



SWRTY-61J

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

PRODUCT MANUAL
VER.052626

CONTACT

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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.

NOTE:

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.

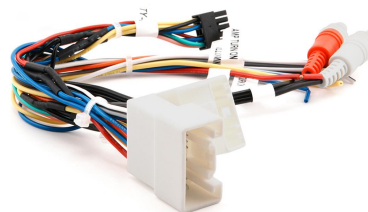
PARTS INCLUDED:



SWRTY-61J Module



**TY-A Harness
(For Newer Models)**



**TY-B Harness
(For Older Models)**



**3.5MM to 4-PIN
SWC Cables**



**OEM 24 PIN Camera
Retention Harness**

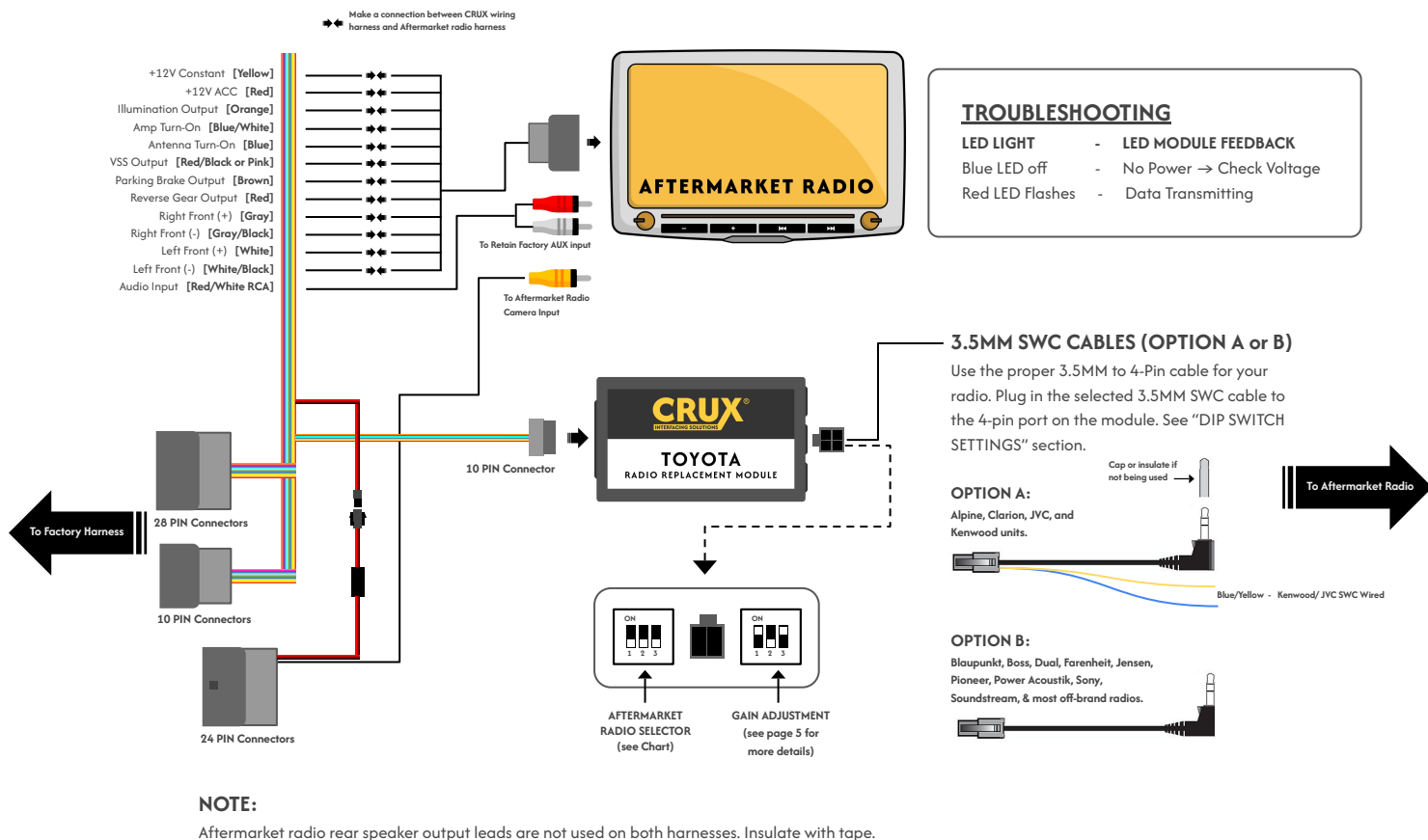


**16 to 24 PIN Camera
Adapter
(for vehicles that has 16 PIN, see
page 3 for more details)**

IMPORTANT INSTALLATION NOTES:

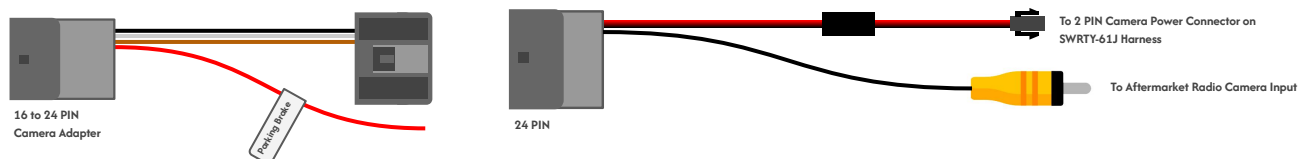
1. In some Lexus/Toyota vehicles 2006 and older, the mute circuit is located in the same PIN location as the amplifier turn-on on the OEM harness. If no audio is heard after the installation is complete, disconnect the BLUE/WHITE wire on the TY-61J Harness from the aftermarket radio AMP Turn-on wire, 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 AUX INPUT option in the vehicle, the aftermarket radio must have an "Auxiliary Audio Input" feature. Please check your aftermarket radio manual for details.

TYPE A HARNESS INSTALLATION DIAGRAM:

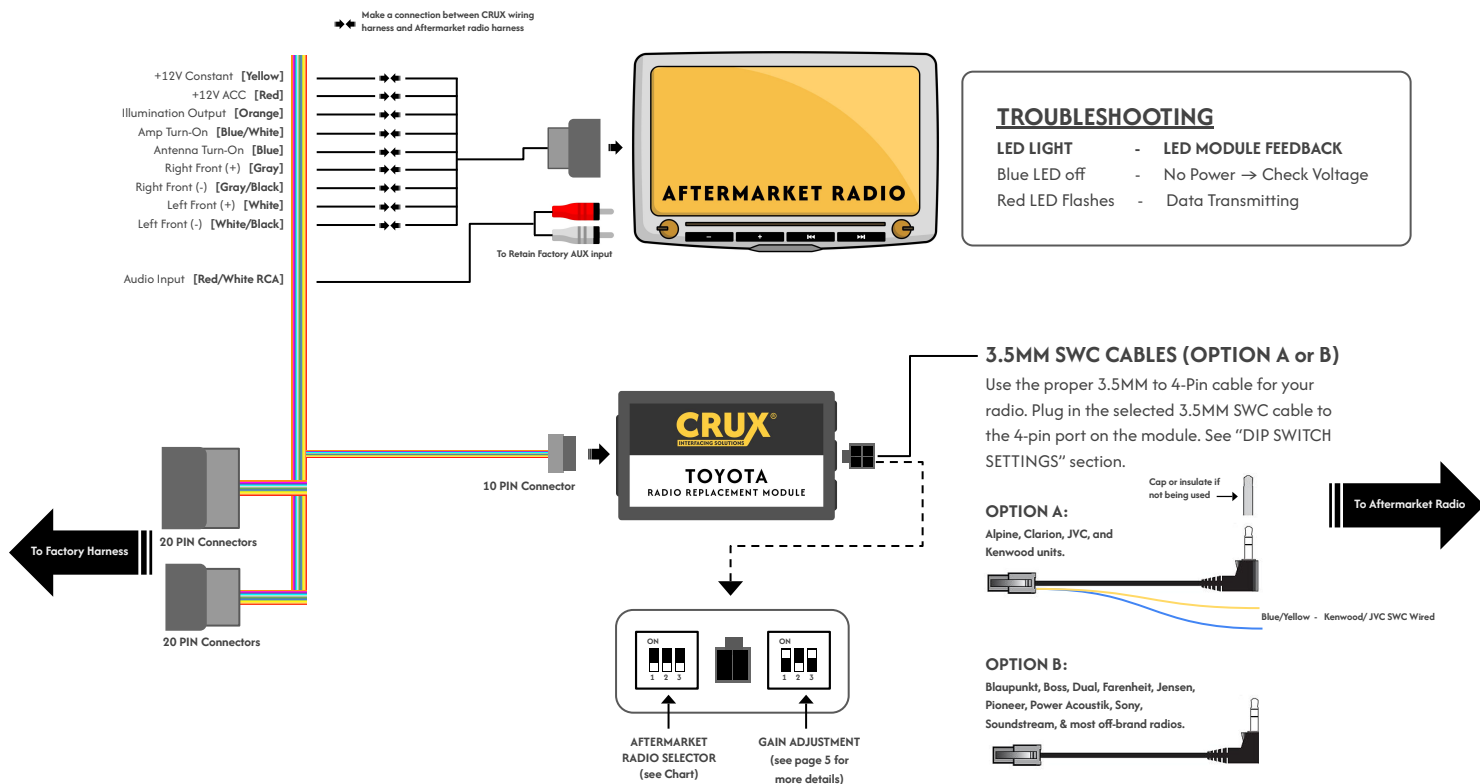


SWRTY-61J OEM Camera Retention Harness:

The SWRTY-61J includes a camera harness with a 12V to 6V voltage converter to retain the OEM camera (if equipped). Some older models use a **16-pin OEM camera connector**. In this case, use the supplied **16-to-24-pin camera adapter** along with the camera retention harness, both must be connected for proper operation.



TYPE B HARNESS INSTALLATION DIAGRAM:



NOTE:

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

DIP SWITCH SETTINGS:

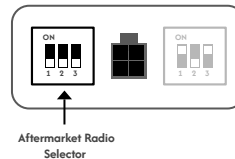
AFTERMARKET RADIO DIP SWITCH SETTINGS:

RADIO BRAND:	DIP#:	1	2	3
Atoto, Dual, Fahrenheit, Jensen, Nakamichi		OFF	ON	ON
Pioneer, Power Acoustik, Soundstream		OFF	ON	ON
Blaupunkt, Most off-brand Radio		OFF	ON	ON
Alpine		OFF	OFF	OFF
Clarion		ON	ON	OFF
Kenwood		ON	ON	ON
JVC		ON	OFF	ON
BOSS, Old Sony		ON	OFF	OFF
New Sony (with CarPlay)		OFF	ON	OFF
New BOSS		OFF	OFF	ON

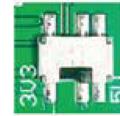
NOTE:

For Atoto, Blaupunkt, Dual, Fahrenheit, Nakamichi, Power Acoustik, Soundstream, and most off-brand radios. Check the aftermarket radio's manual to see if the SWC buttons need to be programmed.

* For new BOSS radios, make sure the hardware software version is SW 3.1.3. If not, please go to our website and flash/update the module.



SWC TROUBLESHOOTING OPTION



Located internally, need to take plastic casing off module

If Steering Wheel Controls don't work or work properly, please switch internal DIP switch from 3v3 to 5v as shown in picture above.



**SCAN TO VIEW
MICRO SWITCH
LOCATION**

- Certain Pioneer and Boss radios will need this micro-switch flipped in order to get the steering wheel buttons to work if the DIP Switch 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.

3.5MM SWC CABLES

Plug in the 3.5MM to 4-Pin SWC cable to the SWC module or use the Blue/White wire for JVC and Kenwood.

For aftermarket radios that have wires for SWC connections, cut off the 3.5mm plug on the CRUX SWC Cable (option B) 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.

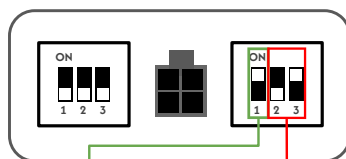


VEHICLE SETTING AND GAIN ADJUSTMENTS:

SELECTING VEHICLE SETTINGS

Please set PIN 1 to the ON position for older vehicles, and to the OFF position for newer vehicles.

!!!Important Note: If you are still experiencing audio issues, turn the vehicle off, remove the module, and change the DIP switch 1 on the vehicle settings.



Vehicle Settings

Gain Adjustment

Use the **GAIN ADJUSTMENT** to level match the aftermarket radio output with the oe amplifier input.

DIP SETTINGS	dB	Volts
1		
Vehicle Settings	OFF	OFF
Vehicle Settings	OFF	ON
Vehicle Settings	ON	OFF
Vehicle Settings	ON	ON
	0 dB	+0mV
	3.5 dB	+9mV
	9.1 dB	+18mV
	12.9 dB	+27mV

STEERING WHEEL CONTROL BUTTON FUNCTIONS:

PIONEER

SWC BUTTON	SHORT PRESS	LONG PRESS
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	Activate VR/ Deactivate VR	None

****NOTE:**

BT Mode Active: OFF Hook = Toggle between 1st and 2nd Call.

ALPINE

SWC BUTTON	SHORT PRESS	LONG PRESS
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	None

****NOTE:**

BT Mode Active: OFF Hook = Toggle between 1st and 2nd Call.

CLARION

SWC BUTTON	SHORT PRESS	LONG PRESS
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

NOTE:

BT Mode Active: OFF Hook = Toggle between 1st and 2nd Call.

JVC

SWC BUTTON	SHORT PRESS	LONG PRESS
VOL +	Step Increment	Continuous VOL +
VOL -	Step Decrement	Continuous VOL -
Seek Up	Seek Up	Seek Up
Seek Down	Seek Down	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.

KENWOOD

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

VEHICLE APPLICATIONS:

YEARS	MAKE	MODEL
2003-2020	TOYOTA	4 Runner with Navigation
2005-2018	TOYOTA	Avalon
2007-2017	TOYOTA	Camry
2012-2017	TOYOTA	Camry Hybrid
2004-2008	TOYOTA	Camry Solara
2009-2018	TOYOTA	Corolla
2007-2014	TOYOTA	FJ Cruiser
2008-2018	TOYOTA	Highlander
2008-2018	TOYOTA	Highlander Hybrid
2005-2012	TOYOTA	Matrix
2004-2015	TOYOTA	Prius with Navigation
2004-2015	TOYOTA	Prius without Navigation
2012-2017	TOYOTA	Prius V
2004-2018	TOYOTA	RAV 4
2016-2018	TOYOTA	RAV 4 Hybrid
2013-2019	TOYOTA	Sequoia with Navigation
2014-2019	TOYOTA	Sequoia without Navigation
2005-2013	TOYOTA	Sequoia without RDS Radio
2004-2017	TOYOTA	Sienna
2005-2021	TOYOTA	Tacoma
2004-2019	TOYOTA	Tundra
2009-2015	TOYOTA	Venza
2008-2011	TOYOTA	Yaris
2004-2006	LEXUS	ES300
2003-2005	LEXUS	IS300
2006	LEXUS	LS430 without Navigation

NOTE: In certain applications the factory wires may include connectors from both TY-A and TY-B harness.

In these case follow the steps in the QR code below:



NOTE:

- Does **NOT** retain Mark Levinson, Pioneer, Nakamichi, or Harman Kardon amplifiers.
- If your vehicle is not equipped with SWC, please use the **CRUX SOHTL-20**
- If factory amp is bypassed or module cannot communicate with factory JBL amp, then steering wheel controls will not be retained.