

Vehicle Powered

**RV Toll Pass** Installation Instructions for Class A Motor Homes

16-0188-001 Rev A X2 6/22

The RV Toll Pass is an interior-mounted transponder, powered directly from the vehicle through a wire harness assembly connected to switched power.



The RV Toll Pass can be powered from a vehicle fuse panel. Factory installations may utilize the vehicle power rail. The transponder may also be concealed in a vehicle headliner or securely attached to a vehicle windshield. These instructions provide general guidelines for these types of installations. This information is intended for use by authorized TransCore dealers, installers, and service personnel.



## **Supplies Needed for Installation**

Before you begin, open the installation kit to ensure that you have all of the parts listed in Table 1, and review the recommended tools and supplies.

Note: The harness assembly should be installed into the vehicle by a qualified technician.

0	RV Toll Pass Vehicle Powered Transponder (1)	There
2	RV Toll Pass Power Harness (1)	
Ø	Quick Disconnects for 20 AWG wire (2 large, 2 small)	N //
8	Fuse Taps (2 large, 2 small)	
9	Ring Terminals for 20 AWG wire (2)	
-	Zip Ties (6)	

Table 1 – Included Parts List

### **Recommended Tools and Supplies**

- Needle nose pliers
- Screwdriver set
- Socket set
- Voltage meter
- Wire crimper
- Wire snips
- Wire strippers
- Commercial glass cleaner and paper towels (windshield mount only)

### **Power Harness Assembly**

The RV Toll Pass transponder should be connected to the vehicle fuse panel through a power harness made specifically for the transponder. Figure 1 shows a diagram of the RV Toll Pass transponder and power harness assembly.



CAUTION: Do not power the RV Toll Pass transponder directly from 12/24VDC. You must use the power harness assembly.

### Transponder<sup>①</sup>

The transponder can be mounted in the headliner of the vehicle or on the windshield in compliance with installation specifications.

### **Power Harness**<sup>②</sup>

The power harness may be connected to switched power at the vehicle fuse panel.

#### **Power Cable** ③

A power cable with a **keyed locking connector** (5) provides a secure connection from the transponder to the power harness.



# CAUTION: Do not modify the power cable. Modifications will nullify TransCore's standard 1-year warranty.

### Black and Red Wire Pair ④

Connects the Power Harness to the vehicle Fuse Panel<sup>®</sup> and Ground<sup>®</sup> using the Quick Disconnects<sup>®</sup>, Fuse Taps<sup>®</sup>, and Ring Terminals<sup>®</sup>.

Note: This wire pair may be trimmed to meet specific installation requirements.



Figure 1 – RV Toll Pass Transponder and Power Harness Assembly

## **Connecting Power Harness to Vehicle Fuse Panel**

Note: Refer to Figure 1 for a diagram of the terms shown in bold text.

 Locate the black and red wire pair on the power harness. Trim wire length as required. Crimp one of the supplied quick disconnects onto the red wire. Ensure that the crimped connection is secure (Figure 2).



Figure 2 – Crimp Quick Disconnect onto Red Wire

2. Crimp one of the supplied **ring terminals** onto the **black** wire (Figure 3). Ensure the crimped connection is secure.



Figure 3 – Crimp Ring Terminal onto Black Wire

3. Attach the **ring terminal** to a **ground** point on the vehicle such as a bolt or nut that is attached to bare metal.

- 4. Locate a fuse (max. 25 Amp) in the **fuse panel** that has voltage present ONLY when the ignition switch is in the key on/engine off position.
- 5. Remove the fuse. Using a voltage meter, determine which side of the fuse receptacle DOES NOT have power when the ignition switch is in the key on/engine off position and attach a fuse tap to that side.



### CAUTION: Do NOT place fuse taps on the hot side of the fuse.

6. Reinstall the fuse and attach the **red** wire with the **quick disconnect** to the **fuse tap** (Figure 4). Use zip ties as needed to take up wire slack and organize wires.



Figure 4 – Reinstall Fuse and Attach Red Wire with Quick Disconnect

### **Connecting Transponder to the Accessory Power Rail**

## *Note: For transponder mounting or location questions, contact TransCore Technical Support.*

For factory installation directly to the vehicle's power rail, observe the following guidelines:

- 1. The transponder must be on switched power.
- 2. The power harness requires an in-line fuse up to 5A.
- 3. Power must be connected to the accessory power rail.
- 4. The transponder can accept continuous voltage, max 30VDC.
- 5. The transponder draws 20 mA.

## **Installing Transponder in Headliner**

# *Note: For transponder mounting or location questions, contact TransCore Technical Support.*

The RV Toll Pass transponder may be concealed in the vehicle headliner as close as possible to the front of the vehicle and windshield. The transponder must be horizontally polarized, on a non-metallic or non-carbon fiber surface, at least 4 inches away from any metal.

- 1. Determine the proper location for the transponder.
- 2. Run the power cable behind the dashboard assembly and vehicle panels as needed in order to conceal the power cable. Refer to Figure 5 for cable routing guidelines.





3. Connect the power cable to the transponder (Figure 6). Ensure that the cable is connected securely.



Figure 6 – Connect the Power Cable to the Transponder

- 4. Once the optimal mounting location is determined, prepare the mounting surface, making sure that the area is free of dust, dirt, and debris.
- 5. Peel the backing off of the transponder to expose the adhesive. Apply the transponder using moderate pressure.

NOTE: Installation is semi-permanent and the transponder cannot be repositioned once it is in place.

### Installing Transponder on the Windshield

# *Note: For transponder mounting or location questions, contact TransCore Technical Support.*

The RV Toll Pass transponder may be mounted on the interior windshield, with the longest side parallel to the bottom of the windshield. Other tags must be kept at least 3 inches away from the transponder. The area on the dashboard beneath the transponder must be kept clear of paperwork and metallic items.

### Determine the proper location for the transponder

#### **One-piece windshield**

If the vehicle has a one-piece windshield, the transponder should be centered on the windshield, 4 inches away from the top of the windshield (Figure 7.)

#### **Two-piece windshield**

If the vehicle has a two piece windshield, the transponder should be mounted on the passenger side, 3 inches away from the center dividing bar and 4 inches below the top of the windshield (Figure 8).

1. Run the power cable behind the dashboard assembly and vehicle panels as needed in order to conceal the power cable. Refer to Figure 5 on page 6.

- 2. Connect the power cable to the transponder. Refer to Figure 6 on page 7. Ensure that the cable is connected securely.
- 3. Once the optimal mounting location is determined, prepare the mounting surface, making sure that the area is free of dust, dirt, and debris. The windshield temperature should be at least 68°F (20°C) for optimum bonding.
- 4. Peel the backing off of the transponder to expose adhesive. Apply the transponder using moderate pressure.

# Note: Installation is semi-permanent and the transponder cannot be repositioned once it is in place.



Figure 7 – Mounting Position for One-Piece Windshield



Figure 8 – Mounting Position for Two-Piece Windshield

### **Uninstalling Transponder Mounted with Adhesive Tape**

When the Transponder is installed on a vehicle mounting surface using high-bond adhesive tape, installation is semi-permanent and the transponder cannot be moved once the installation is complete. If the transponder needs to be removed, a tool specifically designed for removing high-bond tape should be used (Figure 9). Failure to do so can result in damage to the mounting surface. TransCore recommends using a plastic trim removal tool or a string saw.

# Note: The transponder will be damaged from this procedure and must be replaced with either a new or refurbished transponder.

- 1. Slide the removal tool between the transponder and the windshield.
- 2. Working in small sections, gently pry or cut the adhesive away from the mounting surface. Liquid soap may be used as a lubricant.
- 3. When the bond has loosened, remove the transponder from the mounting surface.
- 4. Soften the adhesive residue remaining on the mounting surface with a commercial adhesive remover. Allow the solvent to soak for 5-15 minutes, then use a scraper to remove any remaining adhesive.
- 5. Clean the mounting surface with cleaner and paper towels.



Figure 9 – Tools to Remove Transponder Mounted with Adhesive

FCC ID: FIH051120 IC: 1584A-051120

#### NO UNAUTHORIZED MODIFICATIONS STATEMENT

CAUTION: This equipment may not be modified, altered, or changed in any way without permission from TransCore, LP. Unauthorized modification may void the equipment authorization from the FCC and will void the TransCore warranty.

#### **RADIO FREQUENCY INTERFERENCE STATEMENTS**

*Note:* This device complies with Part 15 of the FCC Rules and the Industry Canada Licence-Exempt RSS Standards. Operation is subject to the following two conditions:

- 1) this device may not cause interference, and
- 2) this device must accept any interference, including interference that may cause undesired operation of this device.

**Note:** Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- 1) l'appareil ne doit pas produire de brouillage, et
- 2) l'utilisateur del'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

#### EXPOSURE TO RADIO FREQUENCY ENERGY STATEMENT

This device is a mobile transmitter that uses an internal antenna to send radio frequency (RF) energy for data communications. The device emits RF energy below the published limits when operating in its maximum output power mode.

To comply with RF exposure compliance requirements, the device must be installed and operated with a minimum of 20 cm (7.9 inches) between the device and your body. The device should not be used in other configurations. The device must not be co-located or operated in conjunction with any other transmitter or antenna.



For more information:

Sales Support 800.923.4824

Technical Support 505.856.8007

transcore.com





© 2022 TransCore L.P. All rights reserved. TRANSCORE is a registered trademark and is used under license. All other trademarks listed are the property of their respective owners. Contents subject to change. Printed in the U.S.A.

