

Owner's Manual



PSS-TSUB-T3A/TYA (Premium)
PSS-TSUB-T3B (Base)

**Tesla Model 3/Y
Subwoofer Upgrade**

Note

Design and specifications are subject to change without notice for improvement.

To Ensure Safe Use, Always Follow These Precautions

- The installation of this product requires specialized skills and experience. We recommend that you have the product installed by an Alpine authorized dealer.
- Before you use this product, be sure to carefully read this installation manual and the separate user's manual so that you can use the product correctly. Alpine Electronics bears no responsibility for problems that arise as a result of failure to follow the instructions in the manuals.
- This manual includes a number of symbols that are intended to help you use the product safely, to prevent harm to you and others, and to protect against damage to property. These symbols and their meanings are listed below. Make sure you fully understand these symbols before you begin reading the main text.

Explanation of Injury and Damage That May Result from Incorrect Use

Warning	Ignoring the content marked by this indication and using the product incorrectly is expected to lead to death or serious injury.
Caution	Ignoring the content marked by this indication and using the product incorrectly is only expected to lead to injury or property damage.

Warning **Do not use any features that will distract you while driving** Any function that affects your concentration should only be used after the car has come to a complete stop. To use these functions, please park your vehicle in a safe place first. Otherwise, an accident may result.

Warning **This product is only suitable for vehicles with 12V negative grounding** Otherwise, it may cause a fire and other accidents. If 12v negative is not available, like in a 48v system, a proper power rated 12v converter must be used. Power rating should be based on all 12v accessories that will be connected.

Warning **When replacing the fuse, you must choose a fuse with the correct ampere value** Otherwise, it may cause a fire or electric shock.

Warning **This product can only be used in 12V mobile applications** If used in non-designed applications, it may cause fire, electric shock or other injuries. If vehicle or other mobile application using a different voltage, like 48v, a proper power rated converter must be used. Power rating should be based on all 12v accessories that will be connected.

Warning **Make the correct connection** If it is not connected properly, it may cause fire or product damage.

Warning **Before wiring, disconnect the cable from the negative terminal of the battery** Otherwise, it may cause electric shock or injury due to electrical short circuit.

Warning **Do not splice cables** Do not cut the cable insulation to supply power to other equipment. Otherwise, the current carrying capacity of the wire will be exceeded, resulting in fire or electric shock.

Warning

KEEP THE VOLUME AT A LEVEL WHERE YOU CAN STILL HEAR OUTSIDE NOISES WHILE DRIVING. Excessive volume levels that obscure sounds such as emergency vehicle sirens or road warning signals (train crossings, etc.) can be dangerous and may result in an accident. **LISTENING AT LOUD VOLUME LEVELS IN A CAR MAY ALSO CAUSE HEARING DAMAGE.**

Warning

DO NOT DISASSEMBLE OR ALTER. Doing so may result in an accident, fire or electric shock.

Warning

USE THE CORRECT AMPERE RATING WHEN REPLACING FUSES. Failure to do so may result in fire or electric shock.

Caution

HALT USE IMMEDIATELY IF A PROBLEM APPEARS. Failure to do so may cause personal injury or damage to the product. Return it to your authorized Alpine dealer or the nearest Alpine Service Center for repairing.

Caution

HAVE THE WIRING AND INSTALLATION DONE BY EXPERTS. The wiring and installation of this unit requires special technical skill and experience. To ensure safety, always contact the dealer where you purchased this product to have the work done.

Caution

USE SPECIFIED ACCESSORY PARTS AND INSTALL THEM SECURELY. Be sure to use only the specified accessory parts. Use of other than designated parts may damage this unit internally or may not securely install the unit in place. This may cause parts to become loose resulting in hazards or product failure

Caution

ARRANGE THE WIRING SO IT IS NOT CRIMPED OR PINCHED BY A SHARP METAL EDGE. Route the cables and wiring away from moving parts (like the seat rails) or sharp or pointed edges. This will prevent crimping and damage to the wiring. If wiring passes through a hole in metal, use a rubber grommet to prevent the wire's insulation from being cut by the metal edge of the hole.

Service Care

IMPORTANT NOTICE This Amplifier has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules. This equipment generates and uses radio frequency energy, and it must be installed and used properly in accordance with the manufacturer's instructions.

For European Customers Should you have any questions about warranty, please consult your store of purchase.

For Customers in other Countries **IMPORTANT NOTICE** Customers who purchase the product with which this notice is packaged, and who make this purchase in countries other than the United States of America and Canada, please contact your dealer for information regarding warranty coverage.

SERIAL NUMBER: _____
 INSTALLATION DATE: _____
 INSTALLATION TECHNICIAN: _____
 PLACE OF PURCHASE: _____

IMPORTANT

Please record the serial number of your unit in the space provided here and keep it as a permanent record. The serial number plate is located on the rear of the unit.

 Warning

This aftermarket plug-and-play audio system for Tesla vehicles ("Product") is intended for installation by qualified professionals with experience in automotive electrical systems. Improper installation can result in serious damage to your vehicle, electrical system, and personal injury or death. By purchasing and/or installing this Product, you acknowledge and agree to the following

- **Installation at your own risk:** You assume all responsibility and risk associated with the installation of this Product. Neither Alps Alpine North America, Inc. nor its affiliates are responsible for any damage or injury caused by improper installation.
- **The installation of this product requires specialized skills and experience.** We recommend that you have the product installed by an Alpine authorized dealer
- **Potential for electrical damage:** Improper installation can cause electrical damage to your Tesla vehicle, including, but not limited to, blown fuses, shorts, fires, and damage to sensitive electronic components and batteries.
- **No warranty for improper installation:** This Product's warranty is expressly limited to manufacturing defects and does not cover any damage caused by improper installation.
- **ASSUMPTION OF RISK: YOU ACKNOWLEDGE AND AGREE THAT YOU ARE KNOWINGLY ASSUMING THE RISK OF DAMAGE TO YOUR TESLA VEHICLE AND/OR PERSONAL INJURY OR DEATH BY INSTALLING THIS PRODUCT YOURSELF AND THAT INSTALLING THIS PRODUCT MAY AFFECT OR RESULT IN TERMINATION OF YOUR LIMITED WARRANTY WITH TESLA.**
- **LIMITATION OF LIABILITY: TO THE FULLEST EXTENT PERMITTED BY LAW, ALPS ALPINE NORTH AMERICA, INC. AND ITS AFFILIATES SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, OR PUNITIVE DAMAGES ARISING OUT OF OR RELATED TO THE INSTALLATION OR USE OF THIS PRODUCT, INCLUDING, BUT NOT LIMITED TO, DAMAGE TO YOUR TESLA VEHICLE, PERSONAL INJURY, PROPERTY DAMAGE, OR RENDERING YOUR LIMITED WARRANTY INEFFECTIVE.**

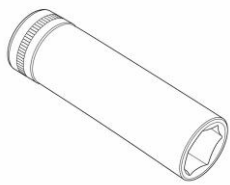
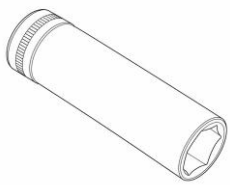
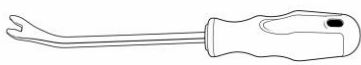
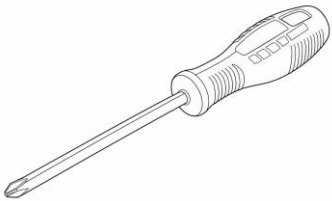
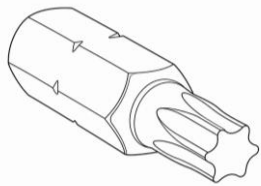
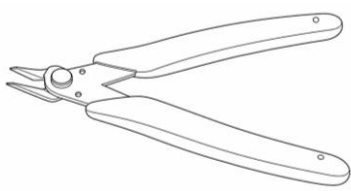
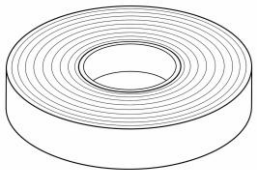
We strongly recommend consulting your Tesla owner's manual or qualified professional for specific installation instructions. We recommend reviewing all online resources and tutorials available for your specific Tesla model before attempting installation. If you are unsure about any aspect of the installation process, please consult a qualified professional.

Parts List

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Required for Installation

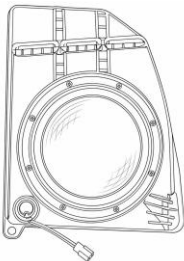
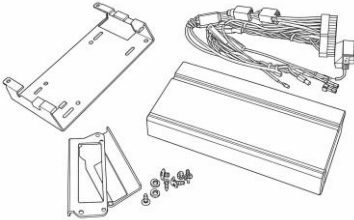
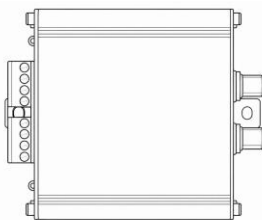
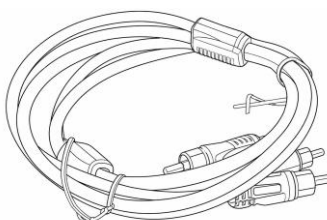
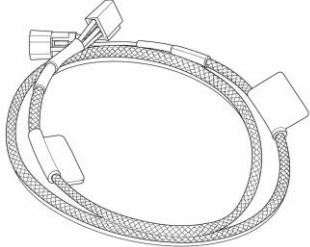
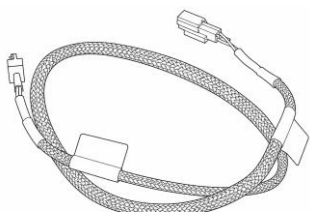
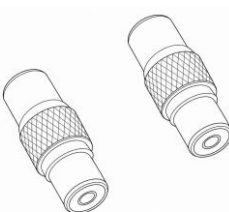
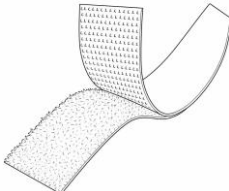
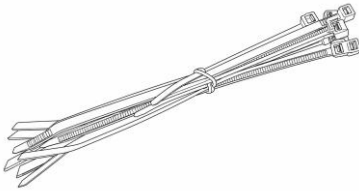
10mm Deep Socket	13mm Deep Socket	Impact/Ratchet	Panel Removal Tool
			
Wire Crimp Tool	Phillips Screwdriver	T15 Torx Driver	Wire Cutter
			
Tesa Tape			
			

Parts List

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Included for Installation

Loaded Enclosure	KTA-200M	Wavtec LOC	RCA Cable
			
Power Harness	Sub Signal Harness	LOC Signal Harness	RCA Couplers
			
Velcro Strip	Zip Ties		
			

Mandatory Electrical Power-Down

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Warning

Before beginning install on your Tesla follow the below procedure.

Warning

Re-install ALL Factory Plugs To Their Original Location, FAILURE TO DO SO CAN CREATE COMPUTER FAULTS.

Before touching any mechanical components, prepare the vehicle for complete power isolation:

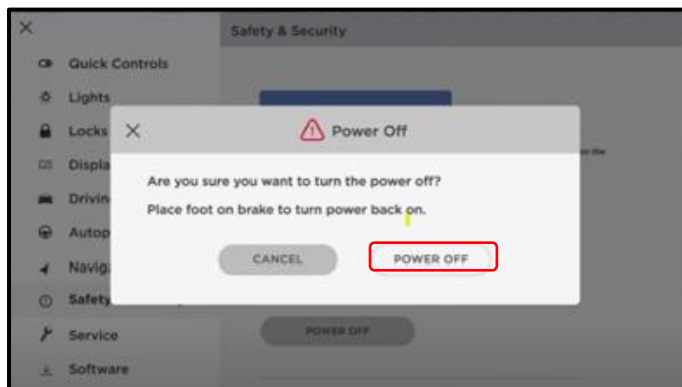
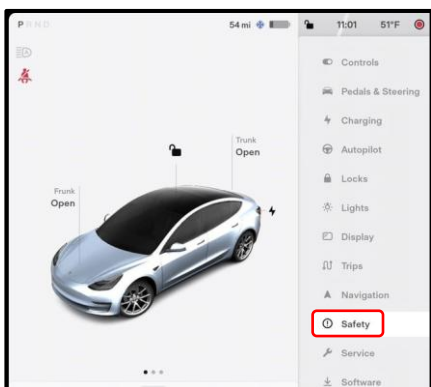
1. Open all passenger doors, roll down all windows completely, and fold down the rear seats. (Once power is dropped, motorized latches and windows will become completely inoperable).

- Battery State should be near 100% charged.
- ALL WINDOWS ROLLED DOWN
- Frunk & Trunk is OPEN



2. On the center console screen, navigate to **Car Icon -> Safety -> Power Off**.

- Enter the Controls Menu in bottom Left Corner
- Tap Safety & Security Menu on the Left-Hand Menu
- Press the Power OFF Button, and Confirm OFF



CRITICAL WARNING:

Do not close/open doors or touch any buttons or pedals after hitting Power Off, as this will immediately wake up the vehicle's computer systems.

Disconnect the Front Battery Ground

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Under-Hood Isolation

Model 3: Remove the top plastic cowl aesthetic cover panel by pulling upward firmly to release the friction snaps.



Model Y Variant: Remove the specific cowl panel by removing two 10 mm bolts located along the edge of the air cleaner assembly housing, paying close attention to clear the windshield washer reservoir cap.



1. Use your 10 mm deep socket to loosen and disconnect the negative (ground) terminal from the 12V battery first.
2. Unclip the plastic protective cover over the positive terminal, remove the 10 mm nut, and slide the terminal off.
3. Place the non-conductive plastic terminal cover directly underneath the disconnected positive cable stack to fully isolate it from accidentally contacting the battery post.



Disconnect High-Voltage (HV) Controller and Rear Rails

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Under-Seat Power Isolation

1. Release the bottom cushion of the rear passenger bench. For Model 3, pull forward on the two distinct latch clips along the bottom front edge, then lift up and push the assembly forward.
2. Locate the thick foam/styrofoam protective insulator cover on the rear passenger side and remove it.
3. Pop open the integrated red protective safety cap over the primary 12V power point. Use a 13 mm socket to loosen the main positive and negative nuts slightly. (You do not need to take the factory wires fully off yet, just back the nuts off to create gap clearance).



CRITICAL STEP:

4. Pull the bright orange High-Voltage (HV) service disconnect plug clear out of its socket assembly. You will hear an audible mechanical click/clunk from the primary contactors deep inside the vehicle—this signifies that the vehicle's entire electrical network is now safely de-energized.



Trunk Interior Teardown

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Accessing the Factory Audio Stack.

1. Unsnap and lift away the lower plastic door-sill threshold panels next to the rear seat bench to clear the primary wire management path.
2. Move to the trunk. Remove the floor lid cover, the lower luggage tray tub, and the surrounding threshold panels by pulling upward to release the heavy-duty body clips.
3. Use a plastic panel tool to remove the plastic center-pin push rivets holding the carpeted trunk side liner down.



4. Release the hidden push pins located deep in the upper corners under the rear deck shelf.
Best practice: Press your fingers firmly against the outer base of these specific expanding rivets while prying the center pin to prevent tearing the fragile factory trunk deck carpet.

5. Disconnect the small wire harness connected to the interior trunk convenience light module, then carefully pull the entire passenger-side trunk liner completely out of the car.

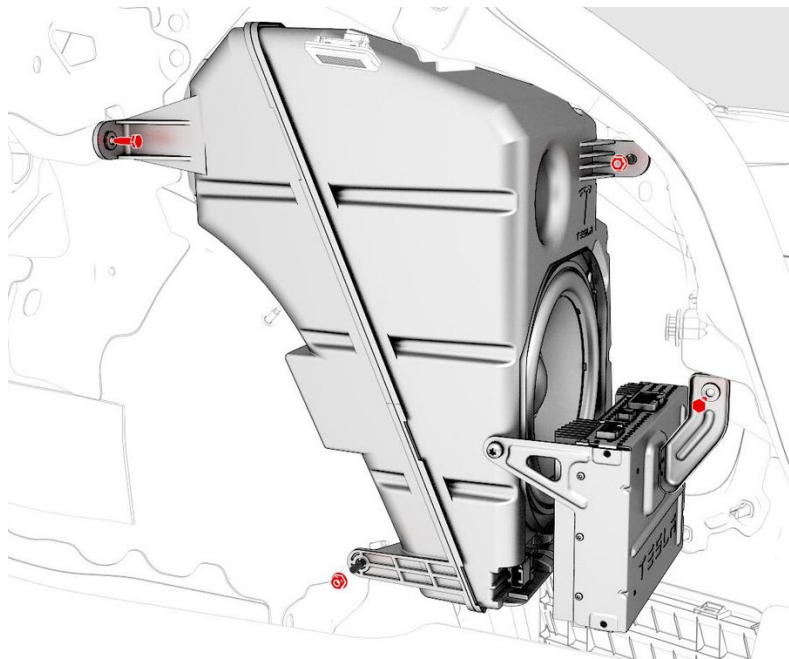


Mounting the Alpine Sub Enclosure

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1. Using a 10mm Socket, remove the 4 mounting points holding in the factory subwoofer and amplifier.



2. Slide the new custom pre-tuned 10-inch Alpine subwoofer enclosure down into the open passenger-side trunk cavity recess, aligning its pre-fabricated bracket sleeves onto the three factory 10 mm mounting studs.
3. Re-install the two factory 10 mm nuts and single top anchor bolt securely using your driver.
4. Re-seat the factory amplifier bracket over its original mounting points.

CRITICAL SAFETY NOTE: Ensure the factory chassis ground ring terminal ring is positioned back beneath the 10 mm anchoring bolt before tightening it down. The Tesla vehicle computer looks for this precise ground loop connection to verify module health.

If your specific Alpine kit iteration does not feature a molded pre-drilled allocation hole for the secondary stabilizer screw on the face of the aftermarket enclosure, simply drive the included self-tapping Phillips screw directly through the amplifier metal bracket tab and straight into the dense plastic wall of the custom Alpine enclosure shell to create a rigid anchor.

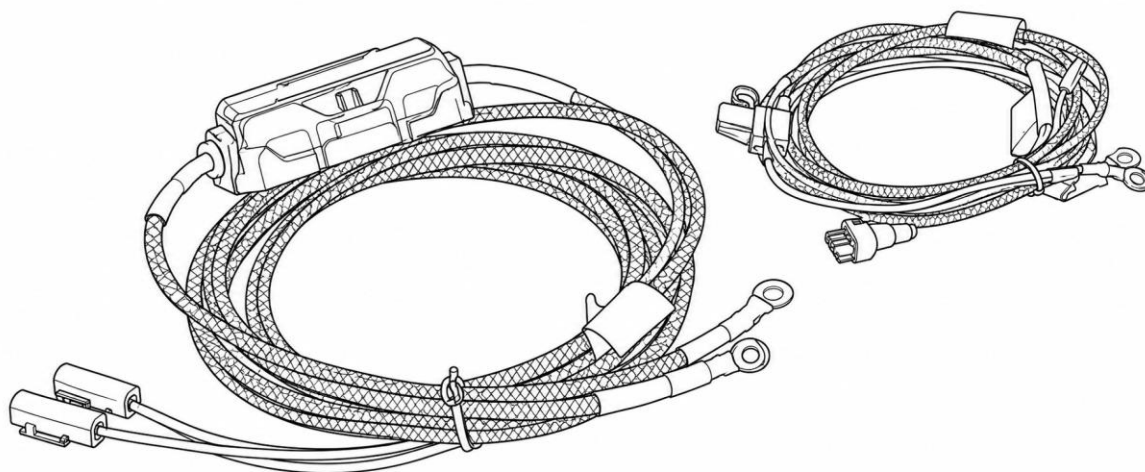
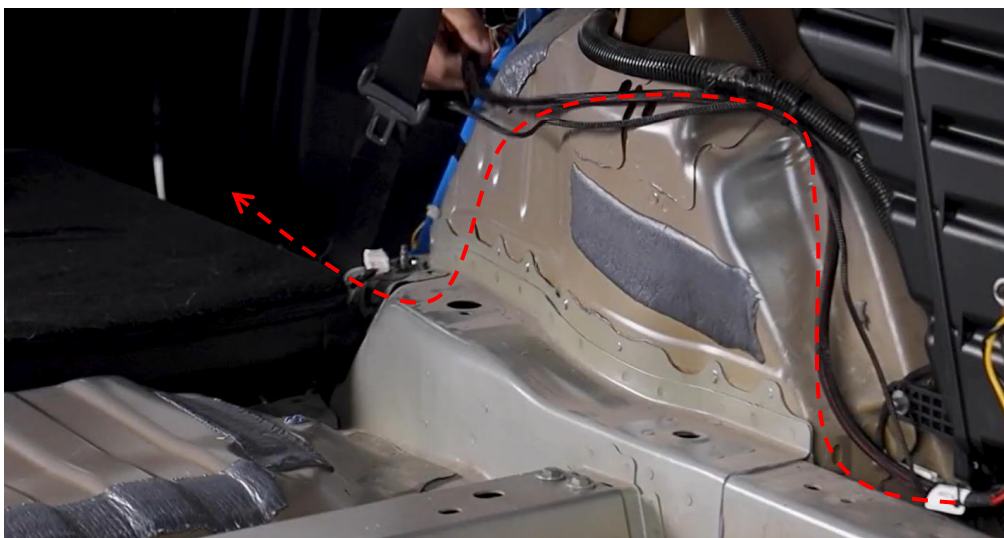
Plug the final brown speaker output moxex connector securely into the input terminal base of the new 10-inch subwoofer module.

Main Power Distribution Connection

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1. Using the provided Allen wrench, connect the thick raw wire leads of the main power distribution harness into the terminal blocks on the KTA-200M amplifier pigtail: connect the fused Red/Yellow power lead into the positive port, and the Black lead into the negative port. Secure tightly and cover the open set-screw access ports with insulating tape.
2. Using an automotive wire crimper, join the brown/black speaker signal outputs from the KTA-200M harness securely to the new sub-enclosure speaker lead wires.
3. Route the long leg of the Alpine power/ground harness from the trunk forward along the bottom of the passenger-side rear C-pillar wheel-arch frame, following the exact route of the factory wiring loom. Zip-tie the harness securely every few inches along the top of the shock tower bridge to eliminate sagging or future interior rattling.



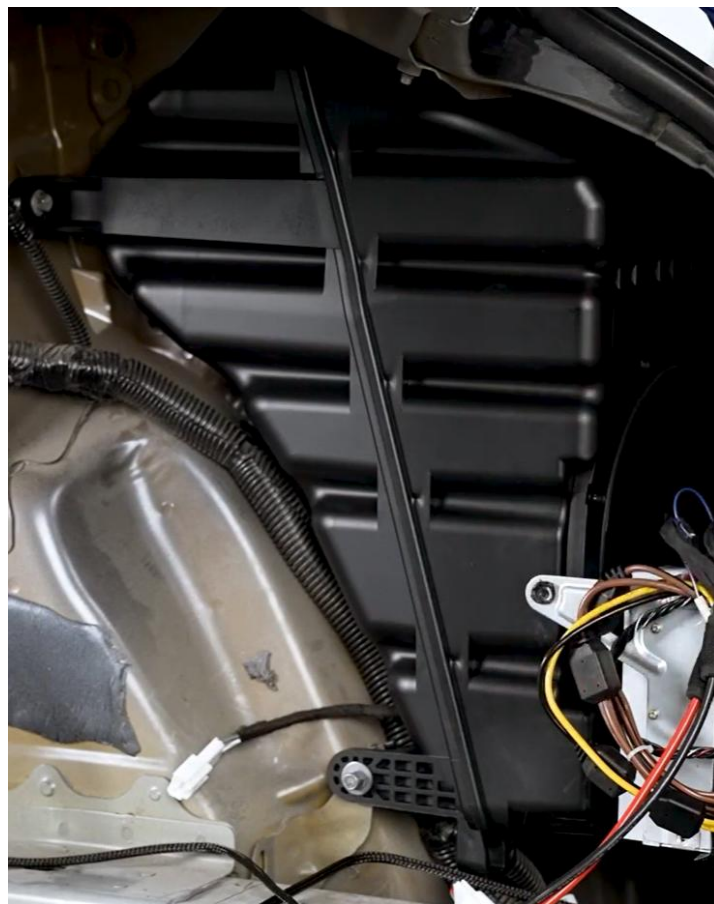
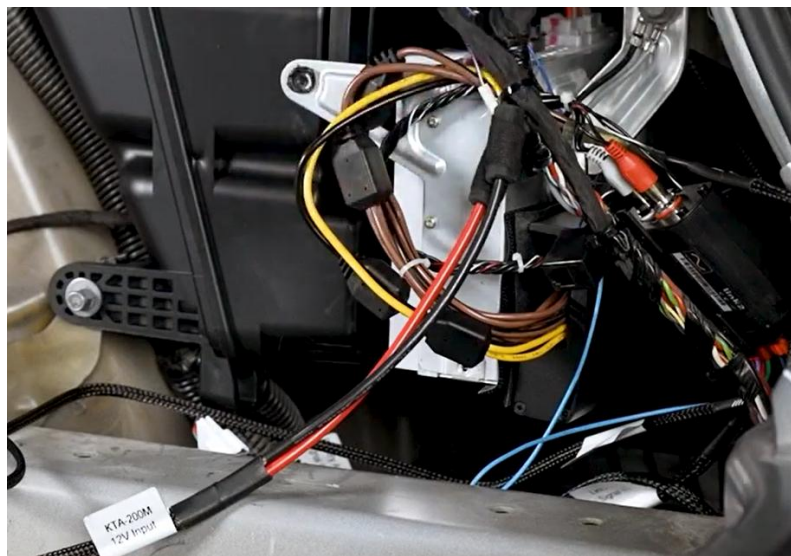
Harness Integration & Component Mounting (Premium Model 3/Y ONLY)

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If you have a Base Grade Model 3 Skip to Page 15

1. Take the LINK2 Line-Level Converter input harness and plug it directly into the factory subwoofer speaker output plug you disconnected
2. Prepare the Alpine KTA-200M compact mono amplifier. Using the heavy-duty, vibration-tested dual-sided adhesive mounting tape supplied in the box, adhere the Alpine amplifier directly onto the flat outer metal casing of the factory Tesla amplifier module.
3. Route the short red/white RCA pigtail connectors directly out of the LINK2 and secure them to the KTA-200M's RCA inputs.
4. Use the provided zip ties to cleanly lash the physical chassis of the LINK2 directly onto the thick main factory wiring bundle running nearby.
5. Connect the blue remote turn-on signal wire coming from the line level converter directly to the matching bullet terminal wire on the KTA-200M amplifier harness. Wrapping this bullet connector tightly in Tesa fabric tape ensures it cannot vibrate loose or touch ground surfaces.

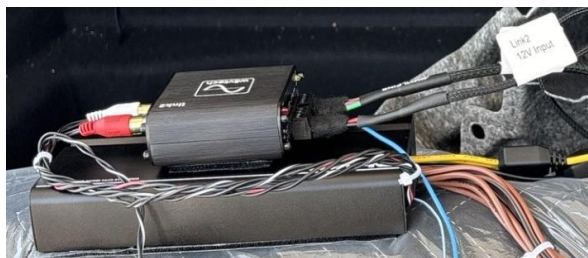
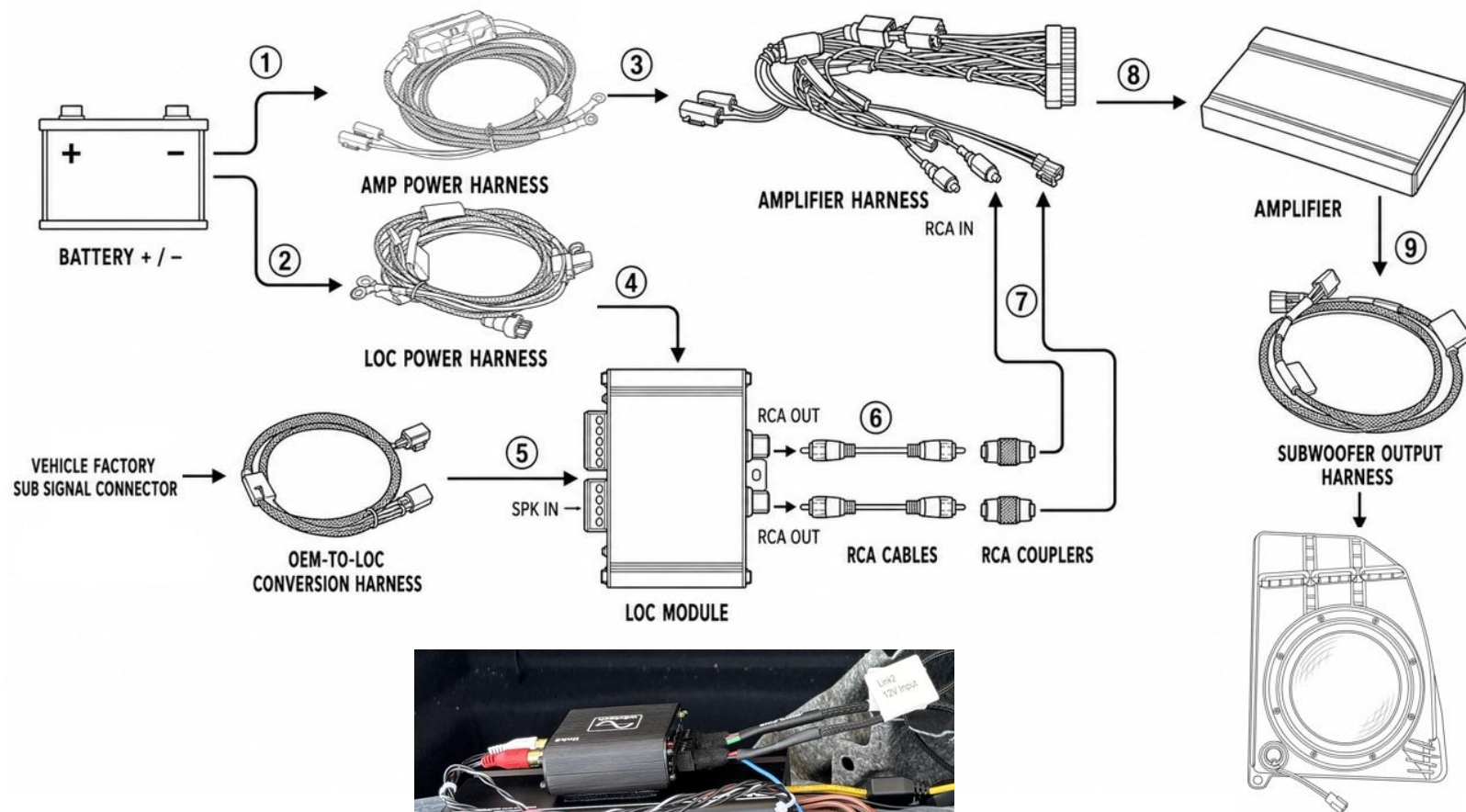


Harness Integration & Component Mounting (Premium Model 3/Y ONLY)

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SYSTEM CONNECTION OVERVIEW

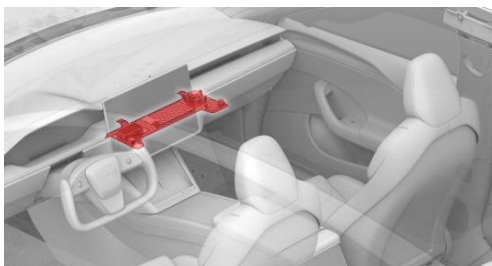


Harness Integration & Component Mounting (Base Model 3 ONLY)

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1. If you skipped to this section, the following steps will only apply for a base grade model 3.
2. At this point you should have completed the prior steps from page 7-12.
3. With the vehicle in proper status from the prior steps and the interior out of the way, you will want to start your install by first accessing the lower passenger seat kick panel
4. Remove the lower dash by taking out the T20 Torx screw



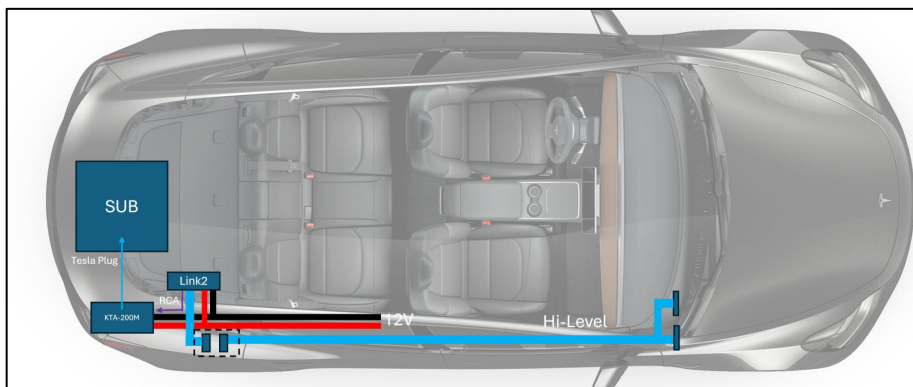
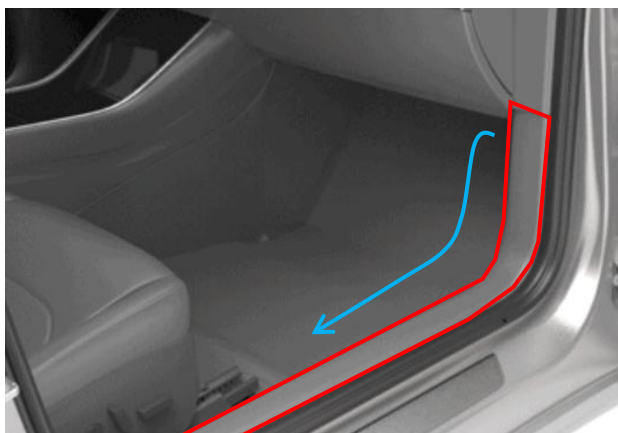
5. By using a panel removal tool, pull back the side kick trim panel in the passenger (right) footwell



6. Locate the factory front amp connectors to connect directly with the provided T-Harness.



7. Remove the remaining front passenger plastic door sill cover to route the harness along this side of the vehicle to the subwoofers location.

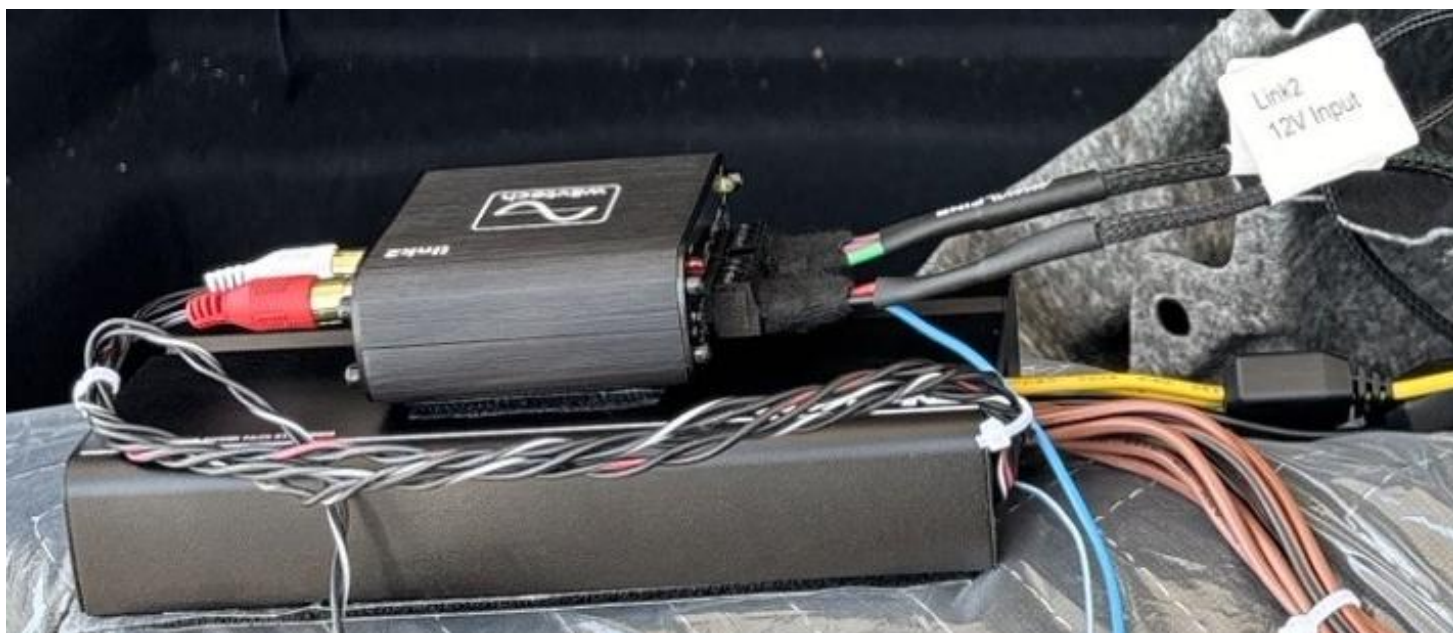


Harness Integration & Component Mounting (Base Model 3 ONLY)

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1. Prepare the Alpine KTA-200M compact mono amplifier. Using the heavy-duty, vibration-tested dual-sided adhesive mounting tape supplied in the box, adhere the LINK2 to the Alpine amplifier directly onto the flat outer metal casing
2. Route the short red/white RCA pigtail connectors directly out of the LINK2 and secure them to the KTA-200M's RCA inputs.
3. Connect the blue remote turn-on signal wire coming from the line level converter directly to the matching bullet terminal wire on the KTA-200M amplifier harness. Wrapping this bullet connector tightly in Tesa fabric tape ensures it cannot vibrate loose or touch ground surfaces.

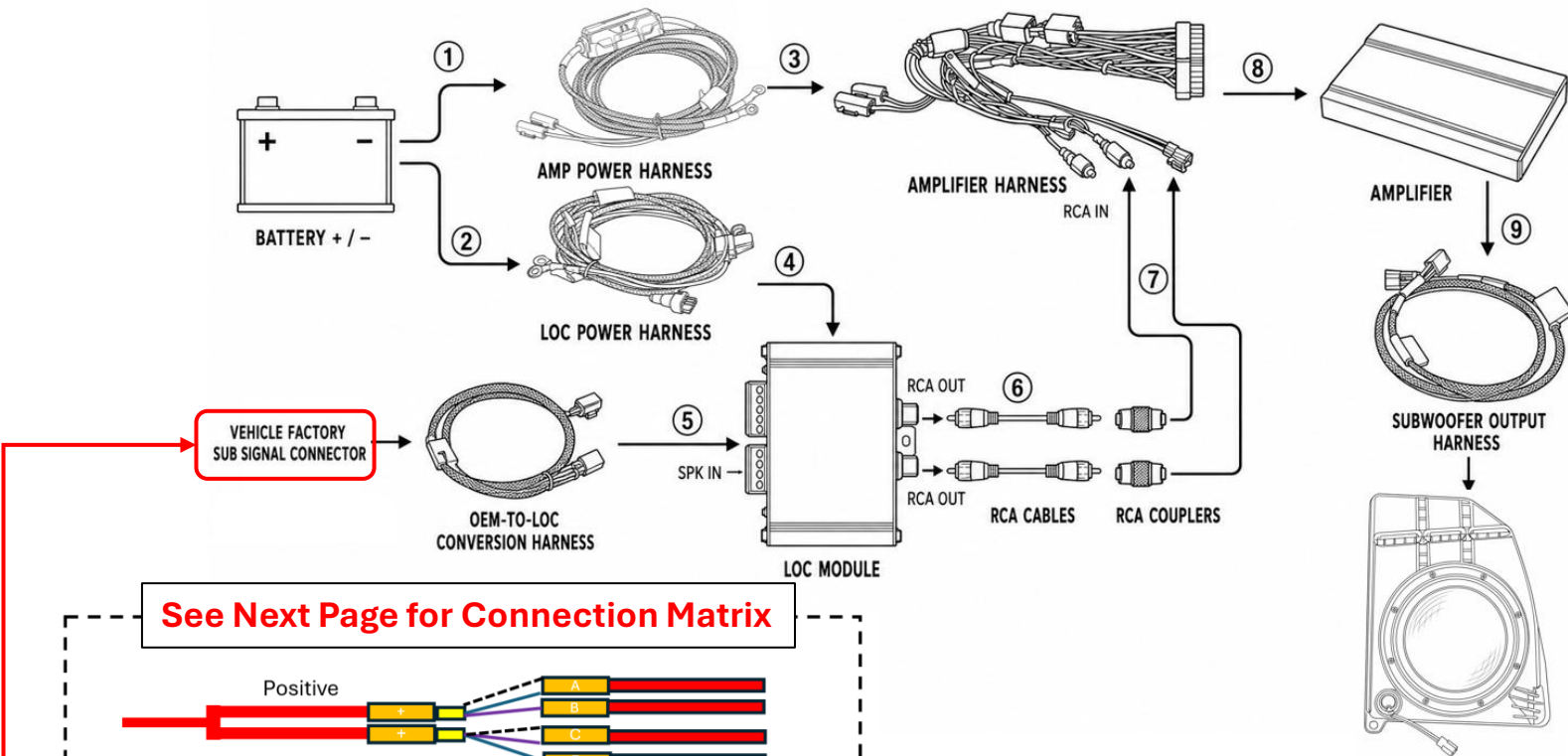


Harness Integration & Component Mounting (Base Grade Model 3 ONLY)

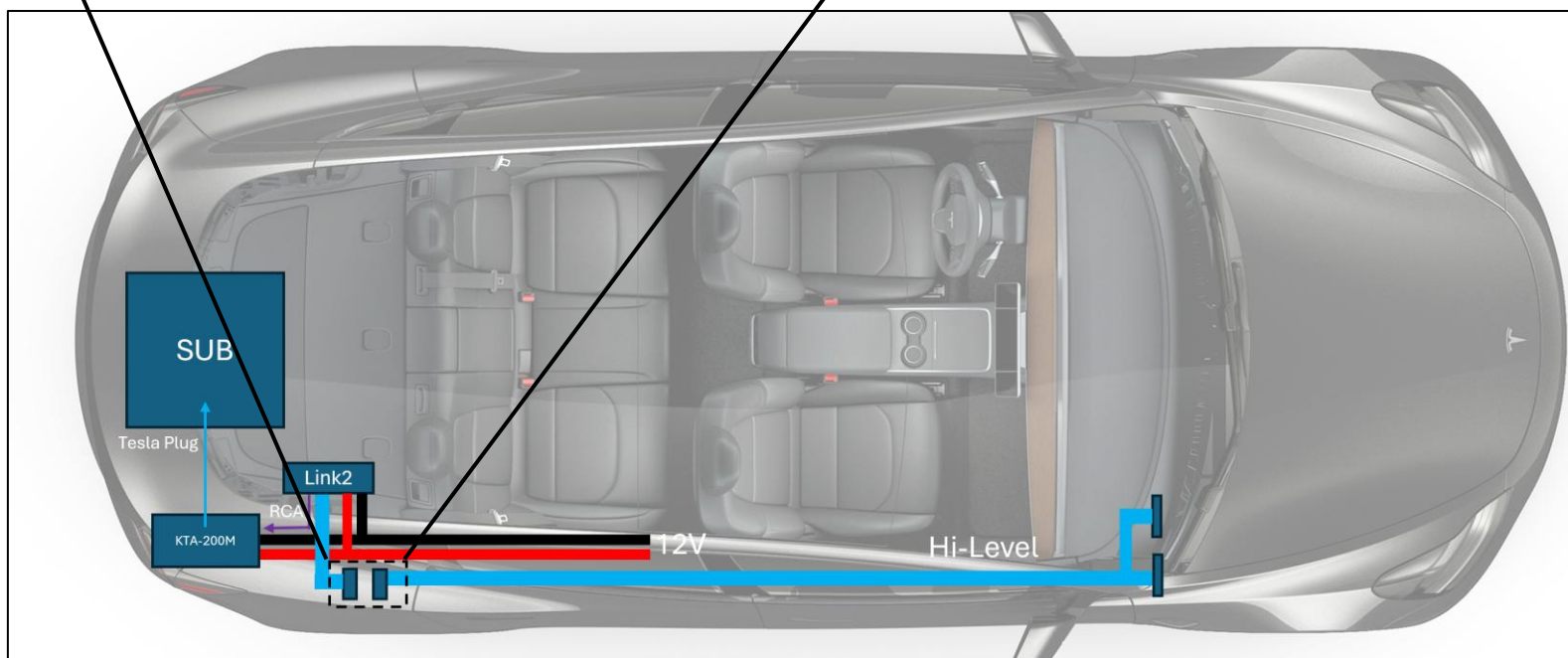
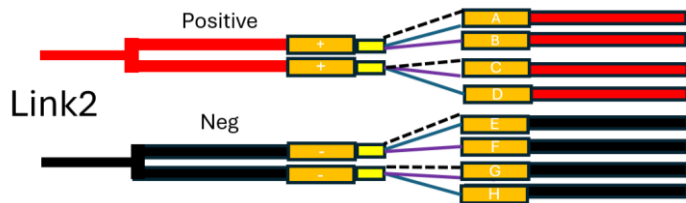
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SYSTEM CONNECTION OVERVIEW



See Next Page for Connection Matrix



Harness Connection Matrix Table (Base Grade Model 3 Only)

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1. Due to Tesla's multiple wiring configurations, confirm your base grade Model 3 by utilizing Alpine's VIN Decoder at:

<https://www.alpine-usa.com>

2. Enter your VIN and Build Date and your result will show the compatibility from one of the 3 results below:

TYPE	HRN-TSLA-XXX	Supportive Date Range	Description
A	M3B1	7/1/17 - 7/10/18	Base Grade Model 3 - Front Amp Connection for Full Range Signal
B	M3B2	7/11/18 - 11/11/21	Base Grade Model 3 - Front Amp Connection for Full Range Signal
C	M3B3	11/12/22 - Present	Base Grade Model 3 - Front Amp Connection for Full Range Signal

3. Once you know your Type A, B or C, Use the below table to select your wiring configuration for providing a full range signal to the amplifier.

2017-2024 Model 3 (Base Audio) PSS-TSUB-T3B

Type A	Type B	Type C
A +	C+	A+
D +	B+	C+
E -	G-	E-
H -	F-	G-

Testing and Reassembly

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System Initialization & Wake-Up

1. Now that all parts have been installed, begin by reconnecting power from Pages 9 then 8.
2. If the main center console display does not reboot automatically when power is restored, initiate a manual system hard reset:
3. Press and hold down both physical scroll wheels on the steering wheel simultaneously for 5 to 10 seconds until the crisp white Tesla logo illuminates on the center display.
4. Once the infotainment software completes its boot cycle, test the systems playback by playing an audio track.
5. Open the native Tesla equalizer controls; the factory settings menu, sliders, and audio profile adjustments will function exactly as before, but with an increase in output and low-frequency depth from your new subwoofer installed.
6. Once confirmed, proceed to reassembly

Reassembly Key Reminders

1. Re-snap the structural plastic seat trims and thresholds back down along the door frames.
2. Pull the soft rubber door weatherstripping out and seat it neatly over the outer lip of all plastic trim edges to restore a completely seamless weather seal.
3. Feed the seatbelt receivers cleanly back up through their designated pass-through slots in the rear bottom seat cushion
4. Press the seat bench down onto its floor brackets until it locks
5. Fully reinstall the carpeted trunk side liner panels and tool tubs in reverse order.