

Setup

During setup, unpack the cartons and check all items for proper operation. Make sure that the product works properly before you place it in service.

WARNING

Always adjust the cot load wheel height to match the vehicle deck height as specified in the Operations Manual for your cot model.

Remove all the shipping and packaging materials from the product before use.

The condition of **Power-LOAD** is the responsibility of the user. Have a qualified service person use the following list and the operation guide instructions to check **Power-LOAD** functionality.

1. Raise the lifting arms and manually push the **Power-LOAD** trolley into the head end of the transfer assembly to charge the battery. Charge the battery for a minimum of two hours before you place **Power-LOAD** into service for its first use.

Note: The battery power LED flashes green while charging.

2. Confirm that the installation checklist is complete.
3. Repeat the installation checklist if the installation checklist was completed by a third-party installer. Do not place the product into service if you cannot complete the installation checklist.

The condition of the **Power-LOAD** compatible cot is also the responsibility of the user. Make sure that the product works properly before you place it in service. See the cot Operations Manual for the setup requirements for your cot model.

Cot compatibility

The Stryker Model 6390 **Power-LOAD** system is compatible with cots with the **Power-LOAD** compatible option only.

WARNING

- Always use a rail clamp assembly for all cots without the **Power-LOAD** option. **Power-LOAD** is compatible with the **Performance-PRO XT**, **Power-PRO XT**, and **Power-PRO IT** cots with the **Power-LOAD** option only. In certain situations, you can use **Power-LOAD** as a standard antler for most X-frame cots.
 - Always use a **Power-LOAD** compatible cot with the Stryker Model 6390 **Power-LOAD** system. Injury may result if a non-compatible cot is used in the Stryker Model 6390 **Power-LOAD** system.
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Cots that currently meet these specifications include:

- Model 6085 **Performance-PRO XT** with the **Power-LOAD** compatibility kit (6085-700-010)
- Model 6086 **Performance-PRO XT** with the **Power-LOAD** option or compatibility kit (6086-700-001)
- Model 6500 **Power-PRO XT** with the **Power-LOAD** compatibility kit (6500-700-049)
- Model 6506 **Power-PRO XT** with the **Power-LOAD** option or compatibility kit (6506-700-001)
- Model 6510 **Power-PRO IT** with the **Power-LOAD** compatibility kit (6510-700-001)
- Model 6516 **Power-PRO IT** with the **Power-LOAD** option or compatibility kit (6516-700-001)

Installation

Quality system regulation

The U.S. Food and Drug Administration (FDA) Code of Federal Regulations (CFR) Title 21 provides guidance regarding the installation of devices, such as the cot fastener system. To comply with these federal regulations, each device must be verified to have been properly installed by trained* individuals by following the inspection criteria in the installation checklist. This document must be maintained for a minimum of seven years for each serial number/installation.

*The installation facility must maintain their own training records showing that the installer was qualified.

CFR 21 SEC. 820.170 installation

(a) Each manufacturer of a device requiring installation shall establish and maintain adequate installation and inspection instructions, and where appropriate test procedures. Instructions and procedures shall include directions for ensuring proper installation so that the device will perform as intended after installation. The manufacturer shall distribute the instructions and procedures with the device or otherwise make them available to the persons installing the device.

(b) The person installing the device shall make sure that the installation, inspection, and any required testing are performed in accordance with the manufacturer's instructions and procedures and shall document the inspection and any test results to demonstrate proper installation.

CFR 21 SEC. 820.180 general requirements

WARNING

- Always install the cot fastener system as described in this manual. Improper installation can result in injury. Make sure that, at a minimum, your configuration is tested to meet the National Truck Equipment Association/Ambulance Manufacturer's Division Standard 004, Litter Retention System Static Test (AMD-004).
 - Take special precautions regarding electromagnetic compatibility (EMC) when you use medical electrical equipment. Install and place the cot fastener system into service according to the EMC information in this manual. Portable and mobile RF communications equipment can affect the function of the cot fastener system.
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All records required by this part shall be maintained at the manufacturing establishment or other location that is reasonably accessible to responsible officials of the manufacturer and to employees of FDA designated to perform inspections. Such records, including those not stored at the inspected establishment, shall be made readily available for review and copying by FDA employee(s). Such records shall be legible and shall be stored to minimize deterioration and to prevent loss. Those records stored in automated data processing systems shall be backed up.

(a) Confidentiality. Records deemed confidential by the manufacturer may be marked to aid FDA in determining whether information may be disclosed under the public information regulation in part 20 of this chapter.

(b) Record retention period. All records required by this part shall be retained for a period of time equivalent to the design and expected life of the device, but in no case less than 2 years from the date of release for commercial distribution by the manufacturer.

Installation

Power-LOAD assembly installation components checklist

Make sure that you have all the required components to install the Power-LOAD system. For installation instructions, see Installing Power-LOAD on page 16.

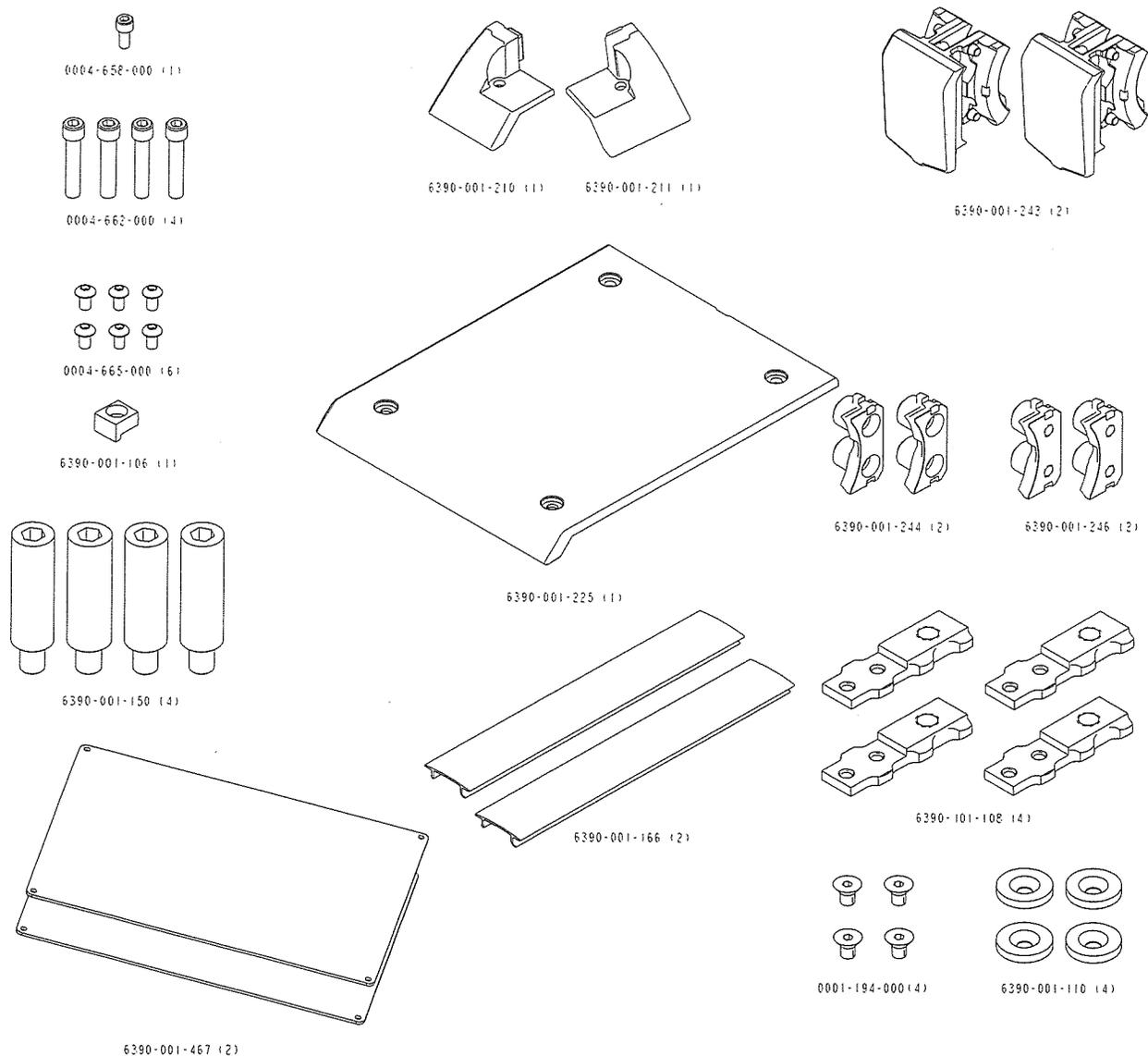


Figure 2: Power-LOAD assembly installation kit components 6390-001-054

Installing the floor plate

Install the Stryker universal floor plate in your vehicle patient compartment before you install your cot fastener system. See the Stryker Global Floor Plate Installation Manual (6390-009-020) for instructions.

Installation

Installing Power-LOAD

WARNING

- Always use two installers when you lift and position the transfer and trolley assembly to avoid the risk of injury.
 - Always keep hands, fingers, and feet away from moving parts.
 - Always wear appropriate eye protection while you operate a saw. Secure the item that you are cutting and be aware of the area around your cutting location.
-

CAUTION

Do not break the cot inductive charge housing when you install the transfer assembly.

Power-LOAD assembly kit components (6390-001-054)

(1) Socket head cap screw (0004-658-000)	(4) Socket head cap screw (0004-662-000)	(6) Button head cap screw (0004-665-000)
(4) Anchor mounting post (6390-001-150)	(1) Trolley magnet activator (6390-001-106)	(1) Transfer trim, head end, right (6390-001-211)
(1) Transfer trim, head end, left (6390-001-210)	(2) Dead stop bumper (6390-001-243)	(1) Transfer wear pad, foot end (6390-001-225)
(2) Dead stop block, threaded (6390-001-246)	(2) Dead stop block, thru hole (6390-001-244)	(4) Flat head cap screw (0001-194-000)
(4) Floor plate attachment bracket (6390-101-108)	(4) Sub anchor attachment bracket (6390-001-110)	(2) Floor plate cover, short (6390-001-166)

Tools required:

5/32" hex wrench	Measuring tape	Saw
Screwdriver	3/8" hex wrench	3/16" hex wrench
T25 Torx	1/2" drive torque wrench (ft-lb) > 60 ft-lb	

Procedure:

1. Lift the vehicle bumper to the raised position, if equipped.
2. Measure from the end of the floor plate to the end of the bumper to determine how far you can move the anchor toward the head end (Figure 3 on page 17).

Installation

Installing Power-LOAD (Continued)

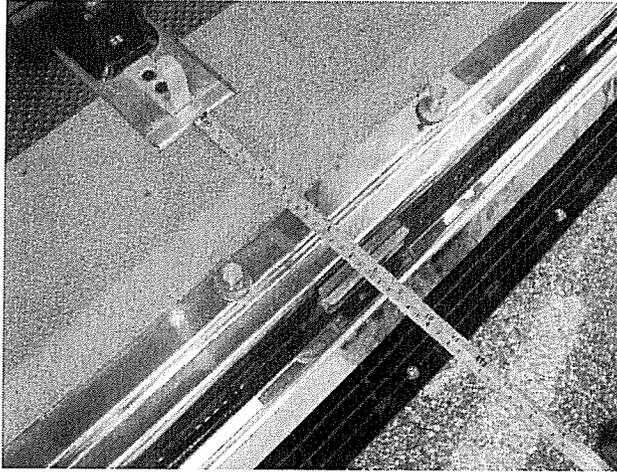


Figure 3: Measure for anchor installation

Note: If the distance measured is less than 18 in. (46 cm), you can shift **Power-LOAD** closer to the head end of the vehicle patient compartment by a maximum of 18 in. (46 cm) and the measured distance.

WARNING

Always allow for bumper clearance. Inadequate bumper clearance could result in patient or operator injury.

3. Locate the first floor plate attachment bracket (6390-101-108) (Figure 4 on page 17) location (near the foot end). This location provides the most wheel clearance.
 - To shift the cot closer to the head end of the vehicle patient compartment, select another floor plate attachment location.
 - Make sure that the location is not further from the first location than the value calculated in step 2. Leave enough room for the cot base to clear the vehicle bumper.
 - Flip the bracket (Figure 5 on page 17) to move the mounting location an additional 2 in. (5 cm) toward the head end.
 - Figure 4 on page 17 shows the location for the most wheel clearance from the bumper. Figure 5 on page 17 shows the location for the least wheel clearance from the bumper and represents an 8 in. (20.3 cm) shift in from the first location. Select the location that provides the appropriate wheel clearance for your set up.

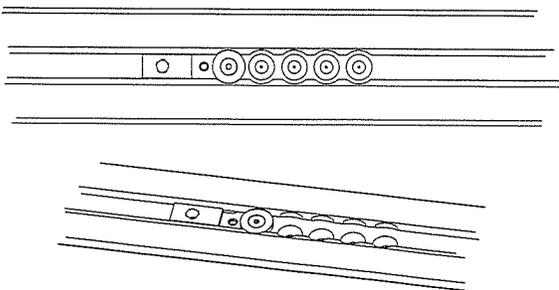


Figure 4: Most wheel clearance

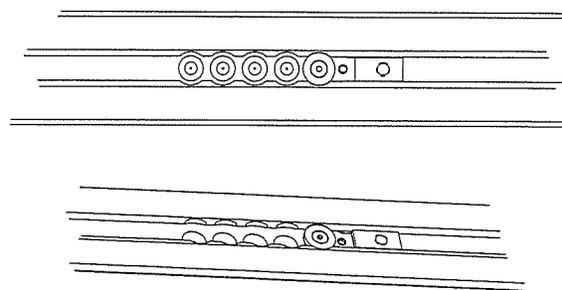


Figure 5: Flipping the bracket

Installation

Installing Power-LOAD (Continued)

4. Using a 5/32" hex wrench, install a flat head cap screw (0001-194-000) to the sub anchor attachment bracket retainer (6390-001-110) to secure the floor plate attachment bracket (6390-101-108).
5. Repeat step 3 and 4 for the three other locations in the floor plate assembly.
Note: The position of these three floor plate attachment brackets must match the location that was selected in step 3.
6. Connect the red wire and the black wire to the black wire to connect the anchor assembly to the anchor-to-vehicle cable. Position the anchor over its mounting holes. Feed any excess wire through the electrical rubber grommet. Place the connectors into the floor plate pocket.
Note: Apply silicone sealant to the electrical rubber grommet to completely seal the electrical pass through.

WARNING

Always seal all gaps to the exterior of the vehicle to prevent exhaust fumes from entering the vehicle patient compartment.

7. Carefully place the anchor assembly (A) on top of the floor plate assembly (B) (Figure 6 on page 18), and lay the excess wire into the floor plate pocket. Align the four holes with the floor plate attachment brackets.

CAUTION

Always make sure that the wires rest inside of the floor plate pocket and are not pinched by the anchor assembly when you install the anchor assembly.

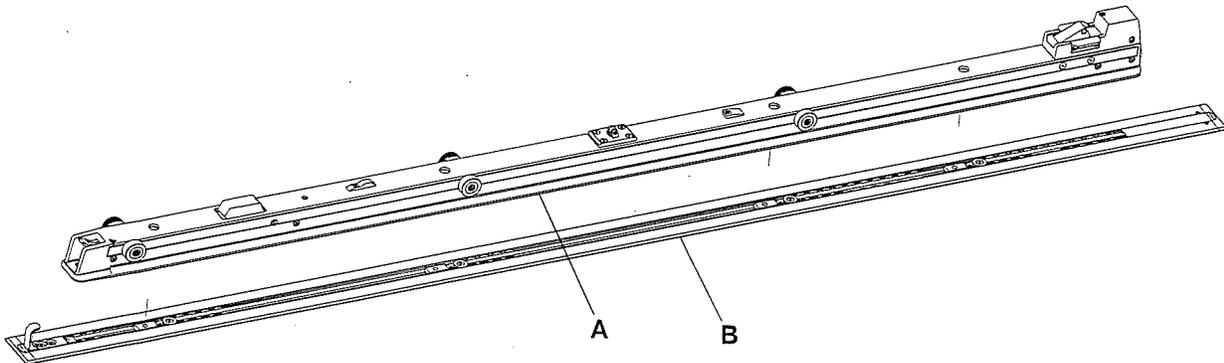


Figure 6: Anchor assembly and floor plate assembly

8. Measure the exposed pocket at the head end and the foot end of the floor plate to customize the floor plate covers.
9. Using a saw, cut the two floor plate covers (6390-001-166) (A) to fit the measured length on both ends (Figure 7 on page 19). The floor plate cover does not fit over the floor plate attachment bracket.
Note: If you assemble the anchor over the foot end or head end of the floor plate, then no floor plate cover is needed on that end.
10. Using a rubber hammer, snap each floor plate cover into the floor plate (hook side (B) first).
Note: To unsnap the floor plate cover, use a screwdriver on the side of the cover with a raised edge.

Installation

Installing Power-LOAD (Continued)

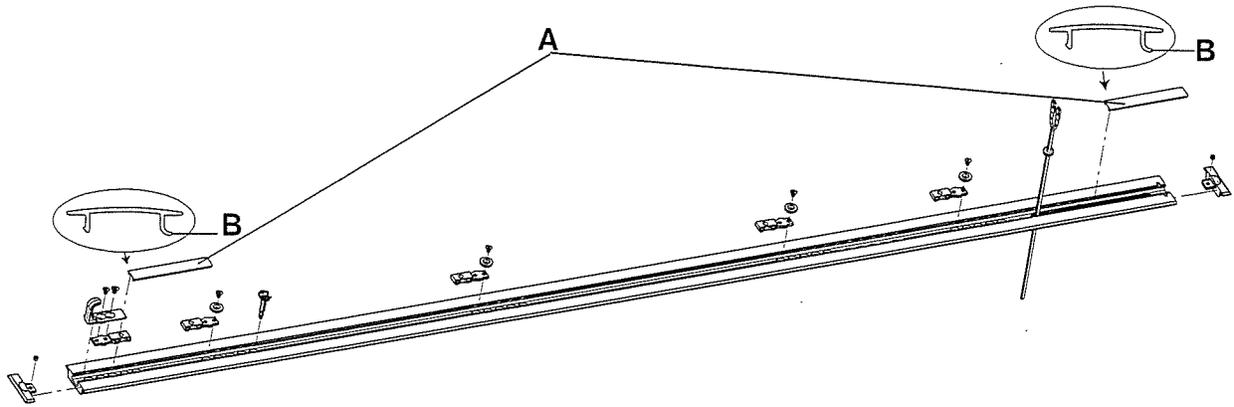


Figure 7: Cut floor plate covers

11. Make sure that the anchor seals are installed into the grooves of the anchor assembly (Figure 8 on page 19). If the anchor seals are not installed, push them back into the grooves of the anchor assembly.

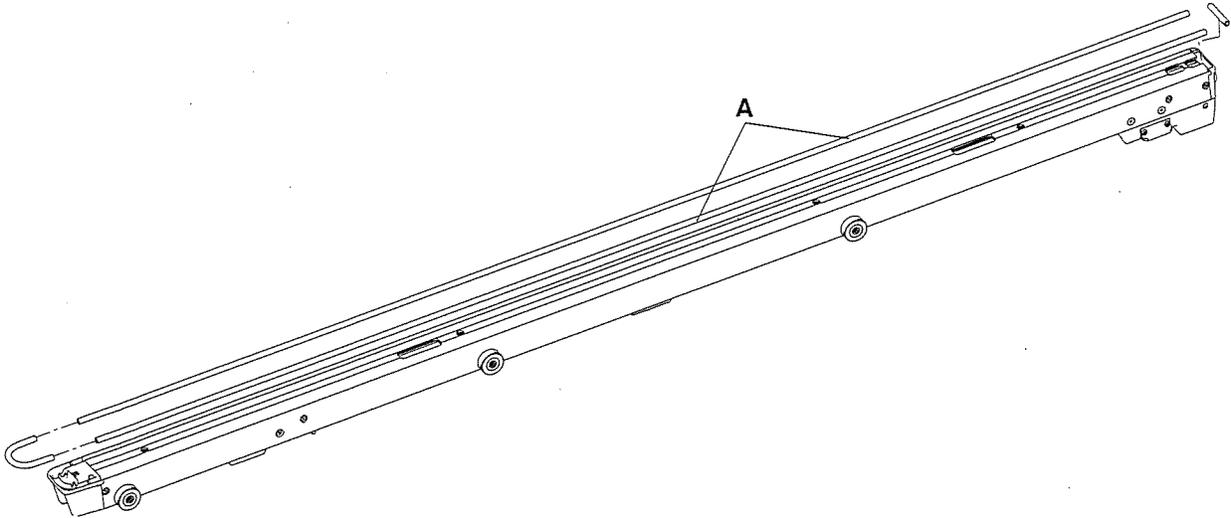


Figure 8: Anchor seals

12. Using a 3/8" hex wrench, install the four supplied anchor mounting posts (6390-001-150) (A) into the four holes in the anchor assembly (Figure 9 on page 20).
Note: Do not fully tighten the posts until all four posts are aligned and started.
13. Using a torque wrench, tighten each post to 60 ± 10 ft-lb

Installation

Installing Power-LOAD (Continued)

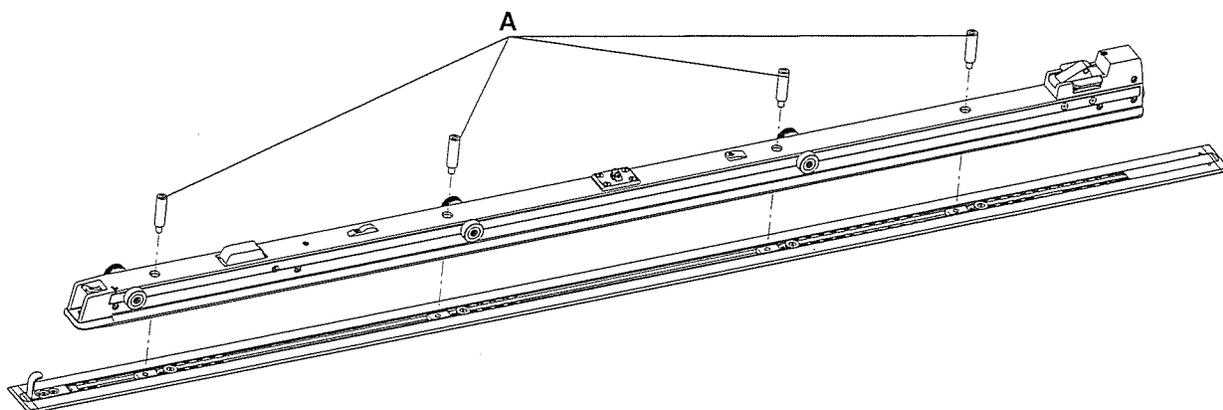


Figure 9: Install anchor mounting posts

14. Position the transfer assembly (A), so the open end faces the anchor assembly (B) (Figure 10 on page 20).

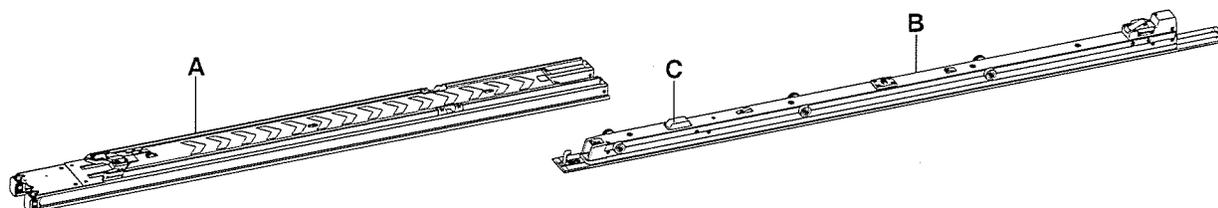


Figure 10: Install transfer assembly

15. Installer 1 (foot end) lifts the transfer assembly and slides the transfer lock triggers (E) (Figure 11 on page 21) toward the foot end of the transfer to release the transfer locks. Installer 2 (head end) slides and centers the open end of the transfer assembly over the rollers in the anchor assembly.
- When you install the transfer assembly, slowly slide the transfer assembly. Do not break the cot inductive charge housing (C) (Figure 10 on page 20).
 - Keep the transfer lock triggers pulled toward the foot end until the transfer is seated on the anchor (Figure 11 on page 21).
 - You may notice slight resistance when you roll over the second set of rollers; push past the resistance to the position shown in Figure 11 on page 21.
16. Using a 5/32" hex wrench, install the supplied socket head cap screw (0004-658-000) (A) to secure the supplied trolley magnet activator (6390-0001-106) (B) (Figure 11 on page 21).
17. Using a T25 Torx driver, install four supplied button head cap screws (0004-665-000) (C) to attach the supplied foot end transfer wear pad (6390-001-225) (D) to the transfer assembly (Figure 11 on page 21).
18. Slide the transfer lock triggers (closest to the foot end) (E) (Figure 11 on page 21) toward the foot end of the transfer assembly to unlock.

Installation

Installing Power-LOAD (Continued)

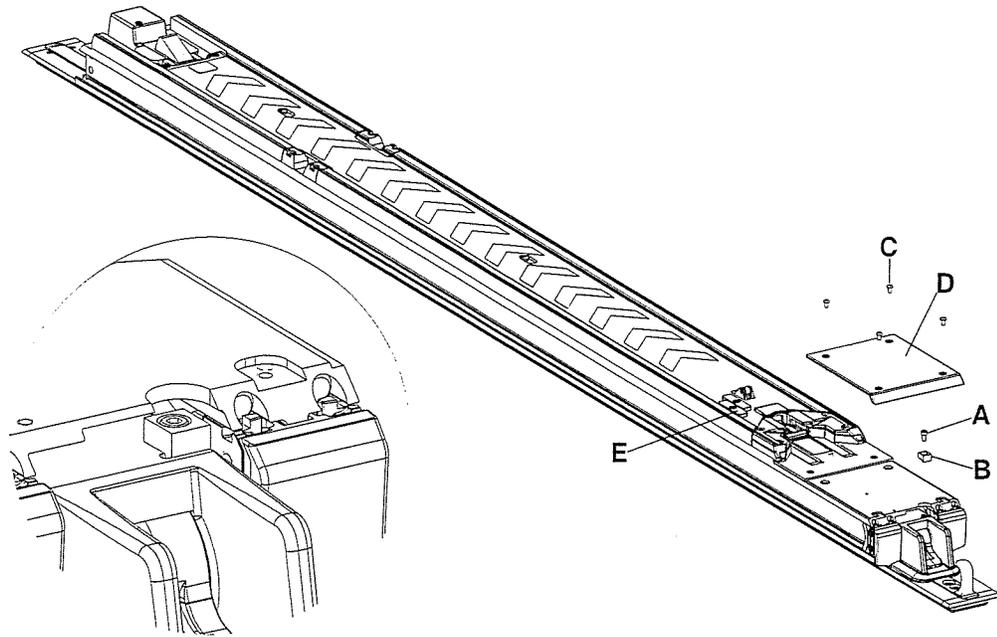


Figure 11: Attach the foot end transfer wear pad

19. Move the transfer assembly into its mid position (Figure 12 on page 21).

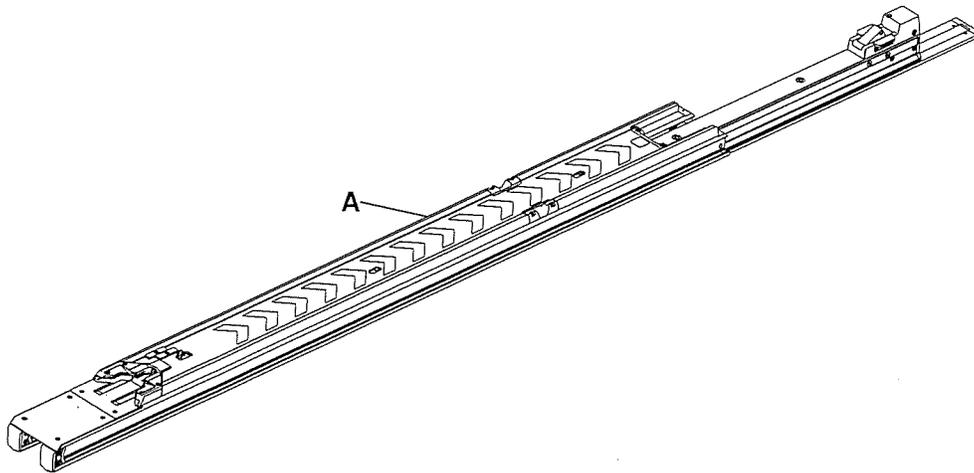


Figure 12: Position the transfer assembly

20. Carefully lift the trolley assembly by its arm and wing. Do not lift the trolley by the manual cot release handles. Lift only where indicated. Installer 1, position hands at A1 and A2. Installer 2, position hands at B1 and B2 (Figure 13 on page 22).

Installation

Installing Power-LOAD (Continued)

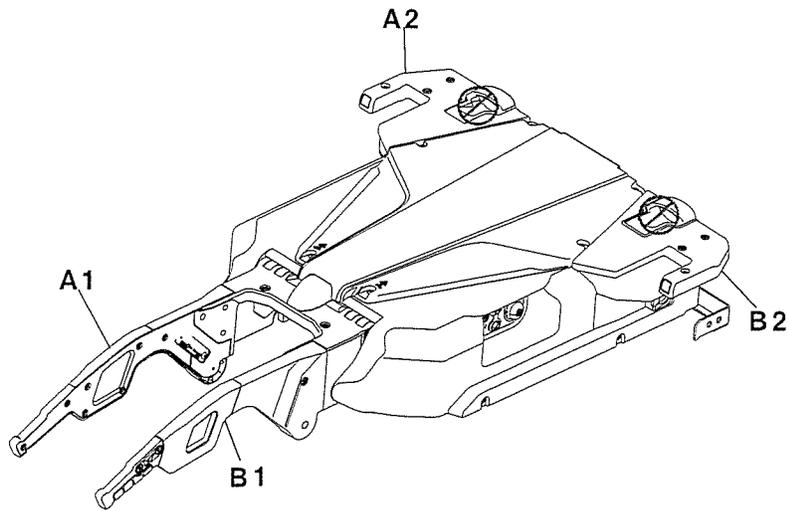


Figure 13: Trolley assembly

21. Position the trolley assembly (A) between the transfer assembly (B) and head end of the anchor assembly (C) on the floor (Figure 14 on page 23).
22. Installer 1 (foot end): Slide the rollers of the trolley assembly into the side channel of the transfer assembly.
23. Installer 2 (head end): Lift the trolley assembly to align the second set of rollers and slide the rollers until the trolley is near the middle of the transfer.

Installation

Installing Power-LOAD (Continued)

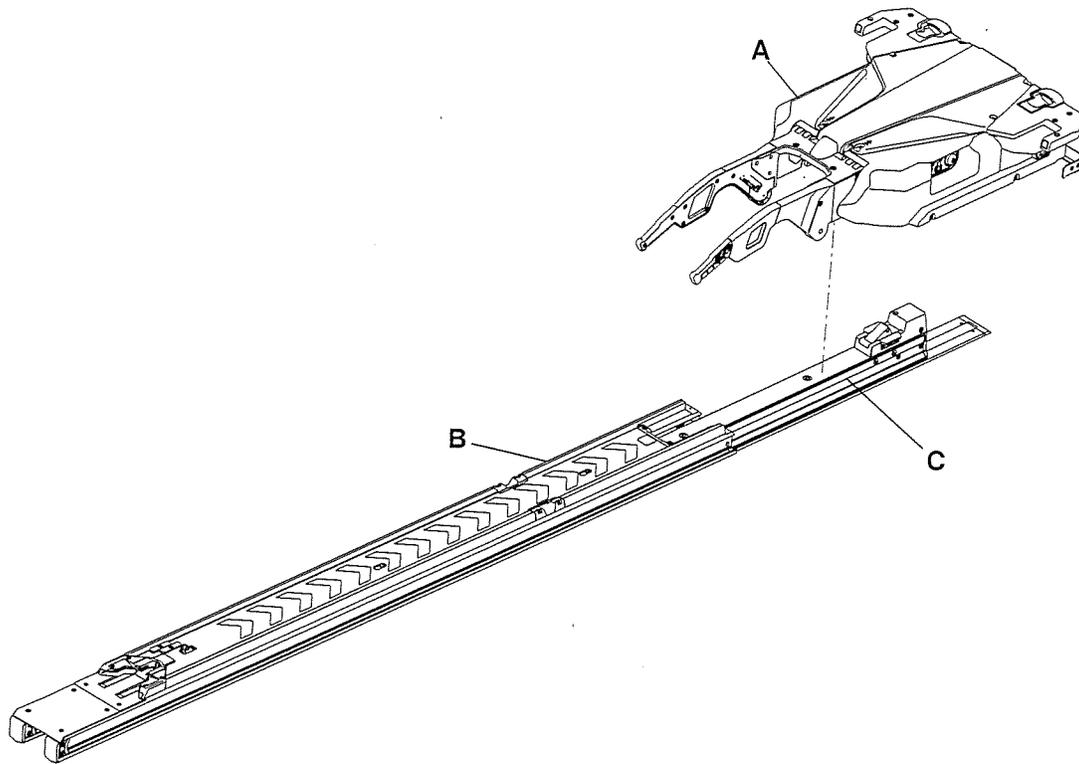


Figure 14: Position the trolley assembly

24. Carefully push the transfer assembly forward toward the head end until it locks into position.
25. Assemble the bumper block. Align the supplied dead stop block (6390-001-244) (with through holes) (A) with the supplied dead stop bumper (6390-001-243) (B) and the supplied inner dead stop block (6390-001-246) (with threaded holes) (C) (Figure 15 on page 24).

Installation

Installing Power-LOAD (Continued)

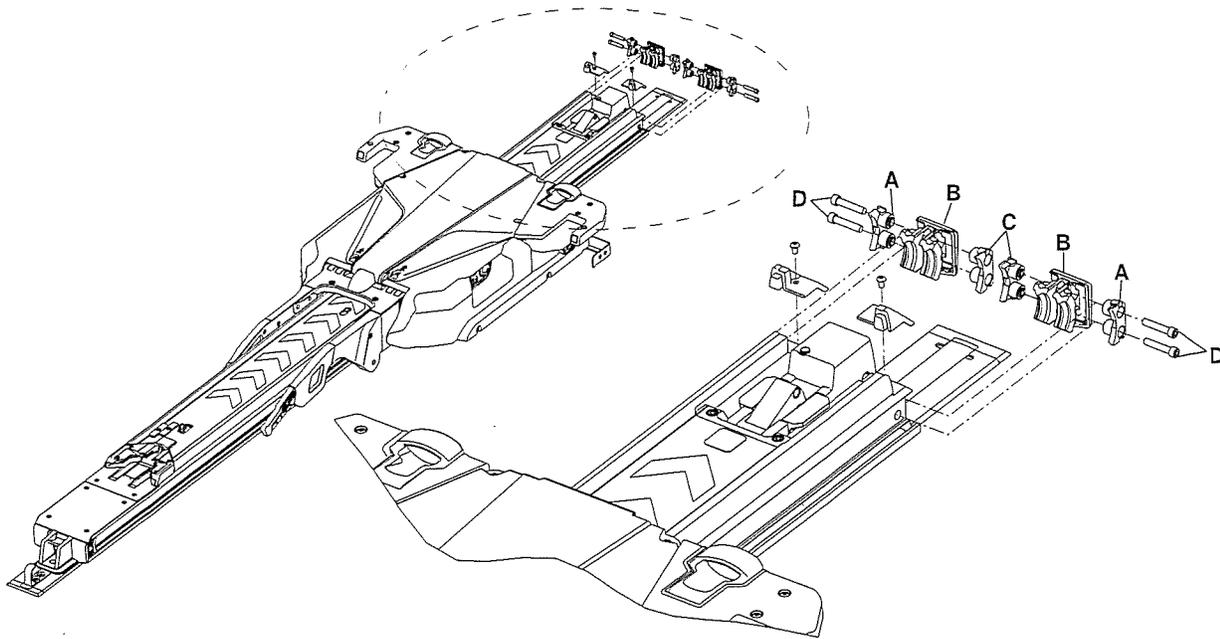


Figure 15: Assemble bumper block

26. Slide the assembled dead stop bumper into the end of the transfer assembly.

Note: Position the dead stop bumper, so that the hump (A) is on the bottom (Figure 16 on page 24).

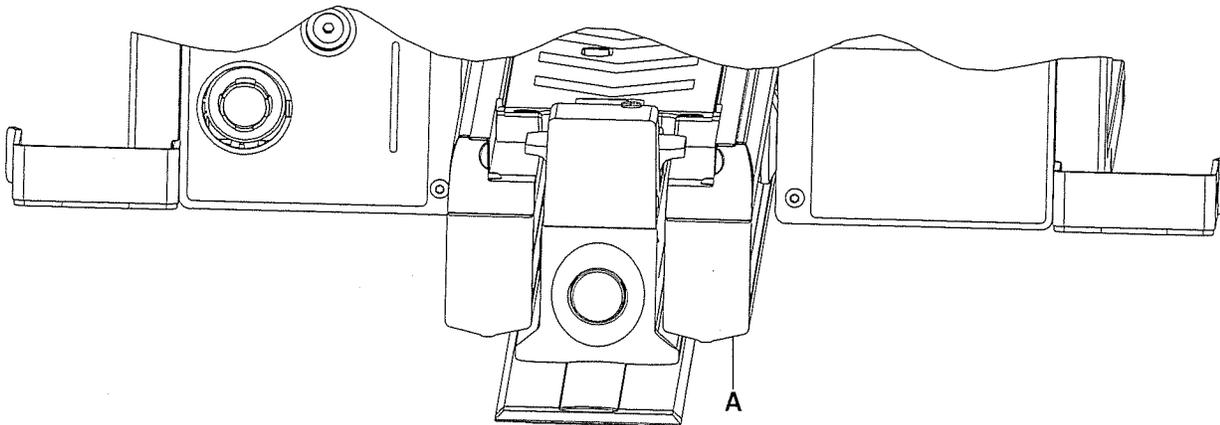


Figure 16: Dead stop bumper hump

27. Repeat step 24 and step 25 to assemble and install the second dead stop bumper.

28. Using a 3/16" hex wrench, install the four supplied socket head cap screws (0004-662-000) (two for each side) (D) into the transfer assembly (Figure 15 on page 24).

29. Visually inspect the head end transfer bumpers to make sure that they are installed flush to the outer edge of the transfer assembly with no signs of misalignment or improper installation.

30. Using a T25 Torx driver, install the two supplied button head cap screws (0004-665-000) (A) to attach the supplied patient left transfer head end trim (6390-001-210) and supplied patient right transfer head end trim (6390-001-211) (B) to the transfer assembly (Figure 17 on page 25).

Installation

Installing Power-LOAD (Continued)

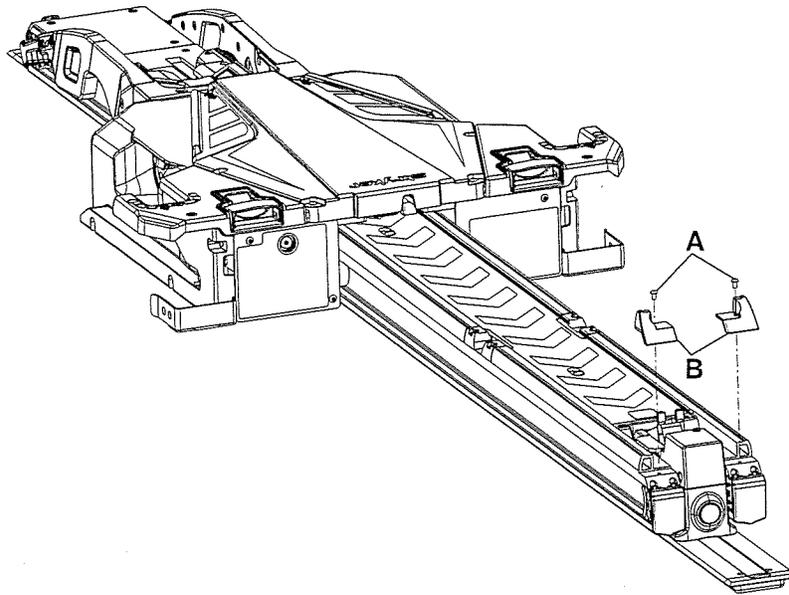


Figure 17: Attach head end trim

31. Press the main power button (A) (Figure 18 on page 25), on the patient left side of the trolley assembly to turn power on to the product.

Notes

- If you wired **Power-LOAD** into a circuit with a switch, make sure that the switch is turned on.
- When you press the main power button, a green battery power LED (B) also turns on to indicate that the **Power-LOAD** system is on. If the trolley battery is low, a flashing amber error LED (C) may also appear.

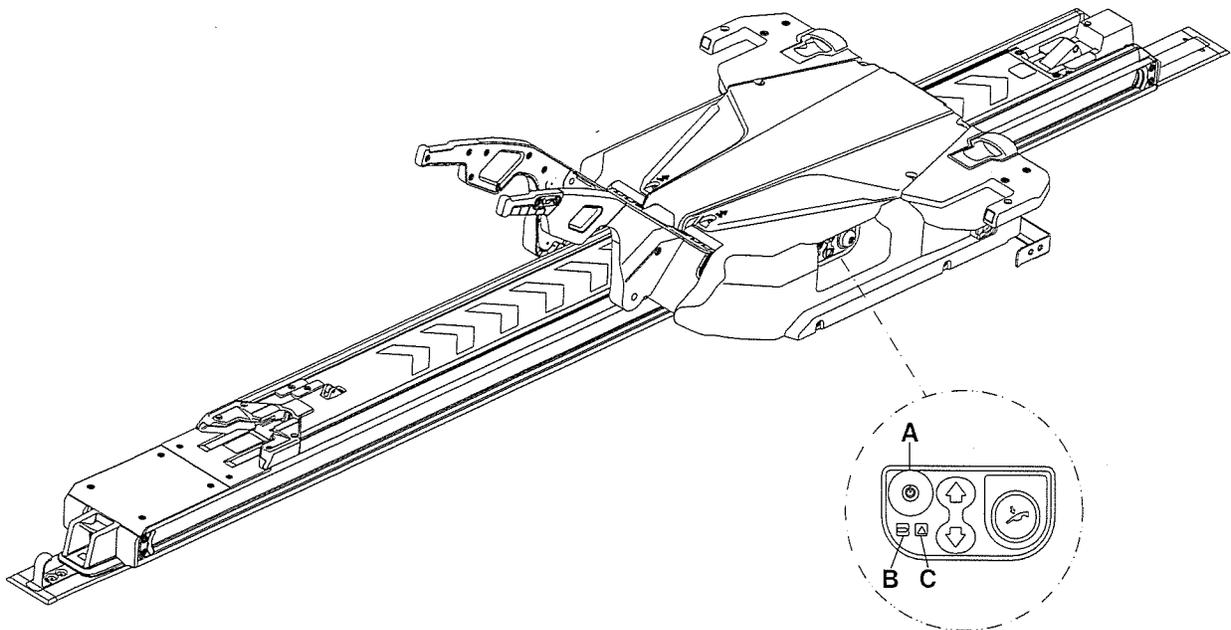


Figure 18: Power-LOAD control panel

Installation

Installing Power-LOAD (Continued)

32. Raise the lifting arms and manually push the trolley into the head end of the vehicle patient compartment to charge the battery.

Note: The battery power LED (B) flashes green while charging.

33. Affix the operation labels to the door or wall where it is visible to **Power-LOAD** operators (Loading and unloading with powered operations on page 35 and Loading and unloading with manual operations on page 37)

Note: Make sure that you apply the label to a smooth surface or the supplied sheet metal plate (6390-001-467) that you can screw or rivet into the vehicle.

34. Complete the Installation checklist on page 27.

Installation checklist

CAUTION

The manual overrides allow the **Power-LOAD** system to move freely.

Note: Allow the battery to charge for a minimum of 20 minutes before you start the **Power-LOAD** functional check. The battery will only charge when the trolley is locked at the head end of the vehicle patient compartment. The battery power LED should flash green while charging.

Before you start the **Power-LOAD** functional check, make sure that the:

- Check is performed with a **Power-LOAD** compatible **Power-PRO** cot (model 6500, 6506, 6510, 6516)
- **Power-LOAD** is locked at the foot end of the vehicle patient compartment with the lifting arms down
- Power is turned on
- LEDs on the trolley assembly wings flash amber

Notes

- When you press the main power button, the battery power LED also illuminates to indicate that the **Power-LOAD** system is on. If the trolley battery is low, a flashing amber error LED may appear.

- Check both the upper and lower cot control switches when you check the cot button functionality.

_____ Lift the vehicle bumper to the raised position, if equipped.

_____ Lock the **Power-LOAD** compatible cot into **Power-LOAD**.

_____ Check that both cot load wheel pins are locked into **Power-LOAD** (latches).

_____ Check that LEDs change from flashing amber to solid green.

_____ Press and hold the retract (-) button on the cot control switch to fully retract the cot undercarriage.

_____ Push the cot into the vehicle patient compartment until it locks at the head end of the vehicle patient compartment. Make sure that the lifting arms lower until the cot wheels are on the vehicle patient compartment floor and the cot foot end locks into the cot fastener.

_____ Make sure that the cot is locked into **Power-LOAD** by firmly pulling side to side on the foot end of the cot.

_____ Press and hold the extend (+) button on the cot control switch to make sure that the cot does not extend in the vehicle patient compartment. The cot legs should not attempt to lift in the transport position.

Note: Press the retract (-) button on the cot control switch to allow motion in some conditions.

_____ Press and hold the release lever at the foot end of the **Power-LOAD** system and pull to remove the cot from the vehicle patient compartment. Make sure that the lifting arms raise the cot until the cot wheels are off the vehicle patient compartment floor.

_____ Make sure that the head end LED indicators are solid green. Press and hold the extend (+) button on the cot control switch to extend the cot until the cot wheels rest on the ground and the cot is no longer supported by the **Power-LOAD** lifting arms.

Note: The lifting arms should remain in the full down position after the cot is released from **Power-LOAD**.

_____ Press the up (•) button on the **Power-LOAD** control panel to raise the lifting arms and the cot to the highest position.

Note: The cot legs do not retract.

_____ Press the down (•) button on the **Power-LOAD** control panel to lower the lifting arms and the cot.

_____ Press the release button on the cot control switch to release the cot from **Power-LOAD**. The head end LED indicators will flash amber.

_____ Lock the cot into **Power-LOAD** again.

_____ Press the up (•) button on the **Power-LOAD** control panel to lift the cot up to the highest position.

Note: The cot legs do not retract.

_____ Press the manual release button on the **Power-LOAD** control panel to lower the cot. Continue to hold the button until the lifting arms are clear of the cot.

_____ Lift one of the two manual cot release handles at the head end of the trolley to unlock the cot.

_____ Roll the cot away from **Power-LOAD**.

Installation checklist

- _____ Raise the lifting arms and push the trolley into the vehicle patient compartment to the transport position. With the trolley at the head end, allow the arms to lower.
- _____ Load the **Power-LOAD** compatible cot without using the load functions to simulate manual loading of the cot into the vehicle patient compartment. Make sure that the cot locks into place.
- _____ Press and hold the release lever at the foot end of the **Power-LOAD** system and pull to remove the cot from the vehicle patient compartment. Make sure that the cot safety bar is connected with the vehicle.
Note: Only the cot will unlock. The trolley should remain at the head end of **Power-LOAD**.
- _____ To unlock the trolley, raise the lifting arms and press the trolley release button at the head end of the **Power-LOAD** system. Slide the trolley only a few inches toward the foot end.
- _____ Slide the manual lock override closest to the foot end on the transfer and push the transfer out toward the foot end. Make sure that the transfer can be unlocked.
- _____ Fully extend **Power-LOAD** out of the vehicle patient compartment.
- _____ Slide the manual lock override closest to the head end on the transfer and push the transfer in toward the head end. Make sure that the transfer can be unlocked.
- _____ Visually inspect the head end transfer bumpers to make sure that they are installed flush to the outer edge of the transfer assembly with no signs of misalignment or improper installation.
- _____ Visually check that all bolts and screws are tight, with no signs of protruding or missing fasteners.
- _____ Push on the head end pawl and use the foot end release lever to activate the head end pin to make sure that they move freely and do not bind after you let go.
- _____ For Type II ambulances or if the cot center line is 17.5 in. (44.5 cm) or less from the vehicle wall, make sure that the optional wheel guide assembly (6390-027-000) is installed. Mark N/A if the wheel guide is not required.
- _____ Press the main power button to turn the product off. You may need to turn the product on and then off to make sure that **Power-LOAD** is off and not in sleep mode.

Note: If you will not use **Power-LOAD** for a week or more, press the main power button to turn the product off and avoid draining the battery. You may need to turn the product on and then off to make sure that **Power-LOAD** is off and not in sleep mode.

Product serial number:			
Installed by:		Date:	
Inspected by:		Date:	

Note: Maintain a copy of this record for at least seven years.