

Start Defender

Installation Instructions

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Table of Contents

Introduction	2
Installation	3
1 Location	3
2 Connector	3
3 Connector Disassembly	4
4 Mounting	4
5 Ground Connection	4
External Relay Control	4
6 Specifications	4
7 Functioning	5

Introduction

Welcome to the official Installation Manual for the **StartDefender**, a state-of-the-art theft-deterrent system for 2018–2023 Dodge Challenger and Dodge Charger vehicles.

This manual provides step-by-step instructions for the installation of the **StartDefender**, enhancing your vehicle's security by preventing unauthorized engine starts. Intended for certified technicians as well as vehicle owners, this guide includes procedures and troubleshooting tips to facilitate a seamless installation into your vehicle. Please read this manual thoroughly before beginning the installation process.

The Operation Manual is also included with your purchase and assumes that the **StartDefender** has been correctly installed in the engine bay as outlined in the Instruction Manual. Please complete the installation of **StartDefender** before proceeding to the Operation Manual.

☐ WARNING

DISCLAIMER: The StartDefender theft deterrent device is designed to deter theft and enhance vehicle security. However, no security device is 100% effective against all forms of theft or unauthorized access.

The manufacturer and seller make no guarantees that this device will prevent theft, damage, or loss of the vehicle or its contents. Users are advised to follow all installation and usage instructions, maintain the device in good working condition, and employ additional security measures as necessary.

The manufacturer and seller shall not be liable for any direct, indirect, incidental, or consequential damage arising from the use or failure of this device. By using this product, the user acknowledges and accepts these limitations and assumes all risks associated with vehicle security.

Installation

1 Location



StartDefender is installed in the 24-pin inline junction connector that connects the main engine harness to the body harness of the vehicle. This connector is located under the shock tower brace on the passenger side of the vehicle.

2 Connector



The 24-pin connector is mounted to the shock tower brace with a plastic clip. Go easy on prying on this clip. Age and environmental factors can make this clip fragile and prone to breakage. An additional zip tie support is included to hold the connector against the brace if the clip breaks.

If you have a normally aspirated vehicle, this connector is easily accessible without the removal of any additional parts, and you should not have to unclip the passenger side of the harness from the shock tower brace.

If you have a Supercharged vehicle, you will want to remove the low-temp cooler overflow bottle mount nuts and rotate the overflow bottle out of the way. Remove the shock tower brace bolts on both sides. Make sure you adequately protect your paint on the shock tower after loosening the shock tower brace. Metal-to-metal contact can cause paint damage in the attachment area of the shock tower brace.

Rotate the shock tower brace upwards to facilitate access to the 24-pin connector.

Disassemble as much as necessary to gain adequate access for your needs. Consult the Factory Service Manual for guidance if you are not familiar with working on a late model Challenger or Charger.

3 Connector Disassembly



Retract the **RED** connector lock, squeeze the release, and gently pull the connector apart. You may have to wiggle the connector a bit to get it to release. Do not force it and take your time.

4 Mounting

Once the **StartDefender** is installed between the 24-pin connectors, you will want to add some additional support to the connector with the included foam pads, zip tie hanger, and heat-resistant zip tie.



- a) Install the included foam pads on top of both gray sliding connector locks.
- b) Install the peel-and-stick zip tie hanger under the shock tower brace approximately in the middle of the final **StartDefender** location.
- c) Route the heat-resistant zip tie through the hanger and around the **StartDefender**. Snug up the zip tie and clip off the excess.
- d) The zip tie is only required to add minor support to the device and to keep the extended length that **StartDefender** adds to the connector away from any heat sources. You can also support the assembly along the harness towards the center of the vehicle and not tie up the primary body of the **StartDefender** device if you desire.

5 Ground Connection



The required ground connection can be installed on any factory grounding post available under the hood of the vehicle. The closest grounding post is located on the fender well, on the passenger side.

Remove the ground post nut, install the grounding wire on the post, and reinstall the ground post nut. Small zip ties are included to secure the grounding wire along your desired routing. Keep the grounding wire away from all heat sources.

External Relay Control

6 Specifications

StartDefender supports an optional external alarm output. In particular, the alarm's 12V output can be used to trigger a relay (high side) to drive a larger siren. If you choose to drive the siren directly, it must have a *maximum rating of 1A*.



Small 12V 100dB alarm sirens are readily available from numerous retailers. These devices generally draw approximately 15mA and can be connected directly to the external relay control and mounted under the shock tower brace.

□ **WARNING**

Installing an external device that does not meet the specified requirements may cause StartDefender to fail and will not be covered under warranty. It is strongly suggested to consult an expert on the installation of the device.

Below is the wiring pinout for the two installation options (position numbers are indicated on the connector body).



Figure 5: Connector Mating

Position	Note
1	12V Relay Command
2	GND

Table 2: Connector Pinout

7 Functioning

The **External Relay Control** option can be activated or deactivated in the configuration menu (see Section 3). **External Relay Control** will activate if the hood is opened while **StartDefender** is locked. If the hood is not closed within 5 seconds, the alarm will be triggered.

To deactivate the alarm, enter the correct sequence as you would for a normal **StartDefender** unlock procedure.