## Arc-Crux Module 3v-5v SWC switch

- \*Certain Pioneer and Boss radios will need this micro-switch flipped in order to get the steering wheel buttons to work if the dipswitch settings don't work.
- \*Some Boss radios volume will max out when turning vehicle off if the micro-switch is set to 5v.
- \*This module has different board layouts for different harnesses. Same micro-switch though.





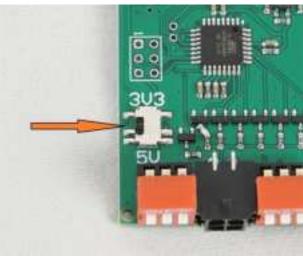
















# Radio Replacement with Steering Wheel Control Retention for LEXUS & TOYOTA Vehicles with JBL Systems

#### **PRODUCT FEATURES:**

- Retains factory features in select Lexus and Toyota vehicles with JBL Harman-Becker Digital-Synthesis Amplifier, including JBL (Pioneer-made) amplifiers while functioning with an aftermarket radio.
- Pre-programmed to retain factory Steering Wheel Controls.
- Retains factory backup camera (if present).
- Retains OEM 3.5mm Auxiliary Audio Input.
- iPhone Voice Recognition (VR) feature from SWC on select Kenwood, Pioneer, Alpine and JVC radios.
- Variable audio gain adjustment to level match the aftermarket radio and factory amplifier.
- Supports BT-HF/A2DP/AVRCP profile on select aftermarket radio models.
- Supports Pick Up/End Call, Pick up and Toggle between 1st and 2nd incoming call, AVRCP Track, Seek.
- EIA color coded wiring for easy installation.

#### **NOTES:**

- 1. Left-Right Balance Audio Control is supported. Front-Rear Audio Fading is not supported.
- 2. Please make sure to set the factory radio volume to 70% and balance and fade options are centered before removing the radio.

### **PARTS INCLUDED:**



SWRTY-61J Module



3.5MM to 4-pin SWC Cables



TY-A Harness (For Newer Models)



**OEM Camera Retention Harness** 



TY-B Harness (For Older Models)



16 to 24 Pin Camera Adapter

#### **IMPORTANT INSTALLATION NOTES:**

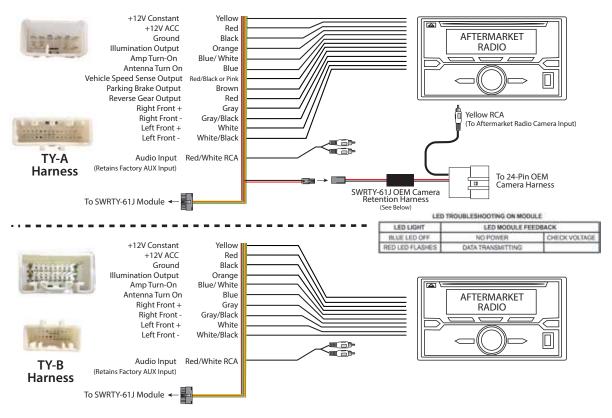
- 1. In some Lexus/Toyota vehicles 2006 and older, the mute circuit is located in the same pin location as the amplifier turn-on on the OEM harness. If no audio is heard after the installation is complete, disconnect the BLUE/WHITE wire on the TY-61J T-Harness from the aftermarket radio AMP Turn-on wire. Insulate with tape to avoid short circuits.
- 2. Before connecting the 3.5mm SWC Cable, thoroughly wipe it clean with the alcohol cleansing pad provided. This will ensure a solid contact with the aftermarket radio SWC circuit.
- 3. To retain the factory AUXILIARY INPUT option in the vehicle, the aftermarket radio must have an "Auxiliary Audio Input" feature. Please check your aftermarket radio manual for details.



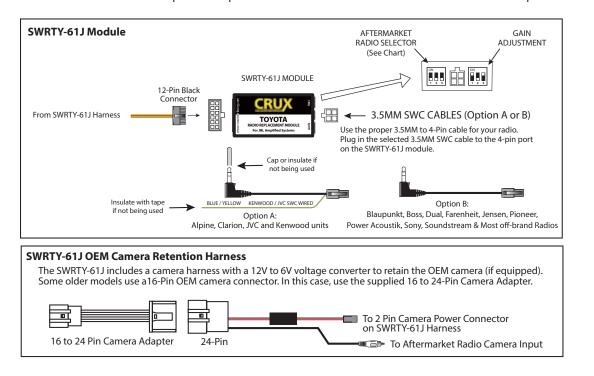


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#### **INSTALLATION DIAGRAM:**



NOTE: Aftermarket radio rear speaker output leads are not used on both harnesses. Insulate with tape.







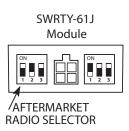
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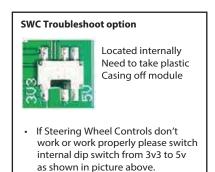
#### **DIP SWITCH SETTINGS:**

#### **SETTING THE AFTERMARKET RADIO BRAND**

This step is done on the SWRTY-61J Module. With the key in the off position, set the DIP switches to the corresponding radio listed below.

RADIO BRAND:	DIP:	1	2	3
Atoto, Dual, Fahrenheit, Jensen,	Pioneer	OFF	ON	ON
Power Acoustik, Soundstream		OFF	ON	ON
Blaupunkt, Most off brand Radios		OFF	ON	ON
Alpine		OFF	OFF	OFF
Clarion		ON	ON	OFF
Kenwood		ON	ON	ON
JVC		ON	OFF	ON
Sony, Boss		ON	OFF	OFF





**NOTE:** For Atoto, Blaupunkt, Dual, Farenheit, Power Acoustik, Soundstream, and most off-brand radios, check the aftermarket radio's manual to see if the SWC buttons need to be programmed.

• Some Blaupunkt use DIP Switch setting OFF ON OFF

#### **4-PIN SWC CABLE**

Use the proper 3.5MM to 4-Pin SWC cable for the aftermarket radio you are using.

OPTION A is used for ALPINE, CLARION. For JVC and KENWOOD use the Blue/Yellow wire.
OPTION B is used for ATOTO, BLAUPUNKT, BOSS, DUAL, FARENHEIT, JENSEN, POWER ACOUSTIK,
PIONEER, SONY, SOUNDSTREAM and Most Off-Brand Radios.

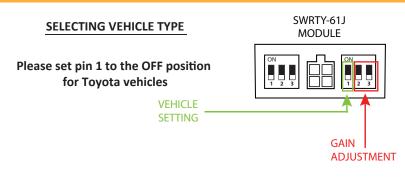
NOTE: Cap or insulate the 3.5mm plug or Blue/Yellow wire if not being used.

For aftermarket radios that have wires for SWC connections, cut off the 3.5mm plug on the CRUX SWC Cable and connect the SWC wires as follows:



Note that there are some radios that only have SWC1 and SWC2, in this case "shield" does not need to be connected.

### **VEHICLE SETTING AND GAIN ADJUSTMENTS:**



Use the gain adjustment to level match the aftermarket radio audio output with the OE amplifier input.

DIP SETTING	dB	Volts
Position 2 3		
OFF OFF	0 dB	+0mV
OFF ON	3.5 dB	+9mV
ON OFF	9.1 dB	+18mV
ON ON	12.9 dB	+27mV





Radio Replacement with Steering Wheel Control Retention for LEXUS & TOYOTA Vehicles with JBL Systems

#### STEERING WHEEL CONTROL BUTTON FUNCTIONS:

**Note:** Identify Alpine SWC learning radios by checking for three SWC cables and a SWC learn menu, instead of a 3.5mm SWC input.

If Interface has one SWR-100 Cable included If Interface has two SWR Cables included 1 - Identify appropriate SWC adapter cable. 1 - Find the included SWC adapter cable. Do not use cable with Blue / Yellow wire. 2 - Prepare the SWC Cable: Cut the SWC cable. You will find a red wire, a white wire, and a ground (shield) wire inside. 3 - Adjust the Module Settings: Set the module to the Pioneer dip switch setting. This configures the module to communicate correctly with the Alpine radio. **SWC MODULE** On Alpine iLX series radios use Pioneer settings | OFF | ON 4 - Configure the Alpine Radio: On your Alpine radio, select the setting that includes an adapter for SWC. This ensures the radio will recognize the steering wheel controls. Select "SWC Adapter" Select the setting "With Adapter" 5 - Connect the Wires: Connect both the SWC1 and SWC2 wires from aftermarket radio to the red wire from our SWC cable. Connect the SWC ground wire to the shield (ground) wire of our SWC cable. These steps should enable the steering wheel controls on your Alpine iLX series radio.

6. Program the SWC: Navigate to the SWC settings on your Alpine radio to assign and test each control function.



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NOTE: White wire not used



Radio Replacement with Steering Wheel Control Retention for LEXUS & TOYOTA Vehicles with JBL Systems

### STEERING WHEEL CONTROL BUTTON FUNCTIONS:

SWC Button	SHORT PRESS	LONG PRESS
PIONEER VOL + VOL - Seek Up Seek Down Mode OFF Hook ON Hook Voice *NOTE:	Step Increment Step Decrement Preset Up Preset Down Source Pick Up Call* End Call Activate VR/Deactivate VR  BT Mode Active: OFF Hook = Toggle between 1st and 2nd Call	Continuous VOL + Continuous VOL - Seek Up Seek Down Power On/Off None None None

SWC Button	SHORT PRESS	LONG PRESS
ALPINE		
VOL+	Step Increment	Continuous VOL +
VOL -	Step Decrement	Continuous VOL –
Seek Up	Seek Up	None
Seek Down	Seek Down	None
Mode	Source	None
OFF Hook	Pick Up Call	None
ON Hook	End Call	None
Voice	Activate VR*/Deactivate VR*	N/A
*NOTE:	BT Mode Active: OFF Hook = Toggle between 1st and 2nd Call	

SWC Button	SHORT PRESS	LONG PRESS
CLARION		
VOL+	Step Increment	Continuous VOL +
VOL -	Step Decrement	Continuous VOL –
Seek Up	Preset Up	Seek Up
Seek Down	Preset Down	Seek Down
Mode	Source	Power On/Off
OFF Hook	Pick Up Call	None
ON Hook	End Call	None
Voice	Mute	None
NO <sup>-</sup>	E: BT Mode Active: OFF Hook = Toggle between 1st and 2nd Call	

SWC Button	SHORT PRESS	LONG PRESS
JVC		
VOL +	Step Increment	Continuous VOL +
VOL -	Step Decrement	Continuous VOL –
Seek Up	Seek Up	M-Seek Up
Seek Down	Seek Down	M-Seek Down
Mode	Source	Power On/Off
OFF Hook	Pick Up Call*	None
ON Hook	End Call	None
Voice	Activate VR	None
*NOTE:	BT Mode Active: User must End 1st call in order to pick up 2nd incoming call.	Deactivate VR: Say "Cancel" or remain silent until it times out Auto switch back to previous Source.



Radio Replacement with Steering Wheel Control Retention for LEXUS & TOYOTA Vehicles with JBL Systems

SWC Button	SHORT PRESS	LONG PRESS
KENWOOD		
VOL+	Step Increment	Continuous VOL +
VOL -	Step Decrement	Continuous VOL -
Seek Up	Seek Up	None
Seek Down	Seek Down	None
Mode	Source	None
OFF Hook	Pick Up Call/	None
	Call History On/Off	None
ON Hook	End Call / Deactivate VR	None
Voice	Activate VR	None

### **VEHICLE APPLICATIONS:**

LEXUS		TOYOTA	
2004-2006	ES300	2003-2020	4 Runner w/ Navigation
2003-2005	IS300	2005-2018	Avalon
2006	LS430 w/o Navigation	2007-2017	Camry
		2012-2017	Camry Hybrid
		2004-2008	Camry Solara
		2009-2018	Corolla
		2007-2014	FJ Cruiser
		2008-2018	Highlander
		2008-2018	Highlander Hybrid
		2005-2012	Matrix
		2004-2015	Prius w/ Navigation
		2004-2015	Prius w/o Navigation
		2012-2017	Prius V
		2004-2018	Rav4
		2016-2018	Rav4 Hybrid
		2013-2019	Sequoia w/ Navigation
		2014-2019	Sequoia w/o Navigation
		2005-2013	Sequoia w/ RDS Radio
		2004-2017	Sienna
		2005-2021	Tacoma
		2004-2019	Tundra
		2009-2015	Venza
		2008-2011	Yaris

### **NOTE:**

- Does not retain Mark Levinson, Pioneer, Nakamichi or Harmon Kardon amplifiers.
- If your vehicle is not equipped SWC, please use the CRUX SOHTL-20

