

Stinger ix210 HEIGH10+ / HORIZON10

SR-RUN10HX
Radio Replacement Kit
for 2010-2023 Toyota 4Runner

Introduction and Features

The SR-RUN10HX is a complete radio replacement kit for the installation of the Stinger ix210 modular radio in Toyota 4RUNNER. All modules, cables and adapters are included to retain important features of the factory system, including: steering wheel-mounted radio controls, factory amplifier, factory reverse camera, factory USB port and AM/FM reception. Plug & Play wiring harnesses allow for quick and easy installation without the need to cut or splice any wiring. The display mounting panel allows mounting the 10 inch display without modifying/cutting any part of the vehicle's sub-dash.

Important Notes

We recommend reading this manual thoroughly to familiarize yourself with the entire process prior to beginning the installation.

1. Adjustment of the vehicle settings through the original radio's vehicle settings menu will be disabled after installation of the new radio. It is advised to make sure all settings are as you desire prior to removal of the original radio.
2. The RP4.2-TY11 does not retain Rear Seat Entertainment.
3. To retain SiriusXM Radio, a SXV300 Tuner is required and sold separately. Not applicable to HEIGH10+.
4. After installation, if you do not initially hear any audio, you may need to cycle the ignition again to initialize the factory amplifier.
5. Speaker fading on factory amplified systems is only supported with the "amplified output" connection of the RP4.2-TY11.
6. When using real time fade, if the fader setting is biased more to the front or rear, as the radio turns on the sound may begin at the default setting and then quickly transition to your custom setting.
7. Radio features such as High Pass Filters (crossovers) will interfere with proper fader function. In order for the RP4.2-TY11's fader function to work, the audio from the radio's output must match so it can compare the front and rear audio levels and determine the proper fader setting for the factory amplifier.
8. If the truck is equipped with a factory 360° camera system, changing camera views using the touch screen will no longer be available. Camera views can be changed using the steering wheel controls only.

Recommended Tools

10mm Socket
Ratchet

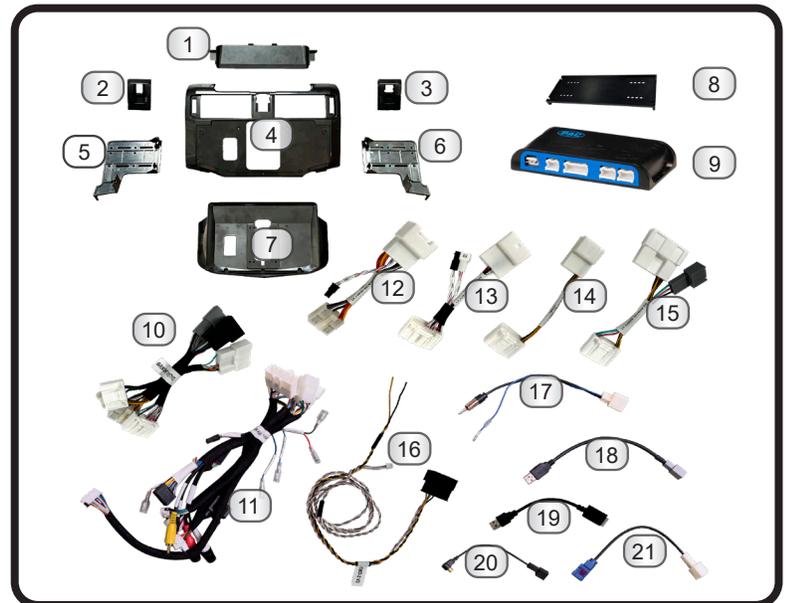
Socket Extension
1/2 Phillips Screwdriver

Flush Cutters
Plastic Trim Tool

Small Flathead Screwdriver
Pick

Included Components

1. Top Cover Panel (Installed on Main Frame)
2. Hazard Trim Panel 1
3. Hazard Trim Panel 2
4. Main Frame
5. LH Side Bracket (RUN10H_LH)
6. RH Side Bracket (RUN10H_RH)
7. ix210 Display Bucket
8. Module Bracket
9. Radio Interface (RP4.2-TY11)
10. Main Harness (SR-RUN10HX-ADAPT V1 (TY13))
11. Main Harness (SR-RUN10HX-HAR)
12. Adapter Harness (SR-RUN10HX-ADAPT V1 (JBL))
13. Adapter Harness (SR-RUN10HX-ADAPT V1 (SWC))
14. Adapter Harness (SR-RUN10HX-ADAPT V1 (CAM))
15. Adapter Harness (SR-RUN10HX-ADAPT V1 (NAV))
16. OBD-2 V3
17. AM/FM Antenna Adapter (SR-BAA44)
18. USB Adapter (USB-TY1-HAR)
19. USB Adapter (USB-TY3-HAR)
20. Satellite Radio Antenna Adapter (SAT-01)
21. GPS Antenna Adapter (GPS-03)



Included hardware: (Not shown in above image)

#10 x 3/8 Screw = 8

M3.5 x 10 Screw = 7

M4 x 12 Screw = 4

M5 x 10 Screw = 4

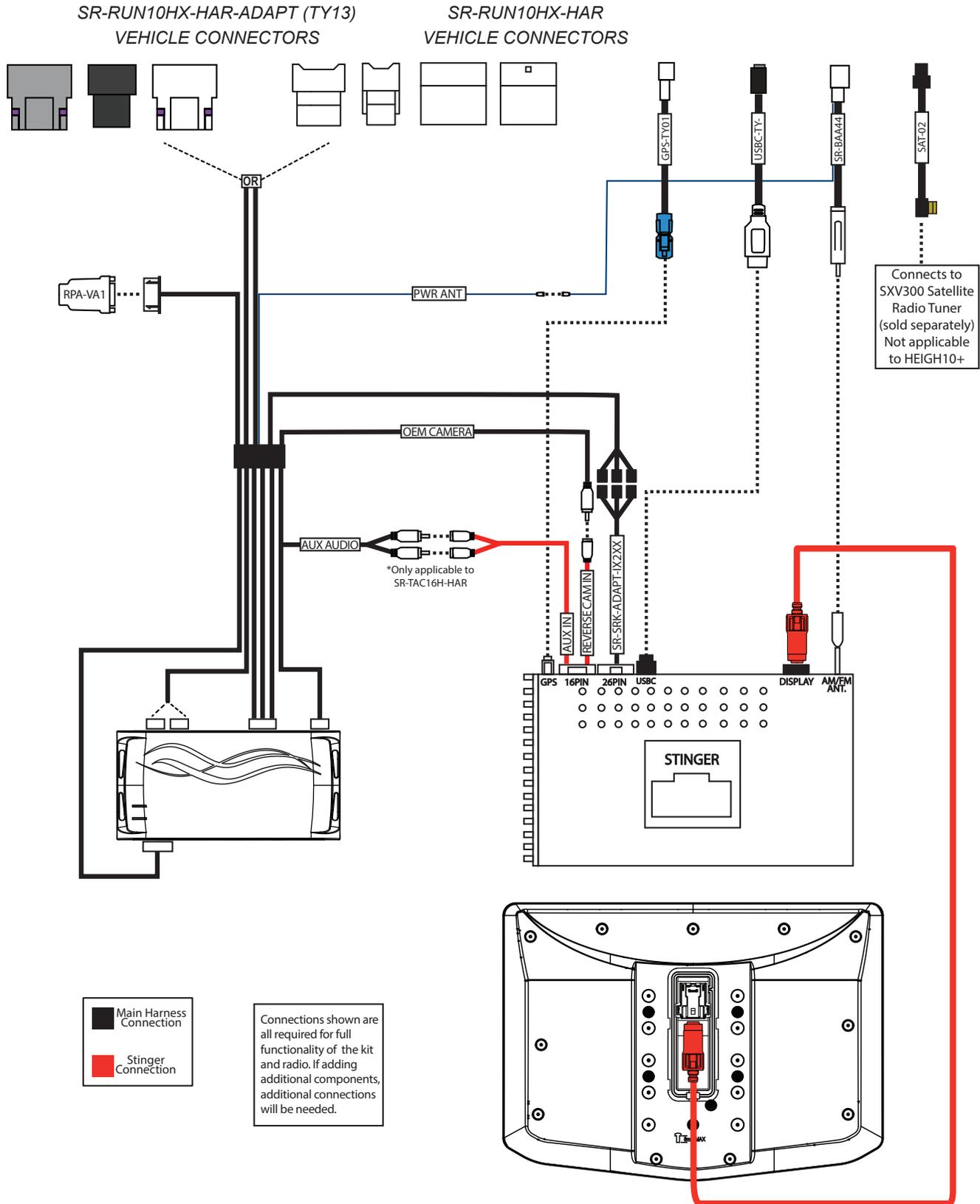
8 inch Zip Tie = 8 (Not shown in above image)



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Wiring Overview



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This installation manual will cover the necessary order of procedures to complete the installation efficiently and to avoid redoing any steps. The order will be as follows; Disassembly, Disassembly of the radio bezel, Radio Bezel Preparation, Main Frame Assembly, Side Bracket Assembly Interface and Main Harness Connections, Complete Main Frame Assembly, 2010-13 4Runner only OBD 2 Connection, In-Vehicle Connections and Radio Unit Installation.

The installation steps shown are all required for the full functionality of the radio. If adding additional components; cameras, amplifiers, satellite radio, etc., additional steps and harnesses will be needed.

***This kit covers many-year vehicles, there will be extra harnesses left over that will not be used.**

Section 1: Disassembly

Before removing the factory radio, ensure that all vehicle settings that are programmed using the factory radio are set to the desired settings.



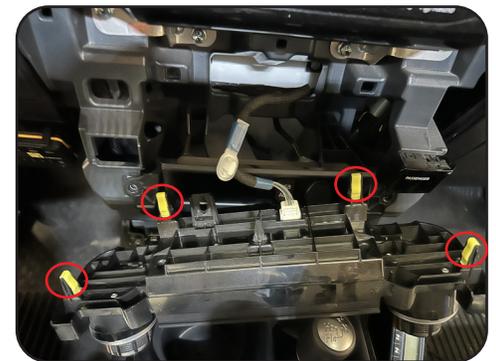
Step 1

Using a plastic trim tool, remove the left, and right side trim panels around the climate control knobs.



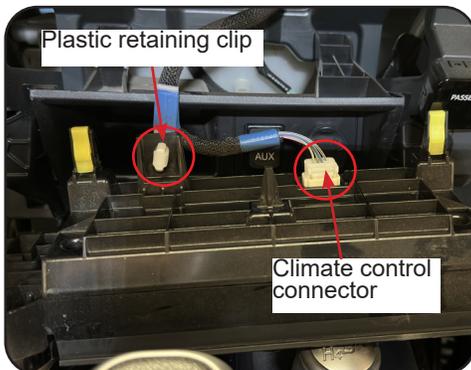
Step 2

Using a plastic trim tool, release the right side of the climate control panel.



Step 3

Once the climate control panel is loose remove the remaining clips by pulling outward from the bottom to release the clips.



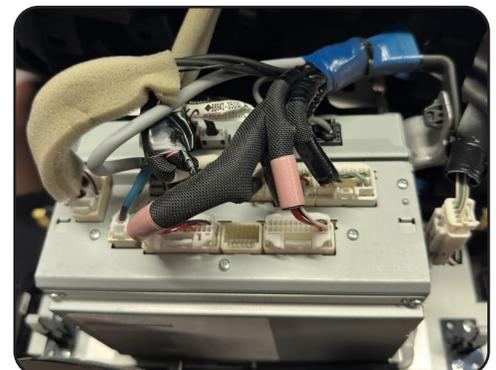
Step 4

Using a plastic trim tool, or a small flat head screwdriver remove the plastic retaining clip.
Remove the connector on the backside of the climate controls.



Step 5

Remove the four 10mm bolts below the radio. Remove radio from dash.



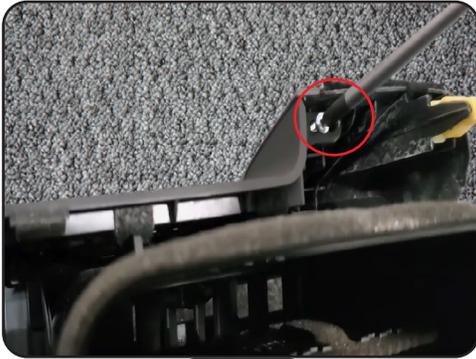
Step 6

Remove all connectors and cables from the back of the radio

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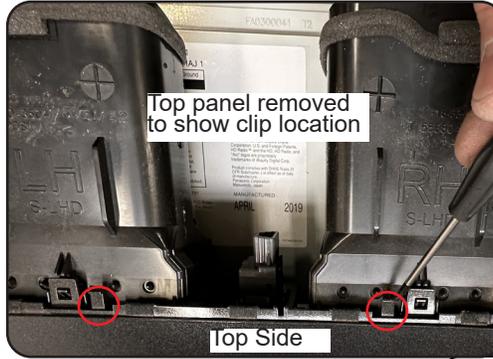
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Section 2: Disassembly of the radio bezel



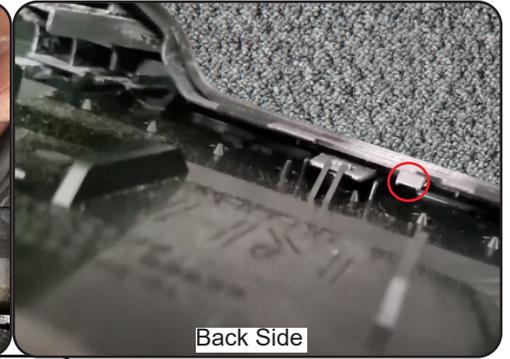
Step 1

Place the radio bezel on a soft surface face down. Using a #1 Philips screwdriver remove the left and right screws holding the top cover panel.

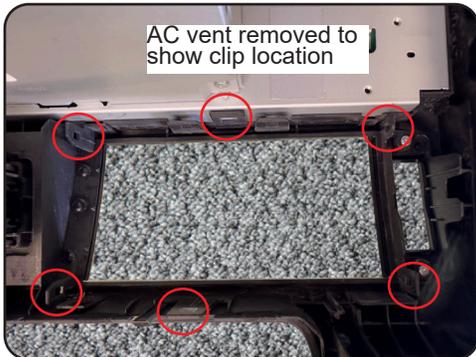


Step 2

With a small flat head screwdriver or pick, release the 2 clips holding the top cover panel. Remove the panel for better access to the AC vent clips.

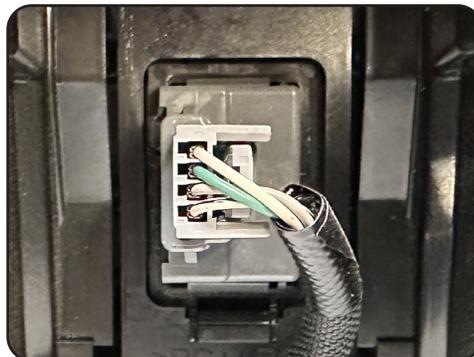


Back Side



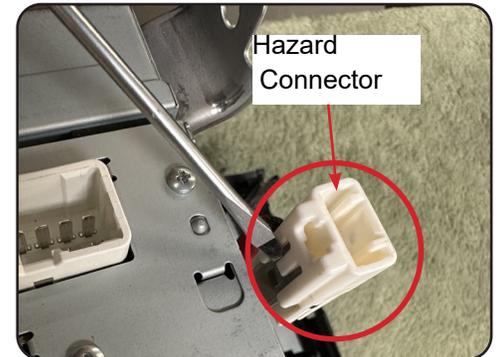
Step 3

Release the 6 vent clips. Start with the 2 outside clips first, while pulling the vent towards you. Remove the 2 middle clips, then the 2 inside clips.



Step 4

Remove the connector on the back of the hazard switch.



Step 5

Using a small flat head screwdriver, or pick remove the hazard wire harness connector attached to the back of the radio.



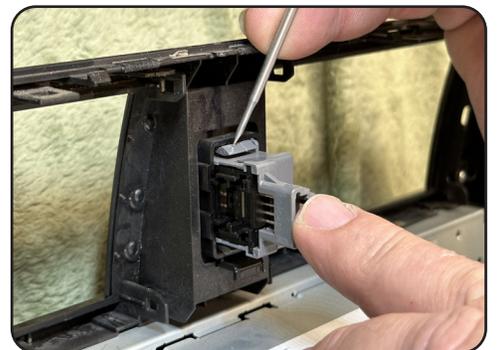
Step 6

Release the plastic clip holding the hazard harness.



Step 7

The hazard switch harness will be used on the SR-RUN10 kit installation.



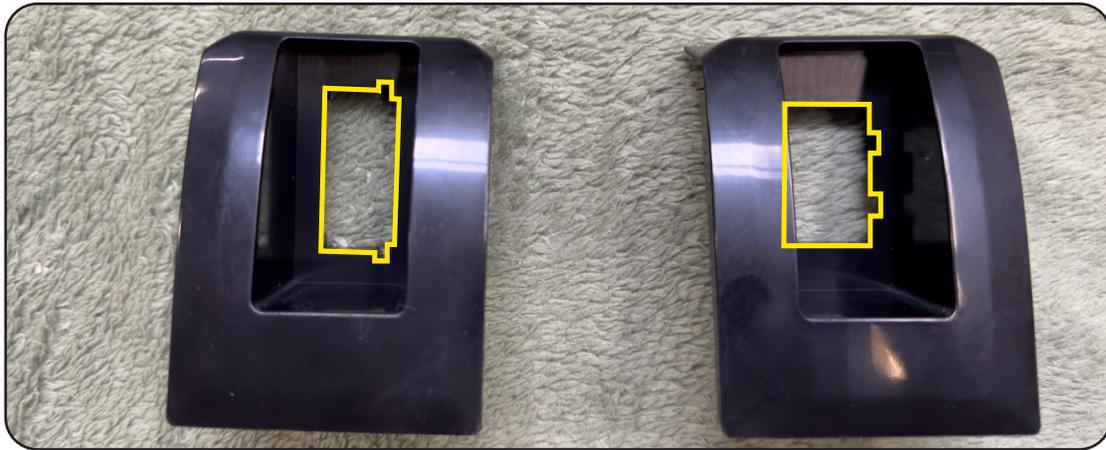
Step 8

Remove the hazard switch with a flat head screwdriver or pick.

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Section 3: Radio Bezel Preparation



Step 1

Locate the correct hazard switch housing from the SR-RUN10HX kit. Determine if your hazard switch has the left pattern, or right pattern highlighted in yellow.



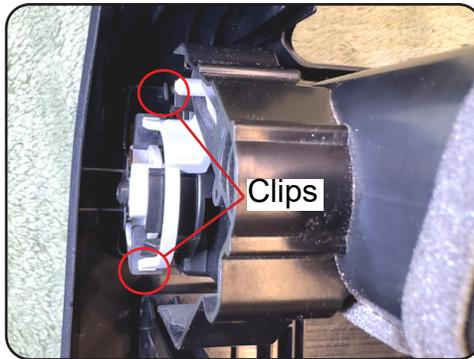
Step 2

Insert the Hazard switch into the housing. Listen for the locking click.



Step 3

Press the assembled hazard switch into the main frame of the SR-RUN10HX kit.



Step 4

Assemble the left and right AC vents into the main frame of the SR-RUN10HX kit. Make sure that all 12 clips are locked.



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Section 4: Complete Main Frame Assembly



Step 1

Cut or break off the 2 Half-moon circles from the top of the display panel.



Step 2

Place the Display bucket from the SR-RUN10 kit on top of the assembled main frame. Use 3 of the M3.5 x 10 screws to mount the front bottom of the bezel.



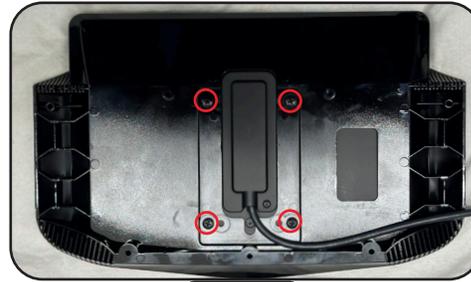
Step 3

Attach the LCD cable to the LCD.
*For HORIZON10 only: Install 6 rubber plugs into the locations circled leaving the top and bottom holes open.



Step 4

Slide on the waterproof LCD cover starting from the top to the bottom. Secure with the provided M2.6X6.5 Screw.



Step 5

Place the assembly face down on a soft surface, attach the display to the panel using four M4 x 12 screws.



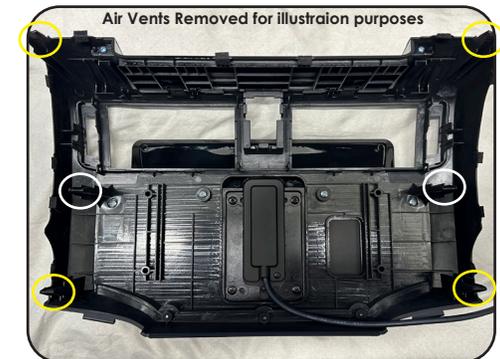
Step 6

Use 4 of the M3.5 x 10 screws to secure the display assembly to the bezel.



Step 7

Remove the 6 factory plastic clips using a small flat head screwdriver or pick.



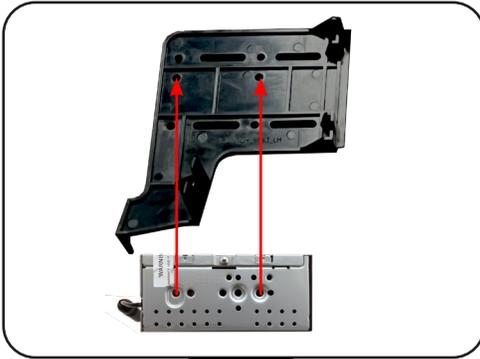
Step 8

Install the 4 yellow clips, and 2 white clips onto the main frame of the SR-RUN10 kit.

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Section 5: Side Bracket Assembly



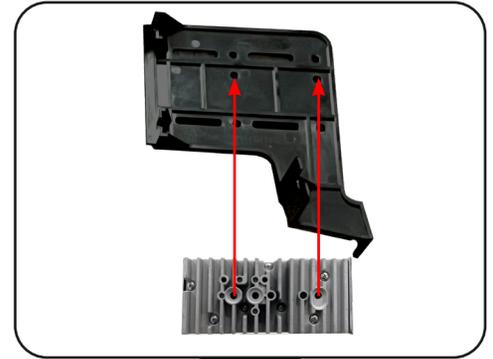
Step 1

Align the lower holes of the left hand bracket (RUN10H_LH) to the left side of the radio module as shown above.



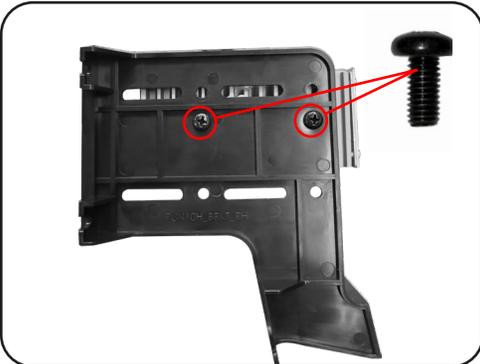
Step 2

Attach the left-hand bracket to the radio module using two M5 x 10 screws.



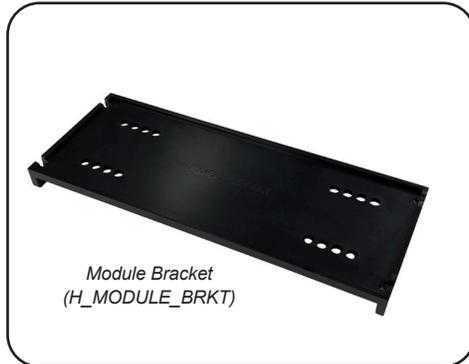
Step 3

Align the lower holes of the right hand bracket (RUN10H_RH) to the right side of the radio module as shown above.



Step 4

Attach the right-hand bracket to the radio module using two M5 x 12 screws.



Module Bracket
(H_MODULE_BRKT)



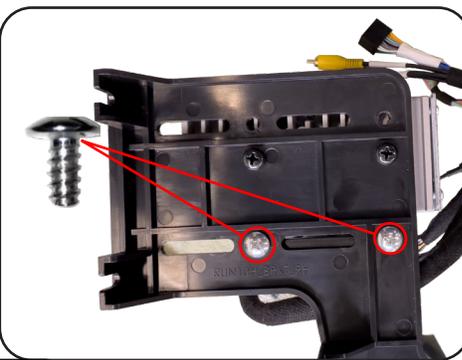
Step 5

Attach the PAC interface to the Module Bracket (H_MODULE_BRKT) using supplied zip ties in four locations.



Step 6

Position the module bracket between the side brackets as shown. Align to the top holes and secure using four #10 x 3/8" truss head Phillips screws from the SR-RUN10HX hardware



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Section 6: Interface and Main Harness Connections

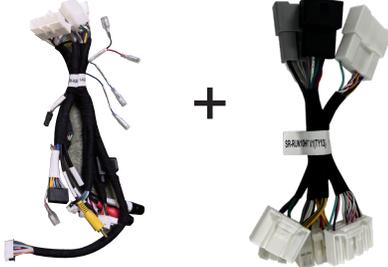
NOTE: SR-RUN10H-HAR is used on every year vehicle

SR-RUN10HX-HAR



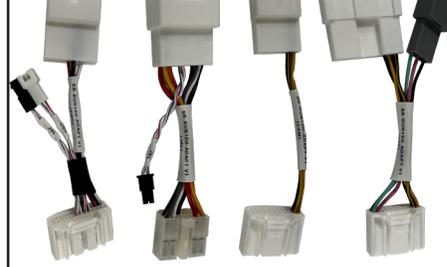
2014-2019

SR-RUN10H-ADAPT (TY13)



2020-2023

SR-RUN10H-ADAPT



SWC

JBL

CAM

NAV

OBD-2

Step 1

Referencing the radio plugs in the vehicle, determine which harnesses will be used:

2014-2019 = SR-RUN10HX-HAR

2020-2023 = SR-RUN10HX-HAR + SR-RUN10HX-ADAPT (TY13)

2010-2013 (No JBL), No NAV = SR-RUN10HX-HAR + SR-RUN10HX-(SWC) + OBD-2

2010-2013 (NO JBL), With NAV = SR-RUN10HX-HAR + SR-RUN10HX-(SWC) + SR-RUN10HX-(CAM) + SR-RUN10HX-(NAV) + OBD-2

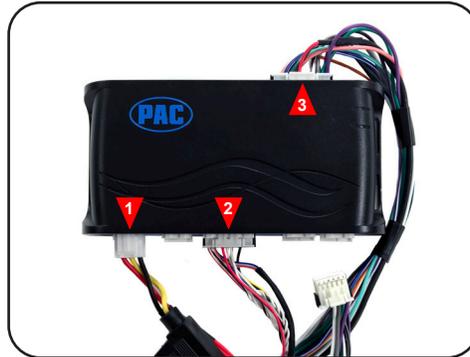
2010-2013 (With JBL), No NAV = SR-RUN10HX-HAR + SR-RUN10HX-(SWC) + SR-RUN10HX-(JBL) + OBD-2

2010-2013 (With JBL), With NAV = SR-RUN10HX-HAR + SR-RUN10HX-(SWC) + SR-RUN10HX-(JBL) + SR-RUN10HX-(NAV) + OBD-2



Step 1

Set dip switch #3 to the down (ON) position on the side of the RP4.2-TY11 interface. All other switches are up (OFF).



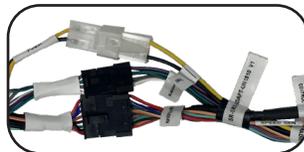
Step 2

Plug in the 3-pin (1), 20-pin (2), and 24-pin (3) plugs on the main harness to the appropriate ports on the interface.



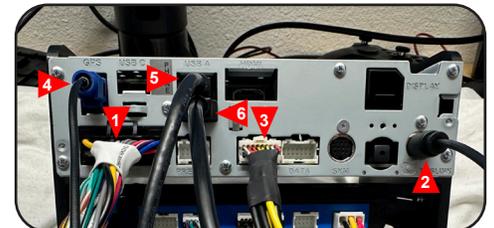
Step 3

Connect the 12-pin connector (4) to the appropriate port. Amplified if the truck has a factory amplifier, Non-Amplified for base audio.



Step 4

Connect the **Radio Harness Adapter (SR-SRK-ADAPT-IX2XX)** to the **Main Harness**



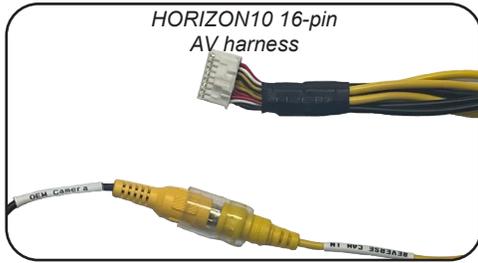
Step 5

From the main harness, plug in the 26-pin (1), USB-TY-3 (2), USB-TY-1 (3)



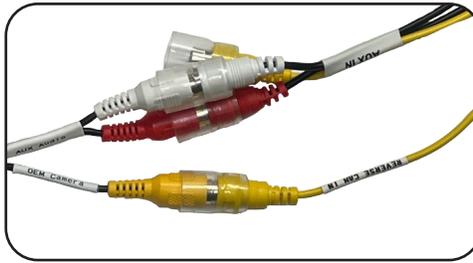
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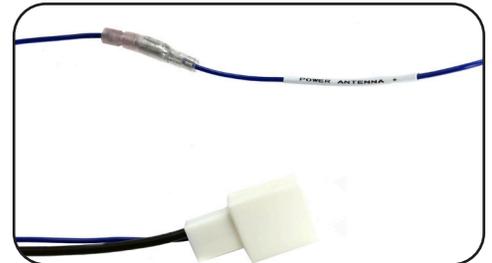
Step 5

Connect the "OEM Camera" RCA on the **Main Harness** to the "Reverse Cam In" RCA on the ix210's **16 Pin AV Harness (PSEH-2103)**.



Step 6

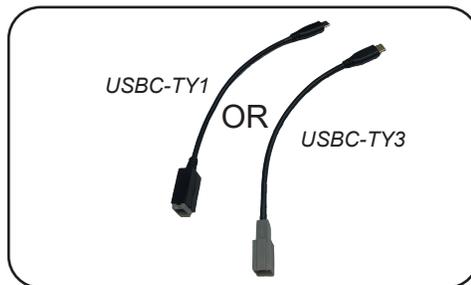
Connect the pair of RCA's labeled **AUX AUDIO** to the **AUX IN** RCA's on the ix210's 16-pin A/V Harness.



Step 7

Connect the blue wire on the BAA44 Antenna Adapter to the blue **POWER ANTENNA +** lead on the main harness. Connect the male lead of the BAA44 to the ix210 Antenna.

Section 6.1: Interface and Main Harness Connections cont;



Step 8

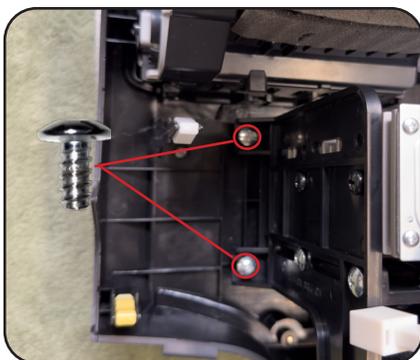
From the SR-RUN10HX kit, locate the correct USB adapter:
2010-2019 uses **USB-TY1**
2020-2023 uses **USB-TY3**



Step 9

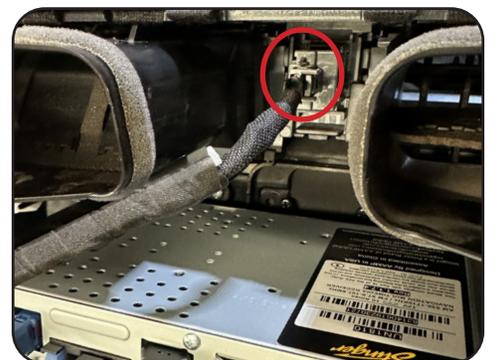
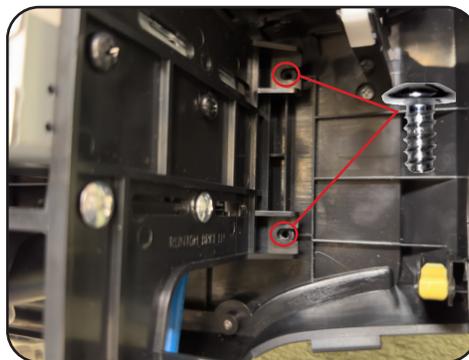
Plug in the **GPS (1)** and **USB (2)** adapters. Plug in the **USB-C adapter (3)** into the **USB-C port** for wired Apple CarPlay and Android Auto.

Section 7: Main Frame Assembly



Step 1

Place the main frame onto a smooth surface, face down. Put the wired assembly onto the back of the main frame. Align the 4 holes and secure using four #10 x 3/8" truss head Phillips screws from the SR-RUN10HX hardware.



Step 2

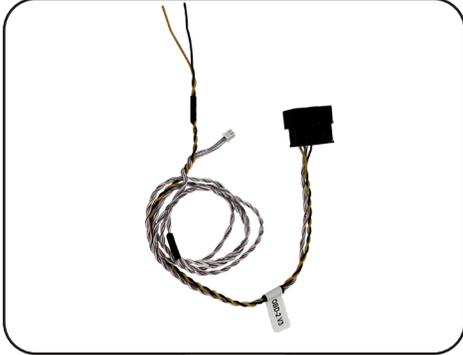
Connect the hazard extension harness you removed from section 2, step 7, to the hazard switch.



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Section 8: 2010-13 4Runner only OBD 2 Connection



Step 1

Locate the OBD-2 harness from the SR-RUN10HX kit.



Step 2

Locate the OBD 2 connector in the vehicle. The OBD 2 connector is located on the front driver-side of the vehicle, under the knee bolster.



Step 3

Plug in the large black connector of the OBD-2 harness into the vehicles OBD 2 connector.



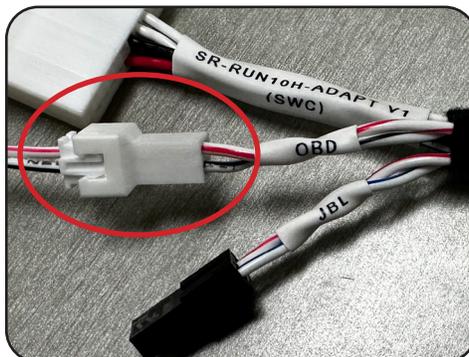
Step 4

Insulate the Black and Yellow wire ends of the OBD-2 harness from the SR-RUN10HX kit



Step 5

Run the small White 2 pin connector from the OBD 2 harness to the opening of where the radio wires are. Make sure to keep wires away from any moving parts, like the steering wheel, gas pedal, and brakes.



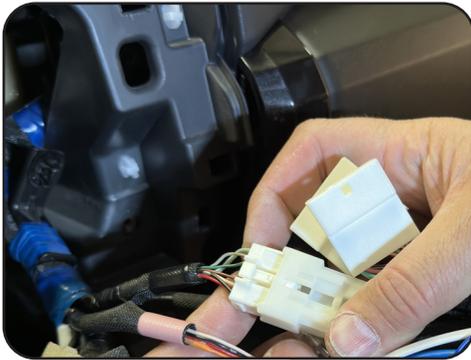
Step 6

Connect the 2 pin OBD 2 connector to the 2 pin connector located on the SR-RUN10-ADAPT (SWC) wire harness.

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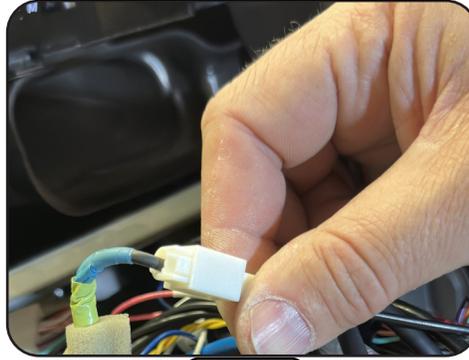
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Section 9: In-Vehicle Connections and Radio Unit Installation



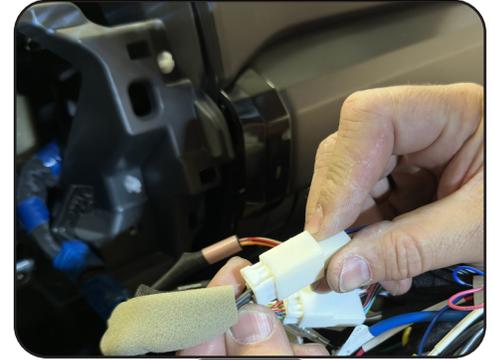
Step 1

Connect the three, or four vehicle side connectors on the SR-RUN10HX main harness to the matching vehicle radio plugs.



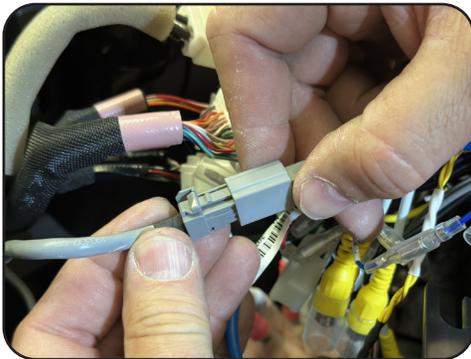
Step 2

Plug in the GPS-03 adapter.
Vehicles not equipped with GPS will require using supplied GPS antenna included with



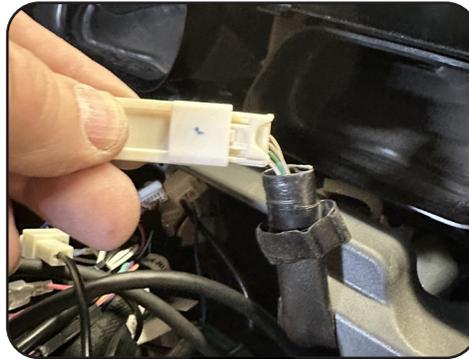
Step 3

Plug in the BAA44 adapter to the vehicle's AM/FM antenna.



Step 4

Plug in USB adapter.



Step 5

Plug in Hazard harness

These are the connections for the basic installation. If adding additional components such as a second USB, SXM tuner, or additional cameras, those connections should be made at this point, before mounting the radio module.
NOTE: If the External Microphone is not installed, the setting must be changed from External (Default) to Internal in the Phone Settings:
Main Menu > Phone > Settings



Step 6

Slide the radio assembly into position and align the top retaining clips to the sub-dash.



Step 7

Push to seat the retaining clips. Install one of the 10mm bolts below the radio to temporarily hold it in place.



Step 8

Before reassembling the vehicle, it is recommended to proceed to Testing and Verification on the next page.



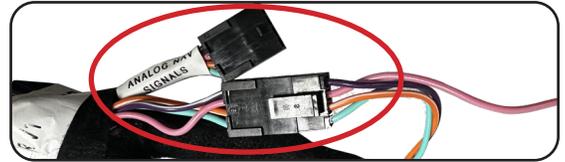
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Testing and Verification

1. Turn on the radio and check the volume, balance, and fade. If you do not hear any audio you may need to cycle the ignition to initialize the factory amplifier. If there is still no audio, reset the interface according to the procedure in the next section.
2. For JBL systems, if the overall volume is too low, use the gain adjustment on the side of the RP4.2 interface to set it to the desired level. The best way to do this is to turn the volume on the radio to 3/4 volume, then turn the gain on the RP4.2 until some distortion is heard, then back it down a little.
3. Verify that all SWCs are functioning properly. If any of the SWC are not functioning properly you may need to reset the interface.
4. Verify AM/FM Reception, Bluetooth, USB, Apple Carplay, Android Auto and Camera(s) are functioning correctly.

Note: If the reverse camera and parking brake are not working on the ix210, you might need to switch the 4 prong connector on the SR-RUN10-HAR harness to Analog NAV Signals.



Restoring Factory Settings

You can restore the RP4.2-TY11 interface to factory default settings by pressing and holding the programming button on the side of the module until the status LED starts blinking red. Once the LED starts blinking red, release the button. You must release the button while the LED is blinking red in order to perform the reset. Please note, the LED will go through two stages before it starts blinking red. First it will blink green, then amber, then red.

This reset will restore the following settings to their factory defaults:

- SWC Mapping
- Factory Amplifier Settings
- Real Time Fade will be reset to on

Firmware Updates (Stinger ix210)

To update the Stinger radio firmware, refer to the ix210 User Guide or StingerSolutions.com



Stinger ix210 HEIGH10+ / HORIZON10

SR-RUN10HX
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RadioPRO App (cont.)

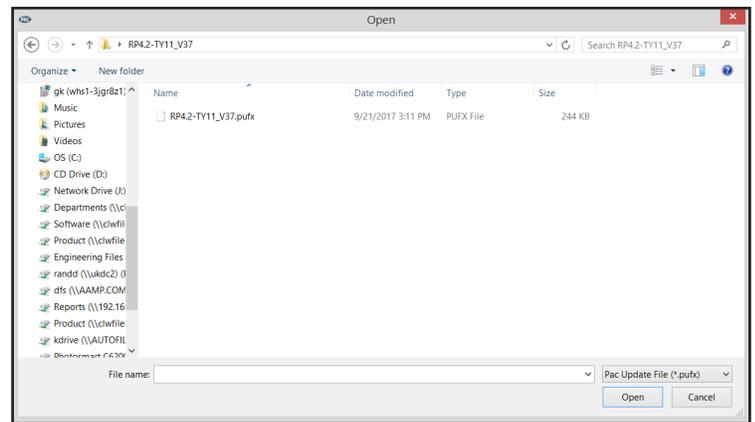
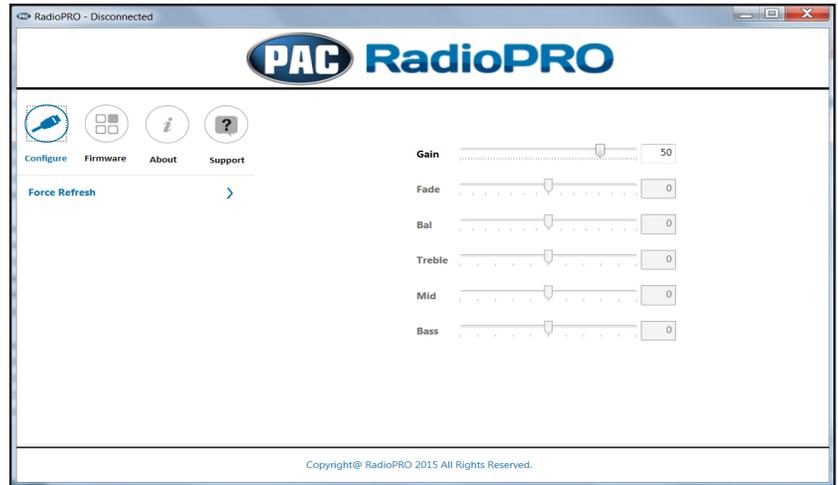
Infotainment/Factory Amplifier Settings

The RadioPRO app will also allow you to adjust the settings of the factory amplifier. You can adjust Amp Gain, Fader, Balance, Bass, Mid and Treble and real time fade. When real time fade is enabled in amplified systems, it will allow fading to be controlled directly from the aftermarket radio. Restoring factory settings on the module will default all values back to middle.

Firmware Updates

The RadioPRO app will also allow you to update the interface with new firmware as it becomes available. Please visit www.pac-audio.com or contact our tech support department to see if there is a firmware update for your interface.

In order to update the interface all DIP switches must be set to the down position. Connect the interface to your PC and select "Update Firmware". Now select "Select File". Finally, browse to the place where you saved the file and select it. This will begin the updating process. Once finished, disconnect the interface from the PC and set the DIP switches back according to the radio you have installed.



Technical Support

Email: support@PAC-audio.com

Phone: 727-592-5991

Chat: PAC-Audio.com



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Warranty

LIMITED WARRANTY

The quality controls used to manufacture PAC products are designed to ensure your complete satisfaction.

This warranty applies only to the original owner of PAC products purchased from an authorized PAC dealer. It covers PAC products that, upon inspection by authorized PAC personnel, are found to have failed in normal use due to defects in material or workmanship. This warranty does not cover installation expenses.

Attempting to service or modify our products, or operate them outside their recommended usage will render this WARRANTY VOID.

Unless prescribed by law, PAC is not liable for any personal injury, property damage and/or incidental or consequential damages (including water damage) resulting from product malfunctions, defects and/or misuse. PAC is also not liable for any products that are altered or improperly installed.

WARRANTY PERIOD AND PROCESS

Within the first 12 months from date of purchase, subject to the conditions above, PAC will repair or replace product at its sole discretion if it is found to be defective in material or workmanship. Product must be returned to an authorized PAC dealer with PROOF OF PURCHASE.

