

Ford Ranger MY23 Subwoofer Relocation Install

INS0219



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power

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Revision	Date	Author/ Edit	Checked	Comments
R1	22/08/24	Steven H		This is the first revision
R2	20/11/24	Steven H		Added Cutout Sealing Information.

WARNINGS AND SAFETY

SAFETY!

The battery contains Lithium Ferrous Phosphate (LiFePO₄) cells, considered the safest of all lithium-ion chemistries. The battery contains a large amount of stored energy. Please follow these quick tips for safe use and operation:

- Ensure appropriate PPE gear is worn at all times during this install.
- Ensure the battery is secured safely before travel.
- Do not drill into the enclosure. Doing so may inadvertently puncture one of the internal cells.
- Do not short circuit the battery. Be careful not to drop a metallic object across the two exposed terminals. Always keep the terminal caps on the Positive (red) and Negative (black) posts during operation.
- Do not mount the battery upside down. The battery can also be mounted on its side if mounting upright is not an option.
- Do not connect multiple batteries in series to raise the voltage. The Battery Management System (BMS) is not designed to accommodate higher voltages.
- If the chemicals from a battery cell come into contact with your skin, immediately seek medical advice.

Please Note:

Cangoee strongly recommends that the installation of the battery kit be carried out by a competent, un-intoxicated individual. However, if installing at home or independently, strict adherence to the instructions and careful execution of each step is paramount to ensure proper installation and optimal functionality of your Cangoee battery system.

Please Ensure the consistent use of proper PPE, and, turn off the vehicle to minimize the risk of serious injuries or damage to the installer as well as the vehicle.

WARNINGS!

Please follow these warnings carefully and adhere to the 'safety' Guidelines when installing this battery system:

- Avoid mechanical shock.
- Avoid direct sunlight exposure.
- Do not store or mount batteries in incorrect orientations.
- Do not transport the battery unsecured.
- Do not expose the battery to water.
- Do not expose the battery to fire.
- Do not pierce the battery.
- Do not disassemble.
- Do not drill into the battery enclosure.
- Do not short battery terminals.
- Do not connect multiple batteries in a series configuration.
- Do not charge the battery outside the range of 0°C – 45°C.
- Do not store below -20°C or above 60°C.
- Risk of burns if misused.
- Always follow safe working practices.
- Installation of this device must only be carried out by appropriately qualified competent person(s).
- All connections must be fused at recommended fuse ratings to avoid damage to components.
- All minimum cable gauges and maximum lengths must be followed.
- Only use Lithium Battery Chargers to recharge batteries.

WARNING

This install works with live wires and electricity, ensure all safety guidelines are followed and proper equipment is used during this Install. Failing to follow these guidelines could result in incorrect installation of the Cangoee battery, malfunction, or severe injury.

Purpose

This document serves as a comprehensive guide for users to successfully relocate the OEM subwoofer to allow for installation of the Cangoee battery kit in the Ford Ranger MY23. As this installation involves electrical equipment and live cables, it is crucial to ensure that the procedure is performed by a competent and cautious individual.

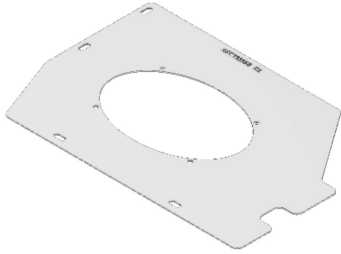
Completed Installation

Subwoofer Relocation



Item List

Subwoofer Relocation Panel

Item Image	Item Name	Part Number	Quantity
	Ford Ranger Tub Accessory Panel	FASM1115.1	1

Installation Looms

Item Image	Item Name	Part Number	Quantity
	Cangoee Ranger Speaker Extension Cable	WIR10454.11	1

Installation Modules

Item Image	Item Name	Part Number	Quantity
	Faston 250 2-Way Receptacle Connector	XAM KTHC2FL	2
	Ford Ranger OEM Subwoofer Cutout Blank Cover Insert	XAM NIWZ18B947 A	1

Subwoofer Relocation Panel Installation Procedure



CAUTION REQUIRED

This installation works with live wires and electricity, ensure all safety guidelines are followed and proper equipment is used during this install. Failing to follow these guidelines could result in incorrect installation of the Cangoee product, malfunction, or severe injuries.

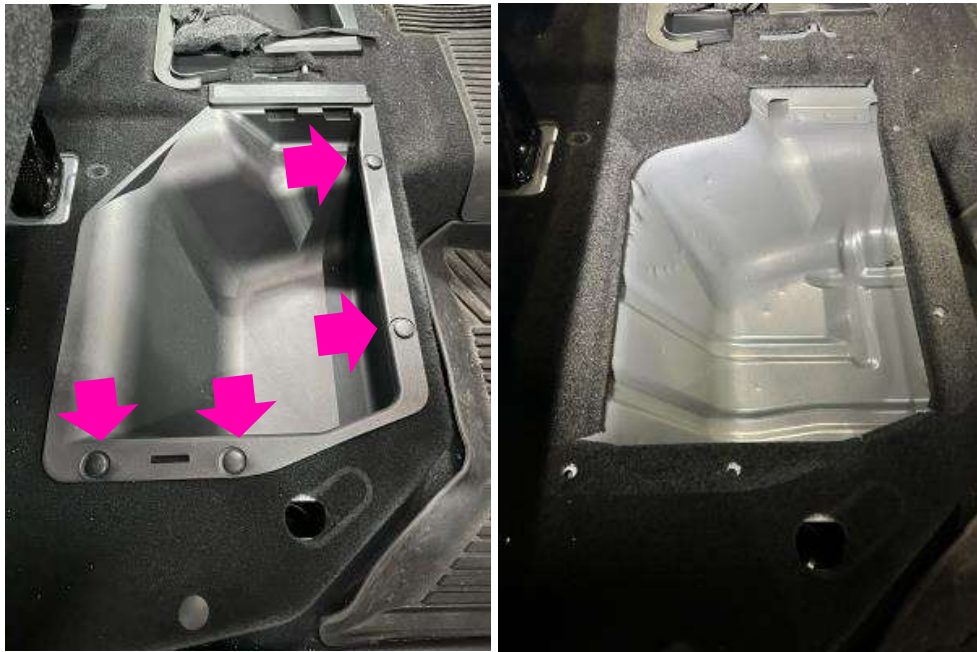
Vehicle Preparation

Step 1 – Folding Rear Seats to Expose Under-Seat Storage

At the rear seats, pull the strap beneath the middle seat to release and fold the rear seats up – clear out the storage compartment that is on the driver side of the vehicle – This space will be used for the subwoofer when it has been relocated.



Release the four clips securing the storage pocket and lift to remove it.



Store the clips in a secure location for later use.

Step 2 – Folding Rear Seats to Reveal Subwoofer

At the rear seats, pull the strap to fold the rear seats forward, the subwoofer will be revealed.



Subwoofer Removal

Step 1 – Release the Subwoofer

There are 4 bolts that are securing the subwoofer module to the vehicle chassis. There are two at the top and two at the bottom. These can be loosened using an M6 socket



Step 2 – Disconnecting the Subwoofer

Once the securing bolts have been removed, the subwoofer connection can also be disconnected.



Removing the Subwoofer unit will expose a cutout – this will need to be sealed.



External Exposure via Rectangular Cutout

Please note that once the subwoofer is removed and exposing the rectangular cutout – this cutout has direct access to the external of the vehicle ie this is not sealed to external elements.

****Please use the provided blank insert to seal up the lower rectangular cutout.
Please insert this from the outside of the vehicle.**



Subwoofer Disassembly

Step 1 – Release the Subwoofer

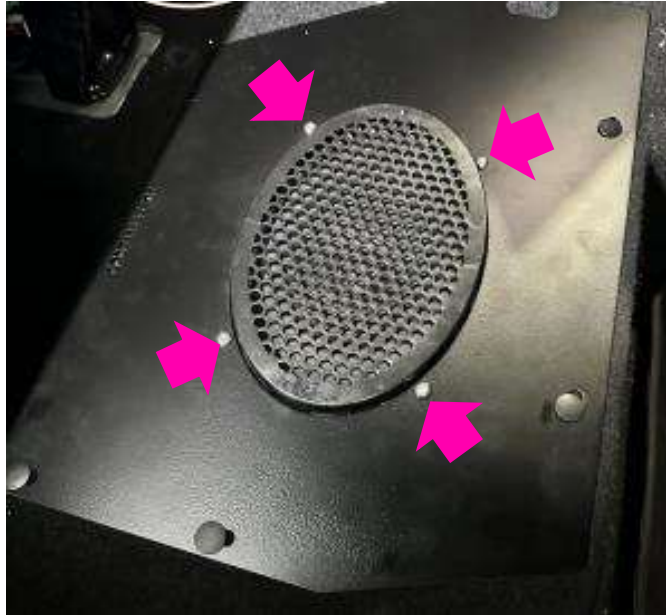
There are 4 bolts that are securing the subwoofer module to its plastic bracket. The subwoofer module can be removed from the plastic bracket by removing the four Torx screws indicated below. The connector can be removed from the plastic bracket by releasing the plastic securing clip.



Subwoofer Relocation Plate Mounting

Step 1 – Release the Subwoofer

Secure the subwoofer unit to the relocation plate using the Torx screws that was previously used to secure the subwoofer to the OEM plastic bracket.



Ford Ranger Subwoofer Relocation Wiring

Step 1 – Re-terminating of OEM Speaker Cable

Item Name	Part Number	Quantity
Faston 250 2-Way Receptacle Connector	XAM KTHC2FL	2



CAUTION REQUIRED

Please ensure that the cables and crimps are connected correctly and securely.

For the below connections – re-terminate for a Faston 250 Receptacle Connector.



Step 2 – Speaker Extension Cable Connection

Item Name	Part Number	Quantity
Cangoee Ranger Speaker Extension Cable	WIR10454.11	1



CAUTION REQUIRED

Please ensure that the cables are connected correctly and securely.

Connect the speaker extension cable to the subwoofer and route cable underneath carpet from the storage pocket to the OEM speaker cable that was re-terminated with a Faston 2-Way Receptacle Housing and connect them together.

Place the assembled subwoofer unit with the plate in place. Re-use the plastic clips from the Storage Pocket to secure the relocation plate.



Step 3 – Test the Speakers

Test the subwoofer to ensure functionality.

Here is the completed tub accessory panel.



Congratulations for completing the installation for the Cangoee Subwoofer Relocation Panel on a Ford Ranger.