ORBCOMM®

WHERE DATA DRIVES DECISIONS

GT 1210 and GT 1230

Trailer and Container Installation Guide

GT0018, Version 11
Sep 2025

© ORBCOMM®

CONTACT AND LEGAL INFORMATION

Visit ORBCOMM Online

Website:	www.ORBCOMM.com
Office:	395 W Passaic Street, Suite 325, Rochelle Park, NJ 07662 USA

Contact Support

Website:	https://www.orbcomm.com/en/support	
Email:	customer.care@orbcomm.com OR FMSupport@orbcomm.com (Fleet Management support needs)	
Phone:	(North America Toll-Free) 1.800.ORBCOMM	(United Kingdom Toll-Free) +44 800 538.5909
	(USA / International Toll) +1.804.404.8681	(United Kingdom Toll) +44 20 3855.6153
	(Australia Toll) +61 (8) 6186 9633	(Austria, Germany, Switzerland Toll) +49 89.208045522
	(New Zealand Toll) +64 (9) 884 1439	(Ireland Toll) +353 1.582.4013

Export Control Statement

The contents of this document, in whole or in part, shall not be exported from the United States, which export shall include, but not be limited to, transmittal to any non-U.S. citizen wherever said person is located, except in accordance with all United States laws and regulations relating to exports and to all administrative acts of the U.S. Government pursuant to such laws and regulations. Diversion, re-export or transshipment of the contents of this document, in whole or in part, contrary to U.S. law is also strictly prohibited.

Trademark Notice

The ORBCOMM name and logo are registered trademarks of ORBCOMM Inc. and may not be used without permission.

Other trademarks, trade names, and logos are those of their respective owners.

TABLE OF CONTENTS

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

1 INSTALLATION

This document covers both container and trailer installations.

Unless noted otherwise, the information in this guide refers to both the GT 1210 and GT 1230, hereinafter referred to as the "GT 12xx".

IMPORTANT

READ ALL INSTRUCTIONS CAREFULLY BEFORE INSTALLING. FAILURE TO DO SO MAY CAUSE PERSONAL INJURY OR DAMAGE TO PRODUCT AND/OR PROPERTY.

• Review the product package and contents prior to beginning the installation. Take care when opening the packaging and removing items. If a return is needed, you will want to return the product in its original packaging if possible. • This instruction guide is provided as a GENERAL installation guide; some assets vary dimensionally and may require additional steps. • ORBCOMM has a policy of continuous development and improvements. Therefore, products, guides, and technical information are subject to change without prior notice. • The manufacturer and / or distributors do not accept responsibility for third-party charges, labor, and / or third-party replacement modifications that are not ORBCOMM approved. Some modifications may void the factory warranty. • ORBCOMM does not accept any responsibility for installations performed by installers / third parties not approved and / or authorized by ORBCOMM. Some installations may void the factory warranty. • Exercise due diligence when installing this product. ORBCOMM does not accept any responsibility for asset damage or personal injury resulting from the installation of this product. Careless installation and operation can result in serious injury or equipment damage. • All liability for installation and use rests with the owner / operator. • Always make sure you have a clean, dry, and well-lit work area. • Always ensure products are secure during disassembly and installation. • Always take steps to protect yourself when drilling, cutting, and grinding because this may create flying particles that can cause injury. • Thoroughly inspect the area to be drilled, on both sides of material, prior to modification, and relocate any objects that may become damaged. • Always route electrical cables carefully. Avoid moving parts, parts that may become hot and rough, or sharp edges. • Make sure to fully understand the product, its intended use, and operation prior to use.

CAUTION: While ORBCOMM provides mounting hardware to assist with installations, it is the responsibility of the installer to select the proper mounting hardware for the asset's surface material where an ORBCOMM device or accessory will be mounted.

1.1 Inclement Weather Guidelines

One method of securing the device to an asset is double-sided tape. Proper tape application requires that the tape is kept warm (room temperature), and the asset surface is both clean and dry.

Mandatory Guidelines for Installation in Wet Weather

The installation surface on the asset must be completely clean and dry for the tape to bond. If it is raining or snowing hard enough that the surface cannot be kept dry, DO NOT proceed with the installation.

Mandatory Guidelines for Installation in Cold Weather

Below 15°C (60°F) the double-sided tape starts becoming firm which makes it more difficult to bond to the asset.

If the guidelines below are followed correctly, the device can be installed at temperatures down to -20°C (-5°F).

CAUTION: The double-sided tape mounting brackets must not be used at temperatures below -20°C (-5°F).

- At or below freezing temperatures (0°C or 32°F), both the device and the tape primer* must be kept at room temperature, for example, inside an idling vehicle or a warm building.

  *If tape primer is not provided with the device, the cold temperature installation kit (ORBCOMM p/n ST101505, suitable for up to 25 installs) MUST be used.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

Example of Tape Primer

- Keep the primer warm (room temperature) until ready to apply. The primer will not dry quickly at cold temperatures however, in this situation the tape should be applied when the primer is still wet, as it improves initial bond.
- Keep the device warm (room temperature) until it is time to mount it to the asset.
- **Press firmly on the entire top surface of the device (7 kg (15 lb) for 15 seconds)** to bond the tape to the asset.

Failing to follow these guidelines will compromise the installation.

1.2 Battery Safety Warnings

CAUTION: Always follow local disposal guidelines to properly dispose of the Lithium-ion battery and the device.

CAUTION: DO NOT replace the battery. Changing the battery without ORBCOMM's permission could violate regulatory conformity.

CAUTION: DO NOT throw the internal battery or the device into fire.

1.3 Mount the GT 12xx on a Container or Thin-Walled Trailer

Note: To mount the GT 12xx on a sheet and post trailer, refer to section 1.4.

This procedure covers mounting with and without cables.

1.3.1 Gather the Required Tools and Materials

The following are required for this installation:

- GT 1210 or GT 1230
- Magnetic drill template (provided by ORBCOMM, p/n ST100931)
- Duct tape (for non-ferrous assets)
- Rivet Gun
- Drill and the following drill bit sizes: 6.5 mm (¼") and 5 mm (0.196"). A 4.8 mm ($^{3}/_{16}$") is an optional replacement for 5 mm (0.196").
- Drill stops of the following sizes: 6.5 mm (¼") and 4.8 mm ($^{3}/_{16}$")
- 45 mm (1¾") diameter hole saw with a 6.5 mm (¼") diameter pilot (Milwaukee Bi-Metal preferred)
- $^{11}/_{32}$" Socket extension
- Marker
- Alcohol based cleaner or wipes
- Rags or towels
- Silicone sealant (gray or black recommended)
- Dry graphite lube
- Deburring tool

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

- 1.8 m (6') step ladder
- If installing a door sensor (DS 300), refer to *AC006 DS 300 Install Guide*

1.3.2 Associate the GT 12xx

1. Record the **serial number** of the GT 12xx and the **asset identification number**.

2. From the end of the GT 12xx, remove the red label, and then remove the magnet located under the label.

3. Use the ORBCOMM Field Support Tool, before mounting the GT 12xx, to associate the GT 12xx ID with the asset ID. Refer to the *MA002 Field Support Tool User Guide* for download instructions.

   OR

   Contact Support and provide the serial number and the asset identification number. Customer Care needs to add these numbers to your account.

1.3.3 Drill the Required Holes

CAUTION: If drilling on an asset (container or trailer) loaded with cargo, use drill stops.
- Attach the drill stop to the drill bit, the location of the stop on the bit will depend on the width of the asset wall.
- Use just enough force to slightly penetrate the asset wall. Going all the way through the asset wall may damage cargo.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

1. Determine the appropriate location (vertically or horizontally) for the GT 12xx. Avoid mounting over weld seams or rivets. All measurements are made to the cargo sensor hole on the drill template.

   Note: When mounting in a vertical configuration the solar panel should face down for optimal RF performance.

   Note: When mounting is horizontal (on a container or thin-walled trailer), the solar panel can face either left or right.

   Note: Refer to the DS 300 Installation Guide for door sensor mounting instructions.

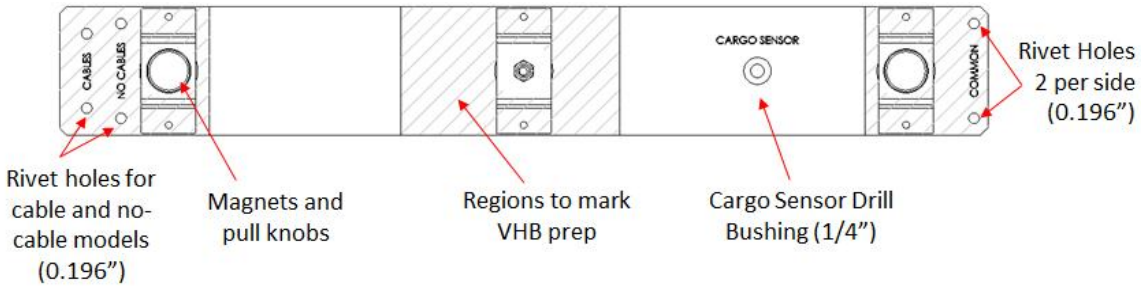
2. Place the template, with the cargo sensor bushing, 36 to 61 cm (14 to 24") to the left or right of the centerline 41 to 51 cm (16 to 20") is ideal and 71 to 97 cm (28" to 38") from floor height (91 cm or 36" is ideal). For non-ferrous containers or trailers, use duct tape to securely hold the template in place.

3. Spot drill through the cargo sensor bushing on the template with a 6.5 mm (¼") drill bit. Spot drill the four (4) rivet holes using a 0.196" drill bit. A 4.8 mm ($^{3}/_{16}$") drill bit may be used if a 5 mm (0.196") drill bit is not available; however, the holes may need to be opened to fit the rivets.

   CAUTION: Be sure to select the correct pair of rivet holes depending on whether the GT 12xx includes cables.

   CAUTION: DO NOT drill all the way through the container wall with the template in place.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025



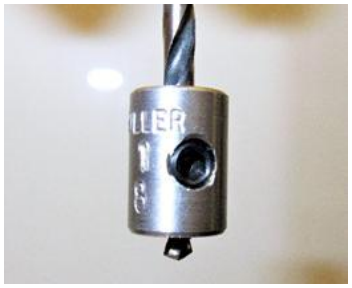
1.3.4 Prepare the Holes

CAUTION: DO NOT drill holes in placarded trailers that are loaded.

1. Remove the template.

   CAUTION: DO NOT drill completely through the container or trailer with the template still attached. Only pilot holes should be drilled at this point and the template removed.

2. Secure a drill stop collar 3 mm (⅛") to the drill bit when drilling each of the 5 mm (0.196") holes.



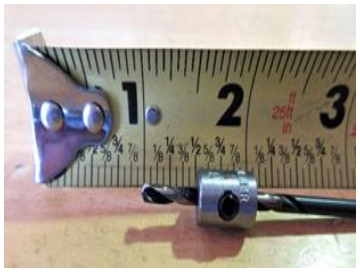
For Container

Set the drill stop 3 mm (⅛") from the tip of the drill bit.

For Thin-Walled Trailer

Set the drill stop 12 mm (½") from the tip of the drill bit.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025



3. Drill the lower left drill hole location until the drill stop contacts the trailer or container surface.

   a. Insert a probe through the drilled hole a minimum of 10 cm (4”) or until the probe comes into contact with freight.

      CAUTION: If the minimum 10 cm (4”) is not attained when probing a drill hole location, DO NOT continue drilling holes. Any holes drilled should be filled with silicone sealant.

      Note: If a minimum of 10 cm (4”) is attained when probing, continue with the next step.

4. Repeat step 3 for the remaining three (3) holes and the cargo sensor hole.

   Note: If a minimum of 10 cm (4”) is attained when probing the lower middle and lower left drill hole locations, continue this process with each of the top drill hole locations, completing one at a time.

   CAUTION: If the minimum 10 cm (4”) is not attained when probing a drill hole location, DO NOT continue drilling holes. Any holes drilled should be filled with silicone sealant.

5. Drill the four (4) outer holes to 5 mm (0.196”) and drill the single center hole to 6.5 mm (¼”) diameter.
6. Spray the teeth of the hole saw with dry powder graphite lube before drilling the first cargo sensor hole to reduce sparking or heat.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

Note: DO NOT spray directly on the asset surface because this may leave residue.

7. Use a 45 mm (1¾") diameter hole saw with a 6.5 mm (¼") diameter pilot to cut a hole through the asset, through the predrilled 6.5 mm (¼") diameter hole.

CAUTION: If at any time sparks or excessive heat cannot be avoided, STOP the install and call management.

Container View

8. Remove excessively sharp edges, large/hanging burrs or strips that are the results of using the hole saw, with a few quick passes of a deburring tool.

Note: Only edge deburring tools should be used. Straight files or hand files should never be used as they will distort the shape of the hole.

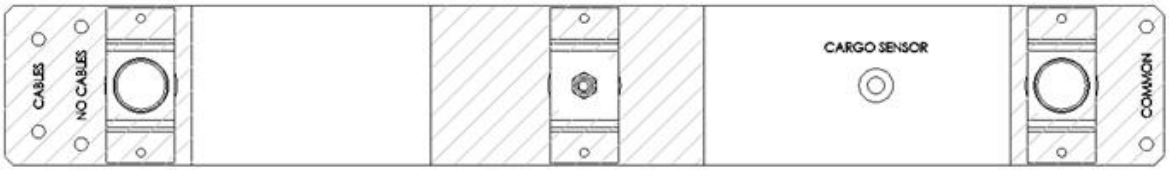
EXAMPLE OF A TYPICAL DEBURRING TOOL WITH A ROTARY STYLE HEAD

Note: If a container has a double wall with an air gap, as per the figure below, completely fill the air gap with a clean bead of caulking.

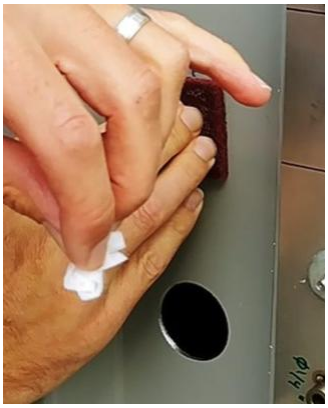
ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

1.3.5 Prepare the Mounting Location

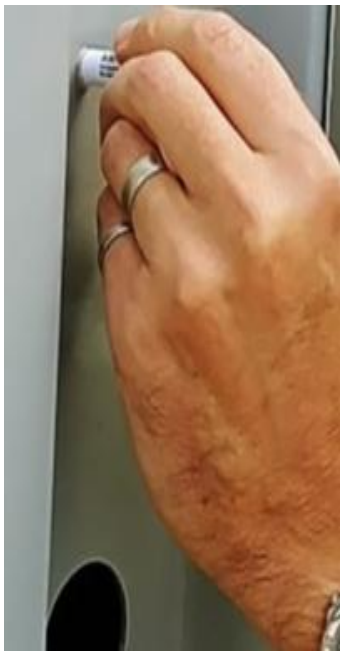
1. After the holes are drilled, prepare the three (3) areas indicated by the crosshatch on the template:



   a. Use a scour pad to prepare the area.
   b. Clear the surface with an alcohol cleaner or wipe.



   c. Apply 3M Primer to the areas and wait at least 30 seconds for the primer to dry. Refer to section 1.1 for inclement weather guidelines.



ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

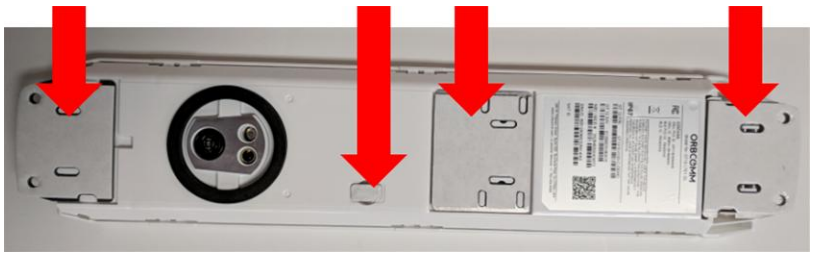
1.3.6 Mount the GT 12xx with or without Cables

- If mounting without cables, see section 1.3.6.1.
- If mounting with cables, see section 1.3.6.2.

1.3.6.1 Mount the GT 12xx without Cables

1. Remove the liner from all three (3) double-sided tape brackets and anti-tamper magnet.

   CAUTION: DO NOT touch the double-sided tape.



2. Mount the bracket to the asset.

   CAUTION: It is very important to use the two provided rivets as an alignment guide.

3. Insert one rivet through the bottom bracket and one rivet through the top bracket for alignment.

   CAUTION: This step is critical to align the cargo sensor hole.

4. **Press firmly on the entire top surface of the GT 12xx (7 kg (15 pounds) for 60 seconds)** to bond the double-sided tape to the asset.

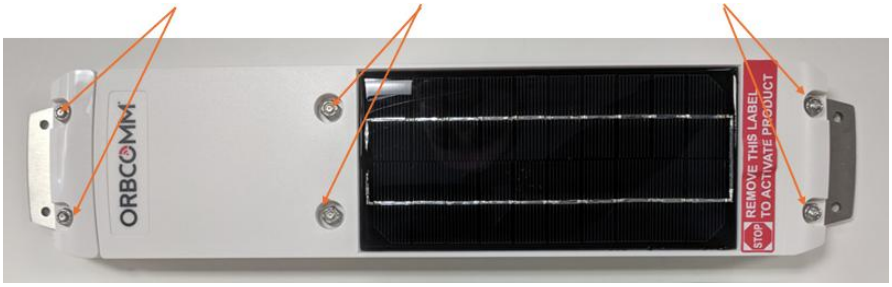
ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

5. Assemble two (2) rivets on the top bracket and two (2) on the bottom bracket.

6. If the GT 12xx includes a bag containing a single rivet and marked “MIDDLE BRACKET RIVET”, proceed with the following steps. If not, proceed to step 7.

   a. Use a hand tool to remove the six (6) hex nuts from the GT 12xx and set them aside.

      CAUTION: DO NOT use a power tool to remove the GT 12xx hex nuts, as doing so can damage the brackets. Use a hand tool.



ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

b. Remove the GT 12xx from the brackets.

CAUTION: All three (3) brackets MUST be bonded to the asset at this time. If they are not, reassemble the brackets to the GT 12xx and bond the brackets to the asset as outlined in the previous steps.

c. Use a 5 mm (0.196") drill bit to drill through the circular hole in the middle bracket.

d. Assemble the flat head rivet (from the bag marked "MIDDLE BRACKET RIVET") into the drilled hole.

e. Mount the GT 12xx back onto the brackets and use a hand tool to reassemble the six (6) hex nuts you removed earlier. Ensure they are hand tight (or 14 inch-pounds if a torque wrench or driver is available).

CAUTION: DO NOT use a power tool to assemble the hex nuts, as doing so can damage the brackets. Use a hand tool.

7. (optional) Add silicone sealant around the rivets if additional sealing is required.
8. (optional) If using the Cargo Sensor, use the Field Support Tool (*MA002 Field Support Tool User Guide*) to initiate a cargo scan. If you are not using the Field Support Tool, this scan is not required.
9. Restart the GT 12xx:
   - Use the Field Support Tool (*MA002 Field Support Tool User Guide* - Restart the Device procedure)

   OR

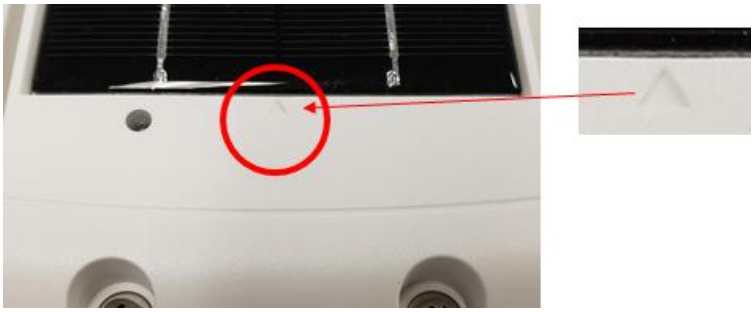
   - Follow the step below to restart the GT 12xx using the magnet:

     Note: This procedure only works if the GT 12xx is running firmware version 14.1 or higher.

     Place the magnet on or slightly raised above the arrow / triangle icon shown in the figure below, hold in place until you see the LED blink blue, about 55 to 65 seconds, and then remove it. The LED will be solid

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

blue for about 10 seconds while the GT 12xx restarts.



1.3.6.2 Mount the GT 12xx with Cables

1. Remove the cable cover, nuts, and top double-sided tape bracket from the GT 12xx.
2. Depress both connector clips and then pull on the 16-pin sealing cap to disconnect it.

3. Remove the liner from the top double-sided tape bracket and then mount the bracket to the asset.

   CAUTION: It is very important to use the two provided rivets as an alignment guide.

4. Press firmly (7 kg (15 pounds) for 60 seconds) to bond the bracket to the asset.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

Note: When routing cables directly into the asset using the right-angle cable cover kit, refer to APPENDIX E.

5. Remove the liner from the second and third double-sided tape brackets, and the liner from the anti-tamper magnet.

   CAUTION: DO NOT touch the double-sided tape.

6. Insert one rivet through the bottom bracket and use the studs from the top bracket for alignment.

   CAUTION: This step is critical to align the cargo sensor hole.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

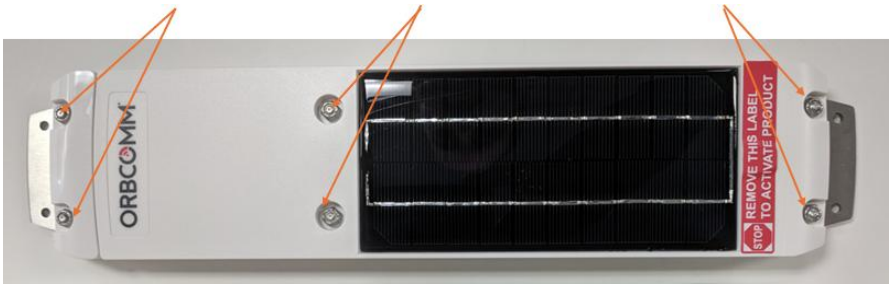
7. **Press firmly on the entire top surface of the GT 12xx (7 kg (15 pounds) for 60 seconds)** to bond the double-sided tape to the asset.

8. Assemble two (2) rivets on the top bracket and two (2) on the bottom bracket.
9. If the GT 12xx includes a bag containing a single rivet and marked “MIDDLE BRACKET RIVET”, proceed with the following steps. If not, proceed to step 10.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

a. Use a hand tool to remove the six (6) hex nuts from the GT 12xx and set them aside.

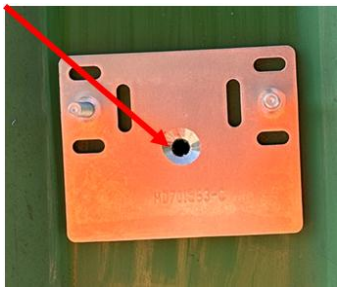
CAUTION: DO NOT use a power tool to remove the GT 12xx hex nuts, as doing so can damage the brackets. Use a hand tool.



b. Remove the GT 12xx from the brackets.

CAUTION: All three (3) brackets MUST be bonded to the asset at this time. If they are not, reassemble the brackets to the GT 12xx and bond the brackets to the asset as outlined in the previous steps.

c. Use a 5 mm (0.196”) drill bit to drill through the circular hole in the middle bracket.



d. Assemble the flat head rivet (from the bag marked “MIDDLE BRACKET RIVET”) into the drilled hole.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

e. Mount the GT 12xx back onto the brackets and use a hand tool to reassemble the six (6) hex nuts you removed earlier. Ensure they are **hand tight** (or 14 inch-pounds if a torque wrench or driver is available).

CAUTION: DO NOT use a power tool to assemble the hex nuts, as doing so can damage the brackets. Use a hand tool.

10. (optional) Add silicone sealant around the rivets if additional sealing is required.

11. Cut off one end of the tube of dielectric grease (provided). Adding the dielectric grease ensures that there is a watertight seal.
12. Squeeze the dielectric grease into the 16-pin connector until it is full. Some dielectric grease may spill out.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

13. Connect the cable harness to the 16-pin connector. The latches on the cable harness provide a tactile click when engaged.

14. Reassemble the cable cover and the nuts removed in step 2. Secure the nuts, but do not overtighten (1.35 N-m / 12 in-lb is ideal).
15. Dress the cable harness through one or more of the provide cable tie slots on the side of the GT 12xx.

16. (optional) If using the Cargo Sensor, use the Field Support Tool (*MA002 Field Support Tool User Guide*) to initiate a cargo scan. If you are not using the Field Support Tool, this scan is not required.
17. Restart the GT 12xx:
    - Use the Field Support Tool (*MA002 Field Support Tool User Guide* - Restart the Device procedure)

    OR

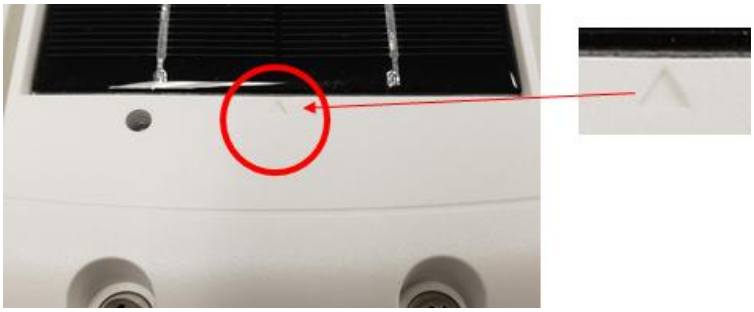
    - Follow the step below to restart the GT 12xx using the magnet:

      Note: This procedure only works if the GT 12xx is running firmware version 14.1 or higher.

      Place the magnet on or slightly raised above the arrow / triangle icon shown in the figure below, hold in place until you see the LED blink blue, about 55 to 65 seconds, and then remove it. The LED will be solid

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

blue for about 10 seconds while the GT 12xx restarts.



1.4 Mount the GT 12xx on a Sheet and Post Trailer

Note: To mount the GT 12xx on a container or thin-walled trailer, refer to section 1.3

1.4.1 Gather the Required Tools and Materials

The following are required for this installation:

- GT 1210 or GT 1230
- Sheet and Post Horn Kit, one of:
  - 2⅛" to 2½" Nose Post Horn Kit (p/n ST100965-001)
  - 1¾" to 2⅛" Nose Post Horn Kit (p/n ST100965-002)
  - 1¾" to 2½" Nose Post Two Horn Kit (p/n ST100965-003)
- Magnetic drill template (provided by ORBCOMM, p/n ST100965-001)
- Duct tape (for non-ferrous assets)
- Rivet Gun
- Drill and the following drill bit sizes: 6.5 mm (¼") and 5 mm (0.196"). A 4.8 mm ($^{3}/_{16}$") is an optional replacement for 5 mm (0.196").
- Drill stops of the following size: 6.5 mm (¼")
- 45 mm (1¾") diameter hole saw with a ¼" (6.5 mm) diameter pilot (Milwaukee Bi-Metal preferred)
- 30 mm (1¼") diameter hole saw with a 6.5 mm (¼") diameter pilot (Milwaukee Bi-Metal preferred)
- $^{11}/_{32}$" Socket extension
- Marker
- Alcohol based cleaner or wipes
- Rags or towels
- Silicone sealant (gray or black recommended)
- Dry graphite lube
- Deburring tool
- 1.8 m (6') step ladder
- If installing a door sensor (DS 300), refer to *AC006 DS 300 Install Guide*

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

1.4.2 Associate the GT 12xx

1. Record the **serial number** of the GT 12xx and the **asset identification number**.

2. From the end of the GT 12xx, remove the red label, and then remove the magnet located under the label.

3. Use the ORBCOMM Field Support Tool, before mounting the GT 12xx, to associate the GT 12xx ID with the asset ID. Refer to the *MA002 Field Support Tool User Guide* for download instructions.

   OR

   Contact Support and provide the serial number and the asset identification number. Customer Care needs to add these numbers to your account.

1.4.3 Drill the Required Holes

CAUTION: If cargo is loaded against the nose of a sheet and post trailer, DO NOT perform the installation.

1. Determine the appropriate location (vertically or horizontally) for the GT 12xx. Avoid mounting over rivets. All measurements are made to the cargo sensor hole on the drill template.

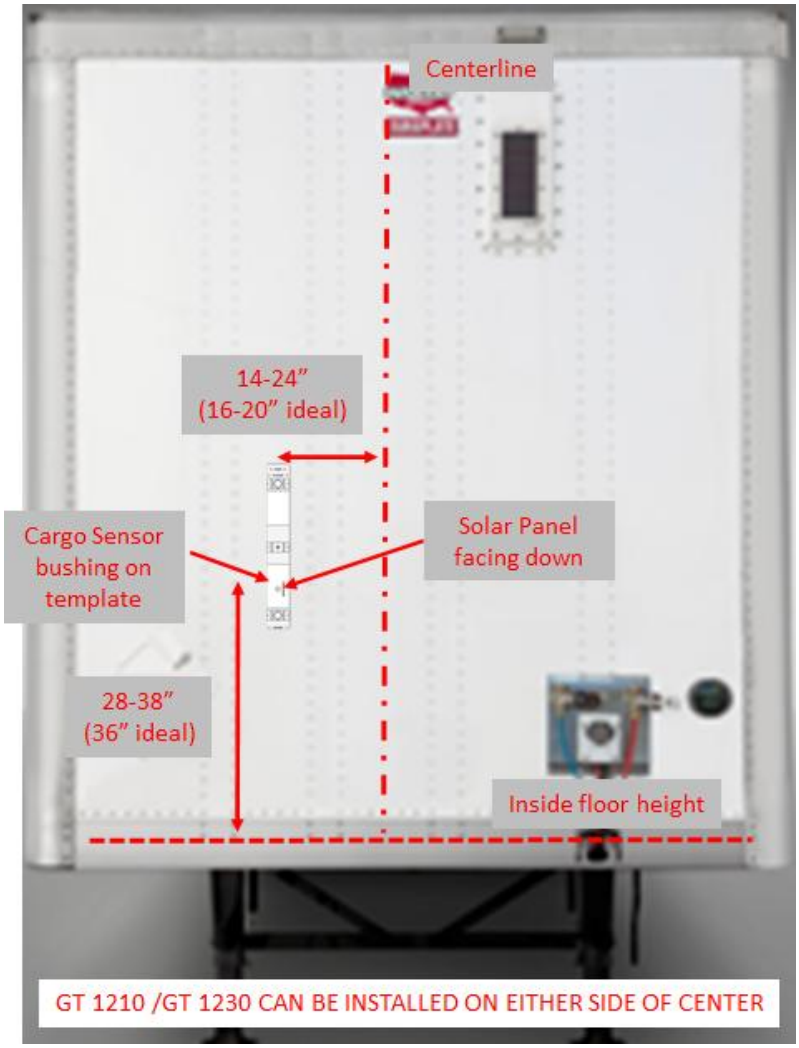
   Note: When mounting in a vertical configuration the solar panel should face down for optimal RF performance.

   Note: When mounting is horizontal (on sheet and post trailers), the solar panel should face the side walls for optimal cargo detection.

   Note: Refer to the DS 300 Installation Guide for door sensor mounting instructions.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

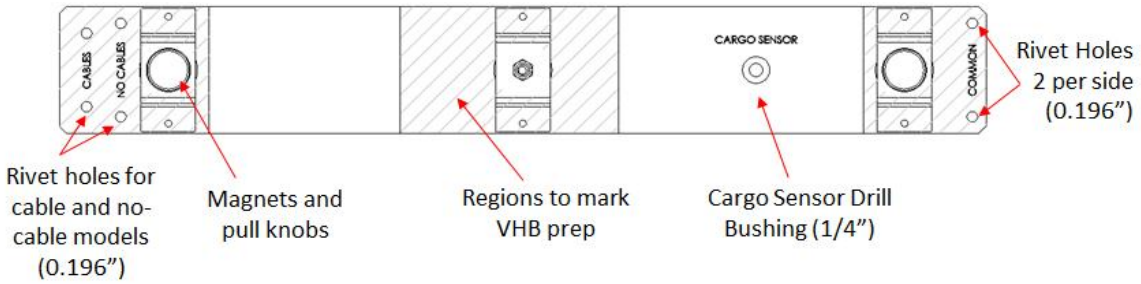
2. Place the template, with the cargo sensor bushing, 36 to 61 cm (14 to 24”) to the left or right of the centerline (41 to 51 cm (16 to 20”) is ideal) and 71 to 97 cm (28” to 38”) from floor height (91 cm or 36” is ideal). For non-ferrous trailers, use duct tape to securely hold the template in place.



3. Drill through the cargo sensor bushing on the template with a 6.5 mm (¼”) drill bit. Drill through both the outer skin and the inner liner of the sheet and post trailer using the template.

CAUTION: Failure to use the template will compromise the installation.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025



1.4.4 Prepare the Holes

CAUTION: DO NOT drill holes in placarded trailers that are loaded.

1. Remove the template.
2. Spray the teeth of the hole saw with dry powder graphite lube before drilling the first cargo sensor hole to reduce sparking or heat.

   Note: DO NOT spray directly on the asset surface because this may leave residue.

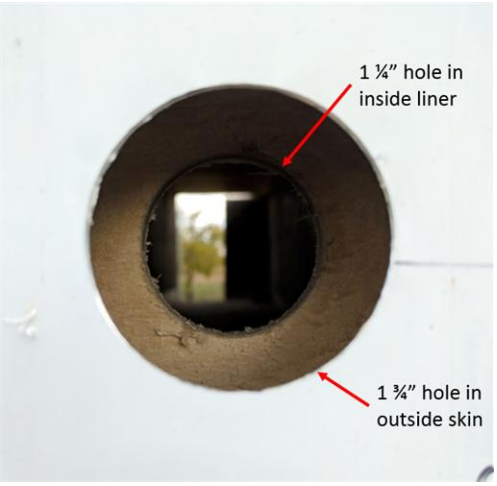
3. Use a 45 mm (1¾") diameter hole saw with a 6.5 mm (¼") diameter pilot to cut a hole through the outer skin of the trailer, through the predrilled 6.5 mm (¼") diameter hole.

   CAUTION: If at any time sparks or excessive heat cannot be avoided, STOP the install and call management.

   CAUTION: DO NOT drill a 45 mm (1¾") hole in the inner liner. Change the hole saw prior to the next step.

4. Switch to a 30 mm (1¼") diameter hole saw with a 6.5 mm (¼") diameter pilot to cut a hole through the inner liner of the trailer, through the predrilled 6.5 mm (¼") diameter hole.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025



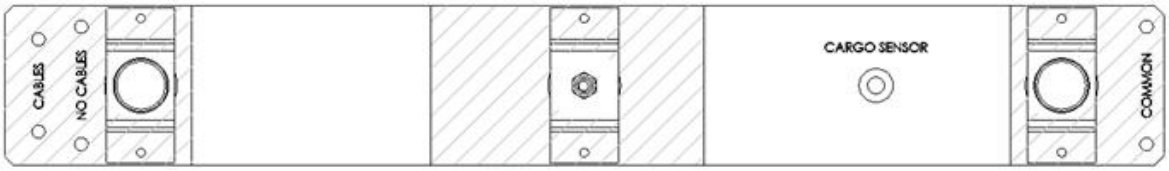
5. Remove excessively sharp edges, large/hanging burrs or strips that are the results of using the hole saw, with a few quick passes of a deburring tool.

   Note: Only edge deburring tools should be used. Straight files or hand files should never be used as they will distort the shape of the hole.

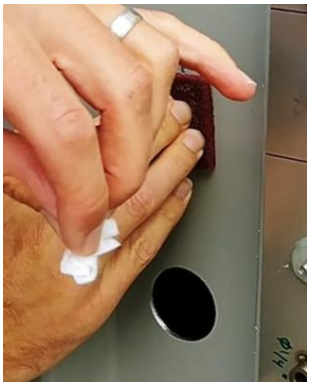
EXAMPLE OF A TYPICAL DEBURRING TOOL WITH A ROTARY STYLE HEAD

1.4.5 Prepare the Mounting Location

1. Prepare the three (3) areas indicated by the crosshatch on the template:

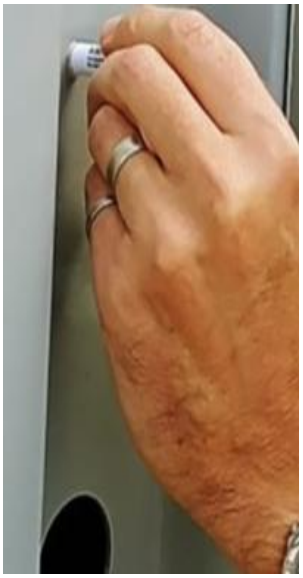


   a. Use a scour pad to prepare the area.
   b. Clear the surface with an alcohol cleaner or wipe.



ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

c. Apply 3M Primer to the areas and wait at least 30 seconds for the primer to dry. Refer to section 1.1 for inclement weather guidelines.



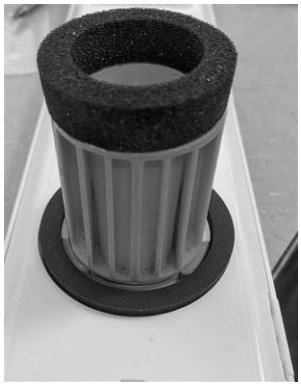
1.4.6 Assemble the Sheet and Post Horn

1. Measure the air gap between the inner liner (typically plywood) and the outer skin (aluminum or sheet metal), and then select the correct horn length based on this measurement.
    - 45 mm to 54 mm (1¾" to 2⅛") use the white horn.
    - 54 mm to 64 mm (2⅛" to 2½") use the black horn.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

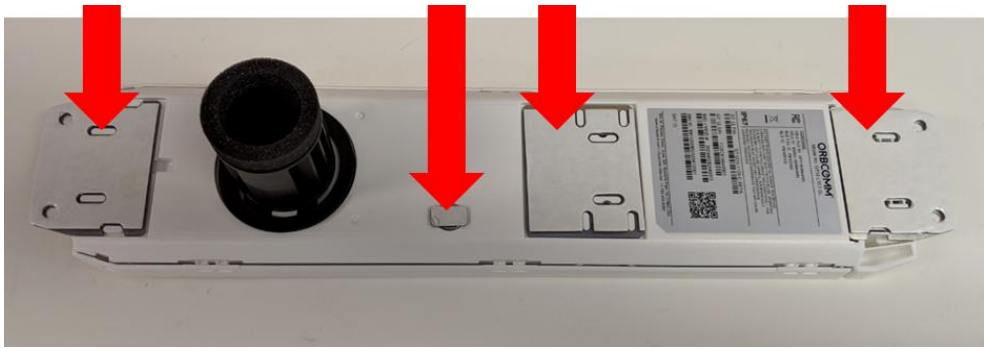
2. Remove the double-sided tape liner from the correct horn.

3. Align the key features on the horn with the matching key features on the GT 12xx.
4. **Press firmly (7 kg (15 pounds) for 10 seconds)** to bond the horn to the GT 12xx.



5. Remove the liner from all three (3) double-sided tape brackets and the liner from the anti-tamper magnet.

   CAUTION: DO NOT touch the double-sided tape.



6. Insert the horn through the 45 mm (1¾") hole in the outer skin of the asset until the foam at the end of the horn makes contact with the inside liner.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

Note: It is very important that the horn be inserted perpendicular to the outer skin or the foam could twist and block the horn.

Properly aligned foam and horn, view from the inside of the trailer.

7. Press firmly on the entire top surface of the GT 12xx (7 kg (15 pounds) for 60 seconds) to bond the double-sided tape to the asset.

1.4.7 Mount the GT 12xx with or without Cables

- If mounting without cables, see section 1.4.7.1.
- If mounting with cables, see section 1.4.7.2.

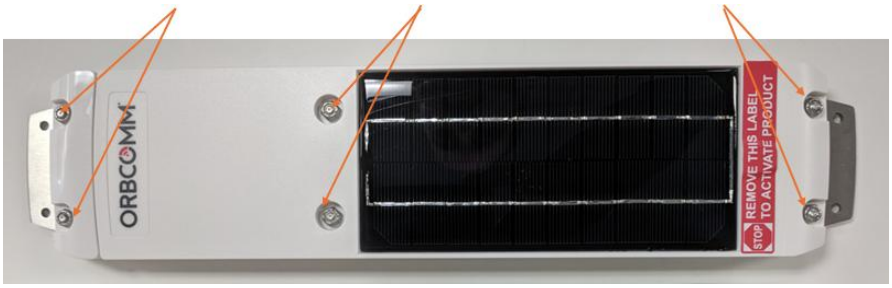
1.4.7.1 Mount the GT 12xx without Cables

1. Use a 5 mm (0.196") drill bit to drill through the four (4) rivet holes on the top and bottom of the double-sided tape bracket. A 4.8 mm ($^{3}/_{16}$") drill bit may be used if a 5 mm (0.196") drill bit is not available; however, the holes may need to be opened to fit the rivets.
2. Assemble two (2) rivets on the top bracket and two (2) on the bottom bracket.

3. If the GT 12xx includes a bag containing a single rivet and marked "MIDDLE BRACKET RIVET", proceed with the following steps. If not, proceed to step 4.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

a. Remove the six (6) hex nuts from the GT 12xx and set them aside.



b. Remove the GT 12xx from the brackets.

CAUTION: All three (3) brackets MUST be bonded to the asset at this time. If they are not, reassemble the brackets to the GT 12xx and bond the brackets to the asset as outlined in the previous steps.

c. Use a 5 mm (0.196”) drill bit to drill through the circular hole in the middle bracket.

d. Assemble the flat head rivet (from the bag marked “MIDDLE BRACKET RIVET”) into the drilled hole.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

e. Mount the GT 12xx back onto the brackets and reassemble the six (6) hex nuts you removed earlier. Ensure they are hand tight (or 14 inch-pounds if a torque wrench or driver is available).

CAUTION: DO NOT use a power tool to assemble the hex nuts, as doing so can damage the brackets.

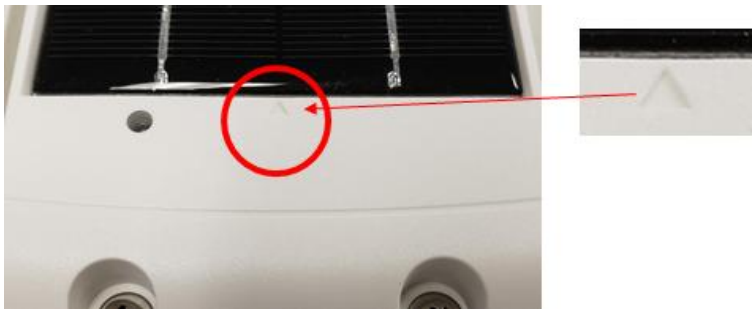
4. (optional) Add silicone sealant around the rivets if additional sealing is required.
5. (optional) If using the Cargo Sensor, use the Field Support Tool (*MA002 Field Support Tool User Guide*) to initiate a cargo scan. If you are not using the Field Support Tool, this scan is not required.
6. Restart the GT 12xx:
   - Use the Field Support Tool (*MA002 Field Support Tool User Guide* - Restart the Device procedure)

   OR

   - Follow the step below to restart the GT 12xx using the magnet:

     Note: This procedure only works if the GT 12xx is running firmware version 14.1 or higher.

     Place the magnet on or slightly raised above the arrow / triangle icon shown in the figure below, hold in place until you see the LED blink blue, about 55 to 65 seconds, and then remove it. The LED will be solid blue for about 10 seconds while the GT 12xx restarts.

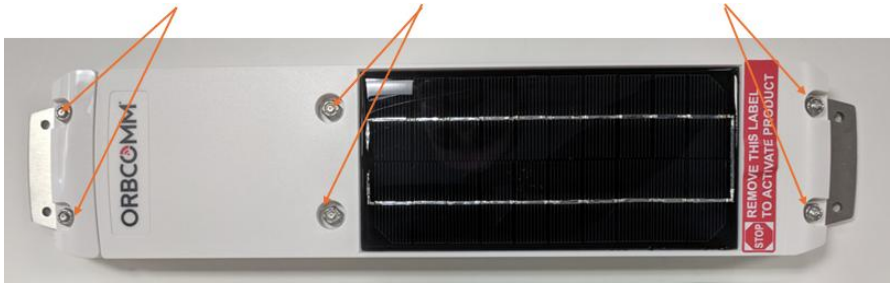


1.4.7.2 Mount the GT 12xx with Cables

1. Remove the cable cover and nuts from the mounted GT 12xx.
2. Depress both connector clips, and then pull on the 16-pin sealing cap to disconnect it.

3. Use a 5 mm (0.196") drill bit to drill through the four (4) rivet holes on the top and bottom of the double-sided tape bracket. A 4.8 mm ($^{3}/_{16}$") drill bit may be used if a 5 mm (0.196") drill bit is not available; however, the holes may need to be opened to fit the rivets.
4. Assemble two (2) rivets on the top bracket and two (2) on the bottom bracket.
5. If the GT 12xx includes a bag containing a single rivet and marked "MIDDLE BRACKET RIVET", proceed with the following steps. If not, proceed to step 6.

   a. Remove the six (6) hex nuts from the GT 12xx and set them aside.



   b. Remove the GT 12xx from the brackets.

      CAUTION: All three (3) brackets MUST be bonded to the asset at this time. If they are not, reassemble the brackets to the GT 12xx and bond the brackets to the asset as outlined in the previous steps.

   c. Use a 5 mm (0.196") drill bit to drill through the circular hole in the middle bracket.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

d. Assemble the flat head rivet (from the bag marked “MIDDLE BRACKET RIVET”) into the drilled hole.

e. Mount the GT 12xx back onto the brackets and reassemble the six (6) hex nuts you removed earlier. Ensure they are **hand tight** (or 14 inch-pounds if a torque wrench or driver is available).

CAUTION: DO NOT use a power tool to assemble the hex nuts, as doing so can damage the brackets.

6. (optional) Add silicone sealant around the rivets if additional sealing is required.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

Note: When routing cables directly into the asset using the right-angle cable cover kit, refer to APPENDIX E.

7. Cut off one end of the tube of dielectric grease (provided). Adding the dielectric grease ensures that there is a watertight seal.
8. Squeeze the dielectric grease into the 16-pin connector until it is full. Some dielectric grease may spill out.

9. Connect the cable harness to the 16-pin connector. The latches on the cable harness provide a tactile click when engaged.

10. Reassemble the cable cover and the nuts removed in step 2. Secure the nuts, but do not overtighten (1.35 N-m / 12 in-lb is ideal).
11. Dress the cable harness through one or more of the provide cable tie slots on the side of the GT 12xx.

12. (optional) If using the Cargo Sensor, use the Field Support Tool (*MA002 Field Support Tool User Guide*) to initiate a cargo scan. If you are not using the Field Support Tool, this scan is not required.
13. Restart the GT 12xx:

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

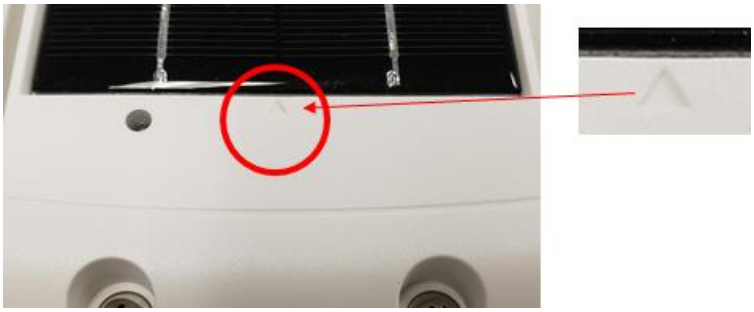
- Use the Field Support Tool (*MA002 Field Support Tool User Guide* - Restart the Device procedure)

OR

- Follow the step below to restart the GT 12xx using the magnet:

  Note: This procedure only works if the GT 12xx is running firmware version 14.1 or higher.

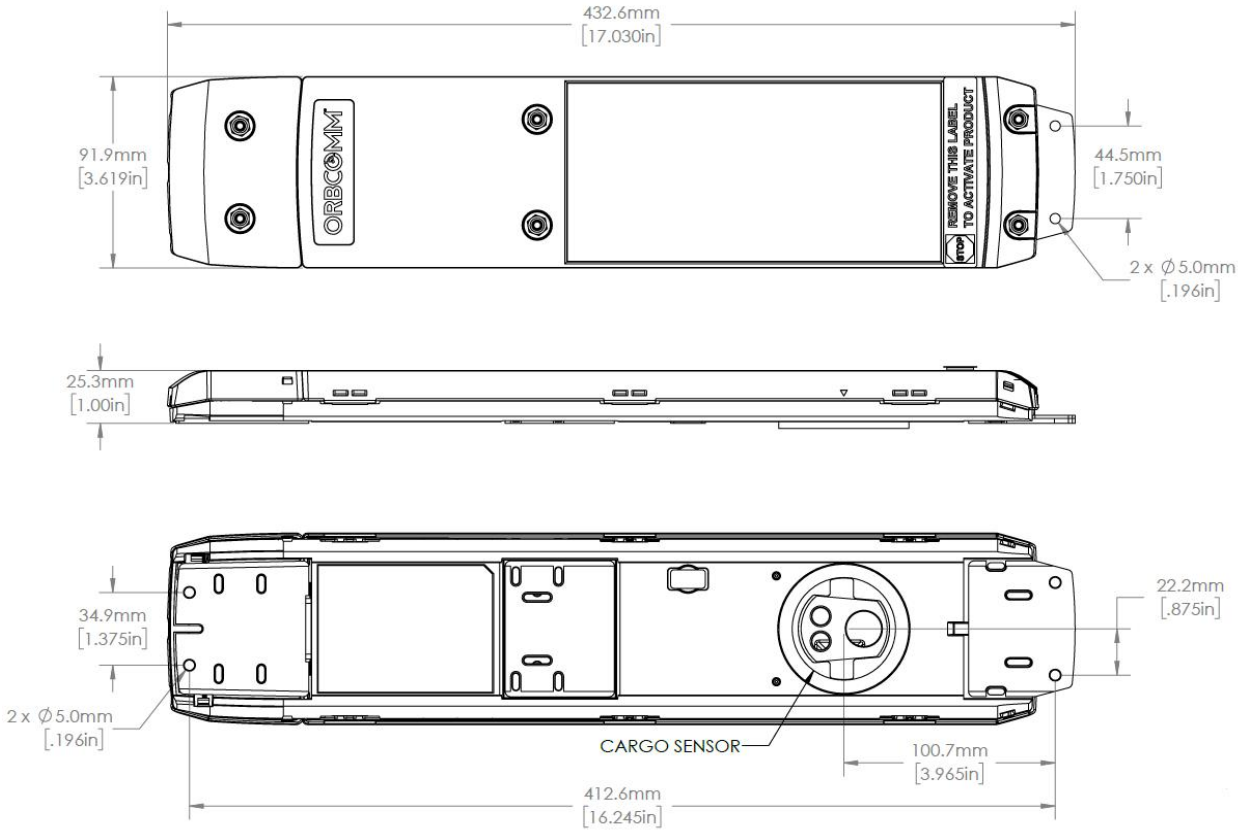
  Place the magnet on or slightly raised above the arrow / triangle icon shown in the figure below, hold in place until you see the LED blink blue, about 55 to 65 seconds, and then remove it. The LED will be solid blue for about 10 seconds while the GT 12xx restarts.



ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

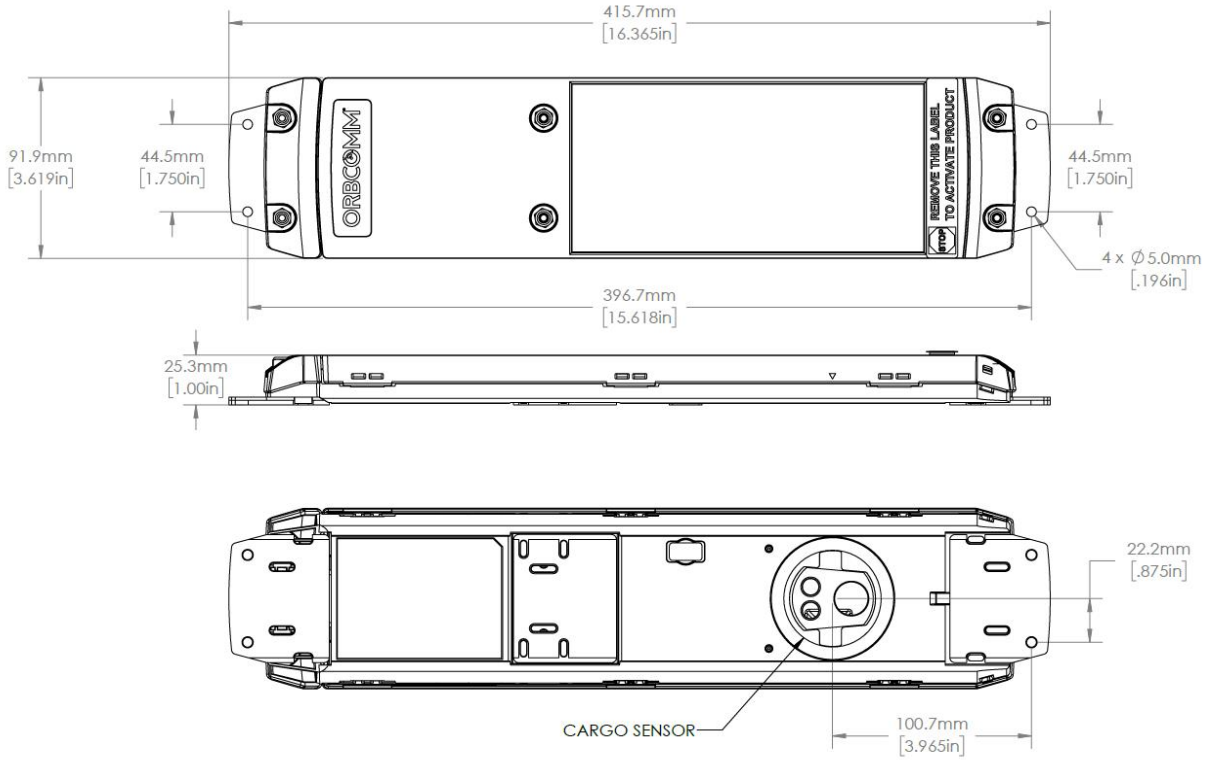
APPENDIX A GT 12XX DIMENSIONS

Figure 1: GT 12xx with Connector



ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

Figure 2: GT 12xx without Connector



ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

APPENDIX B GT 12XX LED INDICATORS

Green LED

The green LED is solid on for 15 seconds in the following cases:

- When the GT 12xx starts the application, including activation from shipping mode
- When I/O_1 becomes high

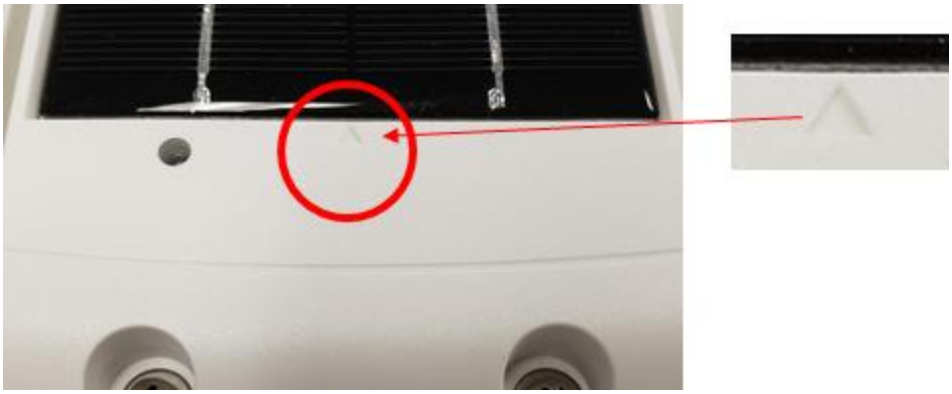
Blue LED

- The Blue LED turns on solid, while in the bootloader. The GT 12xx enters the bootloader after a reset.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

APPENDIX C GT 12XX MAGNET SWITCH ACTIONS

Figure 3: Correct Magnet Placement



Place the magnet on or slightly raised above the arrow / triangle icon for	Action	LED activity when the magnet is removed	LED activity when the action is occurring
3 to 7 seconds and then remove	Executes a cargo scan, GNSS location update, and sends a from-terminal message if the asset is moving	Blinks green	Solid green for 15 seconds
55 to 65 seconds and then remove [1]	Causes a restart	Blinks blue	Solid blue for 10 seconds

[1] This action only works if the GT 12xx is running firmware v14.1 or higher.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

APPENDIX D (OPTIONAL) ASSEMBLE THE SEALING CAP AND CABLE COVER

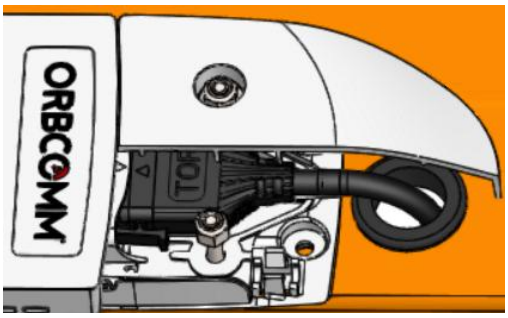
1. Assemble the 16-pin sealing cap (CON100378) if a cable harness is not connected to the 16-pin connector. The latches on the sealing cap provide a tactile click when engaged.

2. Assemble the cable cover using the provided nuts. Secure the nuts, but do not overtighten (1.35 N-m / 12 in-lb is ideal).

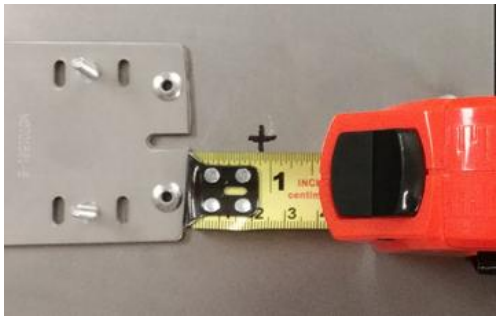
ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

APPENDIX E (OPTIONAL) CABLE PASS-THROUGH HOLE AND RIGHT-ANGLE CABLE COVER

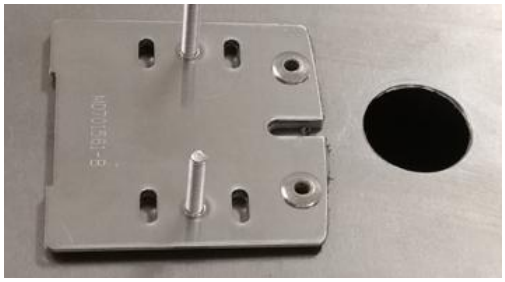
This section applies when routing cables directly into the asset through a grommet and pass-through hole under the right-angle cable cover using kit ST101030-001.



1. After installing the cable bracket (sections 1.3.6.2 or 1.4.7.2), locate the center of the pass-through hole by measuring 22 mm ($^{7}/_{8}$") from the bracket.



2. Select the correct grommet size from the kit. Use the grommet that best fits the wall thickness of the asset.
3. Select the corresponding hole saw. For thin walls under 2.5 mm (0.1") thick use a 24 mm ($^{15}/_{16}$") hole saw. Thicker walls require the grommet that fits a 30 mm (1¼") hole.
4. Drill through the asset wall with the correct hole saw.



ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

5. Mount the GT 12xx on the six (6) threaded studs and then install the grommet into the pass-through hole.

6. Route and dress the cable(s).
7. Cut off one end of the packet of dielectric grease (provided). Adding the dielectric grease ensures that there is a watertight seal.
8. Squeeze the dielectric grease into the 16-pin connector until it is full. Some dielectric grease may spill out.

9. Connect the cable harness to the 16-pin connector. The latches on the cable harness provide a tactile click when engaged.

10. Connect the FAKRA antenna cables if required.
11. Seal around the grommet and the cables with silicone, both outside and inside, to assure ingress protection.
12. Assemble the right-angle cable cover and the nuts. Secure the nuts, but do not overtighten (1.35 N-m /12 in-lb is ideal).

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

APPENDIX F (OPTIONAL) TEMPERATURE SENSOR

The GT 12xx temperature sensor is available in various cable lengths (6M - p/n LK4048, 15M - p/n LK4049, and 22M - p/n LK4050) and requires a 16-pin blunt cut cable assembly (part number - ST101074-001). A maximum of four temperature sensors can be used per trailer.

Figure 4: Temperature Sensor

Before you install the temperature sensor, ensure that you have done the following:

- Mounted and installed GT 12xx
- Installed the right-angle cable cover (APPENDIX E)

To install the temperature sensor:

1. Drill a hole in the trailer wall to feed the device cable into the trailer.
2. Feed the cable through the hole.
3. Attach the temperature sensor to the bracket with a cable tie.

4. Use the self-taping screws to mount the temperature sensor close to the trailer load, but not where it might be damaged.

   Note: You can mount up to four temperature sensors per cable assembly. Ensure you know which temperature sensor is associated with which I/O port. For example, you may have one temperature sensor in the freezer section of the trailer and one in the fresh food section of the trailer.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

5. Connect each installed temperature sensor to the cable assembly making sure to note the I/O ports for each.
6. Butt splice the connectors.
7. Run the Cable Assembly towards the cable that comes from the device.
8. Connect the Cable Assembly connector to the GT 12xx.
9. Seal the hole with silicone.

Figure 5: GT 12xx Cable Assembly

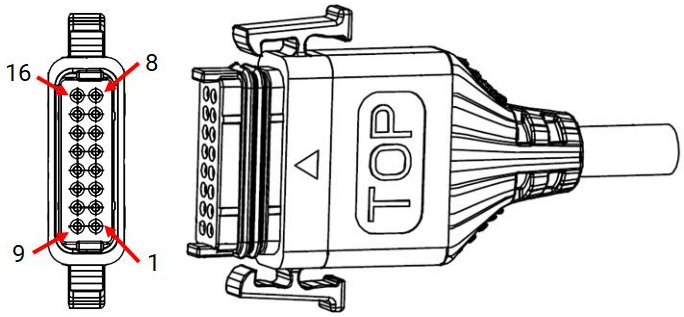


Table 1: PIN Assignments

PIN Number	Signal Name	Color
1	Open	-
2	I/O_1	WHITE (see Note below)
3	I/O_2	ORANGE (see Note below)
4	I/O_3	PURPLE (see Note below)
5	I/O_4	GREEN (see Note below)
6	Open	-
7	Open	-
8	Open	-
9	GND	BLACK with a RED trace
10	GND	BLACK with a WHITE trace
11	GND	BLACK
12	Open	-
13	Open	-

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

PIN Number	Signal Name	Color
14	Open	-
15	Open	-
16	Open	-

Note: The GT 12xx provides four (4) general purpose I/Os that support a variety of wired and wireless sensors.

The following I/O configurations are possible, for a total of four (4): four (4) wired I/Os, three (3) wireless I/Os, and only one (1) wireless door sensor.

With the exception of an I/O supporting a wireless door sensor, no additional logic is associated with wired or wireless I/Os.

If using a wired door sensor, it can only be configured as a binary event (for example, Open/Closed).

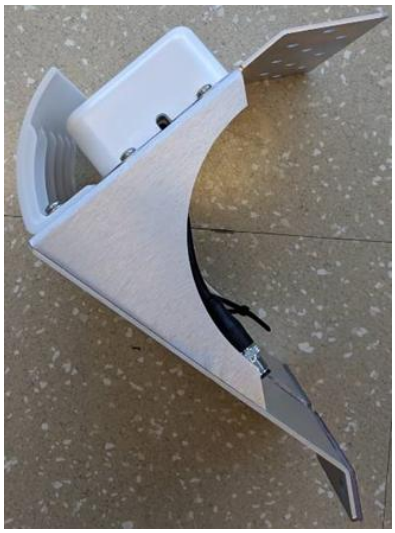
If using an I/O to support the wireless door sensor, it provides additional logic. For devices with integrated cargo sensors, this wireless door sensor triggers a cargo scan when a door state change event occurs.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

APPENDIX G (OPTIONAL) INSTALL AN ST 21XX

The ST 21xx (includes all models of ST 21 devices), for a GT 12xx installation, ships pre-assembled to the mounting bracket. The bracket includes double-sided tape and cable tie slots.

Note: Complete the GT 12xx installation and then mount the ST 21xx directly above it.



Required Tools and Materials

The following tools and materials are required to install an ST 21xx:

- A GT 1210 or GT 1230
- ST 21xx pre-assembled to bracket (p/n SM202385-001)
- ST 21xx to GT 12xx cable harness specific to your type of installation (various modems with and without external power)
- Right-angle cable cover (p/n ST101030-001)
- Silicone sealant
- Drill
- Drill bit for ST 21xx feed hole
    - Thin-wall assets – drill 15/16” hole, use the 1⅛” OD grommet included in the right-angle cable cover kit
    - Thick-wall asset – drill 1 ¼” gasket, use the 1½” OD grommet included in the right-angle cable cover kit
- 5 mm (0.196" (#9)) drill bits for bracket installation

Install the ST 21xx

1. Make a cable feed hole by drilling through the asset wall with the correct hole saw.

   CAUTION: If installing on an asset loaded with cargo, ensure you do not drill into the cargo.

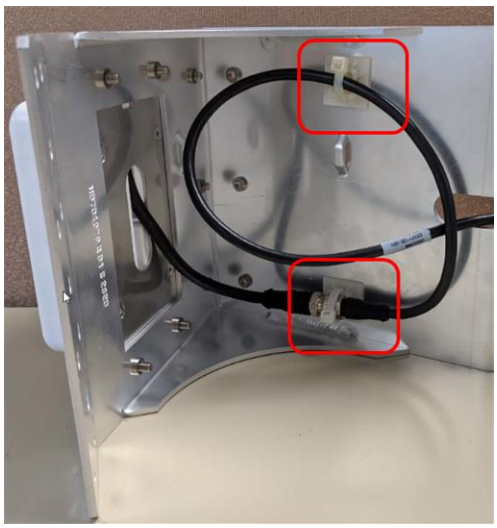
ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

2. (optional) Use the right-angle cable cover kit when routing cables directly into the asset, refer to APPENDIX E.
3. Feed the GT 12xx cables through the feed hole.

4. Caulk the hole for the GT 12xx cable exit and the ST 21xx exit.

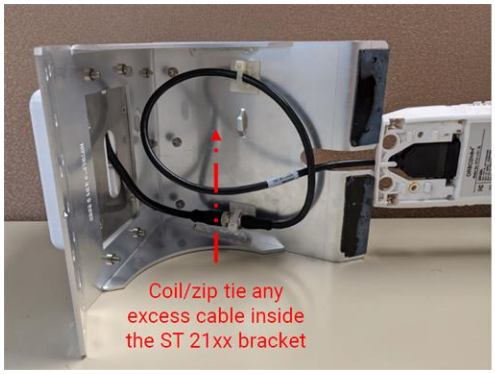
ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

5. Connect the ST 21xx cable to the GT 12xx cable harness, push and twist until they lock in place. Secure in place using the cable connectors.



6. Coil or zip tie any excess cable inside the ST 21xx bracket.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025



7. Remove the liner from the double-sided tape on the bracket and then mount the bracket to the asset in the location selected.

   CAUTION: DO NOT touch the double-sided tape.

   CAUTION: The ideal application temperature range for the double-sided tape is 21°C to 38°C (70°F to 100°F). If installing on a surface below this ideal, warm the installation surface to the recommended temperature range to ensure adequate adhesion.

8. Use the mounting bracket as a drill template and drill 3-4 holes in the top of the asset. Choose the holes that best align with asset.

   CAUTION: The bracket has multiple holes; you only need to drill through the ones that align with the asset.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

9. Drill through the double-sided tape into the nose wall of trailer and then add four (4) additional rivets.

10. Use the Field Support Tool to restart the ST 21xx. Refer to the *MA002 Field Support Tool User Guide* for download instructions.

    CAUTION: You must restart the ST 21xx at this point. A restart allows it to pair with the GT 12xx and function correctly.

11. Contact Customer Care to provide the trailer / asset identification number and the associated ST 21xx serial number.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

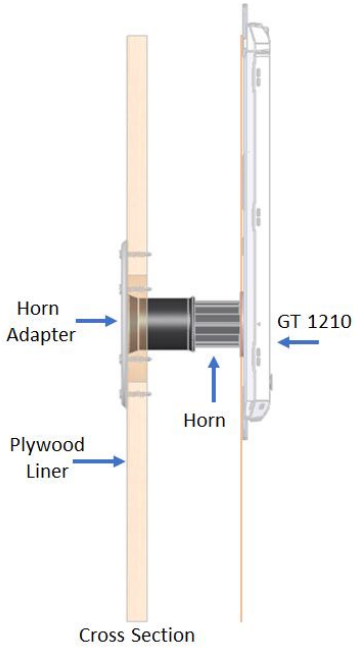
APPENDIX H (OPTIONAL) INSTALL THE HORN ADAPTER

The horn adapter is a flexible rubber / plastic part that allows for a GT 12xx hole misalignment of up to 19 mm (¾") and a nose post depth of up to 92 mm (3 5/8") between the outside skin and the inside liner. It is used for sheet and post dry van installations, primarily in situations where the nose post depth is greater than 64 mm (2 ½"), or to repair installations where the GT 12xx horn is misaligned, or for OEM trailer builds where the hole in the liner cannot be drilled at the same time as the hole in the outer skin.

To install the horn adapter:

1. Ensure that the GT 12xx is mounted on the outside of the trailer.
2. Cut a hole in the liner, directly behind the GT 12xx. The hole size depends on the degree of the misalignment (minimum of 64 mm (2½") and a maximum of 102 mm (4").

   CAUTION: Temporarily remove the GT 12xx from outside of the trailer if it is already installed at this time.



ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

3. Place the horn adapter over the GT 12xx horn, and then rotate the horn adapter while pushing to seat it flush against the liner.


4. Use either #10 pan head wood screws or 4.8 mm ($^{3}/_{16}$") aluminum rivets provided to secure the horn in place (six (6) locations).

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

APPENDIX I (OPTIONAL) INSTALL A CS 500

The CS 500 cargo camera sensor is a peripheral that works with the GT 12xx. The sensor allows you to see inside the asset to determine load status. Images are triggered by sensor events and transmitted via the GT 12xx to the ORBCOMM platform where they are stored for analysis.

The CS 500 is connected to switched power, such as output from a GT 12xx, and communicates over RS-485.

The CS 500 is designed for a ceiling mount installation.

CAUTION: Before you begin a CS 500 installation, write down the serial number of the CS 500, any peripherals (for example, door sensor) and the associated GT 12xx. Support may require these numbers to pair the devices.

The serial number is embedded in the QR codes. One on the side and the other on the face of the camera. It can be scanned with most mobile phones.

Required Tools and Materials

The following tools and materials are required to install a CS 500 and are available from ORBCOMM:

- CS 500 (part number ST101213-001) Kit, includes:
  - CS 500 cargo camera
  - Wear pad
  - Mounting bracket (assembled to the CS 500)
  - Rivets and cable ties
  - Alcohol wipe

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

- An installed and working GT 12xx
- A GT 12xx to CS 500 cable (part number ST101196-001). Kit includes:
  - Cable, 16-pin to 4-pin, 18 m (60') long
  - Self tapping screws and P-clamp
- Right-angle cable cover kit (refer to APPENDIX E)

The following (customer supplied) are required for a CS 500 inside ceiling installation:

Description	
Rivet Gun	Fish tape or chain to pull cable into asset
Drill and 5 mm (0.196) drill bit. A 4.8 mm ($^{3}/_{16}$") drill bit is an optional replacement.	Tape measure and marker
Drill stop	Ladder
8 mm (5/16”) socket extension	

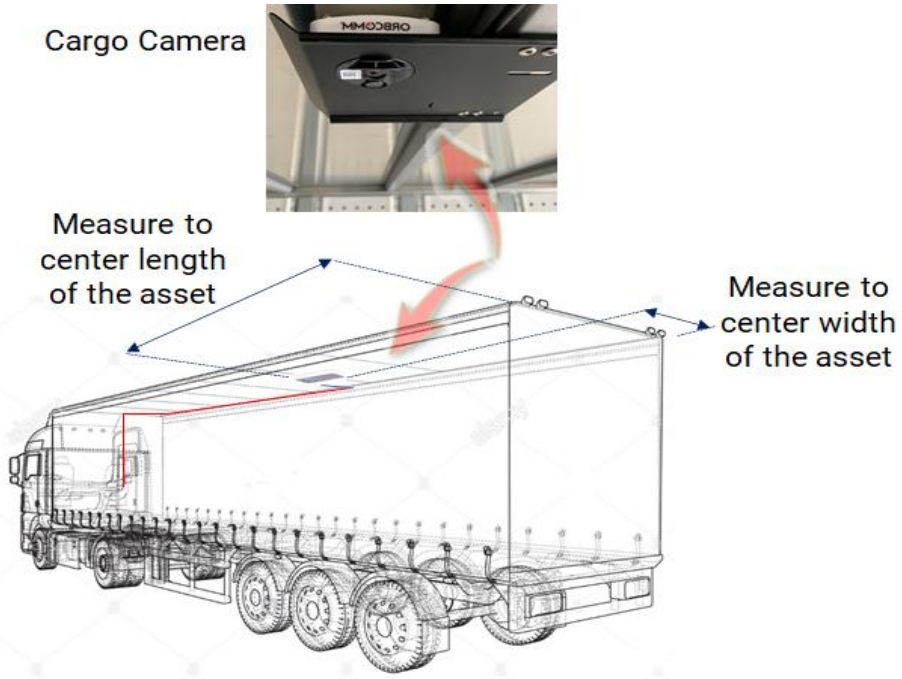
Review the General and Ceiling Mounting Guidelines

Consider the following guidelines when determining where to mount the CS 500:

- Mount the CS 500 inside the asset, on the ceiling.
- Mount the CS 500 adjacent to any ceiling scuff liners and then route the cable above the liners.
- Orient the camera to the far side of the bow when viewed from the door.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

- Mount the CS 500 centered on the width and half-way down the length of the asset.

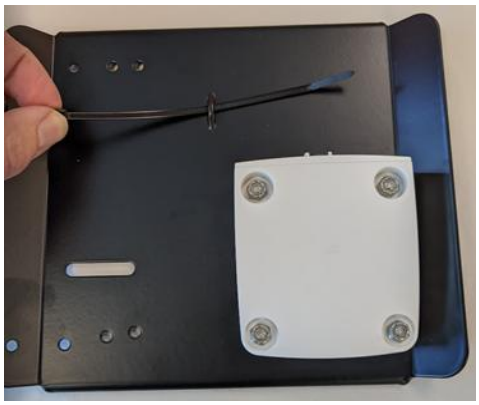


- DO NOT mount the CS 500 in a location that will exceed the maximum +85°C (+185°F) temperature rating.
- DO NOT mount the CS 500 on dented, bent, or otherwise damaged bows.

Install the CS 500 Inside on the Ceiling

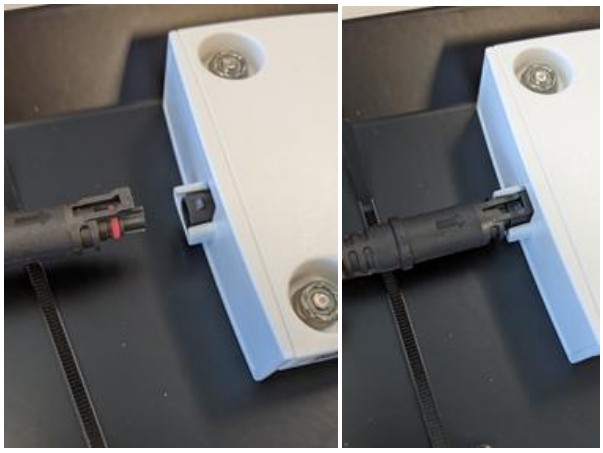
Refer to the CS 500 Hardware Guide for product specifications and certifications.

1. Before beginning the installation, write down the serial number of the CS 500, any peripherals (for example, a door sensor), and the associated GT 12xx. Support may require these numbers to pair the devices.
2. Install and activate the ORBCOMM GT 12xx prior to installing the CS 500.
3. Install the right-angle cable cover following the instructions in APPENDIX E. Route the cable to the ceiling and then along the curb side wall.
4. Insert one of the provided cable ties through the tab on the bracket.



ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

5. Push to connect the 4-position connector from the GT 12xx cable to the connector on the CS 500. The latch on the cable connector provides a tactile click when engaged.

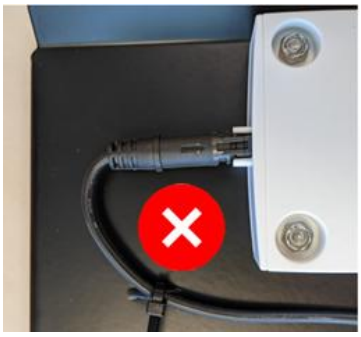


6. Connect the CS 500 to the 4-position connector and then secure it in place with the cable tie.

CAUTION: Ensure you maintain an acceptable cable bend radius, otherwise, you could damage the cable or the device.

Acceptable Bend

Unacceptable Bend



Bend is too Tight

Cable Overhangs Bracket

7. Note: If necessary, remove the camera cable by gently prying up on the locking tab with a small flat-head screwdriver.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

8. Secure a drill stop collar to a 5 mm (0.196") bit, 7 mm (¼") from the end.

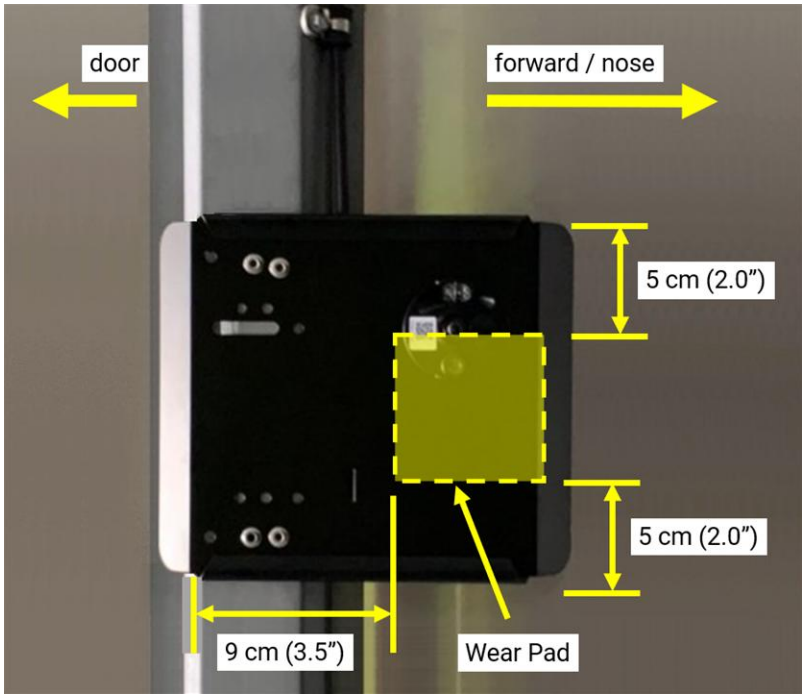
9. Center the camera bracket across the width of the trailer.

   CAUTION: DO NOT fasten the camera bracket in place at this time.

10. Use the figure in the next step as a guide to determine the location of the wear pad on the roof skin and then wipe this surface location with the provided alcohol wipe allowing the surface to dry before continuing.

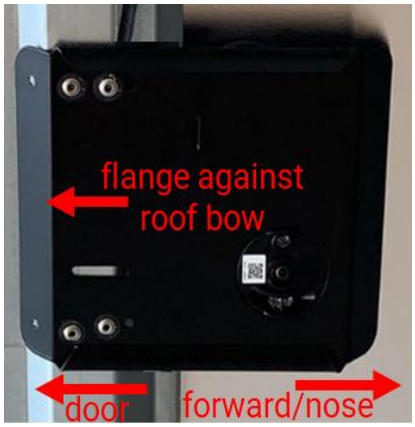
11. Adhere the provided wear pad to the roof skin prior to fastening the camera bracket in place. Position the wear pad (relative to camera bracket) so that it is 9 cm (3.5") from the far edge of the roof bow and centered side-to-side from where the camera bracket will be installed. The wear pad should be about 5 cm (2") from each side of the bracket edge.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025



12. Hold the bracket in position against the roof bow, with the **bent flange pushed up against the roof bow**.

    CAUTION: It is very important that the camera is on the forward (nose) side of the trailer (cable runs to the curbside).



13. Use the bracket as a template to select the best drill holes based on the bow geometry. Push the bent flange up against the roof bow to align it and then drill the first 5 mm (0.196”) hole.

    CAUTION: DO NOT drill into the roof, only drill into the roof bow.

14. Install the first rivet into the hole.
15. Use the location of the holes in the bracket to drill three (3) additional holes and then insert the provided 3/16" rivets into each hole.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

16. Dress the cable along the side of the roof bow every 60 cm (2') to the curb side of the trailer, securing with the provided P-clamps and rivets.

    CAUTION: Make sure the cables and P-clamps are protected behind the roof bow. DO NOT run the cable on the bottom face of the roof bow where it will be exposed and may get damaged.

17. Dress the cable down the curbside of the trailer with OEM provided conduit or other suitable hardware.
18. Coil any excess cable neatly in a protected location behind the nose liner or in the upper corner of the nose wall.

19. Use the provided corrugated plastic loom to protect the cable when it passes near sharp edges.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

Test the Cargo Camera

1. Contact Support for assistance with pairing the camera or use the Field Support Tool (FST). Support may require the serial numbers of the CS 500, any peripherals, and the associated GT 12xx.
    - If a door sensor has been paired with the GT 12xx an open or close of the door triggers a photo. The Field Support Tool can also be used to trigger a photo.
    - Photos appear in the ORBCOMM Platform. Check for photos under the serial number of the GT 12xx device. It may take 15 minutes or more for a newly triggered photo to display in the ORBCOMM Platform. This duration depends on the quality of the available cellular network.
2. Check the photo for clarity and correct camera placement.
    - Clean the camera lens, if necessary, with an alcohol wipe.
    - If certain areas of the photo are too dark or too bright, you may need to change the illumination settings with the Field Support Tool, by contacting Customer Care or repositioning the camera.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

APPENDIX J GT 12XX 16-PIN EXTERNAL POWER CABLE

Below are the details for the GT 12xx 16-pin external power cable (p/n ST101026-001). The 6 m (20 ft.) long cable has a 16-pin male connector with female pin.

Figure 6: 16-PIN External Power Cable (units in mm)

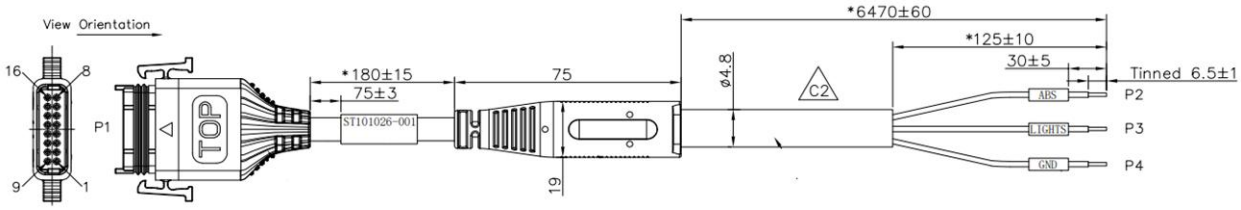
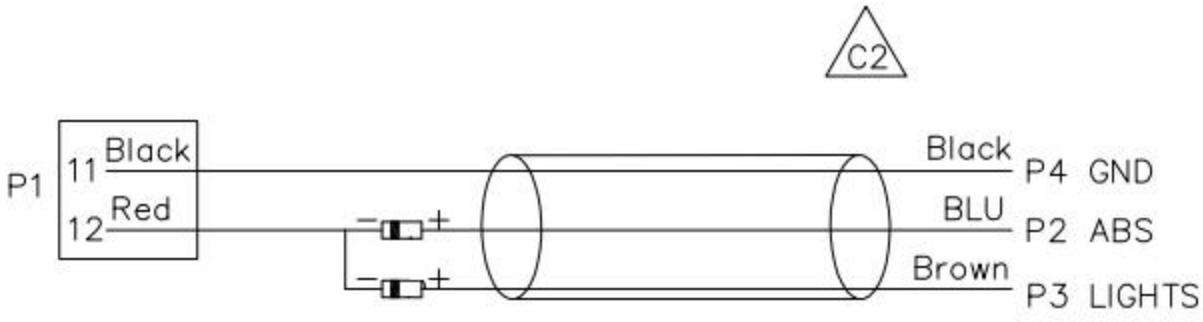


Figure 7: Circuit Diagram



Ring Terminal	Molex #19164-0004 18-22 AWG, 1/4"
Operating Temperature Range	-40°C to 85°C (-40°F to 185°F)
Waterproof	IP67 (mated)
Ratings	Voltage: 50 V, Current: 2 A
Compliant	RoHS and Reach

Note: The provided ring terminals can be crimped to the three leads on the cable (P2, P3, and P4). The provided zip ties, P-Clamps, and drilling screws can be used to secure the cable along the installation route.

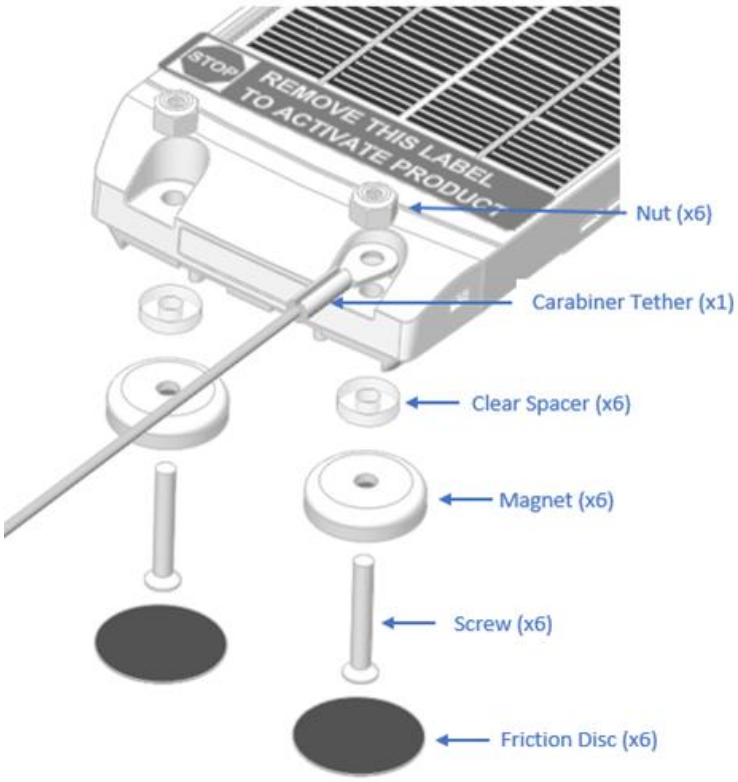
ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

APPENDIX K MAGNET MOUNT INSTALLATION

CAUTION: Remember to keep magnets away from electronic devices that store information magnetically such as computers and bank cards.

1. Remove tape mounting brackets.
2. Assemble the magnets (in six (6) locations) and tether to the GT 12xx as shown (p/n ST100904-001).

   CAUTION: Peel the liner off of the friction disc and center it on the magnet. Press down gently so that the magnet pad adheres to the magnet. Ensure that the friction disc completely covers the magnet to reduce the risk of asset damage due to scratches.



3. Torque screws to 1.6 N-m (14 in-lbf).

   CAUTION: DO NOT over-torque the screws.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

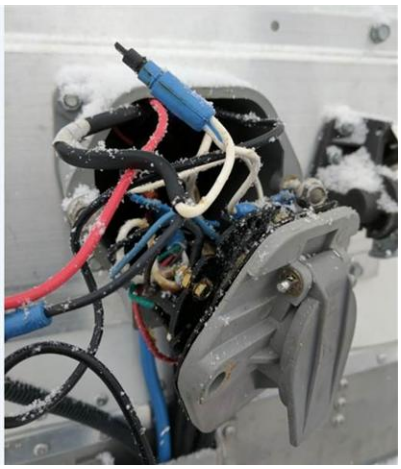
4. Clean and dry the mounting surface before applying the friction disk to the asset surface.

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025

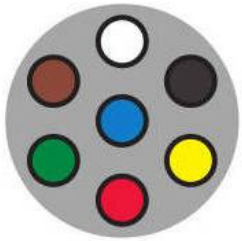
APPENDIX L FIX AND CONNECT THE 7-WAY CABLE

This procedure is optional. If connecting to an external 7-way, feed the four 7-way wires to the 7-way connector following the steps below.

1. Route the 7-way connector wires through the floor of the trailer and out to the 7-way.



2. Connect the BLUE wire (marked ABS) to the 7-way electric brakes (ABS) position.
3. Connect the BROWN wire (marked LIGHTS - Brown or Black circuit) to the 7-way LIGHTS position.
4. Connect the WHITE wire (marked GND) to the 7-way GROUND position.



1	WHITE	GROUND
2	BLACK	REVERSE (BACK UP) LIGHTS
3	YELLOW	LEFT TURN AND BRAKES
4	RED	AUXILIARY POWER
5	GREEN	RIGHT TURN AND BRAKES
6	BROWN	TAIL LIGHTS
7	BLUE	ELECTRIC BRAKES

ORBCOMM® PROPRIETARY AND CONFIDENTIAL © Sep 2025