GT-Sense SMA Connectors

Installation Guide

CM2-1112120

Rev.

Electrical Ratings and Requirements

Product Supply Ratings

Power Supply: 18-36 VAC 50-60 Hz or 12-36 VDC, 2A

WARNING ⚠

These procedures should only be performed by trained installation technicians. High voltage/current lines are present and caution should be used to prevent injuries. Installer must conform to local standards and ordinances as required.

IMPORTANT!

During the installation a hole is to be drilled in the controller door.

Make sure that power is off, unit is disconnected and that no damages have occurred during drilling.

Required Tool Kit

- 13mm (1/2 ") Drill Bit
- Center Punch
- Cutting compound for the drill
- Drill for removing burrs
- Degreasing rags
- Screwdrivers: T20 Torx and Philips
- 18mm open face wrench
- SMA Connector Wrench (GT PN TOL0005)
- Side cutting pliers
- Magnet
- Cable Ties

GT Sense Reefer Kit

A complete GT Sense Reefer Kit includes:

1. GT Sense Device
2. RMM Bracket Kit
3. Antenna (80 mm diameter round black version with 3M VHB tape and threaded mount on the back cables and connectors
4. RMM Cable PN CBL0020
5. Activation magnet

1.

2.

3.

4.

5.

If the GT Sense Device is already attached to the RMM Bracket proceed to step 1.

If it is not already attached to the RMM Bracket see below:

Remove the white protective coating from both sides of the RMM Bracket (if present) and attached the RMM Bracket to the back of the GT Sense Device using the 4x flat head thread-forming.

Start all 4 screws through the countersunk holes and into the holes in the GT Sense Device enclosure with a T20 torx bit before tightening the screws to 6 kg-cm (5 in-lbs).

Before beginning the antenna installation, please print and cut out the template that can be found at the end of this document.

Step 1

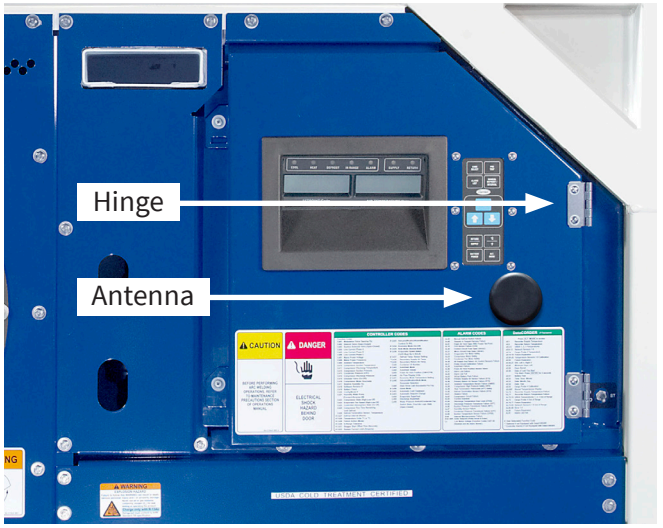
Use the antenna installation template to locate the antenna placement on the door.

Place the template towards the edge of the door on the hinge side and mark the center point. The center point should be 10 cm from the edge of the door on the hinge side.

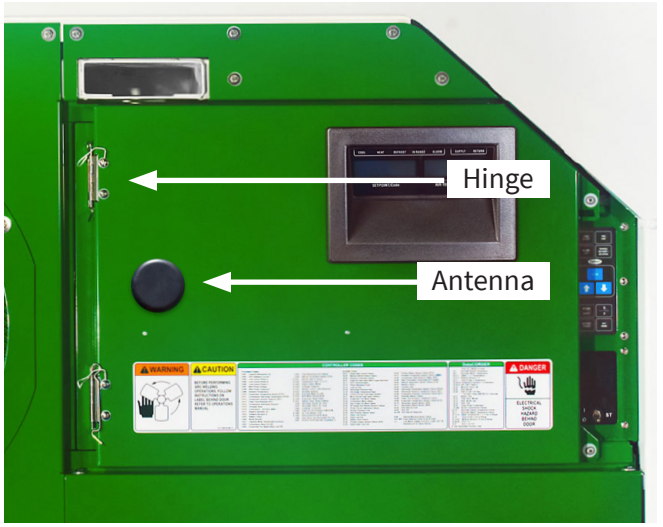
Check that there is nothing on the inside surface of the door that could be damaged when a hole is drilled in the centre-punched location.

NOTE: Avoid blocking the information labels on the door.

NOTE: If an antenna by another company is already mounted to the door, DO NOT remove it.



PrimeLINE and ThinkLINE



NatureLINE and EliteLINE

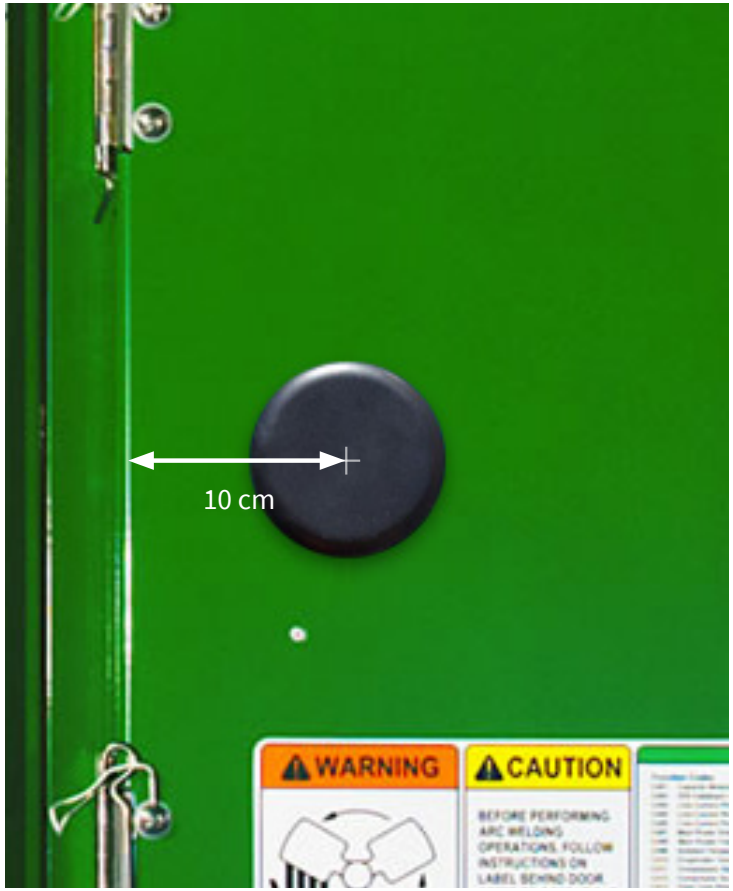
Step 2

Drill a 13 mm (1/2") hole at the centre-punched mark. Remove all burrs after drilling.

IMPORTANT: Controller Box Door should be kept open during drilling.

PrimeLINE and ThinkLINE:

Antenna installed on right side of the door.

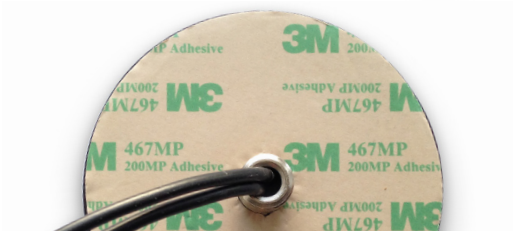


NatureLINE and EliteLINE:

Antenna installed on left side of the door.

Step 3
Degrease/clean the surface where the antenna will be mounted with a metal cleaner or similar before fitting the antenna.

Step 4
Remove the nut, lock washer, and plastic washer from the threaded mount on the backside of the antenna by slipping them off the antenna cable via the slots.



Step 5
Insert the connector end of the antenna cable through the dirlled hole in the door. Remove the 3M VHB table liner from the backside of the antenna. Push the thread mount through the drilled hole and secure the antenna to the door by pressing the VHB tape onto the door.

Note: Specific orientation/rotation of the antenna is not required.

Step 6
Replace the plastic washer, lock washer and nut on the antenna threaded mount on the inside of the door. Tighten the nut firmly with the 18mm open face wrench, torque to 1.5 N-m (11.5 in-lbs).

Step 7

If a modem is already present in the RMM slot, remove it maintaining the mounting screws and unplug all of the connections.

Step 8

Route the antenna cables across the door hinge through existing cable channel (if present) to the RMM slot using the cable ties to secure the cables. Do not be concerned with the extra length of cable at this time.

Step 9

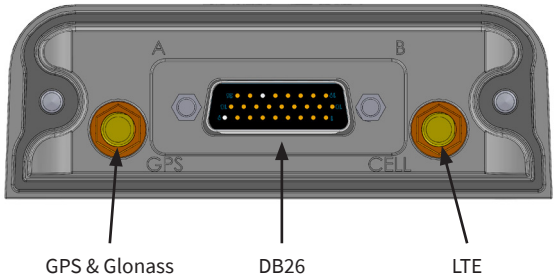
Connect and secure the antenna cables to appropriate SMA connectors on the GT Sense Device before connecting the RMM cable to the DB26 connector.

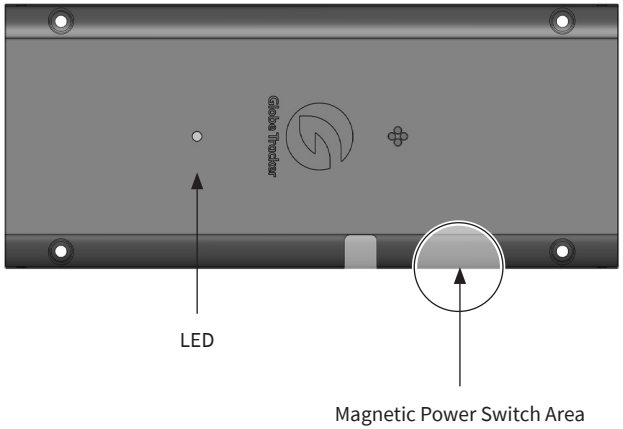
The antenna cables are identified by labels near the connector ends. The corresponding SMA connectors on the GT Sense Device are identified with the names "GPS" and "CELL".

After connecting the antenna cables, attach the DB26 from the RMM cable to the mating connector on the GT Sense Device and secure with the screws provided on the connector.

Step 10

Power the GT Sense Device on by placing the magnet over the area of the GT Sense Device enclosure for 5 seconds and watch for the LED to light indicating the GT Sense Device has powered on and completed its internal check process.





Step 11
Fit the GT Sense Device into the RMM slot and secure with the screws from the removed modem. If no modem was removed, use the M5 screws and mylar washers provide in the RMM bracket kit.

Step 12
Connect the 7 position RS232 terminal block connector and the 3 position power terminal block connector to the mating connector from the reefer controller.

Check to be sure the screw terminals on all connectors are on the same side of the mated connectors.

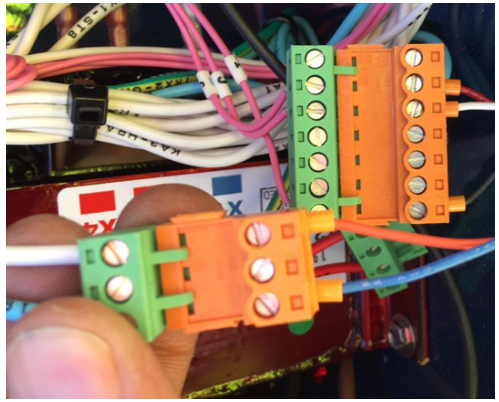
If the RMM Cable you are installing has an inline fuse, the fuse is intended to be on the Ground Line for A/C reverse polarity protection for the GT Sense Device.

Step 13
Secure any extra length of antenna cable or RMM cable with cable ties making sure not cables are in tension.

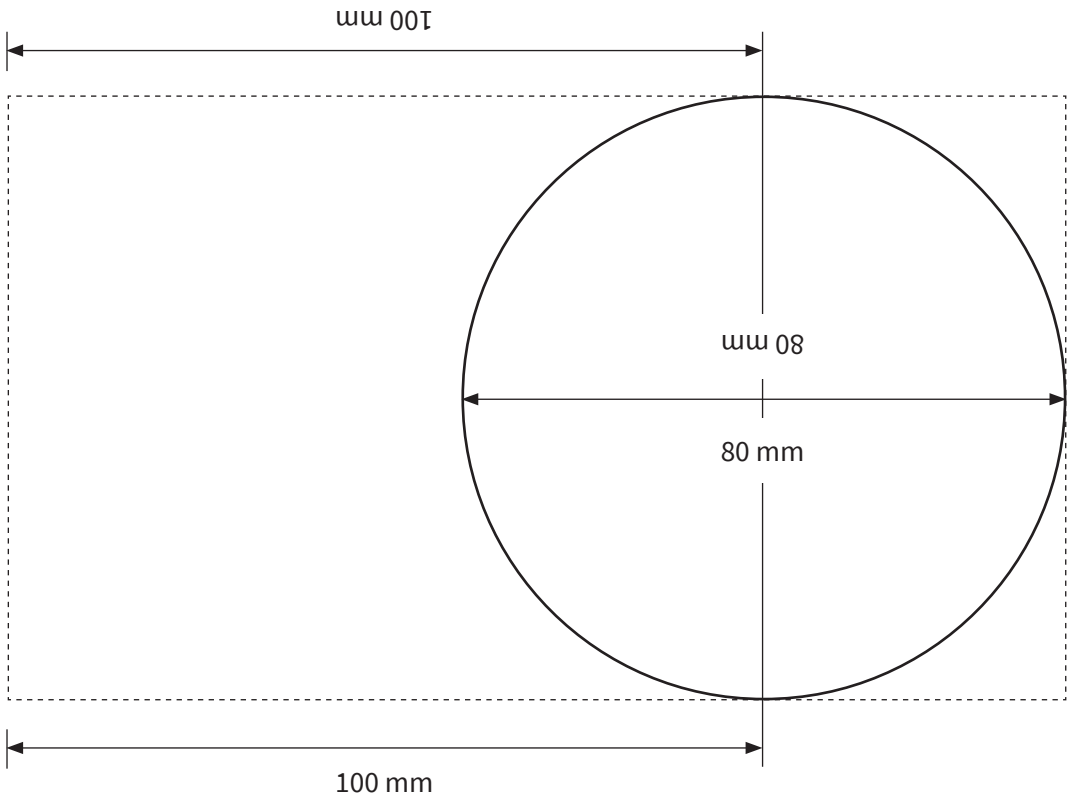
Step 14
Use the Installation app to verify GPS and communications are working (future).

Step 15
Secure the control box door.

Installation complete.



Antenna Installation Templates



Cut out the template above and use it to locate the position of the antenna mounting hole.

NOTE: Print in 100%

Use a center punch to pm the dot at the center of circle to locate the mounting hole.

GT-Sense SMA Connectors
Model: CM2-1112120
FCC ID:2ASJR-CM2-1112120

FCC Warning

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.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE:
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.

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.

FCC RF exposure statement:
The equipment complies with FCC Radiation exposure limit set forth for uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

CE Warning

This device was tested for typical body-worn operations. To comply with RF exposure requirements, a minimum separation distance of 0mm must be maintained between the user's body and the handset, including the antenna. Third-party belt-clips, holsters, and similar accessories used by this device should not contain any metallic components. Body-worn accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided. Use only the supplied or an approved antenna.

This device in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. All essential radio test suites have been carried out.

1. CAUTION : RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS
2. Adapter shall be installed near the equipment and shall be easily accessible.
3. The plug considered as disconnect device of adapter
4. The device complies with RF specifications when the device used at 20mm form your body

CE