



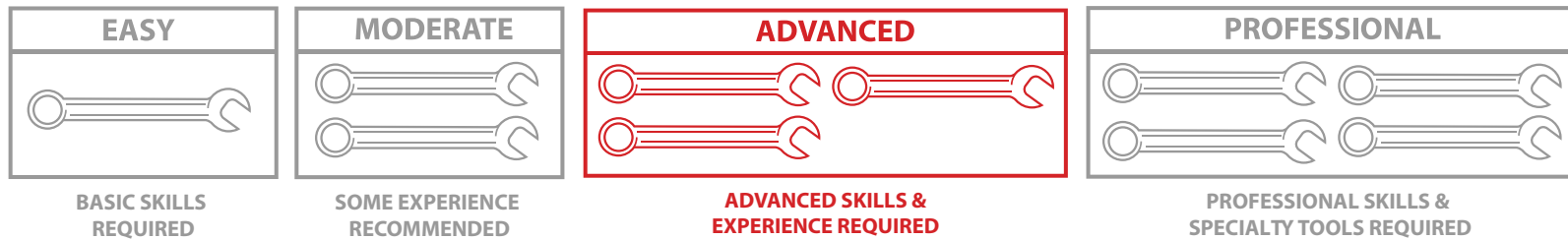
RENNLINE

**'69-'89 PORSCHE 911
147 CARBON FIBER FRUNK LINER
INSTALL INSTRUCTIONS**



Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times to eliminate the possibility of personal injury or improper service which could damage the vehicle or compromise its safety.

THE PROJECT



Basic skills and experience are recommended for this job, but we’re going to lay it out for you step by step, so even if you don’t have much “wrench” time under your belt, these instructions will make it easy for you. Only basic tools are required, but don’t forget to check out the tool list on Page 5, and make sure you have everything you need on hand before you begin. *** Give a rough idea on how long the project will take --- See install instruction sample for wording and content***

Reading these instructions completely before you begin will help you plan out the job and manage your time better. Thank you for looking to Renline for all of your performance and repair needs, we appreciate your business!

DISCLAIMER: To successfully install this product it is helpful to know the history of your vehicle. Things such as restoration, repairs or moving of components may affect fitment. While most are resolvable through modifications some may prevent a successful install please keep this in mind when installing. If any issue persist review the troubleshooting list at the end of the instructions. If troubleshooting guide is of no value reach out to our support team.

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KIT CONTENTS

Depending on the year of your 911 the component list will slightly change, find your combination below and compare the components shipped to you prior to the start of this install.

Early w/ power brakes:

- I47_A
- I47_B
- I47_C
- I47_E
- I47_F
- I47_K
- I47_H
- I47_HARDWARE
 - M5 x 10mm screws
 - (4) SHORT BRACKETS
 - (2) LONG BRACKETS
 - 4m GASKET/SEAL

Late w/ power brakes:

- I47_A
- I47_B
- I47_C
- I47_D
- I47_E
- I47_K
- I47_H
- I47_HARDWARE
 - M5 x 10mm screws
 - (4) SHORT BRACKETS
 - (2) LONG BRACKETS
 - 4m GASKET/SEAL

Late w/ manual brakes:

- I47_I
- I47_B
- I47_C
- I47_D
- I47_E
- I47_Z
- I47_HARDWARE
 - M5 x 10mm screws
 - (4) SHORT BRACKETS
 - (2) LONG BRACKETS
 - 4m GASKET/SEAL

Early w/ manual brakes:

- I47_I
- I47_B
- I47_C
- I47_D
- I47_E
- I47_Z
- I47_HARDWARE
 - M5 x 10mm screws
 - (4) SHORT BRACKETS
 - (2) LONG BRACKETS
 - 4m GASKET/SEAL

In this install we will be installing the Late w/ manual brakes combination. See image below.



REQUIRED TOOLS

Note: The tools required for each step will be listed by the step number throughout these instructions.

Standard Tool Recommendations: We recommend that you have a standard automotive repair tool set before beginning this installation. The following list outlines the basic tools and sets that will be used during this installation as well as most automotive service procedures.

- 10mm Socket Wrench
- Trim Pry Tool
- Assorted Allen Wrenches
- Microfiber Cloth
- Isopropyl Alcohol

SHOP SUPPLIES AND MATERIALS

Standard Shop Supply Recommendations: We recommend that you have a standard inventory of automotive shop supplies before beginning this or any automotive repair procedure. The following list outlines the basic shop supplies that we like to keep on hand.

- Hand Cleaner/Degreaser
- Pig Mats - for protecting your garage floor and work area from spills and stains
- Spray detailer - for rapid cleaning of anything that comes into contact with your paint such as brake fluid
- Micro Fiber Towels - for cleaning the paint on your car
- Latex Gloves - for the extra oily and dirty jobs
- Medium and High Strength Loctite Thread lock compound - to prevent bolts from backing out
- Anti-Seize Compound - to prevent seizing, galling, and corrosion of fasteners
- Aerosol Brake/Parts Cleaner - for cleaning and degreasing parts
- Shop Rags - used for wiping hands, tools, and parts
- Penetrating oil - for helping to free rusted or stuck bolts and nuts
- Mechanics wire - for securing components out of the way
- Silicone spray lube - for rubber components such as exhaust hangers
- Paint Marker - for marking installation positions or bolts during a torquing sequence
- Plastic Wire Ties/Zip Ties - for routing and securing wiring harnesses or vacuum hoses
- Electrical tape - for wrapping wiring harnesses or temporary securing of small components

INSTALLATION NOTES

- **RH** refers to the passenger side of the vehicle.
- **LH** refers to the driver side of the vehicle.
- Always use the proper torque specifications.
- If applicable to this installation, torque specifications will be listed throughout the document and at the end as well.
- Please read all of these instructions and familiarize yourself with the complete process **BEFORE** you begin.

GENERAL PREPARATION AND SAFETY INFORMATION

Rennline cares about your health and safety. Please read the following safety information. This information pertains to automotive service in general, and while it may not pertain to every job you do, please remember and share these important safety tips.

- Park your car in a safe, well lit, level area.
- Shut the engine off and remove the key from the ignition switch.
- Make sure any remote start devices are properly disabled.
- **ALWAYS** wear safety glasses.
- Make sure the parking brake is applied until the vehicle is safely lifted and supported.
- If using an automotive lift, be sure and utilize the factory specified lift points. Lifting a vehicle in an incorrect location can cause damage to the suspension/running gear.
- When lifting a vehicle using a jack, always utilize the factory specified lift points. Lifting a vehicle in an incorrect location can cause damage to the suspension/running gear. **ALWAYS** support the vehicle with jack stands.
- Always read and follow all safety information and warnings for the equipment you are using.



Never get underneath a vehicle that is supported only by a jack. Always make sure that the vehicle is securely supported on jack stands.

PREPERATION AND BRACKETS

Step 1: Preperation

To prep for this install, begin by removing the carpet and strut bars if present. Then find the screws located along the fender. There will be four and are directly across from one another. For the front it is the first screw on both the left and right. Towards the back the screws are right after the strut, closest to the windshield.

Note: You may need washers for fine adjustments, use the oem washers to protect the finish of the brackets. (Order of hardware - Screw, rubber washer, bracket, washers if needed)



Step 2: Installation of The Brackets

The front brackets should be installed facing downwards. For the rear the brackets should face upwards. Similarly the longer brackets will face upwards, mounted using the bolts from the blower motor shroud. Leave the brackets loose enough to slide if needed.



FRONT AND BACK PANELS

Step 3: Installation of The Front Panel

Place the front piece, I47_D or I47_F, resting on the two front brackets, mounted using the provided black passivated screws. Depending on the battery installed in the car, longer screws and spacers might be needed. These are provided. Once Mounted the brackets can be tightened.



Step 4: Installation of The Corner Panel

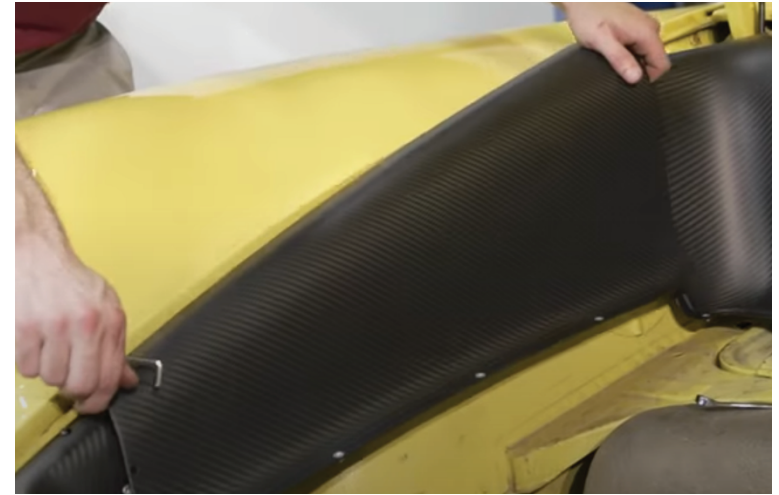
Proceed to installing the driver side corner piece, use either I47_Z or I47_K for this step. Align the parts with the brackets. Lightly screw in the pieces. Using I47_E, install the piece so that the flange of the last piece lines up with this corner piece. Lightly screw both pieces together and to the brackets. This may take some adjustments of the brackets, afterwards tighten the brackets down before securing the pieces fully.



SIDE AND BOTTOM PANELS

Step 5: Installation of The Side Panel

Next, use I47_B and I47_C to attach the front piece to the corner pieces. The pieces should slowly lower away from the top of the rail to allow for the hood to close. Test for closure of the hood prior to moving forward.



Step 6: Installation of The Bottom Panel

With I47_A or I47_I place in the center of the components and mount in the four corners first. A helpful tip is to use another allen key to add tension to align the holes. This product uses the tension of the parts to stiffen the structure. Begin screwing each piece into the bottom.



FINISHING TOUCHES

Step 7: Installation of The Brake Booster Cover (If Applicable)

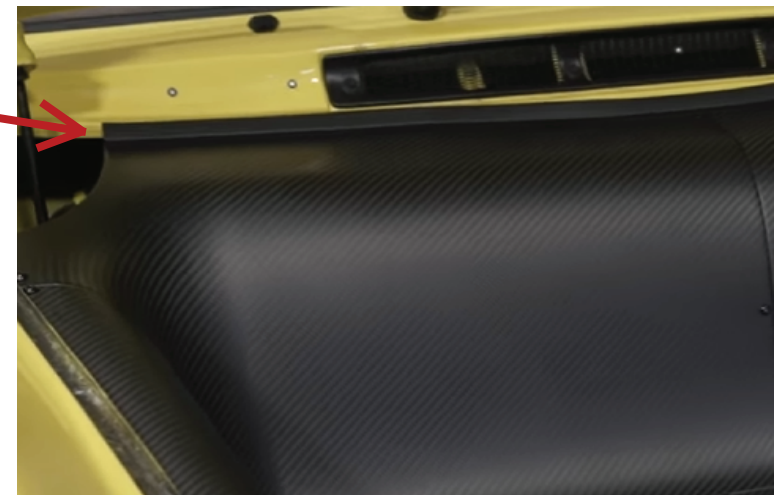
If applicable, use I47_H to cap the brake booster, this piece should only fit one way. Place it on a flat surface and note the corner that curves downwards. This corner will be pointed towards the center of the frunk liner. In this install there is no brake booster, however see image to the right as an example.



Step 8: Installation of The Gasket

Test all functions of the hood. Once satisfied with positioning begin tightening all of the screws. Then add the gasket material to tidy up the edges of the frunk liner if desired.

To access fuses or the battery the only piece that needs to be removed is I47_C, remove the screws and rotate the edge contacting the car towards the center, it will act like a hinge and then lift. To access the tire, remove the base piece.



TROUBLE SHOOTING

Locate the issue below:

WELDS - With older cars restoration is common, while not all welds are created equal some can prevent the I47 from fitting 100% correctly. To solve some of this, you may alter or modify as needed. We recommend knocking down some welds and or using a cutting wheel to modify the frunk liner to lay around the weld.

BATTERY SIZE - Factory battery sizes are supported, furthermore batteries smaller than H6 work with the frunk liner. If a clearance issue occurs, ensure the battery height is less than 7.5"/19cm. Use washers or spacers to raise the front panel up until clearance issue is resolved, however ensure this doesn't conflict with the closure of the hood.

FUEL CELL - At this time, Rennline does not support the installation of the frunk liner with the addition of a fuel cell due to the height constraints.

STRUT BARS - Modification to the frunk liner will be necessary to re-install strut bars. We recommend using a hole saw with a pre-drilled pilot hole. For the pilot hole, drill from either side. However, the hole saw should be drilled from the finished side to prevent delamination of the layers. Painters tape can also be used to create a cleaner edge.

RIVET NUT STRIPPED - We have provided a few extra incase this is to occur. You may need the rivet nut tool to install this, or "After placing the rivet nut into the hole, you must thread on the loose nut then place the bolt through a washer or bushing. Insert the bolt as far into the rivet nut as you can, then manually screw it in until the nut and washer stop you from screwing any further. In the end, you simply loosen the nut then unscrew the bolt from the rivet nut. The rivet nut should be deformed and fastened."

HOOD CLOSURE - Ensure the brackets in the front are facing downwards. The frunk liner should slope slowly away from the rail the hood closes down on. Ensure the hood is factory. If the problem continues to persist, try noting where the collision/interference is and reach out to support.

CORNER PIECES - Lining up the corner pieces with one another and the brackets leaning over the fenders may be difficult. Another approach to this step of the installation is to remove the pieces from the car, assemble the corner pieces together and then place in the car. This approach will result in the need of some force to get the parts under the rail along the fender.