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Title: Telematics Device – Door sensor Instructions For 12-00919-00	Supersedes:	Page: 1 of 10

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FCC Regulatory:

§15.19 FCC Required Labelling Statement placed in User Manual

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

§15.21 Information to user.

The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required by this section may be included in the manual in that alternative form, provided the user can reasonably be expected to have the capability to access information in that form.

§15.105 Information to the user.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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Instructions for Installing Door sensor

Tools Required:

- | | |
|--------------------------------|--|
| 1) Standard hand tools | 6) Isopropyl alcohol (IPA) /Water mixture
(Rubbing Alcohol) |
| 2) Clean cloth | 7) Putty knife |
| 3) Scotch tape | 8) Hot air Gun |
| 4) Marker | |
| 5) Approved silicone or Mastic | |

This instruction should be read through completely before proceeding.

Parts required per assembly:

ITEM	KIT P/N	COMPONENTS Included	COMPONENT NAME	QTY
1	XX-XXXXX-XX	12-00919-00	SENSOR, DOOR	1
2		12-00919-01	MAGNET	1
3			INSTALLATION INSTRUCTIONS	1

Procedure:

DOOR SENSOR PAIRING

Telematics device and door sensor must be paired and verified before installation.

Door Sensor App Instructions

Note – The RTE Door Sensor App is only compatible with Android operating system.

1. Download and install the RTE App from xxxxxxx (Provide download link or share file)

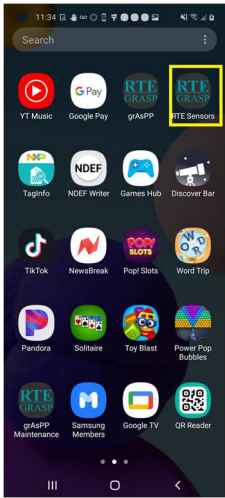


app-release v0.1.0.4.apk.zip

2. Once Installed, open the App “RTE Sensors”

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3. To read the current container ID, tap the phone's NFC to the area shown in Figure 1



Figure 1

4. The current ID, if any, will appear at the top. Figure 3

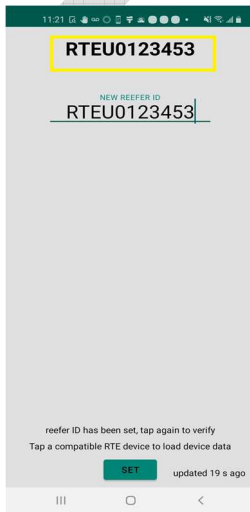
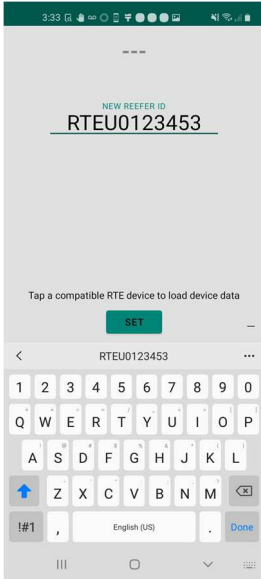


Figure 3

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5. To change or set the ID:
 - a. Enter the new ID
 - b. Press set
 - c. Tap the phone to the NFC area



6. After setting the ID, tap the NFC area again to read the ID and confirm it was set.

DOOR SENSOR INSTALLATION

1. If an existing door sensor is installed:
Using putty knife remove the caulking around the door sensor. Use caution to prevent scratch to door.
2. Remove the old door sensor from the door. Use caution to prevent damage to the sensor.

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Close right hand side door and leave left hand side door open.

3. Clean and dry area where sensor and magnet are to be located using IPA.



Door sensor: This would be between first and second corrugation from right to left, or in case flat panel measure 28 cm from door edge.

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Magnet: Aligned horizontally with arrow on door sensor label



4. Mark reference lines to indicate sensor locations at the top right corner of inner side of the container right door. Always place the door sensor at the top edge in order to assure the distance between the sensor and the magnet is no more than 5 cm. Some containers models might have a PVC profile on the door edge – do not remove/cut or overlap this. Please place the sensor immediately below the profile as shown below.



5. Suggested ambient and surface temperature of door and door sensor to be above 50°F (10°C) for better adhesion. For colder ambient temperature below 50°F (10°C) recommended use of hot air gun. Surface temperature should not exceed 122°F (50°C).

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6. Remove red protective backing from the door sensor; ensure the label arrow is facing upwards on the door sensor. Press sensor firmly (around 30 lb.) onto dry marked location for 5 sec minimum.



7. Door sensor assembled in place. Once installed door sensor should not be removed and reinstalled.

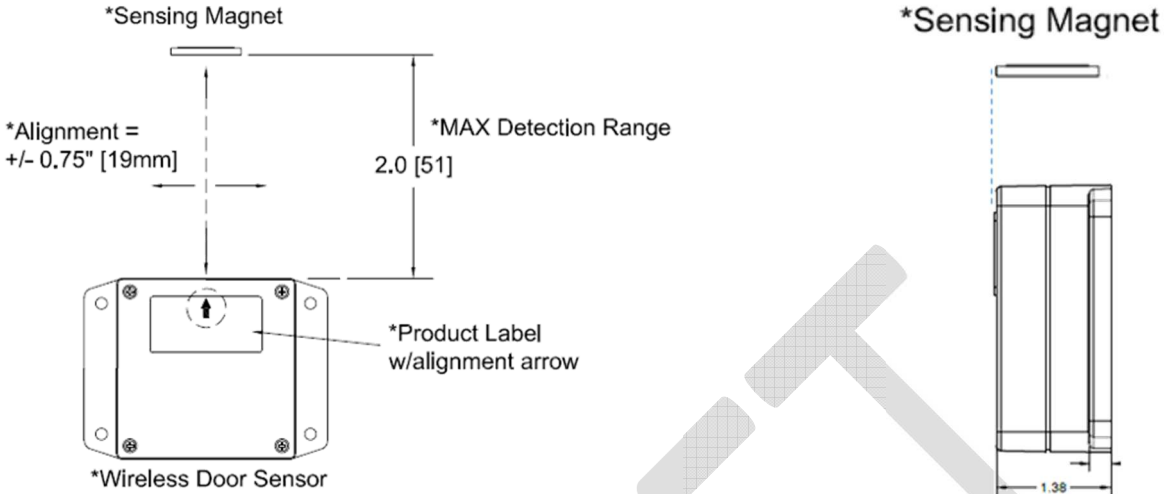


8. With the container right door closed and using the arrow on the sensor label as a guidance mark the position on the door header (top rail) lower face for the magnet.

Use this line as a reference to place the magnet as per below:

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Remove red protective backing from the magnet. Press magnet firmly (around 30 lb.) onto dry marked location for 5 sec minimum.

- 9. Apply silicone caulking or approved mastic carefully around perimeter of sensor and magnet to assure better fixing.



To include pic of final install

Figure C: Perimeter of Sensor

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DOOR SENSOR POC CHECKLIST Rev.A

Container number:		Controller software version:		<small>* Latest version 5380</small>
Container serial number:		Firmware version:		<small>* to be reported by RC user</small>
Telematics device s/n:				
Door sensor s/n:				
Date:				
Location:		Technician:		

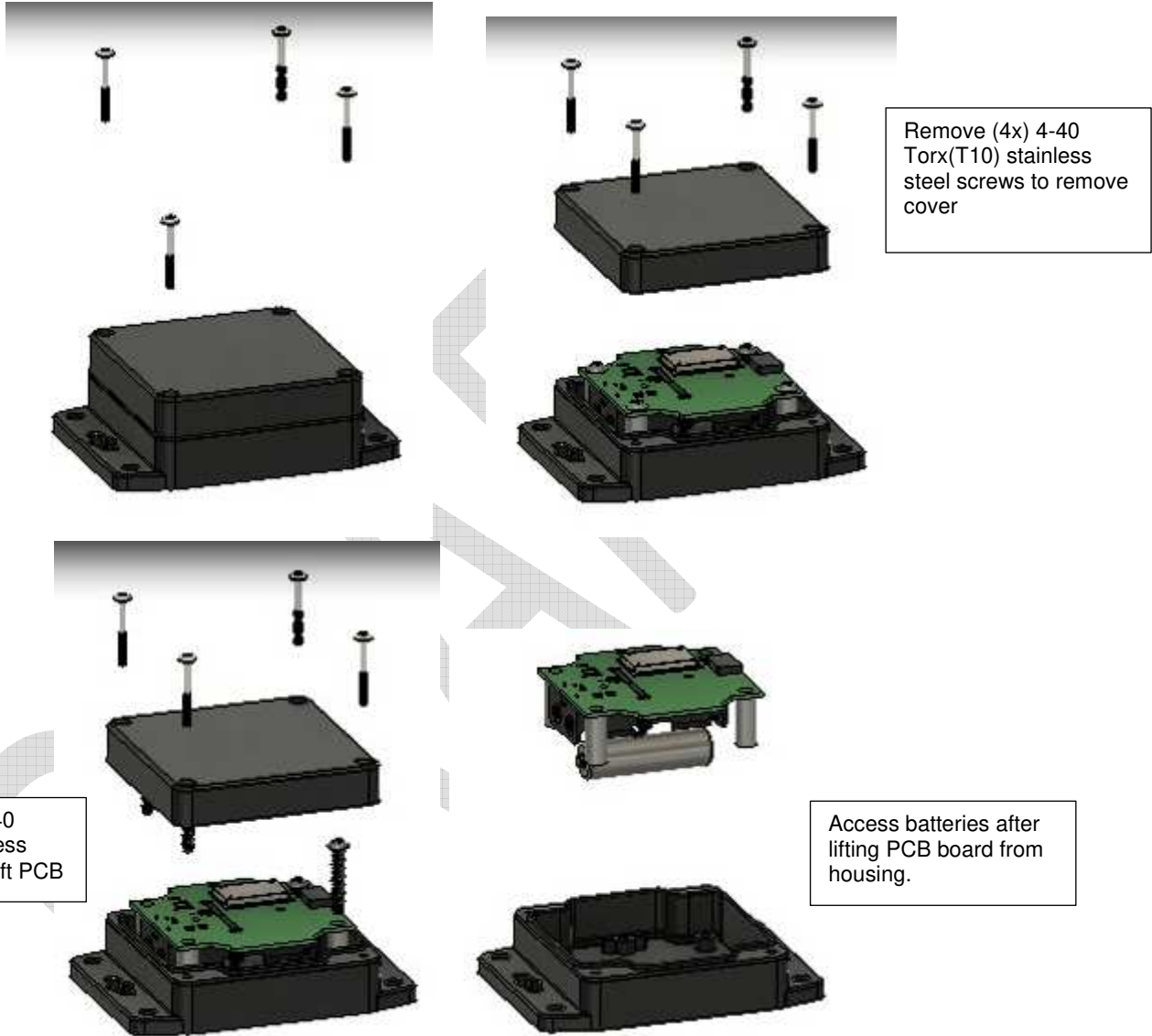
Check #	Test / Standard Work	Description	Stakeholder	Completed (Y/N)	Comments
1	Door sensor pairing verification	Verify that door sensors can be paired with telematics devices using supplied phone APP.	Technician		
2	Sensor Installation	Provide pictures of installed sensor	Technician		
3	Magnet installation	Provide pictures of installed magnet	Technician		
4	Report installation to ZIM		Technician		
5	Check door sensor visibility on RC platform		ZIM designated RC user		
6	Door Sensor Event communication - w/ unit powered ON	Open the container right door 10 cm and check event register on RC platform	Technician / ZIM designated RC user		
7		Close door after 1 minute after event register and check event register on RC platform	Technician / ZIM designated RC user		
8		Open the container right door completely and check event register on RC platform	Technician / ZIM designated RC user		
9		Close door after 1 minute after event register and check event register on RC platform	Technician / ZIM designated RC user		
10	Door Sensor Event communication - w/ unit powered OFF (working on battery)	Open the container right door completely and check event register on RC platform	Technician / ZIM designated RC user		
11		Close door after 1 minute after event register and check event register on RC platform	Technician / ZIM designated RC user		
12	Door sensor battery level	While unit loaded with cargo check door sensor battery on RC platform once every 5 days for as many occurrences as the trial period allows	ZIM designated RC user		
13	Events reported on 1st loaded trip	Check if events reported on RC platform match the logical/known door opening/closing events	ZIM designated RC user		
14	Door sensor integrity	Check and provide pictures of the sensor after first complete voyage	Technician		

Note: Steps 12 to 14 may be done several times based on container usage

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Battery replacement:



2 x AA Batteries (Energizer L91 recommended)

After battery replacement perform sensor pairing to assure correct unit ID assigned.

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