

TMS-NTC-12315
December 21, 2012

Recall Management Division
National Highway Traffic Safety Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

Re: Toyota Safety Recall 12V-491 – Updated Remedy Instructions

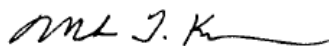
To whom it may concern,

Please find attached updated Remedy Instructions for Toyota Safety Recall 12V-491 on the following Toyota vehicles:

Model Year	Model
Certain 2007 to 2008	Yaris
Certain 2007 to 2009	RAV4
	Tundra
	Camry
	Camry Hybrid
Certain 2008 to 2009	Scion xD
	Scion xB
	Sequoia
Certain 2008	Highlander
	Highlander HV
Certain 2009	Corolla
	Matrix

If you have any questions regarding this matter, please contact me at (310) 468-5316.

Sincerely,



Quality Compliance Assistant Manager

Attachments:

- Toyota 12V-491 (COM) Updated Remedy Instructions

TECHNICAL INSTRUCTIONS
FOR
SAFETY RECALL C0M
POWER WINDOW MASTER SWITCH
CERTAIN
2007 – 2009 MODEL YEAR CAMRY
2007 – 2009 MODEL YEAR CAMRY HYBRID
2009 MODEL YEAR COROLLA
2008 MODEL YEAR HIGHLANDER
2008 MODEL YEAR HIGHLANDER HV
2009 MODEL YEAR MATRIX
2007 – 2009 MODEL YEAR RAV4
2008 – 2009 MODEL YEAR SCION xB
2008 – 2009 MODEL YEAR SCION xD
2008 – 2009 MODEL YEAR SEQUOIA
2007 – 2009 MODEL YEAR TUNDRA
2007 – 2008 MODEL YEAR YARIS

UPDATED DECEMBER 20, 2012

TECHNICAL INSTRUCTION UPDATE NOTICE:

Updated 12/20/12

- The PWMS assembly replacement instructions have been updated to clarify the replacement criteria ([SECTION VII, pages 9 & 11](#))

Updated 11/2/12

- The campaign tools section has been updated ([SECTION II](#))

Updated 10/30/12

- The training survey link has been removed and the cover page has been updated ([Cover Page](#))

Updated 10/29/12

- Switch alignment and resistance check procedure has been updated ([SECTION VII, STEP B, 3, a-d](#))
- Resistance inspection in training video has been updated

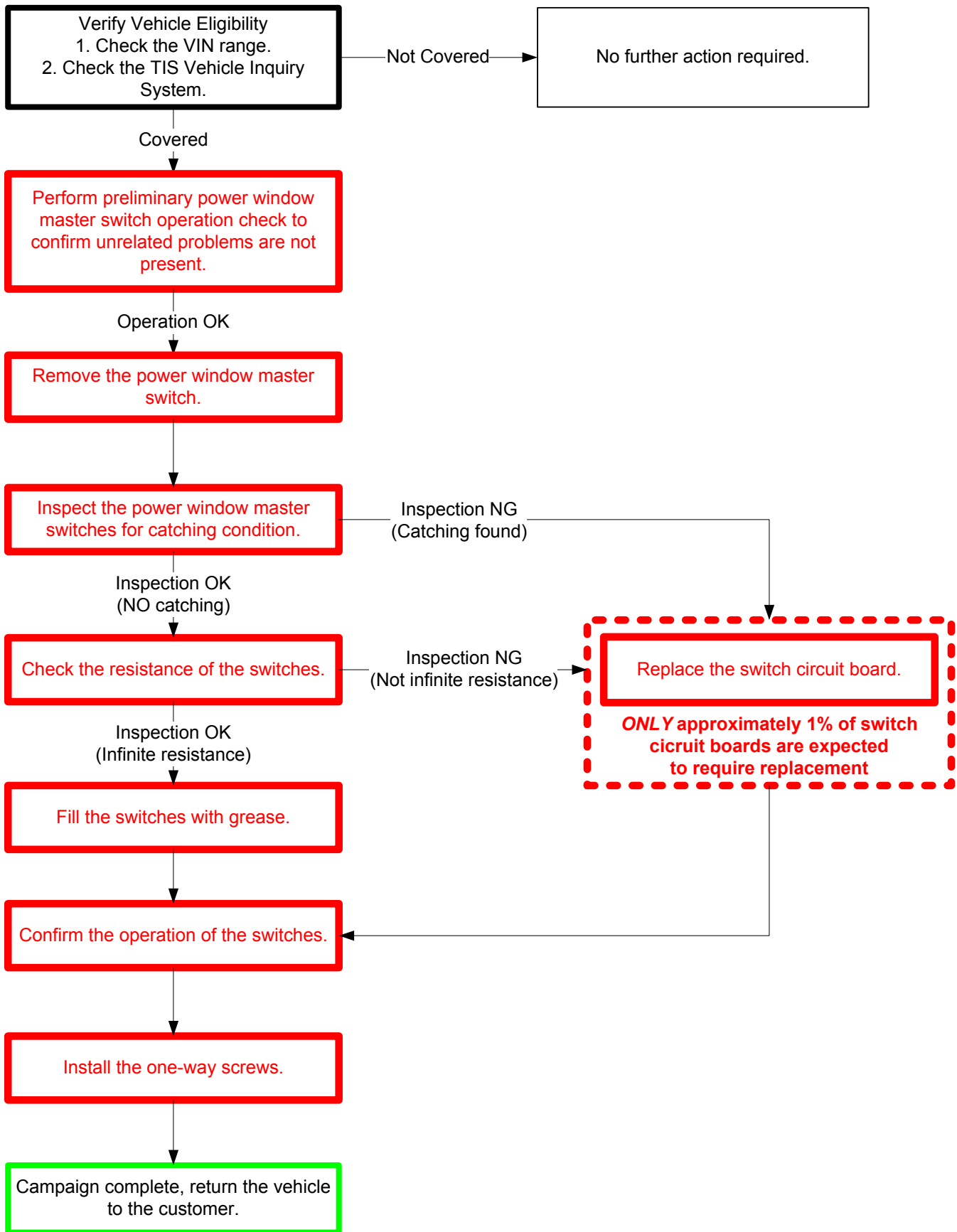
Updated 10/11/12

- The training survey link is now available ([Cover Page](#))

Previous versions of these Technical Instructions should be discarded.

[Complete C0M Technical Video Supplement](#)

I. OPERATION FLOW CHART



I. IDENTIFICATION OF AFFECTED VEHICLES

A. COVERED VIN RANGE

Model	WMI	Year	VDS Range	
			VDS	Range
Camry	4T1	2007	BE46K	U066571-U730108
			BK46K	U018373-U560047
		2008	BE46K	U171709-U793305
			BK46K	U040415-U576879
		2009	BE46K	U260017-U916091
			BK46K	U073252-U596246
	4T4	2007	BE46K	R001003-R011624
			BE46K	X002811-X002812
		2008	BE46K	R001816-R047779
	JTN	2007	BE46K	R027105-R130839
			BK46K	3050498-3129796
		2008	BE46K	3012775-3031526
			BK46K	3128414-3149926
			BE46K	3031540-3037065
	2009	BE46K	3149226-3177501	
BK46K		3037071-3042686		
Camry HV	4T1	2007	BB46K	U001024-U030790
		2008	BB46K	U024787-U062522
		2009	BB46K	U061175-U104043
	JTN	2007	BB46K	3023220-3044808
		2008	BB46K	3044111-3049003
		2009	BB46K	3048659-3050713
Corolla	1NX	2009	BE40E	Z001001-Z150950
			BU40E	Z001006-Z150927
	2T1	2009	BE40E	C001043-C029965
			BU40E	C001054-C171436
	JTD	2009	BL40E	9017731-9066331
Highlander	JTE	2008	DS41A	2000129-2067229
			DS42A	2000130-2067224
			DS43A	2000132-2067220
			DS44A	2000303-2064340
			ES41A	2000181-2108000
			ES42A	2000172-2108004
			ES43A	2000180-2107997
Highlander HV	JTE	2008	EW41A	2000281-2024716
			EW44A	2000141-2024720
Matrix	2T1	2009	GE40E	C001023-C005534
			KE40E	C001042-C029970
			KU40E	C001057-C171450
			LE40E	C001017-C011462

Model	WMI	Year	VDS Range	
			VDS	Range
RAV4	JTM	2007	BD31V	5056402-5124254
				6023959-6054728
			BD32V	5056354-5124285
				6023973-6054737
			BD33V	5056382-5124308
				6023918-6054736
			BD34V	5058065-5124068
			BD35V	5056396-5124278
			BK31V	5014657-5040741
				6011310-6028074
			BK32V	5014697-5040743
				6010911-6028066
			BK33V	5014718-5040747
		6011203-6028069		
		BK34V	5014721-5040742	
		BK35V	5014734-5040698	
		ZD31V	5035501-5077936	
			6022998-6052970	
		ZD32V	5035510-5077984	
		ZD33V	6022999-6052984	
			5035485-5078025	
		ZD34V	6022781-6052993	
			5035513-5077858	
		ZD35V	5035556-5077997	
		ZK31V	5006520-5016136	
			6003643-6010016	
ZK32V	5006534-5016123			
	6003647-6010013			
ZK33V	5006529-5016137			
	6003637-6010017			
ZK34V	5006540-5016122			
ZK35V	5006521-5016021			
2008	BD31V	5122515-5215886		
		6054747-6089713		
	BD32V	5124567-5215884		
		6054743-6089718		
	BD33V	5124318-5215896		
6054075-6089725				
BD34V	5124315-5215683			

COVERED VIN RANGE CONTINUED...

Model	WMI	Year	VDS Range	
			VDS	Range
RAV4	JTM	2008	BD35V	5124310-5215906
			BK31V	5040755-5071468
				6028076-6050078
			BK32V	5039902-5071462
				6028075-6050080
			BK33V	5040768-5071418
				6028079-6050066
			BK34V	5040763-5071435
			BK35V	5040804-5071472
			ZD31V	5078027-5117091
				6052994-6081056
			ZD32V	5078035-5117086
				6052998-6081048
			ZD33V	5076662-5117118
				6052995-6081081
			ZD34V	5078041-5117037
			ZD35V	5078033-5117108
			ZK31V	5015779-5024041
				6010018-6016056
			ZK32V	5016141-5024036
	6010023-6016055			
	ZK33V	5016138-5024037		
		6010021-6016053		
	ZK34V	5016157-5024038		
	ZK35V	5016148-5024022		
	2T3	2009	BF31V	W001119-W002100
			BF32V	W001207-W002433
			BF33V	W001117-W002428
			BF35V	W001421-W002357
			BK31V	W001143-W001937
BK32V			W001142-W001728	
BK33V			W001162-W002146	
BK34V			W001688-W001688	
BK35V			W002139-W002160	
ZF31V			W001050-W001589	
ZF32V			W001048-W001626	
ZF33V			W001049-W002099	
ZF35V			W001625-W001625	
ZK31V			W001081-W001565	
ZK32V	W001149-W001327			
ZK33V	W001076-W002103			

Model	WMI	Year	VDS Range	
			VDS	Range
Sequoia	5TD	2008	BT64A	S000014-S000239
			BY64A	S000047-S023589
			BY67A	S000042-S023596
			BY68A	S000034-S023597
			ZT64A	S000014-S000384
			ZY64A	S000010-S015402
			ZY67A	S000012-S015400
		ZY68A	S000013-S015401	
		2009	BT64A	S000244-S000361
			BW68A	S023606-S023606
			BY64A	S023711-S023711
			BY67A	S023609-S023773
			BY68A	S023616-S023729
			ZY67A	S015919-S015919
ZY68A	S015426-S015838			
Tundra	5TB	2007	BT541	S449772-S458203
			BT581	S449768-S458119
			BV541	S449818-S490980
			BV581	S449815-S490940
			DT541	S452172-S458112
			DT581	S451402-S457120
			DV541	S454929-S490979
			DV581	S454922-S490970
			ET541	S451522-S457443
			ET581	S452313-S457105
			EV541	S453235-S473183
			EV581	S452114-S473116
			RT541	S449776-S457554
			RT581	S449772-S457346
		RU541	S449764-S451516	
		RV541	S449790-S473197	
		RV581	S449792-S473167	
		2008	BT541	S458128-S465088
BT581	S460039-S463353			
BV541	S489753-S524241			
BV581	S490994-S524168			
DT541	S458232-S465032			
DT581	S458211-S465038			
DV541	S490988-S524251			
DV581	S490274-S524192			
ET541	S457566-S461702			

COVERED VIN RANGE CONTINUED...

Model	WMI	Year	VDS Range	
			VDS	Range
Tundra	5TB	2008	ET581	S460063-S460135
			EV541	S473215-S483286
			EV581	S472420-S483281
			RT541	S457555-S461703
			RT581	S457567-S459791
			RV541	S473199-S483282
			RV581	S473206-S483264
	5TF	2007	BT541	X001509-X010233
			BT581	X001504-X009214
			BV541	X002493-X032595
			BV581	X002480-X032589
			CT541	X001009-X002214
			CV541	X001185-X005181
			DT541	X009296-X009985
			DT581	X009401-X009401
			DV541	X023882-X032593
			DV581	X022843-X032590
			ET541	X015154-X016078
			ET581	X015222-X015222
			EV541	X025255-X032800
			EV581	X025031-X032788
			JT521	X001258-X002235
			JU521	X001130-X003335
			JV521	X001122-X002393
			KT521	X001022-X002147
			KV521	X001133-X002462
			LT521	X001572-X015878
			LU521	X001203-X006726
			LV521	X003495-X032752
			MT521	X001506-X010227
			MV521	X002603-X032585
			RT541	X001571-X016317
			RT581	X001570-X016043
			RU541	X001200-X006742
RV541	X003586-X032799			
RV581	X003587-X032785			
ST541	X001106-X002069			
SV541	X001063-X004748			

Model	WMI	Year	VDS Range	
			VDS	Range
Tundra	5TF	2008	BT541	X010234-X014584
			BT581	X010659-X013869
			BV541	X032597-X083158
			BV581	X032603-X083120
			CT541	X002218-X002439
			CV541	X005183-X008862
			DT541	X010580-X013787
			DT581	X012554-X012753
			DV541	X032596-X083159
			DV581	X032602-X083167
			ET541	X016320-X027282
			ET581	X022981-X026381
			EV541	X032809-X069738
			EV581	X032801-X069597
		JT521	X002236-X002401	
		JU521	X003384-X004115	
		JV521	X002395-X003232	
		KT521	X002148-X002358	
		KV521	X002463-X003358	
		LT521	X016321-X027288	
		LU521	X007760-X017472	
		LV521	X032804-X069666	
		MT521	X010370-X014582	
		MV521	X032626-X083124	
		RT541	X016318-X027320	
		RT581	X017618-X020071	
		RU541	X006743-X017473	
		RV541	X032802-X069735	
		RV581	X032846-X069669	
		ST541	X002070-X002160	
		SV541	X004749-X006281	
		2009	BT541	X014611-X014966
			BV541	X083229-X085745
			BV581	X083255-X085205
BW541	X083226-X085748			
BW581	X083224-X085672			
CT541	X002440-X002440			
CV541	X008872-X009002			

COVERED VIN RANGE CONTINUED...

Model	WMI	Year	VDS Range	
			VDS	Range
Tundra	5TF	2009	CW541	X008870-X009000
			DT541	X014616-X014879
			DV541	X083242-X085696
			DV581	X083244-X085489
			DW541	X083227-X085752
			DW581	X083217-X085729
			EV541	X069830-X070508
			EV581	X069778-X070336
			JU521	X004142-X004142
			JV521	X003234-X003239
			KT521	X002369-X002369
			KV521	X003364-X003392
			KW521	X003384-X003384
			LT521	X027997-X028115
			LU521	X017782-X017782
			MT521	X014876-X014876
			MV521	X085497-X085573
			MW521	X084767-X084767
			RT541	X027383-X028213
			RU541	X017498-X018231
RV541	X069772-X070512			
RV581	X070033-X070247			
ST541	X002171-X002173			
SV541	X006283-X006304			
Scion xB	JTL	2008	KE50E	1000136-1060718
		2009	KE50E	1060079-1077653
Scion xD	JTK	2008	KU104	J000125-J032918
		2009	KU104	J032919-J034568
Yaris	JTD	2007	BT903	1079117-1187591
				4000006-4003638
			BT923	1079440-1187658
				4000004-4003639
		JT903	5071988-5138688	
			JT923	5071865-5138773
		2008	BT903	1187667-1297180
				4003685-4041333
			BT923	1187685-1297181
				4003647-4041340
JT903	5127500-5218402			
JT923	5136244-5218428			

NOTE:

- Check the TIS Vehicle Inquiry System to confirm the VIN is involved in this Safety Recall, and that the campaign has not already been completed prior to dealer shipment or by another dealer.
- TMS warranty will not reimburse dealers for repairs conducted on vehicles that are not affected or were completed by another dealer.

II. PREPARATION

A. PARTS

The large majority of vehicles will require these parts (approximately 99%).

Part Number	Part Description	Quantity	Note
04002-18242	Grease*	1	-
04002-18342	One-Way Screw**	3	With power rear windows
		2	Without power rear windows

*Approximately 0.5 to 0.9 ml is needed per vehicle (One tube contains 50 ml)

**The one-way screw is a quantity pack that contains 75 screws, each PWMS will use 2 or 3 screws

Only a small number of vehicles (approximately less than 1%) will require the replacement of the window switch circuit board. Follow the inspection process in these instructions to determine if replacement is necessary. If it is identified that a window switch circuit board requires replacement, use the following website to identify the part needed. Due to the part number complexities, this website has been created to assist with parts identification. <http://c0m-lookup.imagespm.info>

B. TOOLS & EQUIPMENT

- Standard hand tools
- DVOM
- Molding removal set
- Protective tape

Campaign Tools – These tools are provided to the dealership.

Part Number	Part Name	Quantity
-	Syringe Set	1

Part Number	Part Name	Quantity
-	Syringe	2
-	Adapter	1
-	Nozzle	2

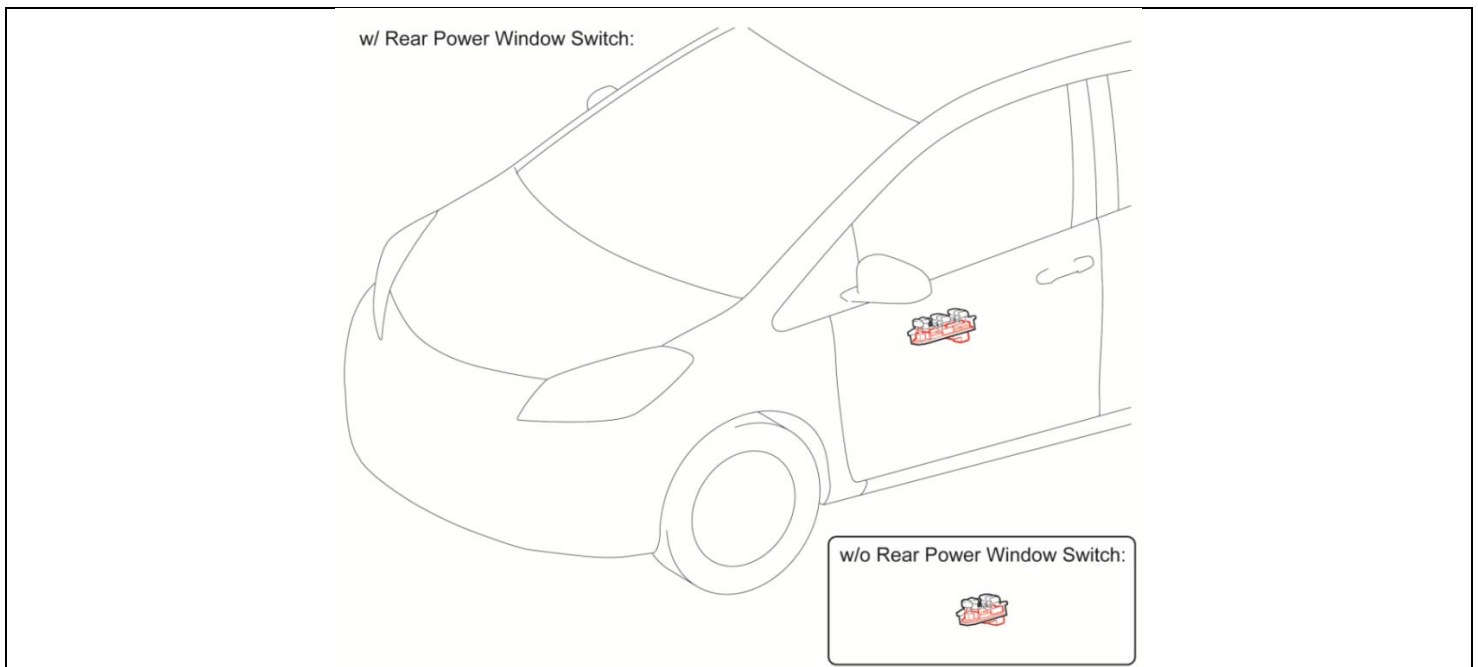
NOTE: These tools CANNOT be ordered through the parts system. If additional tools are needed, contact your regional representative.

III. BACKGROUND

The sliding electrical contact module in the driver's side Power Window Master Switch (PWMS) may experience a "notchy" or sticking feeling during operation.

If commercially available lubricants are applied to the switch in an attempt to address the "notchy" or sticky feel, melting or smoking of the switch assembly could occur. Under some circumstances, this could lead to a fire.

IV. COMPONENTS



V. PRELIMINARY POWER WINDOW MASTER SWITCH OPERATION CHECK

1. CHECK THE FOLLOWING OPERATIONS OF THE POWER WINDOW MASTER SWITCH

- Lock and unlock switch operation.
- Up and down operation for each window.
- Auto function of AUTO switch(s).
- Window lock switch operation.
- Illumination of 'AUTO' on auto switches (headlights must be on to confirm this)

2. IF ANY OF THE ABOVE OPERATIONS DO NOT PERFORM CORRECTLY, DIAGNOSE AND REPAIR AS OUTLINED IN THE REPAIR MANUAL.

NOTE: If an issue is found in a component other than the PWMS, the repair of that component *WILL NOT* be covered under this campaign.

VI. POWER WINDOW MASTER SWITCH REMOVAL

1. REMOVE THE POWER WINDOW MASTER SWITCH AS OUTLINED IN THE REPAIR MANUAL ON TIS

- [CAMRY](#)
- [CAMRY HYBRID](#)
- [COROLLA](#)
- [HIGHLANDER](#)
- [HIGHLANDER HV](#)
- [MATRIX](#)
- [RAV4](#)
- [SCION xB](#)
- [SCION xD](#)
- [SEQUOIA](#)
- [TUNDRA](#)
- [YARIS LIFTBACK](#)
- [YARIS SEDAN](#)

NOTE:

- To prevent the window from moving unexpectedly, open and close the door after turning the ignition off to stop power-window key-off operation.
- Apply protective tape to interior panels to avoid damage.

VII. POWER WINDOW MASTER SWITCH INSPECTION

[Video Supplement: Introduction & Switch Catching Inspection steps](#)

PWMS ASSEMBLY REPLACEMENT CRITERIA



- Damage (hole or deformation) is visible on the outside of the switch housing.
- Damage confirmed on the inside of the housing preventing smooth operation of the switch levers.
- Damage confirmed on the base to which the circuit board mounts.

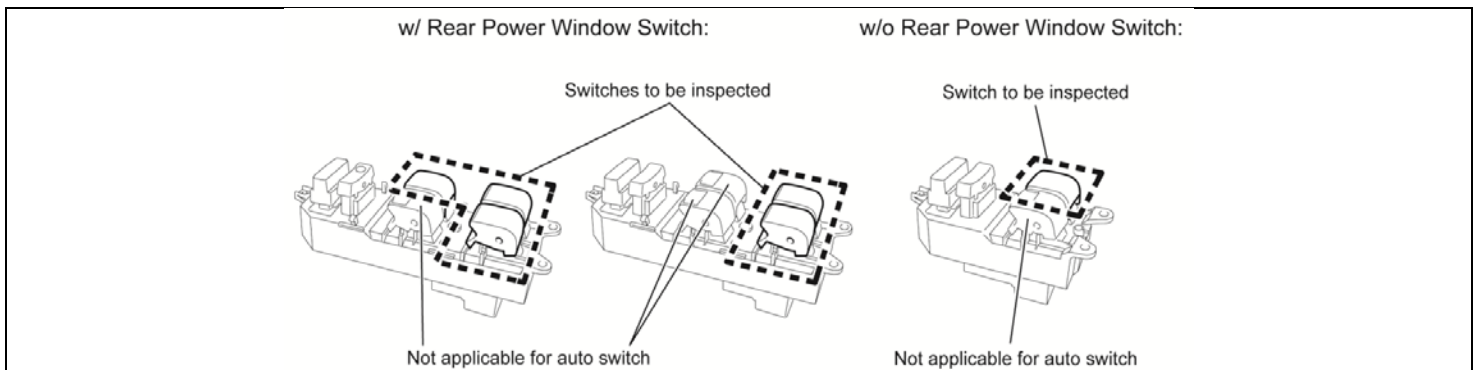


If none of these conditions are found during the inspection, **DO NOT** replace the PWMS assembly. The PWMS assembly **DOES NOT** need to be replaced if the visible damage is isolated to the circuit board. A very small number of vehicles will require PWMS assembly replacement.

A. CHECK THE SWITCHES FOR CATCHING CONDITION

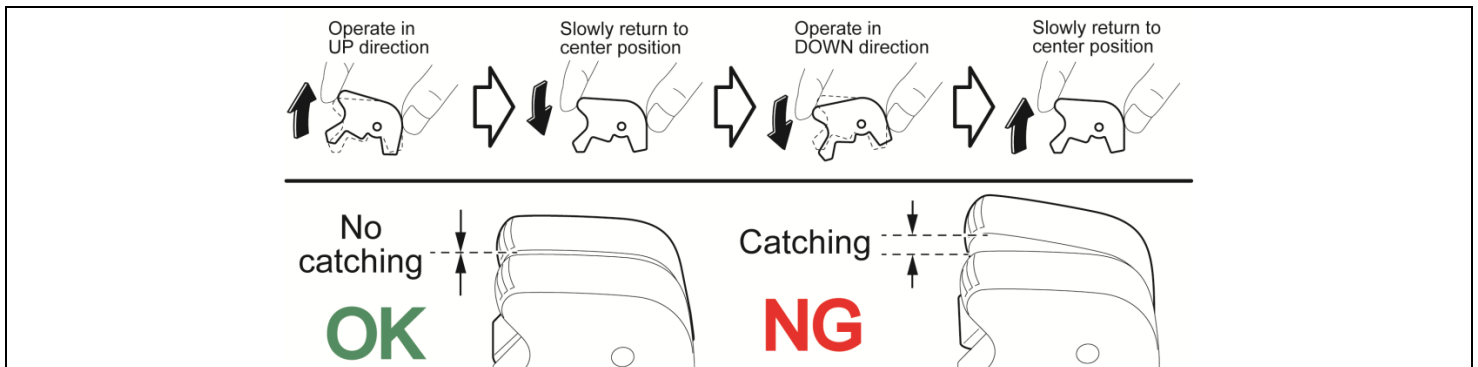
a) Check all switches that do not have the AUTO function.

NOTE: The AUTO switch is of a different design; therefore, no inspection is necessary.



b) Operate each switch in the up direction, then slowly return the switch using two fingers.

c) Operate each switch in the down direction, then slowly return the switch using two fingers.

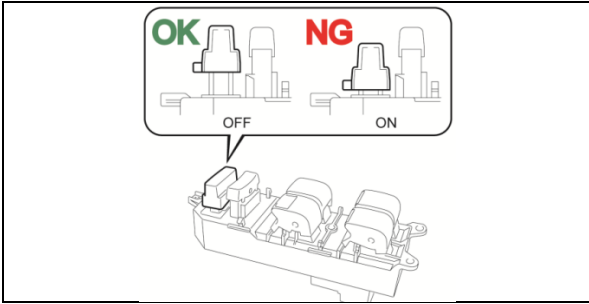


- **ALL** switches that **ARE NOT AUTO** **MUST** be inspected.
- The switches **MUST** be operated slowly, otherwise the catching cannot be noticed.
- The switches **MUST** be operated with two fingers, otherwise the catching cannot be noticed.
- The switches may feel unsmooth, this **DOES NOT** mean the switch is NG.
- Only a small number of vehicles (approximately less than 1%) will require the replacement of this part.

CONDITION	ACTION REQUIRED
NONE of the switches are catching.	Proceed to STEP B. CHECK THE RESISTANCE OF THE SWITCHES
One or more of the switches are catching.	Replace the power window master switch circuit board. Proceed to STEP B, 1-2 for switch disassembly instructions. NOTE: <ul style="list-style-type: none"> • Mark the NG circuit board with an 'X' so that it is not reused. • There is NO NEED to apply grease to the new circuit board.

B. CHECK THE RESISTANCE OF THE SWITCHES

Video Supplement: Switch Resistance Inspection steps



1. REMOVE THE WINDOW LOCK BUTTON

- Turn the window lock switch to the OFF position.
- Pull the button up to remove it from the switch assembly.



- Removing the lock button while it is turned ON may damage the switch.
- To prevent damage, **DO NOT** use tools.

2. REMOVE THE SWITCH CIRCUIT BOARD

- Remove the screws.
- Lift the switch board straight up to remove it.

NOTE: There are 3 screws for switches with power rear windows, 2 screws for switches without power rear windows.



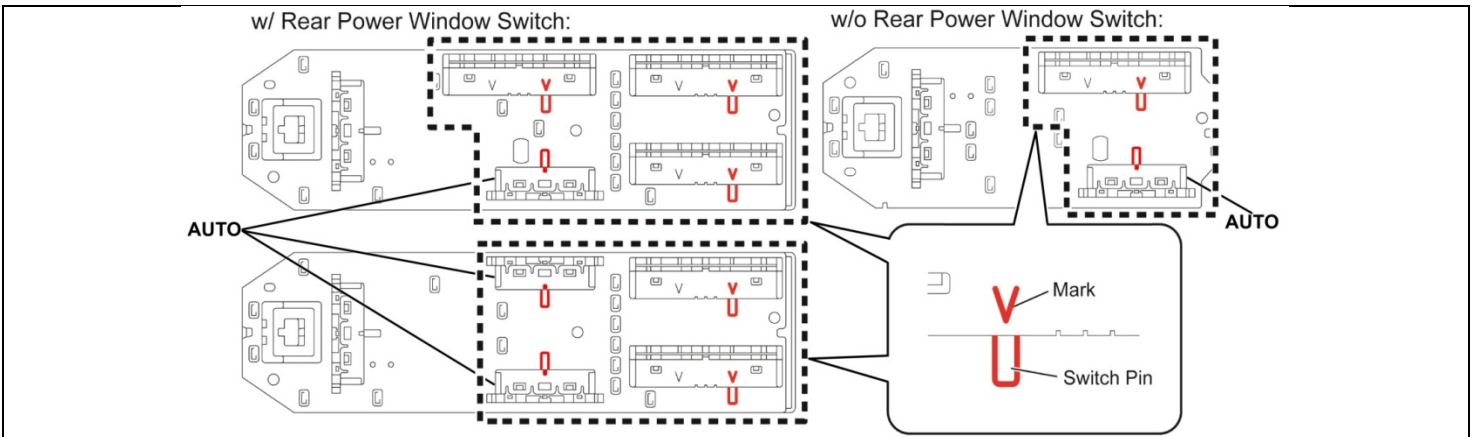
- If the circuit board is being replaced due to a catching condition found in STEP A, proceed to SECTION X. SWITCH REASSEMBLY.
- DO NOT** reuse the screws that have been removed, new one-way screws **MUST** be used.

3. POSITION THE SWITCHES

- Align each switch pin with the 'V' mark on all switches that do not have AUTO function.
- Align the switch pin with the center line on all AUTO function switches.



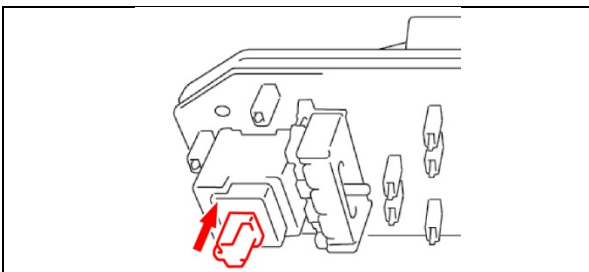
- If the AUTO switches are not aligned correctly, the readings may be inaccurate.
- The switches **MUST** be in this position when checking the resistance. This is the OFF position, if the switch is in any other position, the reading will be incorrect.
- ALL** switches that **ARE NOT** AUTO **MUST** be checked.



- Push the window lock button so that it is in the down position.



- If the window lock button is not in the down position, the readings may be inaccurate.

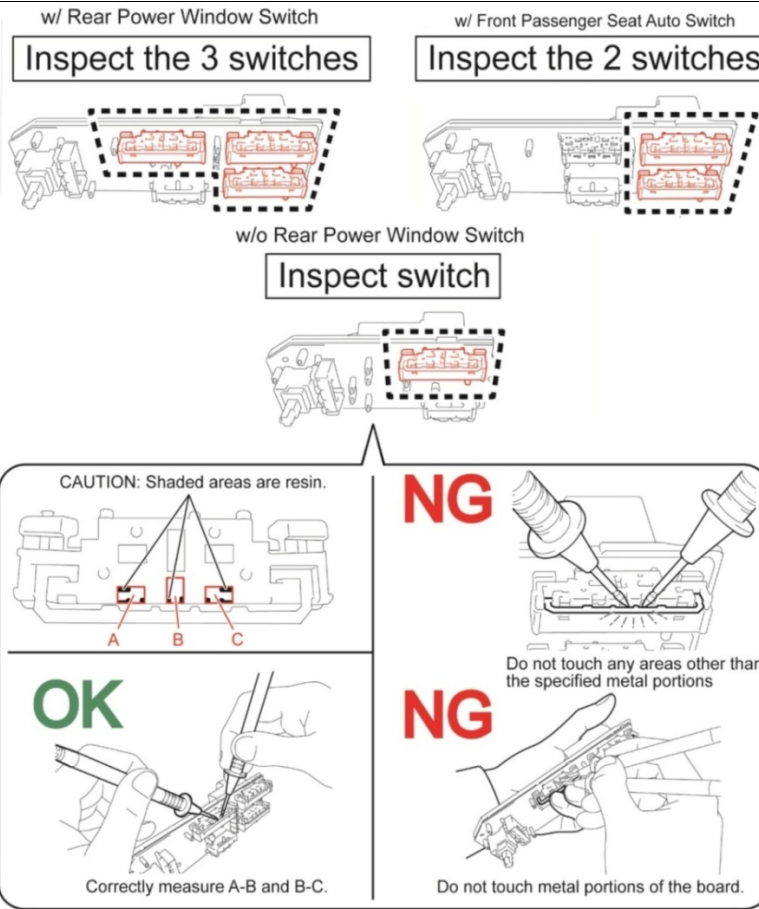


4. CHECK THE RESISTANCE OF THE SWITCHES

- a) Perform the ZERO calibration function on the DVOM.
- b) Measure the resistance between points A-B and points B-C.



- If the the ZERO calibration function is not performed, the readings may be inaccurate.
- Set the DVOM to the maximum resistance range.
- **DO NOT** touch any metal other than points A, B, C on the circuit board when checking resistance.
- The points being checked are small, confirm the probes are contacting the correct points.
- **ALL** switches that **ARE NOT AUTO MUST** be checked.



CONDITION	ACTION REQUIRED
Resistance value for ALL switches is infinite.	Fill the switches with grease. Proceed to SECTION IX. GREASE APPLICATION
One or more resistance value IS NOT infinite.	Replace the power window master switch circuit board. Proceed to SECTION X SWITCH REASSEMBLY NOTE: <ul style="list-style-type: none"> • Mark the NG circuit board with an 'X' so that it is not reused. • There is NO NEED to apply grease to the new circuit board.

PWMS ASSEMBLY REPLACEMENT CRITERIA



- Damage (hole or deformation) is visible on the outside of the switch housing.
- Damage confirmed on the inside of the housing preventing smooth operation of the switch levers.
- Damage confirmed on the base to which the circuit board mounts.

If none of these conditions are found during the inspection, **DO NOT** replace the PWMS assembly. The PWMS assembly **DOES NOT** need to be replaced if the visible damage is isolated to the circuit board. A very small number of vehicles will require PWMS assembly replacement.



VIII. GREASE APPLICATION

[Video Supplement: Grease Application steps](#)



- Approximately 0.5 to 0.9 ml of grease will be needed for each circuit board assembly.
- One tube contains 50 ml of grease and will remedy approximately 50 vehicles.

A. PREPARE THE SYRINGE

1. FILL THE SYRINGE WITH GREASE

- a) With the cap on, shake the tube of grease to confirm the grease is at the mouth of the tube.

NOTE:

- Air bubbles in the grease will make filling the syringe and greasing the switches difficult.
- Wear safety glasses when filling the switches with grease.

- b) Attach the adapter to the tube of grease.

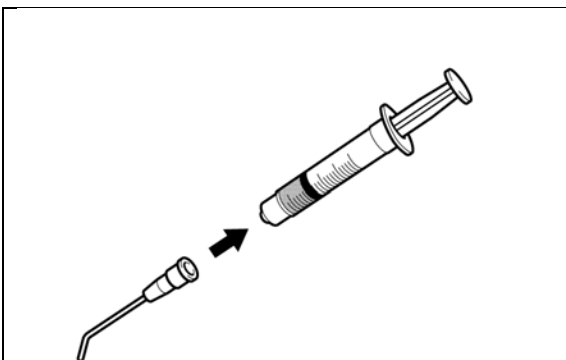
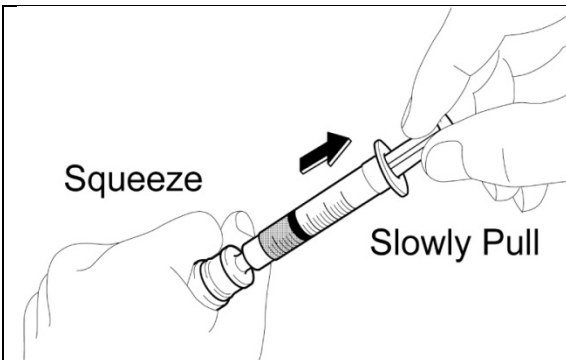
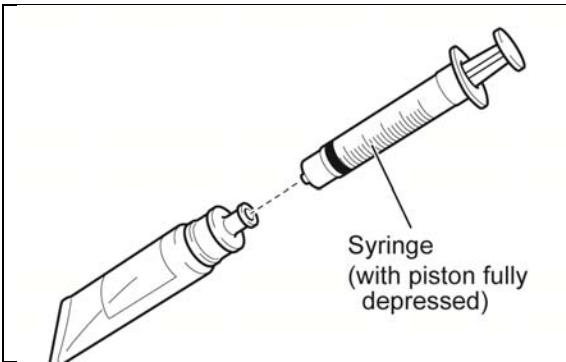
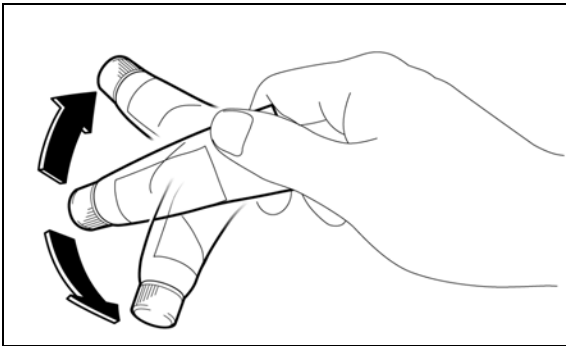
- c) Screw the syringe onto the adapter.

NOTE: Confirm the plunger is depressed prior to screwing it to the adapter.

- d) Gently squeeze the tube while pulling up on the plunger to fill the syringe.

NOTE: Each circuit board assembly will require 0.5 to 0.9 ml of grease.

- e) Remove the syringe from the adapter and screw on the nozzle.



B. FILL THE SWITCHES WITH GREASE



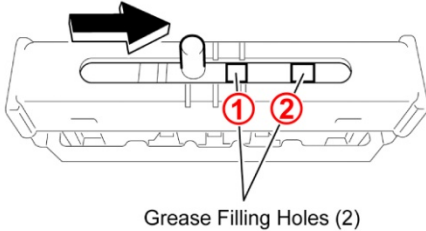
- **ALL switches that ARE NOT AUTO MUST be greased.**
- **Approximately 0.5 to 0.9 ml of grease will be needed for each circuit board assembly.**
- **Confirm a previously diagnosed NG circuit board is not being used.**

GREASING PROCEDURE OVERVIEW (for full details, follow steps 1 - 4 below)

Slide switch pins forward → Fill hole 1 → Fill hole 2

Slide switch pins rearward → Fill hole 3 → Fill hole 4

Fully Slide to Front



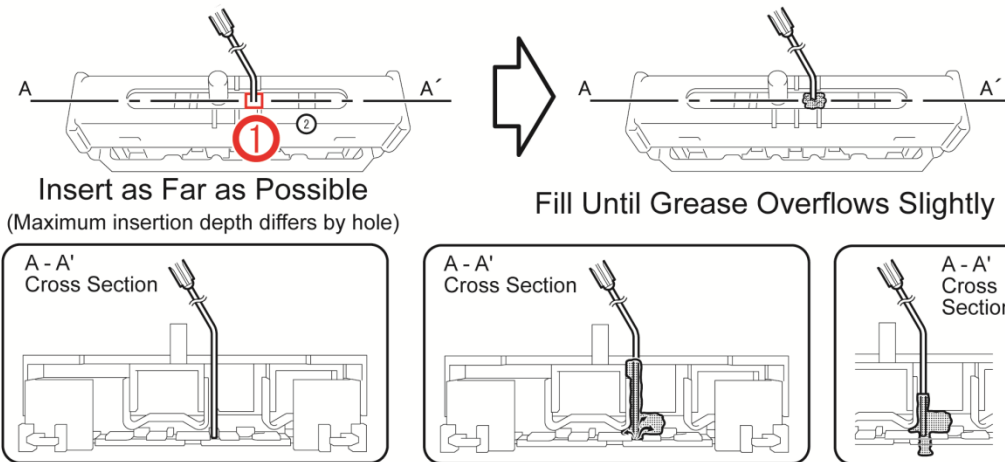
1. POSITION THE SWITCHES

- Slide the switch pins all the way to the front.

2. FILL THE SWITCHES

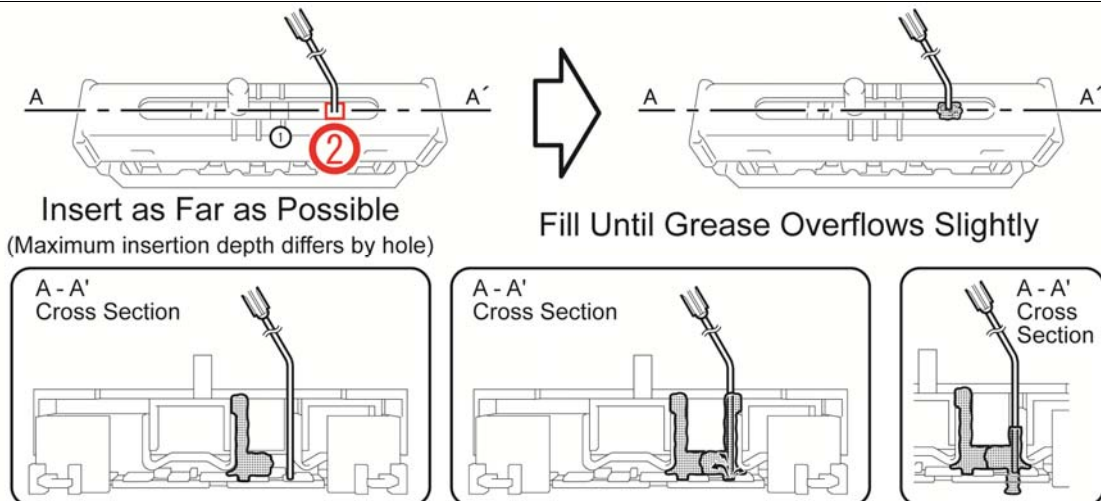
- Insert the nozzle in hole 1 as far as it will go and fill the hole with grease.
- Fill the switch until the grease begins to slightly overflow.

NOTE: The grease may overflow through the back side of the switch, this is acceptable.

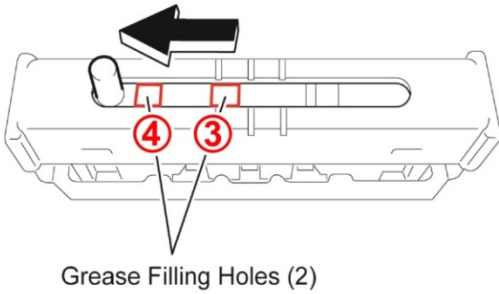


- Insert the nozzle in hole 2 as far as it will go and fill the hole with grease.
- Fill the switch until the grease begins to slightly overflow.

NOTE: The grease may overflow through the back side of the switch, this is acceptable.



Fully Slide to Rear



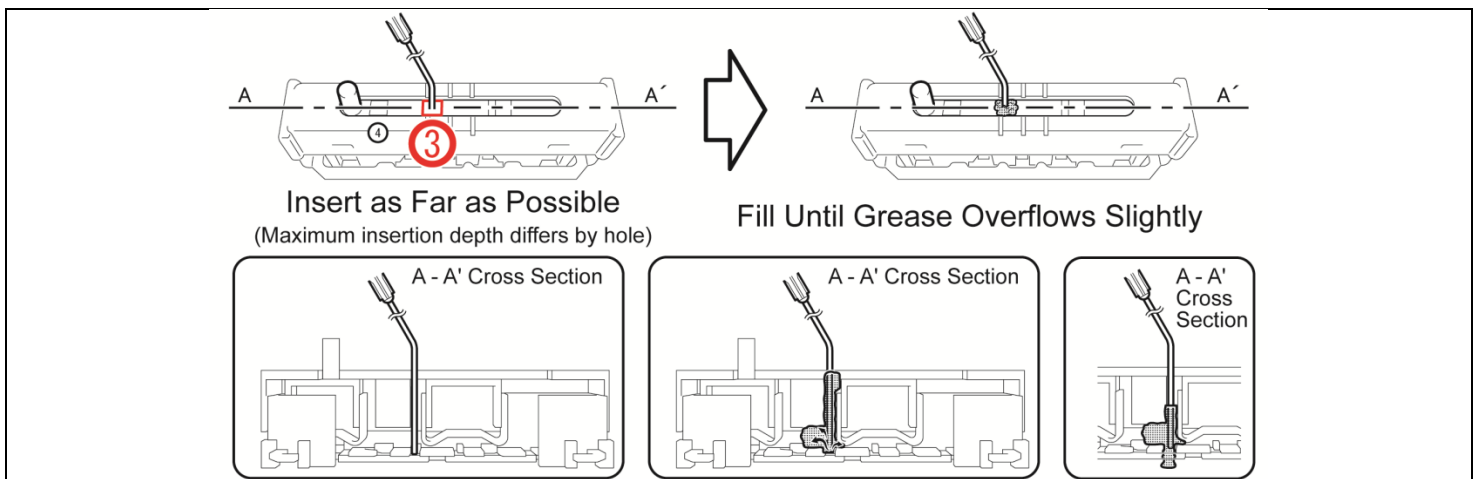
3. REPOSITION THE SWITCHES

- Slide the switch pins all the way to the rear.

4. FILL THE SWITCHES AGAIN

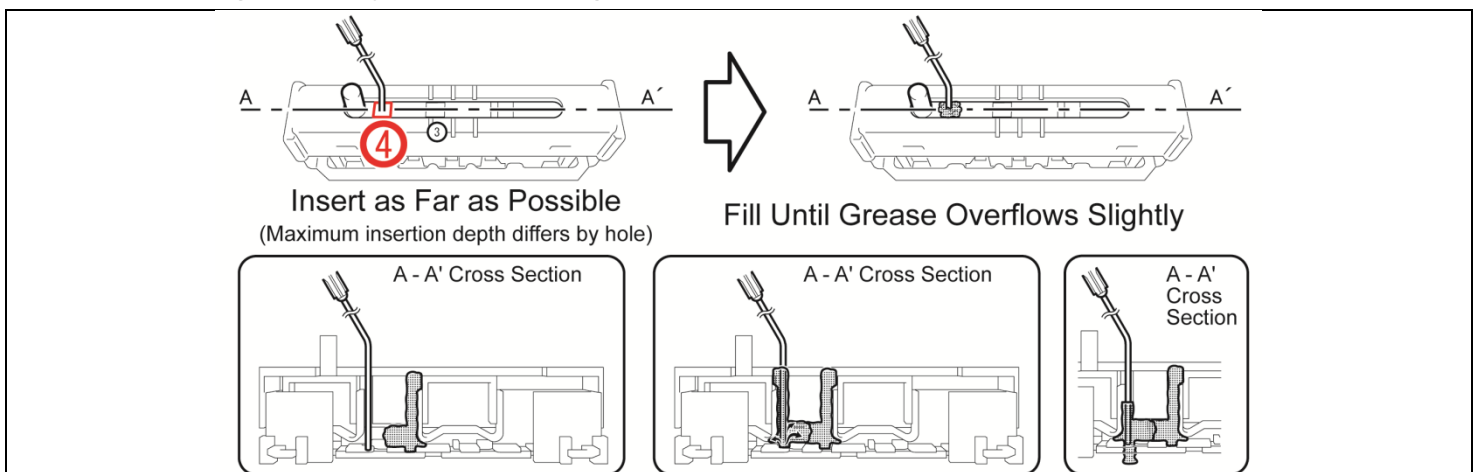
- Insert the nozzle in hole 3 as far as it will go and fill the hole with grease.
- Fill the switch until the grease begins to slightly overflow.

NOTE: The grease may overflow through the back side of the switch, this is acceptable.



- Insert the nozzle in hole 4 as far as it will go and fill the hole with grease.
- Fill the switch until the grease begins to slightly overflow.

NOTE: The grease may overflow through the back side of the switch, this is acceptable.



- **ALL switches that ARE NOT AUTO MUST be greased.**
- **Wipe up any excess grease from the switches.**

5. STORE THE SYRINGE SET TO BE REUSED ON FUTURE VEHICLES

- Store the syringe set in a location free from dust and debris.

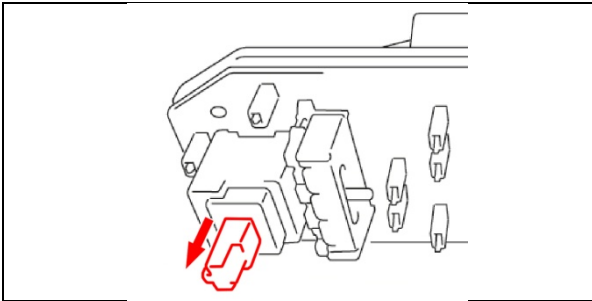
IX. SWITCH REASSEMBLY

[Video Supplement: PWMS Reassembly steps](#)

STOP

- Complete this section if grease application has been completed or if the circuit board is being replaced.
- If the switch pins are not aligned, the switches will not operate correctly after reassembly.

1. POSITION THE SWITCHES







- a) Place the window lock button in the up position.
- b) Align all switch pins with the marks as shown in the illustration below.

PWMS (w/AUTO driver and power rear windows)

PWMS (w/AUTO driver and passenger and power rear windows)

PWMS (w/AUTO driver and w/o power rear windows)

Manual switch:
Mark 
Switch Pin 

Auto/Lock switch:
Mark 
Switch Pin 

Insert directly downwards

Do not install the screws now
NG

2. INSERT THE CIRCUIT BOARD TO THE SWITCH CASE

- a) Carefully position the circuit board in the switch case to avoid misaligning the switch pins.

STOP

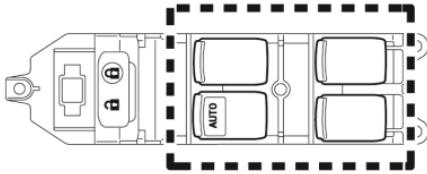
- **DO NOT** install the screws to secure the circuit board until completing the operation checks.
- **DO NOT** use the original screws.

3. CONFIRM THE OPERATION OF THE SWITCHES

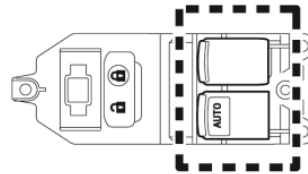
- a) While holding the circuit board in the switch case, check the operation of the switches. The movement up/down and lock/unlock position should be equal in both directions.

Window Switch

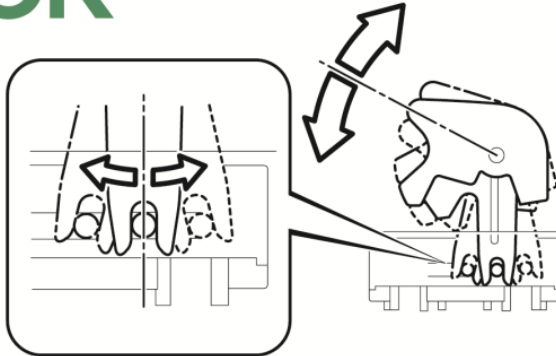
w/ Rear Power Window Switch:



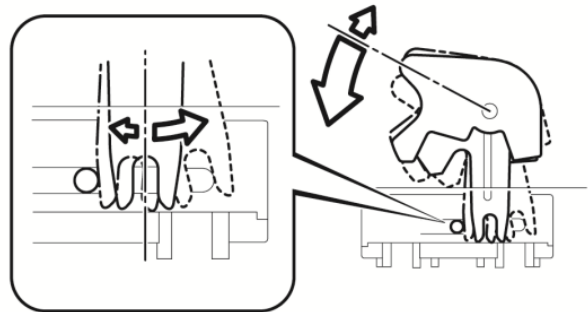
w/o Rear Power Window Switch:



OK Same Movement Amount

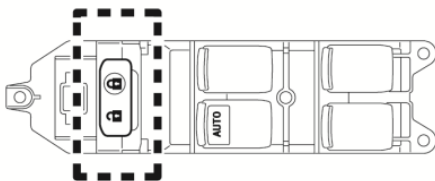


NG Movement Amount is Different

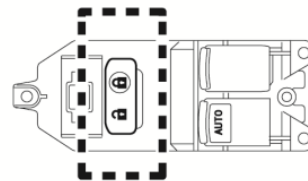


Door Control Switch

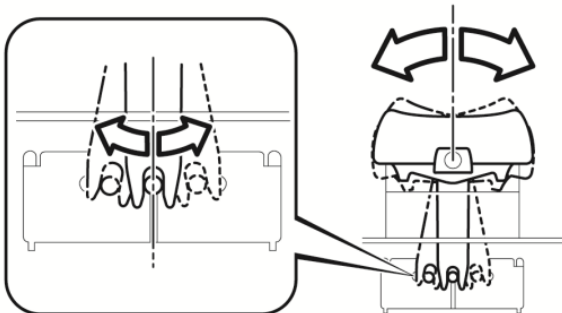
w/ Rear Power Window Switch:



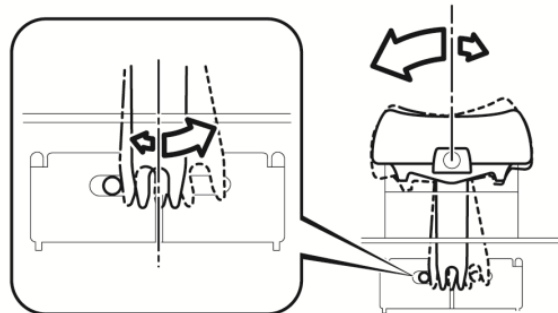
w/o Rear Power Window Switch:



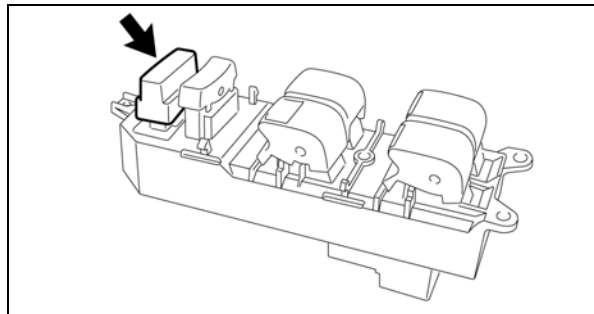
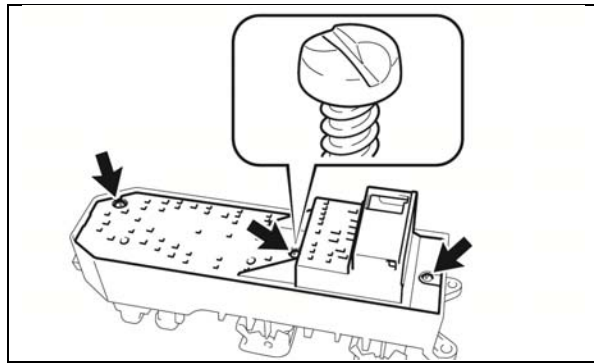
OK Same Movement Amount



NG Movement Amount is Different



CONDITION	ACTION REQUIRED
Movement is equal in ALL switches.	The circuit board is positioned correctly. Proceed to STEP 4. INSTALL THE ONE-WAY SCREWS
Movement in one or more switch IS NOT equal.	One or more switch pin is misaligned. Repeat STEPS 1-3



DO NOT install the screws to secure the circuit board until completing the operation checks.

4. INSTALL THE ONE-WAY SCREWS

- a) Install the one-way screws.

NOTE: There are 3 screws for switches with power rear windows, 2 screws for switches without power rear windows.

5. INSTALL THE WINDOW LOCK BUTTON

- a) Press the lock button firmly until a snap is heard.

X. POWER WINDOW MASTER SWITCH INSTALLATION

1. INSTALL THE POWER WINDOW MASTER SWITCH AS OUTLINED IN THE REPAIR MANUAL ON TIS

- [CAMRY](#)
- [CAMRY HYBRID](#)
- [COROLLA](#)
- [HIGHLANDER](#)
- [HIGHLANDER HV](#)
- [MATRIX](#)
- [RAV4](#)
- [SCION xB](#)
- [SCION xD](#)
- [SEQUOIA](#)
- [TUNDRA](#)
- [YARIS LIFTBACK](#)
- [YARIS SEDAN](#)

XI. POWER WINDOW MASTER SWITCH OPERATION CHECK

1. CHECK THE FOLLOWING OPERATIONS OF THE POWER WINDOW MASTER SWITCH

- a) Lock and unlock switch operation.
- b) Up and down operation for each window.
- c) Auto-up and auto-down operation of auto switch(s).
- d) Window lock switch operation.
- e) Illumination of 'AUTO' on auto switches (headlights must be on to confirm this)

NOTE: System initialization is not necessary.

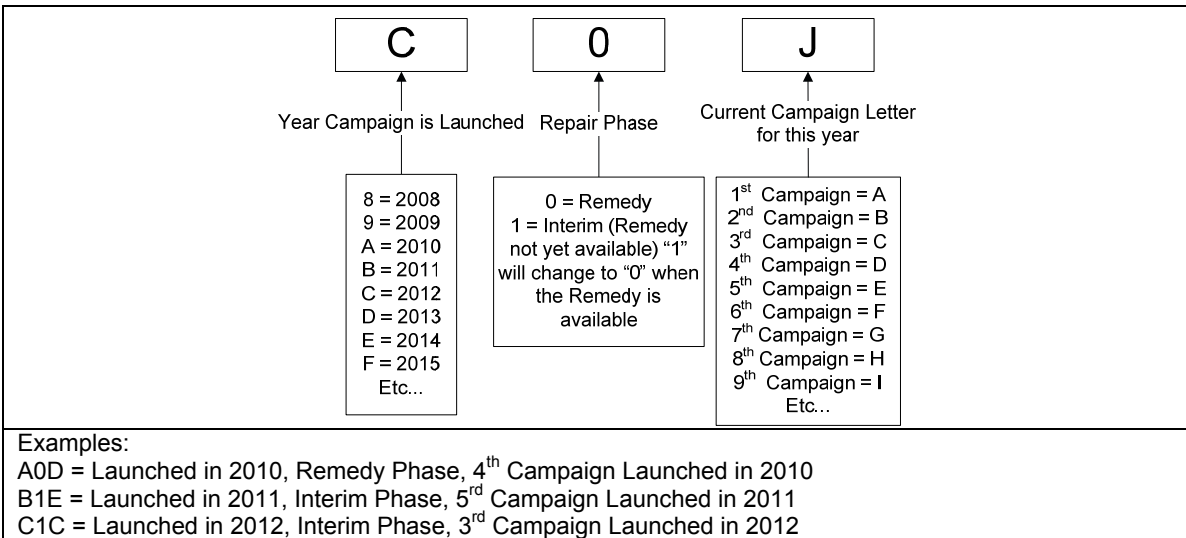
◀ VERIFY REPAIR QUALITY ▶

- Confirm **ALL** inspection steps are followed **EXACTLY** as described in these instructions
- Confirm the grease is applied as described in these instructions
- Confirm the switch assembly operates correctly before installing the one-way screws
- Confirm new one-way screws are installed when reassembling the switch assembly

If you have any questions regarding this update, please contact your regional representative.

XII. APPENDIX

A. CAMPAIGN DESIGNATION DECODER



B. CAMPAIGN PARTS DISPOSAL

As required by Federal Regulations, please make sure all campaign parts (original parts) removed from the vehicle are disposed of in a manner in which they will not be reused, ***unless requested for parts recovery return.***