

PE05-047

HONDA

11/14/2005

ATTACHMENT Q9

PART 5 OF 5

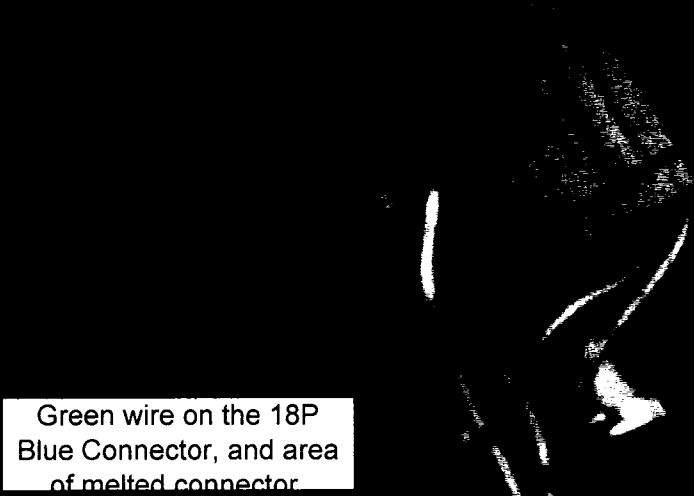
Attachment Q9

Original Document

HONDA QIC REPORT

No M2M193

Page 1/

TO:		ATTN:		FAX NO :		310-781-4595		Date:		29/Jul/2005	
CSO(MC-Tech) :		Mr. T. Yamamoto		MODEL :		VFR800/A/Fl(2)					
MQID :		Mr. M. Matsuura		TYPE :		RC46					
M-QC :		Mr. A. Sawa								Grade A	
CH M/C SRVC :		Mr. P Berry		THEME :		Wire Harness Melted					
										JPN	
COUNTRY		THEME LEADER		MGR. SIGN		REPRESENTATIVE FUNCTION NUMBERS					
U. S. A.		Chris Compise				32100					
Symptoms:(Customer complaints)				Customer		3					
The customer complained that on the 4th day of a trip, after stopping the unit for fuel, it would not restart. The unit would start, but immediately stop running when the starter button was released. The customer then removed two relays (to get the unit to run) and rode the unit home (with no headlight or tail lights.)											
Diagnosis:(Technical desc. of what happened: only facts) The dealer states that they have confirmed the customer contention. The dealer found the 18P Blue connector, for the harness and sub harness connection, to be melted. The dealer states the the Green ground wire in the 18P blue connector is where it is melted. The dealer also noticed the 30A main fuse to be discolored from heat.											
Primary Cause:(If known)				Temporary Treatment:		Dealer		3			
Melted Wire Harness.				The dealer has not replaced the wire harness, per AH request to not repair the unit yet.							
Specific Information:											
AH DSM contacted QIC with above the information. DSM and AH QIC member confirmed symptoms and diagnosis with dealer. The dealer stated the customer removed the headlight relays for the unit to start and run. The dealer also stated that the unit is mechanically all stock. AH has also had other (VFR800/A) Tech Line contacts that include the melting of the 18P Blue connector. The units all vary in modification and condition. Please see attached Tech Line contacts for information on these other units. The picture in this report was provided by the dealer.											
Occurrence Statistics							Total row No of Claim Information				
Monthly bases		Feb.	Mar.	Apr.	May	Jun.	Jul.	1			
Customer + Dealer Contacts		0	0	0	0	0	1	Total rows No of Parts Information			
Parts Recv Date N/A		Total Registration:					0	1			
Registration	Occurrence	Mileage	VIN / Frame No		Engine No	DLR No	Claim No				
20/Mar/2002	27/Jul/2005	17,000.0	JH2RC46152M		2405451	104638	N/A				
Claim Parts P/No.		Stock Quantities		B. O. Total		Consumption: AMC, Past 6 months...					
32100-MCW-L10 (0)		2		0		1					
Technical Claim Cost:		Parts:		N/A		Labor		N/A			
Shipping Information		Claim Parts Availability :		No		If no, why ?		Unit has not been repaired			
Attn: Mr. :				ETA :				Invoice No :			
								AWB No :			

HONDA QIC REPORT

No

M2M194

Page 1/

TO:		ATTN:		FAX NO :		310-781-4595		Date: 17/Aug/2005	
CSO(MC-Tech) :		Mr. T. Yamamoto		MODEL :		VFR800/A/Fl(2)			
MQID :		Mr. M. Matsuura		TYPE :		RC46		Grade A	
M-QC :		Mr. A. Sawa							
CH M/C SRVC :		Mr. P Berry		THEME : Melted Wire Harness Ground Junction					
JPN									
COUNTRY		THEME LEADER		MGR. SIGN		REPRESENTATIVE FUNCTION NUMBERS			
U. S. A.		Chris Compise				32100			
Symptoms:(Customer complaints)			Customer		3				
The customer said that the unit's engine would intermittently stop running. The dealer was unable to duplicate in past occurrences. The customer says now the unit will stop running intermittently when the left turn signal is used.									
Diagnosis:(Technical desc. of what happened: only facts) The dealer has diagnosed the unit and found broken and split wires at a ground connector block in the harness, on the left side of the unit near the throttle body. The harness tape is also melted. There is no other damage to the wire harness.									
Primary Cause:(If known) N/A					Temporary Treatment: The dealer is replacing the main wire harness.				
Dealer 3									
Specific Information: AH received information through DSM Field Quality Report. AH member called dealer and confirmed the symptom and diagnosis. The dealer also examined the rest of the harness, found no evidence of accessories installed, and no other damaged wires or connectors.									
Occurrence Statistics							Total row No of Claim Information		
Monthly bases		Mar.	Apr.	May	Jun.	Jul.	Aug.	1	
Customer + Dealer Contacts		0	0	0	0	0	1	Total rows No of Parts Information	
Parts Recv Date N/A		Total Registration:					0		
Registration		Occurrence		Mileage		VIN / Frame No		Engine No	
27/Apr/2002		15/Aug/2005		9,543.0		JH2RC46172M		2412103	
								105346	
								N/A	
Claim Parts P/No.		Stock Quantities		B. O. Total		Consumption: AMC, Past 6 months...			
32100-MCW-L00 (0)		3		0		10			
Technical Claim Cost:		Parts:		N/A		Labor		N/A	
Shipping Information		Claim Parts Availability :		Not Yet		If no, why ?		Repair is not completed	
To be sent to :		MQID		ETD :		Invoice No :			
Attn: Mr. :		Mr. M. Matsuura		ETA :		AWB No :			

Attachment Q9

English Translation

Event Name of dept./ person in charge Completion date Receipt MQAO Information Gr. Akira Kumai 2005/08/17 Information investigation MQAO Technology Gr. Atsushi Sagisaka 2005/08/23 Investigation & analysis MQAO Technology Gr. Yoshifumi Mochizuki 2005/08/23 C/M request MQAO Technology Gr. Yoshifumi Mochizuki 2005/08/23 Interim response C/M response Motorcycle Quality Innovation Div. 2005/10/21 Drawing release C/M implementation Completion Receipt date 10/21	Counter-measure Request Type / YM, Make, Model RC46 02/VFR800 Title Wire harness melted Symptom A customer stopped his vehicle for refueling during a 4-day touring. After refueling, he found his vehicle disabled. He was able to start up the vehicle, but when he released the start button, the vehicle stopped right away. He removed two relays (which allowed the vehicle to run) and rode back to home (with headlight and taillight off). (M2M193/1 complaint) Response Response to be submitted to Motorcycle Quality Analysis Office Technology Gr Model name : VFR800A2 YM : 02M Returned part : Wire harness 1. Field investigation • A total of 5 vehicles were checked, and all of them were found modified to some extent with respect to the specifications at delivery from plant. • When the connection circuit was checked, 4 out of 5 vehicles were found showing poor contact and traces of having been melted in the blue connector's green wire terminal area. 2. Results of returned parts checking • All the returned parts were mass-produced ones. They showed enlarged gap and increased contact resistance at the female terminal, and grease was applied to some of them. 3. Results of investigation into the actual condition at wire harness manufacturing plants : Plants of Sumitomo Wiring Systems, Ltd. in Japan and China respectively • There have been no changes in specifications or manufacturing process, which could have affected quality of manufacture of 2002-2004 model-year vehicles. • We visited the production site where documents such as process control table and the manufacturing process were checked in the presence of a witness, but found no factors that could have contributed to the alleged symptom. 4. Investigation of vehicle assembly process : Hamamatsu Factory • There have been no changes in the assembly process of 2002-2004 year-model vehicles. • The records show that the vehicle alleged to have failed in use had no problem when it was subjected to line-end completion inspection. 5. Connector durability test results : Mass-produced one (Test conditions : As per HES evaluation test) • There were no abnormalities such as damage from melting. Date 10/21 Responding dept. Motorcycle Quality Innovation Div. Approved by Checked by Prepared by	Motorcycle Quality Innovation Div. TO Rank B Date Approved by Checked by Prepared by	Cause The details of modifications made to the vehicle are unknown, however, unauthorized modification, improper handling and similar factor are supposed to be involved in the causation of poor contact and damage from melting. Countermeasure Manufacturing process check results and test results show no abnormalities, hence we take no countermeasure. Unauthorized modification, improper handling and similar factor are supposed to be involved in the causation, no action is taken. Countermeasure-applied serial numbers <table><thead><tr><th>Date</th><th>Type (Model code)</th><th>MY</th><th>Destination</th><th>Destination code</th><th>Serial number</th></tr></thead><tbody><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table> None None None	Date	Type (Model code)	MY	Destination	Destination code	Serial number																																																							Market Quality Information [QIS] Issuing department Motorcycle Quality Analysis Office Technology Gr. Place of occurrence <table><tr><td>Frame No.</td><td>JH2RC46152M4</td></tr><tr><td>Engine No.</td><td>2405451</td></tr><tr><td>Transmission No.</td><td></td></tr><tr><td>Transmission type</td><td></td></tr><tr><td>Distance traveled</td><td>17000 miles</td></tr><tr><td>Date of registration</td><td>2002/03/20</td></tr><tr><td>Date of occurrence</td><td>2005/07/27</td></tr></table> New part number Main part number 32100-MCW-L10 Subpart code 069 Smoldering TOP KEY type Case category Unknown Department Supplier Code Countermeasure category None Countermeasure code 4105 No countermeasure taken Possibility of further occurrences None Parts for countermeasure Drawing Operation Standard Review items	Frame No.	JH2RC46152M4	Engine No.	2405451	Transmission No.		Transmission type		Distance traveled	17000 miles	Date of registration	2002/03/20	Date of occurrence	2005/07/27	Feedback to causing sources 2005/08/23 Newly issued Yoshifumi Mochizuki Atsushi Sagisaka Issue Date Note Approved by Checked by Checked by Prepared by
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MQID :		Mr. M. Matsuura		TYPE :		RC46			
M-QC :		Mr. A. Sawa						Grade A	
CH M/C SRVC :		Mr. P Berry		THEME :		Wire Harness Melted			
								JPN	
COUNTRY		THEME LEADER		MGR. SIGN		REPRESENTATIVE FUNCTION NUMBERS			
U. S. A.		Chris Compise				32100			
Symptoms:(Customer complaints)				Customer		3			
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32100-MCW-L10 (0)		2		0		1			
Technical Claim Cost:		Parts:		N/A		Labor		N/A	
Shipping		Claim Parts Availability :		No		If no, why ?		Unit has not been repaired	
Information		Attn: Mr. :		ETA :		Invoice No :		AWB No :	

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No M2M194

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MQID :		Mr. M. Matsuura		TYPE :		RC46			
M-QC :		Mr. A. Sawa						Grade A	
CH M/C SRVC :		Mr. P Berry		THEME :		Melted Wire Harness Ground Junction			
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COUNTRY		THEME LEADER		MGR. SIGN		REPRESENTATIVE FUNCTION NUMBERS			
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Registration	Occurrence	Mileage	VIN / Frame No		Engine No	DLR No	Claim No		
27/Apr/2002	15/Aug/2005	9,543.0	JH2RC46172M4		2412103	105346	N/A		
Claim Parts P/No.		Stock Quantities		B. O. Total		Consumption: AMC, Past 6 months...			
32100-MCW-L00 (0)		3		0		10			
Technical Claim Cost:		Parts:		N/A		Labor		N/A	
Shipping Information		Claim Parts Availability :		Not Yet		If no, why ?		Repair is not completed	
To be sent to :		MQID		ETD :		Invoice No :			
Attn: Mr. :		Mr. M. Matsuura		ETA :		AWB No :			

Attachment A

Result of Scrambling

(Scramble: A high priority, rapid response team that flies worldwide to personally inspect suspect units)

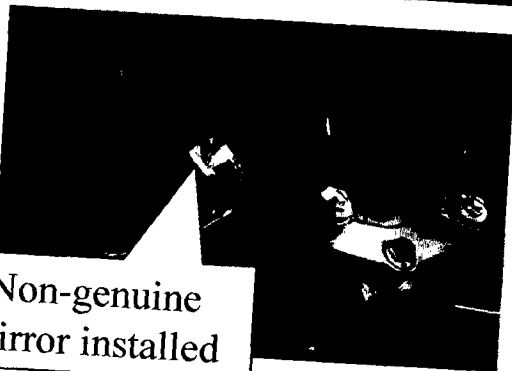
Result of Scrambling

REF.No.	VIN/Customer/City/State	Mileage	Registration Date	Occurrence Date	Modification / Tampering	District	Check Result
A-1	JH2RC461X3M [REDACTED] Joseph Seidenburg Rantoul, IL	3822 (4338 when scrambled)	11/26/02	01/15/05	License plate was displaced. RR fender and reflector were removed. Non-genuine rear view mirror was installed.	Urbana	The 18P blue coupler where green wire connected was melted. (The vehicle had fallen over. The battery was dead.
A-2	JH2RC46183M [REDACTED] John Lariccia Ontario, CA	21,995	06/21/03	06/01/05	License plate was displaced. RR fender and reflector were removed. "Power commander" and throttle stopper were installed.	Ontario	The 18P blue coupler was melted. The connector couldn't be disconnected. A jumper wire was soldered to the green wire.
A-3	JH2RC46192M [REDACTED] Jeffery Rose Mentone, CA	32682 (36558 when scrambled)	05/17/02	04/21/05	-License plate was displaced. RR fender and reflector were removed. "Power commander", non-genuine head light bulb, RR fender, O2 eliminator kit, and exhaust pipe were installed. -The vehicle had been used in racing.	Corona	The 18P blue connector had no damage. No abnormalities with other parts.
A-4	JH2RC46152M [REDACTED] Mark Claar Mount Holly, NJ	17,797	03/20/02	07/16/05	-License plate was displaced. RR fender and reflector were removed. "Power commander", O2 eliminator were installed. LED RR combination light showed tampering. Charging connector was added.	Philadelphia	The blue connector was melted at the area where the green wire is connected. The fuse case was discolored.
A-5	JH2RC46143M [REDACTED] Ella Bendik Palatine, IL	24,129	2004/10/3	06/03/05	- License plate was displaced. RR fender and reflector were removed. "Power commander" was installed. O2 sensor was removed. The photo received before scrambling showed that the same code was tightened with the battery terminal, but it was removed when scrambled. Since the customer wired and installed accessories (Power commander), repair cost wasn't covered.	Chicago	The 18P blue connector where the green wire is connected was melted. The female terminal of the green wire was disconnected. Instead, a jumper wire was connected. A part of the starter magnet switch coupler was cut and terminal connection were poor. The battery terminal tightening torque was zero.

- It was confirmed that four out of five blue 18P connectors had damage.
- It was confirmed that all the five vehicles showed evidence of modification or tampering.

A-1:JH2RC461X3M

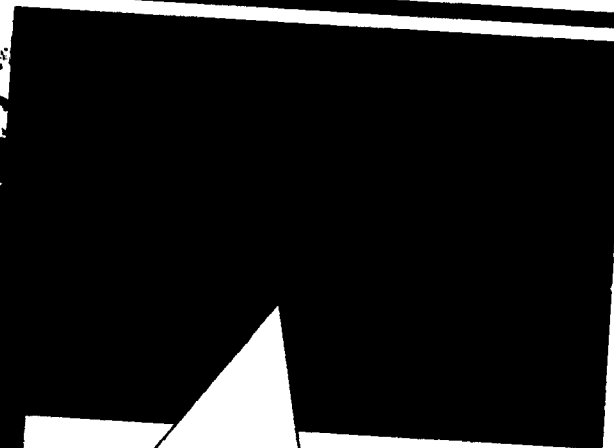
Urbana



Non-genuine mirror installed

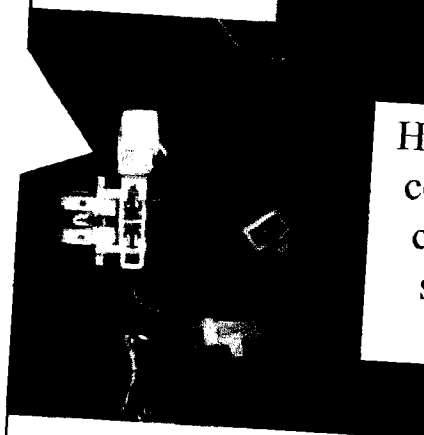


License plate displaced. RR fender and reflector removed.



Blue coupler melted where green wire is connected

Since the battery was dead, booster connected and the vehicle was confirmed to start. Odometer read 4338 miles.

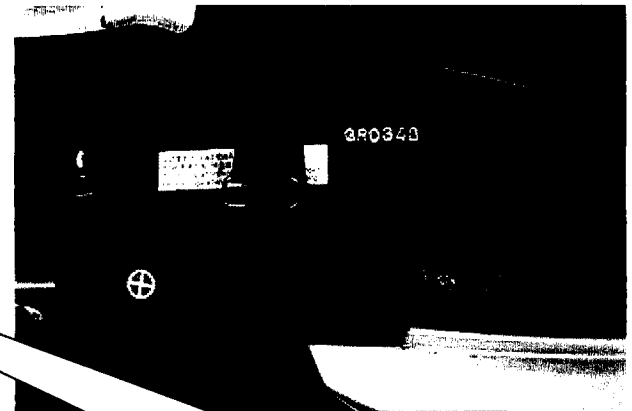


Handle bar fractured, side cowl missing and engine cover has a hole, which seems to be a result of falling over.



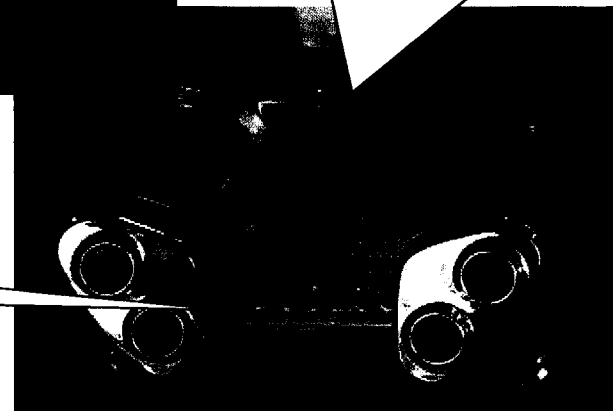


Jumper wire (white)
soldered beside the blue
coupler



Throttle stopper installed.

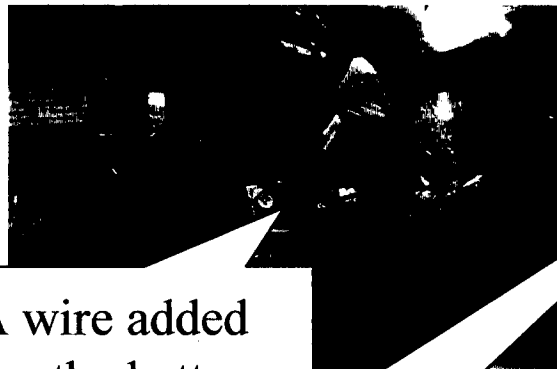
Loose wires for installation of
"Power Commander"



License plate
displaced. RR fender
and reflector removed.

A-3:JH2RC46192M4 [REDACTED]

Corona



A wire added
from the battery.



Non-genuine
muffler installed.



"Power Commander"
installed.

License plate displaced.
RR fender, license light,
and reflector removed.

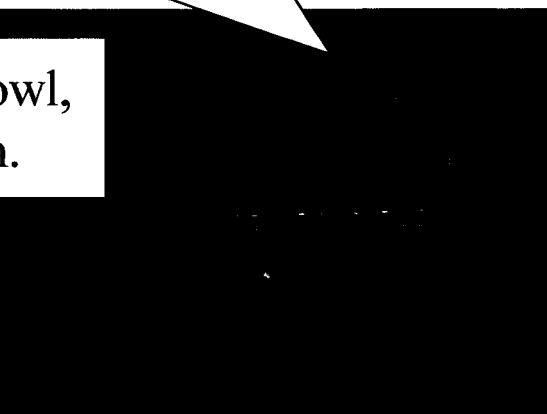
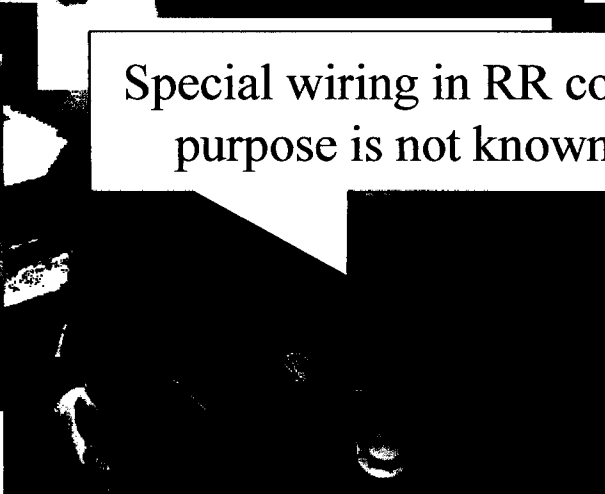
Tank cover installed.

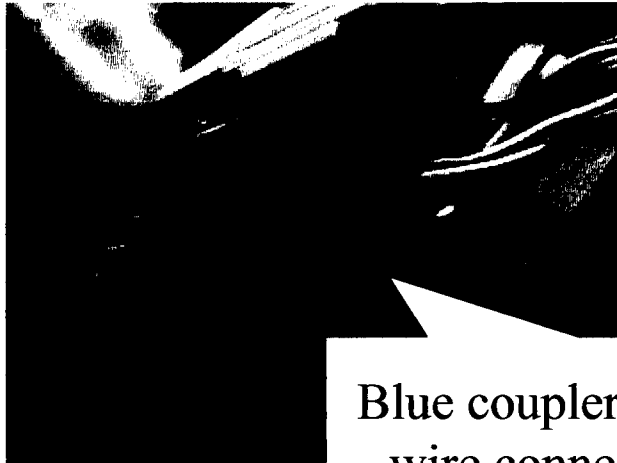
Blue coupler not melted



Jumper wire (black)
connecting the main harness
and the vehicle body

Special wiring in RR cowl,
purpose is not known.





Blue coupler (where green wire connected) melted

License plate displaced.
RR fender, license light,
and reflector removed.



Charging connector
added



Main fuse case
discolored

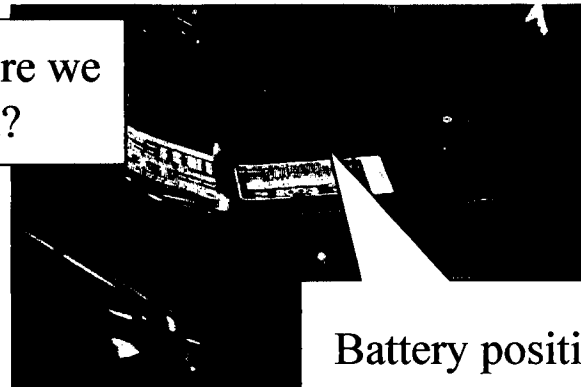
A-5:JH2RC46143M [REDACTED]

Chicago



The photo received in advance

Removed before we
scrambled?



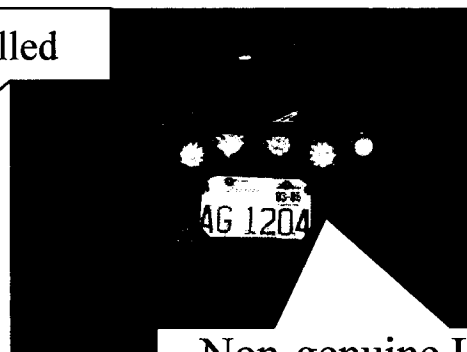
When scrambled

Battery positive
terminal loose.



Wires twisted together
near the tail light.

"Power Commander" installed



Non-genuine LED tail & muffler.
License plate displaced. RR fender,
license light and reflector removed.



Jumper wire added to blue
coupler where green wire
is connected.



A hole, indicating
installation of
another part.



O2 sensor
removed.



Non-
genuine
horn



Starter magnet
switch coupler
is cut.

Results of Manufacture Process Verification (in Japan)

■ Sub harness manufacture process verification

32102-MCW-A000 Sumitomo Denso
Blue connector: Male side

Place/date: At head quarters of Sumitomo Denso and Aoi Denso on Oct. 6, 2005.
Verified processes: Part acceptance, cut/crimp, assembly/inspection, shipment.
Verification points: Whether operations are performed according to process quality control sheets and operation standards.
Whether daily inspections are performed for equipment and the results are retained.
Whether there are processes which can cause blue connector burning.



Reports and sheets	Equipment daily/regular inspections	Verification results
• Process quality control sheets • Part/material acceptance flow chart • Operation procedures • Part/material slip, POS history • Voluntary inspection defect record • Binding Instructions • Continuity inspection procedures • Associate training sheets etc	• Cut crimping machine • Applicator • Micro meter • Interim stripping machine • Push-pull gage • Terminal crimping machine	• Quality control was performed in all processes form acceptance through shipment based on process quality control sheets and operation procedures. • Equipment was inspected before operation start and records of regular inspections were confirmed.



We visited the supplier, and inspect manufacture processes, manufacture inspection equipment, process control sheets, and other related reports and sheets. There are no factors which can deteriorate product quality. It is judged that there are no problems in the manufacture processes.

Process Quality Control Sheet (I)

Checked department			
Honda Motor Co., Ltd.			
Sss, (Mss), Kss, Css, Yss, Tss			
Motorcycle Quality BL			
Singed in original	Singed in original	Singed in original	Singed in original

Distribution center

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Process Quality Control Sheet (II)

Order	Process Equipment (supplier)	Quality characteristics										Control of manufacturing conditions (equipment, molding dies, fail-safe devices, oil pressure, voltage, temperature, etc)							Diagram
		Fail mode	Important item	No	Control item	Spec	In charge	Check method	Check frequency	Format	Submission frequency	Important item	Control item	Control value	In charge	Check method	Check frequency	Format	
1	electric wire manufacturing	6	*	1	withstand voltage (spark)	5,000V for 0.15 seconds and over *1	associate	spark tester	entire number, length	-			spark tester	check items in the check sheet	associate	visually	at the start of operation	daily check sheet	*1 { from JTS C3406 JASO D611-94 JASO D608-92
		6	*	2	withstand voltage (in water)	1,000V for 1 minute *1	inspector	withstand voltage tester	1 / month	inspection report	1 / month		withstand voltage tester	check items in the check sheet	inspector	visually	at the start of operation	daily check sheet	
2	reception of parts			1	appearance of parts	No abnormality such as burrs, deform, cracks allowed.	inspector	visually	>n=1 / initial parts (when die changed)	inspection record									
				2	dimension and form of parts	HES D3217	inspector	confirm of supplier's report	n=1 / initial parts (when die changed)	initial products inspection report									
				3	material of parts (rubber)	HES D3217	inspector	various testers	n=1 / 6 months	inspection report of vulcanized rubber			various testers	normal operation	inspector	visually	at the start of operation	daily check sheet	
		3	*	4	insertion and separating force of terminal	HES D3217	inspector	push-pull gauge	n=1 / initial parts (when die changed)	initial products inspection report			push-pull gauge	check items in the check sheet	inspector	visually	at the start of operation	daily check sheet	
		3	*	5	holding power of terminal	HES D3217	inspector	push-pull gauge	n=1 / initial parts (when die changed)	initial products inspection report									
		3	*	6	water-proof property	HES D3217	inspector	waterproof tester	n=1 / initial parts (when die changed)	initial products inspection report			waterproof tester	No abnormality such as air leakage allowed.	inspector	visually	at the start of operation	daily check sheet	
				7	holding power of retainer	HES D3217	inspector	push-pull gauge	n=1 / initial parts (when die changed)	initial products inspection report									
3	measure and cutting			1	kind of electric wire	the wire core process indication sheet	associate	visually	per lot				automatic cutting and crimping machine	check items in the check sheet	associate	visual check and touching	at the start of operation	daily / weekly check sheet	
	automatic cutting and crimping machine			2	color of electric wire	the wire core process indication sheet	associate	visually	per lot										
				3	size of electric wire	the wire core process indication sheet	associate	visually	per lot										
				4	cutting length	the wire core process indication sheet	associate	scale	n=1 / lot				fixed-length feed gear	check items in the periodic check sheet	associate in charge of maintenance	visual check measuring instrument	1 time / 2 months	periodic check record	
	CPR-6W SCM CPR-8S rubber plug																		
4	installation of rubber plug			1	kind of rubber plug	the wire core process indication sheet	associate	visually	100%	daily job report									
	automatic cutting and crimping machine			2	presence of rubber plug	Mis-installation not allowed.	associate	with sensor and visually	100%	daily job report			sensor for rubber plug	Failure to be detected and stopped.	associate	visually	n=1 / start of operation	daily / weekly check sheet	
	rubber plug JNO1S			3	inserting state	No reverse insertion or cracks allowed.	associate	visually	100%	daily job report			air pressure	491 kPa	associate	pressure gauge	at the start of operation	daily / weekly check sheet	
5	wire stripping			1	stripping length	the wire core process indication sheet	associate	scale	n=1 / lot	-			cut and stripped area	check items in the check sheet	associate in charge of maintenance	visually measuring instrument	1 time / 2 months	periodic check record	
				2	check for stripping	stripping to be surely implemented	associate	mis-stripping sensor and visual check	100%	daily job report			mis-stripping sensor	Failure to be detected and stopped.	associate	visually	n=1 / start of operation	daily / weekly check sheet	
				3	stripping strength	No cutting of conductors allowed.	associate	mis-stripping sensor and visual check	100%	daily job report			stripping cutter	No abnormality such as crack or chipping.	associate	confirmation of finished parts	n=1 / lot	-	

Process Quality Control Sheet (II)

Order	Process Equipment (supplier)	Fail mode	Important item	Quality characteristics							Important item	Control of manufacturing conditions (equipment, molding dies, fail-safe devices, oil pressure, voltage, temperature, etc)						Diagram		
				No.	Control item	Spec	In charge	Check method	Check frequency	Format	Submission frequency	Control item	Control value	In charge	Check method	Check frequency	Format			
6	crimping of terminal automatic cutting and crimping machine CPR-6W SCM CPR-8S rubber plug JNO1S terminal crimping machine	3	*	1	kind of terminal	the wire core process indication sheet	associate	visually	per lot	-		pressed area	check items in the periodic check sheet	associate in charge of maintenance	visually measuring instrument	1 time / 2 months	periodic check record	*2 fixing force specs table (abstract)		
		3	*	2	condition of crimping (C/H, V/H)	the wire core process indication sheet	associate	micrometer	n=2 / lot	daily job report		micrometer	confirm initial setting of "0"	associate	visually	at the start of operation	daily check sheet			
		3	*	3	fixing strength of terminal	the fixing strength spec *2	associate	fixing strength tester push-pull gauge	n=1 / lot	daily job report		fixing strength tester push-pull gauge	check items in the check sheet	associate	visually	at the start of operation	daily check sheet	size of electric wire (sq) fixing force		
				4	crimping state	No resin seizure, sticking out of conductors.	associate	visually	100%	daily job report								N kgf		
				5	state of crimped area	No burrs, cracks allowed.	associate	visually	100%	daily job report		applicator	check items in applicator inspection record	associate in charge of maintenance	visually measuring instrument	>= 1 time / 3 months	applicator inspection record	0.2 5		
				6	state of terminal	No bent-up, down failure allowed. *3	associate	visually	100%	daily job report								0.3 5		
7	cut-crimped parts interim inspection			1	kind of terminal	the wire core process indication sheet	inspector	visually	per lot	daily inspection report								*3 If it's difficult to judge failure visually, use bend gauge		
				2	crimping state	No resin seizure, sticking out of conductors allowed.	inspector	visually	100%	daily inspection report										
				3	state of crimped area	No burrs and cracks allowed.	inspector	visually	100%	daily inspection report										
				4	state of terminal	No bent-up, down failure allowed. *3	associate	visually	100%	daily inspection report										
8	splice midpoint stripping pneumatic midpoint stripping machine			1	stripping position	the splice order sheet	associate	scale	n=1 / lot	daily job report		pneumatic interim stripping machine	check items in the check sheet	associate			daily / weekly check sheet			
		3	*	2	stripping state	No resin seizure, sticking out of conductors.	associate	visually	100%	daily job report		operation state of stripping cutters	No abnormal step allowed.	associate			daily / weekly check sheet			
												air pressure	491 kPa	associate			daily / weekly check sheet			
9	splice crimping splice crimping machine			1	kind of terminal	the splice order sheet	associate	visually	per lot	-		splice crimping machine	check items in the check sheet	associate	visually	at the start of operation	daily / weekly check sheet			
		3	*	2	crimping condition (C/H)	follow the splice order sheet	associate	micrometer	n=2 / lot	daily job report		micrometer	confirm initial setting of "0"	associate	visually	at the start of operation	daily check sheet			
		3	*	3	fixing strength of terminal	fixing force specs *2	associate	push-pull gauge	n=1 / lot	daily job report		push-pull gauge	check items in the check sheet	associate	visually	at the start of operation	daily check sheet			
		3	*	4	crimping state	No resin seizure, sticking out of conductors allowed.	associate	visually	100%	daily job report										
				5	state of crimped area	No burrs and cracks allowed.	associate	visually	100%	daily job report		applicator	check items in applicator inspection record	associate in charge of maintenance	visually measuring instruments	>=1 time / 3 months	applicator inspection record			
10	splice taping splice taping machine			1	kind of tape	follow the manufacturing standard	associate	visually	per lot	-		splice taping machine	check items in the check sheet	associate	visually	at the start of operation	daily / weekly check sheet			
				2	No. of taping	follow the splice order sheet	associate	visually	100%	daily job report		tape length	manufacturing standard	associate	scale	n=1 / start of operation	-			
		3	*	3	state of taping	No misalignment of taping.	associate	visually	100%	daily job report		rotary brush	No deformation and wearing.	associate	confirmation of finished parts	n=1 / start of operation	daily / weekly check sheet			

Process Quality Control Sheet (II)

Order	Process Equipment (supplier)	Fail mode	Important item	Quality characteristics							Submission frequency	Important item	Control of manufacturing conditions (equipment, molding dies, fail-safe devices, oil pressure, voltage, temperature, etc)						Diagram
				No.	Control item	Spec	In charge	Check method	Check frequency	Format			Control item	Control value	In charge	Check method	Check frequency	Format	
11	temporary binding			1	kind of housing and terminal	follow the temporary binding order sheet	associate	visually	100%	-									
				2	kind of parts	follow the temporary binding order sheet	associate	visually	100%	-									
		3	*	3	terminal layout	follow the temporary binding order sheet	associate	visually	100%	-									
		3	*	4	insertion state of terminal	No detachment of terminal.	associate	visually	100%	-									
				5	secondary locking state	No faulty / mis-installation of retainer set	associate	confirmation by pulling	100%	-									
				6	presence and state of water-proof dummy	No mis-installation and poor insertion	associate	visually	100%	-									
				7	presence and kind of tube	No mis-installation and error.	associate	visually	100%	-									
12	full binding			1	kind of temporarily bound parts	No different parts or mis-installation.	associate	visually	n=1 / lot	-									
				2	terminal layout	follow the full-size assembling DWG.	associate	visually	100%	-		assembling drawing	check items in the check sheet	associate	visually touching	at the start of operation	daily check sheet		
				3	terminal insertion state	No detachment of terminal	associate	confirmation by pulling	100%	-									
				4	dimension of each area	follow the full-size assembling DWG.	associate	jig	100%	-		assembling drawing jig	No bend, looseness and breakage.	associate	visually touching	at the start of operation	daily check sheet		
				5	each branch position and direction	follow the full-size assembling DWG.	associate	jig	100%	-									
				6	splice position	No over wrapping (30mm and over)	associate	visually	100%	-									
				7	taping way in each area	follow the full-size assembling DWG.	associate	visually	100%	-									
				8	secondary locking state	No faulty / mis-installation of retainer set	associate	visually	100%	-									
13	installation of external parts			1	tube kind and installation position	follow the full-size assembling DWG.	associate	visually	100%	-									
				2	taping state in each area	follow the full-size assembling DWG.	associate	visually	100%	-									
				3	kind and installation position of parts No. mark	follow the full-size assembling DWG.	associate	visually	100%	-									

Process Quality Control Sheet (II)

Order	Process Equipment (supplier)	Fail mode	Important item	Quality characteristics							Submission frequency	Important item	Control of manufacturing conditions (equipment, molding dies, fail-safe devices, oil pressure, voltage, temperature, etc)						Diagram
				No.	Control item	Spec	In charge	Check method	Check frequency	Format			Control item	Control value	In charge	Check method	Check frequency	Format	
14	Appearance inspection			1	Part number/mark	According to drawing, master sample	Inspector	Visually	100%	Inspection daily report	-		Standard part	According to drawing	Inspector	Check against drawing	At design change	-	*4 Check with fitting check jig if it is difficult to detect abnormalities with terminal tongue part or judge defects.
				2	Dimensions	According to drawing, master sample	Inspector	Visually Scare	100%	Inspection daily report	-								
				3	Position/direction of branches	According to drawing, master sample	Inspector	Visually	100%	Inspection daily report	-								
				4	Presence of parts, Position/direction of installation	According to drawing, master sample	Inspector	Visually	100%	Inspection daily report	-								
				5	Taping status	According to drawing, master sample	Inspector	Visually	100%	Inspection daily report	-								
				6	Terminal insert status	No terminal pulling out	Inspector	Visually	100%	Inspection daily report	-								
				7	Terminal status	No terminal deformation	Inspector	Visually jig *4	100%	Inspection daily report	-								
				8	Appearance	No breakage	Inspector	Visually	100%	Inspection daily report	-								
15	Continuity inspection	3	*	1	Arrangement/cut wire/short circuit	According to continuity circuit sheet	Inspector	Continuity machine	100%	Inspection daily report	-	*	Continuity machine	No abnormal operation	Inspector	Operation check	At operation start	Daily inspection sheet	
		3	*	2	Terminal insert status	No terminal pulled out	Inspector	Jig	100%	Inspection daily report			Pulled out terminal detector	No probe pin bending/projecti on	Inspector	Visually	At operation start	Daily inspection sheet	
				3	Secondary locking status	No retainer missing/no poor setting	Inspector	Jig	100%	Inspection daily report			Retainer detector	No probe pin bending/projecti on	Inspector	Visually	At operation start	Daily inspection sheet	
				4	Part number/mark	No wrong part/mistake in part number/mark	Inspector	Bar-code check	100%	Inspection daily report									
				5	OP taping method, position	According to operation standard	Inspector	Visually	100%	-									
				6	Amount of grease injection	Inject grease to hide terminal resin staking part	Inspector	Visually	100%	-			Grease injector	Air pressure 491-589 kPa	Inspector	Visually	At operation start	Daily inspection sheet	
				7	JC type	No wrong part/missing	Inspector	Visually Continuity checker	100%	-			JC detector	No probe bending/projecti on	Inspector	Visually	At operation start	Daily inspection sheet	
				8	JC fitting status	No half-fitting	Inspector	JC fitting tester	100%	-									
16	Point inspection			1	Presence of continuity OK stamping	There is OK stamping on part number mark.	Inspector	Visually	100%	Inspection daily report									
				2	Presence/positio n of taping	No missing/wrong taping	Inspector	Visually	100%	Inspection daily report									
				3	JC type	No foreign object/missing	Inspector	Visually	100%	Inspection daily report									
				4	JC fitting status	No half-fitting	Inspector	Visually	100%	Inspection daily report									
17	Packing			1	Polyester case label type	According to part number	Inspector	Bar-code check	100%	Inspection result data									
				2	Product quantity	No overs or shorts	Inspector	Bar-code check	100%	Inspection result data									
				3	Part packing appearance	No sticking out	Inspector	Visually	100%	-									

Process Quality Control Sheet (II)

[illegible]

Results of Manufacture Process Verification (Overseas)

■ Main harness manufacture process verification

32100-MCW-L000
Blue connector: Female side (HZW)

Place/date: At Huizhou ZhuRun Wiring Systems Co.,LTD on Oct. 19, 2005.
Verified processes: Part acceptance, cut/crimp, assembly/inspection, shipment.
Verification points: Whether operations are performed according to process quality control sheets and operation standards.
Whether daily inspections are performed for equipment and the results are retained.
Whether there are processes which can cause blue connector burning.



Reports and sheets	Equipment daily/regular inspections	Verification results
• Process quality control sheets • Part/material acceptance flow chart • Operation procedures • Part/material slip, POS history • Voluntary inspection defect record • Binding Instructions • Continuity inspection procedures • Associate training sheets etc	• Cut crimping machine • Applicator • Micro meter • Interim stripping machine • Push-pull gage • Terminal crimping machine	• Quality control was performed in all processes form acceptance through shipment based on process quality control sheets and operation procedures. • Equipment was inspected before operation start and records of regular inspections were confirmed.



We visited the supplier, and inspect manufacture processes, manufacture inspection equipment, process control sheets, and other related reports and sheets. There are no factors which can deteriorate product quality. It is judged that there are no problems in the manufacture processes.

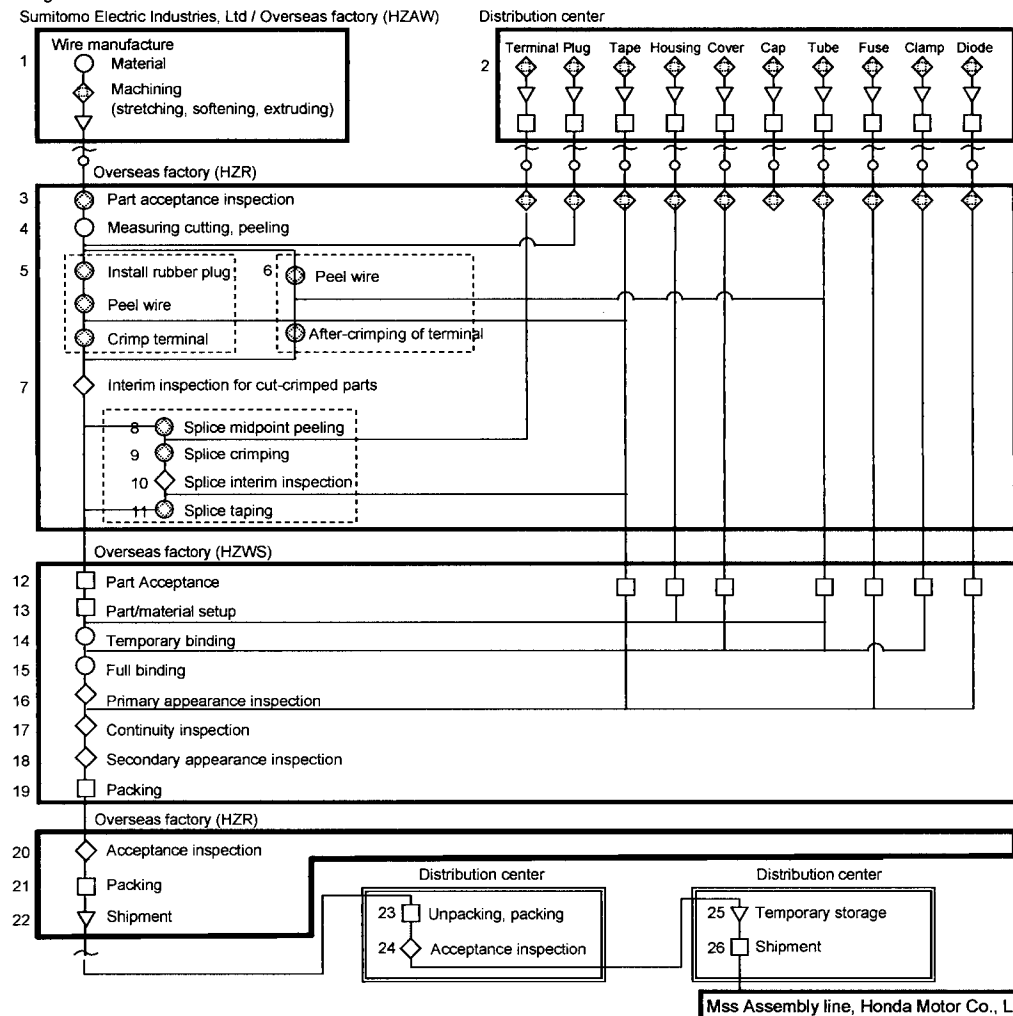
Model	MCW	Part specification	HS	HA	HB
Part number	32100-MCW-H00-				
Part name	Harness Wire				

Process Quality Control Sheet (I) (Overseas factory)

Created by (supplier or division)			
- Sumitomo Electric Industries, Ltd.			
- Sumitomo Denso, Ltd.			
- Harness Business Manufacturing Operations			
Quality Assurance Dept.	Approved by Singed in original	Checked by Singed in original	Created by Singed in original
Quality 3 Group			

Checked department			
Honda Motor Co., Ltd.			
Sss, (Mss), Kss, Css, Yss, Tss			
Motorcycle Quality BL		Acceptance	
Singed in original	Singed in original	Singed in original	Singed in original

Process diagram



Components arrangement

NO.	Part number	Part name	Supply		Supplier(s)
			Supplied	Self	
1		Car low- pressure cord		*	Sumitomo Denso, HZAW
2		Terminal		*	Sumitomo Denso, Nippon Tanshi
3		Tape		*	Sumitomo Denso, Nitto Kogyo
4		Housing		*	Sumitomo Denso
5		Cover		*	Sumitomo Denso
6		Rubber plug		*	Sumitomo Denso
7		Tube		*	Sumitomo Denso
8		Fuse		*	Pacific Engineering
9		Clamp		*	Sumitomo Denso
10		Diode		*	Sumitomo Denso
11		Cap		*	Sumitomo Denso
12					
13					
14					
15					
16					
17					
18					
19					
20					

Process symbols (according to JIS Z8206) (multiple symbols... Main operation: outside, sub operation: inside)

○ Machining	□ Quantity inspection	~ Flow intersection	⊙ Mainly machining, also quality inspection.
○ Transport	◇ Quality inspection	~ Control category of process groups	⊕ Mainly quality inspection, also quantity inspection.
▽ Storage	— Process order		

Route: Creating Dept. --> Checking Dept. --> Creating Dept.

***	Jun. 27, 2005	New	Singed in original	Singed in original	
Code	MMM. DD, YYYY	Details of revision	Created by	Checked by	

Original retention period: MMM, YYYY

Process Quality Control Sheet (II)

Order	Process Equipment (supplier)	Fail mode	Important item	Quality characteristics							Submission frequency	Important item	Control of manufacturing conditions (equipment, molding dies, fail-safe devices, oil pressure, voltage, temperature, etc)						Diagram
				No	Control item	Spec	In charge	Check method	Check frequency	Format			Control item	Control value	In charge	Check method	Check frequency	Format	
1	electric wire manufacturing (by electric wire dept.)	1	*	1	withstand voltage (spark)	5,000V for 0.15 seconds and over *1	associate	spark tester	entire number and length	insulation covering complete test	-		spark tester	check items in the check sheet	associate	visually	at the start of operation	daily check sheet	*1 from JIS C3406 JASO D611-94
		1	*	2	withstand voltage (in water)	1,000V for 1 minute *1	inspector	withstand voltage tester	n=3 / month	reliability test inspection sheet II	1 / month n=3		withstand voltage tester	check items in the check sheet	associate	visually	at the start of operation	daily check sheet for measuring instrument	
2	parts inspection (by part dept.)			1	parts material	specs at delivery	associate	confirm material inspection report	per received lot	product inspection sheet	-								
				2	parts appearance	No abnormalities such as burrs, deformation cracks.	associate	visually	sampling / lot	inspection record	-								
				3	parts dimension and form	as per the drawing	associate	vernier calipers, projector	1 shot / initial parts	inspection report	-		calipers, projector	check items in the check sheet	associate	visually	at the start of operation	each daily check sheet	
		1	*	4	unit inserting force of terminal	HES D3217	associate	push-pull gauge	n=1 / lot	inspection report	-		push-pull gauge	check items in the check sheet	associate	visually	at the start of operation	daily check sheet	
		1	*	5	terminal holding power	58.8 N (6kgf) and over, 49.0N (5kgf) and over in the case of 0.40 and 0.35	associate	push-pull gauge	1 shot / initial parts	inspection report	-		push-pull gauge	check items in the check sheet	associate	visually	at the start of operation	daily check sheet	
		1	*	6	connector inserting force	147N (15kgf) and less	associate	push-pull gauge	1 shot / initial parts	inspection report	-		push-pull gauge	check items in the check sheet	associate	visually	at the start of operation	daily check sheet	
				7	waterproof performance	HES D3217	associate	water proof tester	n=1 / initial parts	inspection report	-		water proof tester	No abnormality such as air leakage	associate	visually	at the start of operation	daily check sheet	
3	parts acceptance			1	packing state	No crushing of cartons	associate	visually	per received lot	-	-								
				2	parts name	No abnormalities	associate	visually	per received lot	packing list	-								
				3	quantity	No overs and shorts	associate	visually	per received lot	packing list	-								
				4	parts appearance	No abnormalities such as burrs, deformation and cracks.	associate	visually	per received lot	received parts inspection record	-								
4	measuring, cutting and stripping			1	kind of electric wire	sign	associate	visually	per received lot	daily report on cutting and crimping	-								
				2	color of electric wire	sign	associate	visually	per received lot	daily report on cutting and crimping	-								
		1	*	3	size of electric wire	sign	associate	visually	per received lot	daily report on cutting and crimping	-								
				4	cutting length	sign	associate	visually	per received lot	daily report on cutting and crimping	-		cutting machine, measuring instrument	check items in the check sheet	associate	visually	at the start of operation	daily / weekly check sheet on cutting and crimping	
				5	stripping length	sign	associate	visually	per received lot	daily report on cutting and crimping	-								
5	crimping of terminal (by machine)			1	kind of terminal	sign	associate	visually	n=1 / lot	daily report on cutting and crimping	-								
		1	*	2	condition of crimping (C/H, V/H)	sign	associate	micrometer	n=2 / lot	daily report on cutting and crimping	-		micrometer	initial reading to be "0"	associate	visually	at the start of operation	daily check sheet on micrometer	
		1	*	3	fixing strength of terminal	the fixing strength spec *2	associate	push-pull gauge	n=1 / lot	daily report on cutting and crimping	-		check of push-pull gauge	check items in the check sheet	associate	visually	at the start of operation	daily check sheet on fixing strength tester	
		1	*	4	crimping state	No resin seizure, sticking out of core wires.	associate	visually	100%	daily report on cutting and crimping	-								
				5	state of terminal	No bent-up, down. No failure. *3	associate	visually bend gauge	100%	daily report on cutting and crimping	-		check of bend gauge	No abnormalities such as cracks, chipping.	associate	visually	at the start of operation		
				6	kind of rubber plug	sign	associate	visually	100%	process confirmation sheet	-								
				7	insertion state of rubber plug	surely insert to the specified position.	associate	visually	100%	process confirmation sheet	-								

*2 fixing force specs table (abstract)

size of electric wire (sq)	fixing force
0.2	—
0.3	—
0.5	—
0.75	—
0.85	—
1.3	—
2.0	—
3.0	—

*3 If it's difficult to visually judge failure, use bend gauge.

Process Quality Control Sheet (II)

Order	Process Equipment (supplier)	Fail mode	Important item	Quality characteristics							Submission frequency	Important item	Control of manufacturing conditions (equipment, molding dies, fail-safe devices, oil pressure, voltage, temperature, etc)						Diagram
				No	Control item	Spec	In charge	Check method	Check frequency	Format			Control item	Control value	In charge	Check method	Check frequency	Format	
6	after-crimping of terminal (by hands)			1	kind of terminal	sign	associate	visually	n=1 / lot	daily report on cutting and crimping	-		automatic, hand crimping machine	check items in the check sheet	associate	visually	at the start of operation	daily check sheet on hand crimping machine	
				2	condition of crimping (C/H, V/H)	sign	associate	micrometer	n=2 / lot	daily report on cutting and crimping	-		micrometer	initial reading to be "0"	associate	visually	at the start of operation	daily check sheet on micrometer	
				3	fixing strength of terminal	the fixing strength spec *2	associate	push-pull gauge	n=1 / lot	daily report on cutting and crimping	-		check of push-pull gauge	check items in the check sheet	associate	visually	at the start of operation	daily check sheet on fixing strength tester	
				4	crimping state	No resin seizure, sticking out of core wires.	associate	visually	100%	daily report on cutting and crimping	-								
7	interim inspection for cut-crimped parts	1	*	1	crimping state	No misalignment of crimping position, sticking out of wire cores.	associate	visually	100%	daily report on intermediate process	-								
		1	*	2	crimping condition	sign	associate	micrometer	n=1 / lot	daily report on intermediate process	-								
				3	kind of terminal and electric wire	sign	associate	visually	100%	daily report on intermediate process	-								
		1	*	4	state of terminal	No bent-up, down failure allowed. *3	associate	visually bend up gauge	100%	daily report on intermediate process	-		check of bend gauge	No abnormality such as cracks, chippings.	associate	visually	every change of dies		
				5	state of terminal area	No burrs, cracks.	associate	visually	100%	daily report on intermediate process	-		applicator	check items in the applicator check record.	associate	visually	1 time and over / 3 months	applicator check record	
8	splice interim stripping			1	stripping position	the splice order sheet	associate	straight measure	n=1 / lot	daily report on interim stripping	-		interim stripping machine	check items in the check sheet	associate	visually	at the start of operation	daily check sheet on interim stripping machine	
		1	*	2	stripping length	the operation standard (13+/-3mm)	associate	straight measure	n=1 / lot	daily report on interim stripping	-								
				3	stripping state	No cutting of wire cores	associate	visually	100%	daily report on interim stripping	-								
				4	align terminal ends	the operation standard	associate	visually	100%		-								
9	splice crimping			1	kind of terminal	the splice order sheet	associate	visually	when changing production	daily report on interim crimping	-		splice crimping machine	check items in the check sheet	associate	visually	at the start of operation	daily / weekly check sheet on splice terminal interim crimping machine	
		1	*	2	crimping condition	the splice order sheet	associate	micrometer	n=2 / lot	daily report on interim crimping	-		micrometer	initial reading to be "0"	associate	visually	at the start of operation	micrometer check sheet	
		1	*	3	fixing strength	the operation standard	associate	push-pull gauge	n=3 / lot	daily report on interim crimping	-		push-pull gauge	check items in the check sheet	associate	visually	at the start of operation	fixing strength tester check sheet	
		1	*	4	crimping state	No misalignment of crimping, sticking out of wire cores	associate	visually	100%	daily report on interim crimping	-								
10	splice interim inspection	1	*	1	fixing strength	the splice order sheet	inspector	push-pull gauge	n=1 / lot	daily report on interim inspection	-		push-pull gauge	check items in the check sheet	associate	visually	at the start of operation	fixing strength tester check sheet	
		1	*	2	crimping state	No misalignment of crimping, sticking out of wire cores	inspector	visually	100%	daily report on interim inspection	-								
		1	*	3	crimping condition	the splice order sheet	inspector	micrometer	n=1 / lot	daily report on interim inspection	-		micrometer	initial reading to be "0"	associate	visually	at the start of operation	micrometer check sheet	
				4	kind of terminal	the splice order sheet	inspector	visually	100%	daily report on interim inspection	-								
11	splice taping	1	*	1	state of insulation taping	spec on tape length	associate	tape measure	n=1 / lot	daily report on interim taping	-		tape length	the operation standard	associate	tape measure	at the start of operation	-	
						No misalignment	associate	visually	100%	daily report on interim taping	-		rotating brush	No looseness	associate	confirmation of products	at the start of operation	-	
						No exposure of core wires and terminals	associate	visually	100%	daily report on interim taping	-		taping machine	check items in the check sheet	associate	visually	at the start of operation	daily / weekly check sheet on interim taping	

Process Quality Control Sheet (II)

Order	Process Equipment (supplier)	Fail mode	Important item	Quality characteristics						Submission frequency	Important item	Control of manufacturing conditions (equipment, molding dies, fail-safe devices, oil pressure, voltage, temperature, etc)						Diagram
				No	Control item	Spec	In charge	Check method	Check frequency			Format	Control item	Control value	In charge	Check method	Check frequency	
12	part acceptance			1	kind of part/material	manufacturing sheet	associate	visually	every received lot	requisition sheet electric wire sheet, packing slip	-							
				2	name of part/material	manufacturing sheet	associate	visually	every received lot	requisition sheet	-							
				3	quantity	manufacturing sheet	associate	visually	every received lot	requisition sheet	-							
13	part / material setup			1	kind of wire rod	manufacturing sheet	associate	visually	every received lot	-	-							
				2	quantity of wire rod	manufacturing sheet	associate	visually	every received lot	-	-							
				3	part state	No breakage	associate	visually	every received lot	requisition sheet	-							
				4	part quantity	manufacturing sheet	associate	visually	every received lot	part / material delivery list	-							
14	temporary binding			1	kind of housing	temporary binding order sheet, master sample	associate	visually	100% n=1 / lot	-	-							
				2	tube kind and installation position	temporary binding order sheet, master sample	associate	visually	100% n=1 / lot	daily report on assembling	-							
				3	installation state of retainer	operation standard	associate	visually	100%	daily report on assembling	-							
		1	*	4	terminal layout	temporary binding order sheet	associate	visually	100%	daily report on assembling	-							
		1	*	5	terminal insertion state	operation standard	associate	confirmation by pulling	100% 3 times / day	daily report on assembling daily interim inspection report	-							
				6	presence of cover and its kind	temporary binding order sheet, master sample	associate	visually	100% n=1 / lot	daily report on assembling	-							
		1	*	7	fixation of terminal layout in joint connector (action for important issue)	temporary binding order sheet	associate	visually	100%	daily report on assembling	-							
15	full binding			1	kind of temporarily bound parts	work sequence sheet	associate	visually	100%	daily report on assembling	-							
				2	dimension in each area	full-size assembling drawing	associate	jig	100%	daily report on assembling	-		assembling drawing jig	No bend, looseness, breakage	associate	visually and touching	at the start of operation	daily check sheet on assembling drawing
				3	each branch position and direction	full-size assembling drawing	associate	jig	100%	daily report on assembling	-							
				4	taping kind and way in each area	full-size assembling drawing	associate	jig	100%	daily report on assembling	-							
		1	*	5	terminal layout	full-size assembling drawing	associate	visually	100%	daily report on assembling	-							
		1	*	6	terminal insertion state	operation standard	associate	confirmation by pulling	100% sampling	daily report on assembling daily interim inspection report	-							
				7	retainer installation state	operation standard	associate	visually	100%	daily report on assembling	-							
				8	kind and installation position of parts No. mark	full-size assembling drawing	associate	visually	100%	daily report on assembling	-							
				9	tube kind and installation position	full-size assembling drawing	associate	visually	100%	daily report on assembling	-							
				10	clamp kind and installation position	full-size assembling drawing	associate	visually	100%	daily report on assembling	-							
				11	presence of cover and its kind	full-size assembling drawing	associate	visually	100%	daily report on assembling	-							
		1	*	12	splice position	No overlapping	associate	100%	100%	daily report on assembling	-							
		1	*	13	fixation of terminal layout in joint connector (action for important issue)	temporary binding order sheet	associate	visually	100%	daily report on assembling	-							

Process Quality Control Sheet (II)

Order	Process Equipment (supplier)	Fail mode	Important item	Quality characteristics							Submission frequency	Important item	Control of manufacturing conditions (equipment, molding dies, fail-safe devices, oil pressure, voltage, temperature, etc)						Diagram
				No	Control item	Spec	In charge	Check method	Check frequency	Format			Control item	Control value	In charge	Check method	Check frequency	Format	
16	Primary appearance inspection			1	Part number/mark	According to drawing, master sample	Inspector	Visually	100%	Appearance inspection dairy report	-		Master sample design-change level	According to drawing	Inspector	Check against drawing	At design change	Standard part history sheet	*4 Use convex if it is difficult to judge defects with master samples. *5 Check with fitting check jig if it is difficult to detect abnormalities with terminal tongue part or judge defects.
				2	Dimensions	According to drawing, master sample	Inspector	Visually, Measuring tape	100% *4	Appearance inspection dairy report	-		Master sample appearance	No tape peeling, deformation	Inspector	Visually	Once at operation start	Standard part inspection sheet	
				3	Position/direction of branches	According to drawing, master sample	Inspector	Visually	100%	Appearance inspection dairy report	-								
				4	Taping status	According to drawing, master sample	Inspector	Visually	100%	Appearance inspection dairy report	-								
		1	*	5	Terminal statue	No terminal pulling out, deformation	Inspector	Visually	100%	Appearance inspection dairy report	-								
				6	Presence of external parts, installation status	According to drawing, master sample	Inspector	Visually	100%	Appearance inspection dairy report	-								
				7	Appearance	No breakage	Inspector	Visually	100%	Appearance inspection dairy report	-								
17	Continuity inspection	1	*	1	Continuity circuit data (CM against critical problem)	According to instructions in drawing	D/PED/QA/SED	Continuity standard part	Start up (n=1 set)	Verification sheet	-								
		1	*	2	Arrangement/cut wire/short circuit	According to continuity circuit sheet	Inspector	Continuity machine	100%	Continuity inspection dairy report	-	*	Continuity machine	No abnormal operation	Inspector	Operation check	At operation start	Continuity machine regular inspection sheet	
		1	*	3	Terminal insert status	No terminal pulled out	Inspector	Jig	100%	Continuity inspection dairy report	-		Continuity jig	No probe pin bending/projectio n	Inspector	Visually	At operation start	Continuity diagram board daily inspection sheet	
				4	Retainer setting status	No missing, half-insert, no poor setting	Inspector	Jig	100%	Continuity inspection dairy report	-								
		1	*	5	Presence and type of fuse	No missing, half-insert	Inspector	Jig	100%	Continuity inspection dairy report	-		Fuse check board	No wrong capacity	Inspector	Visually	100%	Continuity diagram board daily inspection sheet	
		1	*	6	Presence of diode	No missing, half-insert	Inspector	Fuse insert board	100%	Continuity inspection dairy report	-								
				7	Presence of dummy connector	No missing, half-insert	Inspector	Jig	100%	Continuity inspection dairy report	-								
				8	Part number/mark	No wrong part, no mistake in part number/mark	Inspector	Bar-code check	100%	Continuity inspection dairy report	-	*	Continuity inspection data	Design change is reflected and controlled	Inspector	Visually	At operation start	Continuity diagram board daily inspection sheet	
				9	JC type, fitting/installation status	No missing, no half fitting, according to drawing	Inspector	Jig	100%	Continuity inspection dairy report	-								
		1	*	10	JC terminal arrangement fixing (CM against critical	According to temporary binding instruction sheet	Associate	Visually	100%	Assembly operation dairy report	-								
18	Secondary appearance inspection			1	Part number/mark	No wrong part, no mistake in part	Inspector	Visually	100%	Appearance inspection dairy report	-								
				2	Presence of continuity OK stamping	There is OK stamping on part number mark.	Inspector	Visually	100%	Appearance inspection dairy report	-								
		1	*	3	Presence and type of fuse	According to drawing, master sample	Inspector	Fuse check board	100%	Appearance inspection dairy report	-		Master sample design-change level	According to drawing	Inspector	Check against drawing	At design change	Standard part history sheet	
		1	*	4	Presence of diode	No foreign object, missing, half-insert	Inspector	Visually	100%	Appearance inspection dairy report	-								
				5	JC type, fitting status	No foreign object, missing, half-fitting	Inspector	Pulling out	100%	Appearance inspection dairy report	-								
				6	Presence of dummy connector, fitting status	No foreign object, missing, half-fitting	Inspector	Visually	100%	Appearance inspection dairy report	-								
19	Packing			1	Polyester case label type	According to part number mark	Inspector	Visually	100%	-	-								
				2	Product quantity	No overs or shorts	Inspector	Visually	100%	Package number record sheet	-								
				3	Part packing appearance	No sticking out	Inspector	Visually	100%	-	-								

Process Quality Control Sheet (II)

Order	Process Equipment (supplier)	Fail mode	Important item	Quality characteristics							Submission frequency	Important item	Control of manufacturing conditions (equipment, molding dies, fail-safe devices, oil pressure, voltage, temperature, etc)						Diagram
				No	Control item	Spec	In charge	Check method	Check frequency	Format			Control item	Control value	In charge	Check method	Check frequency	Format	
20	Acceptance inspection			1	Part number/mark	No wrong part, no mistake in part	Inspector	Visually	100%	Acceptance inspection dairy report	-								
				2	Presence of continuity OK stamping	There is OK stamping on part number mark.	Inspector	Visually	100%	Acceptance inspection dairy report	-								
				3	Certificates of primary/secondary appearance inspection	There are certificate tapes.	Inspector	Visually	100%	Acceptance inspection dairy report									
				4	Dimensions	According to drawing, master sample	Inspector	Visually, Measuring tape	100%	Acceptance inspection dairy report			Master sample design-change level	According to drawing	Inspector	Check against drawing	At design change	Standard part history sheet	
		1	*	5	Presence and type of fuse, fitting status	According to drawing, master sample	Inspector	Fuse check board	100%	Acceptance inspection dairy report			Master sample appearance	No tape peeling, deformation	Inspector	Visually	Once / 6 months	Standard part inspection sheet	
		1	*	6	Presence and type of diode	No foreign object, missing, half-insert	Inspector	Visually	100%	Acceptance inspection dairy report									
				7	Cover installation status	According to drawing, master sample	Inspector	Visually	100%	Acceptance inspection dairy report									
				8	Ground terminal status	No half-fitting	Inspector	Visually	100%	Acceptance inspection dairy report									
				9	JC type, fitting status	No foreign object, missing, half-fitting	Inspector	Pulling out	100%	Acceptance inspection dairy report									
21	Packing			1	Polyester case label type	According to part number mark	Inspector	Bar-code, visually	100%	-	-								
				2	Product quantity	No overs or shorts	Inspector	Bar-code, visually	100%	-	-								
				3	Part packing appearance	No sticking out	Inspector	Visually	100%	-	-								
22	Shipment			1	Part number, quantity	According to shipment indication sheet	Associate	Visually	at shipment	Shipment sheet	-								
23	Unpacking, packing			1	Polyester case label type	According to part number mark	Associate	Visually	100%	-	-								
				2	Product quantity	No overs or shorts	Associate	Visually	100%	Invoice	-								
				3	Part packing appearance	According to packing standard	Associate	Visually	100%	-	-								
24	Acceptance inspection (Japan)			1	Part number/mark	According to Polyester case label, part number mark	Inspector	Bar-code	According to inspection standard	Appearance inspection dairy report	-								
				2	Dimensions	According to drawing, master sample	Inspector	Visually, Measuring tape	100%	Appearance inspection dairy report	-		Master sample design-change level	According to drawing	Inspector	Check against drawing	At design change	Standard part history sheet	
				3	Position/direction of branches	According to drawing, master sample	Inspector	Visually	100%	Appearance inspection dairy report	-		Master sample appearance	No tape peeling, deformation	Inspector	Visually	Once / 6 months	Standard part inspection sheet	
				4	Presence of external parts, installation status	According to drawing, master sample	Inspector	Visually	100%	Appearance inspection dairy report	-								
25	Temporary storage at warehouse			1	Part number control	Controlled by part number	Associate	Visually	100%	Stock control sheet	-								
26	Shipment			1	Part number, quantity	According to shipment indication sheet	Associate	Bar-code, visually	at shipment	Shipment register									

Manufacture process confirmation (Mss MP process)

VFR800 Manufacture process confirmation (Oct. 11, 2005)

Operation Standards: Details are checked and they are OK on Oct. 4.
Processes are checked and they are OK on Oct. 11.

Process QC Sheets: Details are checked and they are OK on Oct. 4
Processes are checked and they are OK on Oct. 11.

Repair history in interim/final inspections:
No failures regarding JC couplers on Oct. 11

**No failures which can cause this connector
problem were found in MP processes.**

Manufacture process confirmation (Mss MP process)

Production history of market problem VFR 800: No failures related to the problem.

	VIN	Product/Day	Repair Record		VIN	Product/Day	Repair Record
1	JH2RC46182M	Nov. 20, 2001	Poor Lh pillion step material	16	JH2RC46153M	Jul. 22, 2002	EX pipe band: emission leak Rh head light: high light axis Lh instrument panel: incorrectly set
2	JH2RC46152M	Nov. 21, 2001	Passed	17	JH2RC46133M	Jul. 24, 2002	Passed
3	JH2RC46142M	Nov. 22, 2001	Passed	18	JH2RC46103M	Jul. 25, 2002	Passed
4	JH2RC46442M	Nov. 28, 2001	Passed	19	JH2RC46143M	Jul. 25, 2002	Passed
5	JH2RC46422M	Nov. 28, 2001	Passed	20	JH2RC46143M	Sep. 3, 2002	EX pipe band: emission leak
6	JH2RC46462M	Nov. 29, 2001	Passed	21	JH2RC46183M	Sep. 4, 2002	Rh pivot bracket: damaged
7	JH2RC46492M	Nov. 29, 2001	Passed	22	JH2RC46103M	Sep. 5, 2002	EX pipe band: incorrectly tightened Rh/Lh handle: loose Stop switch holder: damaged
8	JH2RC46162M	Nov. 30, 2001	Passed	23	JH2RC46143M	Sep. 12, 2002	Horn: unable to sound
9	JH2RC46192M	Dec. 1, 2001	Passed	24	JH2RC461X3M	Sep. 16, 2002	RR wheel: damaged
10	JH2RC46152M	Dec. 4, 2001	Passed	25	JH2RC46113M	Sep. 16, 2002	Passed
11	JH2RC46192M	Jan. 31, 2002	Rh meter: untightened Rh/Lh head light: high light axis	26	JH2RC46144M	Oct. 20, 2003	Passed
12	JH2RC46132M	Jan. 31, 2002	Rh lower stay: bent	27	JH2RC46153M	Jul. 22, 2002	Grab rail/RR cowl: contact
13	JH2RC46172M	Jan. 31, 2002	RR fender front: incorrectly tightened	28	JH2RC46462M	Nov. 27, 2001	RR brake hose guide: coming off
14	JH2RC46172M	Jan. 31, 2002	Rh lower cowl: damaged	29	JH2RC46152M	Nov. 23, 2001	Passed
15	JH2RC46163M	Jul. 20, 2002	Rh canister: incorrectly tightened	30	JH2RC46444M	Oct. 29, 2003	FR brake: poor adjustment Drive chain: poor adjustment Chain case: damaged

Model:

MCW

Operation Standards (Manufacture)

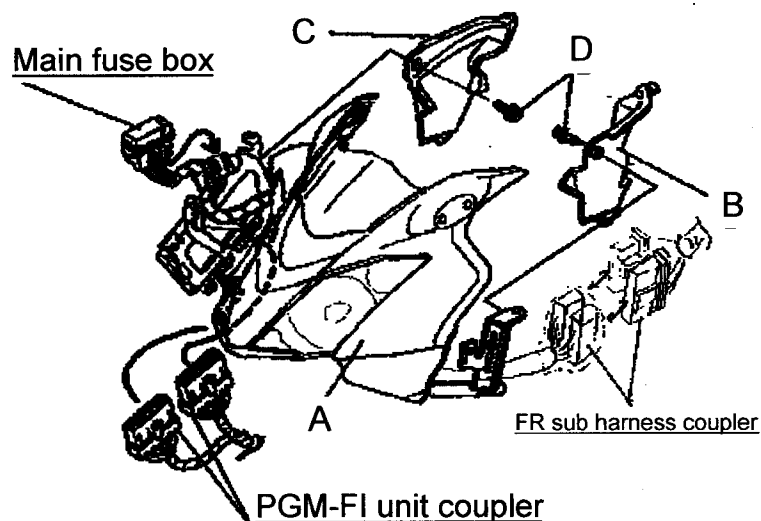
Operation: R/L inner panel installation (STD)

Assembly Module

Control No.

122

Main fuse box



No.	Operations	Quality characteristics/standard	Operation points	Tools/indirect materials	Phenomena	Safety points
1	Take B and check spec and appearance. Set it to Lh side inside of A cowl stay. Position holes. Take D and set it.	No external damage.				
2	Route fuse box cord and set the fuse box to Rh stay of A .	blk fuse box nail.				
3	Route PGM-FI unit cord and connect it to PGM-FI unit couplers on Rh side of A (2 areas).	blk coupler nails.				
4	Take C and check spec and appearance. Set is to Rh side inside of A cowl stay. Position holes. Take D and set it.					
5	Pull FR sub harness cord and connect couplers (2 areas).	blk coupler nails.				

No.	Part name	Qt.	Rank	No.	Part name	Qt.	Rank	Issue	MM DD YY	State	Approved by	Created by
A	UP cowl unit sub ASSY	1								New	-	
B	L inner panel	1						1				
C	R inner panel	1						2				
D	Trim clip	2						3				
								4				
								5				
								6				
								7				
								8				
								9				

(T) Torque (A) Adhesive (G) Grease (O) Oil (S) Soap water (C) Anti-corrosion agent

Date Associate sign

Protector



Process Quality Control Sheet (II)

Order	Process Equipment (supplier)	Failure mode	Important item	Quality characteristics							Submission frequency	Important item	Control of manufacturing conditions (equipment, molding dies, fail-safe devices, oil pressure, voltage, temperature, etc)						Diagram
				No.	Control item	Spec	In charge	Check method	Check frequency	Format			Control item	Control value	In charge	Check method	Check frequency	Format	
1	R/L inner panel			1	R/L inner panel specs	parts No.	associate	visually	per container	process sequence sheet	1 time / M								
						parts No.	associate who checked the spec	visually	when changing models	spec confirmation sheet	1 time / M								
	installation (STD)			2	appearance	No external flaw allowed.	associate	visually	every part	-	-								
2	trim clip (GAZ)			3	trim clip (GAZ) specs	parts No.	associate	visually	per container	process sequence sheet	1 time / M								
						parts No.	associate who checked the spec	visually	when changing models	spec confirmation sheet									
	trim clip (GAZ)			4	clip installation state	Insert until the root seats.	associate	visually	every part	-	-								
	FI unit			5	code wiring	No torsion, seizure allowed.	associate	visually	every part	-	-								
				6	coupler connecting	Tabs to be surely locked.	associate	visually	every part	-	-								
	RR sub harness coupler			7	code wiring	No torsion, seizure allowed.	associate	visually	every part	-	-								
				8	coupler connecting	Tabs to be surely locked.	associate	visually	every part	-	-								
R/L inner panel				1	R/L inner panel specs	parts No.	associate	visually	every part	-	1 time / M								
						parts No.	associate who checked the spec	visually	when changing models	process sequence sheet	1 time / M								
	installation (DX)			2	appearance	No external flaw allowed.	associate	visually	every part	-	-								
	trim clip (GAZ)			3	trim clip (GAZ) specs	parts No.	associate	visually	per container	process sequence sheet	1 time / M								
						parts No.	associate who checked the spec	visually	when changing models	spec confirmation sheet	1 time / M								
				4	clip installation state	Insert until the root seats.	associate	visually	every part	-	-								
	FI unit			5	code wiring	No torsion, seizure allowed.	associate	visually	every part	-	-								
				6	coupler connecting	Tabs to be surely locked.	associate	visually	every part	-	-								
ABS unit assy installation (only DX)				7	ABS unit assy specs	parts No.	associate	visually	every part	process sequence sheet	1 time / M								
						parts No.	associate who checked the spec	visually	when changing models	spec confirmation sheet	1 time / M								
				8	ABS unit holder specs	parts No.	associate	visually	per container	spec confirmation sheet	1 time / M								
						parts No.	associate who checked the spec	visually	when changing models	spec confirmation sheet	1 time / M								
				9	installation state	No release of tabs allowed.	associate	visually	every part	-	-								
	ABS unit (only DX)			10	code wiring	No torsion, seizure allowed.	associate	visually	every part	-	-								
				11	coupler connecting	Tabs to be surely locked.	associate	visually	every part	-	-								
	pan screw 6x11 (KY2)			12	pan screw 6x11 specs	parts No.	associate	visually	per container	process sequence sheet	1 time / M								

Technical report number: Design Technology DC3C05-133

Sumitomo Electric Industries, Ltd.
Sumitomo Denso, Ltd.
Connector Operations
Second Design Department

Approved by	Checked by	Created by
Ichida	Ichida	Tanaka

October 17, 2005
September 28, 2005

*1

Honda Motor Co., Ltd.

HD090-2P connector HES Evaluation Test Results

3-1: General performance

No.	Test item	Spec			MAX.	MIN.	AVG.	Judgment
1	Appearance	No harmful looseness, cracking, breakage, or deformation			No problem			OK
2	Feeling of installation/removal	No harmful sticking			No sticking			OK
3	Housing ASSY installation power	29.4 N or less			21.6	19.6	20.6	OK
4	Housing ASSY holding power	49.0 N or more			76.4	70.6	74.5	OK
5	Connector installation power	147 N or less			43.1	35.3	39.2	OK
	Connector removal power	147 N or less			14.7	13.7	14.7	OK
6	Installation power of terminal and housing	9.8 N or less		M	2.65	2.25	2.45	OK
				F	7.25	6.57	6.96	OK
7	Terminal holding power	58.8 N or more	M	Without retainer	84.3	77.4	82.3	OK
				With retainer	175	159	168	OK
			F	Without retainer	102	79.4	87.2	OK
				With retainer	265	181	228	OK
8	Connector housing power	58.8 N or more			82.3	78.4	80.4	OK
9	Housing reverse installation	Unable to install reversely			Unable to install reversely			OK
10	Terminal reverse installation	Unable to install reversely			Unable to install reversely			OK
11	Locking release power	49.0 N or less			8.62	7.84	8.23	OK
12	Insulation resistance	100 MΩ or more			More than 1,000 MΩ			OK
13	Withstanding voltage	No deformation, melting, or breakage			No problem			OK
14	Voltage drop	3 mV/A or less			1.83	1.54	1.65	OK
15	Low-voltage/low-current resistance	3 mΩ or less			1.84	1.54	1.67	OK
16	Leak current	1 mA or less			Less than 1μA			OK

3-1: General performance

No.	Test item	Spec			MAX.	MIN.	AVG.	Judgment	
1	Leaving stand at high temperature	Low-voltage/low-current resistance		6 mΩ or less	2.18	1.76	1.95	OK	
		Terminal holding power		58.8 N or more (with retainer)	M	178	163	173	OK
					F	144	121	131	OK
2	Leaving stand at low temperature	Low-voltage/low-current resistance		6 mΩ or less	1.91	1.56	1.72	OK	
		Drop test	1,000 mm	No breakage or deformation	No breakage or deformation			OK	
3	Thermal shock	Low-voltage/low-current resistance		6 mΩ or less	2.56	1.80	2.19	OK	
4	Moisture resistance	Low-voltage/low-current resistance		6 mΩ or less	2.34	1.85	2.17	OK	
		Insulation resistance		100 MΩ or more	More than 1,000 MΩ			OK	
		Withstanding voltage		No deformation, melting, or breakage	No deformation, melting, or			OK	
		Terminal holding power		58.8 N or more (with retainer)	M	103	74.5	87.2	OK
					F	140	123	128	OK
		Connector holding power		58.8 N or more	86.2	80.4	83.3	OK	
Leak current		1 mA or less	1 μA or less			OK			
5	Current cycle	Low-voltage/low-current resistance		6 mΩ or less	3.24	1.98	2.56	OK	
		Rise in temperature		No abnormal temperature rise	No abnormal temperature rise			OK	
6	Installation/removal durability	Voltage drop		6 mV/A or less	1.92	1.63	1.81	OK	
7	Prying resistance	Voltage drop		6 mV/A or less	2.12	1.62	1.81	OK	
8	Vibration resistance	Voltage drop		6 mV/A or less	1.99	1.49	1.71	OK	
		Instantaneous break		No instantaneous break more than 1 ms	No instantaneous break			OK	
9	Oil resistance	Voltage drop		6 mV/A or less	1.91	1.63	1.73	OK	
10	Dust resistance	Voltage drop		6 mV/A or less	1.92	1.53	1.72	OK	
11	Sulfur dioxide resistance	Low-voltage/low-current resistance		6 mΩ or less	1.92	1.53	1.76	OK	
12	Combination durability I	Voltage drop		6 mV/A or less	3.68	2.39	3.01	OK	
		Rise in temperature		No abnormal temperature rise	No abnormal temperature rise			OK	
13	Combination durability II	Low-voltage/low-current resistance		6 mΩ or less	3.30	1.99	2.64	OK	
		Rise in temperature		No abnormal temperature rise	No abnormal temperature rise			OK	
		Terminal holding power		58.8 N or more (with retainer)	M	128	119	122	OK
					F	149	120	133	OK
Connector holding power		58.8 N or more		85.3	78.4	82.3	OK		

Test conditions:

	Wire size	Air temperature	Current
Current cycle	AVS 1.25 [mm ²]	60 [°C]	18.4 [A] 60 deg. rising
Combination durability I			
Combination durability II			

HM part number:

Housing: HD090-2P

HM part number 2M: 98530-00002-00 (CP 2P 090 M)

HM part number 2F: 98630-00002-00 (CP 2P 090 F)

F terminal: 8240-4412 0.3 mm²

8240-4422 0.5-1.25 mm²

M terminal: 8230-4272 0.3 mm²

8230-4282 0.5-1.25 mm²

Test period:

February - June, 1990.