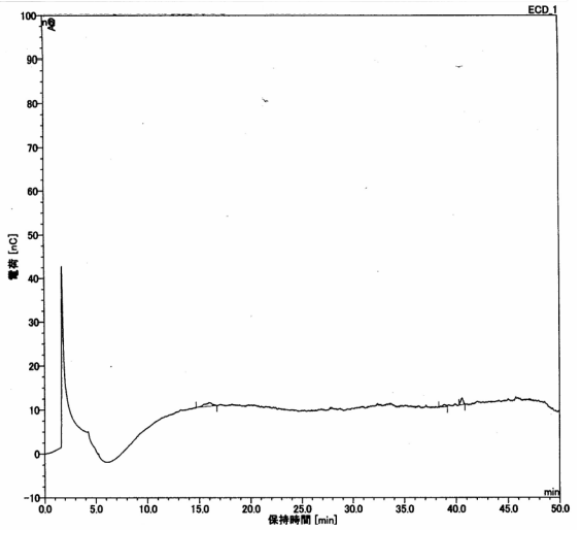


基板全景（部品面）

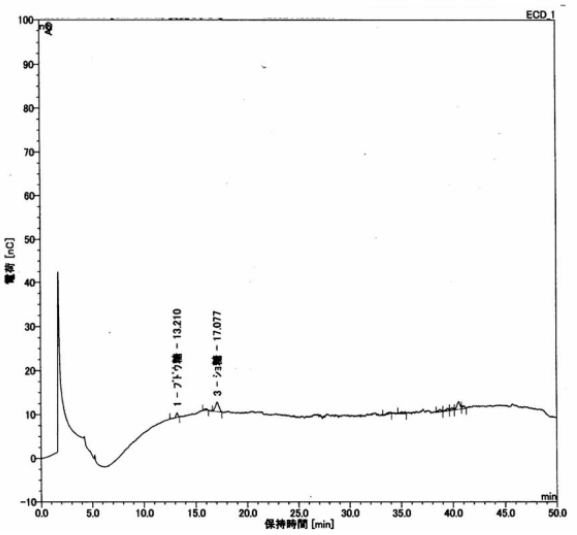


基板全景（はんだ面）

【分析方法】0.5mLの水で抽出・濾過した溶液について、高速液体クロマトグラフ法によりクロマトグラムを測定した。



⑬のクロマトグラム



⑭のクロマトグラム

EA11-004

HONDA

4/27/2012

Q11

120404_Attached document 2

06M CR-V Connector Heat damage

Subject : Melting of Power Window Master Switch

Part Name : POWER WINDOW MASTER SWITCH

Part No. : 35750-S9A-C040-M2

Attached Document No.2

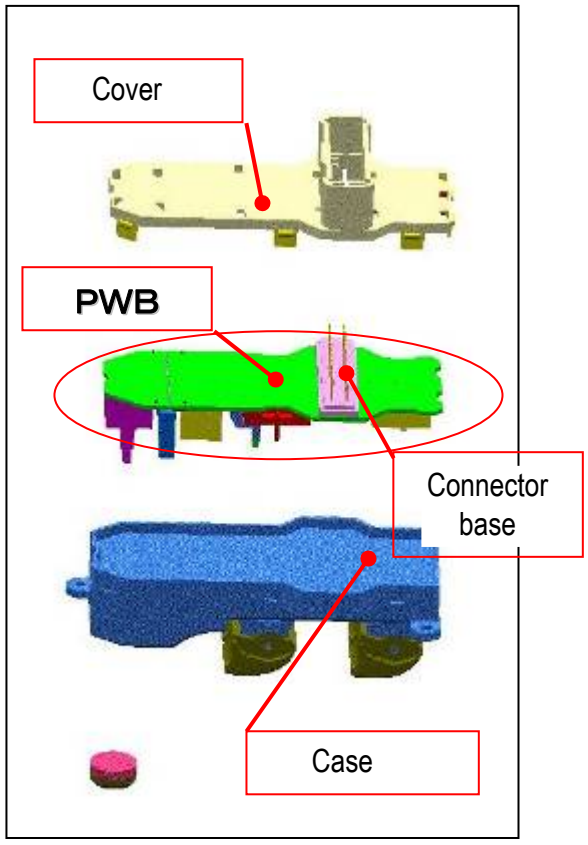
(Occurrence Cause)

Occurrence Cause

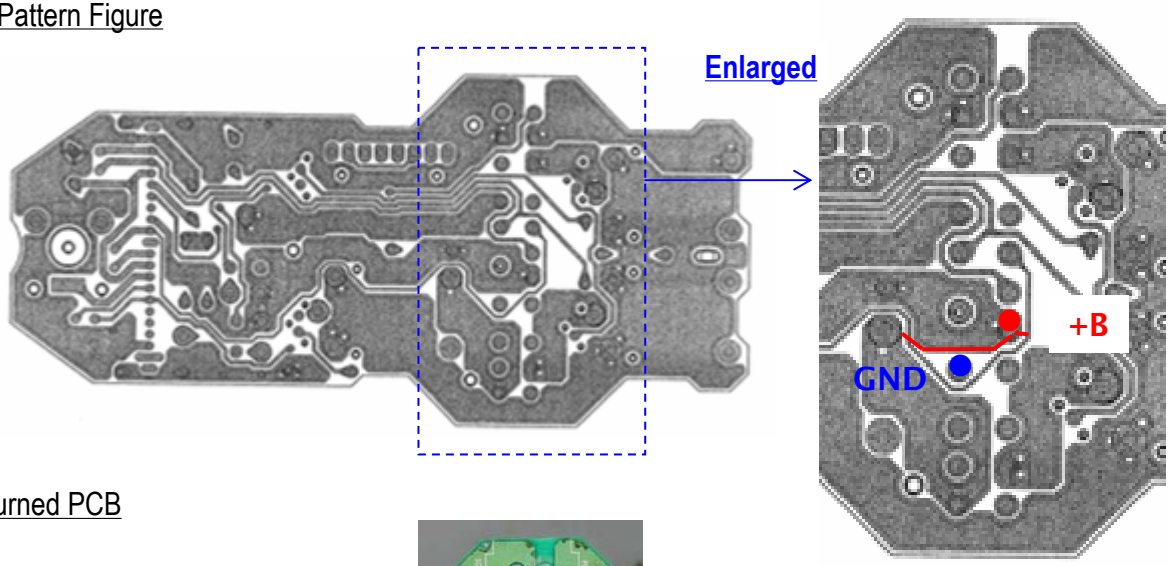
Assumed Caused

Melting occurred around the VMP1 terminal may be caused by electrical short that led to heat generation.

From the evidence of liquid confirmed on the returned part, it was considered that the short was occurred because of tracking (local heating) caused by the circuit with materials educed from the migration (metal transfer).



PCB Pattern Figure



Returned PCB

We figured migration and tracking occurred between +B and GND that are closely set as shown above

Pattern Gap: Approx. 0.5mm (MIN)

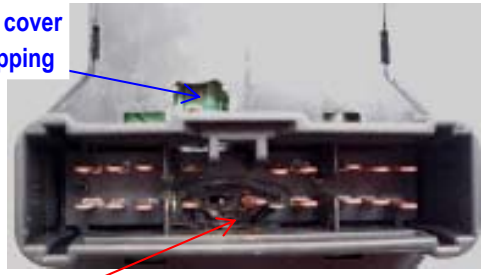
Occurrence Cause

Heat damage test by repeatedly dropping liquids

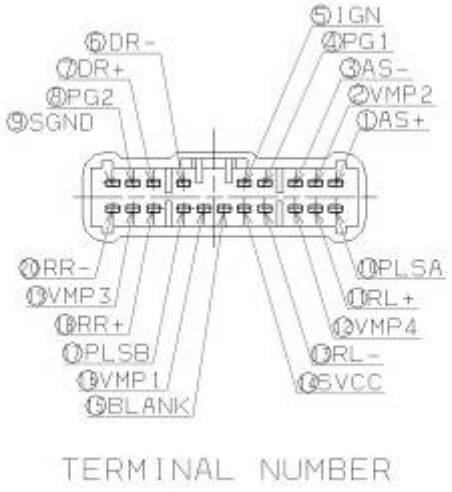
Test results using model similar to 35750-S5A

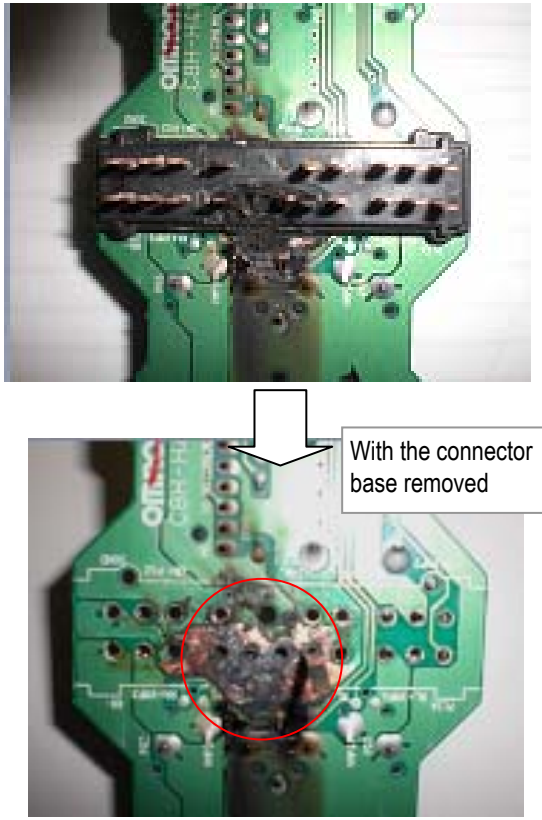
◆ Heat damage test results

Melting similar to returned part was occurred to one test sample.
* Please see page 4 for details.



Melting occurred around the VMP1 terminal (VMP1 terminal itself came off during current application)





Loss of PCB pattern around VMP1, VBU, PLSB, and DR- between connector base and PCB

◆ Conclusion

We figured the melting of the test sample was very similar to returned parts because it was occurred from around the VMP1 terminal as the returned parts.

We also find that the heat damage was caused by advanced ion migration between +B (VMP1) and GND pattern.

Occurrence Cause

Heat damage test by repeatedly dropping liquids

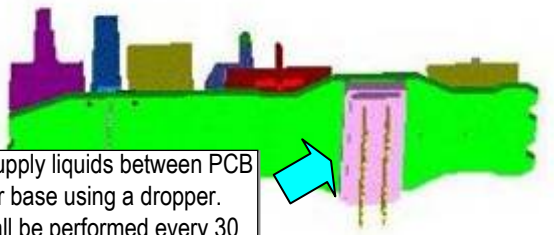
Test results using model similar to 35750-S5A

Test condition:

- Position similar to the ones installed on the actual vehicle (on the level)
- Test temperature: 15%, humidity: 40%
- Drop liquids on VMP1, VBU, PLSB, and DR - terminals between PCB and base and apply current.
- Use 5% salt water(pure water) and tap water for liquids.
  *For tests using salt water, drop salt water only once, followed by pure water.
- Connect harness to +B:VMP1 and GND:DR- to apply current.
- Use the battery for power source (Make sure it is above 12V before/after the tests)

Test Result :

No	Liquid	Test Result	Reproducibility
1	Tap water	Tested for 100hrs. Heat damage could not be reproduced.	×
2	Tap water	Tested for 100hrs. Heat damage could not be reproduced.	×
3	Tap water	Tested for 100hrs. Heat damage could not be reproduced.	×
4	Salt water (5%)	Heat damage very similar to returned part was reproduced after 34hrs	○
5	Salt water (5%)	Tested for 100hrs. Heat damage could not be reproduced.	×
6	Salt water (5%)	Tested for 100hrs. Heat damage could not be reproduced.	×



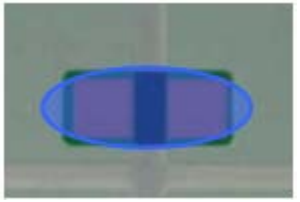
Occurrence Cause

Relationship between pattern gap and melting damage

We conducted tests and investigations on pattern gap which considered to be the melting cause.

Test condition:

① Liquid : 5% concentrated NaCl water solution
② Drop volume : 28mg/time
③ Dropping interval: Every 30 to 60mins (as test sample gets dry, Max 1drop/30min)
④ Test voltage : 12V
⑤ Gap length : Between 1.0 to 1.5mm with 0.1 interval
⑥ Number of testing : N=4 for each gap
⑦ Testing time: 13 hrs *Stop test if a spark occurs
⑧ Land shape : 2.5 × 2.5[mm^2]



(Drop target)

【Test results 】

Gap length	Number of fire (occurrence/testing number)	Time to spark occurrence	Max voltage at the time of spark occurrence
1.0mm	4／4	Within 30mins for all 4 samples	3.6A
1.1mm	2／4	60 to 90mins for 2 samples	3.5A
1.2mm	3／4	30 to 120mins for 3 samples	3.3A
1.3mm	0／4	—	-
1.5mm	0／4	—	-

There seemed a strong correlation between gap length and spark occurrence, and threshold of spark occurrence is considered to be somewhere around 1.2mm gap. Since the number of testing is small, we figured gaps within 1.5mm have a possibility of melting. (Spark occurrence=Possibility of melting)

Occurrence Cause

Occurrence mechanism

P/W is showered with considerable amount of liquid containing sugar or electrolyte

Liquid enters inside the SW from projected area of the case. (Figure 1)

Liquid moves narrow space between PCB and rib and between PCB and terminal block. (Figure 2 and 3)

Liquid accumulates to where +B pattern and GND land are closely set with gap below 1.5mm

Repeat 繰返し

Liquid accumulates between +B pattern and GND land, and migration occurs.

Insulation resistance between +B pattern and GND land become poor and leak current flows to cause joule heat.

Heat maintains/spreads to cause melting.

when heat reaches 1000℃, VMP1 terminal (copper), which supplies power to the SW, starts to melt.

VMP1 terminal comes off of the PCB and unable power supply. (Heating stops, F/W malfunction occurs)

Figure 1

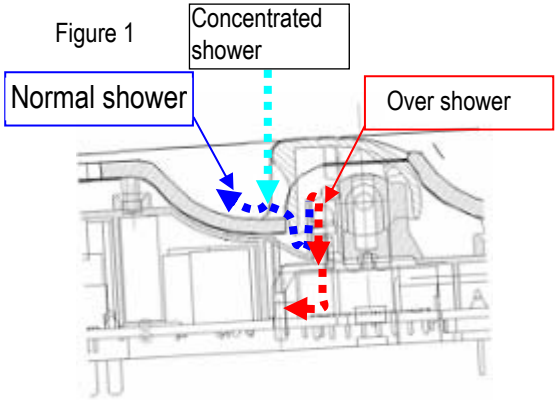


Figure 2

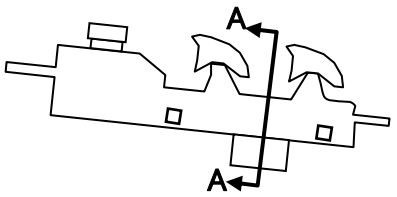
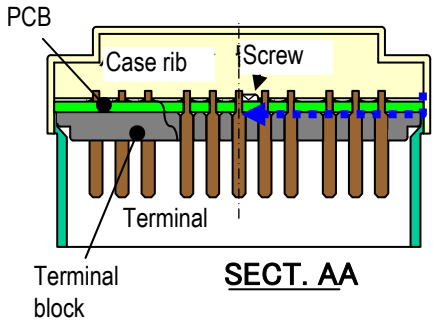


Figure 3



06M　CR-V　コネクタ部 溶損不具合

件名　　：パワーウインドウマスタースイッチ溶損

部品名　：POWER WINDOW MASTER SWITCH

部品番号：35750-S9A-C040-M2

添付資料2

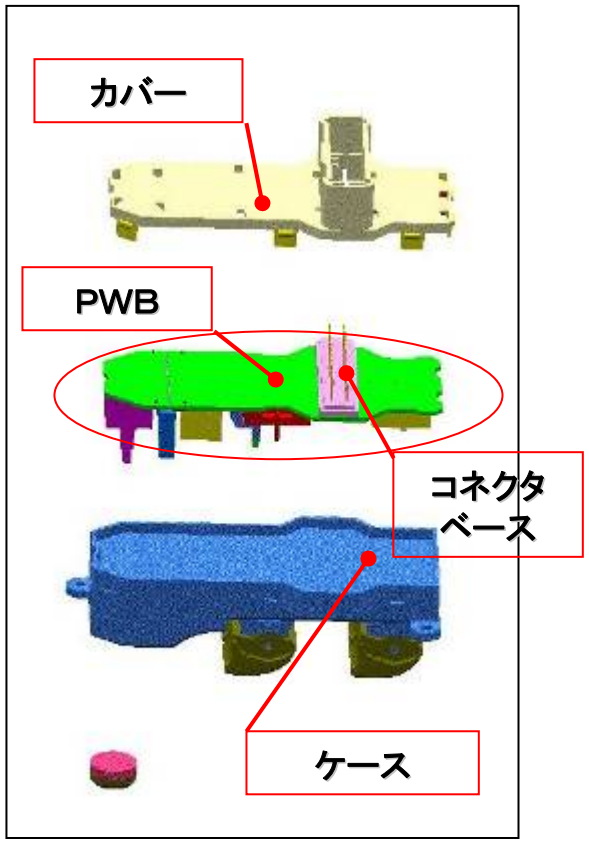
（発生要因）

発生要因

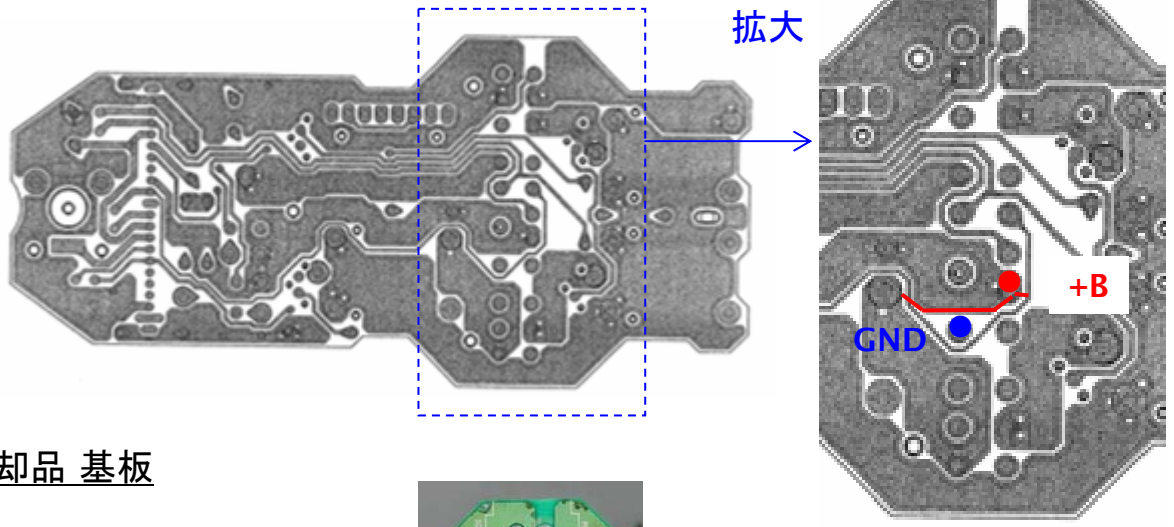
～推定要因～

VMP1端子を中心に溶損した本不具合は、何らかの要因により当該箇所にて
電気的ショート状態→発熱したものと考えます。

ショート状態となった要因は、返却品に液体痕跡が認められることより、液体によるマイグレーション現象（金属移行）
によって基板上に析出物による回路が形成され、トラッキング現象（局部発熱）が発生したものと考えます。



基板パターン図



返却品 基板

上部の+B-GNDが隣接している間にて
マイグレーション、トラッキングが
発生したものと推定

パターンGap：約0.5mm（MIN）

発生要因

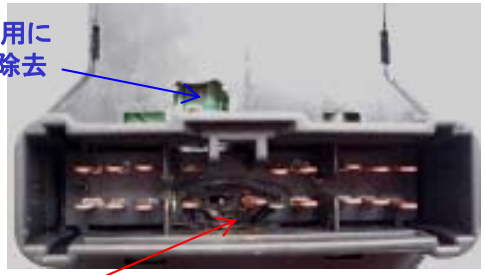
～液体連続供給による 溶損テスト～

35750-S5A類似機種のテスト結果

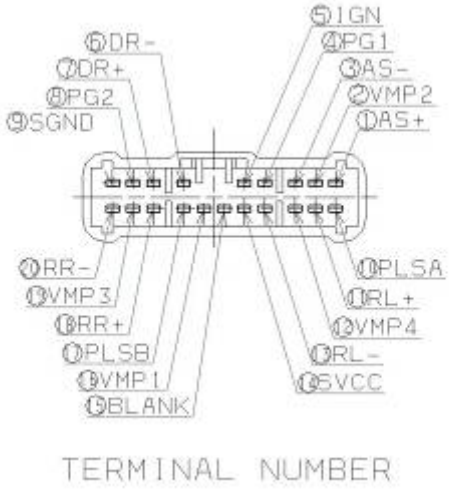
◆溶損テスト結果

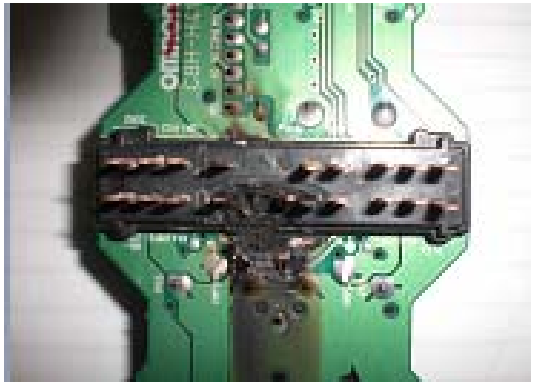
サンプル1台につきまして、返却品と酷似した溶損が発生しました。

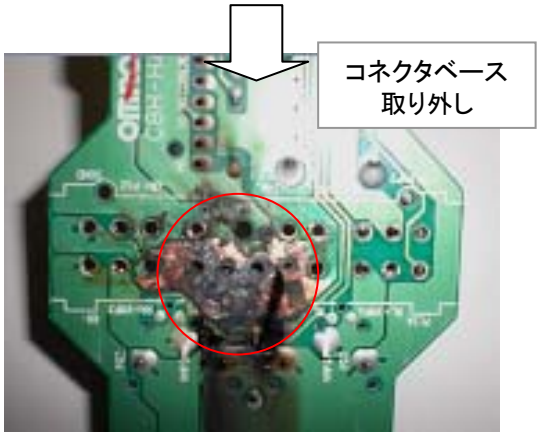
※結果一覧はp.4をご参照ください



VMP1端子を中心に溶損
(VMP1端子は通電中に脱落)







コネクタベース-基板間のVMP1,VBU,PLSB,DR-
周辺 基板パターン消失

◆結論

溶損が起きたテストサンプルは、返却品損傷箇所のVMP1端子を中心とした溶損が発生したことより、
返却品と類似した不具合が再現できたものと考えます。

溶損不具合は、基板上の+B（VMP1）とGNDパターンのイオンマイグレーションが進行したことで
発生したものと判断致します。

発生要因

～液体連続供給による 溶損テスト～

35750-S5A類似機種のテスト結果

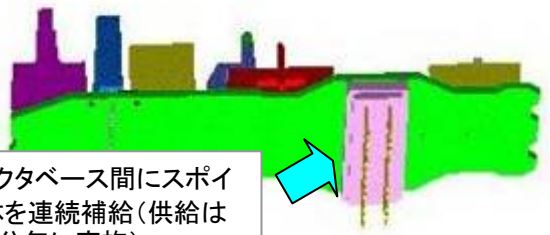
試験条件　：

・実車取り付け相当（水平）
・試験温度 15℃、湿度40%
・焼損の激しいVMP1,VBU,PLSB,DR-端子（基板-コネクタベース間）に液体を注入し、通電する。
・液体は塩水5%（純水）、水道水を使用
　※塩水滴下は1回のみ、その後は純水を滴下
・通電は+B:VMP1、GND:DR-にハーネスを接続して行う
・電源はバッテリーを使用（試験前後に12V以上あることを確認）

VMP1(+B)、DR-(GND)を連続通電

結果一覧　：

No	液体	結果	再現性
1	水道水	100時間 試験を行い焼損再現せず	×
2	水道水	100時間 試験を行い焼損再現せず	×
3	水道水	100時間 試験を行い焼損再現せず	×
4	塩水(5%)	34時間後に溶損再現（返却品と状態酷似）	○
5	塩水(5%)	100時間 試験を行い焼損再現せず	×
6	塩水(5%)	100時間 試験を行い焼損再現せず	×



基板-コネクタベース間にスポイトにて液体を連続補給（供給は30分~60分毎に実施）

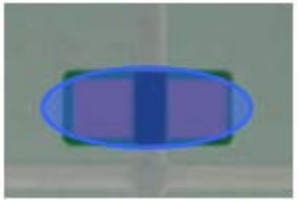
発生要因

～パターンGapと溶損の関連性～

溶損要因のパターンGap（間隔）についてテストを行い調査を行いました。

【実験内容】

①試験水　　：濃度5%のNaCl水溶液
②滴下量　　：28mg/回
③滴下間隔：30～60分（乾いたら随時　最大1回/30分　）
④試験電圧　　：12V
⑤ ギャップ長　　：1.0～1.5mm間で0.1mm間隔にて実施
⑥N数　　：各Gap　N=4
⑦試験時間：13時間　※火花が発生した場合はその時点で終了する
⑧ランド形状　　：2.5×2.5[mm^2]



（滴下の目安）

【実験結果】

Gap距離	発火件数（発生数/実施数）	火花発生までの時間	火花発生時の最大電流
1.0mm	4／4	N＝4全てが30分以内	3.6A
1.1mm	2／4	N＝2が60～90分	3.5A
1.2mm	3／4	N＝3が30～120分	3.3A
1.3mm	0／4	―	-
1.5mm	0／4	―	-

Gap距離と火花発生は強い相関関係があり、火花発生有無のスレッシュは1.2mm付近に存在すると考えられますが、N数が少ないことより1.5mm以内は溶損発生の可能性があると考えます。
（火花発生＝溶損発生の可能性有り）

発生要因

～発生メカニズム～

糖や電解質を含む多量の液体がP/Wに被水

ケース煙突部から液体が製品内部に侵入(図1)

基板とリブや端子台間の
狭い隙間を液体が移動する(図2,3)

液体が滞留する部位に+Bパターンと
GNDランドが1.5mm以内に隣接している

繰り返し

+BパターンとGNDランド間に液体が滞留し、
マイグレーション現象が生じる

+BパターンとGNDランド間の絶縁抵抗が低下し、
リーク電流が流れジュール熱により発熱する

発熱が維持・拡大して溶損する

発熱が1000℃以上に達し、
電源供給しているVMP1端子(銅)が溶融する

VMP1端子が基板から脱落し、電源供給されなくなる
(発熱停止、P/W機能せず)

図1

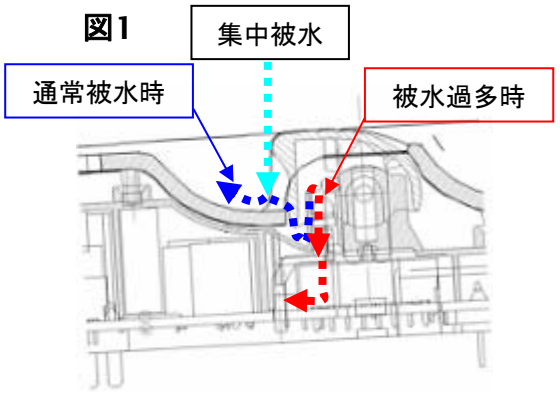


図2

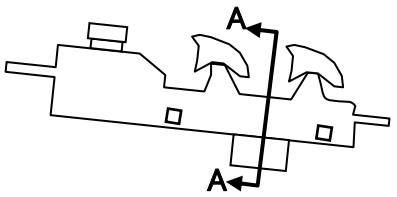
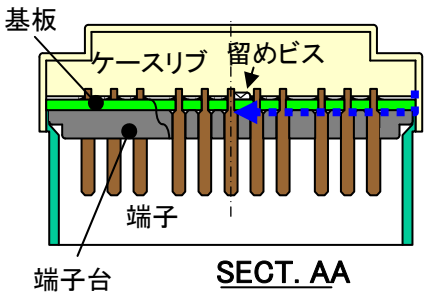


図3



EA11-004

HONDA

4/27/2012

Q11

120411_CR-V connectors_Investigation results of returned parts

◆ Vehicle & Returned part information

part number	Type	VIN	Vehicle production date	Warranty registration date	Repair Receipt Date	Mileage	Occurrence Country	Omron designated type	LOT	Production date
35750-S9A-C04	RD7	SHSRD788 86U421451	2005/12/22	2006/2/25	2010/1/25	66200mile	US	C8H-H42-BO2S	07Z5E1	2005/12/7
35750-S9A-C04	RD7	SHSRD788 26U440173	2006/6/21	2006/7/24	2010/2/24	48932mile	US	C8H-H42-BO2S	0766E1	2006/6/7
35750-S9A-C04	RD7	SHSRD789 16U430582	2006/4/6	2006/5/30	2010/3/10	48969mile	US	C8H-H42-BO2S	0936E1	2006/3/9

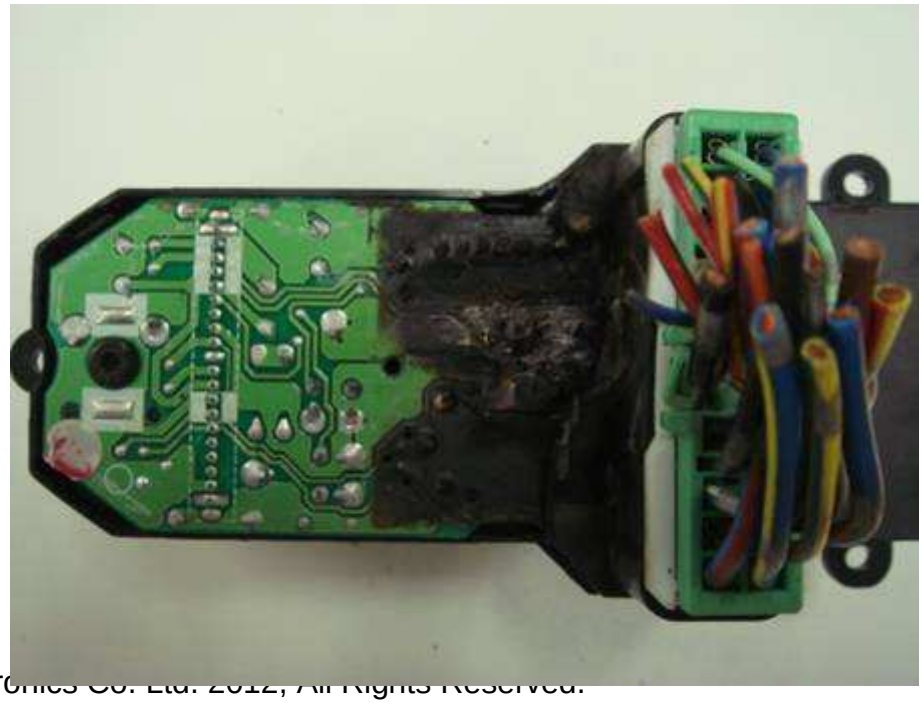
◆ Returned part verification result list

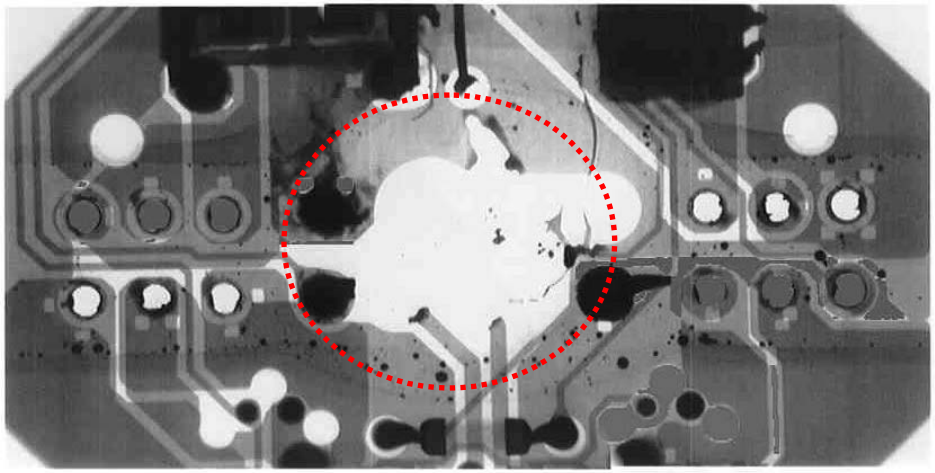
Vin No.	part number	Model	PCB AW classification	Heat source			Ion Component detection
				Location	+ side	GND side	
SHSRD78886U 421451	35750-S9A-C04	CR-V	H42	Under connector base	VMP1 Pattern	PG1 terminal	○
SHSRD78826U 440173	35750-S9A-C04	CR-V	H42	Under connector base	VMP1 Pattern	PG1 terminal	○
SHSRD78916U 430582	35750-S9A-C04	CR-V	H42	Under connector base	VMP1 Pattern	PG1 terminal	○

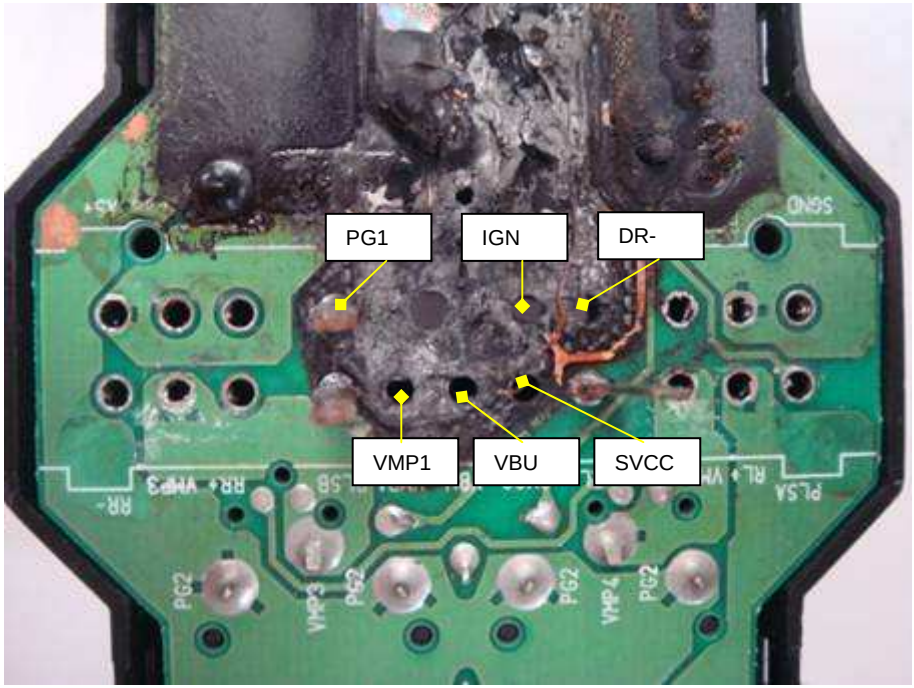
○=Detected

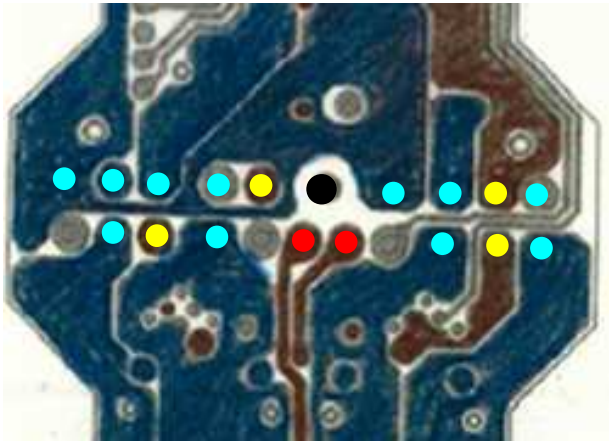
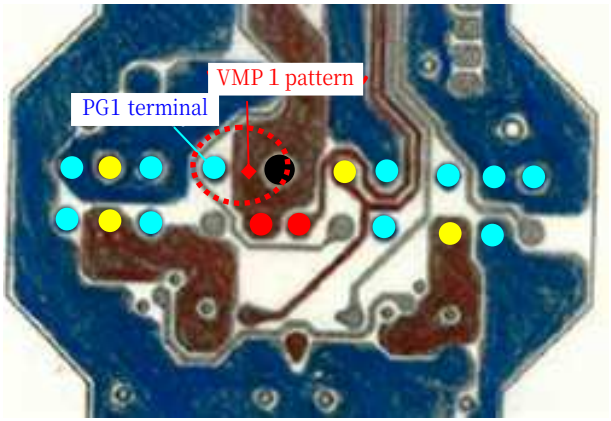
Conditions of respective returned defective parts(Pictures)

Honda control No.	:	7
Part No.	:	35750-S9A-C04
VIN	:	SHSRD78886U[redacted]
Vehicle production date	:	2005.12.22
Registration date	:	2006.2.25
Occurrence date	:	2010.1.25
Mileage	:	66200mile
OC designated type	:	C8H-H42-BO2S
LOT	:	07Z5E1
OC designated control No.	:	AQU-100525-008





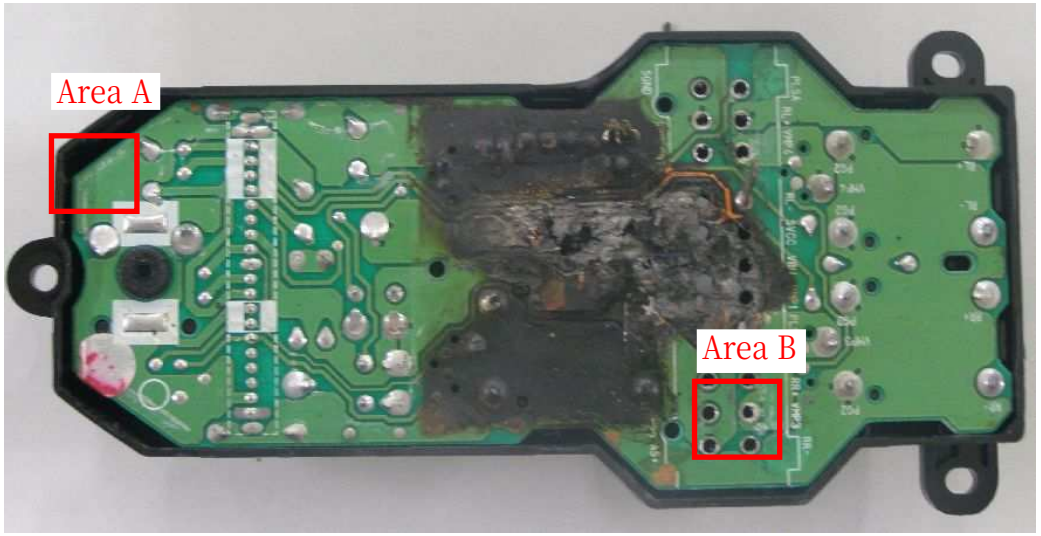


	PCB AW Category: H42
Component side	
Soldering side	

● : +B ● : GND ◌ : Assumed Heat source

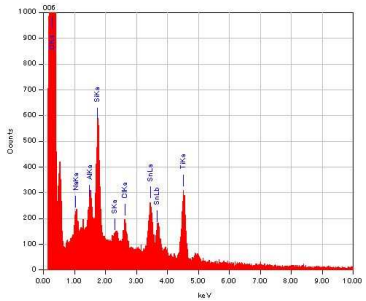
● : IG ● : Threaded hole

C, O, Na, Al, Si, S, Cl, Pb, and Sn are detected as a result of EDX analysis of the attachment.



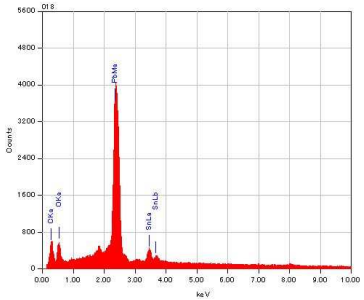
Full view of PCB (Soldering side)

Area A



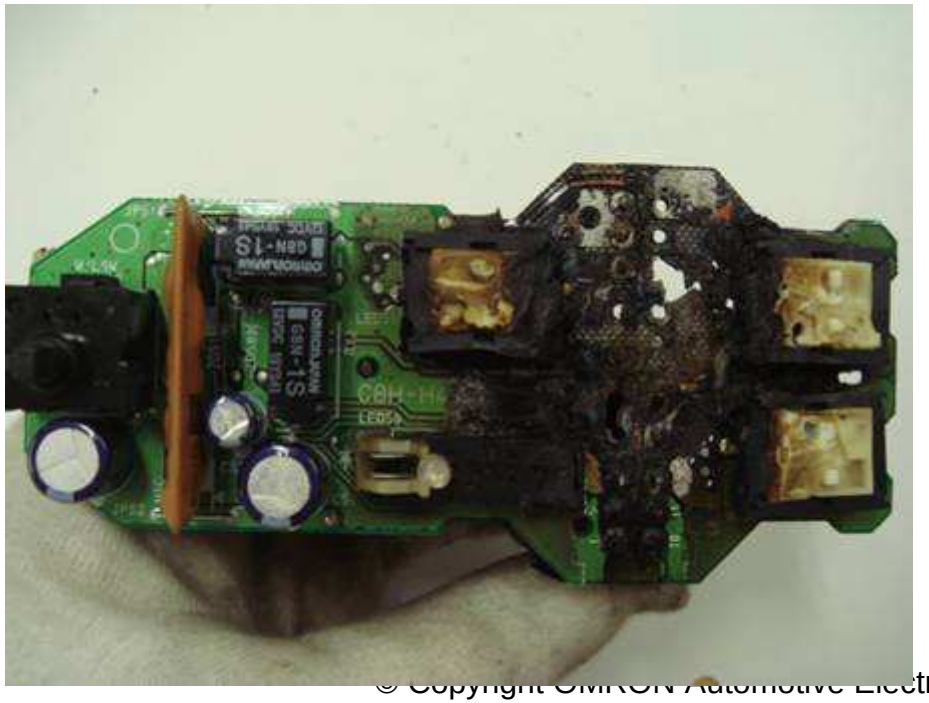
Detected element:
C,O,Na,Al,Si,S,Cl,Sn

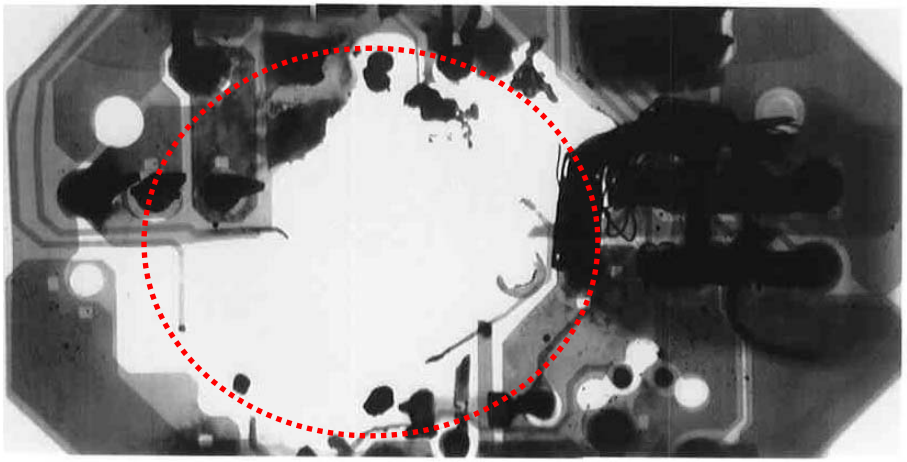
Area B

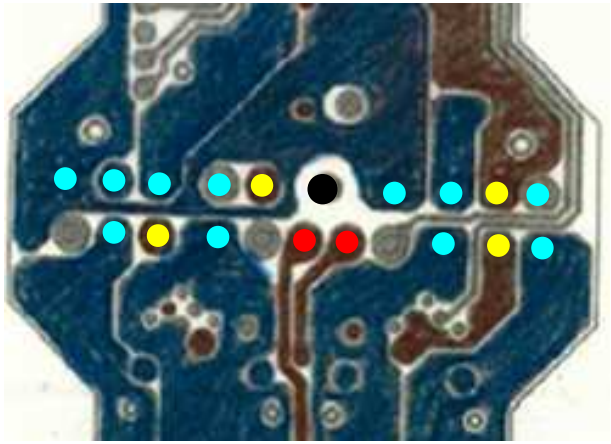
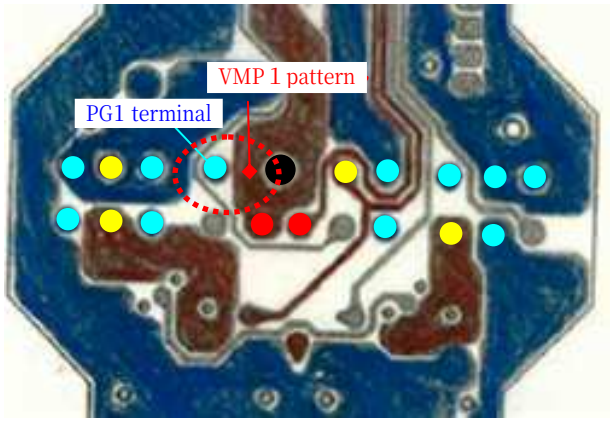


Detected element:
C,O,Pb,Sn

Honda control No.	:	8
Part No.	:	35750-S9A-C04
VIN	:	SHSRD78826U[redacted]
Vehicle production date	:	2006.6.21
Registration date	:	2006.7.24
Occurrence date	:	2010.2.24
Mileage	:	48932mile
OC designated type	:	C8H-H42-BO2S
LOT	:	0766E1
OC designated control No.	:	AQU-100525-009



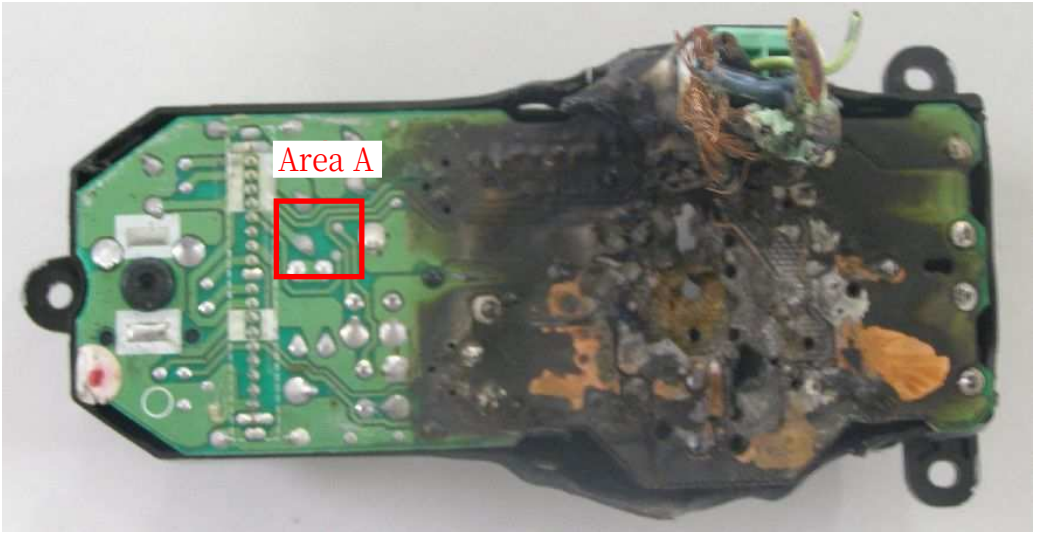


	PCB　AW Category: H42
Component side	
Soldering side	

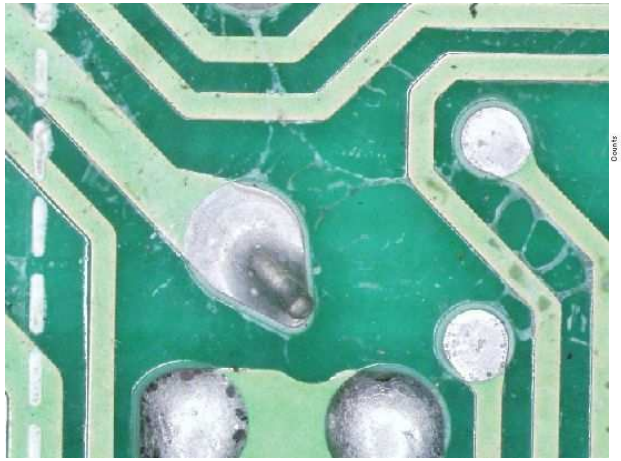
● : +B　● : GND　◌ : Assumed Heat source

● : IG　● : Threaded hole

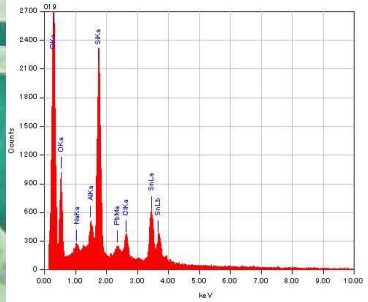
C, O, Na, Al, Si, Cl, Pb, and Sn are detected as a result of EDX analysis of the attachment.



Full view of PCB (Soldering side)

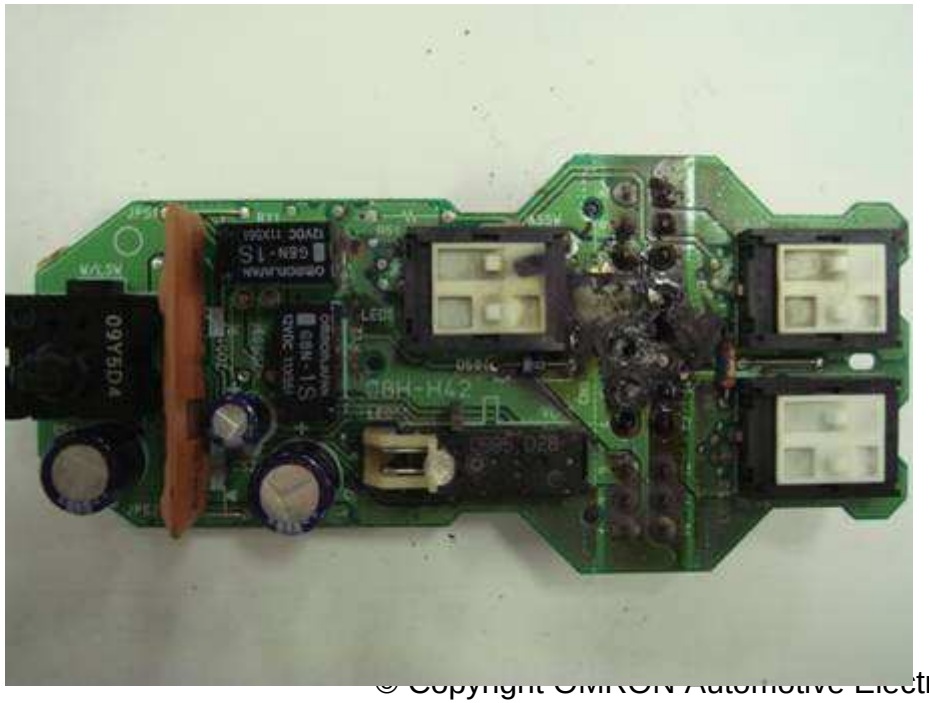


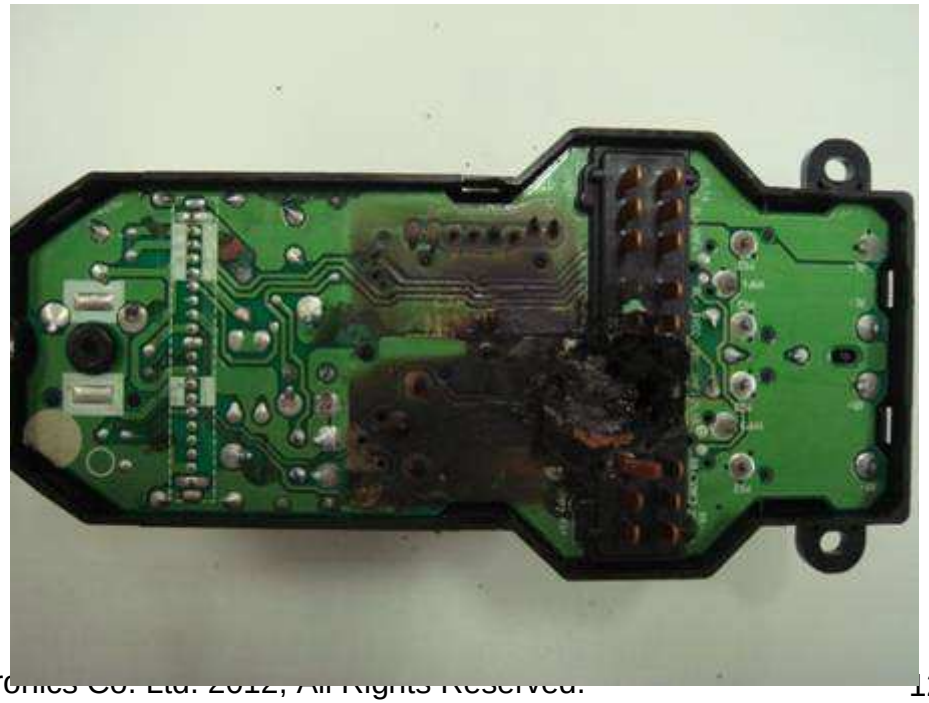
Area A

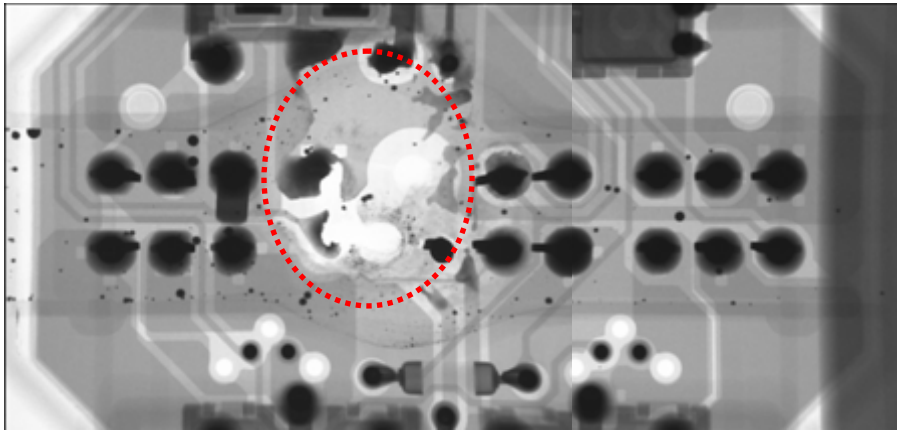


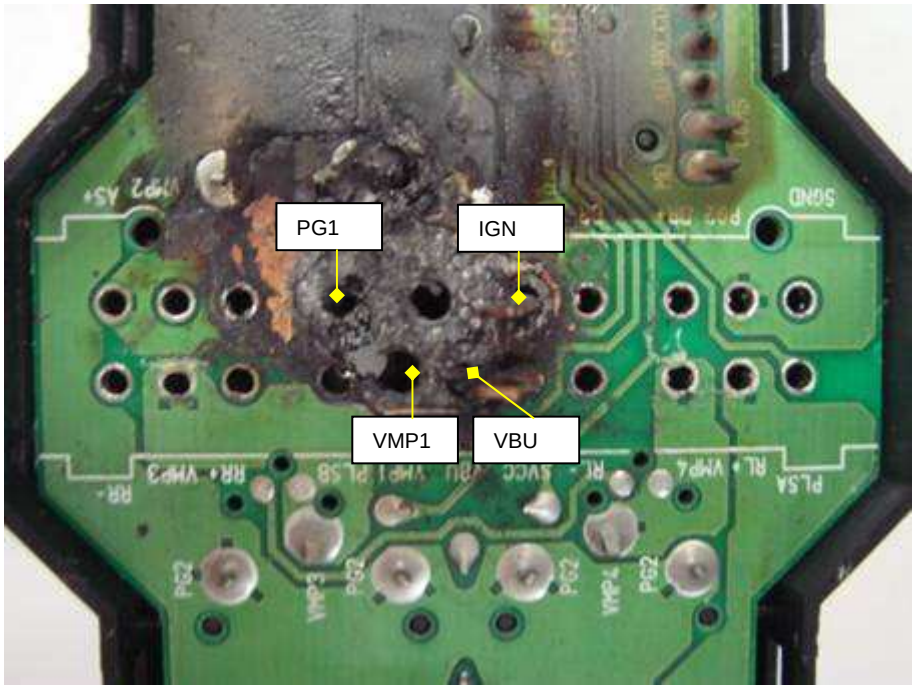
Detected element:
C,O,Na,Al,Si,Pb,
Cl,Sn

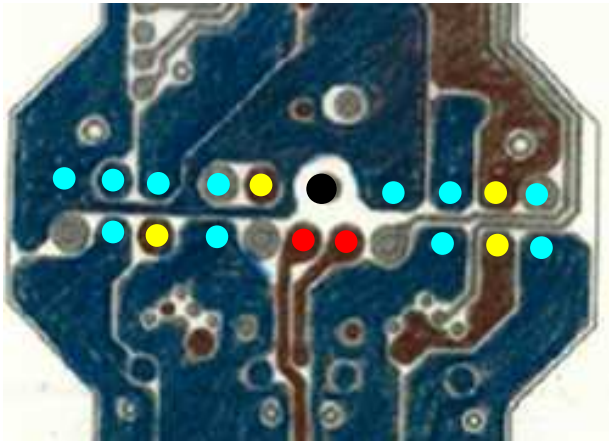
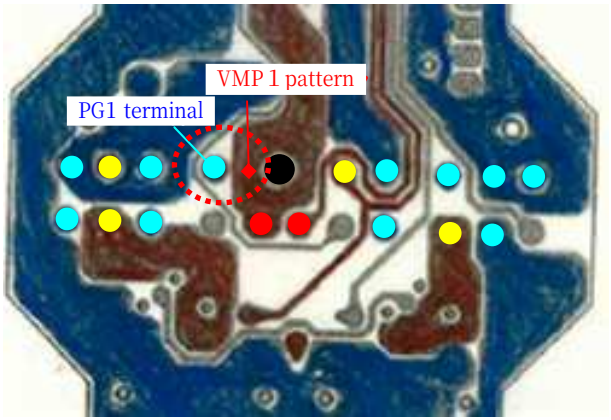
Honda control No.	:	9
Part No.	:	35750-S9A-C04
VIN	:	SHSRD78916U[redacted]
Vehicle production date	:	2006.4.6
Registration date	:	2006.5.30
Occurrence date	:	2010.3.10
Mileage	:	48969mile
OC designated type	:	C8H-H42-BO2S
LOT	:	0936E1
OC designated control No.	:	AQU-100525-010







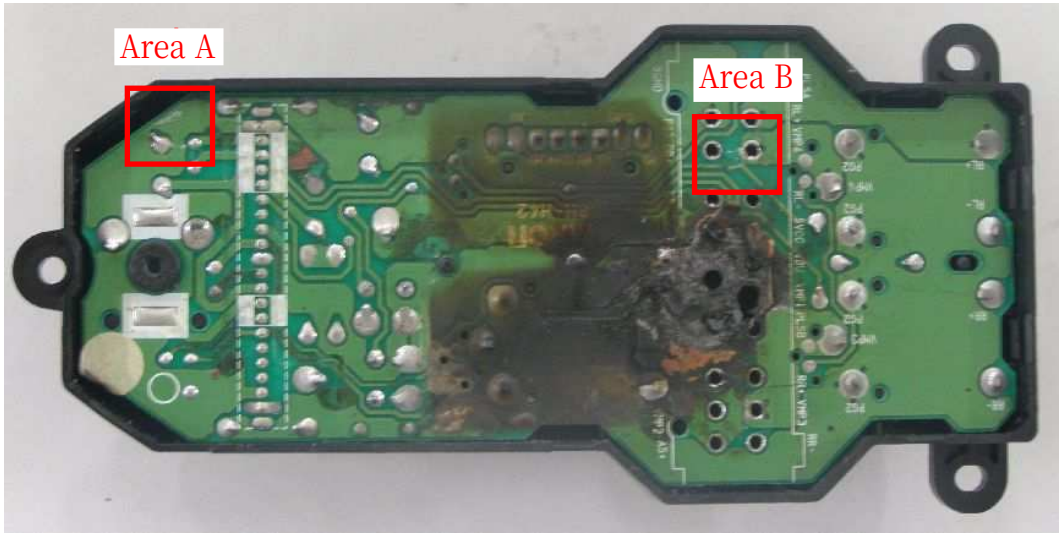


	PCB AW Category: H42
Component side	
Soldering side	

: +B : GND : Assumed Heat source

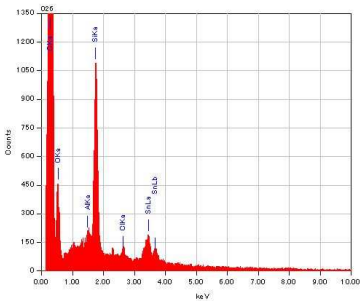
: IG : Threaded hole

C, O, Al, Si, Cl, Cu, Pb, and Sn are detected as a result of EDX analysis of the attachment.

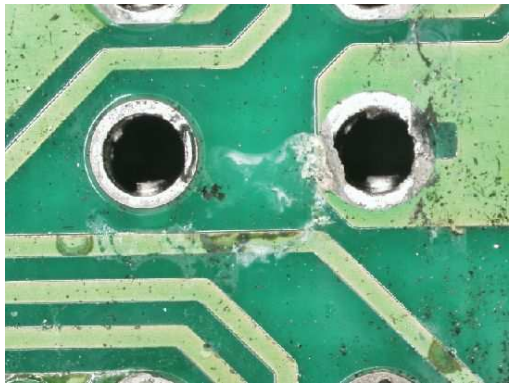


Full view of PCB (Soldering side)

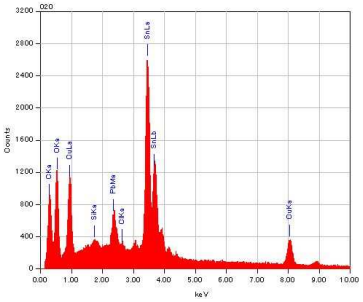
Area A



Detected element:
C,O,Al,Si,Cl,Sn



Area B



Detected element:
C,O,Cu,Si,Pb,Cl,Sn

◆車両情報、現品情報

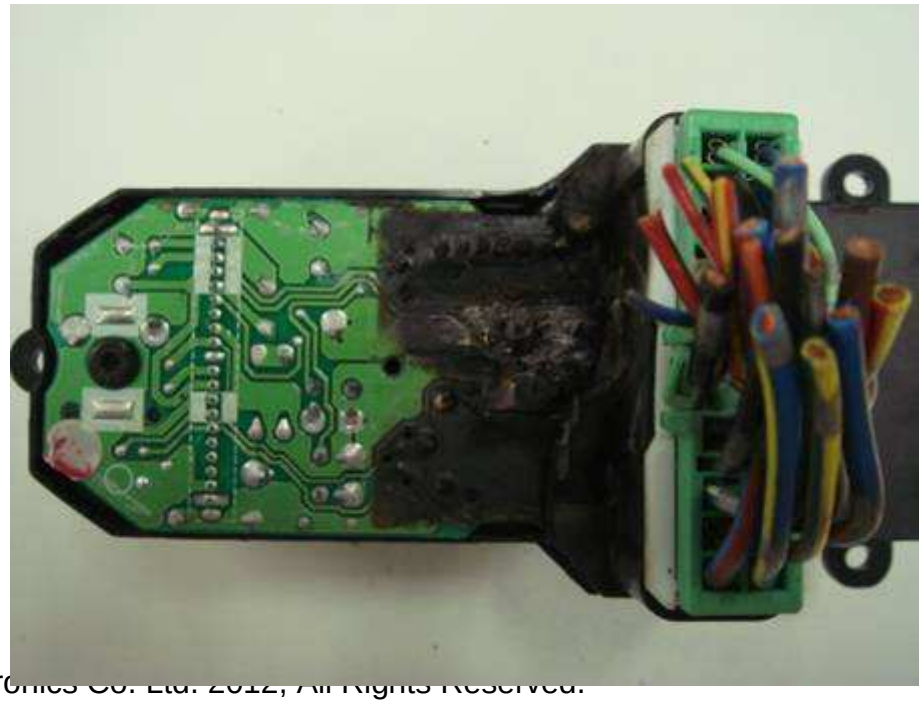
部品番号	型式	VIN	車両製造日	保証登録日	修理受付日	走行距離	発生地区	オムロン形式	ロット	生産日
35750-S9A-C04	RD7	SHSRD788 86U[redacted]	2005/12/22	2006/2/25	2010/1/25	66200mile	US	C8H-H42-BO2S	07Z5E1	2005/12/7
35750-S9A-C04	RD7	SHSRD788 26U[redacted]	2006/6/21	2006/7/24	2010/2/24	48932mile	US	C8H-H42-BO2S	0766E1	2006/6/7
35750-S9A-C04	RD7	SHSRD789 16U[redacted]	2006/4/6	2006/5/30	2010/3/10	48969mile	US	C8H-H42-BO2S	0936E1	2006/3/9

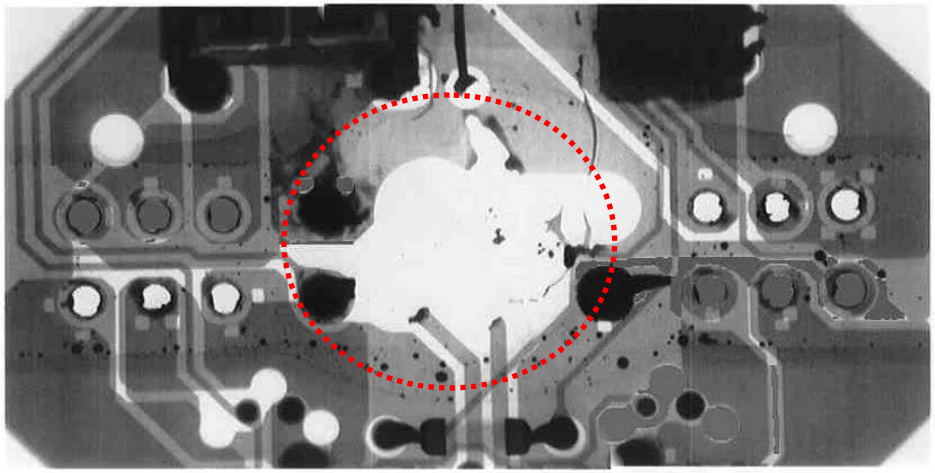
◆返却現品確認結果 一覧

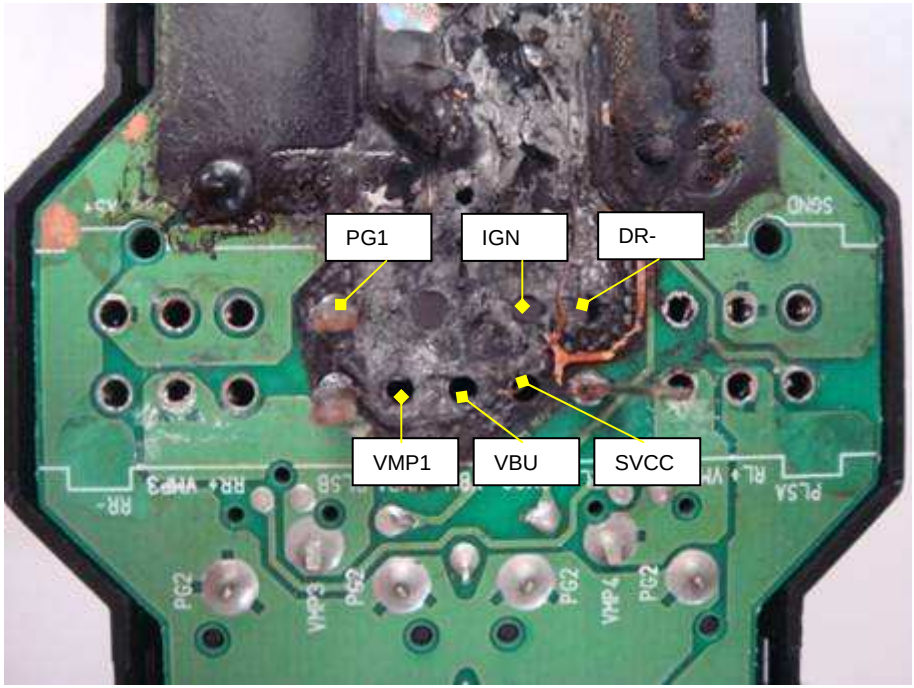
Vin No.	部品番号	車種	基板AW分類	発熱元			イオン成分検出有無
				場所	+側	GND側	
SHSRD78886U[redacted]	35750-S9A-C04	CR-V	H42	コネクタベース下	VMP1パターン	PG1端子	○
SHSRD78826U[redacted]	35750-S9A-C04	CR-V	H42	コネクタベース下	VMP1パターン	PG1端子	○
SHSRD78916U[redacted]	35750-S9A-C04	CR-V	H42	コネクタベース下	VMP1パターン	PG1端子	○

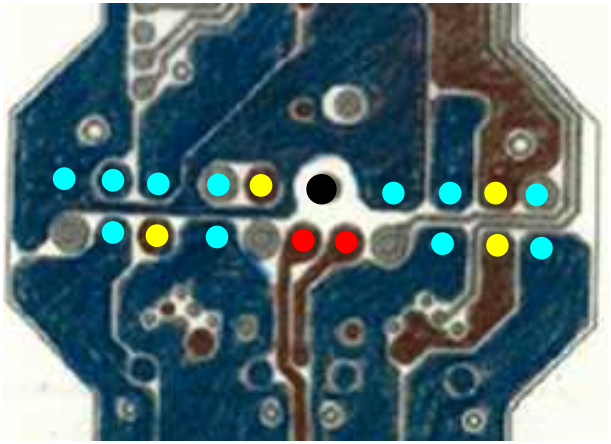
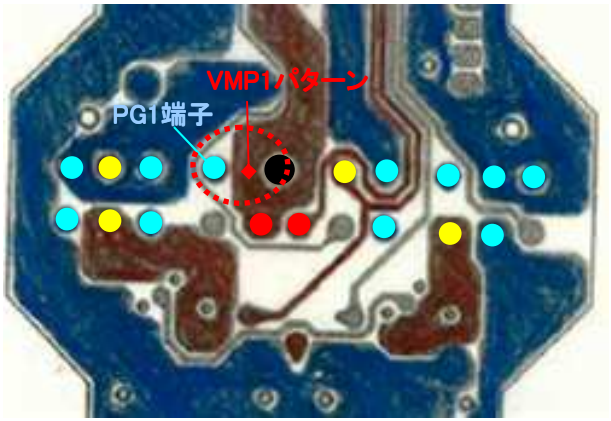
各返却現品の状態（写真）

ホンダ様管理No	: 7
部品番号	: 35750-S9A-C04
VIN	: SHSRD78886U[redacted]
車両製造日	: 2005.12.22
登録日	: 2006.2.25
発生日	: 2010.1.25
走行距離	: 66200mile
OC形式	: C8H-H42-BO2S
ロット	: 07Z5E1
OC管理No	: AQU-100525-008



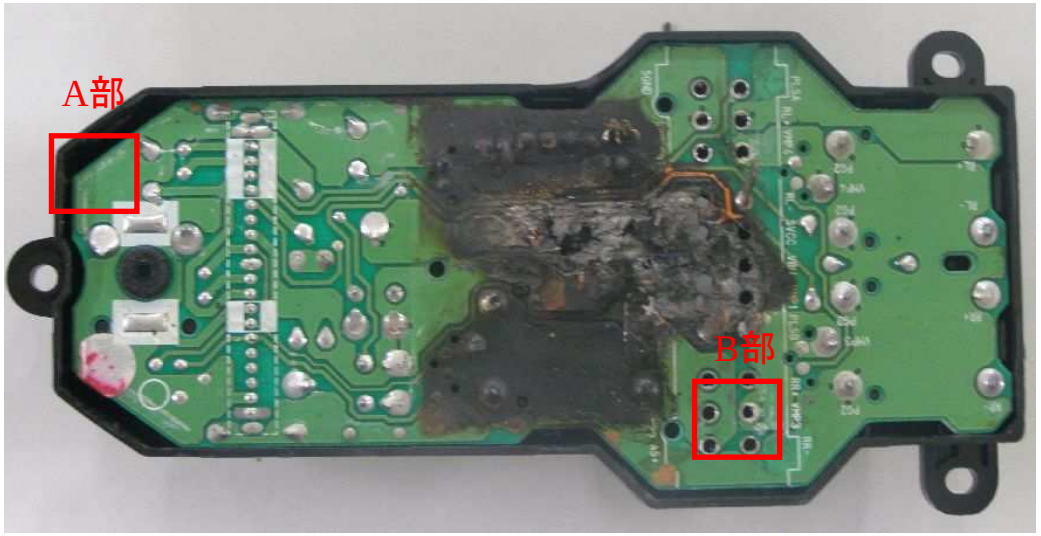




	基板AW分類:H42
部品面	
はんだ面	

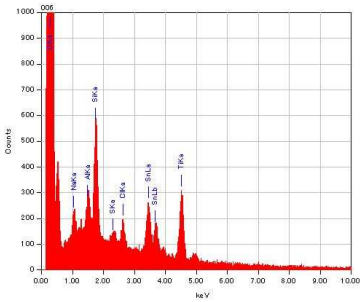
● : +B　● : GND　◌ : 推定発熱元
● : IG　● : ネジ穴

付着物のEDX分析結果、C,O,Na,Al,Si,S,Cl,Pb,Snが検出されました。



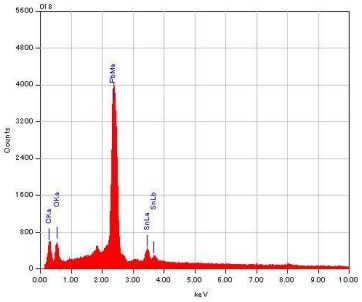
基板全景（はんだ面）

A部



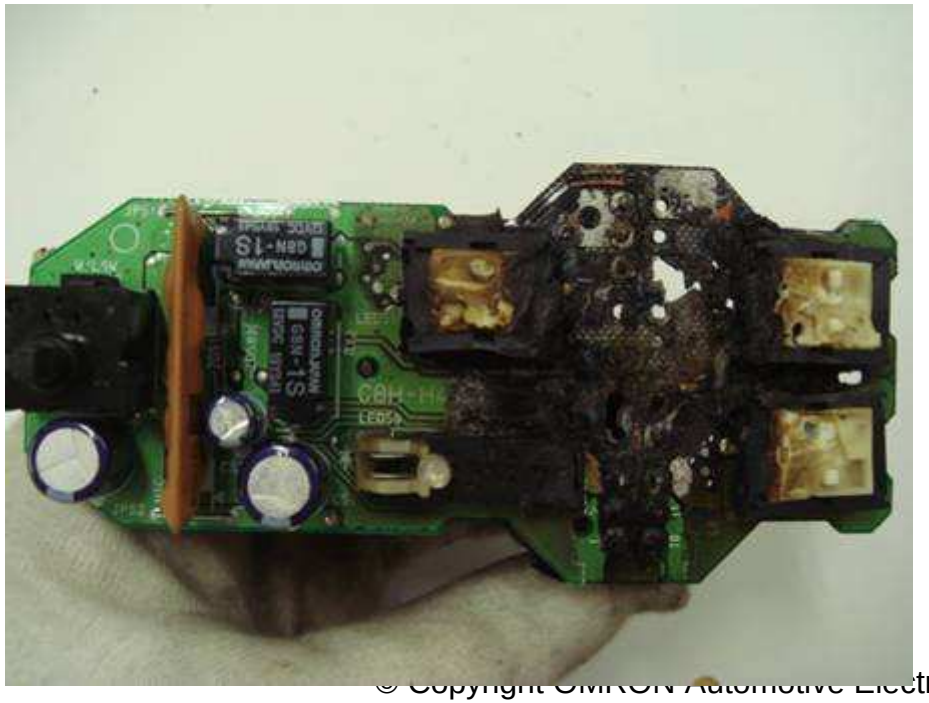
検出元素：
C,O,Na,Al,Si,S,Cl,Sn

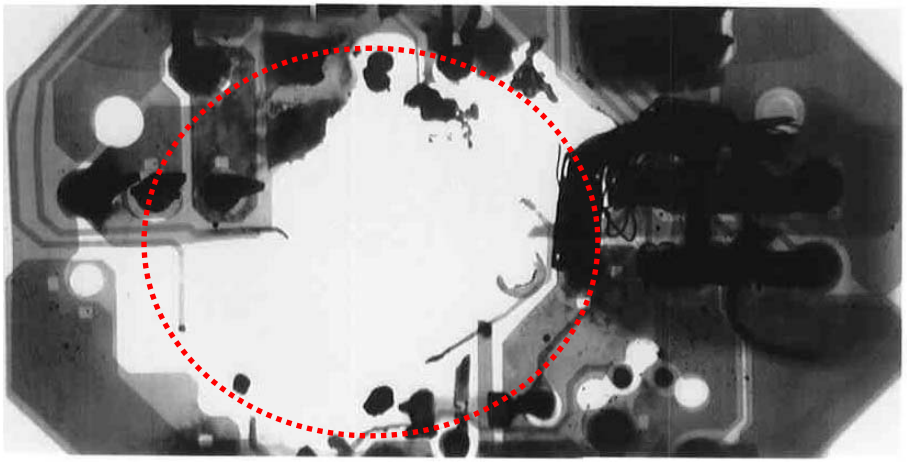
B部

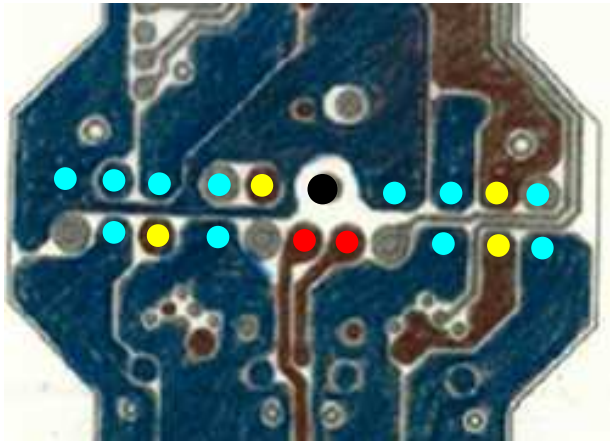
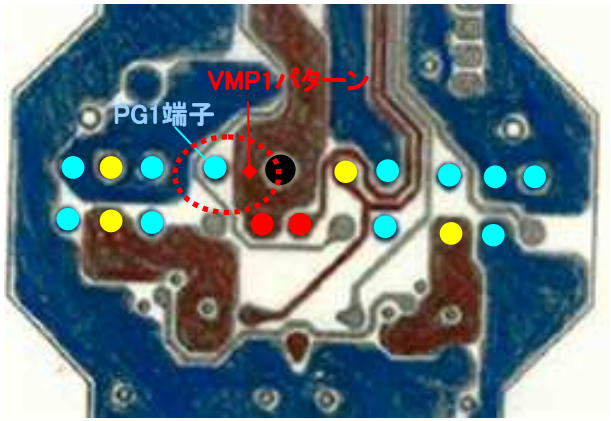


検出元素：
C,O,Pb,Sn

ホンダ様管理No	: 8
部品番号	: 35750-S9A-C04
VIN	: SHSRD78826U[redacted]
車両製造日	: 2006.6.21
登録日	: 2006.7.24
発生日	: 2010.2.24
走行距離	: 48932mile
OC形式	: C8H-H42-BO2S
ロット	: 0766E1
OC管理No	: AQU-100525-009



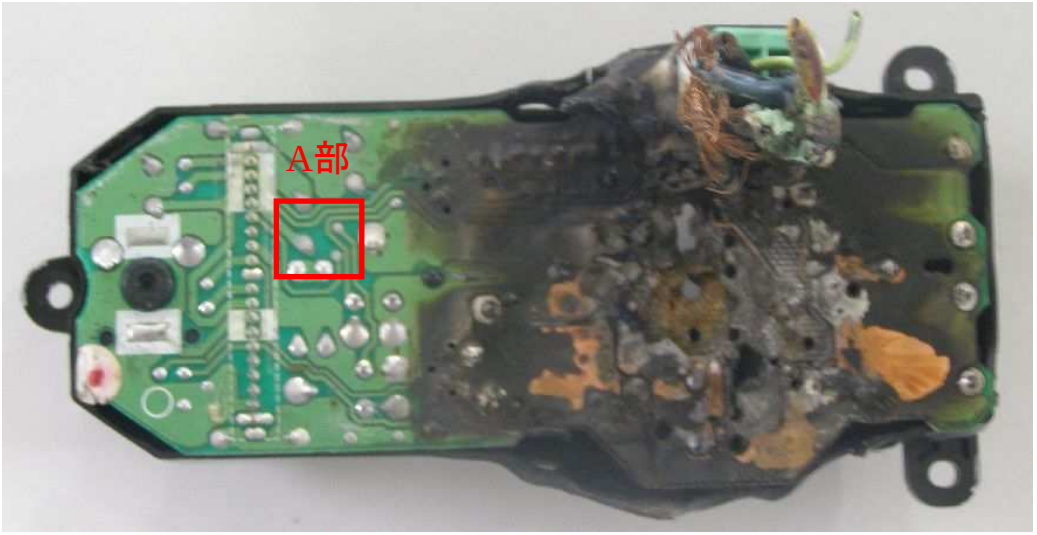


	基板AW分類:H42
部品面	
はんだ面	

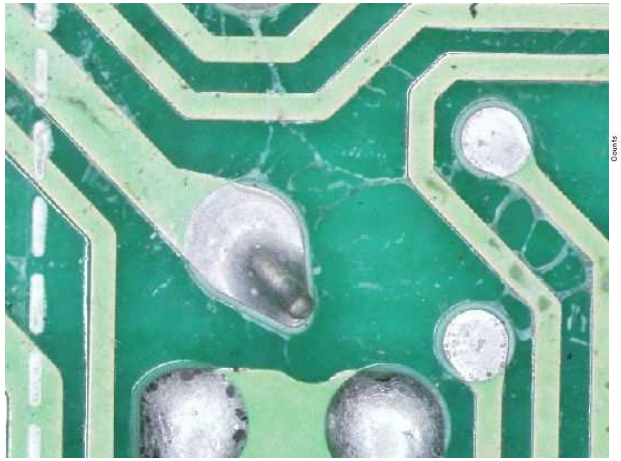
● : +B　● : GND　◌ : 推定発熱元

● : IG　● : ネジ穴

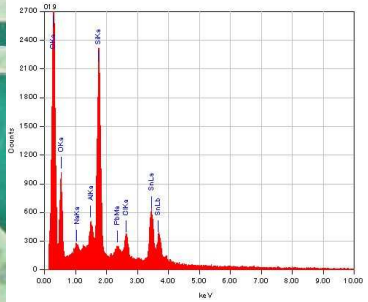
付着物のEDX分析結果、C,O,Na,Al,Si,Cl,Cu,Pb,Snが検出されました。



基板全景（はんだ面）

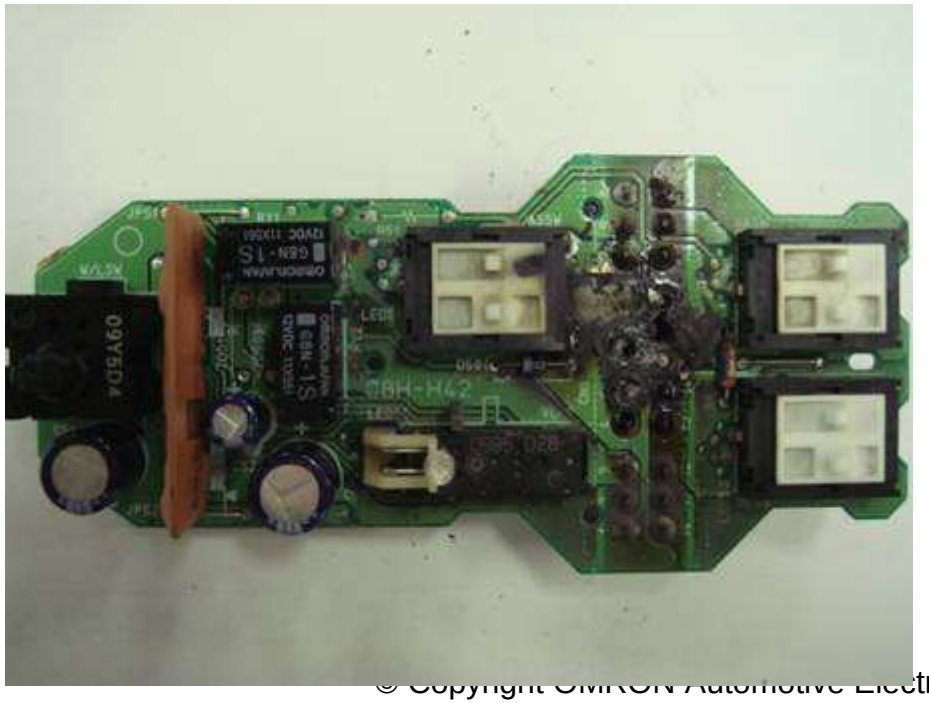


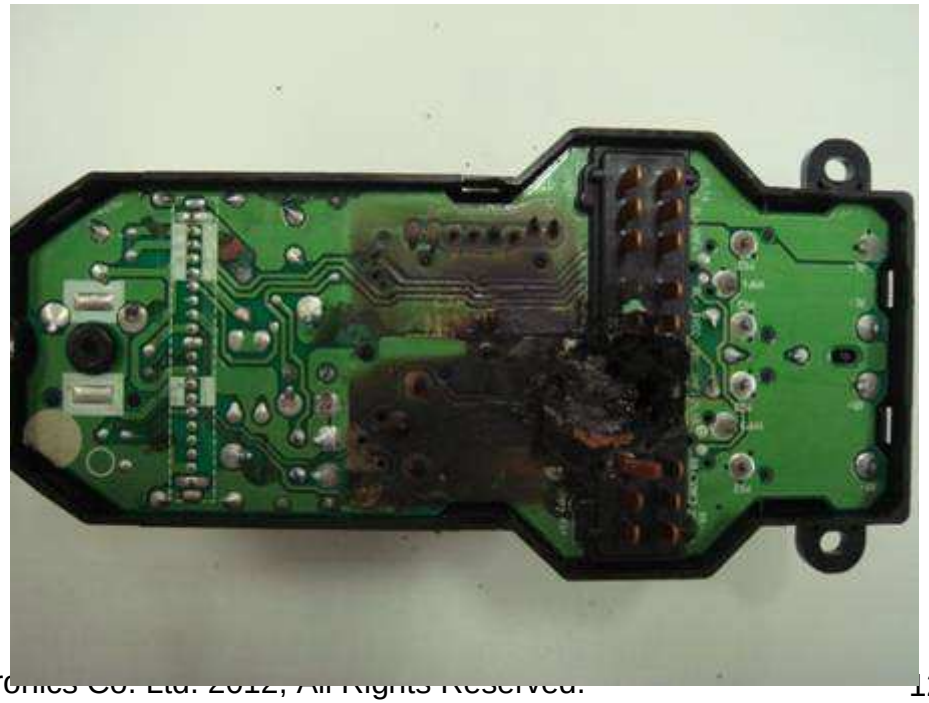
A部

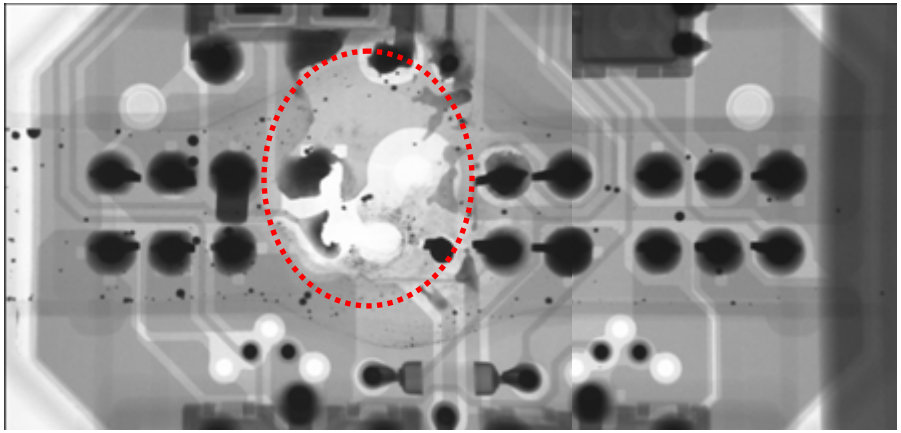


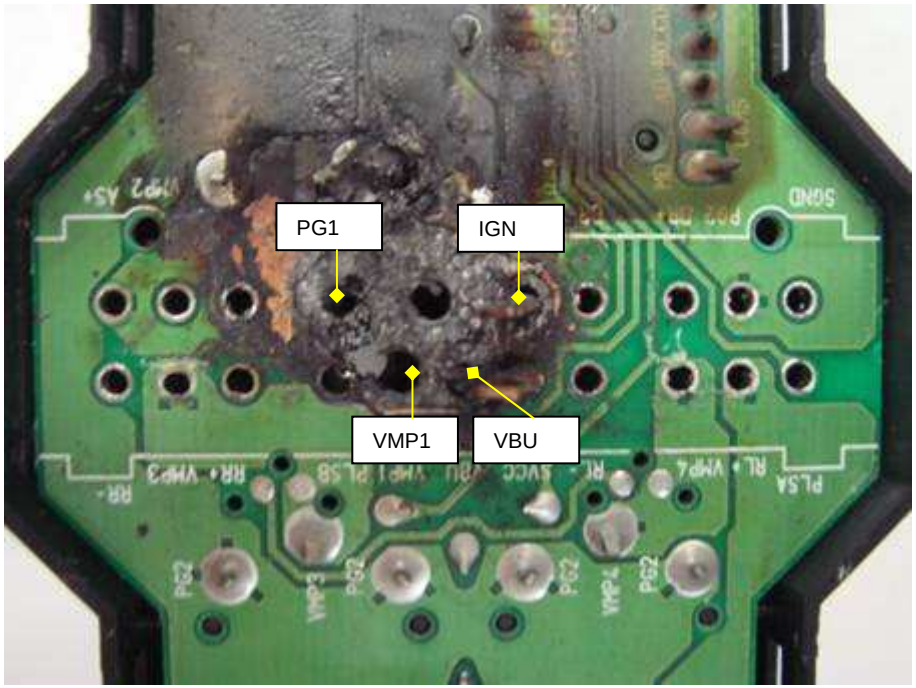
検出元素：
C,O,Na,Al,Si,Pb,
Cl,Sn

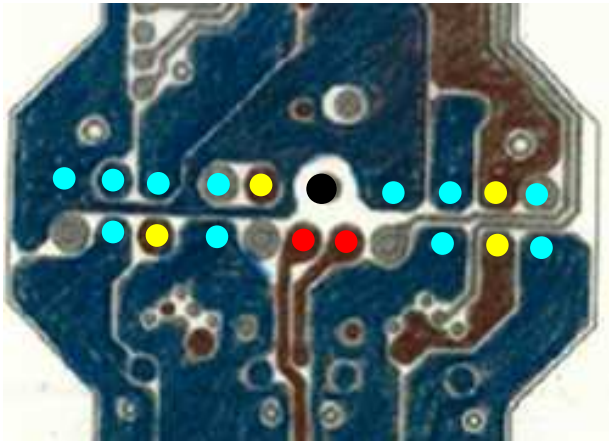
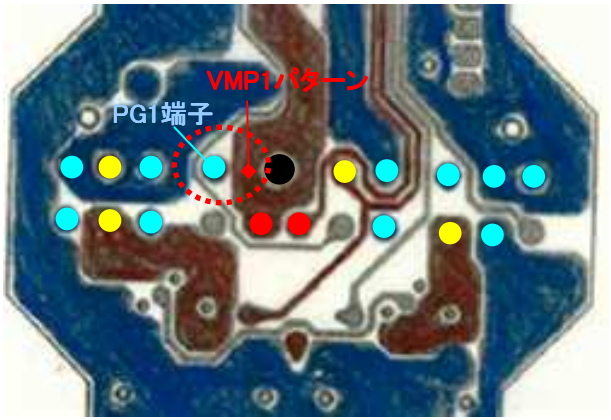
ホンダ様管理No	: 9
部品番号	: 35750-S9A-C04
VIN	: SHSRD78916U[redacted]
車両製造日	: 2006.4.6
登録日	: 2006.5.30
発生日	: 2010.3.10
走行距離	: 48969mile
OC形式	: C8H-H42-BO2S
ロット	: 0936E1
OC管理No	: AQU-100525-010





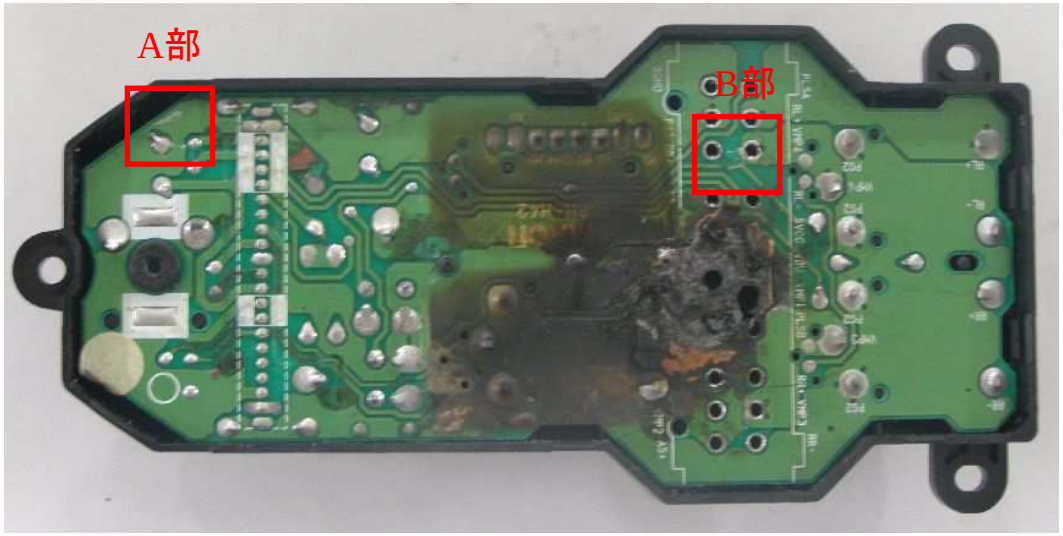




	基板AW分類:H42
部品面	
はんだ面	

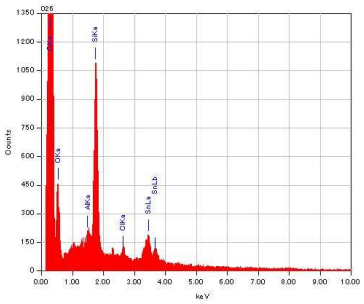
：+B　：GND　：推定発熱元
：IG　：ネジ穴

付着物のEDX分析結果、C,O,Al,Si,Cl,Cu,Pb,Snが検出されました。

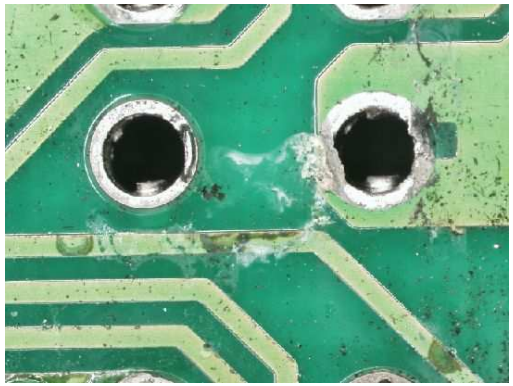


基板全景（はんだ面）

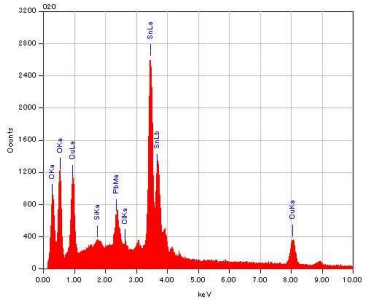
A部



検出元素：
C,O,Al,Si,Cl,Sn



B部



検出元素：
C,O,Cu,Si,Pb,Cl,Sn

EA11-004

HONDA

4/27/2012

Q11

email from OMRON

Auto Quality Analysis Office
Auto Quality Innovation Division
Quality Innovation Center
Honda Motor Co., Ltd.

Dear Mr. Matsumoto,

Thank you for your continued business.
I am Osamu Isogimi from Quality Assurrance Dept. of
OMRON Automotive Electronics Co. Ltd.

Attached is an analysis report on the subject matter.

Please confirm.

Best regards,
Osamu Isogimi

™ş™ş™ş™ş™ş™ş™ş™ş™
Osamu Isogimi

OMRON Automotive Electronics Co. Ltd.
Quality Management Division
Quality Assurance Department
Quality Assurance Section2

6368 NENJO-ZAKA,OKUSA,
KOMAKI-CITY,AICHI 485-0802 JAPAN
mailto:osamu_isogimi@ssa.omron.co.jp
PHONEF+81-568-78-6504
FAX F+81-568-78-6169
™ş™ş™ş™ş™ş™ş™ş™ş™

–{“c‹ZŒ¤H‹ÆŠ”Ž®‰ïŽÐ
•iŽ¿‰üŠvƒZƒ“ƒ^[
Žl—Ö•iŽ¿‰üŠv•”
‡“¯‰ðÍŽº

¼–{—l

,¢,Â,à,¨¢˜b,É,È,Á,Ä,¨,è,Ü,·
ƒIƒ€ƒƒ“ƒI[ƒgƒ,[ƒeƒBƒuƒGƒŒƒNƒgƒƒjƒNƒXiŠ”j
•iŽ¿•ÛØ•”@ŒÜ\ŒN,Å,·B

Žñ‹L,Ì•s‹ï‡,ÌŒ,É,Â,«,Ü,µ,ÄA
‰ðÍƒŒƒ|[ƒg,ð“Y•t,Ì’Ê,è,²’ño,³,¹,Ä’¸,«,Ü,·B

,²¸Žû,Ì’öA‹X,µ,¸Šè,¢\,µã,°,Ü,·B

™ş™ş™ş™ş™ş™ş™ş™ş™ş™
ŒÜ\ŒN@C@Osamu Isogimi

ƒIƒ€ƒƒ“ƒI[ƒgƒ¸[ƒeƒBƒuƒGƒŒƒNƒgƒƒjƒNƒXŠ”Ž®‰ïŽÐ
•iŽ¿“Š‡Žº@•iŽ¿•ÛØ•”@•iŽ¿•ÛØ2‰Û
OMRON Automotive Electronics Co. Ltd.
Quality Management Division
Quality Assurance Department
Quality Assurance Section2

§485-0802@^¤’mŒ§¬–qŽs‘å‘”Nãâ6368
6368 NENJO-ZAKA,OKUSA,
KOMAKI-CITY,AICHI 485-0802 JAPAN
mailto:osamu_isogimi@ssa.omron.co.jp
PHONEF+81-568-78-6504
FAX F+81-568-78-6169
™ş™ş™ş™ş™ş™ş™ş™ş™ş™

EA11-004

HONDA

4/27/2012

Q14

Q14, スナップフィット部及びケースとカバーの隙間から
スイッチ内部へ液体が浸入したため、＋ＢとＧＮＤ間で
マイグレーションが起きて絶縁性が低下し、スイッチ
内部が発熱、溶損に至った。
ホンダがこれまでに実施したテストと同様に溶損の際にスイッチ　に電源を
供給している端子が溶融し脱落することで、
電源が絶たれ発熱が終わり発火せず溶損に留まっている。

Because the liquid entered into the switch through the snap-fit part and from between case and cover, migration occured between +B and GND to cause poor insulation and lead to a heat generation inside the switch, resulting in heat damage. As Honda confirmed with the tests we conducted, the terminal which supplies power to the switch melted and came off when the heat damage occurred, so neither a fire or a spreading fire did occur.

EA11-004

HONDA

4/27/2012

Q14

120126_SHSRD78536U444819_Material analysis report

Date of entry: Jan. 26. 2012

Group Investigation and Analysis report

Material & Precise Measurement Section, Electrical System, Material and Precise Measurement BL, Auto Quality Analysis Office

Approved Control No.		1201025		Approved	Confirmed	Prepared
QIS/QIC No.		-	Information source/ other	2012.1.26 高島	2012.1.26	笹井
Y/M	2006	Model Name CR-V	Severity: B			
Group use		06M CR-V (USA) Analysis of attached substances on power window master switch				

Subject Melting of Driver's Power Window Master Switch

Defective Vehicle Information

Part Name : SWITCH ASSY. POWER WINDOW MASTER
Part No:

Type :
Frame No: SHSRD78536U444819

Registration Date: 08/21/2006
Production date: 07/19/2006

Occurrence Date: 11/20/2011
Mileage : 114206mile

Returned Part:
Country : USA

Symptom Code:
Mission No:

Note: Melting was confirmed at the joint of power window master switch and wire harness

Object Check the presence of suger (drinkable water) in the attached substances on the power window master switch.

Conclusion

Sugar (Sucrose) was confirmed on the defective power window master switch.

Necessity of Continuance of analysis: No

Measurement/Testing Method

Measurement/Test date: From Jan.18. 2012 to Jan. 26. 2012

Measurement/Test Location: Inspecting room

Tester : Masaaki Sasai

Measurement/Test part Name: SWITCH ASSY, POWER WINDOW MASTER

Measurement/Test part No:

Measuring instrument/ Test vehicle: Digital Microscope (VHX-600, Keyence), LC-MS (T100LC, JEOL), Capillary Electrophoresis Measuring System (CAPI-3300, Otsuka Electronics), Scanning Electron Microscope (JSM-7000F, JEOL)

Measurement/Test method : Peak detection of Sucrose component by LC/MS

Judgemental Standard: Presence of Sucrose component in the attached substance

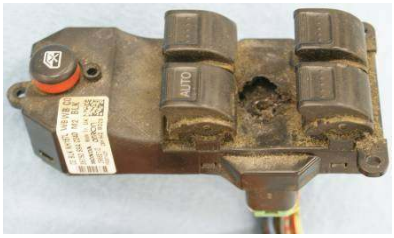
* Supporting document: Attached

Control No.	1201025

Measurement/ Test Results

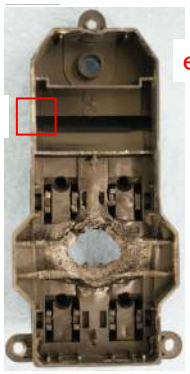
1. Appearance Observation

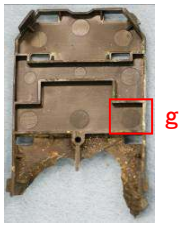
Defective Power Window Master Switch



TOP side

Under side



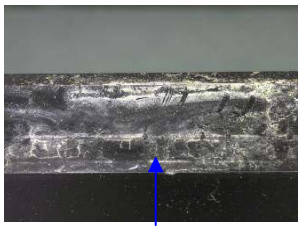


Enlarged view of area a

Enlarged view of area b

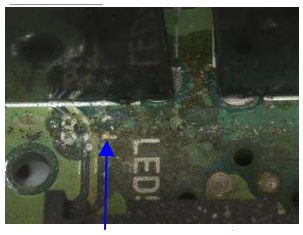
Attached substances confirmed on the top side of the case

Enlarged view of area c



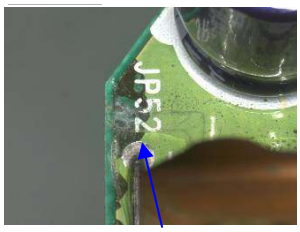
Attached substances confirmed on the side inside the upper case

Enlarged view of area d



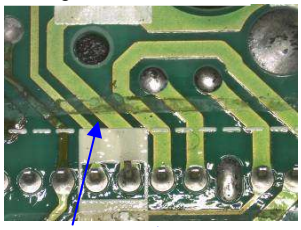
Attached substances confirmed on the rib contact area on the PCB

Enlarged view of area e



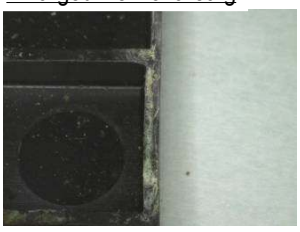
Attached substances confirmed on the rib contact area on the PCB

Enlarged view of area f



Attached substances confirmed on the rib contact area under the PCB

Enlarged view of area g



Attached substances confirmed inside the under case

2. Analysis result of attached elements

Collect an attached substance, attach it on the carbon tape, them measure with the SEM/EDX. Measure 3 collected samples for each area.

Analysis result of attached elements (SEM/EDX) Mass Concentration (%)

Collected Area	n=3	C	O	Na	Mg	Al	Si	P	S	Cl	K	Ca	Fe	Cu	Zn	Sn	Pb
Deposit on the outer surface of the top case (Area a)	1	47.7	29.6	0.9	0.8	0.9	3.2	0.8	0.8	5.9	1.0	5.9	0.5	0.3	0.6	–	1.2
	2	41.4	25.2	1.0	0.9	1.1	2.9	0.4	0.4	12.8	1.8	7.7	2.7	0.1	–	–	1.9
	3	49.4	25.8	0.7	0.5	0.4	1.3	0.6	0.8	8.8	1.2	7.0	0.8	0.2	0.2	0.5	1.7
Deposit on the outer surface of the top case (Area b)	1	34.3	36.9	1.0	0.4	0.7	15.2	0.3	0.5	4.4	1.3	1.8	0.9	0.2	1.0	–	1.0
	2	47.1	29.5	1.6	0.5	0.5	1.3	0.6	1.1	6.6	2.2	5.0	0.3	0.3	1.8	0.1	1.4
	3	44.9	28.5	1.6	0.9	0.8	2.5	0.4	0.7	7.0	2.7	4.2	1.5	0.3	1.5	0.9	1.7
Substance attached on the side of inner surface of the top case (Area c)	1	13.9	28.0	3.6	0.8	0.4	0.5	0.2	0.6	7.6	3.0	1.2	–	6.6	–	32.4	1.4
	2	13.8	26.6	2.9	0.6	0.4	0.3	0.1	0.8	5.7	3.0	1.2	0.2	5.1	0.4	37.8	1.3
	3	13.7	23.9	3.0	1.1	0.5	1.1	0.1	0.7	8.7	3.8	1.8	0.2	5.9	0.2	33.9	1.6
Attached substance on the PCB (Area d)	1	41.4	29.8	7.8	0.4	0.4	0.1	0.3	1.2	1.3	3.9	1.4	0.1	10.0	1.0	–	1.0
	2	34.4	28.2	3.8	0.6	0.9	0.8	0.7	1.3	2.5	7.4	10.3	0.1	6.7	–	1.3	0.9
	3	34.9	26.9	4.8	0.5	0.7	0.2	0.8	0.4	3.0	7.6	5.4	0.2	7.4	0.9	4.1	2.3
Attached substance on the PCB (Area e)	1	24.1	25.7	3.1	1.1	0.4	0.3	0.3	0.6	5.2	1.7	1.7	0.1	32.2	1.9	0.1	1.5
	2	33.0	24.8	1.8	1.0	0.2	0.2	0.2	0.5	3.8	1.2	1.4	0.2	29.3	1.2	–	1.3
	3	55.2	24.6	0.1	4.8	0.2	6.8	0.1	0.1	1.1	0.3	0.8	0.2	4.7	0.1	0.2	0.7
Attached substance under the PCB (Area f)	1	16.2	22.0	–	0.2	–	0.1	0.2	3.0	12.0	0.1	3.3	0.3	38.5	1.5	0.4	2.7
	2	17.0	22.8	–	–	0.2	0.1	0.2	2.8	10.7	0.1	2.9	–	39.3	1.8	–	2.6
	3	18.9	23.2	–	0.1	0.1	0.2	0.4	1.2	13.2	–	0.9	0.1	38.6	1.7	–	2.4
Attached substance inside the under case (Area g)	1	16.2	27.6	3.7	0.6	0.3	0.4	0.3	0.8	4.5	2.4	0.2	–	10.7	0.7	28.4	3.4
	2	16.3	27.5	3.0	0.3	0.4	0.3	–	0.6	3.2	2.1	0.6	–	13.8	0.9	27.7	3.8
	3	10.8	24.3	3.9	0.5	0.5	0.3	0.2	0.8	5.5	3.0	0.5	0.4	12.2	0.6	31.2	5.2

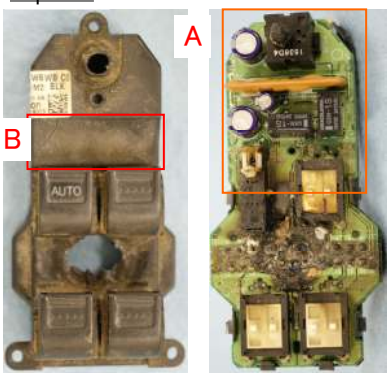
Elements listed above are confirmed in the attached substances collected from each area of the power window master switch.

Measurement/ Test Results

3. Analysis results of attached Ions

Defective Power Window Master Switch

Top side



Under side

Measuring Method

- Extract samples from edges of the PCB (area A) and outer surface of the case (area B) with 400uL ultrapure water.
- Filter the extracted liquid and measure with the Capillary Electrophoresis Measuring System.

Analysis results of attached ions (CE)

【ppm】

Extracted area	Cl	NO_3	SO_4	Formic Acid	Acetic Acid	Lactic Acid	Propionic Acid	NH_4	K	Ca	Na	Mg	Zn
Edges of PCB (Area A)	24.9	0.3	7.5	4.3	7.7	0.1	4.7	0.9	31.0	3.7	14.2	2.8	0.1
Outer surface of the case (Area B)	169.9	2.4	194.6	2.7	44.4	–	21.3	–	377.9	32.8	47.9	37.0	0.7

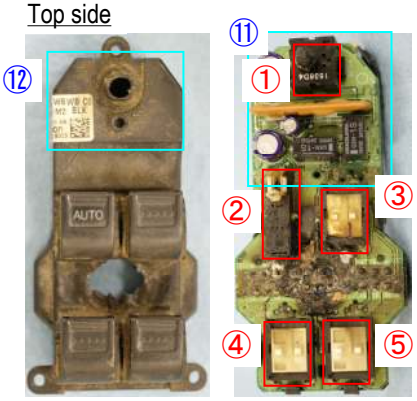
Ions listed above are confirmed on the PCB and outer surface of the case.

Measurement/ Test Results

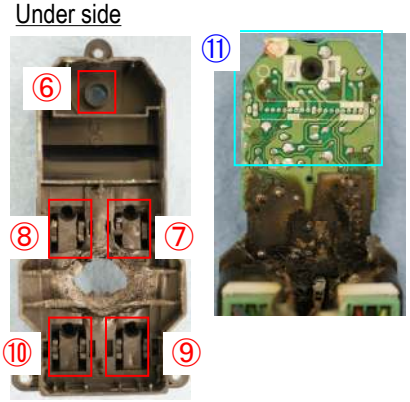
4. Presence of sugar in the attached substances

Defective Power Window Master Switch

Top side



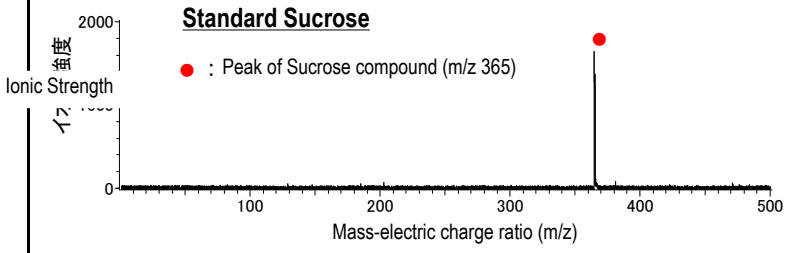
Under side

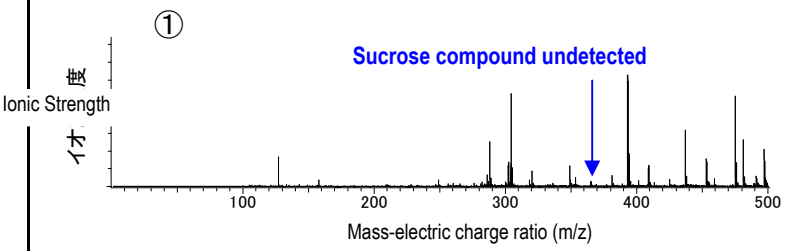


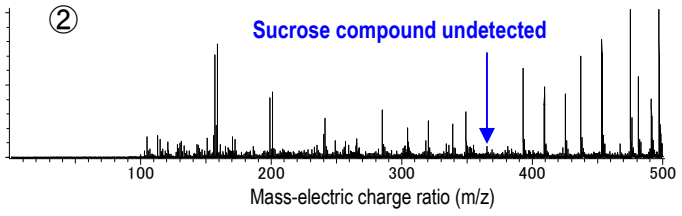
Defective Power Window Master Switch

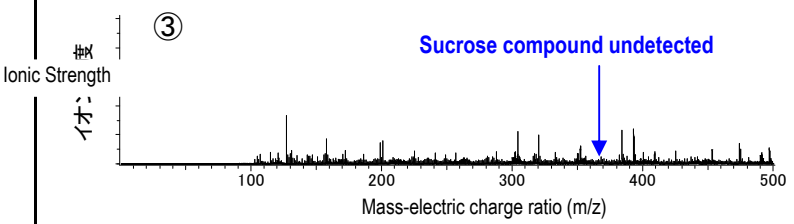
- Wipe surfaces of ① through ⑤ of the PCB SW, ⑥ of the case, and ⑫ with a 1x1cm cloth soaked in 90% methanol. and extract by 2mL 90% methanol, then filter.
- Extract ⑦ through ⑩ of inner case and ⑪ of the PCB by pouring 2ml 90% methanol, then filter the extracted liquid.
- Concentrate each extracted liquid for one night (15hrs) and let methanol evaporate .
- Measure this liquid with LC/MS and check a peak of Sucrose compound (m/z 365).

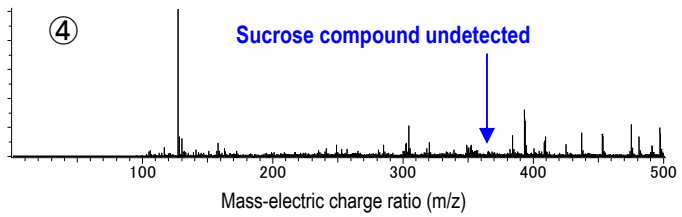
Analysis Results of Extracted liquid mass(LC/MS)

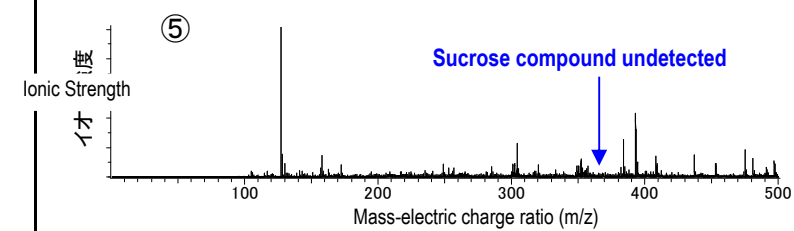


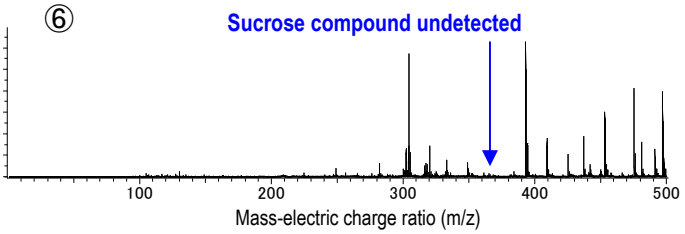












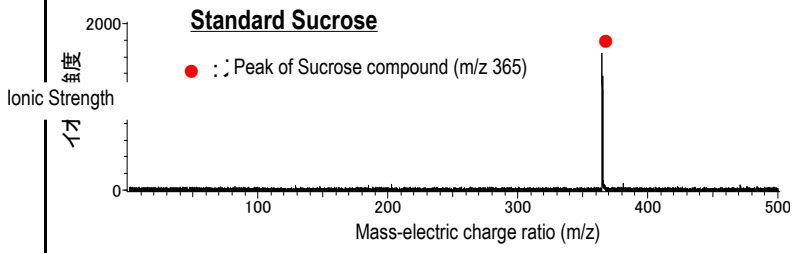
〔Appendix〕

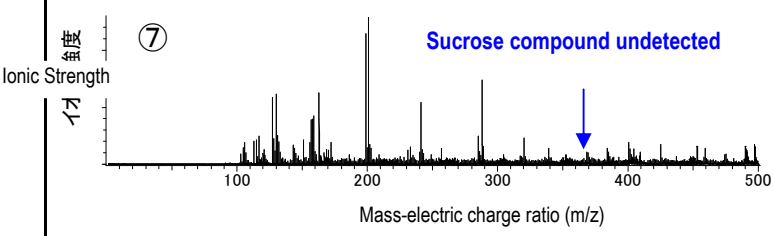
Control No.	1201025

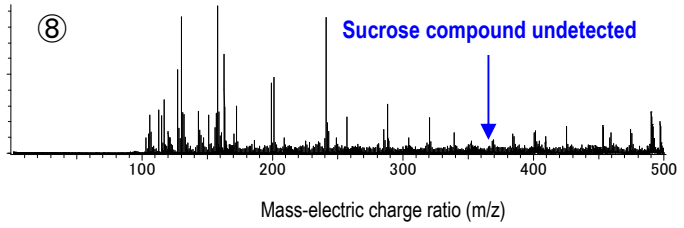
Measurement/ Test Results

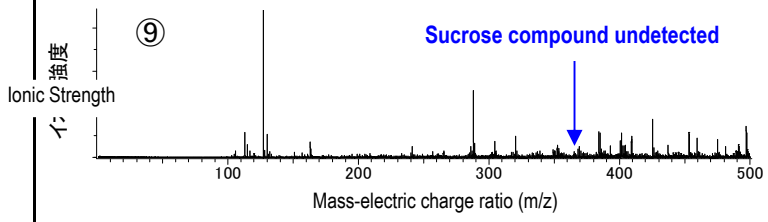
Measure the extracted liquid with LC/MS and check a peak of Sucrose compound.

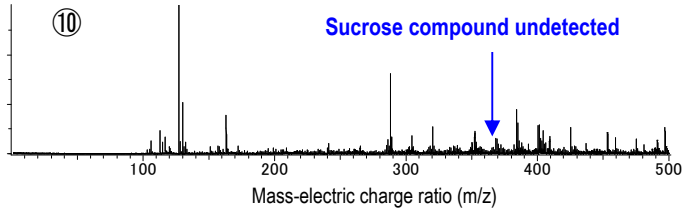
Analysis Results of Extracted liquid mass(LC/MS)

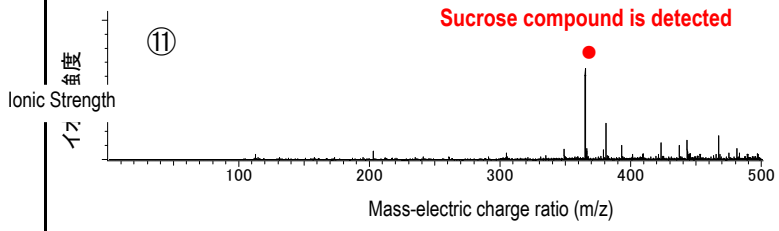


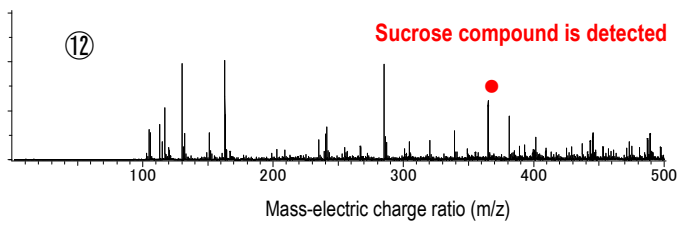












Sugar (Sucrose) was detected in some parts of power window switch. (Area 11 and 12)

EA11-004

HONDA

4/27/2012

Q14

Analysis Report

Subject	Power Window Master Switch Heat Damage
Part #	35750-S9A-C040-M2 (Company type: C8H-H42-B2S-UK)
Part name	Power Window Master Switch

Analysis Record [Analysis Report]

OMRON Automotive Electronics Co. Ltd.

3/4/2012

Approved	Confirmed	Prepared
12. 3.4	12. 3.4	12. 3.4
田中	岡崎	五十君

Occurrence situation

(Symptoms, Alleged failure, the number of occurrence, C/M)

Control number: -

Part number: 35750-S9A-C040-M2
Type: RD7
FNo.: SHSRD78536U444819
Model: CR-V
Reg. Date: August 21, 2006
Occ. Date: November 28, 2011
Occ. place: market
Number of occurrence: 1 case
Mileage: 114,206Mile
Problem occurred:
The power window master switch does not function properly, or not function.
Melted connectors of the power window master switch and a
wire harness of the driver's door were found.
Omron plant: Plant in the U.K.
LOT of the returnd product: 2966E1 (Produced on June 29,
Receipt date of the returnd product: February 6, 2012

Confirmed Facts

(Parts check results, factor analysis, and the quality of product)

【1. Returned parts verification results】

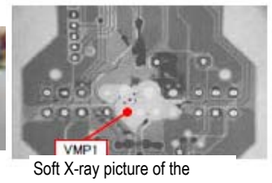
(1) Damaged part check

・Significant damage due to heat was confirmed around the VMP1
terminal as a results of returned condition and PCB condition check.
Loss of VMP1 and VBU terminals is also confirmed.


Full view of PCB (Component side)


Full view of PCB (Soldering sic

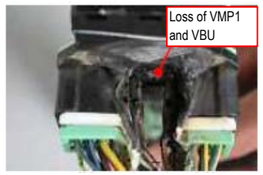
・Damage was confirmed around the VMP1 connector as a result of soft X-ray investigation of the PCB.
・Damage was confirmed on the PCB of VMP1, VBU, SVCC, PG1, IGN, and DR-terminals as a results of material observation performed after connector base removal.



Soft X-ray picture of the

Condition with connector base removed

Enlarged connector view of the component side



Enlarged connector view of the solderring side

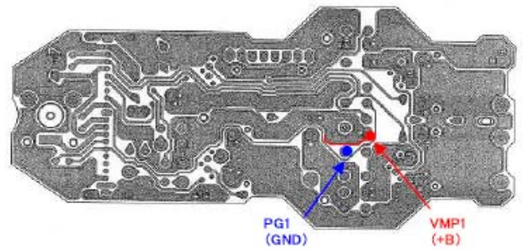
(2) Attachement analysis

・Discoloration and white abnormal substances are confirmed as a result of the PCB check.
・Electrolyte and soldering component are confirmed as a result of analysis of abnormal substances.
・Sucrose and glucose were confirmed from the case and PCB surface.

*Please refer to attached document 1 and other documents for condition and analysis results of the attachement.

【2. Outlook on occurrence cause of heat damage 】

・As a verification results of damaged parts, it was confirmed that heat generated from the PCB around the VMP1 terminal and stopped its progress when the VMP1 terminal which supplies power to the SW came off (melt).
・Heat cause is considered to be liquid which contains sucrose/glucose
and electrolyte from the evidence on the PCB and the analysis results.
It appeared to be that the liquid was attached around the pattern which connects to VMP1 terminal on the PCB, and leaked to adjacent GND terminal.



PG1 terminal (GND) was set near the pattern which is connected to the VMP terminal.
Pattern Gap: Approx. 0.5 mm

Route cause investigation (Occurrence mechanism, reproducibility test, Why-why analysis)

1. Assumed cause

Melting occurred around the VMP1 terminal may be caused by electrical short which led to heat generation. From the liquid mark confirmed on the returned part, it was considered that the short was occurred because of tracking(local heating) caused by the circuit with materials educed from the migration (metal transfer).

Please refer to page 2 in Attached doc 2.

2. Heat cause

From the liquid drop and continuous current flow to the defective part, we could reproduce the condition which is similar to the returned part when salt water was dropped onto the SW. (*Testing with a model similart to 35750-S5A)
Also, we confirmed that there is a possibility of melting when the pattern gap is within 1.5mm from the findings of the tests.

Please refer to page 3 to 5 in Attached doc 2.

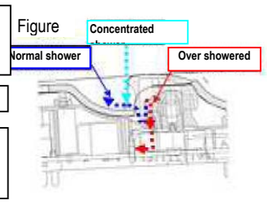
3. Occurrence Mechanism

From the investingation results above, the occurrence mechanism flow of heat damage was considered as shown on the right.
*Please see Pg 6 in Attached doc 2 for details.

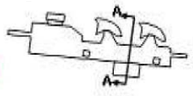
【Occurrence Mechanism】

PW is showered with considerable amount of liquid containing sacrose/glucose and electrolyte
↓
Liquid enters inside the SW from projected area of the case. (Figure 1)
↓
Liquid moves narrow space between PCB and rib and between PCB and terminal block. (Figure 2 and 3) ← Liquid accumulates to where +B pattern and GND land are closely set with the gap below 1.5mm
↓
Liquid accumulates between +B pattern and GND land, and migration occurs.
↓
Insulation resistance between +B pattern and GND land become poor and leak current flows to cause joule heat.
↓
Heat maintains/spreads to cause melting.
↓
When heat reaches 1,000°C, VMP1 terminal (copper), which supplies power to the SW, starts to melt.
↓
VMP1 terminal comes off of the PCB and unables power supply. (Heating stops and PW malfunction occurs)

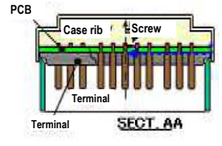
Figure



Figure



Figure



Step		1	2	3	4	5
Contents	Occurrence	Heating and melting from the PCB	Insulation resistance between +B pattern and GND land become poor, causing the leak current to flow.	Migration occurs due to accumulated liquid	・Liquid which moves narrow space between PCB and rib and between PCB and terminal block, and attaches to the area melted. ・Liquid accumulates to where +B pattern and GND land are closely set with the gap below 1.5mm	PW is showered with considerable amount of liquid containing sucrose/glucose and electrolyte. *Repeat 3 to 5
	Outflow					

Appropriate C/M (Detailed C/M, effect, PPA)

C/M effectiveness check (Actual record)

Feedback to Genryu (Reflection to the system and mechanism)

テーマ	パワーウインドウマスタースイッチ溶損
部　番	35750-S9A-C040-M2（当社型式：C8H-H42-BO2S-UK）
部品名	POWER WINDOW MASTER SWITCH

解析記録　〔 解　析　レ　ポ　ー　ト 〕

DU-N-1233017

報告　：　2012年3月4日

作成部門：取引先名　オムロンオートモーティブ エレクトロニクス株式会社　発行日：2012年3月4日

承認	審査	作成
12. 3.4	12. 3.4	12. 3.4
田中	岡崎	五十君

発生状況（現象・訴え内容・発生件数・処置内容）

- ・管理No.　：　-
- ・部番　：　35750-S9A-C040-M2
- ・型式　：　RD7
- ・フレームNo.　：　SHSRD78536U444819
- ・通称名　：　CR-V
- ・登録年月日　：　2006年8月21日
- ・発生年月日　：　2011年11月28日
- ・発生場所　：　市場
- ・発生件数　：　1件
- ・走行距離　：　114,206Mile
- ・発生時の状況　：

パワーウィンドウ・マスタースイッチが効きが悪い、効かない
パワーウィンドウ・マスタースイッチとドライバードア・ワイヤーハーネスのコネクタが溶損していた

- ・オムロン生産工場　：　オムロン イギリス工場
- ・返却品LOT　：　2966E1（2006年6月29日生産）
- ・返却品受領日　：　2012年2月6日

事実の把握（部品の確認結果・要因分析・生産品の品質状況）

1．返却現品の確認結果

(1) 損傷箇所の確認

・返却状態、基板の状態を確認した結果、VMP1端子周辺に発熱による著しい損傷が認められ、VMP1とVBU端子が欠落しておりました。


基板全景（部品面）


基板全景（はんだ面）

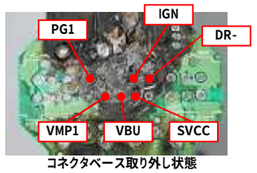
基板部品面_コネクタ部拡大

基板はんだ面_コネクタ部拡大

・基板をソフトX線調査した結果、コネクタ VMP1端子周辺に損傷が認められます。

・コネクタベース取り外しによる実体観察の結果、VMP1,VBU,SVCC, PG1,IGN,DR-端子部の基板に損傷が認められます。

コネクタ部_ソフトX線写真



コネクタベース取り外し状態

(2) 付着物の確認

・基板を確認した結果、変色、及び白色異物が認められます。

・異物分析した結果、電解質成分及びはんだ成分が認められました。

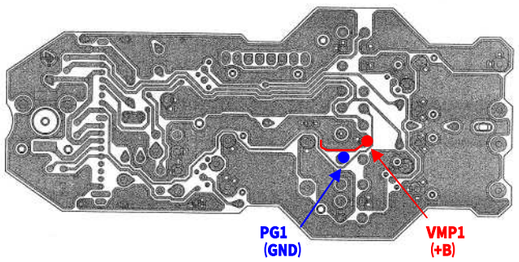
・ケース表面および基板表面より糖が認められました。

※付着物の状態や分析結果は添付資料1、別紙をご参照ください

2．溶損不具合 発生要因の見解

・損傷状態の確認結果より、VMP1端子周辺の基板上より発熱し、VMP1端子が脱落（溶断）して電源供給がされなくなり、溶損の進行が終了したものと考えられます。

・発熱の要因は、基板上の痕跡・分析結果より、糖や電解質を含む液体が基板上のVMP1端子に繋がっているパターン周辺に付着して、隣接するGND端子とリークしたと考えられます。



VMP1端子に繋がっているパターン周辺にPG1端子（GND）が存在
パターンGap：約0.5mm

原因の究明（発生のメカニズム・再現テスト・ナゼナゼ分析）

1．推定要因

VMP1端子を中心に溶損した本不具合は、何らかの要因により当該箇所にて電気的ショート状態→発熱したものと考えます。

ショート状態となった要因は、返却品に液体痕跡が認められることより、液体によるマイグレーション現象（金属移行）によって基板上に析出物による回路が形成され、トラッキング現象（局部発熱）が発生したものと考えます。

添付資料2　p.2をご参照ください

2．発熱要因

不具合箇所への液体供給及び連続通電により、塩水滴下した際に返却品と酷似した状態が発生することを確認しました。※35750-S5A類似機種の結果より

また、溶損要因のパターンGap（間隔）についてテストを行い調査を行った結果、パターンGapが1.5mm以内であると溶損発生の可能性があることを確認しました。

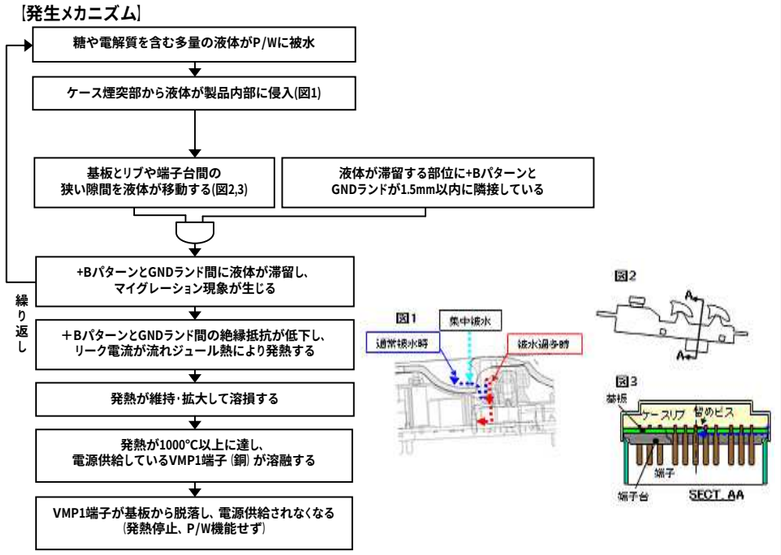
添付資料2　p.3～5をご参照ください

3．発生メカニズム

以上の調査結果より、溶損発生メカニズムは右記流れによると考えます。

※詳細は添付資料2 p.6をご参照ください

【発生メカニズム】



ナゼ・ナゼ分析

ステップ		1	2	3	4	5
内容	発生	基板からの発熱・溶損	基板上の+Bパターン－GNDランド間の絶縁抵抗が低下し、リーク電流が流れた	液体が滞留してマイグレーション現象が起きた	● P/W内部に浸入した液体が、基板とリブや端子台間の隙間を液体が移動し、溶損部に付着した。 ● 液体が滞留する部位に+Bパターンと GNDランド端子が1.5mm以内に隣接する	糖や電解質を含む多量の液体がP/Wにかかった ※3～5の繰り返し
	流出					

適切な対策（対策内容、効果予想、PPA）

対策効果の確認（効果確認）

源流へのフィードバック（体制・仕組みへの反映内容）

原本保存期限：　　年　　月

起票日:2012年01月26日

グループ「調査解析報告書」

合同解析室 電装・材料・精測 BL 材料精密測定 Gr

承認管理No.		1201025			承認	確認	担当
QIS/QIC No.		-		情報元 その他	2012.1.26 高島	2012.1.26 笹井	笹井
Y/M	2006	シリーズ名	CR-V	重要度 B			
Gr使用欄		06M CR-V(USA) パワーウィンドウマスタースイッチ付着物解析					

〔件 名〕 運転席PWマスタSW溶損

〔不具合車情報〕

部品名	: SWITCH ASSY. POWER WINDOW MASTER	部番	:
型式	:	フレームNo.	: SHSRD78536U444819
登録年月日	: 2006/08/21	製造年月日	: 2006/07/19
発生年月日	: 2011/11/20	走行距離	: 114206mile
返却品	:	国名	: USA
症状コード	:	ミッションNo.	:

〔備 考〕 パワーウィンドウマスタースイッチとワイヤーハーネスの接合部が溶損していた。

〔目 的〕 パワーウィンドウマスタースイッチの糖分(飲料水等)付着有無を確認する。

〔結 論〕

パワーウィンドウマスタースイッチ事象品より、糖分(スクロース成分)が検出された。

★現品の継続解析の要否 否

〔測定・テスト方法〕

測定・テスト年月日 : 2012年 1月 18日 ～ 2012年 1月 26日

測定・テスト場所 : 材料検査室

担当者 : 笹井 将明

測定・テスト部品 : SWITCH ASSY. POWER WINDOW MASTER

測定・テスト部番 :

測定機・テスト車両 : ﾃﾞｼﾞﾀﾙﾏｲｸﾛｽｺｰﾌﾟ(VHX-600 ｷｰｴﾝｽ製)、LC-MS(T100LC JEOL製)

ｷｬﾋﾟﾗﾘｰ電気泳動装置(CAPI-3300 大塚電子製)、走査型電子顕微鏡(JSM-7000F JEOL製)

測定・テスト方法 : LC/MSによるスクロース成分ピークの検出

判断基準 : スクロース成分の付着有無

※別紙添付資料 有り

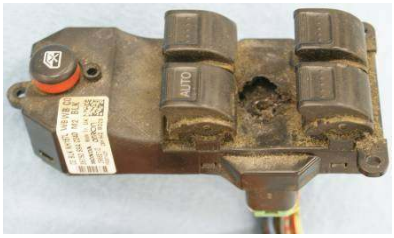
〔添付資料〕

管理No.	1201025

〔測定・テスト結果〕

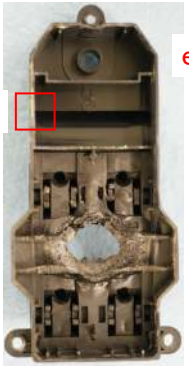
1. 外観観察結果

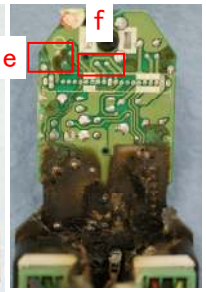
パワーウィンドウマスター
スイッチ事象品

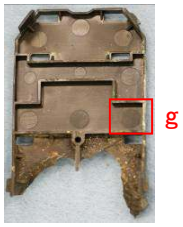


上側

下側



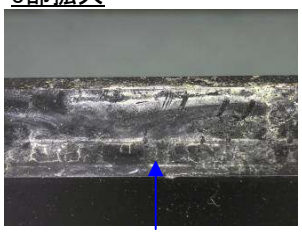




a部拡大

b部拡大

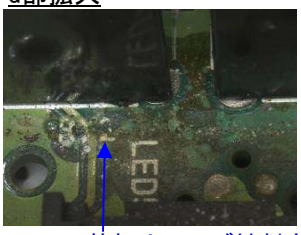
c部拡大



ケース上面に付着物を確認

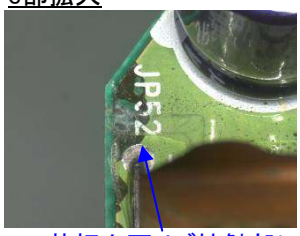
上ケース内側側面に付着物を確認

d部拡大



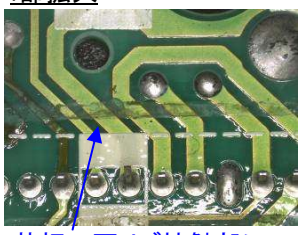
基板上面リブ接触部に
付着物を確認

e部拡大



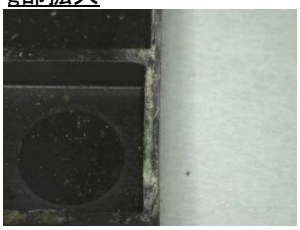
基板上面リブ接触部に
付着物を確認

f部拡大



基板下面リブ接触部に
付着物を確認

g部拡大



下ケース内面に付着物を確認

2. 付着物元素分析結果

付着物を採取し、カーボンテープに張り付け、SEM/EDXにて測定。各箇所付着物をそれぞれ3点ずつ測定。

付着物元素分析結果（SEM/EDX）　　質量濃度【%】

付着物採取箇所	n=3	C	O	Na	Mg	Al	Si	P	S	Cl	K	Ca	Fe	Cu	Zn	Sn	Pb
上ケース外側表面堆積物（a部）	1	47.7	29.6	0.9	0.8	0.9	3.2	0.8	0.8	5.9	1.0	5.9	0.5	0.3	0.6	–	1.2
	2	41.4	25.2	1.0	0.9	1.1	2.9	0.4	0.4	12.8	1.8	7.7	2.7	0.1	–	–	1.9
	3	49.4	25.8	0.7	0.5	0.4	1.3	0.6	0.8	8.8	1.2	7.0	0.8	0.2	0.2	0.5	1.7
上ケース外側表面堆積物（b部）	1	34.3	36.9	1.0	0.4	0.7	15.2	0.3	0.5	4.4	1.3	1.8	0.9	0.2	1.0	–	1.0
	2	47.1	29.5	1.6	0.5	0.5	1.3	0.6	1.1	6.6	2.2	5.0	0.3	0.3	1.8	0.1	1.4
	3	44.9	28.5	1.6	0.9	0.8	2.5	0.4	0.7	7.0	2.7	4.2	1.5	0.3	1.5	0.9	1.7
上ケース内側側面付着物（c部）	1	13.9	28.0	3.6	0.8	0.4	0.5	0.2	0.6	7.6	3.0	1.2	–	6.6	–	32.4	1.4
	2	13.8	26.6	2.9	0.6	0.4	0.3	0.1	0.8	5.7	3.0	1.2	0.2	5.1	0.4	37.8	1.3
	3	13.7	23.9	3.0	1.1	0.5	1.1	0.1	0.7	8.7	3.8	1.8	0.2	5.9	0.2	33.9	1.6
基板上面付着物（d部）	1	41.4	29.8	7.8	0.4	0.4	0.1	0.3	1.2	1.3	3.9	1.4	0.1	10.0	1.0	–	1.0
	2	34.4	28.2	3.8	0.6	0.9	0.8	0.7	1.3	2.5	7.4	10.3	0.1	6.7	–	1.3	0.9
	3	34.9	26.9	4.8	0.5	0.7	0.2	0.8	0.4	3.0	7.6	5.4	0.2	7.4	0.9	4.1	2.3
基板上面付着物（e部）	1	24.1	25.7	3.1	1.1	0.4	0.3	0.3	0.6	5.2	1.7	1.7	0.1	32.2	1.9	0.1	1.5
	2	33.0	24.8	1.8	1.0	0.2	0.2	0.2	0.5	3.8	1.2	1.4	0.2	29.3	1.2	–	1.3
	3	55.2	24.6	0.1	4.8	0.2	6.8	0.1	0.1	1.1	0.3	0.8	0.2	4.7	0.1	0.2	0.7
基板下面付着物（f部）	1	16.2	22.0	–	0.2	–	0.1	0.2	3.0	12.0	0.1	3.3	0.3	38.5	1.5	0.4	2.7
	2	17.0	22.8	–	–	0.2	0.1	0.2	2.8	10.7	0.1	2.9	–	39.3	1.8	–	2.6
	3	18.9	23.2	–	0.1	0.1	0.2	0.4	1.2	13.2	–	0.9	0.1	38.6	1.7	–	2.4
下ケース内側付着物（g部）	1	16.2	27.6	3.7	0.6	0.3	0.4	0.3	0.8	4.5	2.4	0.2	–	10.7	0.7	28.4	3.4
	2	16.3	27.5	3.0	0.3	0.4	0.3	–	0.6	3.2	2.1	0.6	–	13.8	0.9	27.7	3.8
	3	10.8	24.3	3.9	0.5	0.5	0.3	0.2	0.8	5.5	3.0	0.5	0.4	12.2	0.6	31.2	5.2

パワーウィンドウマススイッチ各箇所付着物より、上記の元素を検出した。

〔添付資料〕

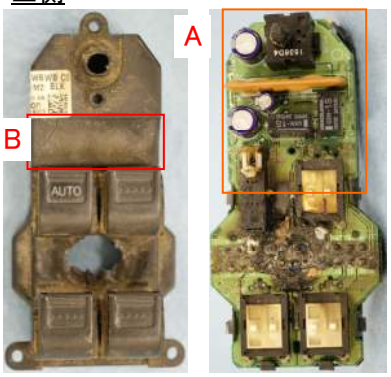
管理No.	1201025

〔測定・テスト結果〕

3. 付着イオン分析結果

パワーウィンドウマスタースイッチ事象品

上側



下側

測定方法

・基板エッジ部（A部付近）及びケース外側表面（B部）を400μLの超純水で抽出。
・抽出液を濾過し、キャピラリー電気泳動にて測定。

付着イオン分析結果（CE）　【ppm】

抽出箇所	Cl	NO_3	SO_4	ギ酸	酢酸	乳酸	プロピオン酸	NH_4	K	Ca	Na	Mg	Zn
基板エッジ部（A部）	24.9	0.3	7.5	4.3	7.7	0.1	4.7	0.9	31.0	3.7	14.2	2.8	0.1
ケース外側表面（B部）	169.9	2.4	194.6	2.7	44.4	−	21.3	−	377.9	32.8	47.9	37.0	0.7

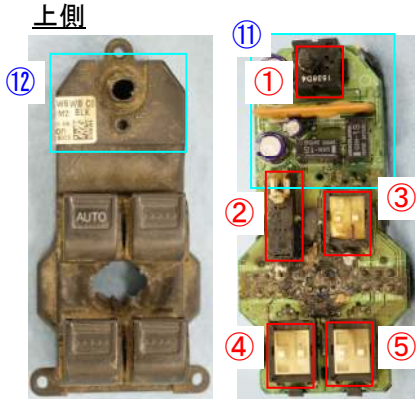
基板及びケース外側表面より上記のイオンが検出された。

〔測定・テスト結果〕

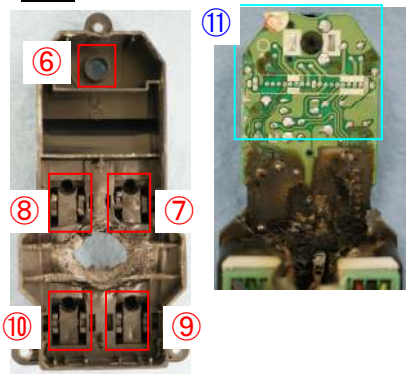
4．糖分付着有無確認結果

パワーウィンドウマススタースイッチ事象品

上側



下側

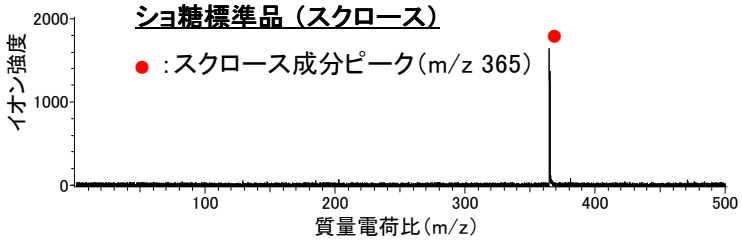


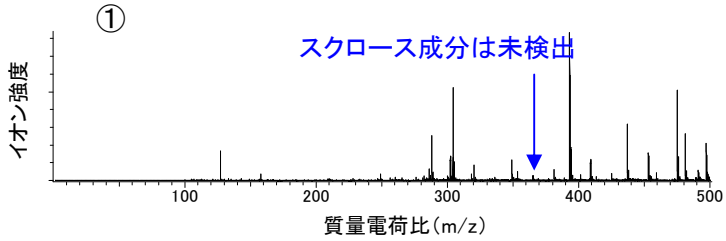
測定方法

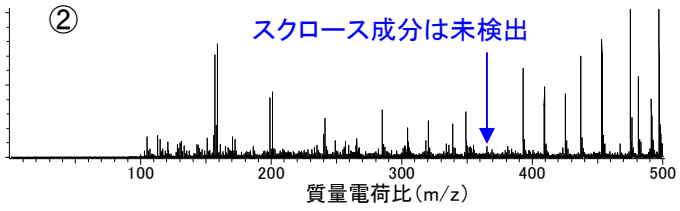
・基板SW部①～⑤及びケース⑥、⑫部は表面を90%メタノールを染み込ませた布（1×1cm）で拭き取り、拭き取った布を90%メタノール2mLで抽出・濾過。
・ケース内側SW部⑦～⑩部及び基板⑪部は90%メタノール2mLを掛け流す様に抽出、抽出液を濾過。
・各抽出液を、一晩（15h程度）濃縮しメタノール分を蒸発させ、水分のみとする。
・この溶液をLC/MSにて測定し、スクロース成分ピーク（m/z 365）の有無を確認した。

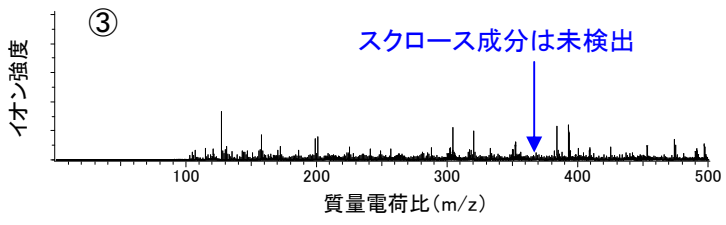
抽出液質量分析結果（LC/MS）

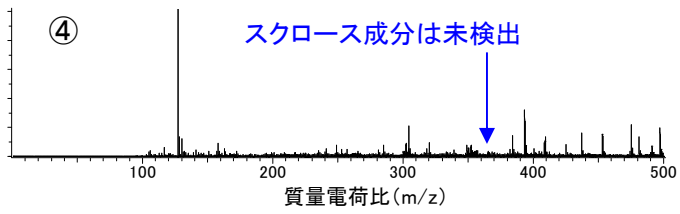
ショ糖標準品（スクロース）

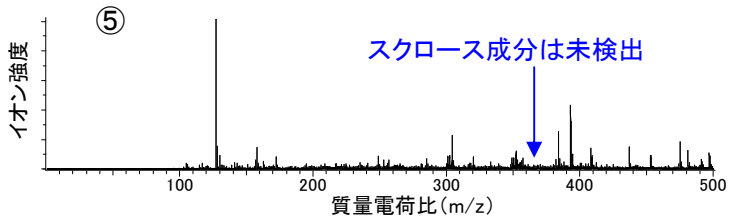


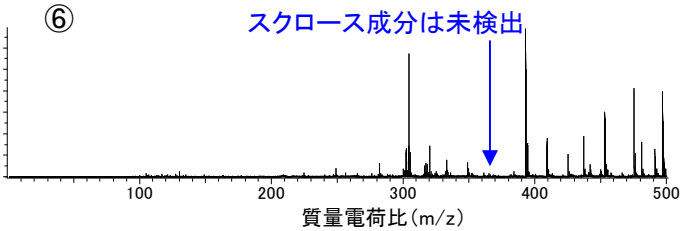












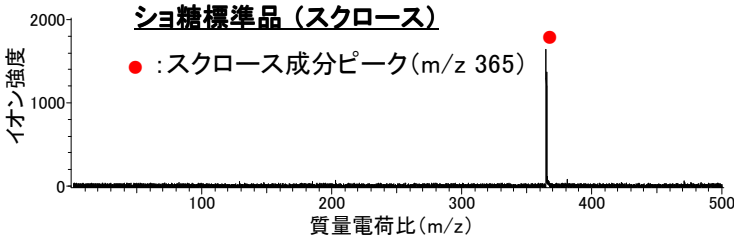
〔添付資料〕

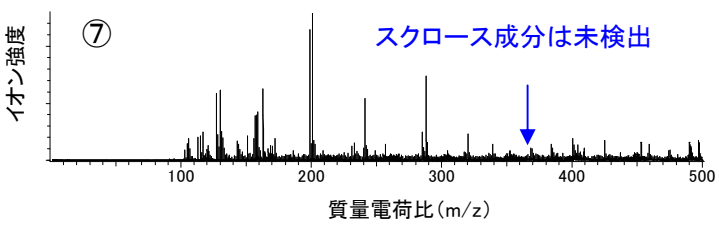
管理No.	1201025

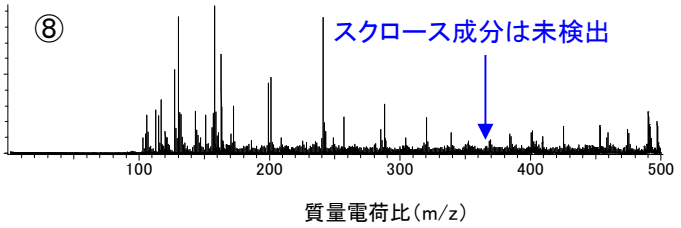
〔測定・テスト結果〕

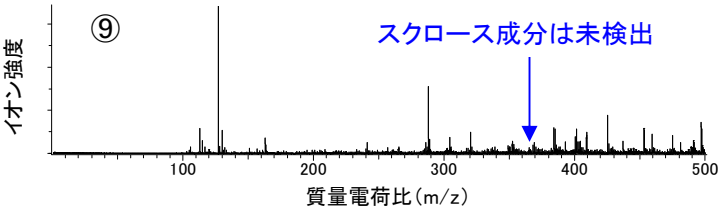
パワーウィンドウスイッチ各箇所抽出液をLC/MSにて測定し、スクロース成分ピークの有無を確認した。

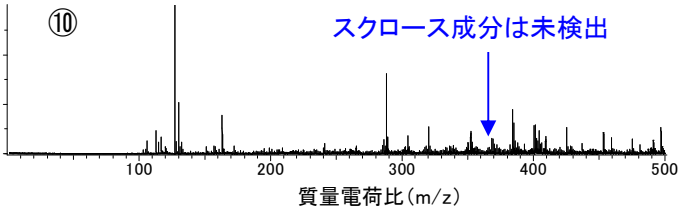
抽出液質量分析結果（LC/MS）

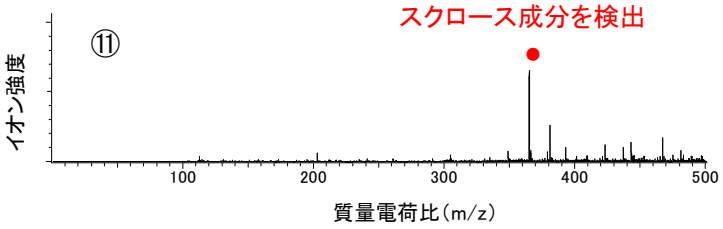


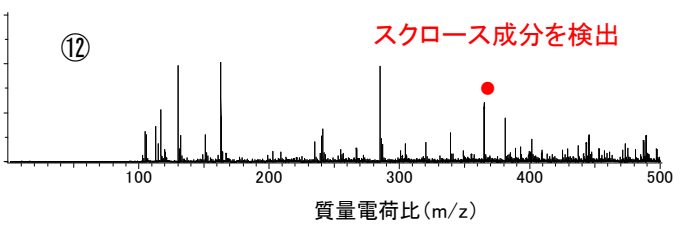












パワーウィンドウマススイッチ各箇所（⑪、⑫部）より、糖分（スクロース）を検出した。

EA11-004

HONDA

4/27/2012

Q14

Attached document 1_120404

06M CR-V Connector Heat damage

Subject : Melting of Power Window Master Switch

Part Name : POWER WINDOW MASTER SWITCH

Part No. : 35750-S9A-C040-M2

Attached Document No.1

Investigation Results of returned part (attached substances)

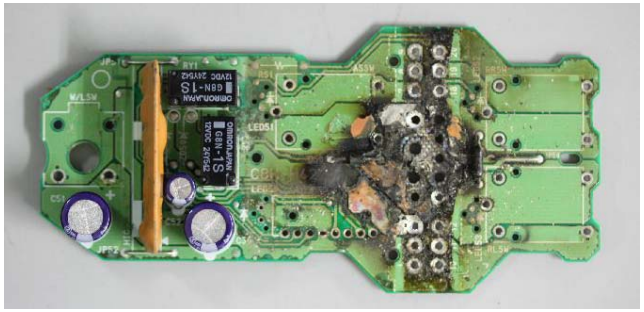
Investigation Results of Returned Parts

～ Appearance ～

- A great amount of dust was attached to the PWS case.
- Discoloration and white abnormal substances were confirmed as a result of PCB check.
- Discoloration and white abnormal substances were confirmed when the connector base was removed to check the PCB condition.

Full view of PCB_01

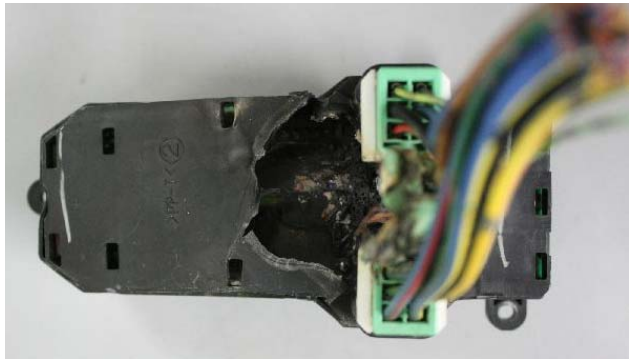
・A great amount of dust was attached to the PWS case.



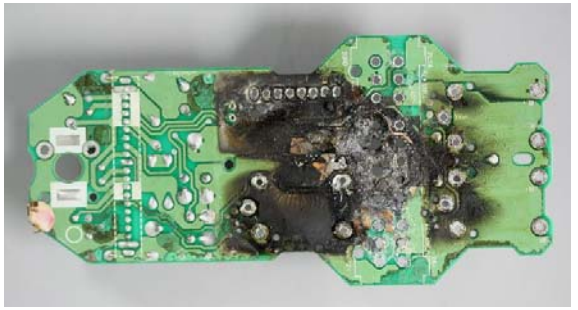
Full view of PCB (Component side)

Discoloration and attachment of white abnormal substances are confirmed on the outer circumstances and the case rib.

*Please refer to next page for details.



Full view of PCB_02



Full view of PCB (Soldering side)

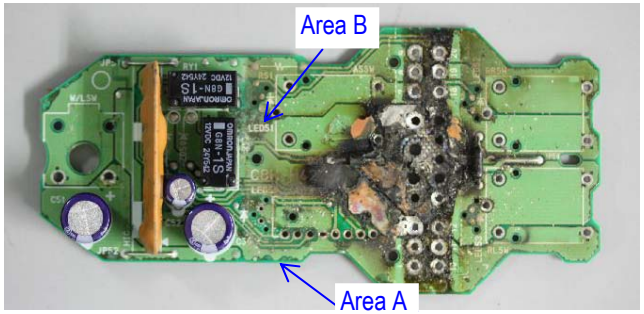
Discoloration and attachment of white abnormal substances are confirmed on the outer circumstances and the case rib.

Discoloration of the PCB and attachment of white abnormal substances are confirmed between the connector base and PCB.

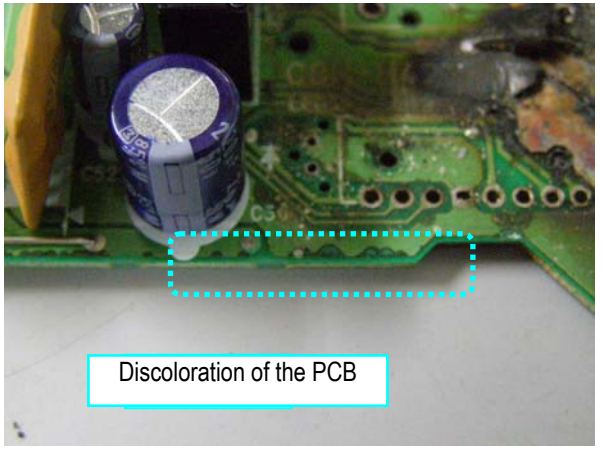
*Please refer to next page for details.

Investigation Results of Returned Parts

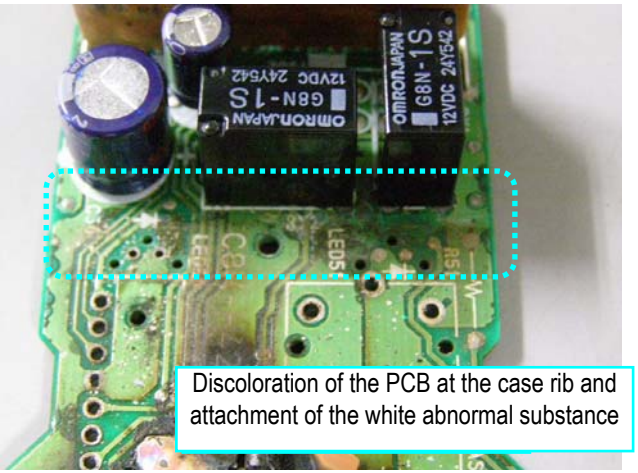
～ Appearance ～



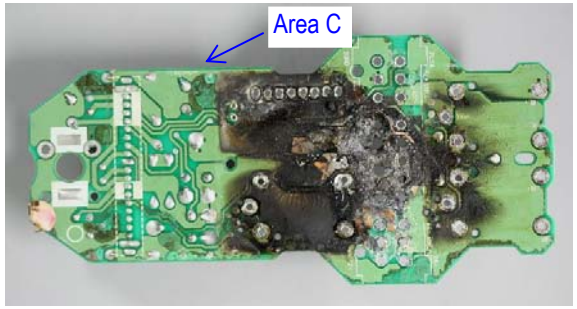
Full view of PCB (Component side)



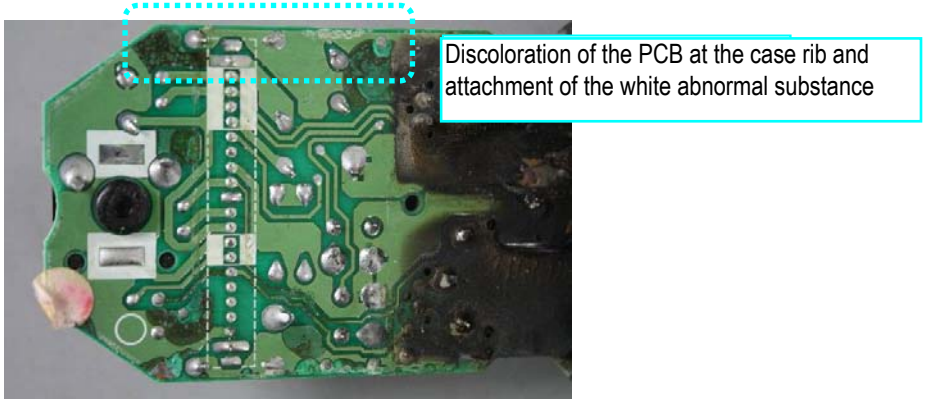
Area A



Area B



Full view of PCB (Soldering side)



Area C

Investigation Results of Returned Parts

～ Appearance ～

Soldering side of the PCB (With connector base removed)

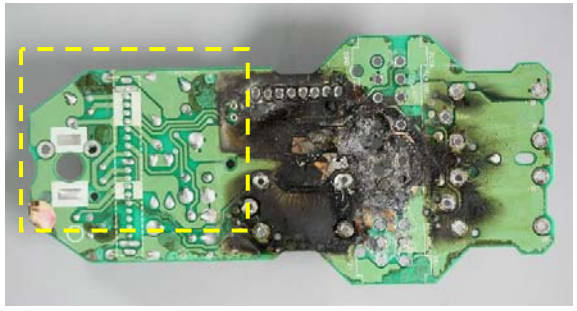
Investigation Results of Returned Parts

Component Analysis of the attached substances

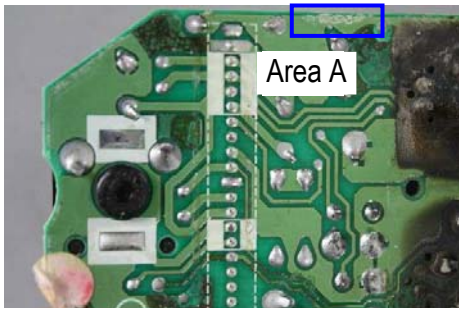
- Electrolyte and metal components (solder and copper) are confirmed from the white abnormal substances on the PCB

Area	Detected element	Ion component
Area A	C, O, Na, Cl, K	Na,Cl
Area B	C, O, Cu, Mg, Al, Pb, Sn,Cl	Mg,Cl

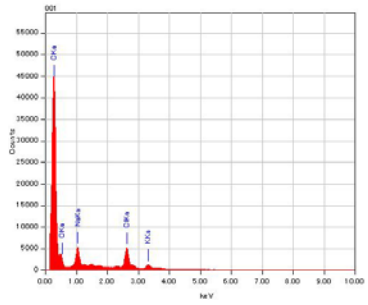
(Analysis method) Collect an attached substance, attach it on the carbon tape, them measure with the SEM/EDX.



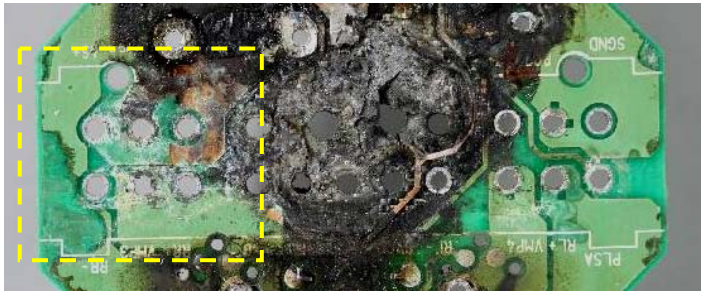
Evidence of liquid on the soldering side of the PCB



Measuring Area A

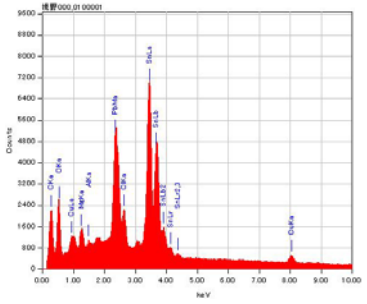


Spectrum of Area A



Evidence of liquid under the connector base

Measuring Area B



Spectrum of Area B

Investigation Results of Returned Parts

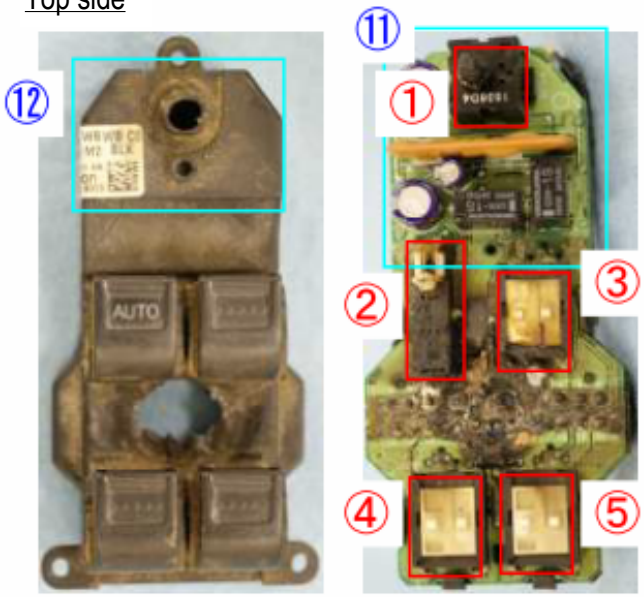
Existence of sugar in attached substances

- Sucrose was confirmed on the surface of the case and PCB. (Refer to the attached document.)

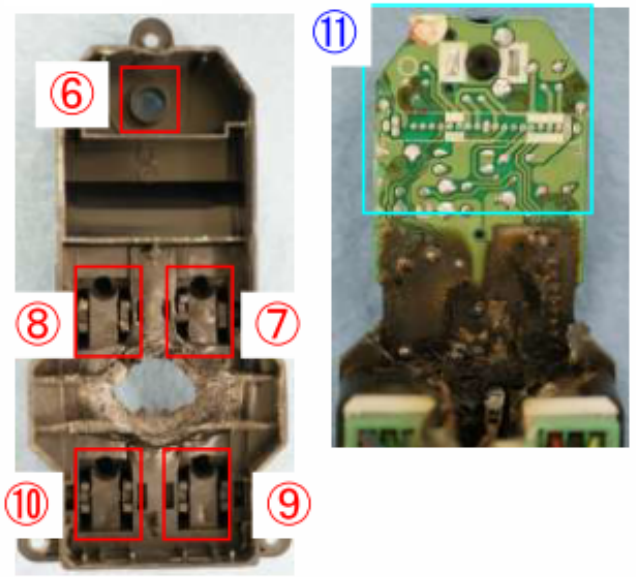
Measuring Area	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫
Existance of Sucrose	No	No	No	No	No	No	No	No	No	No	Yes	Yes

Actual Failed Power Window Master Switch

Top side



Under side

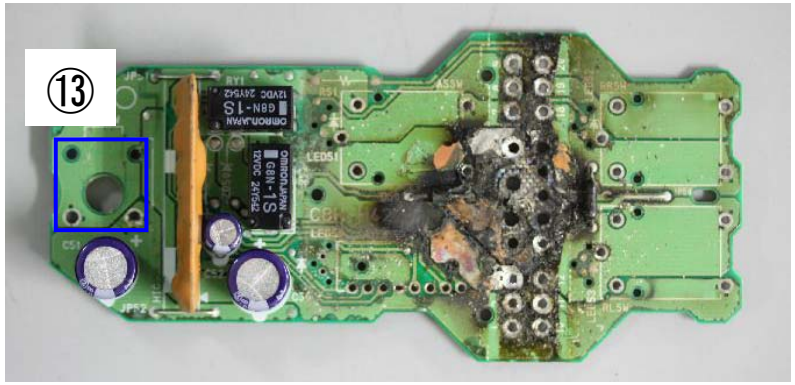


Investigation Results of Returned Parts

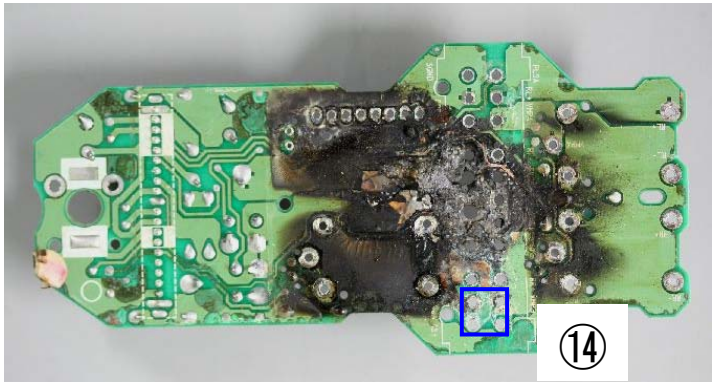
Existence of sugar in attached substances

- Sucrose and Glucose were confirmed on the surface of the PCB under connectors

Measuring Area	⑬	⑭
Existence of Suger	No	Yes (Sucrose and Glucose)

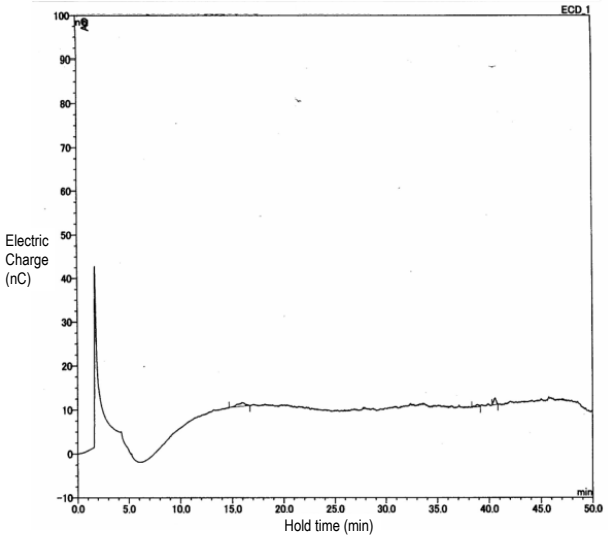


Full view of PCB (Component side)

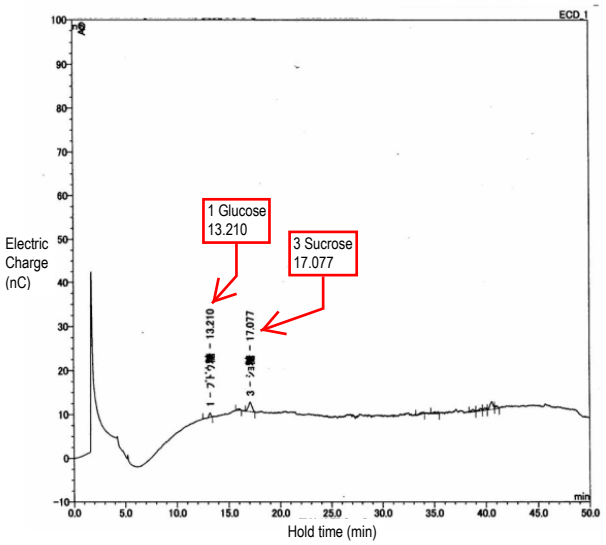


Full view of PCB (Soldering side)

(Analysis method)
Chromatographic measurement (High-performance liquid chromatography) was applied to the solution which was derived and filtered with 0.5mL water.



Chromatograph of ⑬



Chromatograph of ⑭

06M　CR-V　コネクタ部 溶損不具合

件名　　：パワーウインドウマスタースイッチ溶損

部品名　：POWER WINDOW MASTER SWITCH

部品番号：35750-S9A-C040-M2

添付資料1

（返却現品（付着物）の調査結果）

返却現品の調査結果

～外観調査～

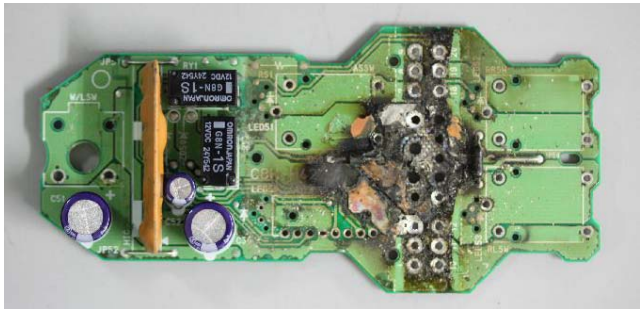
・PWSケースに多量の塵埃付着が認められる。

・基板を確認した結果、変色、及び白色異物が認められる。

・コネクタベースを取り外し基板の状態を確認した結果、変色及び白色異物が認められる。

PWS全景_01

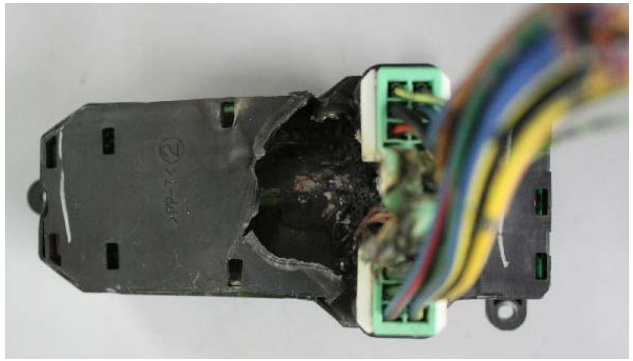
多量の塵埃が付着



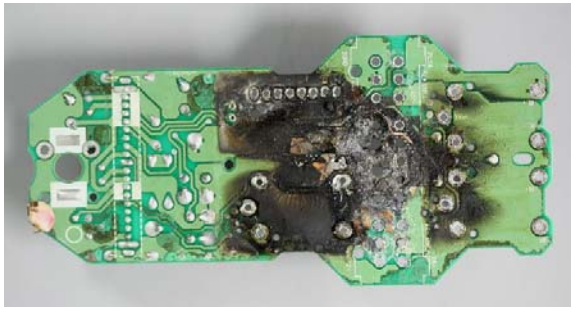
基板全景（部品面）

基板の外周、及びケースリブ上に変色、白色異物の付着が認められる。

※詳細は次シートをご参照ください



PWS全景_02



基板全景（はんだ面）

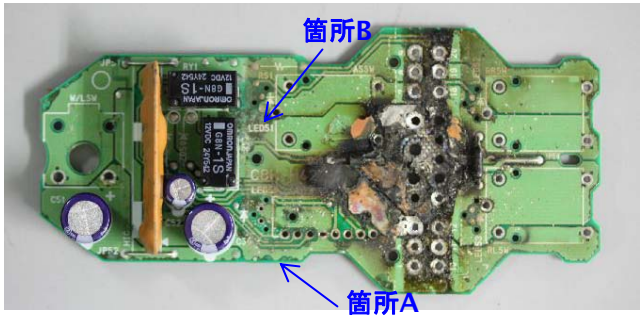
基板の外周、及びカバーリブ上に変色や白色異物の付着が認められる。

コネクタベース－基板間に基板変色及び白色異物を確認

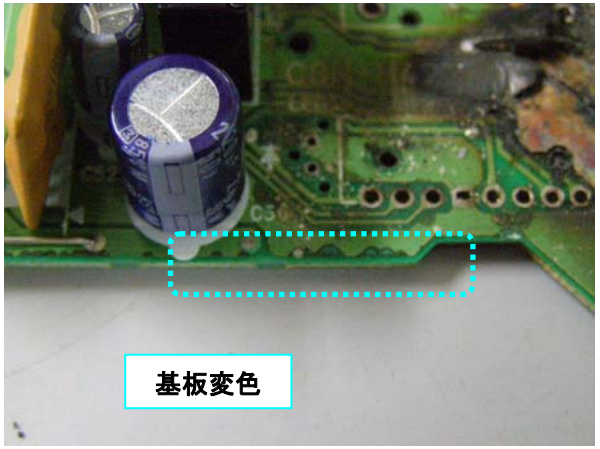
※詳細は次シートをご参照ください

返却現品の調査結果

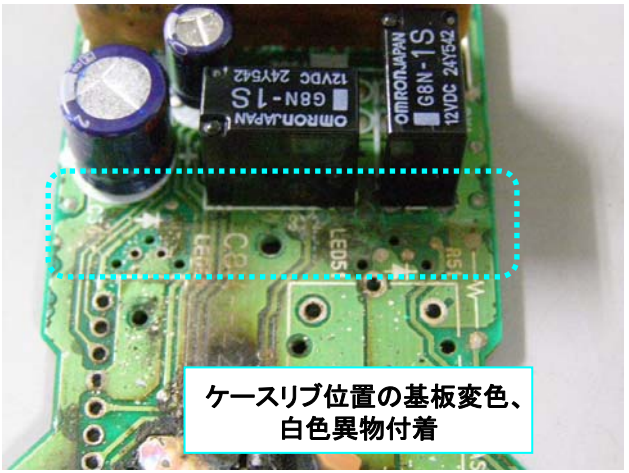
～外観調査～



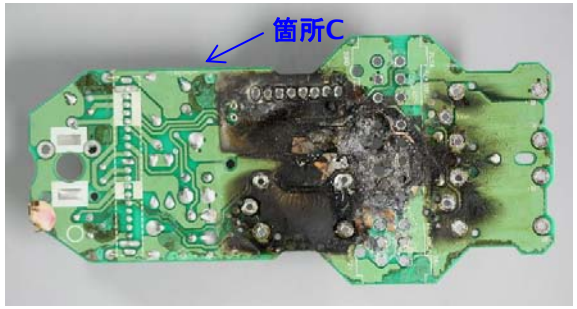
基板全景（部品面）



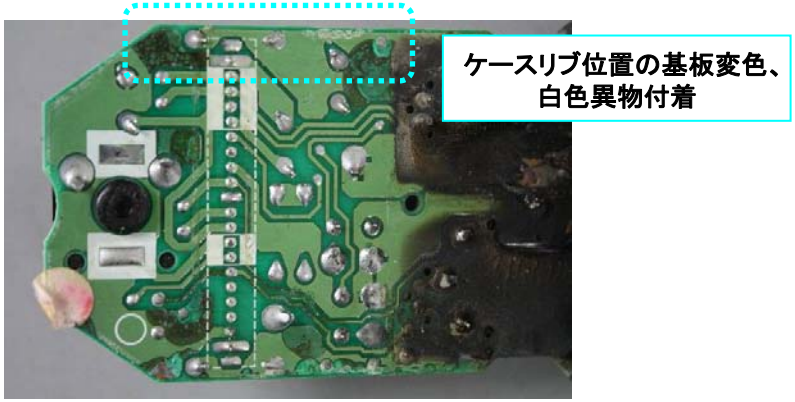
箇所A



箇所B



基板全景（はんだ面）



箇所C

返却現品の調査結果

～外観調査～

基板はんだ面 コネクタ部（コネクタベース取り外し）

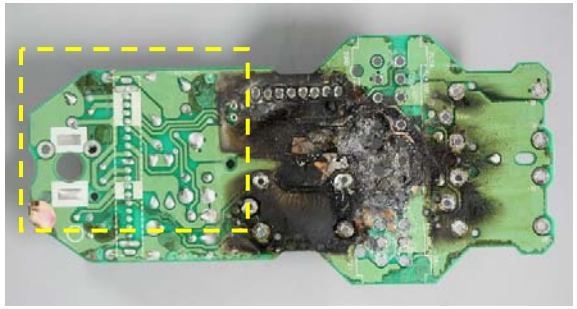
返却現品の調査結果

～付着物 成分分析～

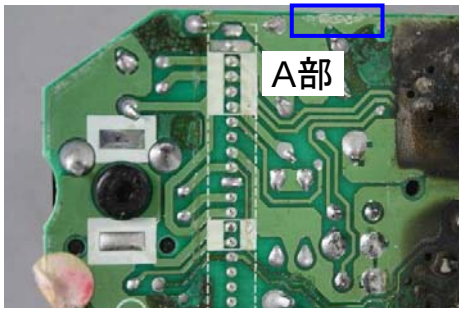
・基板上の白色異物より、電解質成分と金属成分（はんだ、銅）が検出された。

測定箇所	検出元素	イオン成分
A部	C, O, Na, Cl, K	Na,Cl
B部	C, O, Cu, Mg, Al, Pb, Sn,Cl	Mg,Cl

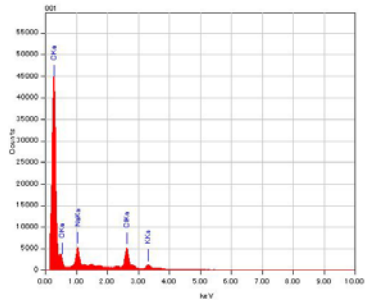
【分析方法】付着物を採取し、カーボンテープに張り付け、SEM/EDXにて測定した。



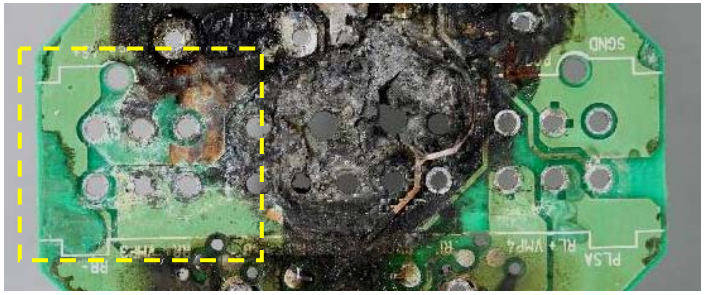
基板はんだ面の液体痕跡



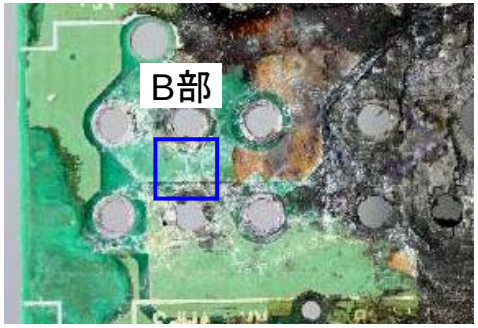
A部測定箇所



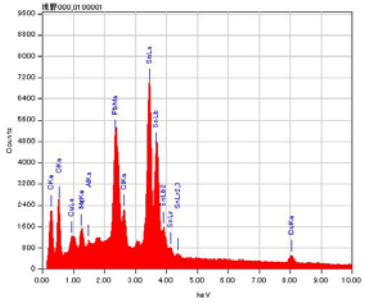
A部のスペクトル



コネクタベース下部の液体痕跡



B部測定箇所



B部のスペクトル

返却現品の調査結果

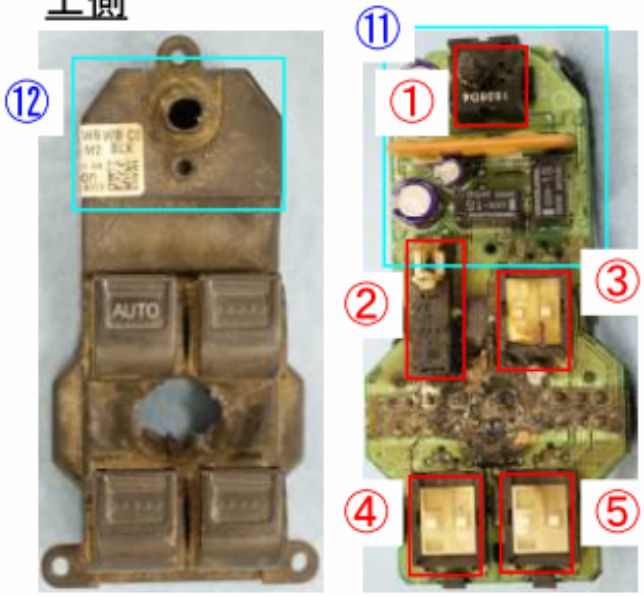
～糖分付着有無確認～

・ケース表面、及び基板表面よりスクロース（糖）が検出された。(別紙をご参照ください)

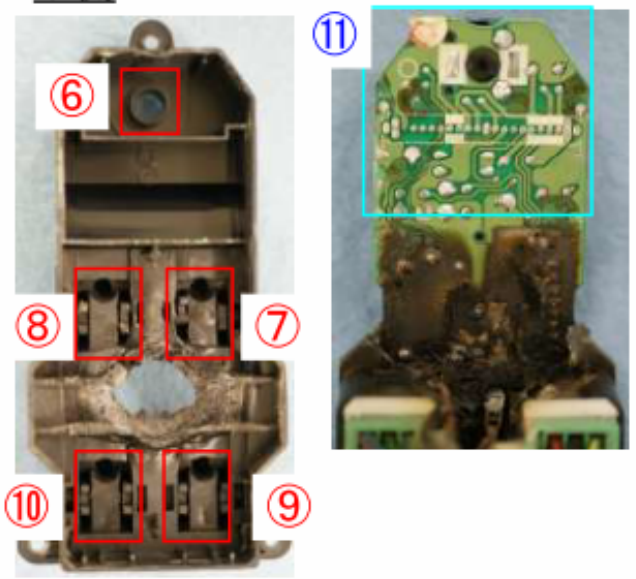
測定箇所	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫
糖の有無	無	無	無	無	無	無	無	無	無	無	有	有

パワーウィンドウマスタースイッチ事象品

上側



下側

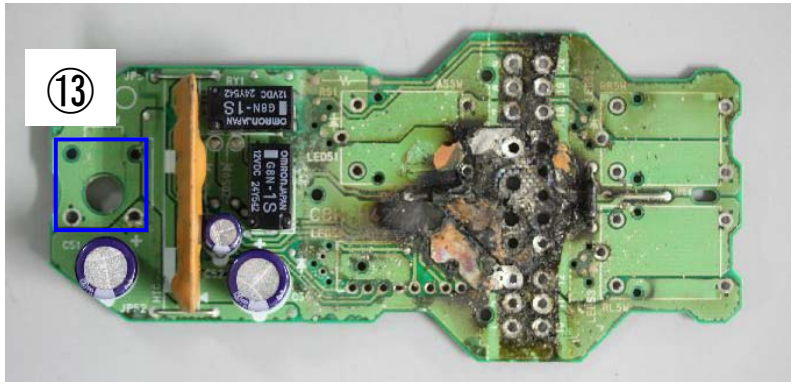


返却現品の調査結果

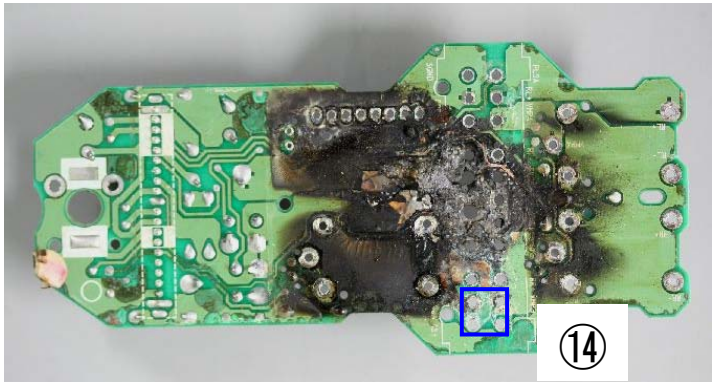
～糖分付着有無確認～

・コネクタ下部の基板表面よりブドウ糖及びショ糖が検出された。

測定箇所	⑬	⑭
糖の有無	無	有（ブドウ糖、ショ糖）

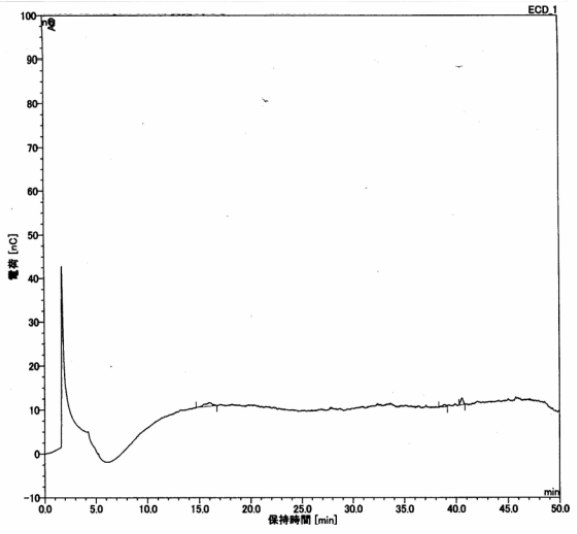


基板全景（部品面）

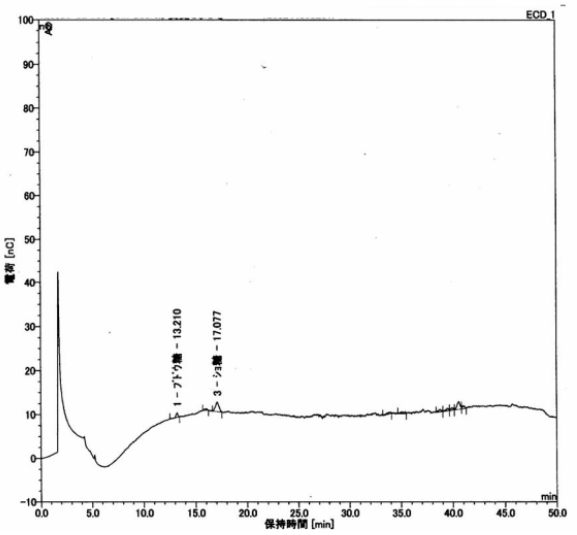


基板全景（はんだ面）

【分析方法】0.5mLの水で抽出・濾過した溶液について、高速液体クロマトグラフ法によりクロマトグラムを測定した。



⑬のクロマトグラム



⑭のクロマトグラム

EA11-004

HONDA

4/27/2012

Q14

Attached document 2_120404 of returned parts

06M CR-V Connector Heat damage

Subject : Melting of Power Window Master Switch

Part Name : POWER WINDOW MASTER SWITCH

Part No. : 35750-S9A-C040-M2

Attached Document No.2

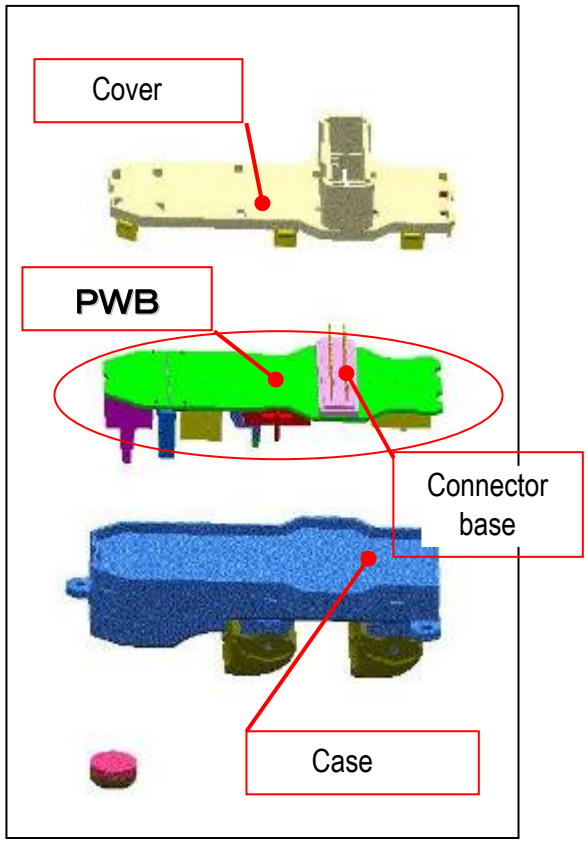
(Occurrence Cause)

Occurrence Cause

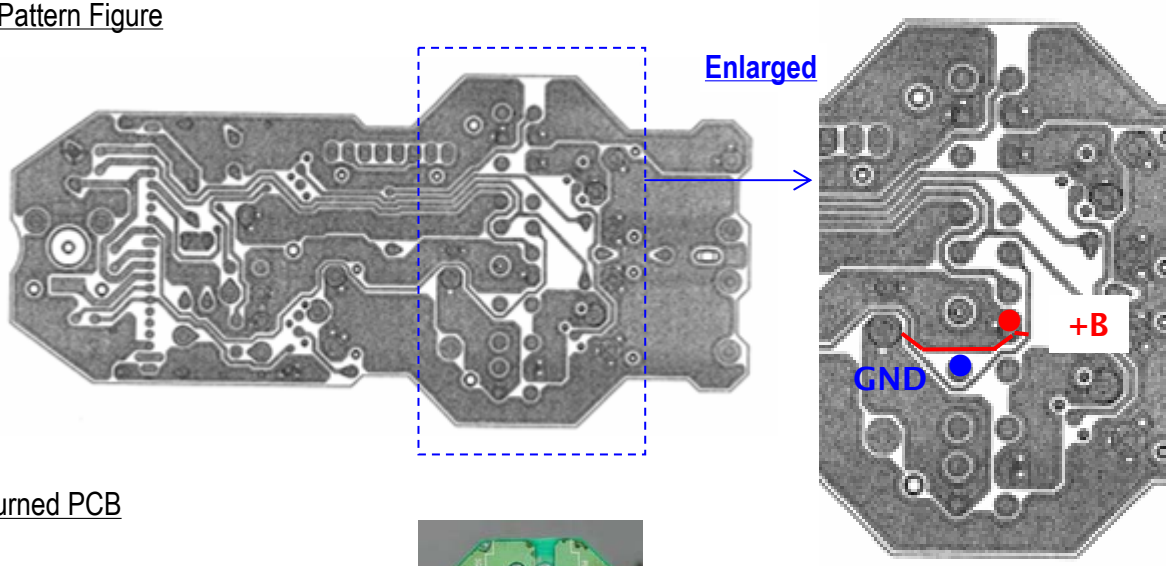
Assumed Caused

Melting occurred around the VMP1 terminal may be caused by electrical short that led to heat generation.

From the evidence of liquid confirmed on the returned part, it was considered that the short was occurred because of tracking (local heating) caused by the circuit with materials educed from the migration (metal transfer).



PCB Pattern Figure



Returned PCB

We figured migration and tracking occurred between +B and GND that are closely set as shown above

Pattern Gap: Approx. 0.5mm (MIN)

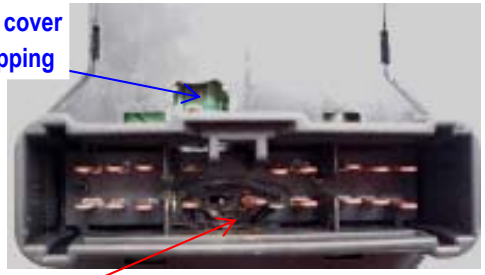
Occurrence Cause

Heat damage test by repeatedly dropping liquids

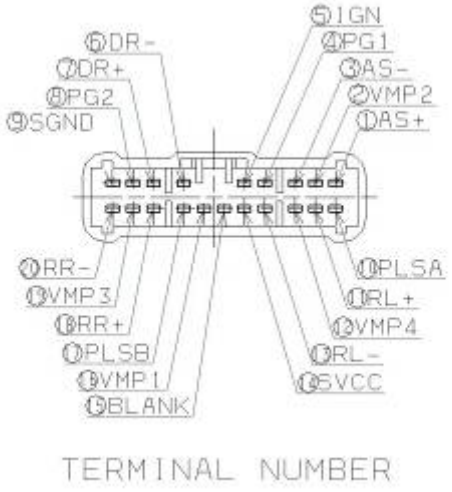
Test results using model similar to 35750-S5A

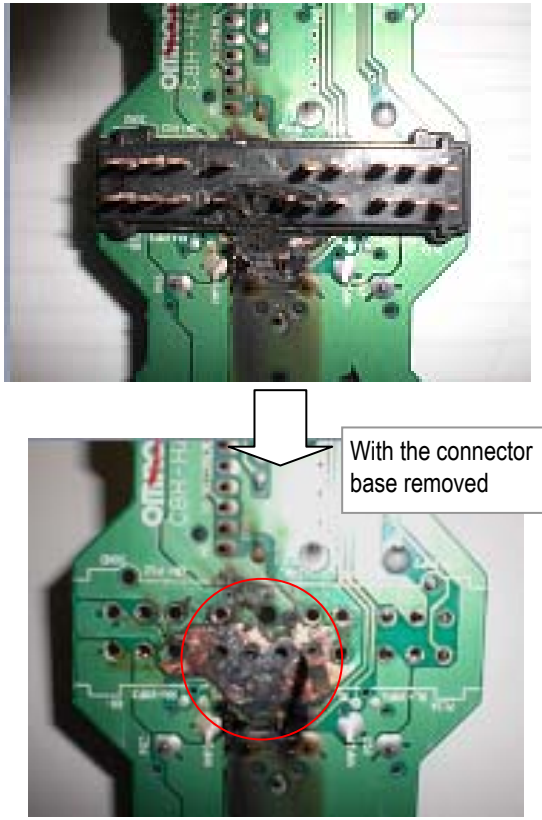
◆ Heat damage test results

Melting similar to returned part was occurred to one test sample.
* Please see page 4 for details.



Melting occurred around the VMP1 terminal (VMP1 terminal itself came off during current application)





Loss of PCB pattern around VMP1, VBU, PLSB, and DR- between connector base and PCB

◆ Conclusion

We figured the melting of the test sample was very similar to returned parts because it was occurred from around the VMP1 terminal as the returned parts.

We also find that the heat damage was caused by advanced ion migration between +B (VMP1) and GND pattern.

Occurrence Cause

Heat damage test by repeatedly dropping liquids

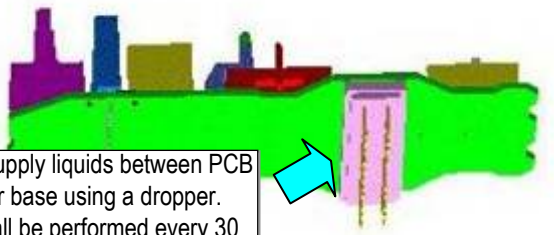
Test results using model similar to 35750-S5A

Test condition:

- Position similar to the ones installed on the actual vehicle (on the level)
- Test temperature: 15%, humidity: 40%
- Drop liquids on VMP1, VBU, PLSB, and DR - terminals between PCB and base and apply current.
- Use 5% salt water(pure water) and tap water for liquids.
  *For tests using salt water, drop salt water only once, followed by pure water.
- Connect harness to +B:VMP1 and GND:DR- to apply current.
- Use the battery for power source (Make sure it is above 12V before/after the tests)

Test Result :

No	Liquid	Test Result	Reproducibility
1	Tap water	Tested for 100hrs. Heat damage could not be reproduced.	×
2	Tap water	Tested for 100hrs. Heat damage could not be reproduced.	×
3	Tap water	Tested for 100hrs. Heat damage could not be reproduced.	×
4	Salt water (5%)	Heat damage very similar to returned part was reproduced after 34hrs	○
5	Salt water (5%)	Tested for 100hrs. Heat damage could not be reproduced.	×
6	Salt water (5%)	Tested for 100hrs. Heat damage could not be reproduced.	×



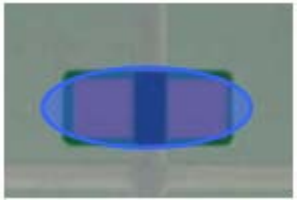
Occurrence Cause

Relationship between pattern gap and melting damage

We conducted tests and investigations on pattern gap which considered to be the melting cause.

Test condition:

① Liquid : 5% concentrated NaCl water solution
② Drop volume : 28mg/time
③ Dropping interval: Every 30 to 60mins (as test sample gets dry, Max 1drop/30min)
④ Test voltage : 12V
⑤ Gap length : Between 1.0 to 1.5mm with 0.1 interval
⑥ Number of testing : N=4 for each gap
⑦ Testing time: 13 hrs *Stop test if a spark occurs
⑧ Land shape : 2.5 × 2.5[mm^2]



(Drop target)

【Test results 】

Gap length	Number of fire (occurrence/testing number)	Time to spark occurrence	Max voltage at the time of spark occurrence
1.0mm	4／4	Within 30mins for all 4 samples	3.6A
1.1mm	2／4	60 to 90mins for 2 samples	3.5A
1.2mm	3／4	30 to 120mins for 3 samples	3.3A
1.3mm	0／4	—	-
1.5mm	0／4	—	-

There seemed a strong correlation between gap length and spark occurrence, and threshold of spark occurrence is considered to be somewhere around 1.2mm gap. Since the number of testing is small, we figured gaps within 1.5mm have a possibility of melting. (Spark occurrence=Possibility of melting)

Occurrence Cause

Occurrence mechanism

P/W is showered with considerable amount of liquid containing sugar or electrolyte

Liquid enters inside the SW from projected area of the case. (Figure 1)

Liquid moves narrow space between PCB and rib and between PCB and terminal block. (Figure 2 and 3)

Liquid accumulates to where +B pattern and GND land are closely set with gap below 1.5mm

Repeat 繰返し

Liquid accumulates between +B pattern and GND land, and migration occurs.

Insulation resistance between +B pattern and GND land become poor and leak current flows to cause joule heat.

Heat maintains/spreads to cause melting.

when heat reaches 1000℃, VMP1 terminal (copper), which supplies power to the SW, starts to melt.

VMP1 terminal comes off of the PCB and unable power supply. (Heating stops, F/W malfunction occurs)

Figure 1

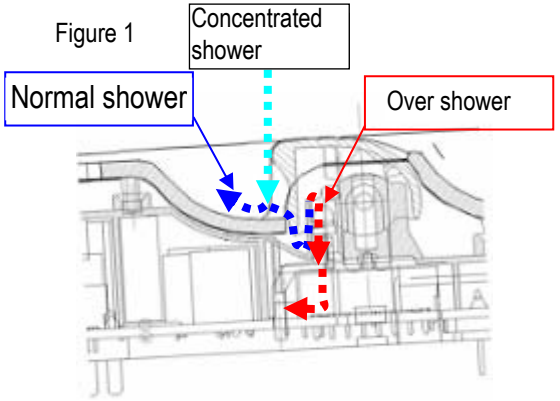


Figure 2

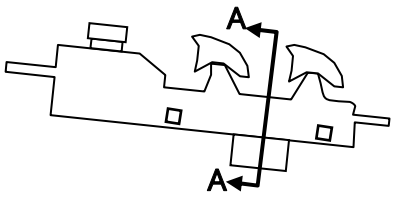
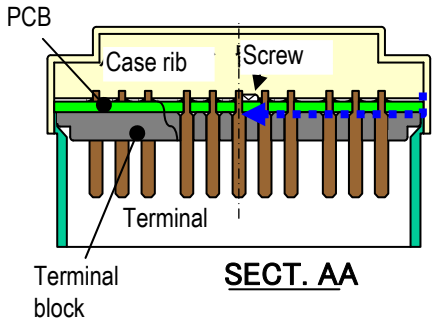


Figure 3



06M　CR-V　コネクタ部 溶損不具合

件名　　：パワーウインドウマスタースイッチ溶損

部品名　：POWER WINDOW MASTER SWITCH

部品番号：35750-S9A-C040-M2

添付資料2

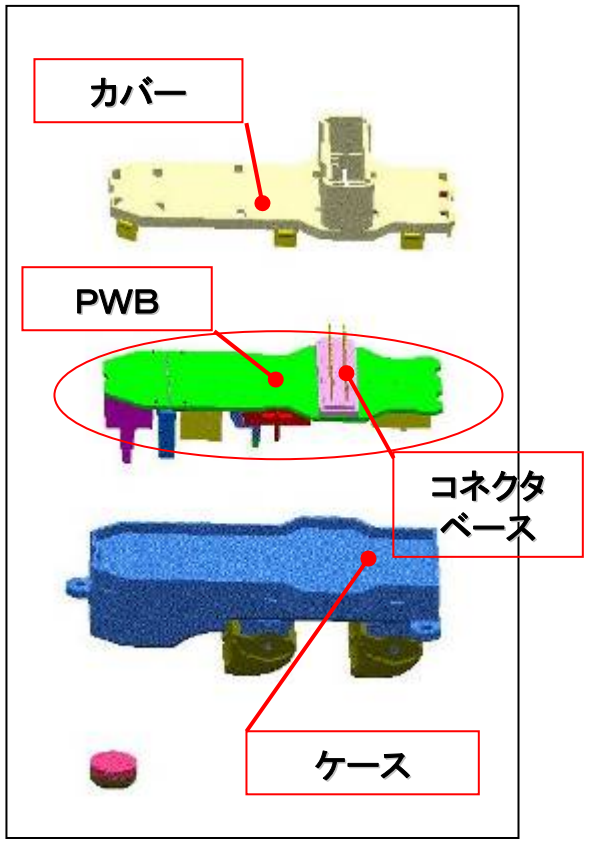
（発生要因）

発生要因

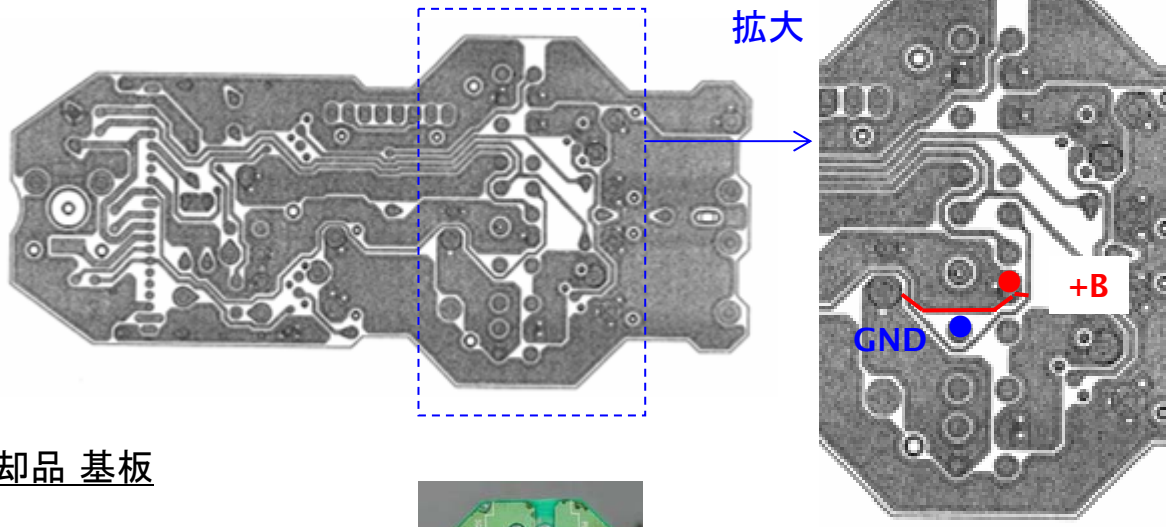
～推定要因～

VMP1端子を中心に溶損した本不具合は、何らかの要因により当該箇所にて
電気的ショート状態→発熱したものと考えます。

ショート状態となった要因は、返却品に液体痕跡が認められることより、液体によるマイグレーション現象（金属移行）
によって基板上に析出物による回路が形成され、トラッキング現象（局部発熱）が発生したものと考えます。



基板パターン図



返却品 基板

上部の+B-GNDが隣接している間にて
マイグレーション、トラッキングが
発生したものと推定

パターンGap：約0.5mm（MIN）

発生要因

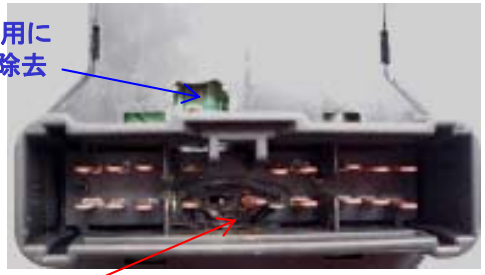
～液体連続供給による 溶損テスト～

35750-S5A類似機種のテスト結果

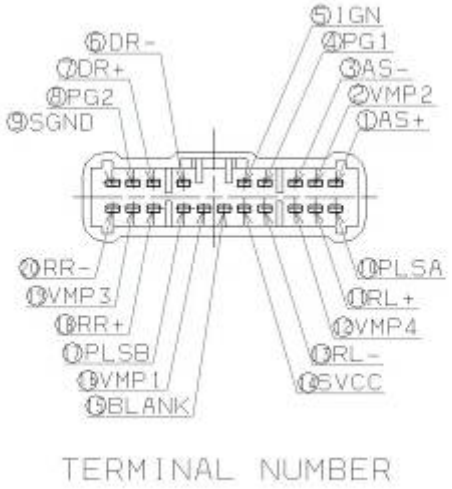
◆溶損テスト結果

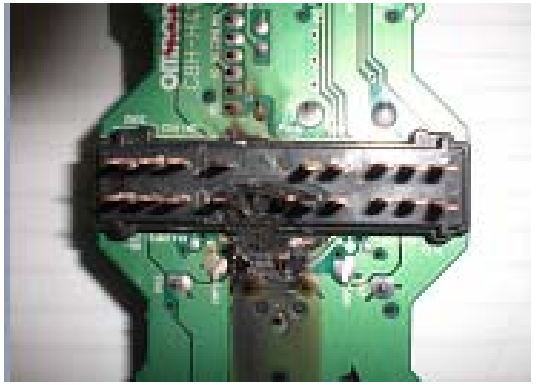
サンプル1台につきまして、返却品と酷似した溶損が発生しました。

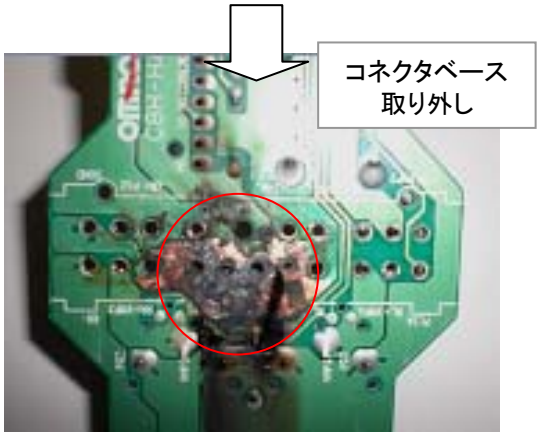
※結果一覧はp.4をご参照ください



VMP1端子を中心に溶損
(VMP1端子は通電中に脱落)







コネクタベース-基板間のVMP1,VBU,PLSB,DR-
周辺 基板パターン消失

◆結論

溶損が起きたテストサンプルは、返却品損傷箇所のVMP1端子を中心とした溶損が発生したことより、
返却品と類似した不具合が再現できたものと考えます。

溶損不具合は、基板上の+B（VMP1）とGNDパターンのイオンマイグレーションが進行したことで
発生したものと判断致します。

発生要因

～液体連続供給による 溶損テスト～

35750-S5A類似機種のテスト結果

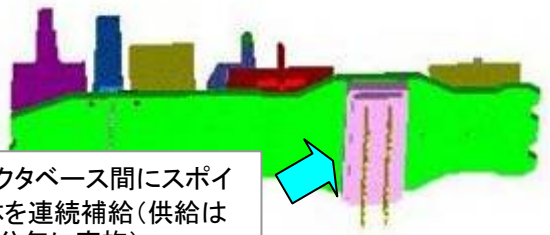
試験条件　：

・実車取り付け相当（水平）
・試験温度 15℃、湿度40%
・焼損の激しいVMP1,VBU,PLSB,DR-端子（基板-コネクタベース間）に液体を注入し、通電する。
・液体は塩水5%（純水）、水道水を使用
　※塩水滴下は1回のみ、その後は純水を滴下
・通電は+B:VMP1、GND:DR-にハーネスを接続して行う
・電源はバッテリーを使用（試験前後に12V以上あることを確認）

VMP1(+B)、DR-(GND)を連続通電

結果一覧　：

No	液体	結果	再現性
1	水道水	100時間 試験を行い焼損再現せず	×
2	水道水	100時間 試験を行い焼損再現せず	×
3	水道水	100時間 試験を行い焼損再現せず	×
4	塩水(5%)	34時間後に溶損再現（返却品と状態酷似）	○
5	塩水(5%)	100時間 試験を行い焼損再現せず	×
6	塩水(5%)	100時間 試験を行い焼損再現せず	×



基板-コネクタベース間にスポイトにて液体を連続補給（供給は30分~60分毎に実施）

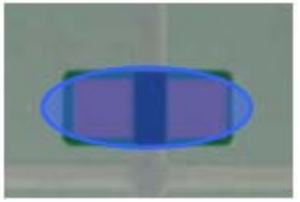
発生要因

～パターンGapと溶損の関連性～

溶損要因のパターンGap（間隔）についてテストを行い調査を行いました。

【実験内容】

①試験水　　：濃度5%のNaCl水溶液
②滴下量　　：28mg/回
③滴下間隔：30～60分（乾いたら随時　最大1回/30分　）
④試験電圧　　：12V
⑤ ギャップ長　　：1.0～1.5mm間で0.1mm間隔にて実施
⑥N数　　：各Gap　N=4
⑦試験時間：13時間　※火花が発生した場合はその時点で終了する
⑧ランド形状　　：2.5×2.5[mm^2]



（滴下の目安）

【実験結果】

Gap距離	発火件数（発生数/実施数）	火花発生までの時間	火花発生時の最大電流
1.0mm	4／4	N＝4全てが30分以内	3.6A
1.1mm	2／4	N＝2が60～90分	3.5A
1.2mm	3／4	N＝3が30～120分	3.3A
1.3mm	0／4	―	-
1.5mm	0／4	―	-

Gap距離と火花発生は強い相関関係があり、火花発生有無のスレッシュは1.2mm付近に存在すると考えられますが、N数が少ないことより1.5mm以内は溶損発生の可能性があると考えます。
（火花発生＝溶損発生の可能性有り）

発生要因

～発生メカニズム～

糖や電解質を含む多量の液体がP/Wに被水

ケース煙突部から液体が製品内部に侵入(図1)

基板とリブや端子台間の
狭い隙間を液体が移動する(図2,3)

液体が滞留する部位に+Bパターンと
GNDランドが1.5mm以内に隣接している

繰り返し

+BパターンとGNDランド間に液体が滞留し、
マイグレーション現象が生じる

+BパターンとGNDランド間の絶縁抵抗が低下し、
リーク電流が流れジュール熱により発熱する

発熱が維持・拡大して溶損する

発熱が1000℃以上に達し、
電源供給しているVMP1端子(銅)が溶融する

VMP1端子が基板から脱落し、電源供給されなくなる
(発熱停止、P/W機能せず)

図1

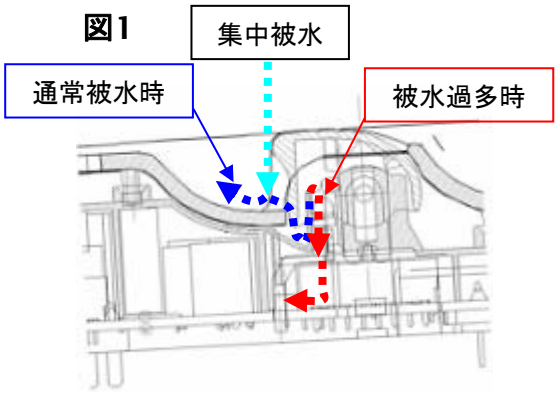


図2

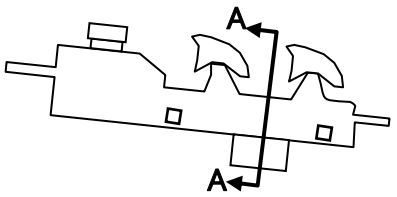
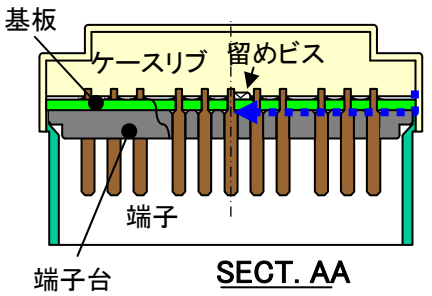


図3



EA11-004

HONDA

4/27/2012

Q17

120411_CR-V connectors_Investigation results of returned parts

◆ Vehicle & Returned part information

part number	Type	VIN	Vehicle production date	Warranty registration date	Repair Receipt Date	Mileage	Occurrence Country	Omron designated type	LOT	Production date
35750-S9A-C04	RD7	SHSRD788 86U[redacted]	2005/12/22	2006/2/25	2010/1/25	66200mile	US	C8H-H42-BO2S	07Z5E1	2005/12/7
35750-S9A-C04	RD7	SHSRD788 26U[redacted]	2006/6/21	2006/7/24	2010/2/24	48932mile	US	C8H-H42-BO2S	0766E1	2006/6/7
35750-S9A-C04	RD7	SHSRD789 16U[redacted]	2006/4/6	2006/5/30	2010/3/10	48969mile	US	C8H-H42-BO2S	0936E1	2006/3/9

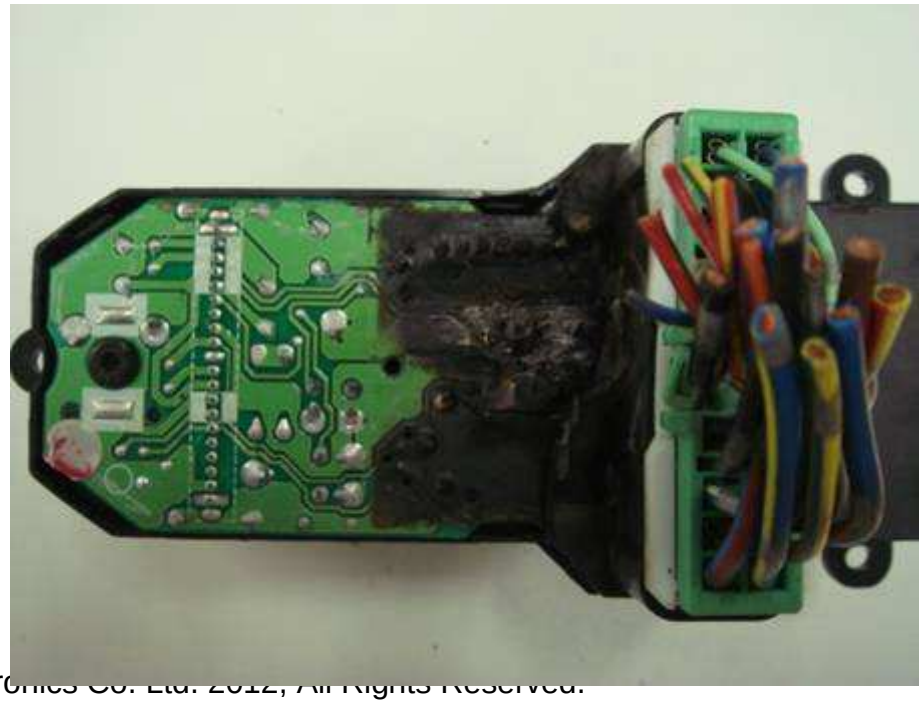
◆ Returned part verification result list

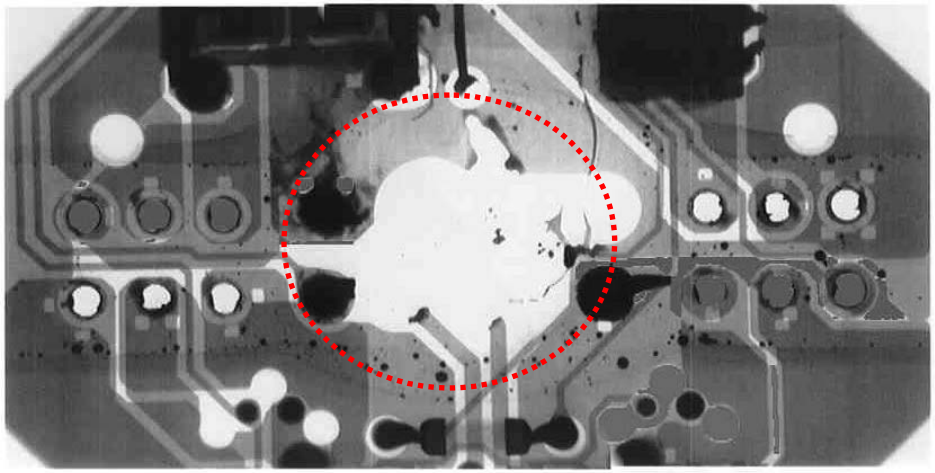
Vin No.	part number	Model	PCB AW classification	Heat source			Ion Component detection
				Location	+ side	GND side	
SHSRD78886U[redacted]	35750-S9A-C04	CR-V	H42	Under connector base	VMP1 Pattern	PG1 terminal	○
SHSRD78826U[redacted]	35750-S9A-C04	CR-V	H42	Under connector base	VMP1 Pattern	PG1 terminal	○
SHSRD78916U[redacted]	35750-S9A-C04	CR-V	H42	Under connector base	VMP1 Pattern	PG1 terminal	○

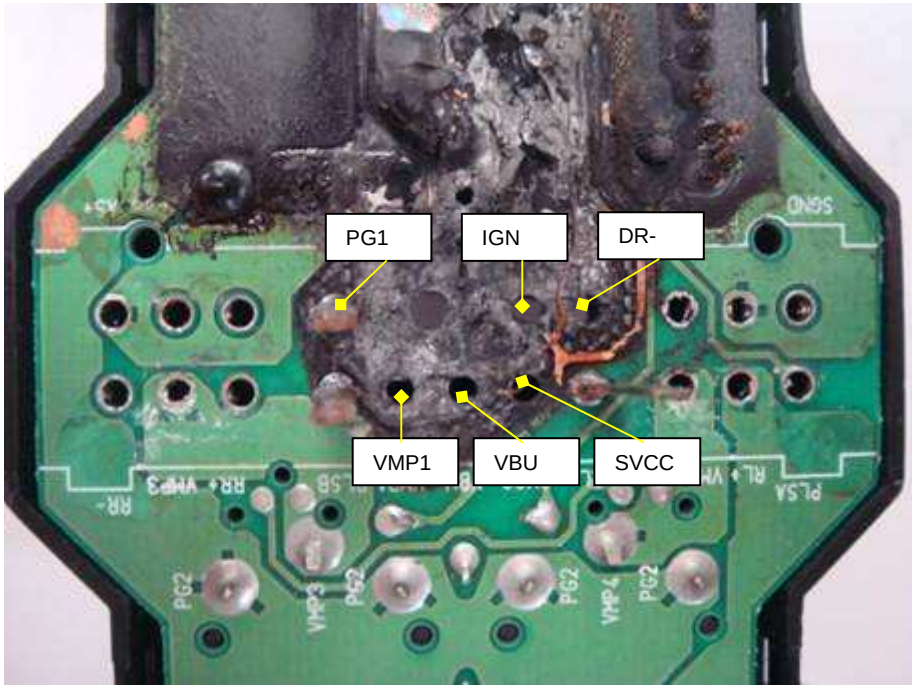
○=Detected

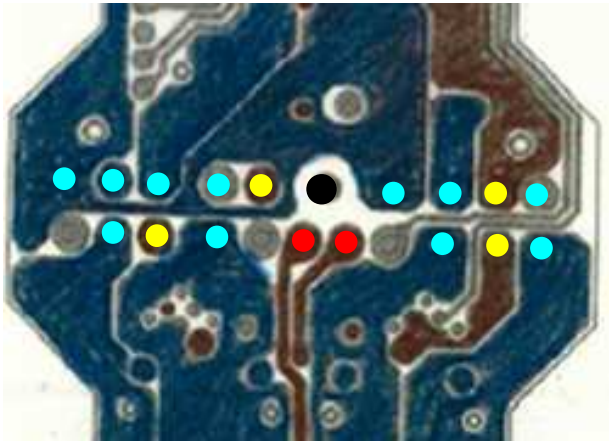
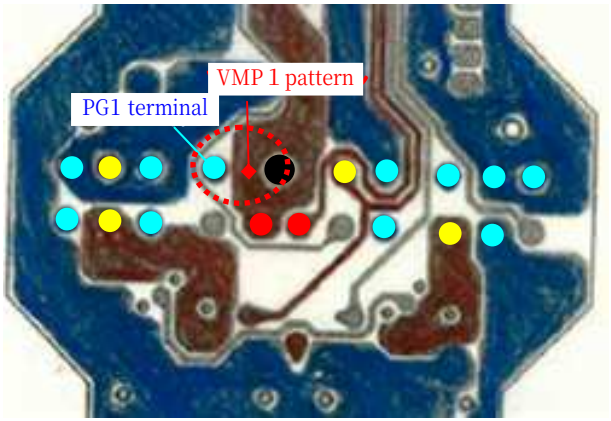
Conditions of respective returned defective parts(Pictures)

Honda control No.	:	7
Part No.	:	35750-S9A-C04
VIN	:	SHSRD78886U[redacted]
Vehicle production date	:	2005.12.22
Registration date	:	2006.2.25
Occurrence date	:	2010.1.25
Mileage	:	66200mile
OC designated type	:	C8H-H42-BO2S
LOT	:	07Z5E1
OC designated control No.	:	AQU-100525-008





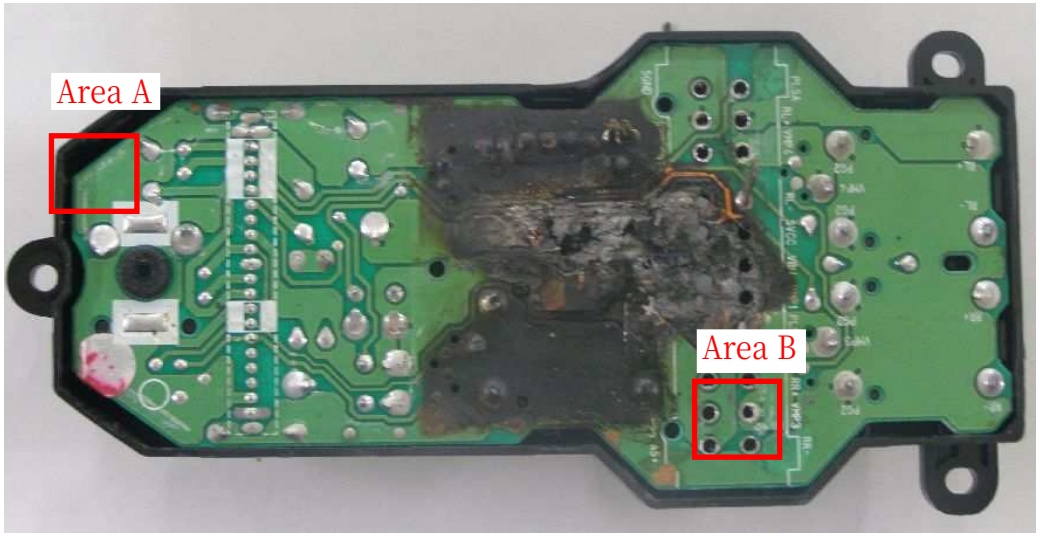


	PCB AW Category: H42
Component side	
Soldering side	

● : +B ● : GND ◌ : Assumed Heat source

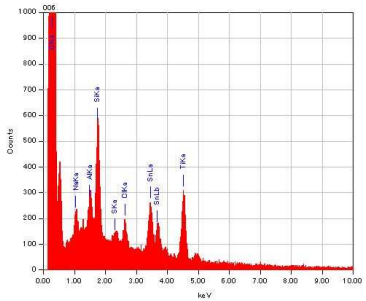
● : IG ● : Threaded hole

C, O, Na, Al, Si, S, Cl, Pb, and Sn are detected as a result of EDX analysis of the attachment.



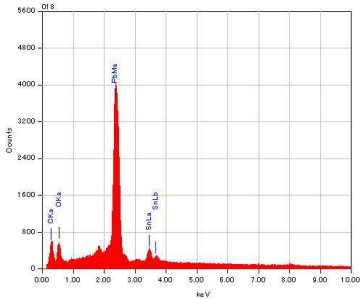
Full view of PCB (Soldering side)

Area A



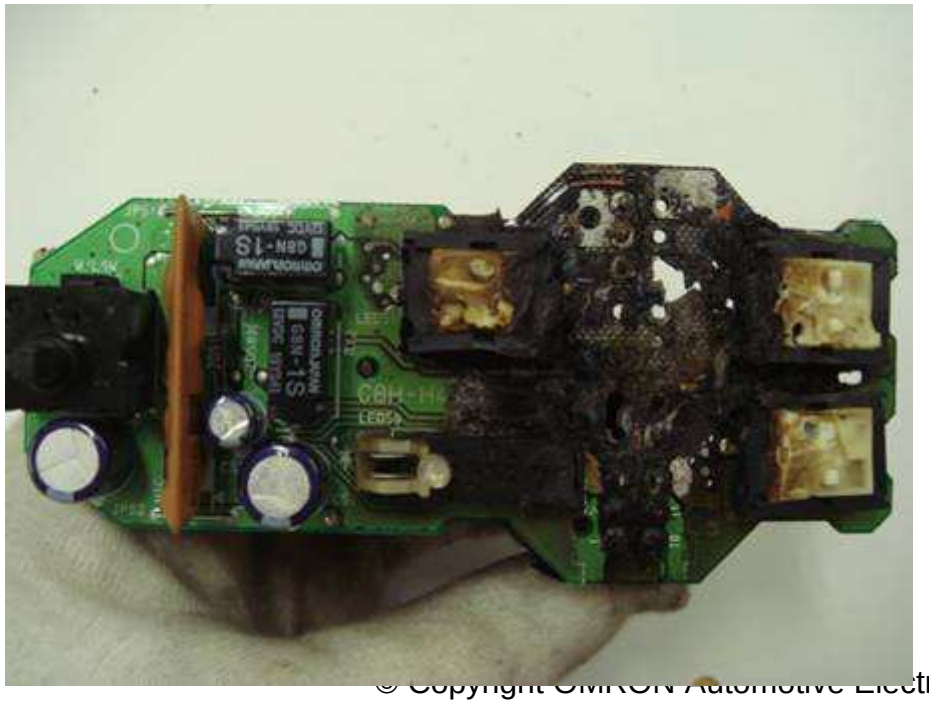
Detected element:
C,O,Na,Al,Si,S,Cl,Sn

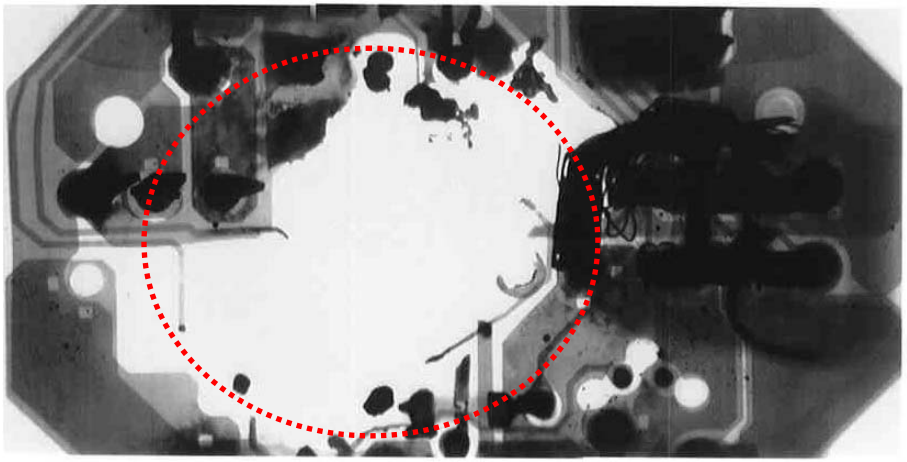
Area B

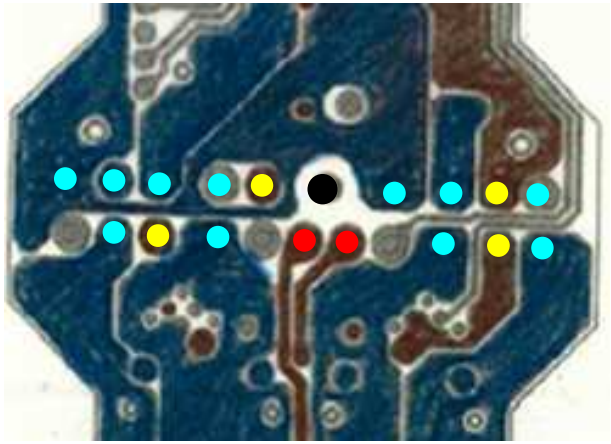
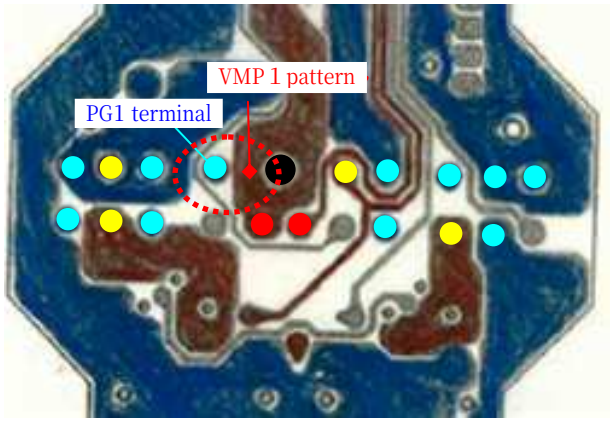


Detected element:
C,O,Pb,Sn

Honda control No.	:	8
Part No.	:	35750-S9A-C04
VIN	:	SHSRD78826U[redacted]
Vehicle production date	:	2006.6.21
Registration date	:	2006.7.24
Occurrence date	:	2010.2.24
Mileage	:	48932mile
OC designated type	:	C8H-H42-BO2S
LOT	:	0766E1
OC designated control No.	:	AQU-100525-009



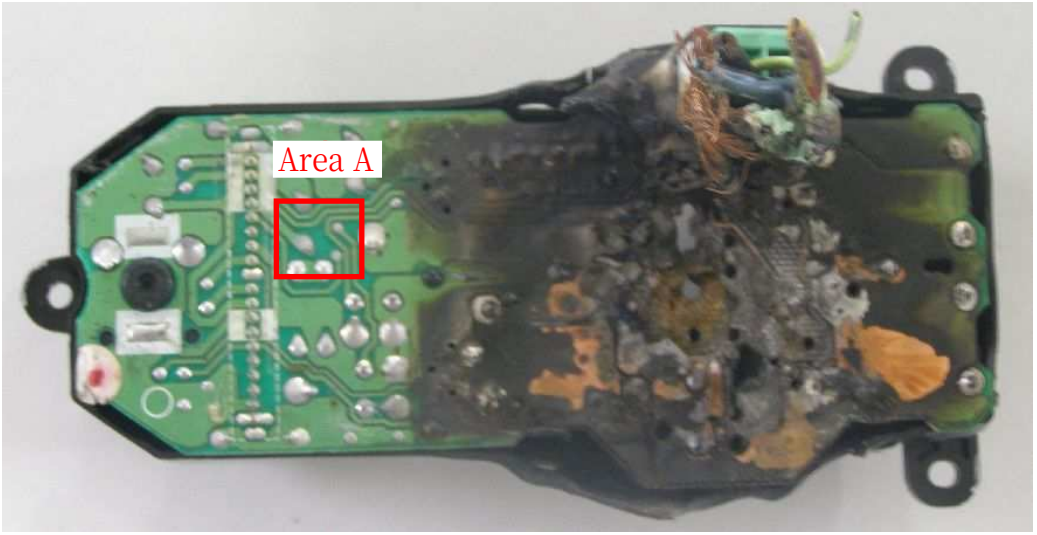


	PCB　AW Category: H42
Component side	
Soldering side	

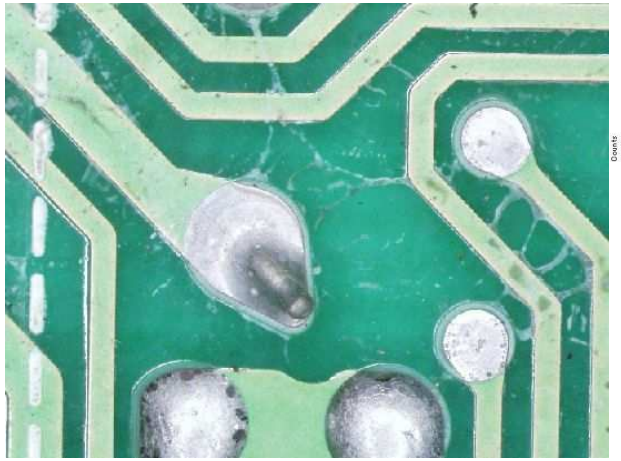
● : +B　● : GND　◌ : Assumed Heat source

● : IG　● : Threaded hole

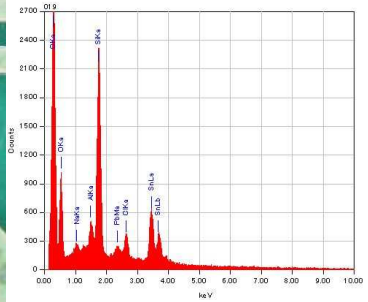
C, O, Na, Al, Si, Cl, Pb, and Sn are detected as a result of EDX analysis of the attachment.



Full view of PCB (Soldering side)

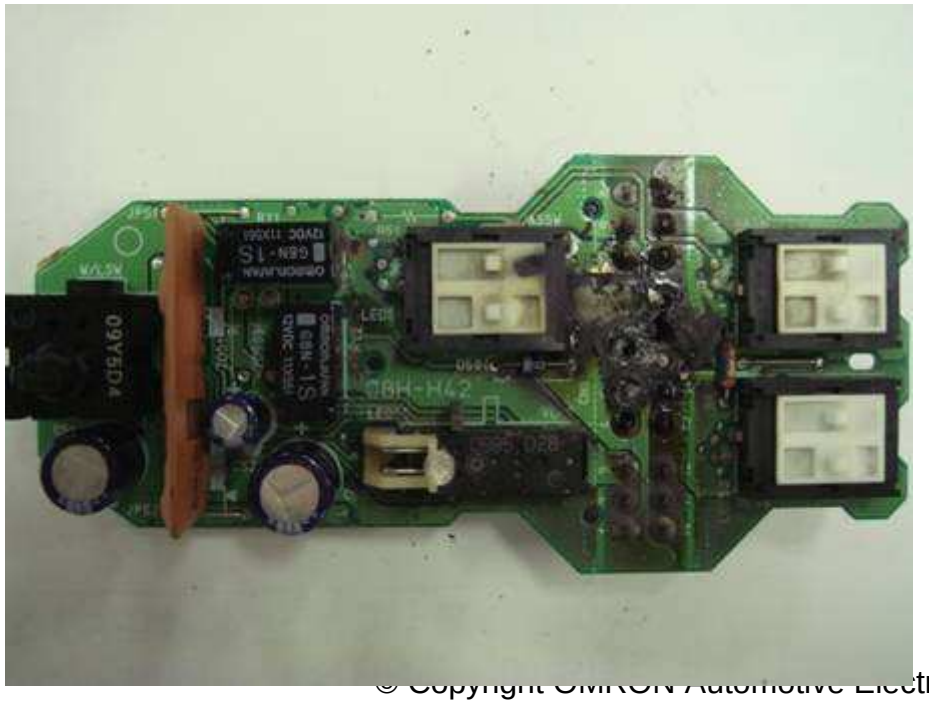


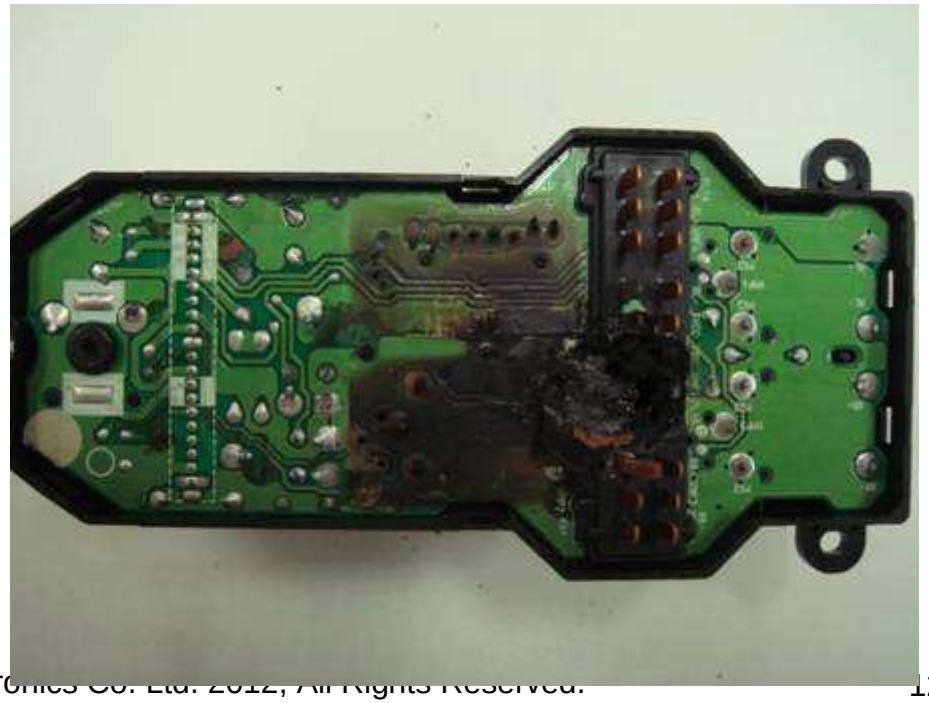
Area A

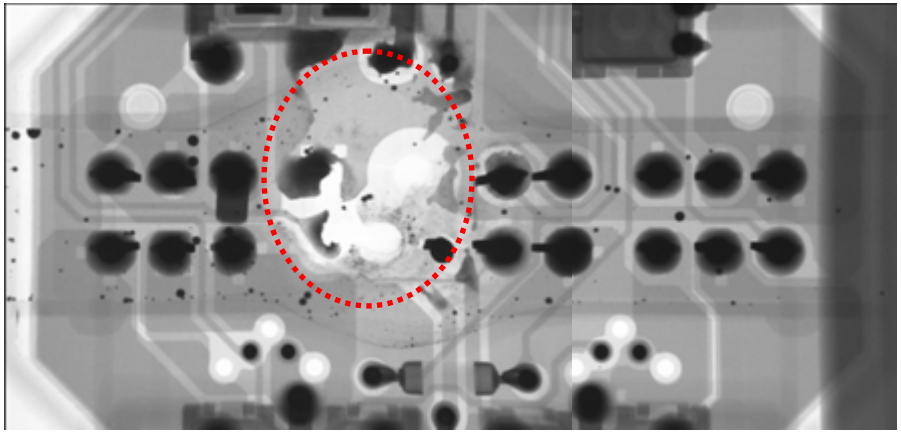


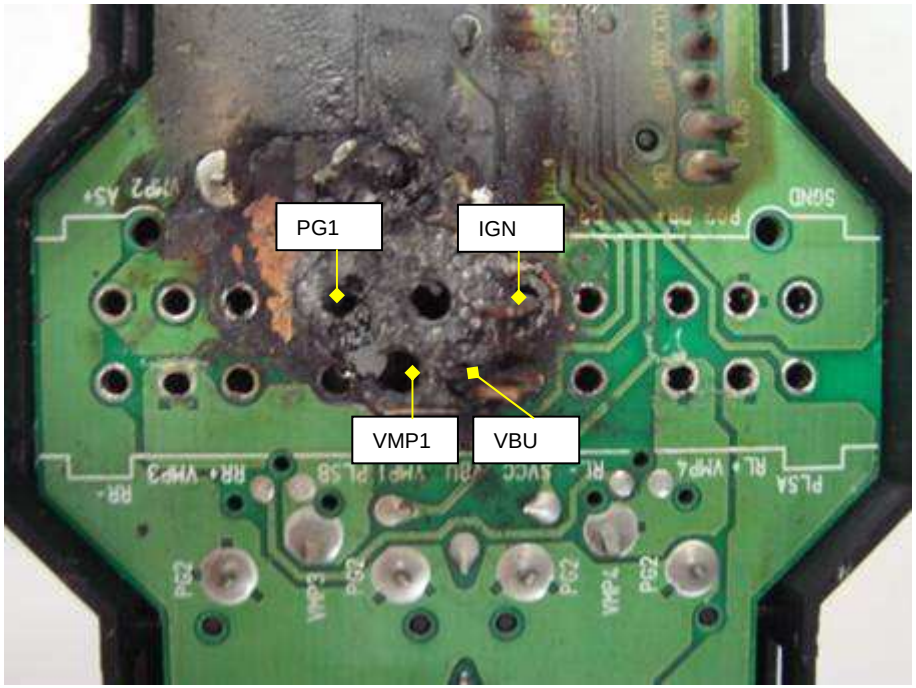
Detected element:
C,O,Na,Al,Si,Pb,
Cl,Sn

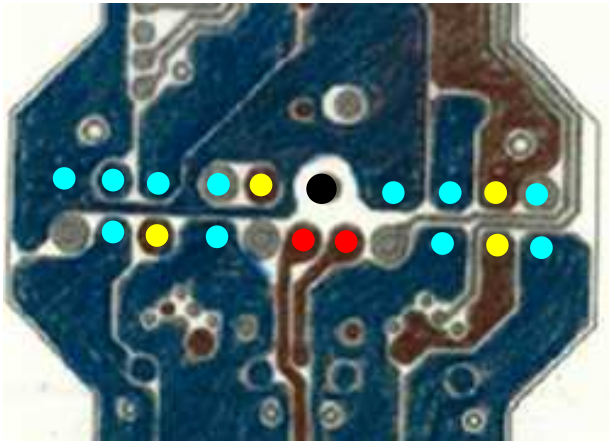
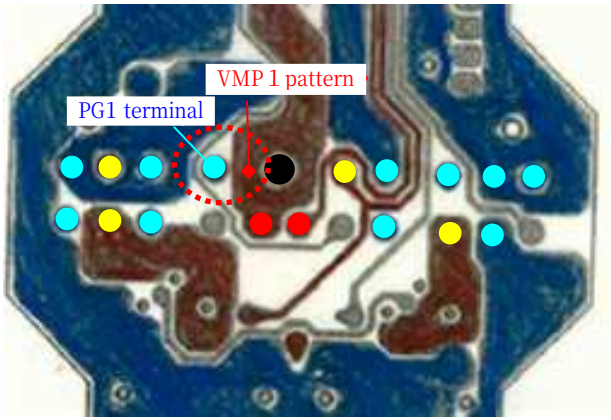
Honda control No.	:	9
Part No.	:	35750-S9A-C04
VIN	:	SHSRD78916U[redacted]
Vehicle production date	:	2006.4.6
Registration date	:	2006.5.30
Occurrence date	:	2010.3.10
Mileage	:	48969mile
OC designated type	:	C8H-H42-BO2S
LOT	:	0936E1
OC designated control No.	:	AQU-100525-010







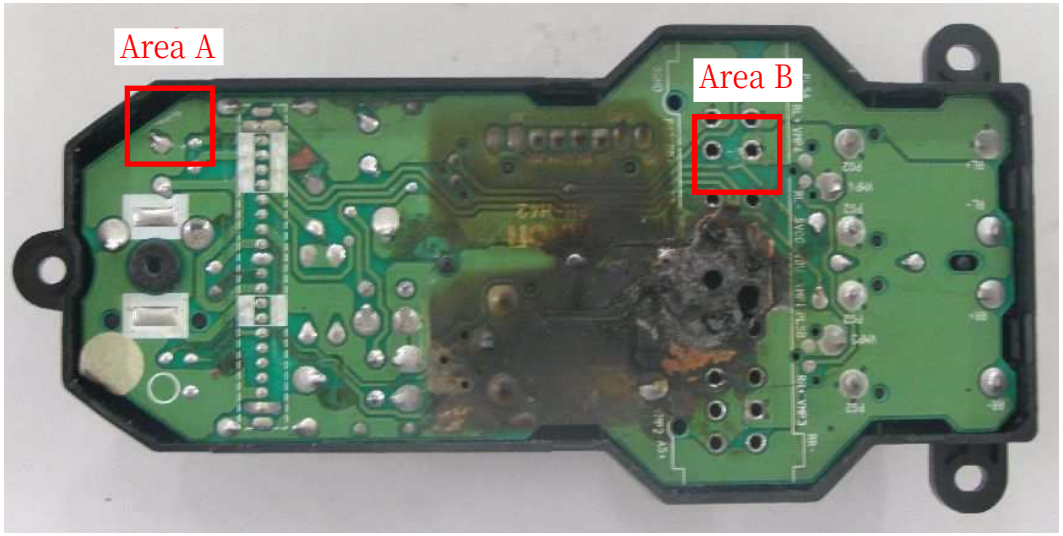


	PCB AW Category: H42
Component side	
Soldering side	

: +B : GND : Assumed Heat source

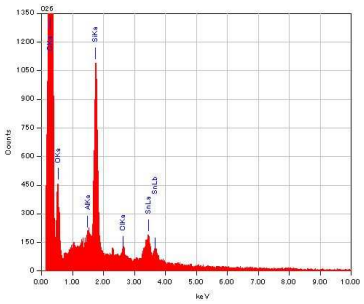
: IG : Threaded hole

C, O, Al, Si, Cl, Cu, Pb, and Sn are detected as a result of EDX analysis of the attachment.

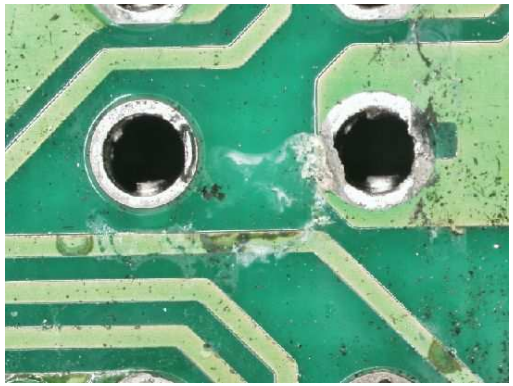


Full view of PCB (Soldering side)

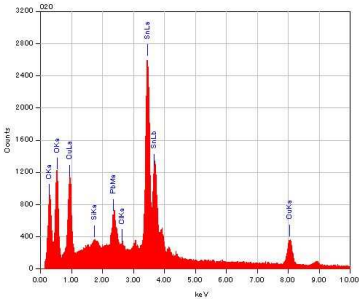
Area A



Detected element:
C,O,Al,Si,Cl,Sn



Area B



Detected element:
C,O,Cu,Si,Pb,Cl,Sn

◆車両情報、現品情報

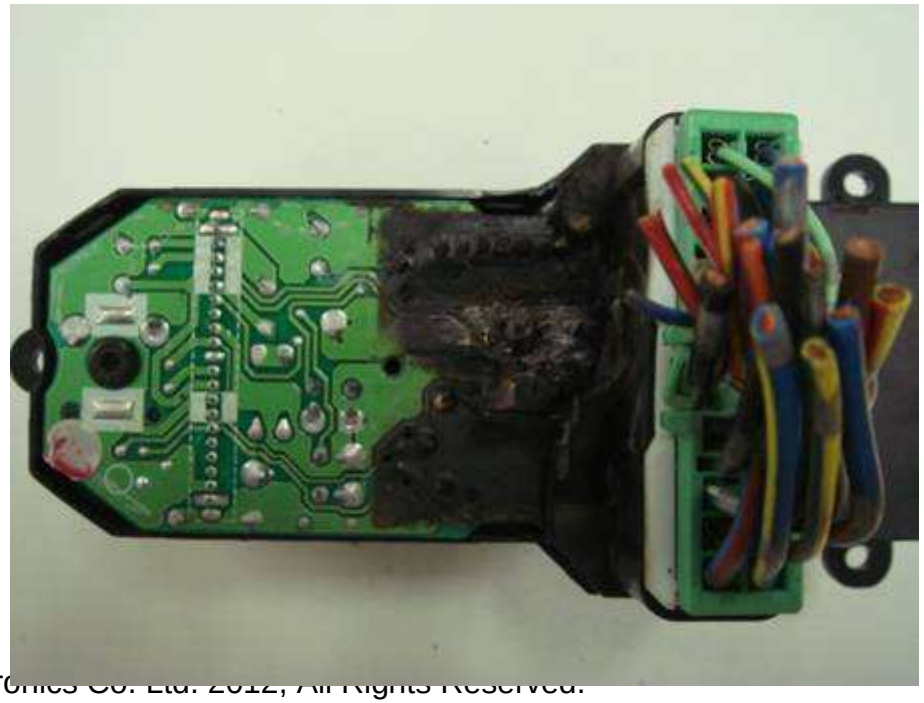
部品番号	型式	VIN	車両製造日	保証登録日	修理受付日	走行距離	発生地区	オムロン形式	ロット	生産日
35750-S9A-C04	RD7	SHSRD788 86U[redacted]	2005/12/22	2006/2/25	2010/1/25	66200mile	US	C8H-H42-BO2S	07Z5E1	2005/12/7
35750-S9A-C04	RD7	SHSRD788 26U[redacted]	2006/6/21	2006/7/24	2010/2/24	48932mile	US	C8H-H42-BO2S	0766E1	2006/6/7
35750-S9A-C04	RD7	SHSRD789 16U[redacted]	2006/4/6	2006/5/30	2010/3/10	48969mile	US	C8H-H42-BO2S	0936E1	2006/3/9

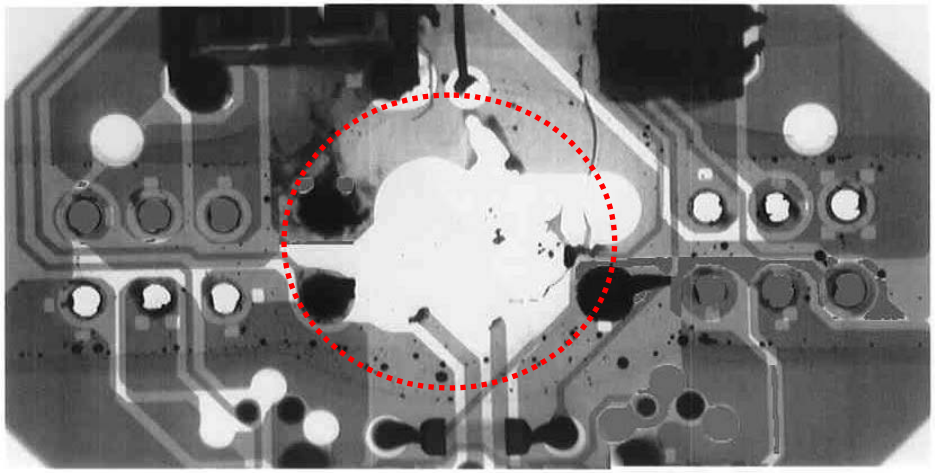
◆返却現品確認結果 一覧

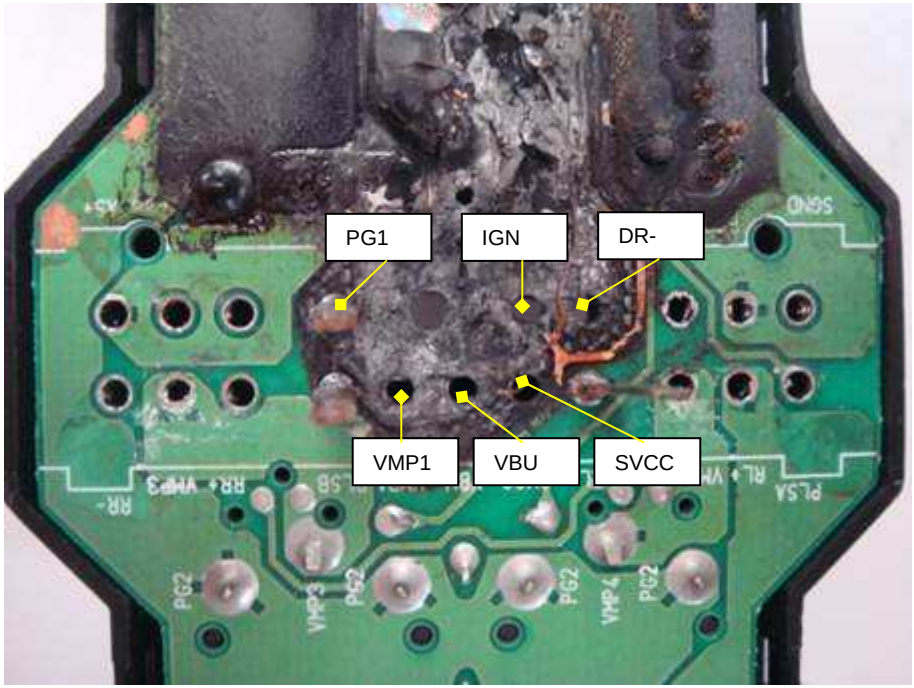
Vin No.	部品番号	車種	基板AW分類	発熱元			イオン成分検出有無
				場所	+側	GND側	
SHSRD78886U[redacted]	35750-S9A-C04	CR-V	H42	コネクタベース下	VMP1パターン	PG1端子	○
SHSRD78826U[redacted]	35750-S9A-C04	CR-V	H42	コネクタベース下	VMP1パターン	PG1端子	○
SHSRD78916U[redacted]	35750-S9A-C04	CR-V	H42	コネクタベース下	VMP1パターン	PG1端子	○

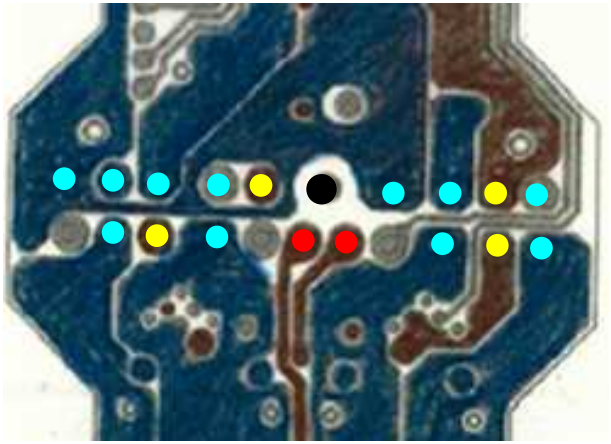
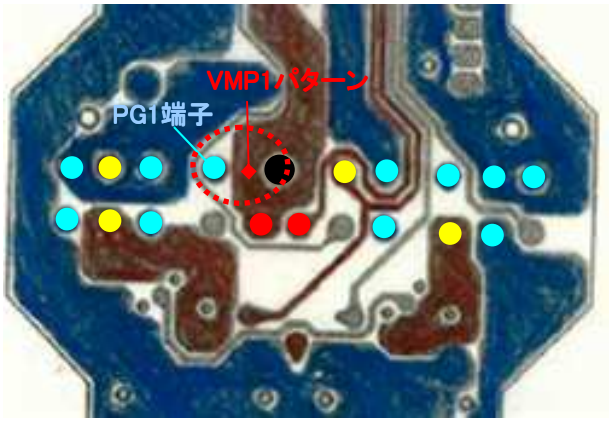
各返却現品の状態（写真）

ホンダ様管理No	: 7
部品番号	: 35750-S9A-C04
VIN	: SHSRD78886U[redacted]
車両製造日	: 2005.12.22
登録日	: 2006.2.25
発生日	: 2010.1.25
走行距離	: 66200mile
OC形式	: C8H-H42-BO2S
ロット	: 07Z5E1
OC管理No	: AQU-100525-008



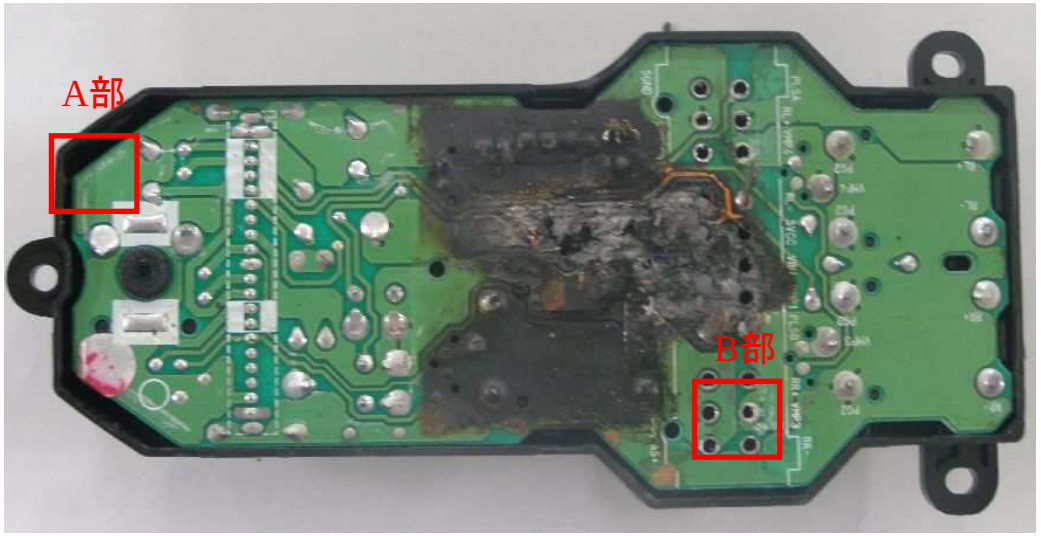




	基板AW分類:H42
部品面	
はんだ面	

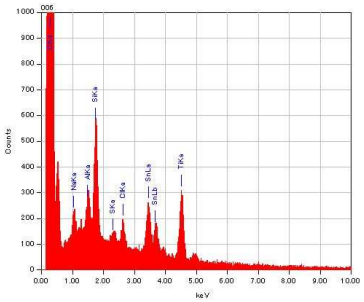
● : +B　● : GND　◌ : 推定発熱元
● : IG　● : ネジ穴

付着物のEDX分析結果、C,O,Na,Al,Si,S,Cl,Pb,Snが検出されました。



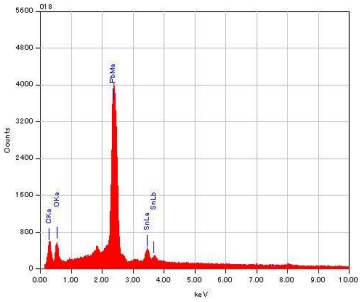
基板全景（はんだ面）

A部



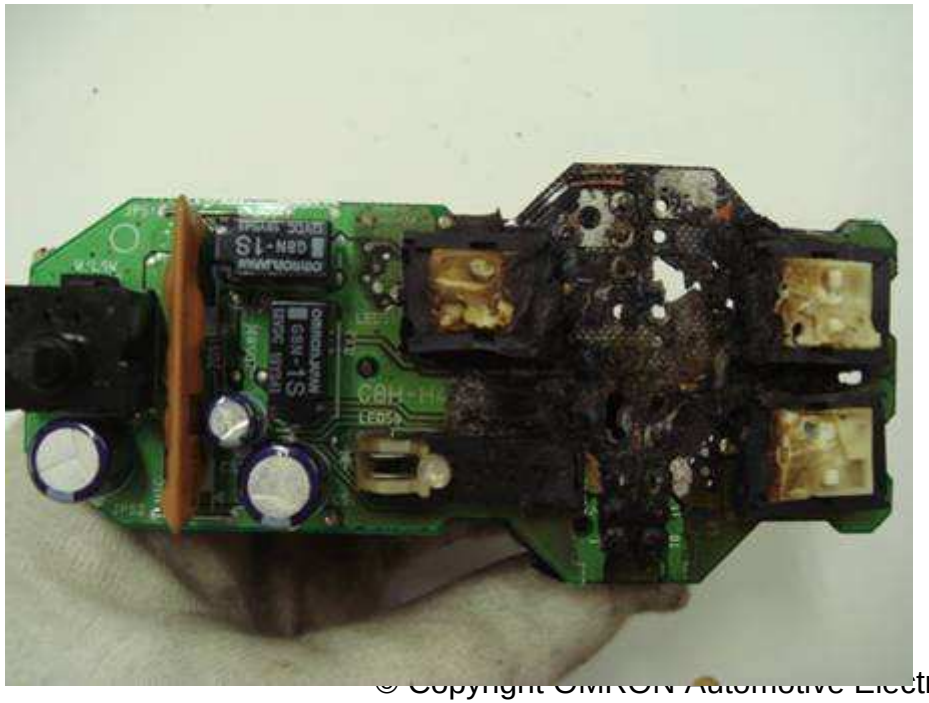
検出元素：
C,O,Na,Al,Si,S,Cl,Sn

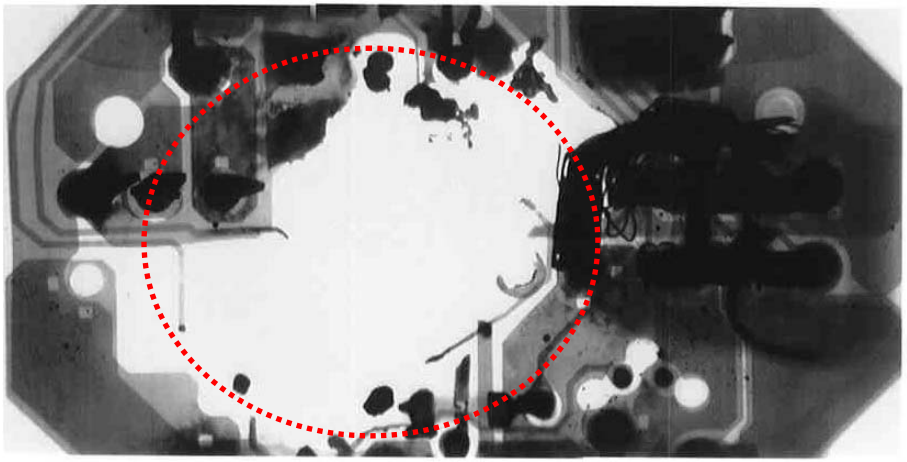
B部

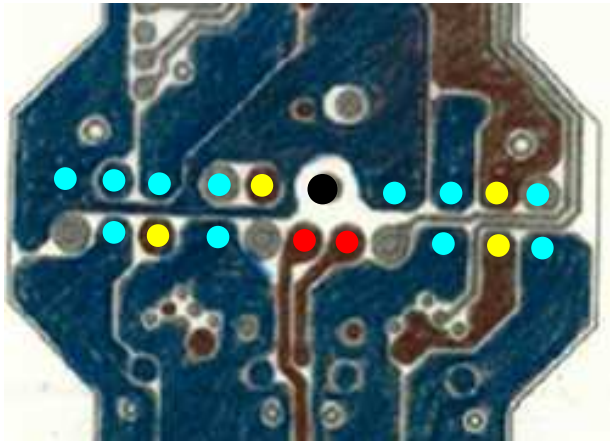
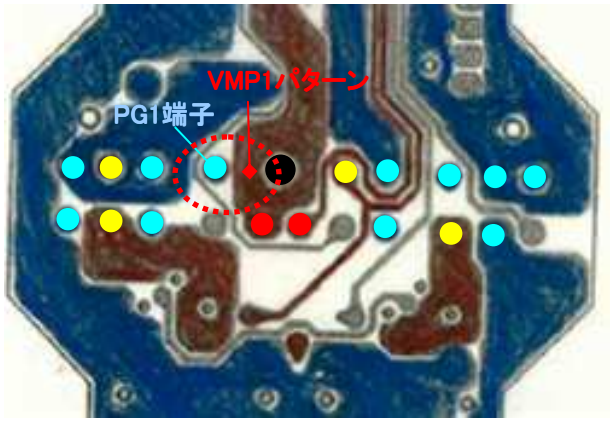


検出元素：
C,O,Pb,Sn

ホンダ様管理No	: 8
部品番号	: 35750-S9A-C04
VIN	: SHSRD78826U[redacted]
車両製造日	: 2006.6.21
登録日	: 2006.7.24
発生日	: 2010.2.24
走行距離	: 48932mile
OC形式	: C8H-H42-BO2S
ロット	: 0766E1
OC管理No	: AQU-100525-009



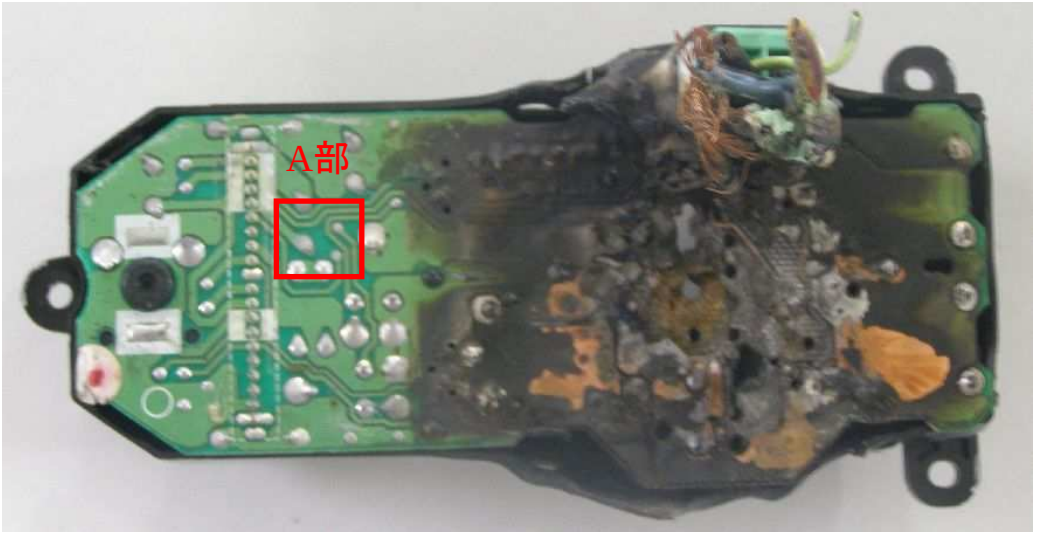


	基板AW分類:H42
部品面	
はんだ面	

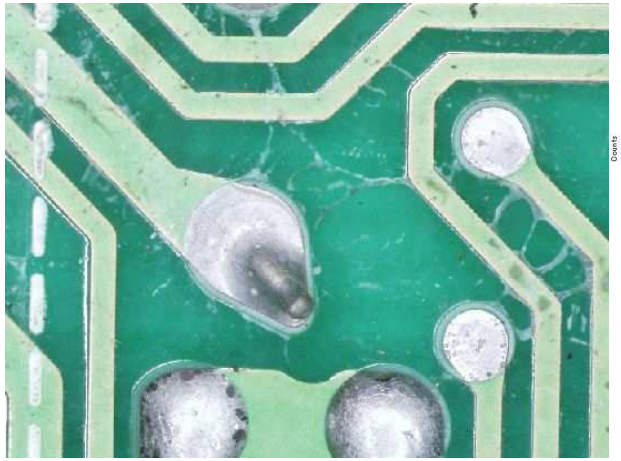
● : +B　● : GND　◌ : 推定発熱元

● : IG　● : ネジ穴

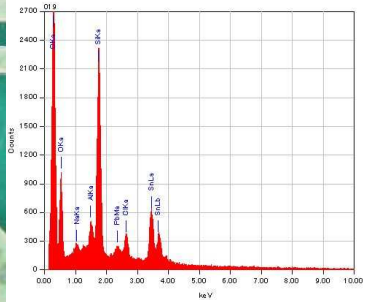
付着物のEDX分析結果、C,O,Na,Al,Si,Cl,Cu,Pb,Snが検出されました。



基板全景（はんだ面）

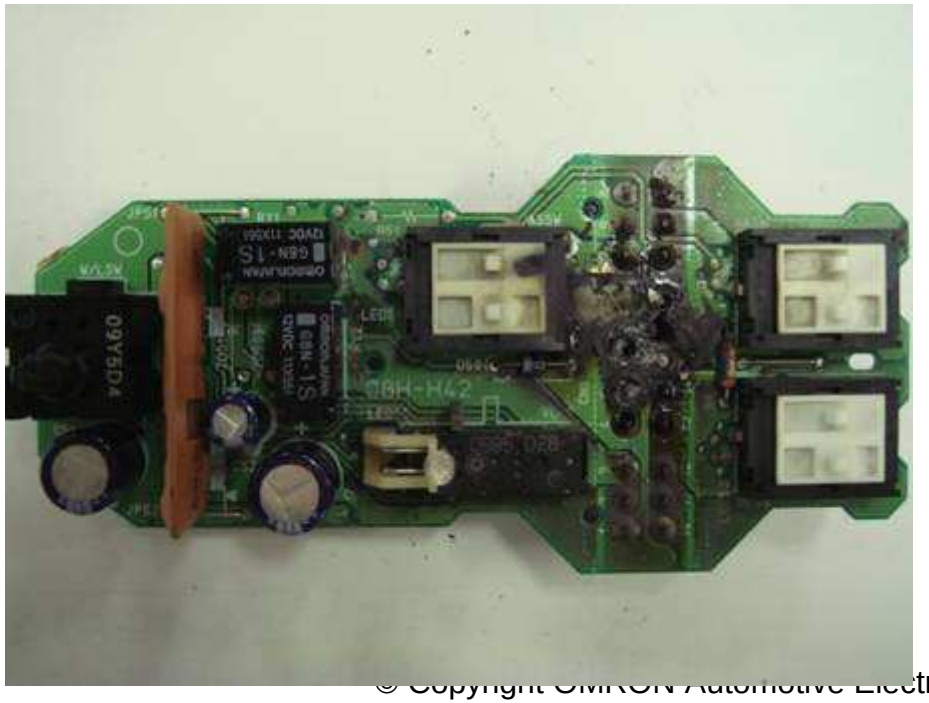


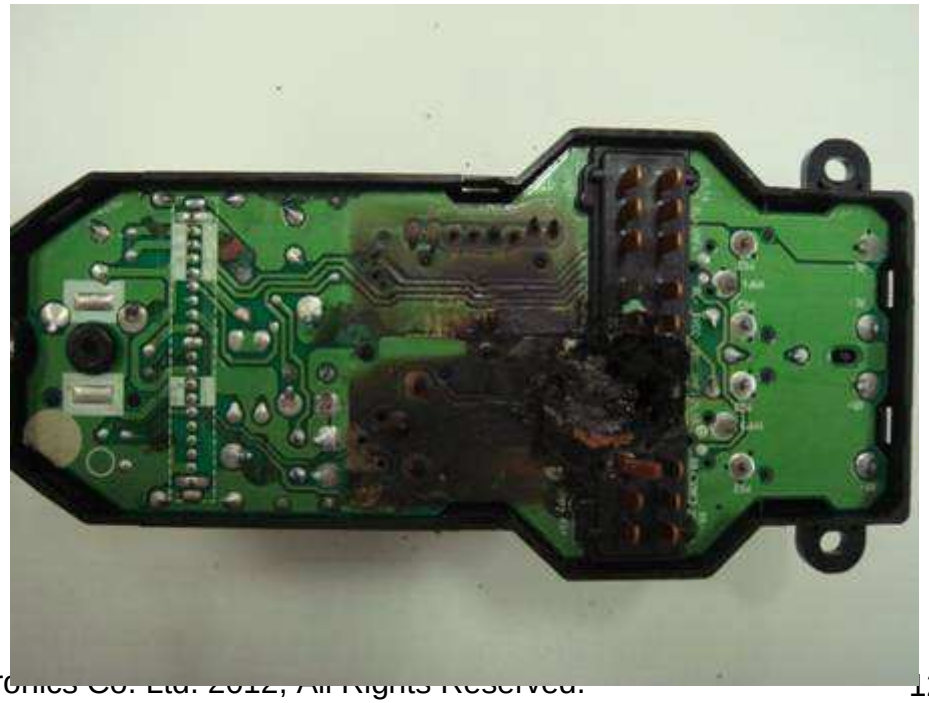
A部

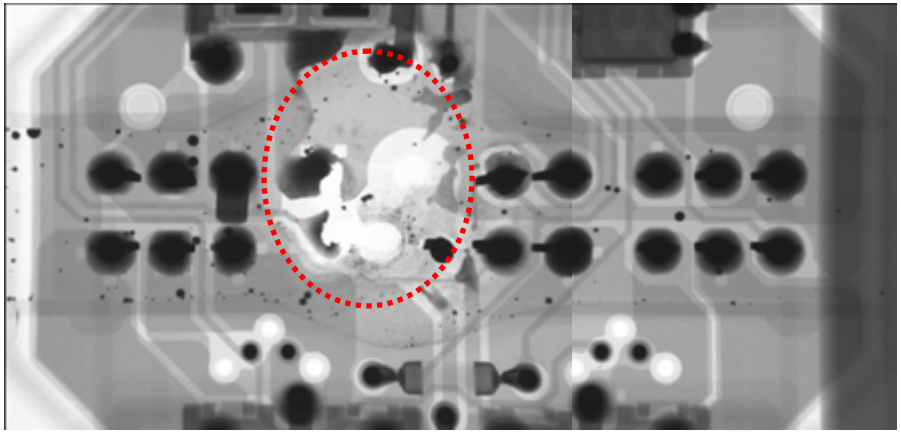


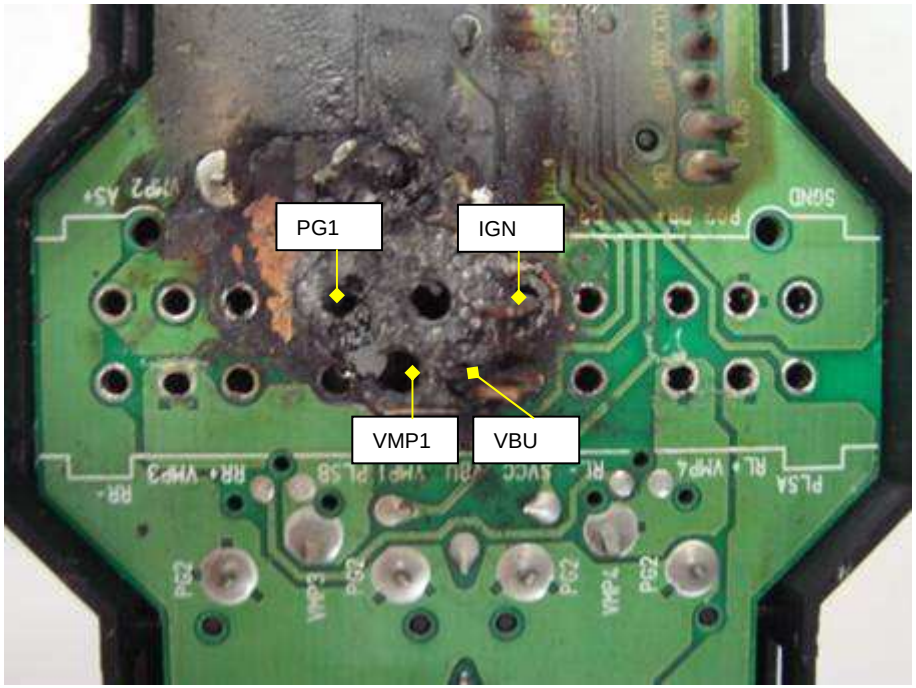
検出元素：
C,O,Na,Al,Si,Pb,
Cl,Sn

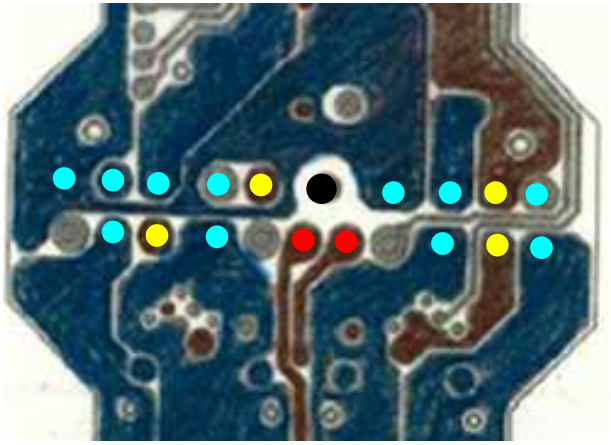
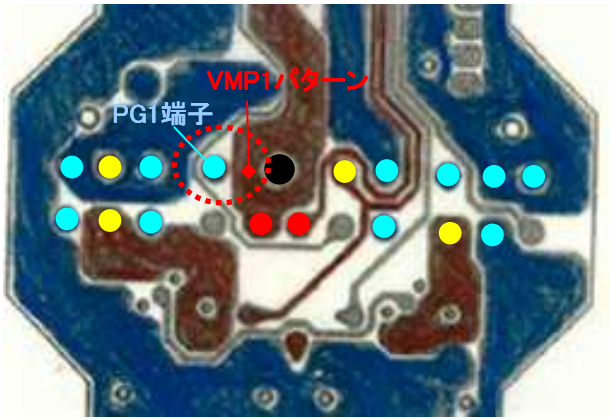
ホンダ様管理No	: 9
部品番号	: 35750-S9A-C04
VIN	: SHSRD78916U[redacted]
車両製造日	: 2006.4.6
登録日	: 2006.5.30
発生日	: 2010.3.10
走行距離	: 48969mile
OC形式	: C8H-H42-BO2S
ロット	: 0936E1
OC管理No	: AQU-100525-010





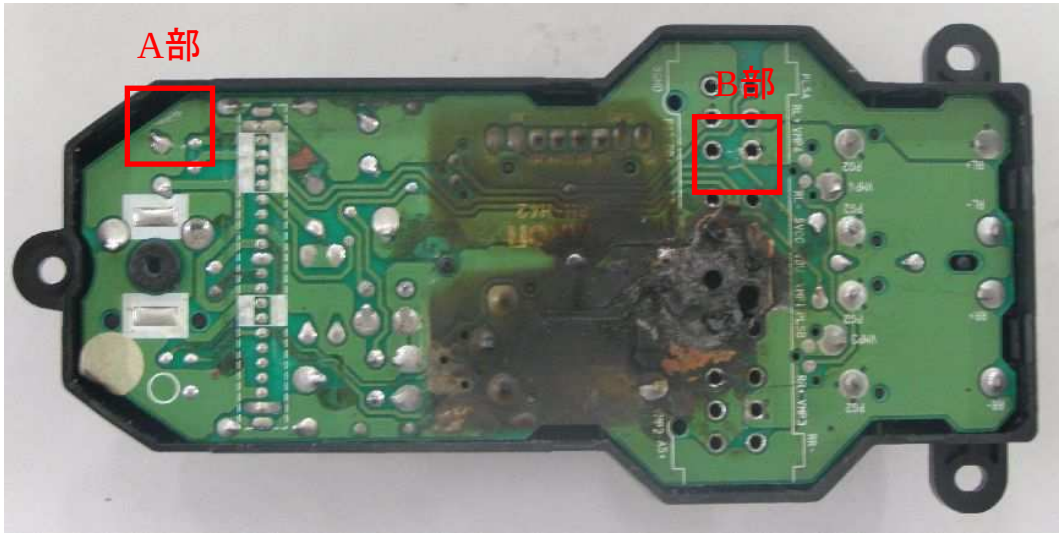




	基板AW分類:H42
部品面	
はんだ面	

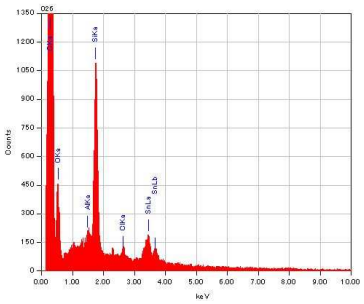
：+B　：GND　：推定発熱元
：IG　：ネジ穴

付着物のEDX分析結果、C,O,Al,Si,Cl,Cu,Pb,Snが検出されました。

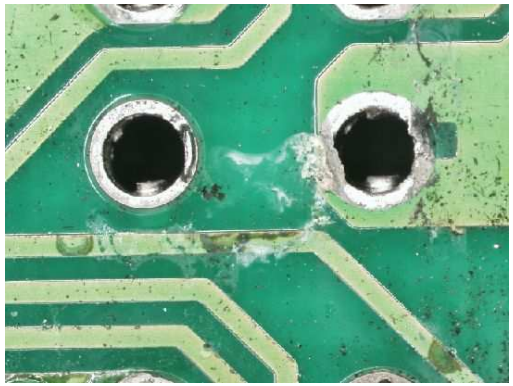


基板全景（はんだ面）

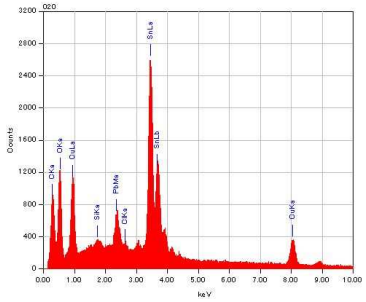
A部



検出元素：
C,O,Al,Si,Cl,Sn



B部



検出元素：
C,O,Cu,Si,Pb,Cl,Sn