

Power-LOAD Cot Fastener System

Maintenance Manual

REF 6390



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Warning/Caution/Note Definition

The words WARNING, CAUTION, and NOTE carry special meanings and should be carefully reviewed.

WARNING

Alerts the reader about a situation which, if not avoided, could result in death or serious injury. It may also describe potential serious adverse reactions and safety hazards.

CAUTION

Alerts the reader of a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to the user or patient or damage to the product or other property. This includes special care necessary for the safe and effective use of the device and the care necessary to avoid damage to a device that may occur as a result of use or misuse.

Note - Provides special information to make maintenance easier or important instructions clearer.

Summary of safety precautions

Always read and strictly follow the warnings and cautions listed on this page. Service only by qualified personnel.

WARNING

- Always use two installers when you lift and position the transfer and trolley assembly to avoid the risk of injury.
- · Do not pinch the cables while you service or install the covers.
- Always take ESD precautions when you handle the control board assembly. For more information about ESD protection, contact Stryker Technical Support at (800) 327-0770.
- Do not overfill the reservoir with oil. Use only **Mobil Mercon™** V Blend ATF Oil (6500-001-293) in the specified quantity. See the **Mobil Mercon™** V Blend ATF Oil material safety data sheet (MSDS) issued by the manufacturer for safety information (Exxon Mobil Corporation, 1-(800) 947-9147, http://www.exxon.com, http://www.mobil.com, product code: 20103020B010, 525147-00, 97X826).
- Power-LOAD operates at 13.56 MHz when you use Power-LOAD controls with a powered cot (Power-PRO XT or Power-PRO IT) that could interfere with other equipment that operate at this frequency band.
- Do not use accessories, transducers, and cables, other than those specified, with the exception of transducers and
 cables that are sold by Stryker as replacement parts for internal components, to avoid potentially increased emissions or
 decreased immunity of the Power-LOAD system.
- Do not use the Power-LOAD system and the Power-PRO cot adjacent to or stacked with other equipment. If adjacent
 or stacked use is necessary, observe the Power-LOAD system to confirm normal operation in the configuration where it
 will be used.
- Power-LOAD operates primarily at these frequencies: 70 85 kHz for inductive charging and 13.56 MHz±7 kHz, Amplitude Modulated (OOK), ERP: -82.37 dBm. The inductive charging can operate between these frequencies: 70 -125 kHz. Other equipment may interfere with the Power-LOAD system, even if that other equipment complies with CISPR emission requirements.

CAUTION

- · Do not bump the motor armature or stator when you replace the motor or damage may occur.
- Do not touch the negative and positive battery terminals together on any metal surface when you replace the battery.
- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their expense. In the event of interference, please relocate or reorient the Power-LOAD system or interfering product.
- Always relocate or reorient the **Power-LOAD** system or interfering product in the event of interference. This device complies with Part 18 of the FCC Rules.

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- Do not use portable RF communications equipment (including peripherals such as antenna cables and external antennas) closer than 30 cm (12 in.) to any part of the **Power-LOAD** system, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment may result.
- The emissions characteristics of this equipment make it suitable for use in industrial areas and hospitals (CISPR 11 class A). This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area (for which CISPR 11 class B is normally required) is likely to cause harmful interference, in which case the user will be required to correct the interference at their expense. In the event of interference, please relocate or reorient the **Power-LOAD** system or interfering product.

Pinch points

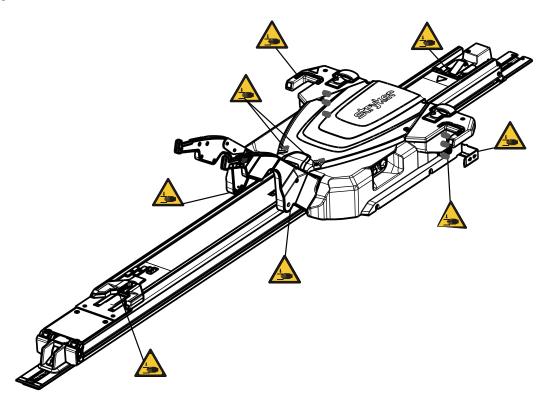


Figure 1 – Pinch points

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Introduction for service

This manual assists you with the service of your Stryker product. Read this manual to service this product. This manual does not address the operation of this product. See the Operations/Maintenance Manual for operating and use instructions. To view your Operations/Maintenance Manual online, see https://techweb.stryker.com/.

Expected service life

Power-LOAD has a seven year expected service life under normal use conditions and with appropriate periodic maintenance.

Contact information

Contact Stryker Customer Service or Technical Support at: 1-800-327-0770.

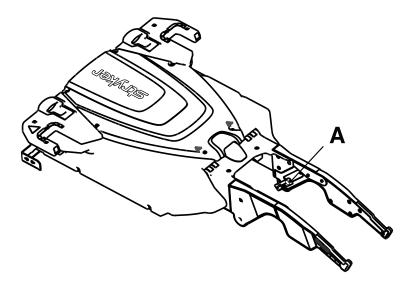
Stryker Medical 3800 E. Centre Avenue Portage, MI 49002 USA

Note - The user and/or the patient should report any serious product-related incident to both the manufacturer and the Competent authority of the European Member State where the user and/or patient is established.

To view your operations or maintenance manual online, see https://techweb.stryker.com/.

Have the serial number (A) of your Stryker product available when calling Stryker Customer Service or Technical Support. Include the serial number in all written communication.

Serial number location



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Preventive maintenance

Regular inspection and adjustments

Maintenance intervals

This schedule is a general guide to maintenance. The required maintenance schedule may vary based on:

- · Call volume
- Weather
- Terrain
- Geographical location
- · Individual usage

If you are not sure how or when to perform these checks, contact your Stryker Service Technician.

When you perform **Power-LOAD** preventive maintenance checks, you must perform a preventive maintenance check on its corresponding **Power-LOAD** compatible cot and the wheel guide assembly option (if applicable) to confirm operability of the entire system.

Power-LOAD compatible cot maintenance

Wear items that may require replacement on the **Power-LOAD** compatible cot include the cot arm spacer (6500-002-123), base dead stop (6085-001-094), and load wheel pin (6500-002-104).

Wheel guide assembly option maintenance (if applicable)

To preserve **Power-LOAD** fastener functionality, make sure that the wheel guide is functional and its structure has not been compromised. The wheel guide rail system assists the **Power-LOAD** system in loading the cot. If the wheel guide has been compromised, replace it immediately.

Note - The **Power-LOAD** maintenance schedule is based on 10 calls per day. Adjust the routine maintenance schedule to your actual service usage.

Every month or two hours

Inspect these items every month or two hours of motor run time, whichever comes first.

Check	Routine
Lock location	Clean debris from the foot end lock location on the transfer

Every three months or six hours

Inspect these items every three months or six hours of motor run time, whichever comes first.

Check	Routine	
Loose fasteners	Replace if loose	
Battery terminal screws	Tighten loose screws (torque to 9 in-lb)	
Transfer assembly and anchor assembly	Clean debris from the top of the transfer assembly and anchor assembly	

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Check	Routine	
Transfer roller channels	Clean transfer roller channels to prevent debris accumulation	
Trolley stop ramp	Tighten loose screws	

Every twelve months or 24 hours

Inspect these items every 12 months or 24 hours of motor run time, whichever comes first.

Check	Routine	
Battery	Replace if lifting is sluggish	
All parts	Check and replace any worn parts, including arm covers, arm wear pads, trolley top and side covers, cot release handle springs, anchor lever cover, anchor inductive primary cover, transfer lock plate, transfer lock pin, or cot guides, if necessary	
	Note - The transfer lock plate (639000010260) is only compatible with Power-LOAD units manufactured after July 31, 2017 or units that have been previously serviced with the 639007000021 kit. Check the product serial number tag to confirm date of manufacture.	
Dead stop bumpers	Replace if the corner is damaged	
Motor	Replace when no motor motion exists	
Cylinder rod end	Replace if Power-LOAD functions in manual mode and the error LED is illuminated	
Full functionality	See Installation checklist in the Operations Manual	
Hydraulic	Check for hydraulic leaks	
Transfer lock bearing	Replace once per year	
	Note - During bearing replacement, make sure that the surrounding area is clean (anchor) and apply molybdenum disulfide grease to the transfer lock pin.	
V-guide rollers	If the product is difficult to roll or wear is noticeable in the transfer roller channel beyond the inner rod, replace the V-guide rollers on the trolley and switch the patient right, outside, bottom transfer rod with the patient right, outside top transfer rod. Check all remaining rollers for damage or excessive wear. Replace, if necessary.	
Lift arm springs	Replace the lift arm springs (0038-895-000) that are located under the trolley top cover	

Flat roller and V-guide part replacement schedule

You must replace the flat roller and V-guide parts every 14,110 calls. This is to make sure that the **Power-LOAD** remains functional. Follow this call volume time table to remain compliant with this requirement. The time table will also help plan appropriate service intervals.

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Calls per day	Months
6	80
7-8	60
9-10	48
11-12	40
13	36
14-15	30

Transfer lock bearing part replacement schedule

You must replace the transfer lock bearing parts every 3,653 calls. This is to make sure that **Power-LOAD** remains functional. Follow this call volume time table to remain compliant with this requirement.

Calls per day	Months
2	60
3	40
4-5	24
6	20
7-8	15
9-10	12
11-12	10
13-15	8

Maintenance record

Date	Maintenance operation performed	Ву	Hours

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Date	Maintenance operation performed	Ву	Hours

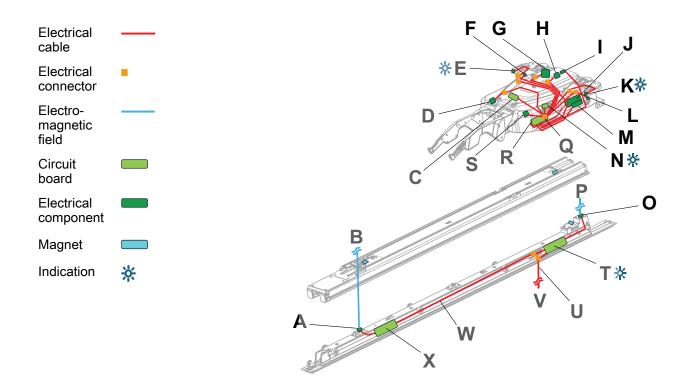
Training record

	Training date		
Trainee name	Basic training	Refresher update	Owner's manual, inservice, formal class, etc.

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Troubleshooting

System diagram



Α	Primary coil, cot (plunger assembly)
В	To secondary coil, cot
С	NFMIC trolley comm board
D	Support switch (rod end assembly)
E	Trolley LED, patient right
F	Latch sensor, patient right (Eberhard® latch)
G	Trolley battery
G H	Trolley battery Trolley position sensor (TPS)
H	Trolley position sensor (TPS) Secondary coil, trolley (coil housing
H	Trolley position sensor (TPS) Secondary coil, trolley (coil housing assembly)

М	Actuator
N	Trolley control panel (On/Off switch)
0	Primary coil, trolley (pawl assembly)
Р	To secondary coil, trolley
Q	Main cable assembly
R	Trolley control board
S	Angle position sensor (APS)
S T	Angle position sensor (APS) Inductive primary board, head end
<u>T</u>	Inductive primary board, head end
T U	Inductive primary board, head end Anchor-to-vehicle cable

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Indication details table

Component	LED	Color	State	Product position	Meaning
Control panel	Battery	Green	Off	N/A	Product is powered off or in sleep mode.
Control panel	Battery	Green	Solid	N/A	Product is powered on.
Control panel	Battery	Green	Flashing	N/A	Battery is charging.
Control panel	Error	Amber	Solid	N/A	Active error. Call Stryker ProCare Service.
Control panel	Error	Amber	Flashing	N/A	Battery is low.
Trolley LED	N/A	Amber	Flashing	Loading	Cot is not docked and is not locked.
Trolley LED	N/A	Amber	Quick flash	Transport	Power-LOAD is not charging.
Trolley LED	N/A	Green	Solid for 30 seconds	As you enter transport	Power-LOAD is in the transport position with a cot.
Trolley LED	N/A	Green	Solid	Loading	Cot is docked and is locked.
Inductive primary board	Green/red	N/A	N/A	N/A	See Checking the incoming power to Power-LOAD (page 12).

Cot/trolley battery charging issues

Low voltage to **Power-LOAD** can cause misleading errors in the cot and trolley logs. Make sure that the battery and **Power-LOAD** input have sufficient power before you start any repairs.

Tools required:

- Multimeter
- Needle nose pliers
- Charging cable (639000010139) not included

Checking the battery voltages

Use a known, good battery to troubleshoot any potential charging issues.

- 1. Make sure that you can charge the cot and trolley batteries.
- 2. If the battery has been charging, cycle the cot and trolley (at least ten times). Wait five minutes for the battery voltage to stabilize.

Note

- Skipping this step will result in inaccurate voltage measurements in step 4.
- If the battery has not been charging or if the battery charge is low, charge the battery (or batteries, if applicable) before you continue. The product can shut off during troubleshooting if the battery is drained too low.
- 3. Remove the battery from the product.
- 4. Using a multimeter, check the voltage across the positive and negative terminals.
 - a. Verify that the cot battery voltage is > 12.5V (Figure 2).
 - b. Verify that the trolley battery voltage is > 8V.

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Figure 2 – Check the battery voltages (cot battery shown)

- 5. If the voltage is too low, replace the battery (or batteries, if applicable).
- 6. If the voltage is sufficient, continue to Checking the incoming power to Power-LOAD (page 12).

Note - Other charging-related issues may cause low battery voltage. Complete all troubleshooting to identify the root cause and avoid repeated battery failures.

Checking the incoming power to Power-LOAD

Use a known, good battery to troubleshoot any issues with the incoming power to **Power-LOAD**. Always complete troubleshooting to identify the root cause of the problem.

Tools required:

- 3/16" hex wrench
- Multimeter

Complete the procedure for each use case:

- Vehicle on with shore power disconnected
- Vehicle off with shore power connected
- Vehicle off with shore power disconnected
- Any other scenarios that may affect incoming voltage

Procedure:

- 1. Place the trolley and cot into the transport position.
- 2. Make sure that the trolley and cot batteries begin to charge and continue to charge for at least three minutes.

Note

- The trolley and cot battery LEDs flash green when charging. The trolley head end LEDs flash amber when Power-LOAD is not charging.
- The cot battery LED will turn off after 20 seconds of inactivity. After three minutes, press any of the cot control switch buttons to check that the LED is still flashing green.
- If the product shuts off during troubleshooting, charge the battery (or batteries, if applicable) and confirm voltage before you continue.
- 3. Check the incoming voltage to the anchor using the two status LED indicators on the inductive primary board (639003010147).
 - a. Pull the trolley and transfer out of the vehicle patient compartment.
 - b. Move the trolley to the loading position to expose the head end of the anchor.
 - c. Locate the window plug (002900010000) and note the state of each LED indicator (Figure 3).

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Figure 3 – Window plug location

d. Check the incoming voltage and charging state.

Inductive primary board incoming voltages and charging states			
Voltage	LED state	Charging state	Description
≥ 12.7V	Green: on Red: off	Charging	Required anchor voltage to charge the batteries (cot and trolley)
< 12.7V and ≥ 12.2V	Green: flashing Red: off	Continue charging	If the system was charging (started at or above 12.7V), the voltage can continue to drop as low as 12.2V without interrupting charging.
< 12.2V and ≥ 11.7V	Green: flashing Red: flashing	Charging time limited	If the system was charging (started at or above 12.7V) and the voltage dropped below 12.2V, the system will begin a charging time out. Charging will stop after two hours. Note - If the voltage increases to > 12.5V, the battery will continue charging and the time out will be canceled.
< 11.7V and ≥ 11.0V	Green: off Red: on	Not charging	Charging stops Note - The LED status is the same when the voltage to the anchor is > 15.8V.
< 11.0V	Green: off Red: infrequent, short flash	Not charging	Anchor electronics enter a sleep state

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Inductive primary board incoming voltages and charging states			
Voltage	LED state	Charging state	Description
Not applicable	Green: off Red: frequent, long flash or frequent, short flash	Not charging	Both LED states indicate primary coil over current errors.

Common causes of insufficient voltage include:

- Not using the preferred method during wiring installation (see the Floor Plate Installation Instructions)
- · Blown or tripped circuit fuse/resettable breaker
- Poor or partial connections between the product and vehicle
- · Poor or partial connections between the anchor-to-vehicle cable and anchor
- Damaged (nicked or cut) wiring
- Corrosion
- 4. If you still cannot identify the cause of the charging issue, monitor the anchor voltage while the batteries are charging.
 - a. Raise and lower the trolley arms (at least 10 times) to drain the trolley battery. Verify that the trolley battery voltage is < 12.8V. Repeat this step until the voltage is < 12.8V.
 - b. Raise and lower the cot (at least 10 times) to drain the cot battery. Verify that the cot battery voltage is < 27.7V. Repeat this step until the voltage is < 27.7V.
 - c. Load the cot onto Power-LOAD and verify that both batteries begin to charge.
 - d. Look between the transfer and anchor at the head end to view the status LEDs on the inductive primary board.

Note

- See the table in step 3d to check the incoming voltage and charging state while the batteries are charging.
- If the status LEDs are hard to see, use a 3/16" hex wrench to remove the patient left dead stop.
- Drained batteries will accept maximum current while charging. This can help identify any wiring-related issues during troubleshooting.
- 5. Repeat steps 1-4 for each use case to make sure that you resolved the problem.

Angle position sensor (APS) calibration

Tools required:

Stryker Service Tool

Male-to-male USB cable

T25 Torx driver

Tape measure

Procedure:

- 1. Park the vehicle on a level surface.
- 2. Press the main power button to turn on the product.
- 3. Press and hold the release lever at the foot end of the product. Pull to remove the cot from the vehicle patient compartment.

Note - The head end LED indicators turn solid green only when the cot is ready to unload.

4. Unload the cot from the vehicle.

For powered cot models:

a. Press and hold the extend (+) button on the cot control switch to extend the cot base until the cot wheels rest on the ground.

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b. Release the extend (+) button once the lifting arms no longer support the cot. The lifting arms will continue lowering until fully down. Do not unlock the cot from **Power-LOAD**.

For manual cot models:

- a. Operator 1 (foot end): Grasp the cot frame at the foot end. Squeeze and hold the cot manual release.
- b. Operator 2 (side): Lift slightly and then lower the cot base frame to its fully extended position.
- c. Operator 1 (foot end): Release the cot manual release to lock the base frame into the extended position.
- d. Press the down (↓) button on the trolley control panel to lower the lifting arms and cot. Do not unlock the cot from **Power-LOAD**.
- 5. Using a T25 Torx driver, remove the two button head cap screws (C) that secure the trolley rear cover plate (W) to the left wing assembly to gain access to the USB port (Figure 4). Save the screws and cover.

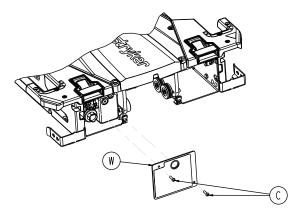


Figure 4 - Remove the trolley rear cover plate

- 6. Unscrew the cap on the USB port.
- 7. Set the computer with the Stryker Service Tool installed on top of the cot mattress at the foot end of the cot.
- 8. Plug the USB cable into the USB ports on Power-LOAD and the computer.
 - **Note** Make sure that the USB cable is clear of obstructions while the **Power-LOAD** system moves in and out of the vehicle patient compartment.
- 9. Double-click the Stryker Service Tool icon on your desktop. The software tool will detect Power-LOAD.
- 10. Click Connect via USB and then click Configure APS (Figure 5).

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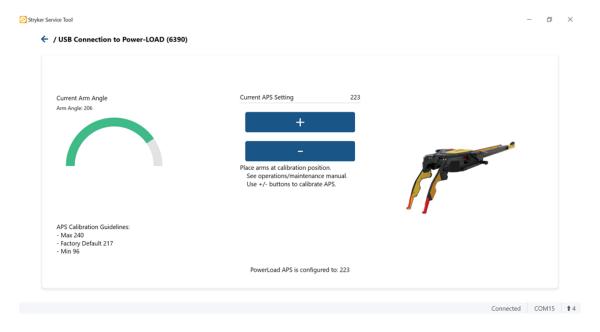


Figure 5 – USB Connection to Power-LOAD (6390)

- 11. Type Stryker1 in the password field and click OK.
- 12. Load the cot into the vehicle.

For powered cot models:

a. Press and hold the retract (-) button on the cot control switch to retract the cot base frame until the cot is supported.

For manual cot models:

- a. Press the up (1) button on the trolley control panel to raise the lifting arms to the highest height position.
 - Note The cot legs do not retract.
- b. Operator 1 (foot end): Grasp the cot frame at the foot end. Squeeze and hold the cot manual release.
- c. Operator 2 (side): Place one hand on the outer rail to stabilize the cot. Grasp the cot base frame. Retract the cot base frame with one hand and hold the cot in place with your other hand.
- d. Operator 1 (foot end): Release the cot manual release to lock the base frame in the retracted position. Make sure that the cot manual release is released. If it is not released, the cot base will extend preventing the cot from locking in the fastener.
- 13. Push the cot until the foot end cot wheels are over the floor of the vehicle patient compartment (but not all the way in) and are in a locked position.
- 14. Using a tape measure, measure the distance from the bottom of the foot end cot wheel to the floor. The cot wheel should face the back of the vehicle patient compartment (A) (Figure 6). Make sure that the distance between the bottom of the foot end cot wheel to the floor is 2".

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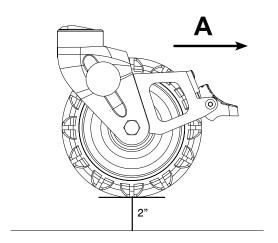


Figure 6 - Foot end cot wheel clearance

- a. If the measurement is more than 2", click **Decrement (-)** on the **Connected to Trolley** calibration screen.
- b. If the measurement is less than 2", click Increment (+) on the Connected to Trolley calibration screen.
- 15. Grasp the cot frame at the foot end. Pull the cot out of the vehicle patient compartment.

Note - The head end LED indicators turn solid green only when the cot is ready to unload.

- 16. Repeat steps 3-4 to unload the cot from the vehicle.
- 17. Repeat steps 11-13 to load the cot into the vehicle.
- 18. Repeat steps 12-16 until the distance between the bottom of the foot end cot wheel to the floor is 2".
- 19. Unplug the USB cable from the ports on Power-LOAD and the computer.
- 20. Screw the USB port cap back onto the USB port.
- 21. Using a T25 Torx driver, reinstall the two button head cap screws (C) removed in step 5.

Note - Make sure that the extruded "U" nut does not rotate clockwise when you tighten the bottom right button head cap screw.

22. Verify proper operation before you return the product to service.

Error code information

Error types:	Other acronyms:	
M = main microprocessor S = safety microprocessor	EE = electrically erasable EEPROM = electrically erasable programmable read-only memory FET = field effect transistor HPGR = high power gating relay	NFMIC = near field magnetic induction communication RAM = random access memory UART = universal asynchronous receiver transmitter

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Error code ID	Error type	Description	Troubleshooting
01	М	RAM diagnostic fails	 Verify that the battery voltage is > 11.5V and the battery operates as expected.
			Press the power button to turn off trolley power for 10 seconds, then turn the power back on.
			Note - If you power cycle the trolley too quickly, it may cau false HPGR errors.
			3. Replace the trolley control board.
02	М	Program memory diagnostic fails	 Verify that the battery voltage is > 11.5V and the battery operates as expected.
			Press the power button to turn off trolley power for 10 seconds, then turn the power back on.
			Note - If you power cycle the trolley too quickly, it may cau false HPGR errors.
			3. Replace the trolley control board.
03	М	EE diagnostic fails	 Verify that the battery voltage is > 11.5V and the battery operates as expected.
			Press the power button to turn off trolley power for 10 seconds, then turn the power back on.
			Note - If you power cycle the trolley too quickly, it may cau false HPGR errors.
			3. Replace the trolley control board.
04	М	EEPROM type disagrees with hardware type	 Verify that the battery voltage is > 11.5V and the battery operates as expected.
			Press the power button to turn off trolley power for 10 seconds, then turn the power back on.
			Note - If you power cycle the trolley too quickly, it may cau false HPGR errors.
			3. Replace the trolley control board.
05	S	RAM diagnostic fails	 Verify that the battery voltage is > 11.5V and the battery operates as expected.
			Press the power button to turn off trolley power for 10 seconds, then turn the power back on.
			Note - If you power cycle the trolley too quickly, it may cau false HPGR errors.
			3. Replace the trolley control board.

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Error code ID	Error type	Description	Troubleshooting
06	S	Program memory diagnostic fails	Verify that the battery voltage is > 11.5V and the battery operates as expected.
			Press the power button to turn off trolley power for 10 seconds, then turn the power back on.
			Note - If you power cycle the trolley too quickly, it may cause false HPGR errors.
			Replace the trolley control board.
07	S	EEPROM type disagrees with hardware type	Verify that the battery voltage is > 11.5V and the battery operates as expected.
			Press the power button to turn off trolley power for 10 seconds, then turn the power back on.
			Note - If you power cycle the trolley too quickly, it may cause false HPGR errors.
			Replace the trolley control board.
08	S	EEPROM type disagrees with firmware rev	Verify that the battery voltage is > 11.5V and the battery operates as expected.
			Press the power button to turn off trolley power for 10 seconds, then turn the power back on.
			Note - If you power cycle the trolley too quickly, it may cause false HPGR errors.
			Replace the trolley control board.
09	S	Up (↑) or down (↓) button detected without key	Verify that the battery voltage is > 11.5V and the battery operates as expected.
			Press the power button to turn off trolley power for 10 seconds, then turn the power back on.
			Note - If you power cycle the trolley too quickly, it may cause false HPGR errors.
			Check trolley control panel connectors and wires for damage. Replace as needed.
			Replace the trolley control board.

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Error code ID	Error type	Description	Troubleshooting
10	S	One latch is unlocked in any position other than loading	Push the cot into Power-LOAD until the cot load wheel pins lock into position. Make sure that the cot is aligned with the lifting arms when you load the cot.
			Note - Use the Stryker Service Tool to verify that the cot is secure and the Power-LOAD latches indicate "closed."
			Check the latch cables, connections, and the main trolley cable for damage. Replace damaged parts as needed.
			3. Compare the TPS values from the Stryker Service Tool with the expected values in the <i>TPS value table</i> (page 31).
			 Verify that the relevant transfer magnets, pawl magnet, and mechanical interfaces are present and operate as expected.
			 Move Power-LOAD through each position to verify TPS operation. In the Stryker Service Tool, the hall sensor percentages should increase and decrease, and the reed switches should open and close as you move the product.
			6. Replace the TPS.
11	S	"Unsupported" after jog up	Verify that the battery voltage is > 11.5V and the battery operates as expected.
			Note - Low battery voltage can cause false APS and TPS errors.
			2. Verify that the cot wheel clearance to the vehicle floor was calibrated. See <i>Angle position sensor (APS) calibration</i> (page 14).
			Check the mechanical interface to the support sensor for damage (located under the patient right cover).
			 Make sure that the support sensor has continuity when the trolley arms support the cot.
			Note - Use the Stryker Service Tool to verify that both support sensors indicate "closed."
			Check the support sensor, support sensor cables, and the main trolley cable for damage. Replace damaged parts as needed.
			6. Replace the support sensor.
12	S	TPS mismatch	 Verify that the battery voltage is > 11.5V and the battery operates as expected.
			Note - Low battery voltage can cause false TPS errors.
			2. Compare the TPS values from the Stryker Service Tool with the expected values in the <i>TPS value table</i> (page 31).
			Verify that the relevant transfer magnets, pawl magnet, and mechanical interfaces are present and operate as expected.
			 Move Power-LOAD in and out of each position to verify TPS operation. The hall sensor percentages in the Stryker Service Tool should increase and decrease and the reed switches should open and close as you move the product.
			5. Replace the TPS.

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1. Verify that the battery voltage is > 11.5V and the battery operates as expected. Note - Low battery voltage can cause false APS errors. 2. Use the Stryker Service Tool to monitor the APS sensor value. The value should increase as the trolley arms go to and decrease as the trolley arms go down. 3. Check the mechanical interface to the APS for damage. 4. Check APS connections, cables, and main cable for dam Replace damaged parts as needed. 5. Perform APS calibration. See Angle position sensor (AP calibration (page 14). 6. Replace the APS. 1. Verify that the battery voltage is > 11.5V and the battery operates as expected. Note - Low battery voltage can cause false APS errors.
2. Use the Stryker Service Tool to monitor the APS sensor value. The value should increase as the trolley arms go used and decrease as the trolley arms go down. 3. Check the mechanical interface to the APS for damage. 4. Check APS connections, cables, and main cable for damage damaged parts as needed. 5. Perform APS calibration. See Angle position sensor (AP calibration (page 14). 6. Replace the APS. 14. S APS lower than floor 1. Verify that the battery voltage is > 11.5V and the battery operates as expected.
value. The value should increase as the trolley arms go used and decrease as the trolley arms go down. 3. Check the mechanical interface to the APS for damage. 4. Check APS connections, cables, and main cable for damage damaged parts as needed. 5. Perform APS calibration. See Angle position sensor (AP calibration (page 14). 6. Replace the APS. 1. Verify that the battery voltage is > 11.5V and the battery operates as expected.
4. Check APS connections, cables, and main cable for dam Replace damaged parts as needed. 5. Perform APS calibration. See Angle position sensor (AP calibration (page 14). 6. Replace the APS. 14 S APS lower than floor 1. Verify that the battery voltage is > 11.5V and the battery operates as expected.
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14 S APS lower than floor 1. Verify that the battery voltage is > 11.5V and the battery operates as expected.
1. Verify that the battery voltage is > 11.5V and the battery operates as expected.
Note - Low battery voltage can cause false APS errors.
2. Use the Stryker Service Tool to monitor the APS sensor value. The value should increase as the trolley arms go use and decrease as the trolley arms go down.
3. Check the mechanical interface to the APS for damage.
4. Check APS connections, cables, and main cable for dam Replace damaged parts as needed.
5. Perform APS calibration. See <i>Angle position sensor (AP calibration</i> (page 14).
6. Replace the APS.
S APS at safety limit 1. Verify that the battery voltage is >11.5V and the battery operates as expected.
Note - Low battery voltage can cause false APS errors.
2. Use the Stryker Service Tool to monitor the APS sensor value. The value should increase as the trolley arms go down.
3. Check the mechanical interface to the APS for damage.
Check APS connections, cables, and main cable for dam Replace damaged parts as needed.
5. Perform APS calibration. See Angle position sensor (AP calibration (page 14).
6. Replace the APS.

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Error code ID	Error type	Description	Troubleshooting
16	S	Jog down fault	Verify that the battery voltage is > 11.5V and the battery operates as expected.
			Note - Low battery voltage can cause false TPS and APS errors.
			Use the Stryker Service Tool to monitor the APS sensor value. The value should increase as the trolley arms go up and decrease as the trolley arms go down.
			3. Check the mechanical interface to the APS for damage.
			Check the APS connections, cables, and main cable for damage.
			5. Perform APS calibration. See Angle position sensor (APS) calibration (page 14).
			6. Compare the TPS values from the Stryker Service Tool with the expected values in the TPS value table (page 31).
			7. Verify that the relevant transfer magnets, pawl magnet, and mechanical interfaces are present and operate as expected.
			8. Move Power-LOAD in and out of each position to verify TPS operation. The hall sensor percentages in the Stryker Service Tool should increase and decrease and the reed switches should open and close as you move the product.
			Check the mechanical interface to the support sensor for damage (located under the patient right cover).
			10. Make sure that the support sensor has continuity when the trolley arms support the cot.
			Note - Use the Stryker Service Tool to verify that both support sensors indicate "closed."
			11. Check the support sensor, support sensor cables, and the main trolley cable for damage.
			12. Replace the support sensor.
			13. Replace the TPS.
			14. Replace the APS.
17	S	Low battery	Verify that the vehicle-to-anchor voltage is > 12.8 VDC.
			2. Check the age of the trolley battery. You may need to replace the battery if it has been in service for more than one year. See <i>Checking the battery voltages</i> (page 11).
			3. Verify that the inductive voltage is > 23 VDC when charging starts and then > 18 VDC when charging at max current (3.5 A). See <i>Cot/trolley battery charging issues</i> (page 11).
			Note - For more extensive troubleshooting, see <i>Trolley has no power</i> or <i>Trolley not charging</i> in the <i>Troubleshooting by symptom</i> (page 32) sections.

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Error code ID	Error type	Description	Troubleshooting
18	S	Charging failure	Verify that the system does not have charging or intermittent charging issues that have degraded the battery to the point of failure. See Cot/trolley battery charging issues (page 11).
			Note - For more extensive troubleshooting, see <i>Trolley has</i> no power or <i>Trolley not charging</i> in the <i>Troubleshooting by</i> symptom (page 32) sections.
			2. Check the age of the trolley battery. You may need to replace the battery if it has been in service for more than one year. See <i>Checking the battery voltages</i> (page 11).
			Replace the trolley control board.
19	S	Support sensor mismatch	Verify that the battery voltage is > 11.5V and the battery operates as expected.
			Note - Low battery voltage can cause false support sensor errors.
			Check the mechanical interface to the support sensor for damage (located under the patient right cover).
			Make sure that the support sensor has continuity when the trolley arms support the cot.
			Note - Use the Stryker Service Tool to verify that both support sensors indicate "closed."
			4. Verify that the support sensor reads "open" when there is no load on the trolley arms.
			Note - Use the Stryker Service Tool to verify that both support sensors indicate "open."
			Check support sensor connections, cables, and main cable for damage.
			6. Replace the support sensor.
20	S	NFMIC - invalid checksum	Check NFMIC connections, cables, and main cable for damage.
			2. Replace the NFMIC board.
21	М	Motor shorted	Check the motor cable and connections for damage.
			Note - Make sure that there is continuity between both motor cable pins.
			2. Replace the hydraulic motor.
			Replace the trolley control board.

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Error code ID	Error type	Description	Troubleshooting		
22	М	Motor open	Check the motor cable and connections for damage. Make sure that the nuts that secure the motor cable to the motor assembly are tight.		
			Note - Make sure that there is continuity between both motor cable pins.		
			Replace the hydraulic motor subassembly.		
			Replace the trolley control board.		
23	М	HPGR shorted	Verify that the battery voltage is > 11.5V and the battery operates as expected.		
			Note - Low battery voltage can cause false HPGR errors.		
			Press the power button to turn off trolley power for 10 seconds, then turn the power back on.		
			Note - If you power cycle the trolley too quickly, it may cause false HPGR errors.		
			Replace the trolley control board.		
24	S	NFMIC - bad UART	Check the NFMIC cable, connections, and main cable for damage.		
			2. Replace the NFMIC board.		
25	S	NFMIC - RF link invalid	Check the NFMIC cable, connections, and main cable for damage.		
			2. Replace the NFMIC board.		
26	S	EE diagnostic fails	Press the power button to turn off trolley power for 10 seconds, then turn the power back on.		
			Note - If you power cycle the trolley too quickly, it may cause false HPGR errors.		
			Replace the trolley control board.		
27	М	HPGR open	Replace the trolley control board.		
31	М	Circuit board over temp	Replace the trolley control board.		
35	М	RAM parameter checksum error	Press the power button to turn off trolley power for 10 seconds, then turn the power back on.		
			Note - If you power cycle the trolley too quickly, it may cause false HPGR errors.		
			Replace the trolley control board.		
36	М	RAM parameter checksum error	Press the power button to turn off trolley power for 10 seconds, then turn the power back on.		
			Note - If you power cycle the trolley too quickly, it may cause false HPGR errors.		
			Replace the trolley control board.		

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Error code ID	Error type	Description	Troubleshooting	
38	М	Low battery power up error		Verify that the system does not have charging or intermittent charging issues that have degraded the battery to the point of failure. See <i>Cot/trolley battery charging issues</i> (page 11). Note - For more extensive troubleshooting, see <i>Trolley has no power</i> or <i>Trolley not charging</i> in the <i>Troubleshooting by symptom</i> (page 32) sections. Check the age of the trolley battery. You may need to replace
				the battery if it has been in service for more than one year. See <i>Checking the battery voltages</i> (page 11).
			3.	Replace the trolley control board.
39	S	Charge acceptance error	1.	This error ends charging. To attempt charging again, move the trolley out of transport position and to the middle of the transfer and then back into transport position.
			2.	Verify that the system does not have charging or intermittent charging issues that have degraded the battery to the point of failure. See <i>Cot/trolley battery charging issues</i> (page 11).
				Note - For more extensive troubleshooting, see <i>Trolley has no power</i> or <i>Trolley not charging</i> in the <i>Troubleshooting by symptom</i> (page 32) sections.
			3.	Check the age of the trolley battery. You may need to replace the battery if it has been in service for more than one year. See <i>Checking the battery voltages</i> (page 11).
			4.	Replace the trolley control board.
40	S	Charge timeout	1.	This error has two states but should end charging when a battery takes too long to charge. The error occurs when one of the two initial charge states takes too long (more than 3 hours). Charging will continue for another 48 hours. Then, if the battery still has not reached a proper charge level, charging is ended. To attempt charging again, move the trolley out of transport position and to the middle of the transfer and then back into transport position.
			2.	Verify that the vehicle-to-anchor voltage is > 12.8 VDC.
			3.	Check the age of the trolley battery. You may need to replace the battery if it has been in service for more than one year. See <i>Checking the battery voltages</i> (page 11).
			4.	Verify that the inductive voltage is > 23 VDC when charging starts and then > 18 VDC when charging at max current (3.5 A). See <i>Cot/trolley battery charging issues</i> (page 11).
				Note - For more extensive troubleshooting, see <i>Trolley has no power</i> or <i>Trolley not charging</i> in the <i>Troubleshooting by symptom</i> (page 32) sections.

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Error code ID	Error type	Description	Troubleshooting		
51	М	Drive FET shorted - Q19/ Q20	Check the motor cable and connections for damage. Make sure that the nuts that secure the motor cable to the motor assembly are tight.		
			Note - Make sure that there is continuity between both motor cable pins.		
			Replace the hydraulic motor subassembly.		
			Replace the trolley control board.		
52	М	Drive FET shorted - Q14/ Q15	Check the motor cable and connections for damage. Make sure that the nuts that secure the motor cable to the motor assembly are tight.		
			Note - Make sure that there is continuity between both motor cable pins.		
			2. Replace the hydraulic motor subassembly.		
			Replace the trolley control board.		
55	М	Drive FET shorted - Q21/ Q22	Check the motor cable and connections for damage. Make sure that the nuts that secure the motor cable to the motor assembly are tight.		
			Note - Make sure that there is continuity between both motor cable pins.		
			Replace the hydraulic motor subassembly.		
			Replace the trolley control board.		
56	М	Drive FET shorted - Q16/ Q17	Check the motor cable and connections for damage. Make sure that the nuts that secure the motor cable to the motor assembly are tight.		
			Note - Make sure that there is continuity between both motor cable pins.		
			2. Replace the hydraulic motor subassembly.		
			Replace the trolley control board.		
61	М	EEPROM rev disagrees with firmware rev	Press the power button to turn off trolley power for 10 seconds, then turn the power back on.		
			Note - If you power cycle the trolley too quickly, it may cause false HPGR errors.		
			2. Replace the trolley control board.		
62	М	MM and ASIC current limit mismatch	Press the power button to turn off trolley power for 10 seconds, then turn the power back on.		
			Note - If you power cycle the trolley too quickly, it may cause false HPGR errors.		
			Replace the trolley control board.		

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Error code ID	Error type	Description	Troubleshooting		
70	М	One latch is unlocked in any position other than loading	1.	Push the cot into Power-LOAD until the cot load wheel pins lock into position. Make sure that the cot is aligned with the lifting arms when you load the cot.	
				Note - Use the Stryker Service Tool to verify that the cot is secure and the Power-LOAD latches indicate "closed."	
			2.	Check the latch cables, connections, and the main trolley cable for damage. Replace as needed.	
			3.	Compare the TPS values from the Stryker Service Tool with the expected values in the <i>TPS value table</i> (page 31).	
			4.	Verify that the relevant transfer magnets, pawl magnet, and mechanical interfaces are present and operate as expected.	
			5.	Move Power-LOAD in and out of each position to verify TPS operation. The hall sensor percentages in the Stryker Service Tool should increase and decrease and the reed switches should open and close as you move the product.	
			6.	Replace the TPS.	
71	М	"Unsupported" after jog up	1.	Verify that the battery voltage is > 11.5V and the battery operates as expected.	
				Note - Low battery voltage can cause false APS and TPS errors.	
			2.	Verify that the cot wheel clearance to the vehicle floor was calibrated. See <i>Angle position sensor (APS) calibration</i> (page 14).	
			3.	Check the mechanical interface to the support sensor for damage (located under the patient right cover).	
			4.	Make sure that the support sensor has continuity when the trolley arms support the cot.	
				Note - Use the Stryker Service Tool to verify that both support sensors indicate "closed."	
			5.	Check support sensor connections, cables, and main cable for damage. Replace damaged parts as needed.	
			6.	Replace the support sensor.	
72	M	TPS sensor mismatch	1.	Verify that the battery voltage is > 11.5V and the battery operates as expected.	
				Note - Low battery voltage can cause false APS and TPS errors.	
			2.	Compare the TPS values from the Stryker Service Tool with the expected values in the <i>TPS value table</i> (page 31).	
			3.	Verify that the relevant transfer magnets, pawl magnet, and mechanical interfaces are present and operate as expected.	
			4.	Move Power-LOAD in and out of each position to verify TPS operation. The hall sensor percentages in the Stryker Service Tool should increase and decrease and the reed switches should open and close as you move the product.	
			5.	Replace the TPS.	

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Error code ID	Error type	Description	Troubleshooting	
74	М	APS out of range	Verify that the battery voltage is > 11.5V and the battery operates as expected.	
			Note - Low battery voltage can cause false APS errors.	
			Use the Stryker Service Tool to monitor the APS sensor value. The value should increase as the trolley arms go up and decrease as the trolley arms go down.	
			3. Check the mechanical interface to the APS for damage.	
			4. Check APS connections, cables, and main cable for damage.	
			5. Perform APS calibration. See Angle position sensor (APS) calibration (page 14).	
			6. Replace the APS.	
75	М	APS lower than floor	Verify that the battery voltage is > 11.5V and the battery operates as expected.	
			Note - Low battery voltage can cause false APS errors.	
			Use the Stryker Service Tool to monitor the APS sensor value. The value should increase as the trolley arms go up and decrease as the trolley arms go down.	
			3. Check the mechanical interface to the APS for damage.	
			4. Check APS connections, cables, and main cable for damage.	
			5. Perform APS calibration. See Angle position sensor (APS) calibration (page 14).	
			6. Replace the APS.	

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Error code ID	Error type	Description	Troubleshooting
76	M	Jog down fault	Verify that the battery voltage is > 11.5V and the battery operates as expected.
			Note - Low battery voltage can cause false TPS and APS errors.
			Use the Service Tool to monitor the APS sensor value. The value should increase as the trolley arms go up and decrease as the trolley arms go down.
			3. Check the mechanical interface to the APS for damage.
			Check the APS connections, cables, and main cable for damage.
			5. Perform APS calibration. See Angle position sensor (APS) calibration (page 14).
			6. Compare the TPS values from the Stryker Service Tool with the expected values in the <i>TPS value table</i> (page 31).
			7. Verify that the relevant transfer magnets, pawl magnet, and mechanical interfaces are present and operate as expected.
			8. Move Power-LOAD in and out of each position to verify TPS operation. The hall sensor percentages in the Stryker Service Tool should increase and decrease and the reed switches should open and close as you move the product.
			Check the mechanical interface to the support sensor for damage (located under the patient right cover).
			10. Make sure that the support sensor has continuity when the trolley arms support the cot.
			Note - Use the Stryker Service Tool to verify that both support sensors indicate "closed."
			11. Check the support sensor, support sensor cables, and the main trolley cable for damage.
			12. Replace the support sensor.
			13. Replace the TPS.
			14. Replace the APS.

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Error code ID	Error type	Description	Troubleshooting		
79	М	Support sensor mismatch	 Verify that the battery voltage is > 11.5V and the battery operates as expected. 		
			Note - Low battery voltage can cause false support sensor errors.		
			Check the mechanical interface to the support sensor for damage (located under the patient right cover).		
			Make sure that the support sensor has continuity when the trolley arms support the cot.		
			Note - Use the Stryker Stryker Service Tool to verify that both support sensors indicate "closed."		
			Verify that the support sensor reads "open" when there is no load on the trolley arms.		
			Note - Use the Stryker Stryker Service Tool to verify that both support sensors indicate "open."		
			Check support sensor connections, cables, and main cable for damage. Replace damaged parts as needed.		
			6. Replace the support sensor.		
80	M	Up (↑) or down (↓) button detected without key	Press the power button to turn off trolley power for 10 seconds, then turn the power back on.		
			Note - If you power cycle the trolley too quickly, it may cause false HPGR errors.		
			2. Press the up or down button to see if the error returns.		
			Check trolley control panel connectors and wires for damage. Replace as needed.		
			Replace the trolley control panel.		
			5. Replace the trolley control board.		
93	M	SM non-responsive	Press the power button to turn off trolley power for 10 seconds, then turn the power back on.		
			Note - If you power cycle the trolley too quickly, it may cause false HPGR errors.		
			2. Replace the trolley control board.		
94	М	NFMIC - invalid checksum	Check NFMIC connections, cables, and main cable for damage.		
			2. Replace the NFMIC board.		
95	М	NFMIC - bad UART	Check NFMIC connections, cables, and main cable for damage.		
			2. Replace the NFMIC board.		
96	М	NFMIC - RF link invalid	Check NFMIC connections, cables, and main cable for damage.		
			Replace the NFMIC board.		

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Error code ID	Error type	Description	Troubleshooting	
97	М	APS at safety limit	Verify that the battery voltage is > 11.5V and the battery operates as expected.	
			Note - Low battery voltage can cause false APS errors.	
			Use the Stryker Service Tool to monitor the APS sensor value. The value should increase as the trolley arms go up and decrease as the trolley arms go down.	
			3. Check the mechanical interface to the APS for damage.	
			Check APS connections, cables, and main cable for damage. Replace damaged parts as needed.	
			5. Perform APS calibration. See Angle position sensor (APS) calibration (page 14).	
			6. Replace the APS.	
98	М	NFMIC - no heartbeat	Check NFMIC connections, cables, and main cable for damage.	
			2. Replace the NFMIC board.	

TPS value table

Sensor value required by position						
Sensor Transport Jog up/down Mid Loading						
Vertical hall	>58% (north)	Note 3	Note 1	<35% (north or south)		
Front hall	<35% (north or south)	Note 3	Note 1	>35% (south)		
Rear hall	<35% (north or south)	Note 3	Note 1	>50% (south)		
Front reed	Closed	Note 3	Note 2	Closed		
Rear reed	Closed	Note 3	Note 2	Closed		

Note 1: The percent value is between those indicated for the transport and loading positions. For example, in the mid position, set the vertical hall sensor value to >58% north and <35% south.

Note 2: Both reed switches are open or only one is closed at a time.

Note 3:

- Jog up occurs when you move the product out of the transport position. The trolley will jog up the cot when it senses a north polarity from the head end transfer magnet.
- Jog down occurs when you move the product from the mid position toward the transport position. See the transport column for required sensor values.

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Troubleshooting by symptom

Issue: trolley has no power

Procedure:

- 1. Move the trolley to any position other than transport.
- 2. Push the power button twice to see if the trolley powers on. Verify that the trolley is not in a sleep state.
 - Note Perform this step each time you make a repair to verify that the trolley has power.
- 3. Check the trolley battery voltage. See Checking the battery voltages (page 11).
 - 3.1. Replace the trolley battery if the voltage is < 11.5 VDC or if the battery has been in service for more than one year.
 - **Note** Use a trolley battery with voltage >8V for troubleshooting, but replace it if the voltage is <11.5V after troubleshooting is complete.
- 4. Verify that the voltage at the end of the battery cable is similar to the voltage from step 3. If not:
 - 4.1. Check the battery cable fuse for continuity.
 - 4.2. Check the battery cable, connections, and screws for damage.
 - 4.3. Replace the battery cable, if needed.
- 5. Check the trolley control panel and cables for damage. Replace the trolley control panel and cables, if needed.
- 6. Replace the trolley control board.
- 7. Verify that the trolley charges as expected. See Trolley is not charging section, if needed.

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Issue: trolley is not charging

Procedure:

Note - If the trolley is not charging in the transport position, the trolley LEDs will flash amber and the green battery LED will not flash.

- 1. Make sure that the trolley is powered on. Push the power button twice if the trolley is not active.
- 2. Complete the procedures in *Cot/trolley battery charging issues* (page 11).
- 3. Verify that the vehicle voltage is > 12.7 VDC. If not, check the following:
 - Anchor-to-vehicle cable connections are secure and there is no cable damage
 - Vehicle fuse
 - Vehicle power system (battery, wiring (undersized wire before connection to Power-LOAD), ignition, and converter)
- 4. Check the inductive primary board.
 - 4.1. Call Stryker ProCare Service to check the inductive voltage.
 - 4.1.1. Use the Stryker Service Tool to verify that the inductive voltage is > 22.4V. Charging can start at 22.4V.
 - 4.1.2. After charging starts, verify that the inductive voltage stays > 17.8V.
 - 4.1.3. Check for an air gap or obstruction between the primary and secondary coils.
 - 4.2. Replace the inductive primary board if both status LEDs are off and the digital multimeter shows the incoming voltage is > 12.7V.
 - Note This status indicates that there is a coil overcurrent error.
 - 4.3. Replace the anchor primary coil if the voltage is > 11V, the inductive primary board green status LED is off, and the red status LED is flashing.
- 5. Replace the battery if the trolley battery voltage is < 11.5V or if it has been in service for more than one year.

Note - Use a trolley battery with voltage >8V for troubleshooting, but replace it if the voltage is <11.5V after troubleshooting is complete.

- 6. Verify that the battery cable, connections, and screws are secure and not damaged.
- 7. If Power-LOAD is still not charging, replace the following components to restore function:
 - · Anchor-to-vehicle cable
 - Inductive primary board
 - · Primary coil
 - Secondary coil
 - Trolley control board

- · Main cable
- Trolley control panel
- Battery cable
- Battery

Issue: trolley charging is intermittent

Procedure:

1. Perform issue checks to make sure that the trolley is charging at maximum charging current. See *Trolley is not charging* and *Cot is not changing* as needed.

Note - To reach maximum charging current, see step 4 in Checking the incoming power to Power-LOAD (page 12).

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Issue: trolley will not jog up the cot when released from the transport position

Procedure:

- 1. Verify that the trolley battery voltage is > 11.5V and the battery operates as expected.
 - Note Low battery voltage can cause false errors.
- 2. Check the TPS.
 - 2.1. Compare the TPS values from the Stryker Service Tool with the expected values in the *TPS value table* (page 31).
 - 2.2. Verify that the relevant transfer magnets, pawl magnet, and mechanical interfaces are present and operate as expected.
 - 2.3. Move **Power-LOAD** in and out of each position to verify TPS operation. The hall sensor percentages in the Stryker Service Tool should increase and decrease and the reed switches should open and close as you move the product.
 - 2.4. Replace the TPS.
- 3. Call Stryker ProCare Service to calibrate the APS.
 - 3.1. Use the Stryker Service Tool to calibrate the APS. Start with the factory default value of 217. The current calibration value is shown in the diagnostics screen.
 - 3.2. Verify proper operation. If the APS does not operate as expected, repeat step 3.1.
 - 3.3. If APS operates as expected, complete calibration to set the cot load wheel to the deck clearance.
- 4. Call Stryker ProCare Service to verify that the trolley support sensor operates as expected.
 - 4.1. Use the Stryker Service Tool to verify that the trolley support sensor state is "closed" with weight on the trolley arms and then "open" with no weight on the trolley arms.
 - 4.2. If the state does not change, replace the trolley support sensor.
- 5. Call Stryker ProCare Service to check the trolley arm angle.
 - 5.1. Use the Stryker Service Tool to verify that the trolley arm angle adjusts when lifted and lowered.
 - 5.2. If the trolley arm angle does not adjust, verify that the APS housing, link, and spring are not damaged.
 - 5.3. Replace the APS cable and APS as needed.
- 6. If the motor runs as you move **Power-LOAD** from the transport position to the loading position, the issue may be with the hydraulic unit.
 - 6.1. Replace the hydraulic assembly (6390-001-039).
- 7. Replace the electronic circuit board if needed.

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Issue: trolley will not jog down the cot in the transport position

Procedure:

- 1. Verify that the trolley control panel LEDs are solid green without any solid amber error indication.
 - 1.1. If no trolley control panel LEDs are illuminated, press the power button to turn on the product.
 - Note You may need to press the power button twice to make sure that Power-LOAD is not in sleep mode.
 - 1.2. If the trolley control panel LEDs are illuminated:
 - 1.2.1. Flashing amber means the battery is low. Return the trolley to the transport position. Verify that the product is charging. The battery LED flashes green when charging. The battery LED may flash amber as the battery recharges.
 - 1.2.2. A solid green and a solid amber battery LED means there is a system error. Call Stryker ProCare Service for advanced troubleshooting.
- Verify that the trolley battery voltage is > 11.5V and the battery operates as expected.

Note - Low battery voltage can cause false errors.

- 2.1. Charge the trolley battery then cycle power to clear the errors.
- 3. Check the magnet in the head end anchor pawl, then:
 - 3.1. Verify that the anchor pawl connects with the catch without getting stuck while the trolley is in the transport position.
 - 3.2. Visually inspect the release lever at the foot end of the anchor. The release lever should be all the way up.
 - 3.3. Compare the TPS values from the Stryker Service Tool with the expected values in the *TPS value table* (page 31).
 - 3.4. Verify that the relevant transfer magnets, pawl magnet, and mechanical interfaces are present and operate as expected.
 - 3.5. Move **Power-LOAD** in and out of each position to verify TPS operation. The hall sensor percentages in the Stryker Service Tool should increase and decrease and the reed switches should open and close as you move the product.
 - 3.6. Replace the TPS.
- Call Stryker ProCare Service to calibrate the APS.
 - 4.1. Use the Stryker Service Tool to calibrate the APS. Start with the factory default value of 217. The current calibration value is shown in the diagnostics screen.
 - 4.2. Verify proper operation. If the APS does not operate as expected, repeat step 4.1.
 - 4.3. If APS operates as expected, complete calibration to set the cot load wheel to the deck clearance.
- 5. Call Stryker ProCare Service to verify that the trolley support sensor operates as expected.
 - 5.1. Use the Stryker Service Tool to verify that the trolley support sensor state is "closed" with weight on the trolley arms and then "open" with no weight on the trolley arms.
 - 5.2. If the state does not change, replace the trolley support sensor.
- 6. Call Stryker ProCare Service to check the trolley arm angle.
 - 6.1. Use the Stryker Service Tool to verify that the trolley arm angle adjusts correctly when you lift and lower the arm.
 - 6.2. If the trolley arm angle does not adjust, verify that the APS housing, link, and spring are not damaged.
 - 6.3. Replace the APS cable and APS as needed.
- 7. If the motor runs as you move **Power-LOAD** from the transport position to the loading position, the issue may be with the hydraulic unit.
 - 7.1. Replace the hydraulic assembly (6390-001-039) and motor cable (6390-101-431).
- 8. Replace the electronic circuit board if needed.

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Issue: cot release button does not unlock/undock the cot from the trolley

Procedure:

- 1. Verify that the cot and trolley have power, show no errors, and operate as expected.
- 2. Verify that the trolley battery voltage is > 11.5V and the battery operates as expected.

Note - Low battery voltage can cause false errors.

- 2.1. Charge the trolley battery and cycle power to clear any errors.
- 3. Verify that the cot release handles on the trolley can release the cot from Power-LOAD.
- 4. Use the cot control switch to lift the cot. Verify that communication exists between the cot and Power-LOAD.
- 5. Use the release button on the second cot control switch to lift the cot. If it lifts successfully, the issue may be the first cot control switch or a bad connection in the cot.
- 6. If both cot control switches operate as expected, call Stryker ProCare Service to check the NFMIC comm board.
 - 6.1. Check the NFMIC connections, cables, and main cable for damage.
 - 6.2. Check the NFMIC comm board for errors and review the error log for the trolley and cot.
 - 6.3. Check the communication status in the diagnostics screen.

Note - Make sure that the cot is active while you check status.

- 7. In a quiet area, press the release button. Listen for a clicking sound at the head end, patient left side of the trolley. You may need to push the button twice if the cot is not active.
 - 7.1. If you hear a clicking sound, a broken part in the actuator assembly (6390-001-478) or an incorrect installation of the actuator assembly may be the cause of the problem.
 - 7.2. If you do not hear a clicking sound, remove the trolley top cover and the patient left side covers. Check the following:
 - 7.2.1. Verify that the actuator assembly connection to the circuit board is good and the contacts appear to be in good condition.
 - 7.2.2. Verify that the trolley main cable (6390-001-391) connection to the control board assembly (6390-101-014) is good, the connector screws are tight, and the contacts appear to be in good condition.
 - 7.2.3. Test **Power-LOAD** with a new actuator assembly.
- 8. Check the TPS.
 - 8.1. Compare the TPS values from the Stryker Service Tool with the expected values in the *TPS value table* (page 31).
 - 8.2. Verify that the relevant transfer magnets, pawl magnet, and mechanical interfaces are present and operate as expected.
 - 8.3. Move **Power-LOAD** in and out of each position to verify TPS operation. The hall sensor percentages in the Stryker Service Tool should increase and decrease and the reed switches should open and close as you move the product.
 - 8.4. Replace the TPS.
- 9. Call Stryker ProCare Service to calibrate the APS.
 - 9.1. Use the Stryker Service Tool to calibrate the APS. Start with the factory default value of 217. The current calibration value is shown in the diagnostics screen.
 - 9.2. Verify proper operation. If the APS does not operate as expected, repeat step 9.1.
 - 9.3. If APS operates as expected, complete calibration to set the cot load wheel to the deck clearance.

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Issue: cot release button does not unlock/undock the cot from the trolley (continued)

Procedure:

- 10. Call Stryker ProCare Service to verify that the trolley support sensor operates as expected.
- 10.1. Use the Stryker Service Tool to verify that the trolley support sensor state is "closed" with weight on the trolley arms and then "open" with no weight on the trolley arms.
- 10.2. If the state does not change, replace the trolley support sensor.
- 11. Call Stryker ProCare Service to check the trolley arm angle.
- 11.1. Use the Stryker Service Tool to verify that the trolley arm angle adjusts correctly when you lift and lower the arm.
- 11.2. If the trolley arm angle does not adjust, verify that the APS housing, link, and spring are not damaged.
- 11.3. Replace the APS cable and APS as needed.
- 12. Replace the electronic circuit board if needed.

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Issue: cot is not charging

Procedure:

- 1. See Checking the incoming power to Power-LOAD (page 12).
- 2. If the vehicle voltage is < 12.7 VDC, check the following:
 - Anchor-to-vehicle cable connections are secure and there is no cable damage
 - Vehicle fuse
 - Vehicle power system (battery, wiring, ignition, and converter)
 - Cot charging cable connections are secure and there is no cable damage
- 3. Verify that the cot battery static voltage matches the values below.
 - 3.1. **Power-PRO**: > 25.5 VDC
 - 3.2. Power-PRO 2: > 26.5 VDC
 - 3.2.1. Press the battery LED button to check battery health.
 - · Four solid green LEDs = battery is fully charged
 - One flashing LED and any number of solid LEDs = battery is charging
 - · One LED blinking five times (repeated two to three times) = battery is low and needs to be charged
 - Two outer LEDs blinking five times (repeated three times) = battery error, replace the battery
- 4. Check for active errors.
 - 4.1. For Power-PRO, use the cot display.
 - 4.2. For Power-PRO 2, use the Stryker Service Tool.
- 5. Check the cot control board.
 - 5.1. For **Power-PRO**, use the EMS USB Tool to verify that the inductive voltage is > 27 VDC. Charging can start at 27 VDC.
 - 5.1.1. After charging starts, verify that the inductive voltage stays > 24 VDC.
 - 5.2. For Power-PRO 2, use the Stryker Service Tool to verify that the inductive charging current is > 1.0A.

Note - You may need to raise and lower the cot legs to drain the battery so it will charge.

- 5.3. Check for an air gap or obstruction between the primary and secondary coils.
- 5.4. Check the following for damage:
 - · Secondary coil, cable connections, and cable
 - Main trolley cable
 - All other cable connections and cables
- 6. If the cot is still not charging, replace the following components to restore function:
 - · Anchor-to-vehicle cable
 - · Cot charging cable
 - Inductive primary board
 - Primary coil

Note - You may need to replace the cot secondary coil, cot battery, or other components. See the applicable cot maintenance manual for more detail.

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Issue: cot will not load onto the trolley

Procedure:

- See the applicable Power-PRO maintenance manual or the Power-PRO 2 service manual for cot-specific troubleshooting.
- 2. Verify that the trolley battery voltage is > 11.5V and the battery operates as expected.

Note - Low battery voltage can cause false errors.

- 2.1. Charge the trolley battery, then cycle power to clear the errors.
- 3. Call Stryker ProCare Service to calibrate the APS.
 - 3.1. Use the Stryker Service Tool to calibrate the APS. Start with the factory default value of 217. The current calibration value is shown in the diagnostics screen.
 - 3.2. Verify proper operation. If the APS does not operate as expected, repeat step 3.1.
 - 3.3. If APS operates as expected, complete calibration to set the cot load wheel to the deck clearance.
- 4. Call Stryker ProCare Service to verify that the trolley support sensor operates as expected.
 - 4.1. Use the Stryker Service Tool to verify that the trolley support sensor state is "closed" with weight on the trolley arms and then "open" with no weight on the trolley arms.
 - 4.2. If the state does not change, replace the trolley support sensor.
- 5. Call Stryker ProCare Service to check the trolley arm angle.
 - 5.1. Use the Stryker Service Tool to verify that the trolley arm angle adjusts correctly when you lift and lower the arm.
 - 5.2. If the trolley arm angle does not adjust, verify that the APS housing, link, and spring are not damaged.
 - 5.3. Replace the APS cable and APS as needed.
- 6. Call Stryker ProCare Service to check the NFMIC comm board.
 - 6.1. Check NFMIC connections, cables, and main cable for damage.
 - 6.2. Check the NFMIC comm board for errors and review the error log for the trolley and cot.
 - 6.3. Check the communication status in the diagnostics screen.

Note - Make sure that the cot is active while you check the status.

7. Replace the electronic circuit board if needed.

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Issue: transfer/cot does not move out of the transport position when you press the release lever at the foot end of the anchor

Procedure:

- 1. If the lifting arms are over the base tube:
 - 1.1. With the help of another person, press the transfer release lever and the trolley release button at the same time.
 - 1.2. If the cot is free, check the head end anchor mechanism for damage.
 - 1.3. If the cot still will not move, repeat step 1.1 while you pull the patient right transfer lock trigger at the foot end of the transfer. You should be able to pull the cot out while it is still locked into the trolley and transfer.
 - 1.4. With the cot pulled out, look under the transfer about 15 inches from the foot end. Locate the metal hook with a semi-circle cutout. Push up on the semi-circle while another person pulls the cot free.
 - 1.5. If the cot is free, check the foot end anchor mechanism for damage.
 - 1.6. Remove the transfer to inspect the foot end anchor pin and remove the foot end anchor mechanism. Replace damaged parts as needed.
- 2. If the lifting arms are under the base tube:
 - 2.1. With the help of another person, press the transfer release lever and lift up on one of the cot release handles on the trolley at the same time.
 - 2.2. If the cot is free, remove the cot and verify that the black pin can extend from the head end anchor cover.
 - **Note** The trolley must be in the mid position for the pin to extend.
 - 2.2.1. If the pin extends without signs of damage, check the casting in the trolley release handle mechanism (6390-001-328) and the plastic lever in the trolley middle mechanism. Replace damaged parts as needed.
 - 2.2.2. If the pin does not extend, check the head end anchor mechanism for damage.
 - 2.3. If the cot still will not move, insert a screwdriver into each notch at the head end of the trolley side covers. Release the cot head section latches.
 - 2.4. Use the release lever at the foot end to release the cot.
 - 2.5. Remove the cot.
 - 2.6. Check the release handle mechanism in the trolley for damage.

Issue: trolley does not roll smoothly

Procedure:

- 1. If rolling the trolley on the transfer is difficult:
 - 1.1. Check the rods in the channels on the outside of the transfer extrusion. Remove any debris or foreign material.
 - 1.2. If the issue is not resolved, check if the transfer extrusion is worn around the channels. If so, replace the V-guide rollers on the trolley.
- 2. If rolling the transfer on the anchor is difficult:
 - 2.1. Make sure that the metal dead stops (6390-001-246) at the head end of the transfer are fully seated and not rubbing on the anchor extrusion.
 - 2.2. Check the rods in the channels on the outside of the transfer extrusion. Remove any debris or foreign material.
 - 2.3. If the issue is not resolved, check if the transfer extrusion is worn around the channels. If so, replace the V-guide rollers on the trolley.

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Issue: trolley rolls part of the way and stops

Procedure:

- 1. Check the transfer lock bearing in the anchor.
 - 1.1. Clean the transfer lock pin, replace the bearing, and apply molybdenum disulfide lubricant (6390-001-263) to the inside of the new bearing.
- 2. Check the transfer lock override slides (6390-001-261) for excessive wear. Replace if damaged.

Issue: trolley makes noise while rolling

Procedure:

- 1. If the noise occurs when the trolley rolls on the transfer:
 - 1.1. Verify that the trolley can roll to the foot end of the transfer before the transfer moves.
 - 1.2. If not, verify that the anchor transfer lock pin returns to the highest height position after it is pressed. Clean the transfer lock pin if needed. Replace the return spring and bearing.
 - 1.3. If yes, remove any debris or foreign objects from the transfer and vehicle floor.
 - 1.4. Inspect the transfer extrusion for wear.
 - 1.5. Remove the trolley from the transfer and check that the trolley rollers are free of debris.
 - 1.6. If this does not solve the problem or if the transfer extrusion is worn around the rods, replace the V-guide rollers on the trolley.
- 2. If the noise occurs when the transfer rolls on the anchor:
 - 2.1. The noise is likely caused by either the detent roller (usually a high-pitched squeak) or the transfer lock pin (usually a grinding sound).

Issue: trolley LEDs stay off when the trolley reaches the loading position

Procedure:

- 1. Verify that the trolley is on and the battery is charged.
- 2. Check that the magnet activator (6390-001-106) is present and fastened at the foot end of the anchor.
- 3. Verify that if you push on the trolley (with the lifting arms down), the system does not roll away from the loading position and is locked in this position.
- 4. Remove the transfer and verify that the magnet mover trigger (6390-001-205) is intact and not damaged. Remove the magnet mover trigger (6390-001-205).
- 5. Remove the foot end latch assembly from the transfer and pull out the link in the channel on the patient left side. Verify that the magnet is present and intact. Verify that the return spring on the link is in good condition.
- 6. Remove the trolley covers and check the TPS cable (6390-001-361) connection.
- 7. Check the trolley main cable (6390-001-391) connection to the control board assembly (6390-101-014).
- 8. Check the trolley LED cable (6390-001-396) connections.
- 9. Replace the TPS sensor.
- 10. Replace one of the trolley LEDs (6390-001-396).
- 11. Replace the control board assembly (6390-101-014).
- 12. Replace the trolley main cable (6390-001-391).

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Issue: trolley release handles do not release the cot from the trolley

Procedure:

- 1. Verify that the system is in the loading position with the cot wheels on the ground and the head section is locked into the trolley.
- 2. Verify that the lifting arms are in the lowest height position.
- 3. Verify that the trolley release handles can rotate about 20 degrees.
 - 3.1. If yes, inspect the release handle mechanism. Pay attention to the activation cams (6390-001-329). Inspect the trolley latches (6390-001-318 and 6390-001-319) for damage.
 - 3.2. If no, remove the trolley covers and inspect the following:
 - 3.2.1. Check the trolley arm (6390-001-334) and its return spring for damage or debris.
 - 3.2.2. Check if the trolley arm mechanism (6390-001-045) is jammed.
 - 3.2.3. Check if the trolley latches (6390-001-318 and 6390-001-319) are stuck or damaged.

Issue: trolley does not lock in the loading position

Procedure:

- 1. If the trolley unlocks from the transfer:
 - 1.1. Remove the cot and place the trolley in the middle of the transfer.
 - 1.2. Verify that the trolley lock pawl (6390-001-073) sticks out of the transfer about 1/2".
 - 1.3. If the trolley lock pawl does not stick out or does not return when pressed, check the return spring for damage. Remove any debris.
 - 1.4. Verify that the roller pin in the pawl is not sticking out on either side.
 - 1.5. Remove the transfer head end dead stops and remove the transfer from the anchor. Clear any debris or foreign material from the top of the anchor and the channels in the transfer.
 - 1.6. Verify that the trolley stop ramp (6390-001-325) under the trolley middle mechanism is present and secure.
- 2. If the transfer unlocks from the anchor:
 - 2.1. Remove the cot and place the trolley in the middle of the transfer.
 - 2.2. Remove any debris around the transfer lock trigger (6390-001-231).
 - 2.3. Push the transfer all the way into the transport position.
 - 2.4. Pull on the transfer to make sure that it is locked. If the transfer is not locked, the problem is likely a damaged or stuck anchor transfer lock pin. Remove any burrs or debris from the return spring.

Issue: trolley will not unlock from the transfer position

Procedure:

- 1. Remove the cot from the trolley.
- 2. Use the head end transfer lock override slide (6390-001-261) to move the transfer in.
- 3. Place the trolley in the mid position.

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Issue: trolley pump runs for an extended time after the cot jogs up

Procedure:

- 1. Call Stryker ProCare Service to check the APS (6390-001-397) calibration set point.
- 2. Verify that the hydraulic cylinder is not "over-stroking."
 - 2.1. To identify an over-stroke, look for about 1/8" back settle in the hydraulic cylinder rod at full extension.
 - **Note** You must remove the patient right cover to see the hydraulic cylinder rod.
- 3. Check the load-bearing components from the lifting arms to the patient right side plate (6390-001-344) for damage.

Issue: cot does not lock into the trolley and the LEDs flash amber

Procedure:

- 1. Remove the cot.
- 2. Verify that the cot is **Power-LOAD** compatible and that the load wheel horns and pins (6500-002-104) are present, tightened, and in good condition.
- 3. Check that the handle release mechanism (6390-001-046) moves freely and that the release handles return to the lowest height position. Remove any debris under the release handles.
- 4. Remove the trolley covers. Check the trolley latch switch cable (6390-001-318 and 6390-001-319) connections.
- 5. Check the trolley main cable (6390-001-391) to control board assembly (6390-101-014) connection.
- 6. Remove the actuator assembly (6390-001-028) from the trolley and check for damage.
- 7. Check the return springs that connect the release cams (6390-001-329) to the trolley bottom pans for damage.
- 8. Check the trolley latches (6390-001-318 and 6390-001-319) for damage. Make sure that the electronic switch is compressed when the latch is locked.
- 9. Remove any cables that obstruct the pin on top of the latch. Replace the internal spring if damaged.
- 10. You may also need to replace each latch, the control board assembly (6390-101-014), and the trolley main cable (6390-001-391).

Issue: cot locks into the trolley at the loading position but the LEDs are not on

Procedure:

- 1. Verify that the trolley is powered on and the battery is charged.
- 2. Verify that the magnet activator (6390-001-106) is present and secured at the foot end of the anchor.
- 3. Push on the trolley (with the lifting arms down) and make sure that the system does not roll away from the loading position.
- 4. Remove the transfer and verify that the magnet mover trigger (6390-001-205) is not damaged.
- 5. Remove the magnet mover trigger (6390-001-205).
- 6. Remove the foot end latch assembly from the transfer and pull out the link in the channel on the patient right side.
- 7. Verify that the magnet is present and intact and that the return spring on the link is in good condition.
- 8. Remove the trolley covers and check the TPS cable (6390-001-361) connection.
- 9. Check the trolley main cable to the control board assembly (6390-101-014) connection.
- 10. Check the trolley LED cable (6390-001-396) connections.
- 11. Replace the TPS (6390-001-361).
- 12. Replace one of the trolley LEDs (6390-001-396).
- 13. Replace the control board assembly (6390-101-014).
- 14. Replace the trolley main cable (6390-001-391).

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Issue: cot will not jog up high enough when released from the transport position

Procedure:

- 1. Call Stryker ProCare Service to check the APS (6390-001-397) calibration set point.
- 2. Verify that the hydraulic cylinder is not "over-stroking."
 - 2.1. To identify an over-stroke, look for about 1/8" back settle in the hydraulic cylinder rod at full extension.
 - Note You must remove the patient right cover to see the hydraulic cylinder rod.
- 3. Check the load-bearing components from the lifting arms to the patient right side plate (6390-001-344) for damage.

Issue: cot takes a long time to jog up

Procedure:

- 1. Verify that the battery voltage is > 12.2 VDC.
- 2. Check the battery cable connections for damage.
- 3. Check the cable connections to the control board.
- 4. Replace the hydraulics assembly (6390-001-039).
- 5. Replace the control board assembly (6390-101-014).

Issue: lifting arms do not lower but the cot legs extend when you press the extend (+) button

Procedure:

- Verify that the trolley is powered on and Power-LOAD recognizes the loading position (head end LED indicators are green).
- 2. If the head end LED indicators are not on:
 - 2.1. If the trolley control panel LED illuminates solid green only, the trolley may not detect what position it is in.
 - 2.2. Make sure that the magnet activator (6390-001-106) is present and secured at the foot end of the anchor.
- 3. If the head end LED indicators are on:
 - 3.1. Check if the trolley motor is running when you press the cot switch.
 - 3.2. If the trolley motor is audible, the problem is with the low-pressure relief valve in the trolley hydraulics assembly.
 - 3.3. Extend the cot legs.
 - 3.4. Use the trolley manual release to drop the lifting arms until they no longer support the cot.
 - 3.5. Press the down button on the trolley side panel to lower the arms to the lowest height position.
 - 3.6. If the arm moves, replace the hydraulics assembly (6390-001-039).
 - 3.7. If the trolley motor is not audible:
 - 3.7.1. If voltage to the motor is present, replace the motor (6390-101-132).
 - 3.7.2. If voltage to the motor is not present, replace the motor cable (6390-101-431) or control board assembly (6390-101-014).
 - 3.7.3. Use the trolley control panel to lower the lifting arms. If the lifting arms lower, the issue is likely with communication.
 - 3.7.4. Check both sides of the communication link for damage.
 - 3.7.5. Replace the communication boards (6390-001-378 or 6500-002-100) if needed.
 - 3.7.6. If the trolley control panel LED error indication is illuminated, call Stryker ProCare Service for advanced troubleshooting.

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Issue: lifting arms lower but the cot legs do not extend when you press the extend (+) button

Procedure:

- 1. Verify that the cot battery has sufficient power to drive the cot (no amber battery indicator).
- 2. If the cot pump motor is audible, the problem is with the cot hydraulic unit.
- 3. If the cot pump motor is not audible, check for error codes on the cot LCD. Make sure that all cable connections at the control board and hydraulic unit are secure.
- 4. Replace the cot control board (6500-002-014).
- 5. Replace the cot hydraulics assembly (6500-001-030).
- Replace the cot main cable (6500-002-159).

Issue: lifting arms lower the cot too quickly when you press the extend (+) button

Procedure:

- 1. Verify proper operation of the support sensor (6390-001-452). Make sure that both switches have continuity when < 100 lb weight is on the lifting arms.
 - 1.1. If there is no continuity, replace the rod end assembly (6390-001-040).
- 2. Check for loose cable connections from the support sensors to the control board.

Issue: lifting arms lower the cot too slowly when you press the extend (+) button

Procedure:

- 1. Check the trolley control panel LEDs for low battery.
- 2. Check for velocity fuse false closure.
- 3. Use the trolley control panel to raise the cot.
 - 3.1. If the cot does not raise, check for a loose or bad trolley pump motor connection.
- 4. Use the trolley control panel to lower the cot.
 - 4.1. If the cot lowers at the correct rate, replace the hydraulic velocity fuse (6390-001-381).
 - 4.2. If the cot does not lower at the correct rate, replace the motor (6390-101-132).

Issue: trolley does not lower smoothly when you press the extend (+) button

Procedure:

1. Check that the trolley hydraulics have sufficient oil in the reservoir when the lifting arms are all the way down.

Note - The oil level should be just below the fill port. Look for any leaks and repair.

- 2. Use the trolley control panel and close the docked latch to cycle the trolley lifting arms up and down three times (without a cot).
- 3. Verify proper operation of the support sensor (6390-001-452). Make sure that both switches have continuity when < 100 lb weight is on the lifting arms.
 - 3.1. If there is no continuity, replace the rod end assembly (6390-001-040).
- 4. Check for loose cable connections from the support sensors to the control board.
- 5. Replace the hydraulics assembly (6390-001-039).

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Issue: trolley hydraulic motor is noisy when you press the extend (+) or retract (-) button

Procedure:

- 1. Check that the trolley hydraulics have sufficient oil in the reservoir when the lifting arms are all the way down.
 - Note The oil level should be just below the fill port. Look for any leaks and repair.
- 2. Use the trolley control panel and close the docked latch to cycle the trolley lifting arms up and down three times (without a cot).
- 3. Replace the motor (6390-101-132) on the hydraulic unit.
- 4. Replace the hydraulics assembly (6390-001-039).

Issue: lifting arms do not lower the cot low enough when you press the extend (+) button

Procedure:

- 1. Check the trolley control panel for errors.
- 2. If an error occurs when the lifting arms are loaded, you have reached the safety limit for loaded operation. This can happen at high load heights (> 34 in.) with heavy loads (≥ 400 lb).
 - 2.1. Check the support sensor (6390-001-452) or angle position sensor (APS) (6390-001-397) for damage.
- 3. If an error occurs when arms are unloaded or become unloaded, check that arms are not held up on or by the cot legs.
 - 3.1. Check for a broken APS (6390-001-397) or APS attachment hardware.
 - 3.2. Check for loose cable connections from the angle position sensor to the control board.
- 4. Replace the control board.

Issue: cot drifts down or goes into high-speed retract when you press the retract (-) button

Procedure:

- 1. Verify that the trolley is on and operates without errors.
- 2. Verify that cot and trolley communication modules are connected, undamaged, and operate as expected.
 - 2.1. To do this, try the cot with a known, good Power-LOAD and try the trolley with a known, good cot.
- 3. Verify that all communication-related cable connections leading back to the control board are secure.
- Replace the communication board (6390-001-378 or 6500-002-100).
- 5. Replace the control board assembly (6390-101-014 or 6500-002-014).

Issue: cot legs are retracted but cot is not lifted by the lifting arms when you press the retract (-) button

Procedure:

- 1. Verify that the trolley is on and operates without errors.
- 2. Verify that cot and trolley communication modules are connected, undamaged, and operate as expected.
 - 2.1. To do this, try the cot with a known, good Power-LOAD and try the trolley with a known, good cot.
- 3. Verify that all communication-related cable connections leading back to the control board are secure.
- 4. Replace the communication board (6390-001-378 or 6500-002-100).
- Replace the control board assembly (6390-101-014 or 6500-002-014).

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Issue: cot is lifted by the lifting arms but the cot legs do not retract when you press the retract (-) button

Procedure:

- 1. Check the support sensor (6390-001-397) on the trolley and the cable and connections to the control board.
- 2. Check for an error on the trolley control panel. Call Stryker ProCare Service if you find an error.
- 3. Verify proper operation of the cot by itself.
- 4. Verify that the cot indicates a good battery and no errors are present on the cot LCD. If you have an error consult the appropriate cot maintenance or service manual to troubleshoot.
- 5. Press the retract (-) button on the cot.
 - 5.1. If you hear the cot pump motor run, the issue is a stuck rod-side manual valve (patient left manual valve) on the cot.
- 6. Remove the pressure switch connection from the cot main cable at the end to check for a faulty pressure switch.
- 7. Use a jumper the cable to simulate a closed switch and press the retract (-) button.
 - 7.1. If you do not hear the motor, the issue is either with cable connections or a bad pump motor.
 - 7.2. Fix the connection or replace the pump motor.
- 8. Replace the cot control board (6500-002-014).

Issue: trolley lifts the cot too slowly when you press the retract (-) button

Procedure:

- 1. Verify that the trolley battery voltage is > 12.2 VDC.
- 2. If the battery is charged and the voltage decreases to < 10.0V DC when you press the retract (-) button, replace the trolley battery.
- 3. Use the trolley control panel to move the lifting arms while you check for errors on the trolley control panel.
 - 3.1. If an error is active only when using the lifting arms, replace the support sensor (6390-001-452).
- 4. Replace the hydraulics assembly (6390-001-039).
- 5. Replace the control board assembly (6390-101-014).

Issue: lifting arms lift the cot too quickly when you press the retract (-) button

Procedure:

- 1. Check for a faulty or broken support sensor cable (6390-001-452).
- 2. Check for a faulty cabling connection to the control board.

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Issue: trolley does not lift smoothly when you press the retract (-) button

Procedure:

- 1. Check that the trolley hydraulics have sufficient oil in the reservoir when the lifting arms are all the way down.
 - Note The oil level should be just below the fill port. Look for any leaks and repair.
- 2. Use the trolley control panel and close the docked latch to cycle the trolley lifting arms up and down three times (without a cot).
- Verify proper operation of the support sensor (6390-001-452). Make sure that both switches have continuity when < 100 lb weight is on the lifting arms.
 - 3.1. If there is no continuity, replace the rod end assembly (6390-001-040).
- 4. Check for loose cable connections from the support sensors to the control board.
- 5. Replace the hydraulics assembly (6390-001-039).

Issue: cot does not lift high enough

Procedure:

- 1. Call Stryker ProCare Service to check the APS (6390-001-397) calibration set point.
- 2. Verify that the hydraulic cylinder is not "over-stroking."
 - 2.1. To identify an over-stroke, look for about 1/8" back settle in the hydraulic cylinder rod at full extension.
 - Note You must remove the patient right cover to see the hydraulic cylinder rod.
- 3. Check the load-bearing components from the lifting arms to the patient right side plate (6390-001-344) for damage.

Issue: trolley manual release button does not lower the lifting arms

Procedure:

- 1. Remove the patient right side cover.
- 2. Make sure that the manual release linkages that attach to the side controls are connected and actuating the manual release valve on the hydraulic pump.
- 3. If the manual release valve is actuating, then the problem is a faulty velocity fuse.
 - 3.1. Replace the velocity fuse (6390-001-381), located in the cap end cylinder port under the elbow fitting.
- 4. If this does not fix the issue, replace the pressure-compensated flow control (6390-001-151).
- 5. Replace the hydraulics assembly (6390-001-039).

Issue: trolley manual release button lowers the lifting arms but not smoothly

Procedure:

- 1. Replace the velocity fuse (6390-001-381) located in the cap end cylinder port under the elbow fitting.
- 2. If this does not fix the issue, replace the pressure-compensated flow control (6390-001-151).
- 3. Replace the hydraulics assembly (6390-001-039).

Issue: trolley error LED indicates an error (solid amber)

Procedure:

Call Stryker ProCare Service for advanced troubleshooting.

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Issue: trolley control panel does not move the lifting arms

Procedure:

- 1. Verify that you see a solid green LED on the trolley control panel. This indicates that the trolley power is on.
- 2. Verify that you see a solid green LED on the head end indicators. This indicates that the trolley is in the loading position and both latches are closed.
 - 2.1. If there is no head end indicator LED activity, then the trolley is not in the loading position.
 - 2.2. If the head end indicator LEDs flash amber, one or both latches are not closed. Check the status of the latches.
 - 2.3. If the problem persists, then check the switches and connectivity back to the control board.
- 3. Check for connectivity from the trolley control panel back to the control board.
- 4. Replace the trolley control panel board (6390-001-450).

Issue: trolley stops partway while rolling to the transport position

Procedure:

- 1. Remove the transfer from the anchor.
- 2. Remove any debris from the anchor and the channels on the inside of the transfer.
- 3. Verify that the trolley release ramp (6390-001-144) is intact, fastened, and not excessively worn.
- 4. Examine the trolley to transfer lock pawl assembly (6390-001-021). Make sure that the pawl can rotate freely and, when pressed, can rotate fully below the surface of the transfer.
- 5. Examine the V-guide rollers and flat rollers on the trolley and anchor. Replace any rollers that do not roll smoothly or are excessively worn.

Issue: trolley makes noises while rolling

Procedure:

- 1. Remove any debris or foreign objects from the transfer channels.
- 2. Check the transfer for wear around the channels. Replace if needed.
- 3. Remove the trolley from the transfer. Make sure that the trolley rollers are free of debris.
- 4. Replace the V-guide rollers on the trolley (6390-001-025).

Issue: trolley is in the transport position with a cot and the trolley LEDs are not illuminated (green)

Procedure:

- 1. Pull the trolley out of the transport position.
- 2. Verify that the trolley head end pawl returns firmly when pressed down. If it does not, check the following:
 - 2.1. The pawl is free of debris or foreign objects that may stop its return.
 - 2.2. The head end anchor release button is free from debris that prevent motion.
 - 2.3. The return springs on the pawl (0038-885-000) are not excessively worn or damaged.
- 3. Check the trolley stop ramp (6390-001-325) on the underside of the trolley middle mechanism.
- 4. Remove the transfer from the anchor.
- 5. Make sure that the trolley and anchor roller channels are free from debris or foreign objects that could limit the range of motion.

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Issue: trolley is in the transport position and the cot is not locked in at the foot end

Procedure:

- 1. Verify that the cot foot end casters are on the vehicle floor.
- 2. If yes, pull the cot manual release and push down on the foot end of the cot.
 - 2.1. If the cot still does not drop into the lock, pull the cot all the way out and push the cot retract (-) button to fully retract the cot base.
 - 2.2. Load the cot again without using the manual release lever.
 - 2.3. If the cot is still held up by foot end casters, then the problem is in the cot hydraulic system.
- 3. If no, verify that **Power-LOAD** can run the motor to jog the cot down when the cot reaches the transport position at the head end.
 - 3.1. If no, see "Cot does not jog down once in the transport position" section for more troubleshooting.
 - 3.2. If yes, check that the cot foot end guide (6500-002-111) is aligned with the transfer foot end guide (6390-001-220).
 - 3.3. To verify alignment, move the cot foot end back and forth and the cot should drop into place.
 - 3.4. Remove the cot and look for debris in the transfer guide that may prevent the cot from locking.

Issue: transfer does not lock to the anchor

Procedure:

- 1. Push the transfer in by hand to check if the transfer goes all the way in against the bumper stops.
- 2. If yes, then the problem is likely the transfer lock bearing in the anchor.
 - 2.1. Clean the transfer lock pin, replace the bearing, and apply molybdenum disulfide lubricant (6390-001-263) to the inside of the new bearing.
 - 2.2. Inspect the transfer lock override slides (6390-001-261) for excessive wear.
- 3. If no, remove the transfer head end dead stops and remove the transfer from the anchor.
 - 3.1. Clear any debris from the top of the anchor and the channels in the transfer.

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Service

Transfer removal

Tools required:

- T25 Torx driver
- 5/32" hex wrench

Procedure:

- 1. Remove the trolley. See Trolley removal (page 51).
- 2. Put the transfer into the transport position all the way into the vehicle compartment.
- 3. Using a T25 Torx driver, remove the four screws (A) that secure the foot end transfer wear pad (B) to the transfer extrusion (Figure 7). Save the screws.

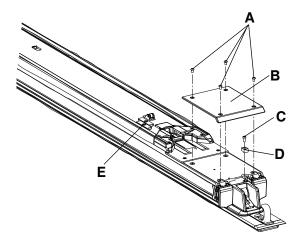


Figure 7 – Foot end transfer components

- 4. Using a 5/32" hex wrench, remove the screw (C) that secures the trolley magnet activator (D) to the anchor extrusion. Save the screw and trolley magnet activator.
- 5. Slide both transfer lock triggers (E) to extend and pull the transfer off of the anchor completely.
 - Note The transfer assembly is heavy and may require assistance to remove.
- 6. Reverse steps to reinstall.
- 7. Verify proper operation before you return the product to service.

Trolley removal

Tools required:

- T25 Torx driver
- 3/16" hex wrench

Procedure:

WARNING - Always use two installers when you lift and position the transfer and trolley assembly to avoid the risk of injury.

1. Raise the lifting arms (A) (Figure 8).

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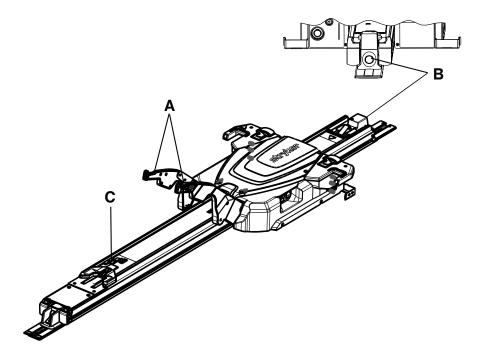


Figure 8 - Trolley mid transfer position

- 2. Press the trolley release button at the head end of the anchor (B).
- 3. Pull the trolley toward the foot end to the middle of the transfer assembly.
- 4. Slide the patient right transfer lock trigger (C) to extend.
- 5. Pull the transfer toward the foot end until the transfer stops in the first lock position.
- 6. Using a T25 Torx driver, remove the two screws that secure the transfer trim (E) (Figure 9). Save the screws.

Note - The trolley will drop down slightly as you remove the trolley from the transfer. Do not tip the trolley upside down, forward, or on its side.

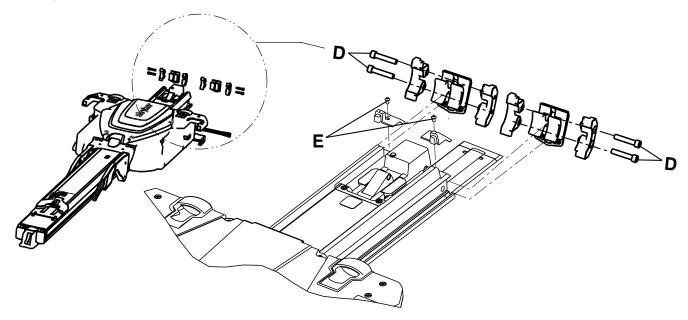


Figure 9 - Trolley screws

- 7. Using a 3/16" hex wrench, loosen (do not remove) the four socket head cap screws (two on each side) (D) that secure the dead stops to the transfer assembly.
- 8. Push on the screws (loosened in step 7) to loosen the dead stops from the transfer.

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- 9. Remove and save the dead stop bumpers.
- 10. Lift the trolley assembly by its arm and wing.
 - a. Do not lift the trolley by the manual cot release handles.
 - b. Lift only where indicated.
 - c. Installer 1, position hands at A1 and A2 (Figure 10).

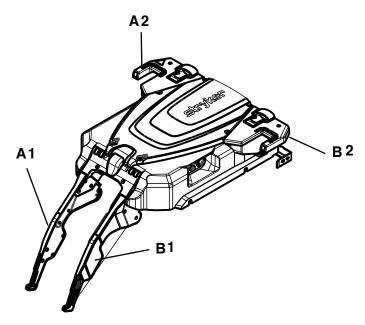


Figure 10 - Trolley hand positions

- d. Installer 2, position hands at B1 and B2.
- e. Move the trolley toward the head end until the trolley is off the transfer.
- f. Remove the trolley from the anchor.
- g. Place the trolley in a suitable work area.
- 11. Reverse steps to reinstall.
- 12. Verify proper operation before you return the product to service.

Cover replacement

Tools required:

- · T25 Torx driver
- 5/32" hex wrench

Procedure:

WARNING - Do not pinch the cables while you service or install the covers.

1. Using a T25 Torx driver, remove the six screws (A) that secure the trolley top cover (B) (Figure 11). Save the screws.

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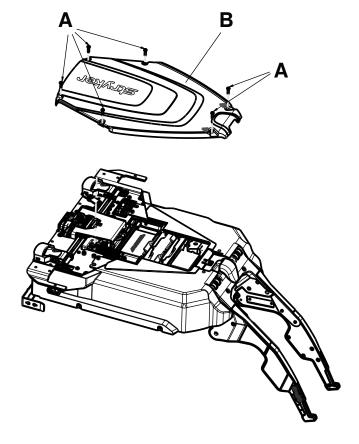


Figure 11 – Trolley top cover

- 2. Using a T25 Torx driver, remove the three screws (C) left side cover (D) (Figure 12). Save the screws.
- 3. Using a 5/32" hex wrench, remove one hex head screw (E) from the top of the left side cover (D) (Figure 12). Save the screw.
- 4. Remove the cover. Save the left side cover and screws.
- 5. Repeat steps 2-4 to remove the side cover, right (F) (Figure 12).

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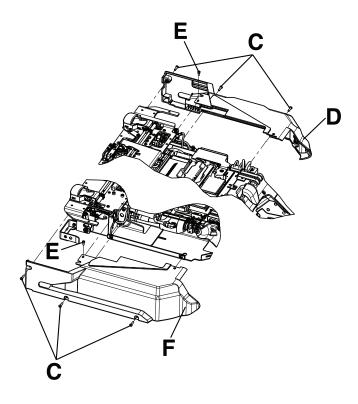


Figure 12 - Trolley side covers

- 6. Reverse steps to reinstall.
- 7. Verify proper operation before you return the product to service.

Manual release button assembly replacement

Tools required:

- T25 Torx drive
- 5/32" hex wrench

Procedure:

- 1. Pull the trolley assembly out of the patient compartment until locked in the loading position.
- 2. Remove the trolley covers. See Cover replacement (page 53).
- 3. Press the main power button to turn the product off.
- 4. Remove the slic pin (A) from the switch/bracket assembly (Figure 13). Save the pin.
- 5. Using a T25 Torx driver, remove the two button head cap screws (B) that secure the manual release button bracket to the trolley frame (Figure 13). Save the screws.
- 6. Using a 5/32" hex wrench, loosen (do not remove) the socket head cap screw (C) that secures the manual release button bracket to the trolley frame (Figure 13).

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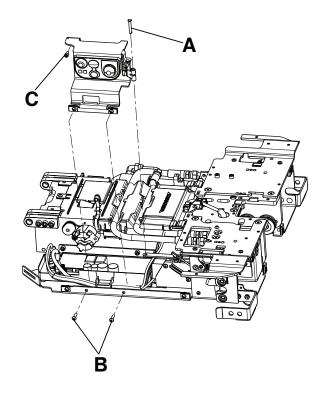


Figure 13 – Manual release button assembly

7. Unplug the cables from the master On/Off switch (D) and remove the manual release button assembly (Figure 14).

Note - Make note of the cable connection locations, so they do not get mixed up.

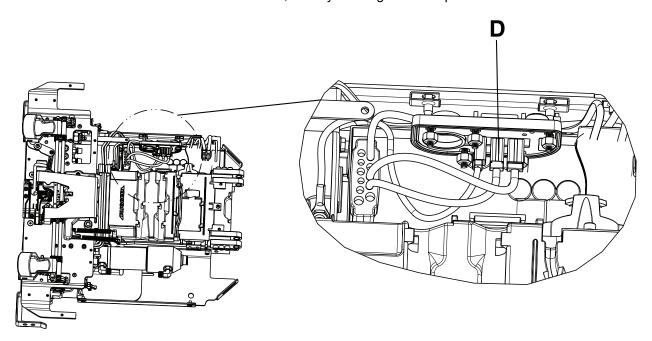


Figure 14 - On/Off switch cable locations

- 8. Reverse steps to reinstall.
- 9. Verify proper operation before you return the product to service.

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Control board assembly replacement

Tools required:

- 3/32" hex wrench
- · ESD system

WARNING - Always take ESD precautions when you handle the control board assembly. For more information about ESD protection, contact Stryker Technical Support at (800) 327-0770.

Procedure:

- 1. Remove the manual release button assembly. See Manual release button assembly replacement (page 55).
- 2. Using a 3/32" hex wrench, loosen (do not remove) the two screws (A) that secure the main cable assembly (B) to the control board assembly (Figure 15).
- 3. Unplug all of the other cables from the control board assembly (C). Remove and discard the control board assembly (Figure 15).
 - **Note** Do not dispose of as unsorted municipal waste. Refer to your local distributor for return or collection systems available in your country.
- 4. Align the control board assembly tabs with the holes in bottom pan, left to install the new control board assembly. Make sure that all of the cables are routed correctly.
- 5. Reverse steps to reinstall.
- 6. Verify proper operation before you return the product to service.

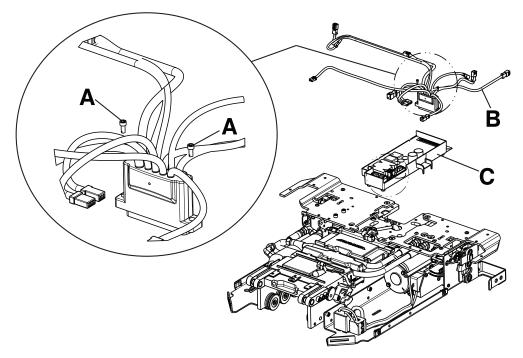


Figure 15 – Control board assembly

Master on/off switch replacement

Tools required:

• 1/32" nut driver

Procedure:

1. Remove the manual release button assembly. See Manual release button assembly replacement (page 55).

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- 2. Using a 1/32" nut driver, remove the five Fiberlock hex nuts (A) that secure the master On/Off switch (B) to the manual release button bracket (C). Discard the master On/Off switch (Figure 16). Save the nuts.
 - **Note** Do not dispose of as unsorted municipal waste. Refer to your local distributor for return or collection systems available in your country.
- 3. Reverse steps to reinstall.
 - Note Do not overtighten the nuts.
- 4. Verify proper operation before you return the product to service.

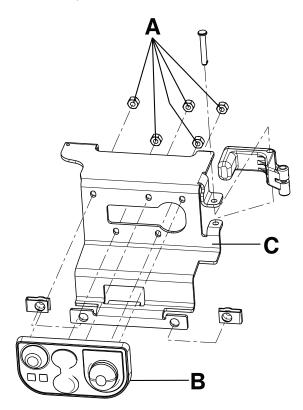


Figure 16 - Master On/Off switch and manual release button bracket assembly

Trolley actuator assembly replacement

Tools required:

· T20 Torx driver

Procedure:

- 1. Remove the manual release button assembly. See Manual release button assembly replacement (page 55).
- 2. Using a T20 Torx driver, remove the three delta screws (A) that secure the trolley actuator (B) to the trolley frame (Figure 17). Save the screws.

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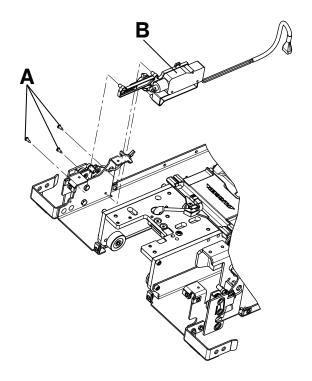


Figure 17 - Trolley actuator assembly

- 3. Unplug the cable (C) from the trolley actuator to the main cable assembly (Figure 18).
- 4. Pull the actuator out and up toward the trolley control board assembly to remove.
- 5. Reverse steps to reinstall.
 - Note Make sure that the cables are seated and routed correctly.
- 6. Verify proper operation before you return the product to service.

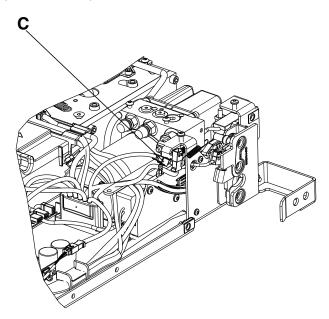


Figure 18 – Main cable assembly

Hydraulics assembly replacement

Tools required:

T25 Torx driver

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- 1/4" hex wrench
- 3/16" hex wrench
- 1/2" combination wrench
- · Diagonal pliers

Procedure:

- 1. Remove the control board assembly. See Control board assembly replacement (page 57).
- 2. Remove the trolley actuator assembly. See Trolley actuator assembly replacement (page 58).
- 3. Unclip the cables from the trolley routing tray and the hydraulic hoses.
- 4. Unplug the USB quick connect and the D+L-L lock switch cable from the main cable.
- 5. Position the main cable assembly toward the center of the trolley to allow clearance.
- 6. Using a T25 Torx driver, remove the two screws (A) that secure the hydraulics assembly (B) to the wing plate, left (C) (Figure 19). Save the screws.

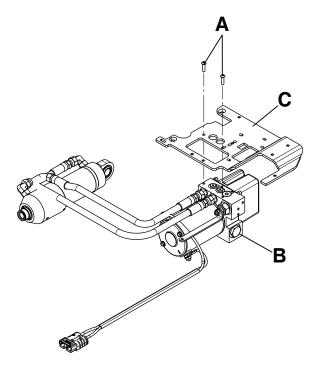


Figure 19 - Hydraulics assembly

- 7. Pull out to remove the pump assembly. Set the pump assembly on top of the wing plate, left.
- 8. Using a 1/4" hex wrench and a 1/2" combination wrench, remove the end cap cylinder pin (D) and nut (E) (Figure 20). Save the end cap cylinder pin and nut.

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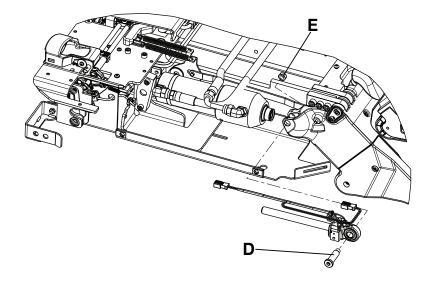


Figure 20 - End cap cylinder pin and nut locations

9. Using diagonal pliers, cut the cable ties (F) that secure the hydraulic cylinder rod end assembly cable to the plastic cover (Figure 21).

Note - Pay attention to the location of all cable ties for reinstallation.

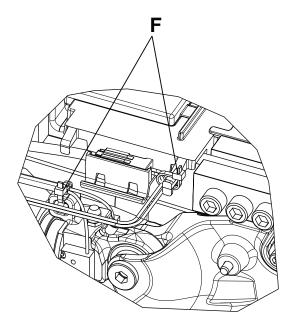


Figure 21 - Cable ties location

- 10. Lift the cylinder while you pull the hydraulic cylinder rod end assembly out. Save the hydraulic cylinder rod end assembly.
- 11. Using a 3/16" hex wrench, remove the two screws (G) that secure the pin bracket (H) to the trolley (Figure 22). Save the screws.
- 12. Remove the pin (I) and lift the hydraulic cylinder out (Figure 22). Save the pin.

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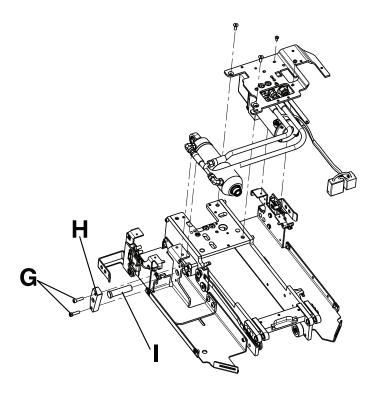


Figure 22 - Pin and hydraulic cylinder removal

13. Remove the hydraulics assembly and discard.

Note - Do not dispose of as unsorted municipal waste. Refer to your local distributor for return or collection systems available in your country.

- 14. Reverse steps to reinstall.
- 15. Verify proper operation before you return the product to service.

Hydraulic cylinder rod end replacement

Tools required:

- 1/4" hex wrench
- 1/2" combination wrench
- Diagonal pliers

Procedure:

- 1. Pull the trolley assembly out of the patient compartment until locked in the loading position.
- 2. Remove the trolley covers. See Cover replacement (page 53).
- 3. Press the main power button to turn the product off.
- 4. Using a 1/4" hex wrench and a 1/2" combination wrench, remove the end cap cylinder pin (A) and nut (B) (Figure 23). Save the end cap cylinder pin and nut.

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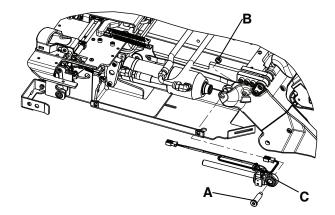


Figure 23 - Hydraulic cylinder rod end assembly

5. Using diagonal pliers, cut the cable ties (D) that secure the hydraulic cylinder rod end assembly cable to the plastic cover (Figure 24).

Note - Pay attention to the location of all cable ties for reinstallation.

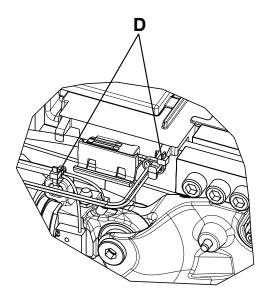


Figure 24 - Cable ties location

- 6. Lift the cylinder while you pull the hydraulic cylinder rod end assembly (C) out (Figure 23). Discard the hydraulic cylinder rod end assembly.
- 7. Reverse steps to reinstall.
- 8. Verify proper operation before you return the product to service.

Communication board replacement

Tools required:

Diagonal pliers

Procedure:

- 1. Pull the trolley assembly out of the patient compartment until locked in the loading position.
- 2. Remove the trolley covers. See Cover replacement (page 53).
- 3. Using diagonal pliers, cut the cable tie that secures the hydraulic cylinder rod end assembly cable to the plastic cover.

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Note - Pay attention to the location of all cable ties for reinstallation.

4. Lift the trolley communication board (A) to remove (Figure 25). Discard the communication board.

Note - Do not dispose of as unsorted municipal waste. Refer to your local distributor for return and/or collection systems available in your country.

- 5. Reverse steps to reinstall.
- 6. Verify proper operation before you return the product to service.

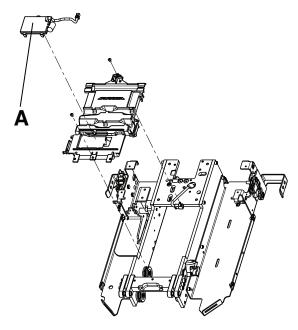


Figure 25 - Communication board assembly

Inductive coil replacement

Tools required:

- 5/32" hex wrench
- 3/16" hex wrench
- T25 Torx driver

Procedure:

- 1. Remove the manual release button assembly. See Manual release button assembly replacement (page 55).
- 2. Using a 5/32" hex wrench, remove the screw (A) that secures the inductive coil assembly to the frame (Figure 26). Save the screw.
- 3. Using a 3/16" hex wrench, remove the screw (B) that secures the inductive coil assembly to the frame (Figure 26). Save the screw.
- 4. Remove and save the cover (C) (Figure 26).

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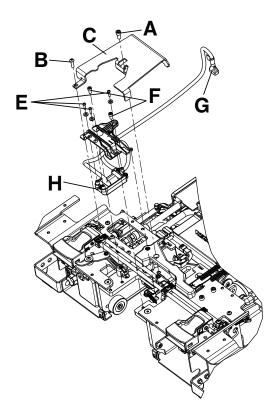


Figure 26 - Inductive coil assembly

5. Remove and save the return spring (D) (Figure 27).

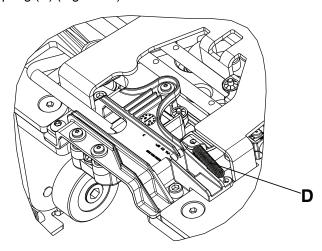


Figure 27 – Return spring location

- 6. Using a T25 Torx driver, remove the screws (E) that secure the charge bracket (Figure 26). Save the screws.
- 7. Using a 5/32" hex wrench, remove the screw (F) that secures the charge bracket (Figure 26). Save the screw.
- 8. Using a T25 Torx driver, remove the two screws that secure the back left wing cover. Save the screws.
- 9. Unplug the cable (G) from the trolley control board assembly and remove the inductive coil (H) (Figure 26). Discard the inductive coil.

Note

- · Lift the trolley control board to pull the cable through.
- Pay attention to the cable routing for reinstallation.
- Do not dispose of as unsorted municipal waste. Refer to your local distributor for return or collection systems available in your country.

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- 10. Reverse steps to reinstall.
- 11. Verify proper operation before you return the product to service.

Trolley position sensor (TPS) replacement

Tools required:

- · T25 Torx driver
- 1/8" hex wrench
- 5/32" hex wrench
- 1/4" ratchet

Procedure:

- 1. Remove the trolley. See *Trolley removal* (page 51).
- 2. Remove the trolley covers. See Cover replacement (page 53).
- 3. Unplug the TPS cable (A) from the main cable assembly (Figure 28).

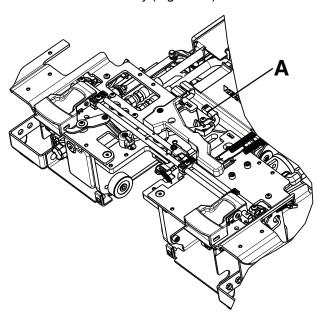


Figure 28 - Main cable assembly

- 4. Using a 5/32" hex wrench, loosen (do not remove) the socket head cap screw (B) that secures the trolley mechanism arm (Figure 29).
- 5. Using a 1/8" hex wrench, remove the flat head cap screw (C) that secures the link to the trolley mechanism arm and remove the trolley mechanism pivot pillar (D) (Figure 29). Save the screw.
- 6. Using a 1/8" hex wrench, loosen (do not remove) the flat head cap screw (E) that secures the front link (F) to the trolley mechanism arm. Swing the trolley mechanism arm out of the way (Figure 29).

Note - Rotate the link to remove the pivot pillar. During removal, pay attention to the orientation of the pivot pillar.

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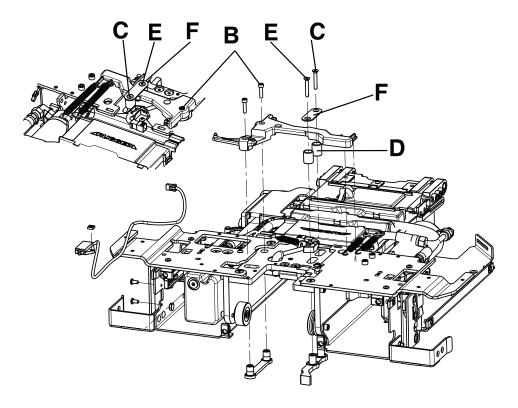


Figure 29 - TPS assembly

7. Using a 1/4" ratchet and a T25 Torx driver, remove the two button head cap screws (G) that secure the TPS assembly (H) (Figure 30). Save the screws.

Note

- Slightly lift the trolley mechanism arm to pull the cable through to remove the TPS. Discard the TPS.
- Do not dispose of as unsorted municipal waste. Refer to your local distributor for return and/or collection systems available in your country.

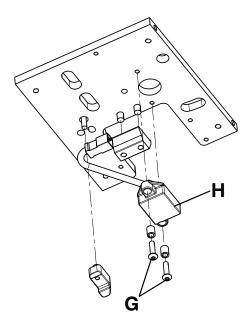


Figure 30 – TPS assembly bottom view

- 8. Reverse steps to reinstall.
- 9. Verify proper operation before you return the product to service.

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Flat roller and V-guide roller replacement

Tools required:

- 3/8" drive ratchet
- 1/4" socket
- Torque wrench (in-lb)

Procedure:

- 1. Remove the trolley. See Trolley removal (page 51).
- 2. Set the trolley upright on its head end.

Note - Do not tip the trolley upside down, forward, or on its side.

3. Using a 1/4" socket with a 3/8" drive ratchet, loosen (do not remove) the pivot bolt that secures the bad roller to the trolley.

Note - The V-guide rollers are on the patient right side (five rollers) (A) and the flat rollers are on the patient left side (two rollers) (B) (Figure 31).

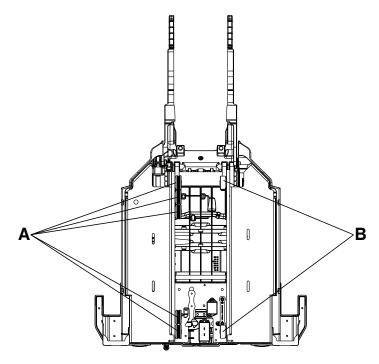


Figure 31 - Trolley bottom view of the V-guide rollers

4. Reverse steps to reinstall.

Note - Using a torque wrench, torque all bolts to 235 - 317 in-lb.

5. Verify proper operation before you return the product to service.

Hydraulic cylinder replacement

Tools required:

- 1/4" hex wrench
- 1/8" hex wrench
- 1/2" combination wrench
- · Diagonal pliers

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- 5/8" combination wrench
- 3/16" hex wrench
- 11/16" combination wrench

Procedure:

- 1. Pull the trolley assembly out of the patient compartment until locked in the loading position.
 - Note This makes working on the product easier but is not required.
- 2. Press the manual release button on the **Power-LOAD** control panel until the lifting arms are in the lowest position.
- 3. Remove the trolley covers. See Cover replacement (page 53).
- 4. Using a 1/4" hex wrench and a 1/2" combination wrench, remove the end cap cylinder pin (A) and nut (B) (Figure 32). Save the end cap cylinder pin and nut.

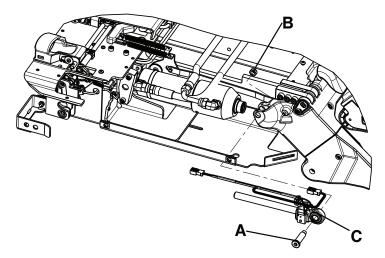


Figure 32 - Hydraulic cylinder assembly

5. Using diagonal pliers, cut the cable ties (D) (Figure 33) that secure the hydraulic cylinder rod end assembly (C) cable to the plastic cover (Figure 32).

Note - Pay attention to the location of all the cable ties for reinstallation.

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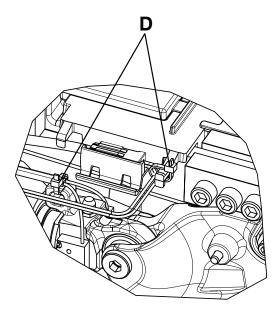


Figure 33 – Cable ties locations

- 6. Lift the cylinder while you remove the hydraulic cylinder rod end assembly (C) (Figure 32). Save the hydraulic cylinder rod end assembly.
- 7. Using an 11/16" combination wrench, disconnect both hoses from the cylinder. See *Velocity fuse replacement* (page 71).
 - Note Hydraulic fluid will leak from the cylinder and hoses. Lay down towels to catch fluid.
- 8. Using a 5/8" combination wrench, loosen (do not remove) the jam nuts on both of the cylinder hose fittings, and unthread the fitting from the hydraulic cylinder. Save all parts.
 - **Note** Pay attention to the hose routing and location for reinstallation.
- 9. Using a 1/8" hex wrench, remove the velocity fuse from the hydraulic cylinder. Save the fuse.
- 10. Using a 3/16" hex wrench, remove the two screws (E) that secure the cylinder bracket (F) to the trolley and remove the end cap cylinder pin (G) (Figure 34). Save the screws.

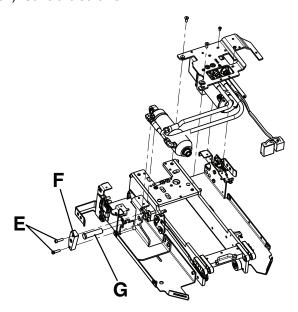


Figure 34 - Hydraulic cylinder pin location

11. Remove and discard the hydraulics assembly.

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- 12. Using a 1/8" hex wrench, install the velocity fuse into the cylinder.
- 13. Reverse steps to reinstall.
- 14. Check the fluid level before you return the product to service. See Filling the reservoir (page 79).
- 15. Verify proper operation before you return the product to service.

Velocity fuse replacement

Tools required:

- 1/8" hex wrench
- 11/16" combination wrench
- 5/8" combination wrench
- Torque wrench (in-lb)

Procedure:

1. Pull the trolley assembly out of the patient compartment until locked in the loading position.

Note - This makes working on the product easier but is not required.

- 2. Remove the trolley covers. See Cover replacement (page 53).
- 3. Using an 11/16" combination wrench, disconnect the hydraulic hose (A) closest to the mounting bracket at the head end of the trolley (Figure 35).

Note - Hydraulic fluid will leak from the cylinder and hoses. Lay down towels to catch fluid.

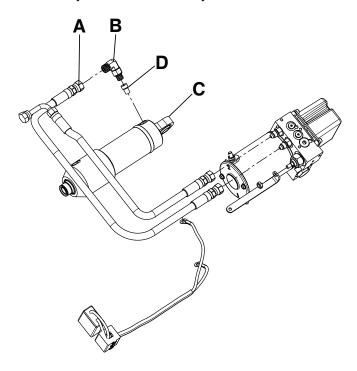


Figure 35 – Velocity fuse components

- 4. Using a 5/8" combination wrench, loosen (do not remove) the jam nut on the cylinder hose fitting (B) and unthread the fitting from the hydraulic cylinder (C). Save all parts.
- 5. Using a 1/8" hex wrench, remove the velocity fuse (D) from the hydraulic cylinder (C). Discard the fuse.
- 6. Reverse steps to reinstall.

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Note - When you reinstall the cylinder hose fitting (B), lubricate the O-ring with Mobil Mercon™ V Blend ATF Oil (6500-001-293) and only thread the fitting in until you feel resistance. When you align the fitting for proper position, do not back out more than 340 degrees from where you felt resistance. Using a torque wrench, torque the jam nut of the fitting to 190 ±10 in-lb.

- 7. Check the fluid level before you return the product to service. See Filling the reservoir (page 79).
- 8. Verify proper operation before you return the product to service.

Non-locking manual valve replacement

Tools required:

- 7/16" deep well socket
- 7/8" deep well socket
- 3/8" drive ratchet
- 1/16" hex wrench

Procedure:

1. Pull the trolley assembly out of the patient compartment until locked in the loading position.

Note - This makes working on the product easier but is not required.

- 2. Lower the lifting arms.
- 3. Remove the trolley covers. See Cover replacement (page 53).
- 4. Remove the manual release button assembly. See Manual release button assembly replacement (page 55).
- 5. Using a 7/16" deep well socket and 3/8" drive ratchet, remove the Nylock hex nut (A) that secures the non-locking manual valve (B) to the manual release link (C) (Figure 36). Save the nut.

Note - Place a 1/16" hex wrench through the slot on the non-locking manual valve (B) to keep the valve from turning.

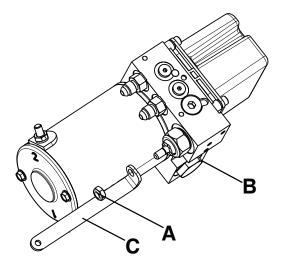


Figure 36 - Non-locking manual valve

- 6. Using a 7/8" deep well socket and 3/8" drive ratchet, remove the non-locking manual valve (B). Discard the valve.
 - Note Hydraulic fluid will leak from the cylinder and hoses. Lay down towels to catch fluid.
- 7. Reverse steps to reinstall.
- 8. Check the fluid level before you return the product to service. See Filling the reservoir (page 79).
- 9. Verify proper operation before you return the product to service.

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Hose replacement

Tools required:

- 11/16" combination wrench
- (2) 9/16" combination wrench
- T25 Torx driver

Procedure:

- 1. Pull the trolley assembly out of the patient compartment until locked in the loading position.
 - Note This makes working on the product easier but is not required.
- 2. Remove the trolley covers. See Cover replacement (page 53).
- 3. Using an 11/16" combination wrench, disconnect the hydraulic hose (A) closest to the mounting bracket at the head end of the trolley (Figure 37 and Figure 38).

Note - Hydraulic fluid will leak from the cylinder and hoses. Lay down towels to catch fluid.

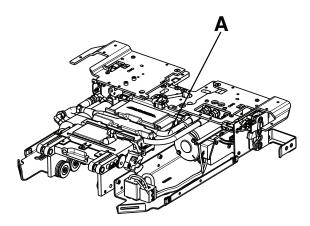


Figure 37 - Hydraulic hose location

4. Using a T25 Torx driver, loosen (do not remove) the two screws (B) that secure the manifold fitting to the left wing plate (Figure 38).

Note - Do not remove the manifold fitting, just loosen the screws to gain better access to the nuts.

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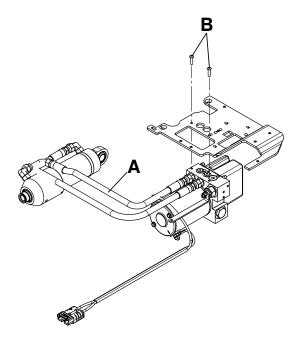


Figure 38 - Manifold fitting screws location

- 5. Using two 9/16" combination wrenches, disconnect the bad hose from the manifold fitting. Discard the hose.
 - Note Hydraulic fluid will leak from the cylinder and hoses. Lay down towels to catch fluid.
- 6. Reverse steps to reinstall.
- 7. Check the fluid level before you return the product to service. See Filling the reservoir (page 79).
- 8. Verify proper operation before you return the product to service.

Pump/motor assembly replacement

Tools required:

• (2) 9/16" combination wrench

Procedure:

- 1. Pull the trolley assembly out of the patient compartment until locked in the loading position.
 - **Note** This makes working on the product easier but is not required.
- 2. Remove the hydraulics assembly. See Hydraulics assembly replacement (page 59).
- 3. Using two 9/16" combination wrenches, loosen (do not remove) the hose end connectors (A) from the manifold to remove both hoses (Figure 39).

Note - Hydraulic fluid will leak from the cylinder and hoses. Lay down towels to catch fluid.

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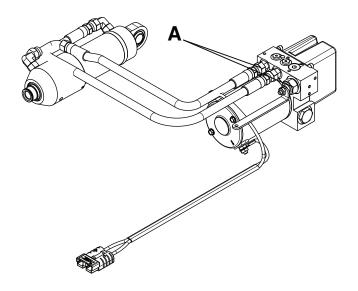


Figure 39 - Hydraulics assembly hose end connectors

- 4. Reverse steps to reinstall.
- 5. Verify proper operation before you return the product to service.

Motor cable replacement

Tools required:

• 7/16" combination wrench

Procedure:

1. Pull the trolley assembly out of the patient compartment until locked in the loading position.

Note - This makes working on the product easier but is not required.

- 2. Remove the trolley covers. See Cover replacement (page 53).
- 3. Remove the hydraulics assembly. See Hydraulics assembly replacement (page 59).
- 4. Using a 7/16" combination wrench, remove the two nuts (A) and star washers (B) that secure the motor cable (C) to the motor assembly (Figure 40). Save the nuts and washers.

Note - Pay attention to the cable routing and terminal orientation for reinstallation.

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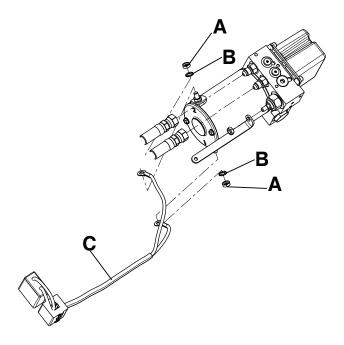


Figure 40 - Motor assembly

- 5. Reverse steps to reinstall.
- 6. Verify proper operation before you return the product to service.

Motor replacement

Tools required:

- 9/32" socket
- 1/4" drive ratchet

Procedure:

CAUTION - Do not bump the motor armature or stator when you replace the motor or damage may occur.

- 1. Pull the trolley assembly out of the patient compartment until locked in the loading position.
 - Note This makes working on the product easier but is not required.
- 2. Remove the trolley covers. See Cover replacement (page 53).
- 3. Remove the motor cable. See *Motor cable replacement* (page 75).
- 4. Using a 9/32" socket and 1/4" drive ratchet, remove the two bolts (A) that secure the motor (B) to the hydraulic manifold assembly (C) (Figure 41). Save the bolts.

Note - Do not overtighten the bolts during reinstallation.

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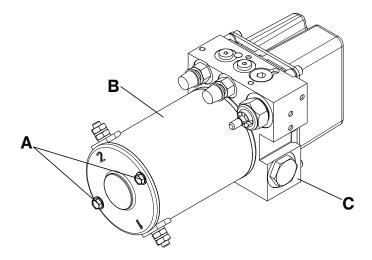


Figure 41 - Motor replacement parts

- 5. Reverse steps to reinstall.
- 6. Verify proper operation before you return the product to service.

Pressure compensated flow control valve replacement

Tools required:

- 1/4" hex wrench
- · Needle nose pliers

Procedure:

1. Pull the trolley assembly out of the patient compartment until locked in the loading position.

Note - This makes working on the product easier but is not required.

- 2. Remove the trolley covers. See Cover replacement (page 53).
- 3. Remove the hydraulics assembly. See Hydraulics assembly replacement (page 59).
- 4. Using a 1/4" hex wrench, remove the hex plug (A) from the top of the hydraulic manifold assembly (Figure 42). Save the hex plug.

Note - Pay attention to the orientation of the valve for reinstallation.

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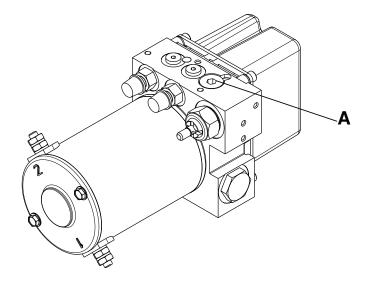


Figure 42 - Hex plug location

- 5. Using the needle nose pliers, remove and discard the pressure compensated flow control valve.
- 6. Install the replacement pressure compensated flow control valve.

Note - Install the O-ring side of the valve down into the port.

- 7. Reverse steps to reinstall.
- 8. Check the fluid level before you return the product to service. See Filling the reservoir (page 79).
- 9. Verify proper operation before you return the product to service.

Battery replacement

Tools required:

T25 Torx driver

Procedure:

CAUTION - Do not touch the negative and positive battery terminals together on any metal surface when you replace the battery.

- 1. Press the main power button to turn the product off.
- 2. Using a T25 Torx driver, remove the two button head cap screws (A) that secure the rear trolley plate cover (B) to the trolley frame (Figure 43). Remove the cover. Save the screws.
- 3. Pull to remove the battery housing assembly (C) (Figure 43).

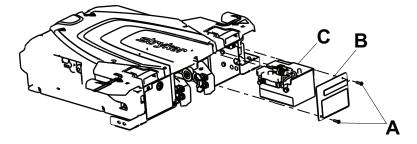


Figure 43 - Battery housing components

4. Remove and discard the battery.

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Note - Do not dispose of as unsorted municipal waste. Refer to your local distributor for return and/or collection systems available in your country.

- 5. Install the replacement battery.
- 6. Reverse steps to reinstall.
- 7. Verify proper operation before you return the product to service.

Filling the reservoir

Tools required:

3/16" hex wrench

Procedure:

WARNING - Do not overfill the reservoir with oil. Use only Mobil Mercon™ V Blend ATF Oil (6500-001-293) in the specified quantity. See the Mobil Mercon™ V Blend ATF Oil material safety data sheet (MSDS) issued by the manufacturer for safety information (Exxon Mobil Corporation, 1-(800) 947-9147, http://www.exxon.com, http://www.mobil.com, product code: 20103020B010, 525147-00, 97X826).

- 1. Pull the trolley assembly out of the patient compartment until locked in the loading position.
- 2. Make sure that the lifting arms are in the down position before you fill the reservoir.
- 3. Using a 3/16" hex wrench, remove the fill plug.
- 4. Fill the reservoir up to the bottom of the fill port with **Mobil Mercon™** V Blend ATF Oil (6500-001-293).
- 5. Reinstall the plug.
- 6. Verify proper operation before you retrun the product to service.

Primary coil replacement, foot end

Tools required:

- (2) 1/8" hex wrench
- 1/4" hex wrench
- 3/8" hex driver
- Torque wrench (ft-lb)
- Torque wrench (in-lb)

Procedure:

- 1. Remove the trolley. See Trolley removal (page 51).
- 2. Remove the transfer. See *Transfer removal* (page 51).
- 3. Using a 3/8" hex driver, remove the four anchor mounting posts (A) that secure the anchor to the floor plate (Figure 44). Save the mounting posts.

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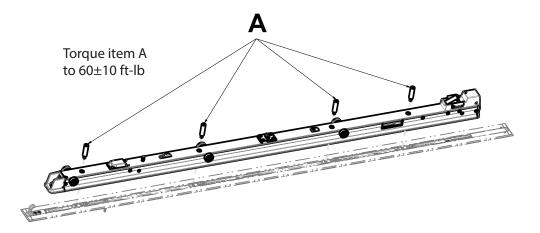


Figure 44 – Remove the anchor mounting posts

- 4. Flip the anchor on its side. Unplug the anchor plunger assembly cables from the patient compartment main power cable at the head end.
- 5. Using a 1/8" hex wrench, remove the two flat head cap screws (B) that secure the release lever housing (F) to the anchor (Figure 45). Save the screws.

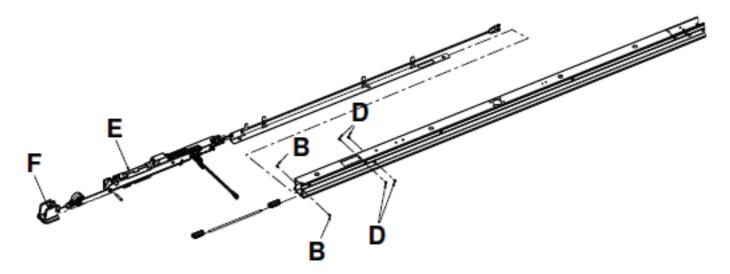


Figure 45 - Remove the anchor plunger assembly

- 6. Using the second 1/8" hex wrench, insert the wrench into the anchor pivot pin to remove the other screw and the release lever housing. Save the screw and release lever housing.
 - Note The LED cable will still be attached. Do not pull the parts to prevent damage.
- 7. Using a 1/4" hex wrench, remove the two screws (C) that secure the flat roller assembly and the V-guide roller assembly on the foot end of the anchor assembly (Figure 46). Save the screws.

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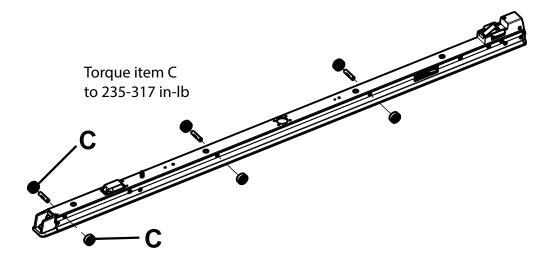


Figure 46 – Remove the flat roller assembly and V-guide roller assembly

- 8. Using a 1/8" hex wrench, remove two of the four flat head cap screws (D) from one side of the anchor plunger assembly, mid (Figure 45). Save the screws.
- 9. Using the second 1/8" hex wrench, insert the wrench into the anchor pivot pin to remove the other two of the four flat head cap screws (D) (Figure 45). Save the screws.
- 10. Unplug the power cables from the extension cable from the underside of the anchor.
- 11. Remove the anchor plunger assembly, mid (E) from the anchor (Figure 45).
- 12. Remove the anchor pivot pin (G) that holds the anchor coil assembly (H) to the anchor housing (J) (Figure 47). Save the pin.
- 13. Unplug the coil wires from the inductive primary board (I) (Figure 47). Discard the anchor coil assembly.

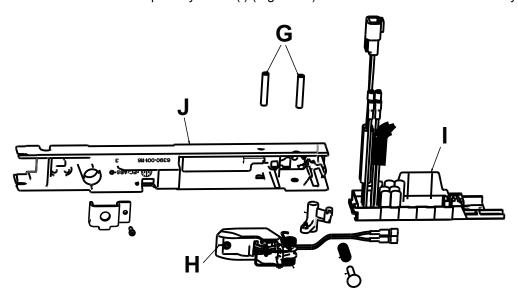


Figure 47 - Unplug coil wires from the inductive primary board

- 14. Reverse steps to reinstall. Using a torque wrench, torque the V-guide roller assembly and flat roller assembly to 235-317 in-lb. Using a torque wrench, torque the anchor mounting posts to 60±10 ft-lb.
- 15. Verify proper operation before you return the product to service.

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Primary coil replacement, head end

Tools required:

- 5/32" hex wrench
- (2) 1/8" hex wrench
- 3/8" hex driver
- T25 Torx driver
- · Diagonal pliers
- Torque wrench (ft-lb)

Procedure:

- 1. Remove the trolley. See *Trolley removal* (page 51).
- 2. Remove the transfer. See *Transfer removal* (page 51).
- 3. Using a 3/8" hex driver, remove the four anchor mounting posts that secure the anchor to the floor plate.
- 4. Unplug the main power cable from the patient compartment to the anchor assembly at the head end.
- 5. Using a 5/32" hex wrench, remove the four screws (A) (Figure 48). Save the screws.
- 6. Using two 1/8" hex wrenches, remove the four flat head cap screws (B) that secure the anchor pawl assembly to the anchor. Save the screws.
- 7. Pull the anchor pawl assembly toward the head end of the anchor. Remove and save the anchor pawl assembly.

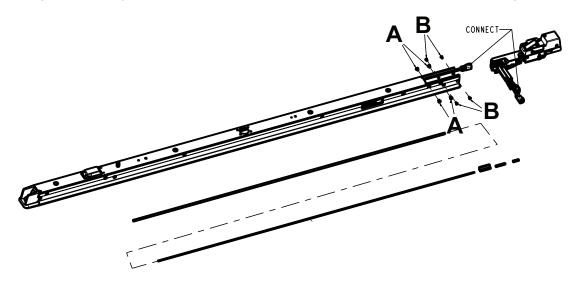


Figure 48 – Remove the anchor pawl assembly from the anchor

- 8. Unplug the power cables from the extension cable from the anchor.
- 9. Unplug the two coil wires from the inductive primary board.
- 10. Using diagonal pliers, cut the cable ties (D) that secure the coil wires to the wire management strap (Figure 49).

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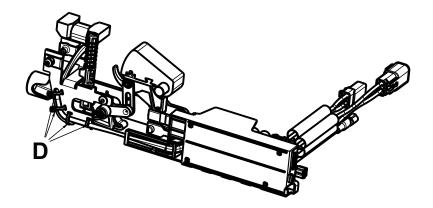


Figure 49 - Remove cable ties

11. Using a T25 Torx driver, remove the four button head cap screws (E) that secure the two retainer wings and remove the retainer wings (Figure 50). Save the screws.

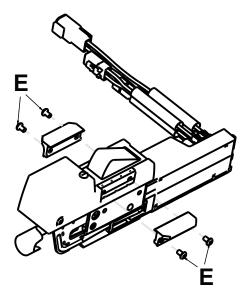


Figure 50 - Remove the retainer wings

12. Using a 1/8" hex wrench, remove the two button head cap screws (F) that secure the anchor housing assembly head end to the anchor pawl assembly. Remove and discard the anchor housing assembly (G) (Figure 51). Save the screws.

Note - Do not dispose of as unsorted municipal waste. Refer to your local distributor for return, and or collection systems available in your country.

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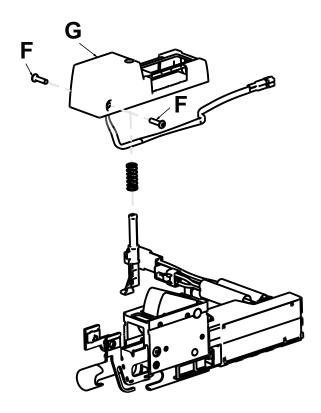


Figure 51 - Remove the anchor housing assembly

- 13. Reverse steps to reinstall. Using a torque wrench, tighten each anchor mounting post to 60±10 ft-lb.
- 14. Verify proper operation before you return the product to service.

Transfer lock bearing replacement

Tools required:

5/32" hex wrench

Procedure:

- 1. Remove the trolley. See Trolley removal (page 51).
- 2. Remove the transfer. See *Transfer removal* (page 51).
- 3. Using a 5/32" hex wrench, remove the four flat head cap screws (A) that secure the transfer lock cap (B) to the anchor extrusion (Figure 52). Save the screws.
- 4. Remove and save the transfer lock cap (B).
- 5. Remove the transfer lock pin assembly (C), compression spring (D), and bronze bearing (E) from the anchor extrusion. Discard the bronze bearing. Save the pin and spring.
- 6. Clean the transfer lock pin assembly (C) and compression spring (D) thoroughly.
- 7. Install the supplied bronze bearing (D), compression spring (D), and transfer lock pin assembly (C) into the anchor extrusion.

Note - Before you reinstall, grease the transfer lock pin assembly with molybdenum disulfide lubricant (6390-001-263).

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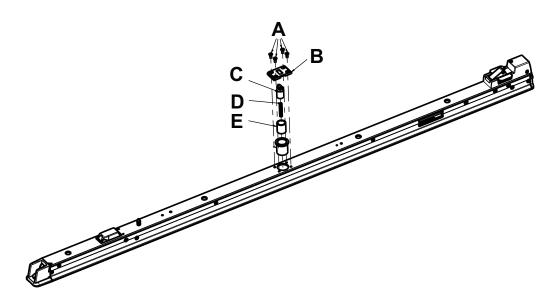


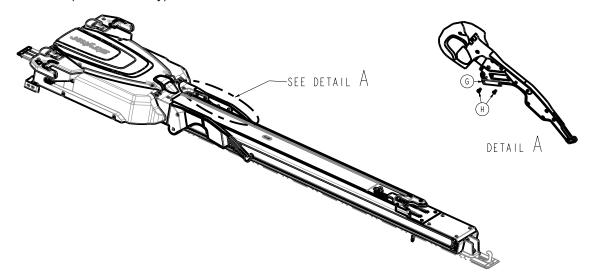
Figure 52 – Transfer lock bearing removal and replacement

- 8. Using a 5/32" hex wrench, reinstall the four flat head cap screws that secure that transfer lock cap (B) to the anchor extrusion. Start each screw first and then tighten all four screws.
- 9. Reinstall the transfer. See Transfer removal (page 51).
- 10. Reinstall the trolley. See Trolley removal (page 51).
- 11. Verify proper operation before you return the product to service.

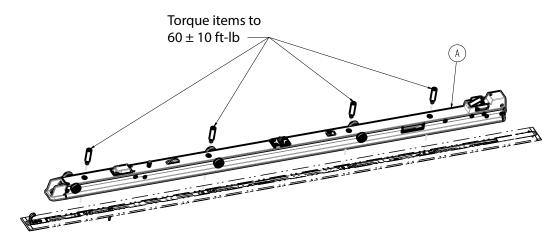
6390-509-002 Rev AB.0 85 EN

Power-LOAD assembly

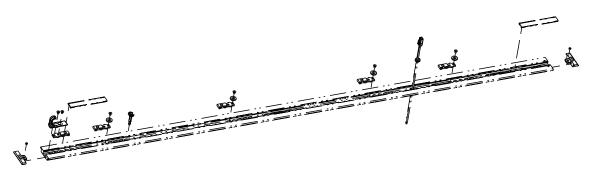
6390-001-010 Rev AF (Reference only)



Note - Make sure that you reinstall the serial number tag (item G) any time you service the lifting arm(s).



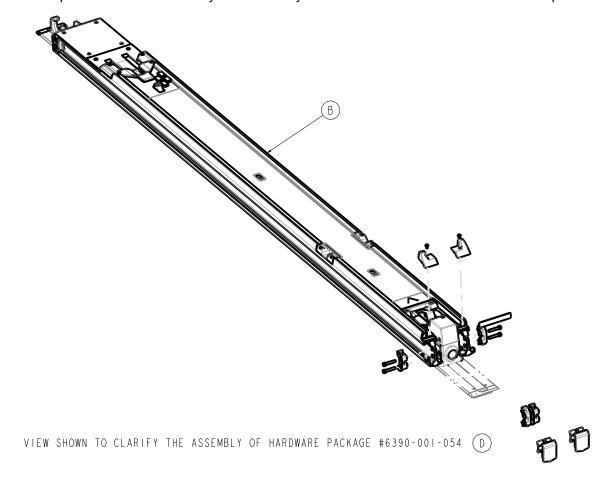
VIEW SHOWN TO CLARIFY THE ASSEMBLY OF MOUNTING POSTS WHICH ARE INCLUDED IN HARDWARE PACKAGE # 6390-001-054 (D)



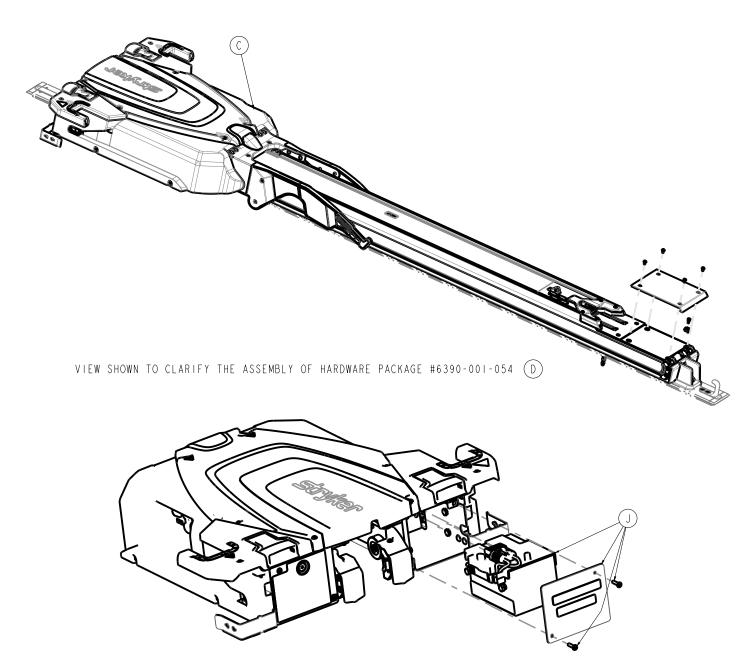
VIEW SHOWN TO CLARIFY THE ASSEMBLY OF THE UNIVERSAL FLOOR PLATE OPTION 6390-028-000.

EN 86 6390-509-002 Rev AB.0

- 1. Cut pieces to desired length to cover void at either end, as needed.
- 2. Drill .400/.450 diameter hole through 6390-001-107, floor plate, for assembly. Hole to be drilled at pre-machined counter-sunk locations only.
- 3. Torque to 60 ± 10 ft-lb.
- 4. Drill .600/.656 diameter hole through 6390-001-107, floor plate, for assembly. Hole to be drilled at one of the premachined pocket locations only.
- 5. Wireless label options shown for assembly reference only. Refer to 6390-000-000 Power-LOAD for part number.



6390-509-002 Rev AB.0 87 EN

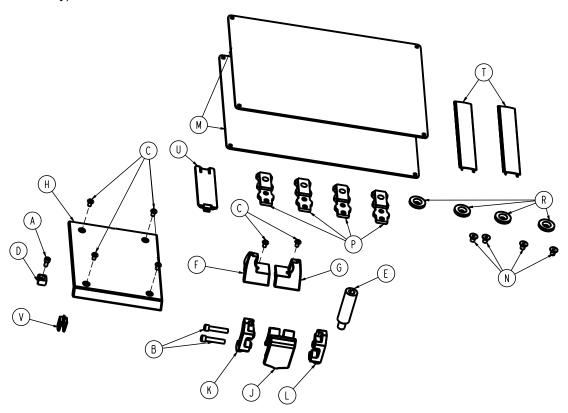


Item	Number	Name	Quantity
Α	6390-001-011	Anchor assembly (page 90)	1
В	6390-101-012	Transfer assembly (page 97)	1
С	6390-001-013	Trolley assembly (page 103)	1
D	6390-001-054	Assembly kit, Power-LOAD - 6390-001- 054 (page 89)	1
G	6390-001-926	6390 tag, serial number	1
Н	0025-079-000	Dome head rivet	2
J	639001010026	Battery installation assembly	1

EN 88 6390-509-002 Rev AB.0

Assembly kit, Power-LOAD - 6390-001-054

Rev AC (Reference only)

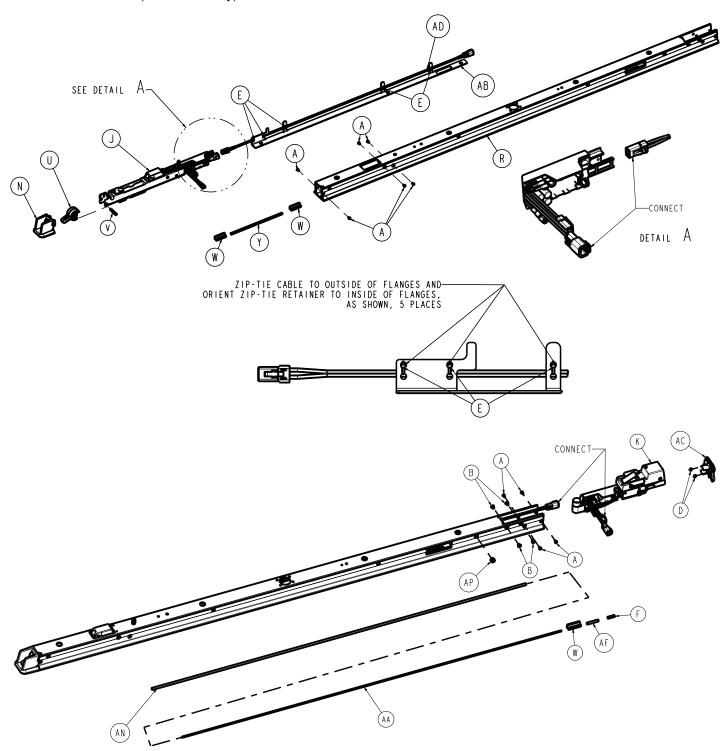


Item	Number	Name	Quantity
Α	0004-658-000	Socket head cap screw	1
В	0004-662-000	Socket head cap screw	4
С	0004-665-000	Button head cap screw	6
D	6390-001-106	Trolley magnet activator	1
E	6390-001-150	Anchor mounting post	4
F	639000010210	Transfer trim, head end, left	1
G	639000010211	Transfer trim, head end, right	1
Н	6390-001-225	Transfer wear pad, foot end	1
J	639000010243	Dead stop bumper	2
K	639000010244	Dead stop block, thru hole	2
L	639000010246	Dead stop block, threaded	2
M	6390-001-467	Plate, IFU label	2
N	0001-194-000	Flat head cap screw, 1/4–20" x 3/8" hex wrench with patch	4
Р	6390-101-108	Floor plate attachment bracket	4
R	6390-001-110	Retainer, attachment bracket, sub anchor	4
T	6390-001-166	Floor plate cover, short	2
U	639001010101	Inductive primary anchor cover	1
V	6390-001-588	Secondary coil lock	1

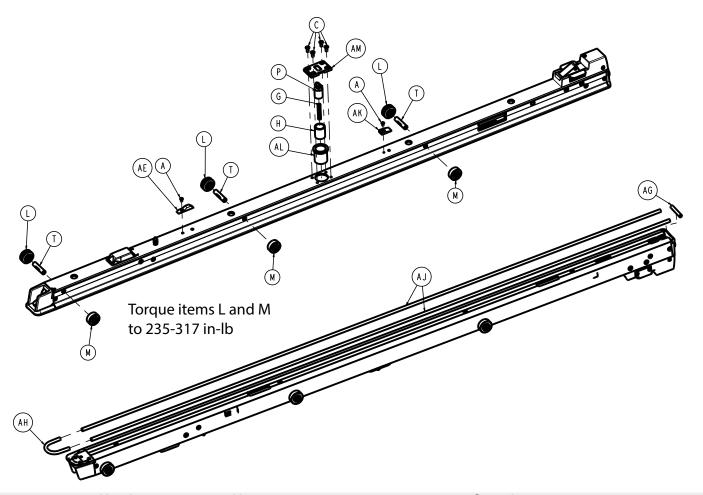
6390-509-002 Rev AB.0 89 EN

Anchor assembly

6390-001-011 Rev AC (Reference only)



EN 90 6390-509-002 Rev AB.0



Item	Number	Name	Quantity
Α	0001-193-000	Flat head cap screw	12
В	0001-194-000	Flat head cap screw	4
С	0001-195-000	Flat head cap screw	4
D	0015-087-000	Square nut	2
E	0038-111-000	Cable tie	5
F	0038-887-000	Compression wire	1
G	0038-606-000	Compression wire	1
Н	0081-439-000	Bronze bearing	1
J	639002010023	Anchor plunger assembly, middle (page 96)	1
K	639001010024	Anchor pawl assembly, head end (page 93)	1
L	6390-001-025	V-guide roller assembly	3
M	6390-001-027	Flat roller assembly	3
N	6390-101-105	Anchor trigger housing, foot end	1
Р	639001010074	Transfer lock pin assembly (page 134)	1
R	639001010100	Machined anchor extrusion	1
T	6390-001-103	Anchor roller axle	3
U	6390-001-104	Anchor trigger	1
V	6390-001-112	Anchor pivot pin, threaded	1
W	6390-001-113	Anchor drive block	3
Υ	6390-001-114	Anchor drive rod, medium	1

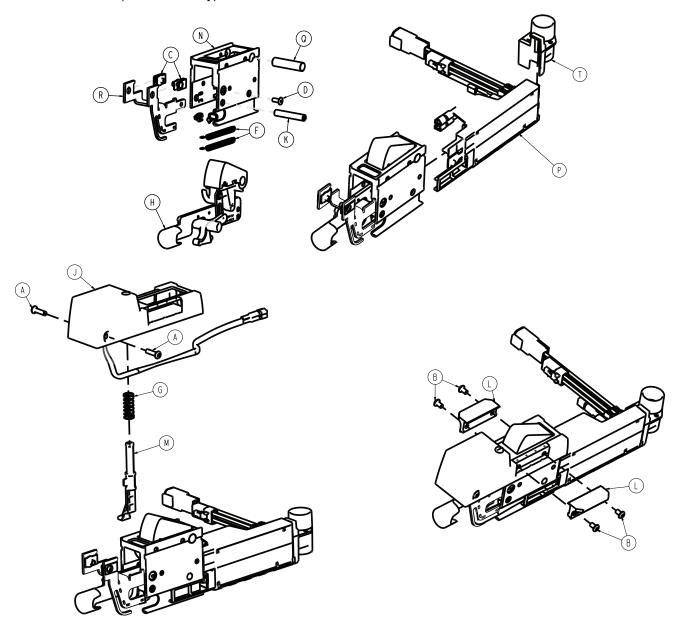
6390-509-002 Rev AB.0 91 EN

Item	Number	Name	Quantity
AA	6390-001-186	Anchor drive rod, long	1
AB	6390-001-120	Wire routing and washer bracket	1
AC	6390-001-136	Anchor end cap, rear	1
AD	639000010139	Cot charging cable	1
AE	6390-001-144	Trolley to transfer lock ramp	1
AF	6390-001-152	Anchor rod drive, rear	1
AG	6390-001-179	Anchor seal, head end	1
AH	6390-001-180	Anchor seal, foot end	1
AJ	6390-001-181	Anchor seal, side	2
AK	6390-001-193	Detent spring ramp	1
AL	6390-101-195	Transfer lock housing	1
AM	6390-101-196	Transfer lock cap	1
AN	6390-001-190	Anchor drive rod, bearing sleeve, long	1
AP	002900010000	Plug, window	1

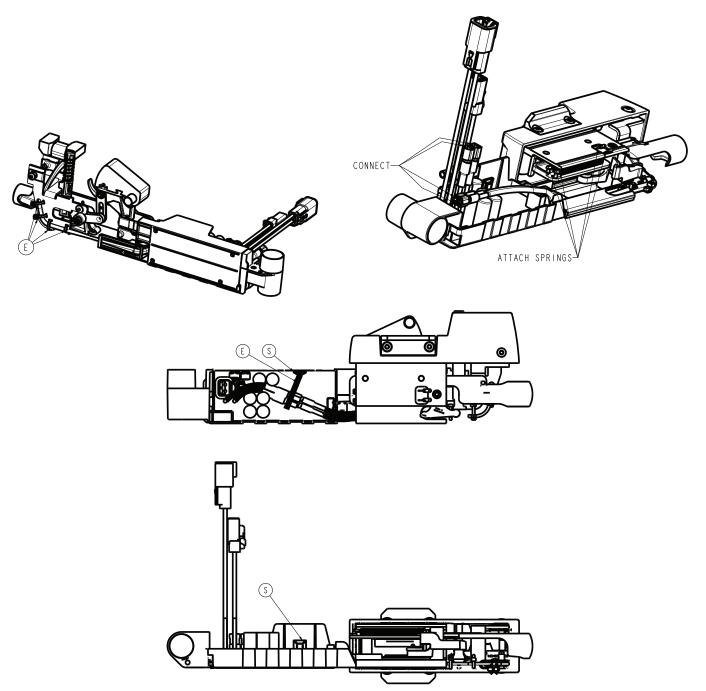
EN 92 6390-509-002 Rev AB.0

Anchor pawl assembly, head end

639001010024 Rev AE (Reference only)



6390-509-002 Rev AB.0 93 EN



Item	Number	Name	Quantity
A	0004-396-000	Button head cap screw	2
В	0004-665-000	Button head cap screw	4
С	0018-009-000	Extruded "U" nut	2
D	0025-079-000	Dome head pop rivet	1
E	0038-111-000	Cable tie	5
F	0038-885-000	Pawl return spring	2
G	0038-888-000	Compression, wire	1
Н	6390-001-070	Manual release mechanism	1
J	6390-001-071	Anchor housing assembly, head end	1
K	6390-001-112	Anchor pivot pin, threaded	1
L	6390-001-123	Retainer wing	2

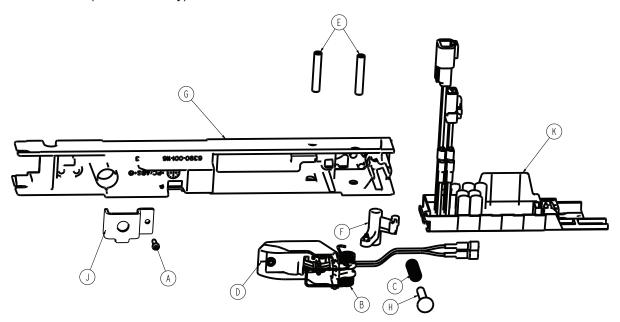
EN 94 6390-509-002 Rev AB.0

Item	Number	Name	Quantity
M	6390-001-124	Anchor actuator pin, head end	1
N	6390-001-125	Anchor housing, head end	1
Р	639003010147	Inductive primary board	1
Q	6390-001-149	Pawl pivot pin	1
R	6390-001-164	Wire management strap, head end	1
S	0058-143-000	Adhesive backed mounting tab	1
T	6390-001-137	Wire protector	1

6390-509-002 Rev AB.0 95 EN

Anchor plunger assembly, middle

639002010023 Rev AE (Reference only)

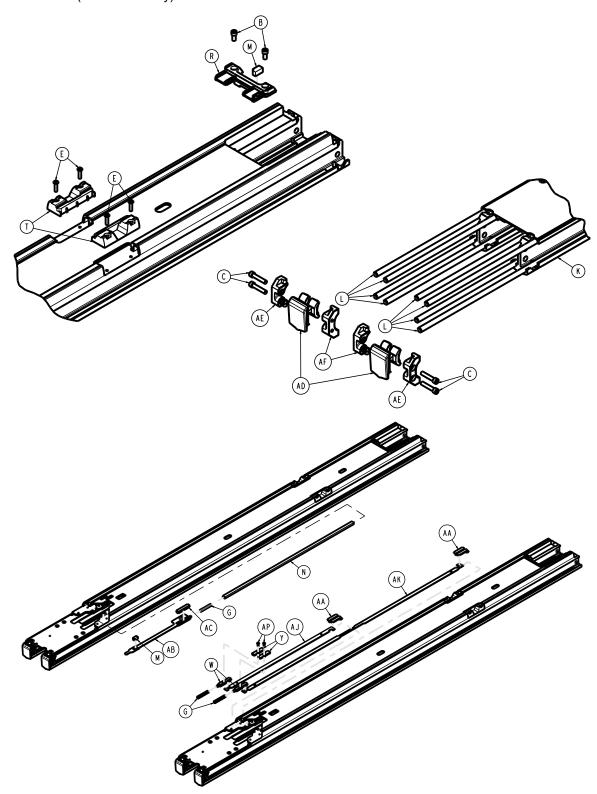


Item	Number	Name	Quantity
Α	0023-163-000	Pan head tapping screw	1
В	0038-886-000	Torsion spring - anchor coil housing	1
С	0038-888-000	Compression, wire	1
D	6390-001-030	Anchor coil assembly, mid	1
E	6390-001-112	Anchor pivot pin, threaded	2
F	6390-001-115	Pivot actuator	1
G	6390-001-116	Anchor housing, middle	1
Н	6390-001-117	Anchor actuator pin, middle	1
J	6390-001-127	Anchor bolster plate, foot end	1
K	639003010147	Inductive primary board	1

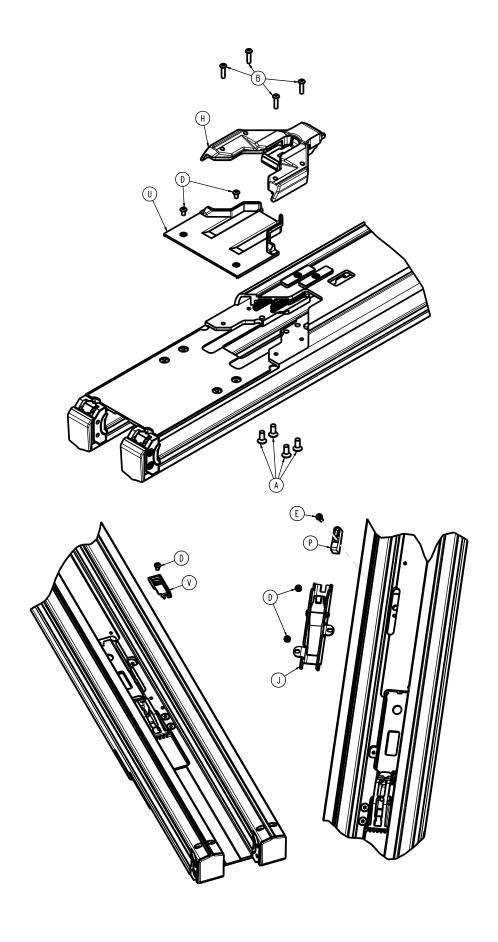
EN 96 6390-509-002 Rev AB.0

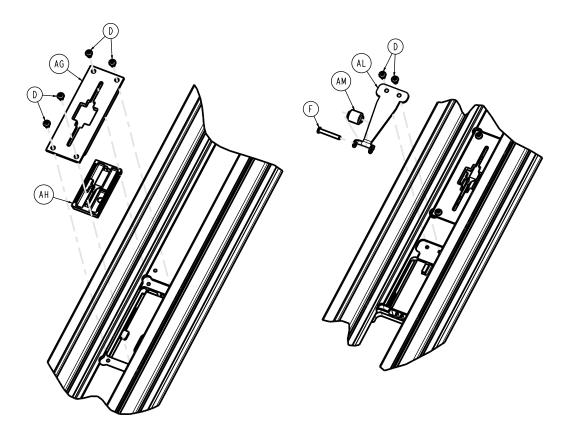
Transfer assembly

6390-101-012 Rev AC (Reference only)

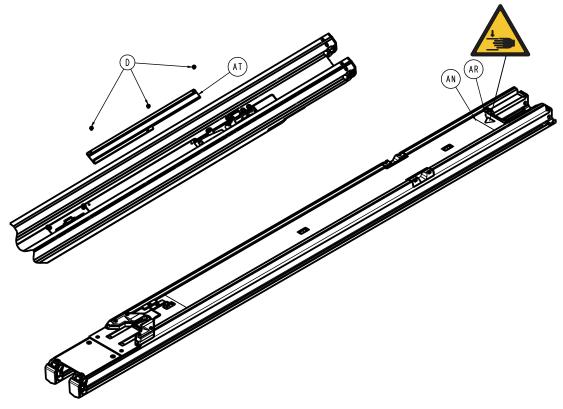


6390-509-002 Rev AB.0 97 EN





Note - The transfer lock plate (639000010260) is only compatible with **Power-LOAD** units manufactured after July 31, 2017 or units that have been previously serviced with the 639007000021 kit. Check the product serial number tag to confirm date of manufacture.



Item	Number	Name	Quantity
Α	0001-195-000	Flat head cap screw	4
В	0004-660-000	Socket head cap screw	2

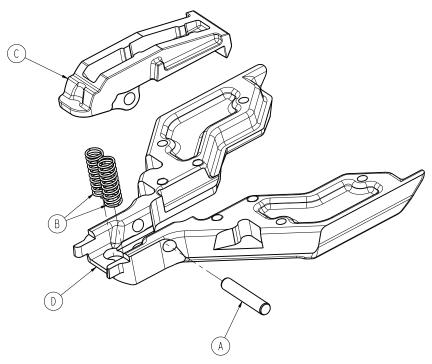
6390-509-002 Rev AB.0 99 EN

Item	Number	Name	Quantity
C	0004-662-000	Socket head cap screw	4
D	0004-665-000	Button head cap screw	18
E	0004-666-000	Button head cap screw	9
F	0027-778-000	Slic pin	1
G	0038-606-000	Compression wire	3
Н	6390-101-018	Fastener assembly, foot end (page 101)	1
J	6390-001-021	Transfer trolley lock assembly (page 102)	1
K	639000010200	Transfer extrusion	1
L	639000010201	Roller rail rod	8
M	6390-001-203	Transfer magnet	2
N	6390-001-204	Transfer magnet spacer	1
Р	6390-001-205	Magnet mover trigger	1
R	6390-001-207	Transfer back cover	1
Т	6390-001-208	Mid position head end cutout cap	2
U	6390-001-213	Inductive charger cover plate	1
V	6390-001-217	Lock latch indicator slide block	1
W	6390-001-230	Transfer lock trigger base	2
Υ	6390-001-231	Transfer lock trigger	2
AA	6390-001-233	Transfer lock slide	2
AB	6390-001-240	Magnet mover	1
AC	6390-001-242	Magnet mover glide	1
AD	639000010243	Dead stop bumper	2
AE	639000010244	Dead stop block, thru hole	2
AF	639000010246	Dead stop block, threaded	2
AG	639000010260	Transfer lock plate	2
AH	6390-001-261	Transfer lock override slide	2
AJ	6390-001-266	Transfer lock link, short	1
AK	6390-001-267	Transfer lock link, long	1
AL	6390-001-269	Detent spring	1
AM	6390-001-270	Detent roller	1
AN	639000010299	Label, transfer	1
AP	0004-585-000	Button head cap screw	2
AR	6506-001-905	Label, warning, crushing of hands	1
AT	6390-001-276	Transfer wear pad	1

EN 100 6390-509-002 Rev AB.0

Fastener assembly, foot end

6390-101-018 Rev AA (Reference only)

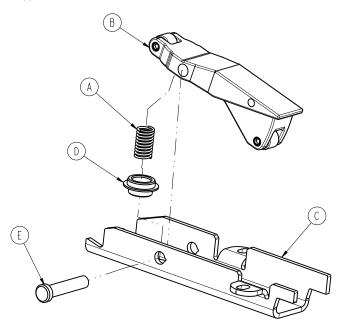


Item	Number	Name	Quantity
A	0026-556-000	Dowel pin	1
В	0038-890-000	Compression spring	2
С	639000010279	Foot end fastener hook, cast	1
D	6390-001-220	Foot end fastener guide	1

6390-509-002 Rev AB.0 101 EN

Transfer trolley lock assembly

6390-001-021 Rev A (Reference only)

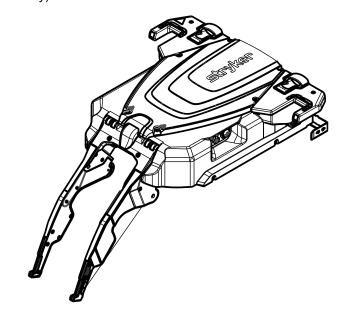


Item	Number	Name	Quantity
A	0038-890-000	Compression, spring	1
В	6390-001-073	Transfer trolley lock assembly	1
С	6390-001-250	Transfer trolley bracket	1
D	6390-001-252	Transfer trolley lock spring cap	1
E	6390-001-259	Trolley lock pivot pin	1

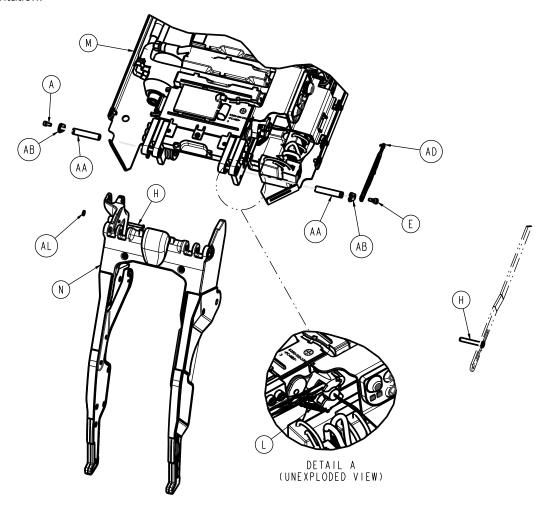
EN 102 6390-509-002 Rev AB.0

Trolley assembly

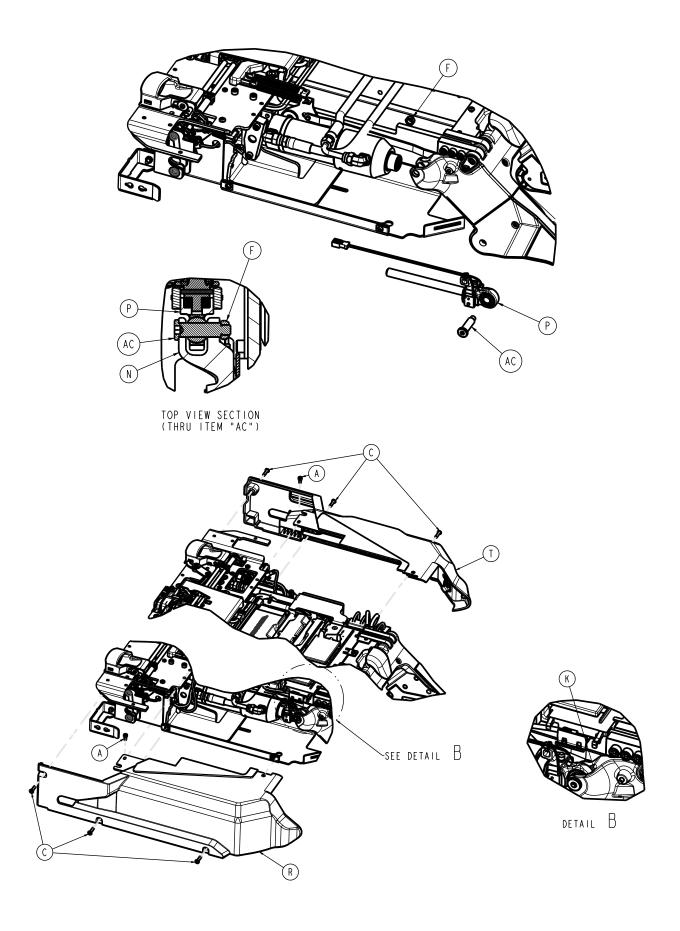
6390-001-013 Rev AA (Reference only)



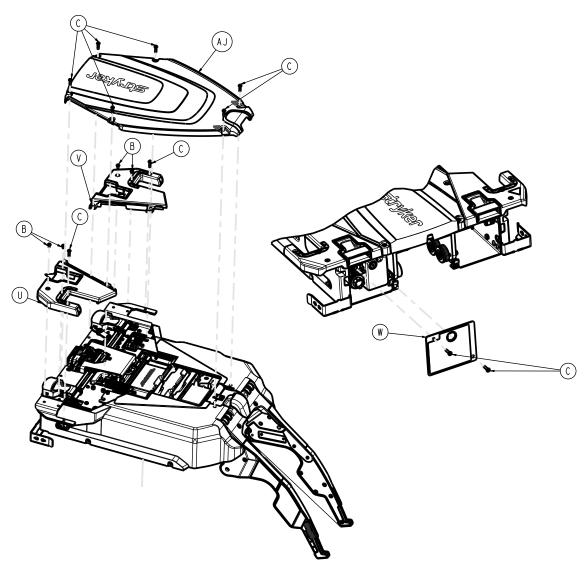
- 1. Angle sensor to be connected to Item AD with indicating dot oriented to top.
- 2. Item H orientation.



6390-509-002 Rev AB.0 103 EN



EN 104 6390-509-002 Rev AB.0



Item	Number	Name	Quantity
Α	0004-658-000	Socket head cap screw	3
В	0004-665-000	Button head cap screw	4
С	0004-666-000	Button head cap screw	16
E	0008-082-000	Socket head set screw	1
F	0016-132-000	Nylock hex nut	1
Н	0027-778-000	Slic pin	1
K	0038-111-000	Cable tie	1
L	0038-896-000	Extension spring	1
M	6390-001-015	Trolley main frame (page 107)	1
N	6390-001-016	Trolley arm assembly (page 127)	1
Р	6390-001-040	Hydraulic cylinder rod end assembly	1
R	6390-001-041	Side cover, right	1
T	6390-001-042	Side cover, left	1
U	6390-101-047	Wing cover, right	1
V	6390-101-048	Wing cover, left	1
W	6390-101-062	Trolley rear cover plate, left	1

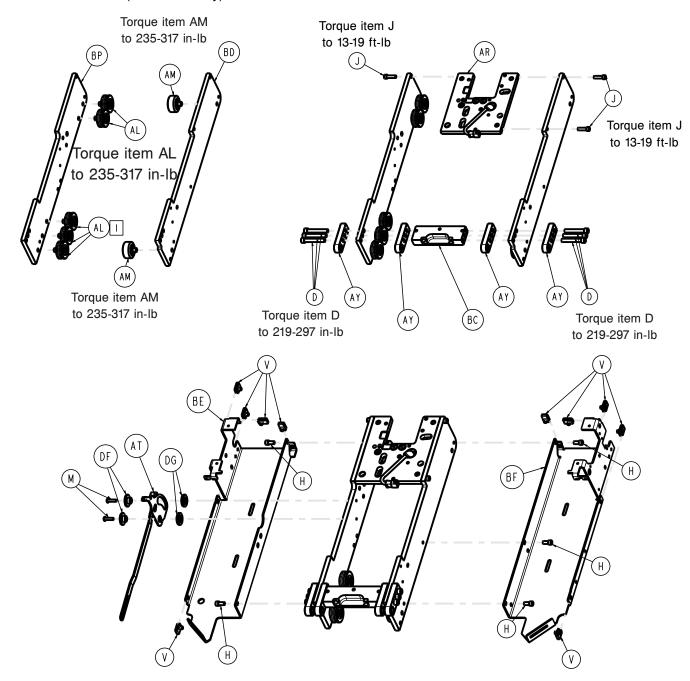
6390-509-002 Rev AB.0 105 EN

Item	Number	Name	Quantity	
AA	6390-001-309	Arm hinge pin	2	
AB	6390-001-311	Hinge cover plate	2	
AC	6390-001-313	Cylinder clevis pin	1	
AD	6390-001-377	Angle sensor link	1	
AJ	639001010420	Trolley top cover	1	
AL	0011-454-000	Plain washer	1	

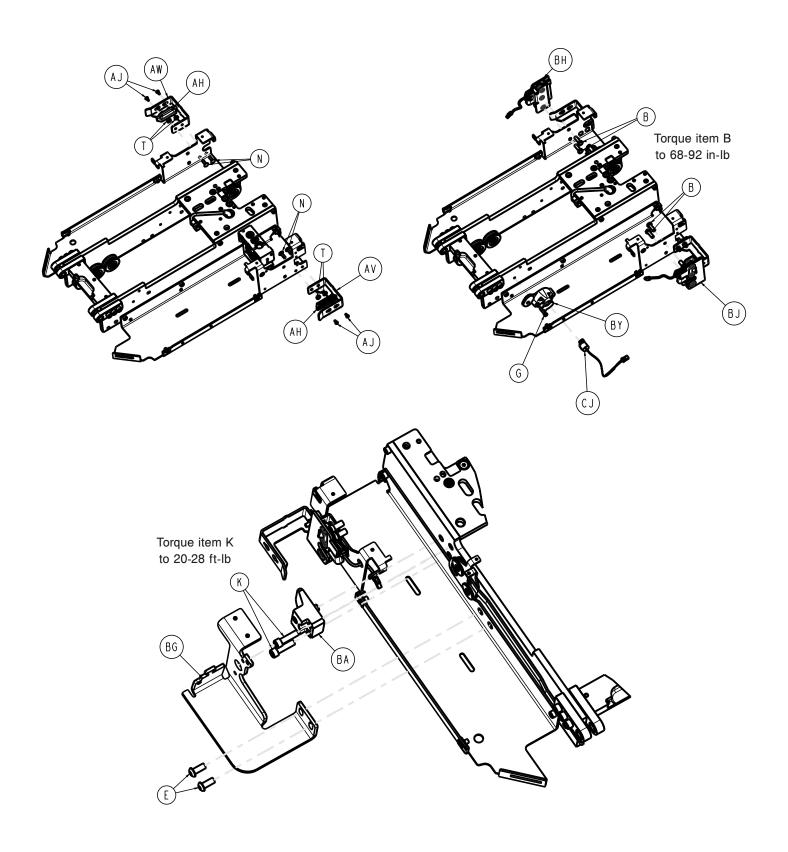
EN 106 6390-509-002 Rev AB.0

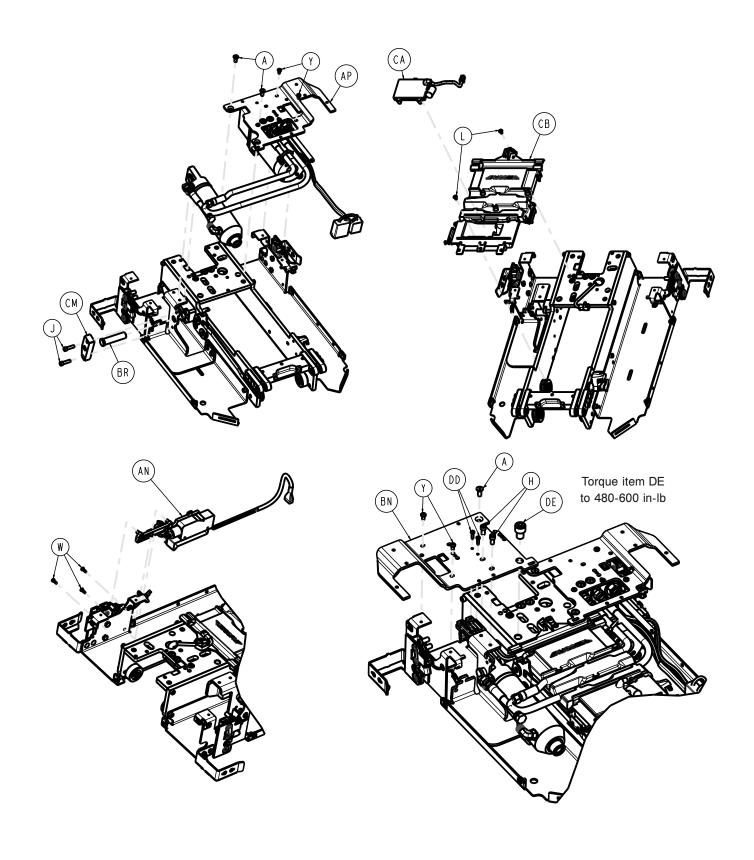
Trolley main frame

6390-001-015 Rev AC (Reference only)

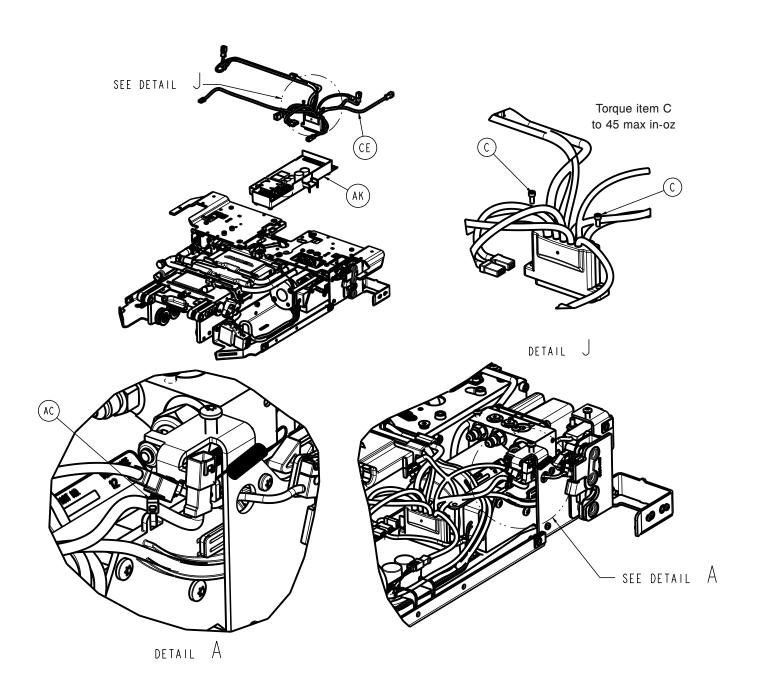


6390-509-002 Rev AB.0 107 EN

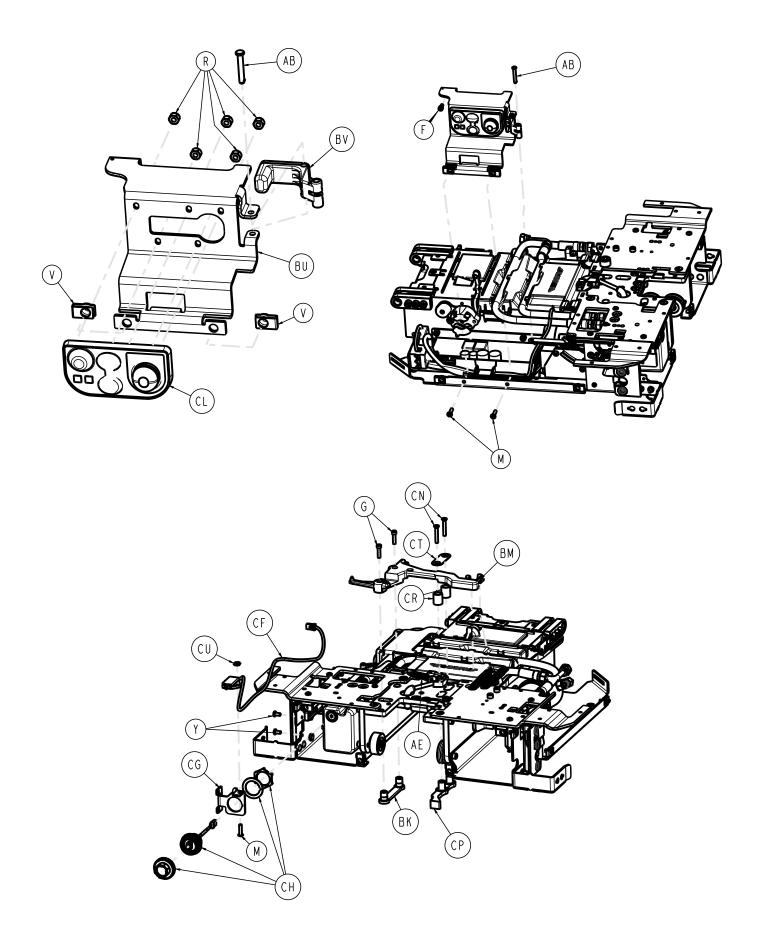




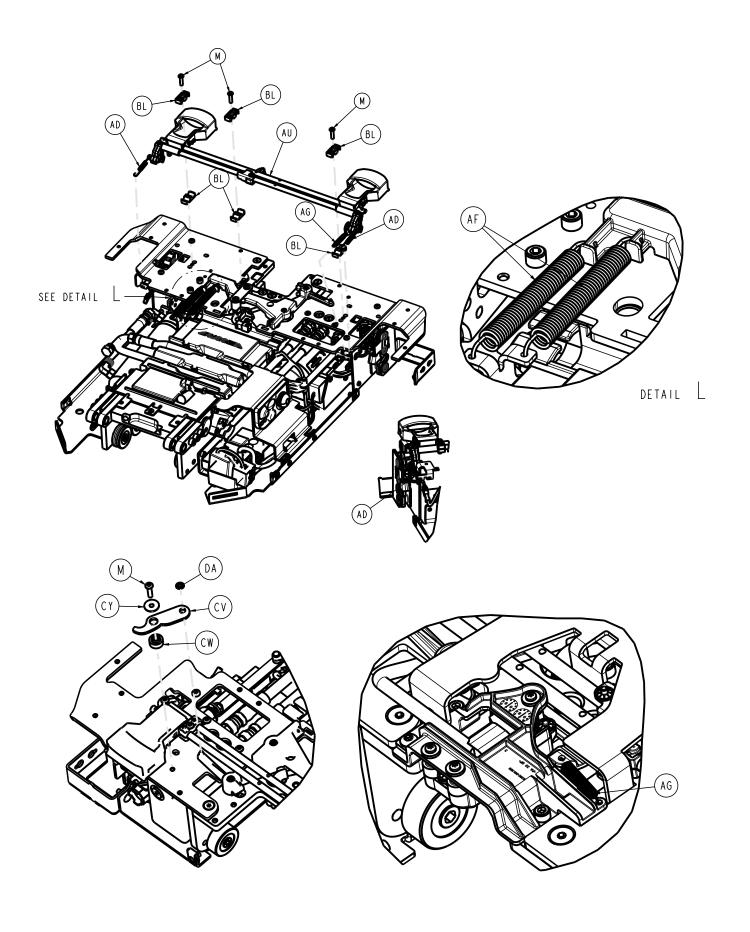
6390-509-002 Rev AB.0 109 EN



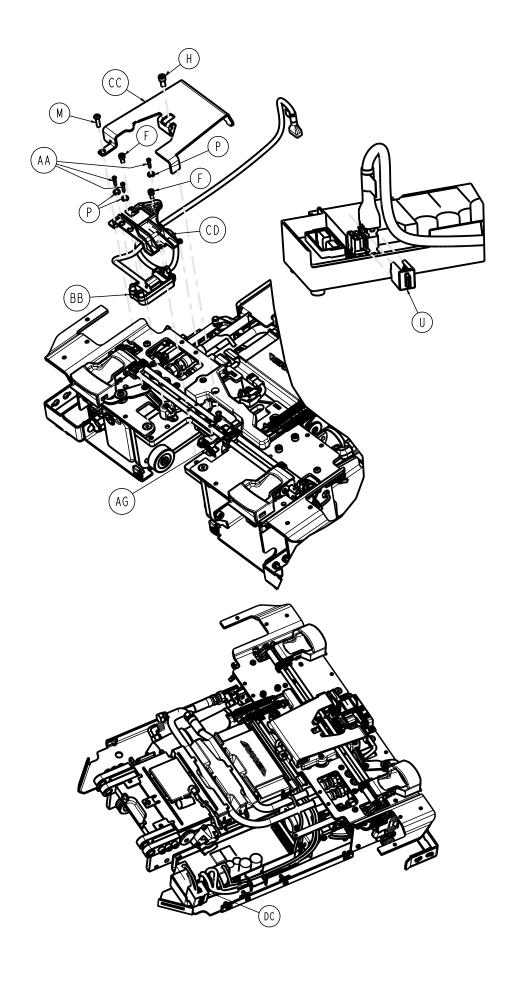
EN 110 6390-509-002 Rev AB.0



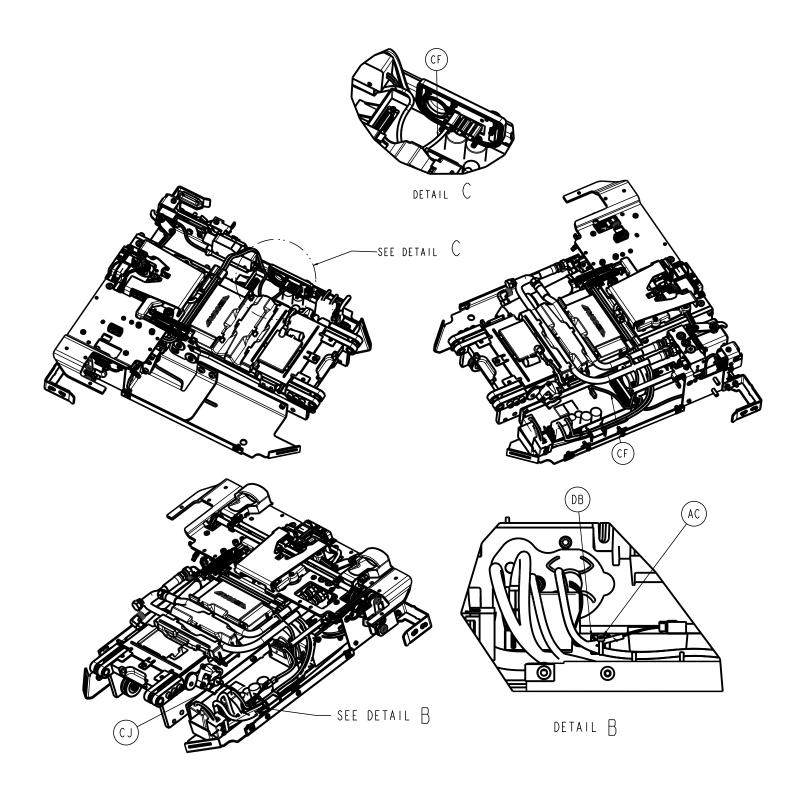
6390-509-002 Rev AB.0 111 EN



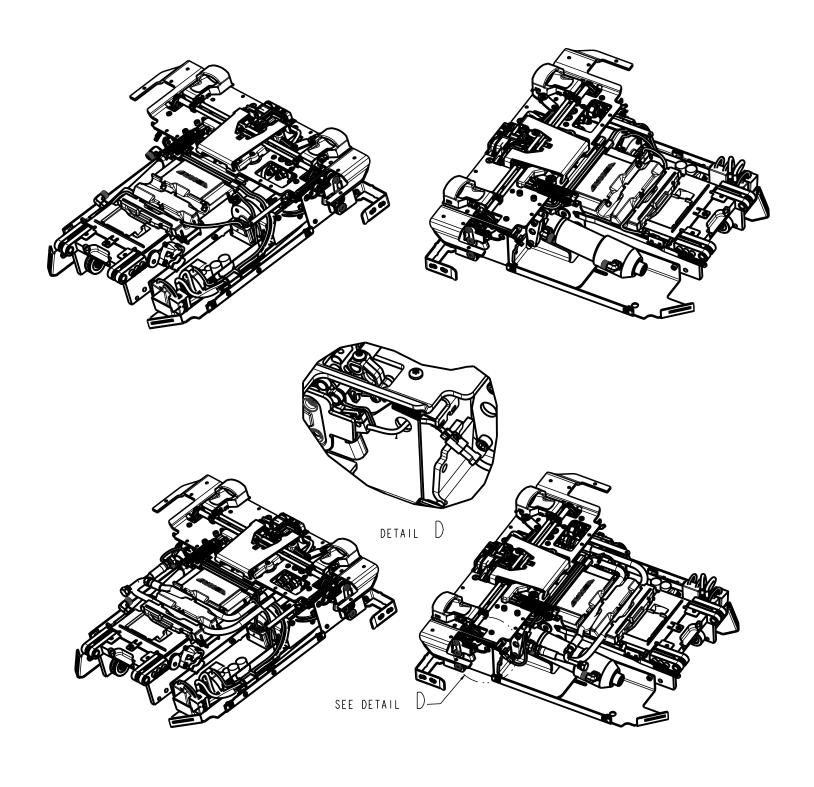
EN 112 6390-509-002 Rev AB.0



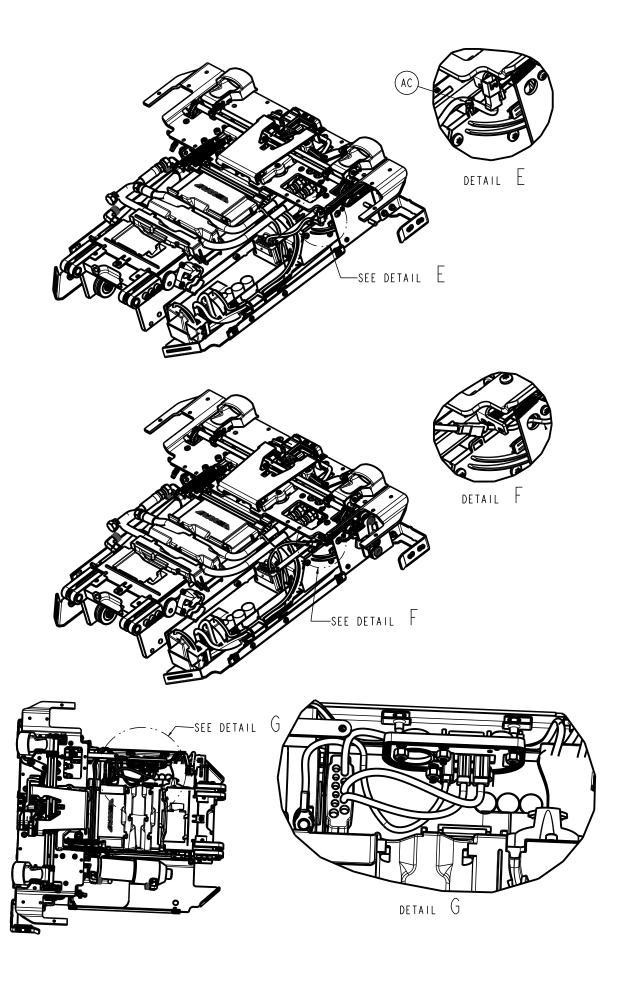
6390-509-002 Rev AB.0 113 EN



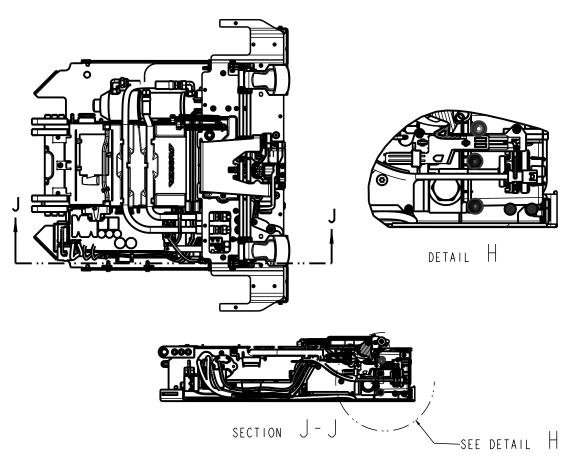
EN 114 6390-509-002 Rev AB.0



6390-509-002 Rev AB.0 115 EN



EN 116 6390-509-002 Rev AB.0



Item	Number	Name	Quantity
Α	0001-195-000	Flat head cap screw	3
В	0003-148-000	Hex head cap screw	4
С	0004-874-000	Socket head cap screw	2
D	0004-352-000	Socket head cap screw	6
E	0004-652-000	Button head cap screw	2
F	0004-658-000	Socket head cap screw	3
G	0004-659-000	Socket head cap screw	3
Н	0004-660-000	Socket head cap screw	8
J	0004-661-000	Socket head cap screw	5
K	0004-397-000	Socket head cap screw	2
L	0004-665-000	Button head cap screw	2
M	0004-666-000	Button head cap screw	10
N	0005-047-000	Carriage bolt	4
Р	0011-436-000	Washer	3
R	0016-014-000	Fiberlock hex nut	5
T	0015-003-000	Hex nut	4
U	6390-001-588	Secondary coil lock	1
V	0018-009-000	Extruded "U" nut	12
W	0023-167-000	Delta screw	3
Υ	0023-296-000	Pan head machine screw	6
AA	0023-321-000	Delta screw	3
AB	0027-778-000	Slic pin	2
AC	0038-111-000	Cable tie	2

6390-509-002 Rev AB.0 117 EN

Item	Number	Name	Quantity
AD	0038-376-000	Extension spring	2
AE	0038-894-000	Extension spring	1
AF	0038-895-000	Extension spring	2
AG	0038-896-000	Extension spring	2
AH	6390-001-294	Guide block, horn, load wheel	2
AJ	0023-163-000	Delta screw	4
AK	639002010014	Control board assembly	1
AL	6390-001-025	V-guide roller assembly	5
AM	6390-001-027	Flat roller assembly	2
AN	6390-001-028	Trolley actuator assembly (page 130)	1
AP	6390-001-035	Wing assembly, left (page 121)	1
AR	6390-001-043	Trolley/transfer interface mechanism (page 120)	1
AT	6390-001-045	Trolley arm mechanism	1
AU	6390-001-046	Trolley manual release assembly (page 125)	1
AV	6390-001-052	Load wheel horn guide weldment, left	1
AW	6390-001-053	Load wheel horn guide weldment, right	1
AY	6390-001-064	Hinge plate assembly	4
BA	6390-001-065	Cylinder support block assembly	1
BB	6390-001-066	Coil housing assembly	1
BC	6390-001-301	Trolley main frame front block	1
BD	6390-001-304	Trolley main frame side block, left	1
BE	6390-001-314	Bottom pan, right	1
BF	6390-001-315	Bottom pan, left	1
BG	6390-001-316	Cylinder support bracket	1
ВН	6390-001-318	Custom Eberhard latch, right	1
BJ	6390-001-319	Custom Eberhard latch, left	1
BK	6390-001-320	Bottom release arm	1
BL	6390-001-333	Release rod support block	6
BM	6390-001-334	Trolley mechanism arm	1
BN	6390-001-340	Wing plate, right	1
BP	6390-001-344	Trolley main frame side plate, right	1
BR	6390-001-360	End cap cylinder pin	1
BU	6390-001-365	Manual release button bracket	1
BV	6390-001-366	Manual release button - pump	1
BY	6390-001-375	Angle sensor housing	1
CA	6390-001-378	Trolley communication board	1
СВ	6390-001-379	Trolley routing tray	1
CC	6390-001-385	Center metal cover	1
CD	6390-001-388	Trolley inductive charge bracket	1
CE	6390-001-391	Main cable assembly	1
CF	6390-001-392	Trolley rear LED assembly	1
CG	6390-001-393	USB mounting bracket	1
CH	6390-001-395	USB connector	1
CJ	6390-001-397	Angle position sensor	1

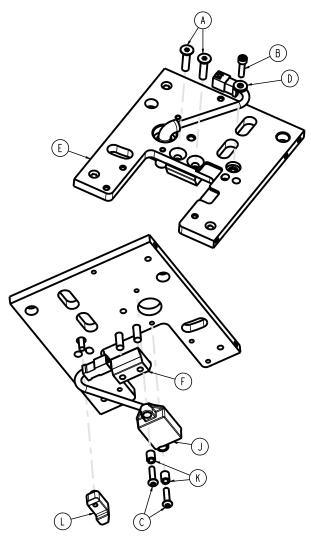
EN 118 6390-509-002 Rev AB.0

Item	Number	Name	Quantity
CL	6390-001-450	Master on/off switch	1
CM	6390-001-352	Cylinder bracket	1
CN	0001-196-000	Flat head cap screw	2
CP	6390-001-351	Trolley release actuator	1
CR	6390-001-343	Trolley mechanism pivot pillar	2
CT	6390-001-336	Link	1
CU	0015-087-000	Square nut	1
CV	6390-001-412	Handle lock pawl	1
CW	6390-001-413	Handle lock pivot base	1
CY	0011-518-000	Washer	1
DA	0028-217-000	Push nut	1
DB	0058-143-000	Adhesive backed mounting tab	1
DC	6390-001-545	Battery fuse extension cable	1
DD	0023-162-000	Delta screw	2
DE	0004-404-000	Socket head cap screw	1
DF	6390-001-574	Trolley lock mechanism actuator bushing	2
DG	6390-001-573	Actuator thrust washer	2

6390-509-002 Rev AB.0 119 EN

Trolley/transfer interface mechanism

6390-001-043 Rev AA (Reference only)

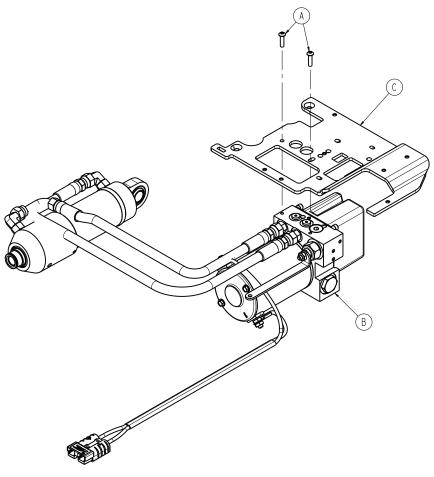


Item	Number	Name	Quantity
Α	0001-004-011	Flat head cap screw	2
В	0004-659-000	Socket head cap screw	1
С	0004-666-000	Button head cap screw	2
D	0011-517-000	Washer	1
Е	6390-001-303	Trolley main frame top plate	1
F	6390-001-325	Trolley stop ramp	1
J	6390-001-361	TPS sensor assembly	1
K	6390-001-362	TPS compression limiter	2
L	6390-001-404	Transfer to anchor release plug	1

EN 120 6390-509-002 Rev AB.0

Wing assembly, left

6390-001-035 Rev A (Reference only)

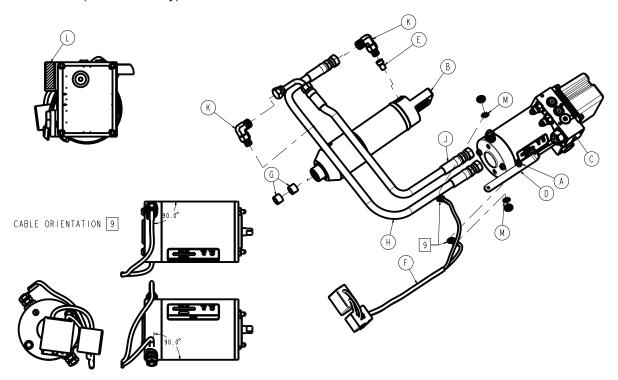


Item	Number	Name	Quantity
Α	0004-666-000	Button head cap screw	2
В	6390-001-039	Hydraulics assembly (page 122)	1
С	6390-001-339	Wing plate, left	1

6390-509-002 Rev AB.0 121 EN

Hydraulics assembly

6390-001-039 Rev AF (Reference only)

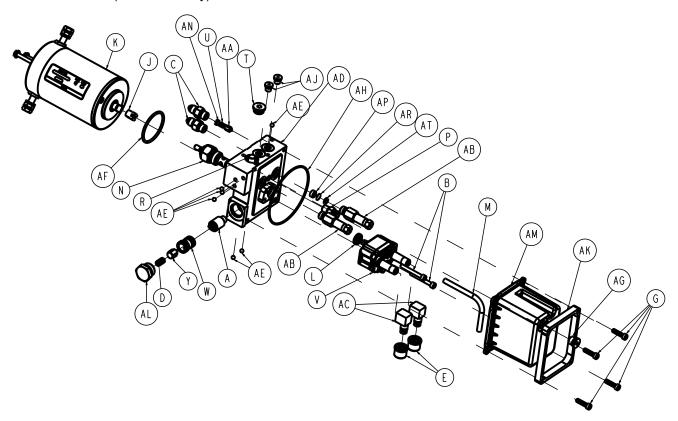


Item	Number	Name	Quantity
Α	0016-102-000	Nylock hex nut	1
В	6390-001-029	Hydraulic cylinder	1
С	6390-101-038	Manifold assembly (page 123)	1
D	6390-001-167	Manual release link	1
E	6390-001-381	Velocity fuse	1
F	6390-101-431	Motor cable	1
G	6390-001-433	Inner rod bearing	2
Н	6390-001-436	Hydraulic hose, cap end	1
J	6390-001-437	Hydraulic hose, rod end	1
K	6500-001-297	Cylinder rod side hose fitting	2
L	NA	Label	1
M	0013-038-000	External tooth lock washer	2

EN 122 6390-509-002 Rev AB.0

Manifold assembly

6390-101-038 Rev AE (Reference only)



Item	Number	Name	Quantity
Α	6390-001-438	Shuttle spool	1
В	406187	Socket head cap screw	2
С	6390-001-146	Fitting STR SAE4 J1C4	2
D	410462	Compression spring	1
E	410521	Filter	2
G	400775	Socket head cap screw	4
J	413528	Coupling	1
K	6390-101-132	Motor	1
L	413675	Seal shaft	1
M	414885	Return tube	1
N	6500-001-289	Non-locking manual valve	1
Р	414644	Fitting STR 1/8" NPTF 1/4" TB	1
R	6390-001-151	Pressure compensated flow control	1
T	415866	Plug SAE6 HOL hex	1
U	415867	Compression spring	1
V	646679	Pump	1
W	773763	Check seat assembly	1
Υ	773776	Poppet assembly	1
AA	774585	Poppet assembly	1
AB	775905	Relief valve assembly	2
AC	775942	Filter assembly suction filter	2

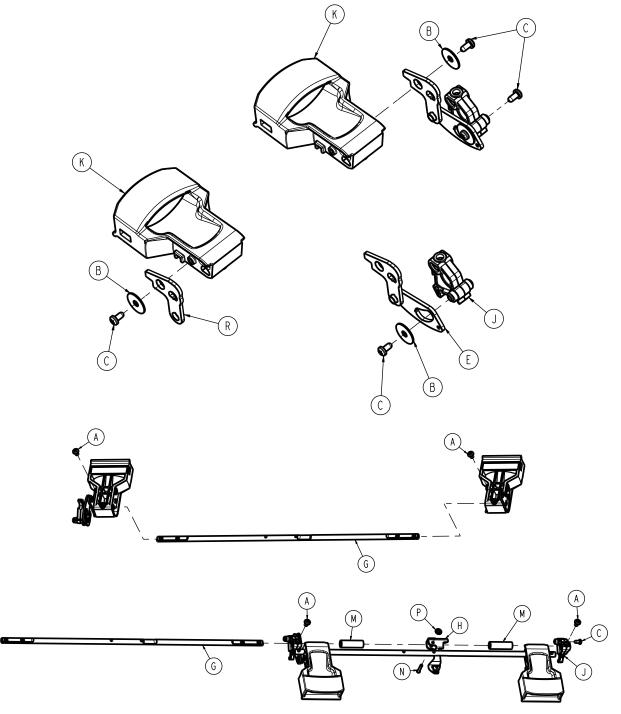
6390-509-002 Rev AB.0 123 EN

Item	Number	Name	Quantity
AD	6390-101-129	Adapter block	1
AE	401072	Ball steel	6
AF	405673	O-ring	1
AG	409278	Plug SAE2 HOL hex	1
AH	410566	O-ring	1
AJ	413577	Plug SAE2 HOL hex	2
AK	700001241806	Reservoir	1
AL	776573	Hex plug retainer assembly	1
AM	700001256130	Flange support	1
AN	414669	RV spring retainer	1
AP	364094	AL spacer	1
AR	411888	Filter screen	1
AT	401273	O-ring	1

EN 124 6390-509-002 Rev AB.0

Trolley manual release assembly

6390-001-046 Rev AA (Reference only)



Item	Number	Name	Quantity
A	0004-665-000	Button head cap screw	4
В	0011-518-000	Washer	3
С	0023-163-000	Delta screw	5
E	6390-001-060	Manual release linkage assembly, left	1
G	6390-001-326	Actuation rod	2
Н	639000010342	Manual cot release slider block	1

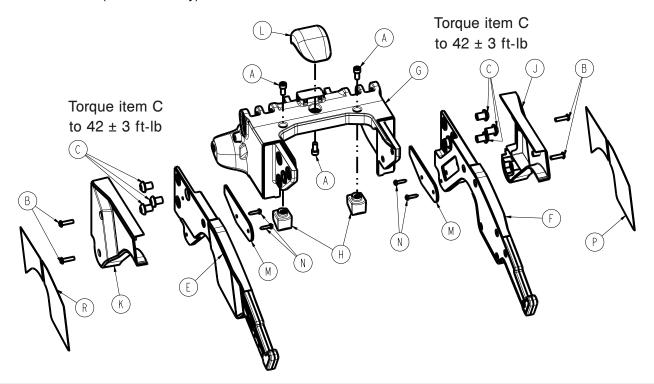
6390-509-002 Rev AB.0 125 EN

Item	Number	Name	Quantity	
J	6390-001-329	Actuation cam	2	
K	6390-001-332	Trolley release handle	2	
M	6390-001-387	Release handle retainer	2	
N	6390-001-323	Cot manual release pin	1	
Р	0028-217-000	Push nut	1	
R	6390-001-382	Trolley release handle link arm	1	

EN 126 6390-509-002 Rev AB.0

Trolley arm assembly

6390-001-016 Rev AC (Reference only)

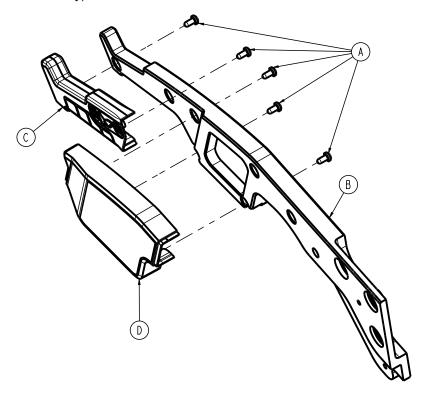


Item	Number	Name	Quantity
A	0004-660-000	Socket head cap screw	3
В	0004-666-000	Button head cap screw	4
С	700001535450	Button head cap screw	6
E	6390-001-036	Arm, right (page 129)	1
F	6390-001-037	Arm, left (page 128)	1
G	639000010305	Middle arm, machined	1
Н	6390-001-322	Mid position bumper lock block	2
J	639000011372	Arm cover, head end, left	1
K	639000011371	Arm cover, head end, right	1
L	6390-001-440	Trolley cot ramp	1
M	6390-001-486	Arm cover guard, head end	2
N	0023-162-000	Delta screw	4
Р	639000010410	Label, arm cover, left	1
R	639000010411	Label, arm cover, right	1

6390-509-002 Rev AB.0 127 EN

Arm, left

6390-001-037 Rev AB (Reference only)

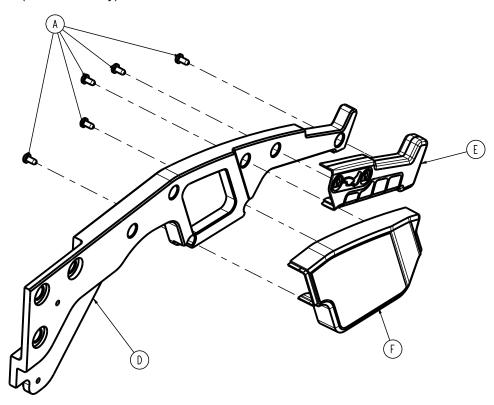


Item	Number	Name	Quantity
A	0023-163-000	Delta screw	5
В	639000010417	Arm, left	1
С	6390-001-341	Arm grip, left	1
D	639000010370	Arm cover, foot end, left	1

EN 128 6390-509-002 Rev AB.0

Arm, right

6390-001-036 Rev AB (Reference only)

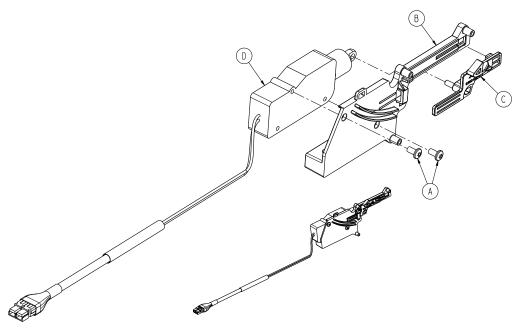


Item	Number	Name	Quantity
Α	0023-163-000	Delta screw	5
D	639000010418	Arm, right	1
E	6390-001-368	Arm grip, right	1
F	639000010369	Arm cover, foot end, right	1

6390-509-002 Rev AB.0 129 EN

Trolley actuator assembly

6390-001-028 Rev A (Reference only)

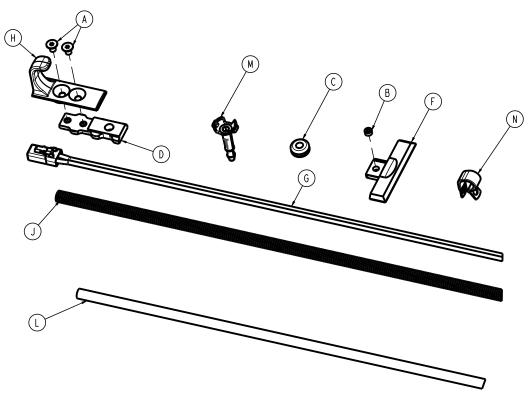


Item	Number	Name	Quantity
Α	0023-296-000	Pan head machine screw	2
В	6390-001-476	Lock release actuator housing	1
С	6390-001-477	Lock release actuator slide	1
D	6390-001-478	Actuator	1

EN 130 6390-509-002 Rev AB.0

Floor plate, install components

6390-001-055 Rev AB (Reference only)

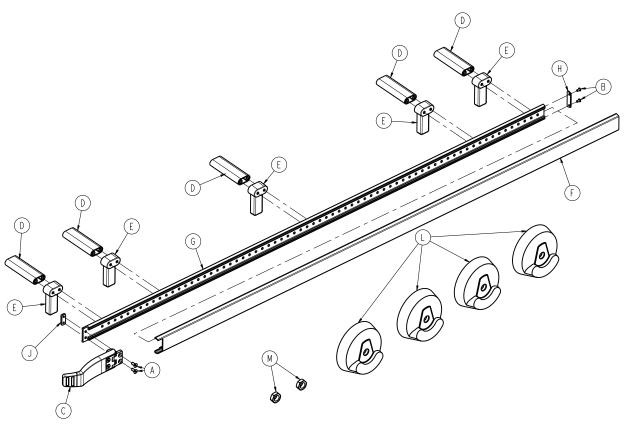


Item	Number	Name	Quantity
Α	0001-194-000	Flat head cap screw	2
В	0021-197-000	Set screw	2
С	0037-247-000	Rubber grommet	1
D	6390-101-108	Floor plate attachment bracket	1
F	639000010111	End cap, floor plate, machined	2
G	639000010135	Cable, anchor to vehicle	1
Н	639000010148	Safety hook, Power-LOAD	1
J	6390-001-153	Loom, wire protection, under ambulance	· 1
L	6390-001-170	Drain tube	1
M	6390-001-183	Drain tube, floor plate	1
N	6390-001-202	Rubber coated clamp, P style	6

6390-509-002 Rev AB.0 131 EN

Wheel guide option - 6390-027-000

Rev D (Reference only)

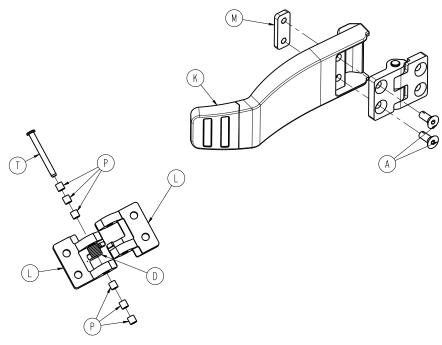


Item	Number	Name	Quantity
A	0001-195-000	Flat head cap screw	2
В	0023-296-000	Pan head machine screw	2
С	6390-001-017	Wheel guide assembly (page 133)	1
D	6390-001-173	Spacer	5
E	6390-001-174	Wheel guide support	5
F	6390-001-175	Wheel guide rail bumper	1
G	6390-001-176	Wheel guide rail	1
Н	6390-001-178	Wheel guide cap	1
J	6390-001-191	Wheel guide nut	1
L	6390-001-206	Wheel cover	4
M	0016-060-000	Toplock locknut	2

EN 132 6390-509-002 Rev AB.0

Wheel guide assembly

6390-001-017 Rev C (Reference only)

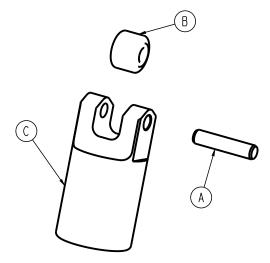


Item	Number	Name	Quantity
Α	0001-195-000	Flat head cap screw	2
D	0038-377-000	Torsion spring	1
K	6390-001-185	Wheel guide	1
L	6390-001-188	Wheel guide hinge	2
M	6390-001-191	Wheel guide nut	1
Р	0081-500-000	Bearing	6
T	0026-403-000	Clevis pin	1

6390-509-002 Rev AB.0 133 EN

Transfer lock pin assembly

639001010074 Rev AA (Reference only)



Item	Number	Name	Quantity
Α	0026-684-000	Dowel pin	1
В	6390-001-199	Transfer lock roller	1
С	639000010197	Transfer lock pin	1

EN 134 6390-509-002 Rev AB.0

Power-LOAD assembly, MTS - 639000550010

Rev AB (Reference only)

Note - See drawing Power-LOAD assembly (page 86) for assembly view and drawing notes.

Item	Number	Name	Quantity
Α	6390-001-011	Anchor assembly (page 90)	1
В	6390-101-012	Transfer assembly (page 97)	1
С	6390-001-013	Trolley assembly (page 103)	1
D	6390-001-054	Assembly kit, Power-LOAD - 6390-001- 054 (page 89)	1
G	639000010900	Tag, serial number	1
Н	0025-079-000	Dome head pop rivet	2
J	639001010026	Battery installation assembly	1

6390-509-002 Rev AB.0 135 EN

Power-LOAD assembly without floor plate, MTS - 639000550011

Rev AA (Reference only)

Note - See drawing Power-LOAD assembly (page 86) for assembly view and drawing notes.

Item	Number	Name	Quantity
A	6390-001-011	Anchor assembly (page 90)	1
В	6390-101-012	Transfer assembly (page 97)	1
С	6390-001-013	Trolley assembly (page 103)	1
D	6390-001-054	Assembly kit, Power-LOAD - 6390-001- 054 (page 89)	1
E	639000010903	Tag, serial number	1
F	0025-079-000	Dome head pop rivet	2
G	639001010026	Battery installation assembly	1

EN 136 6390-509-002 Rev AB.0

EMC information

WARNING

- Power-LOAD operates at 13.56 MHz when you use Power-LOAD controls with a powered cot (Power-PRO XT or Power-PRO IT) that could interfere with other equipment that operate at this frequency band.
- Do not use accessories, transducers, and cables, other than those specified, with the exception of transducers and cables that are sold by Stryker as replacement parts for internal components, to avoid potentially increased emissions or decreased immunity of the **Power-LOAD** system.
- Do not use the **Power-LOAD** system and the **Power-PRO** cot adjacent to or stacked with other equipment. If adjacent or stacked use is necessary, observe the **Power-LOAD** system to confirm normal operation in the configuration where it will be used.
- Power-LOAD operates primarily at these frequencies: 70 85 kHz for inductive charging and 13.56 MHz±7 kHz, Amplitude Modulated (OOK), ERP: -82.37 dBm. The inductive charging can operate between these frequencies: 70 -125 kHz. Other equipment may interfere with the Power-LOAD system, even if that other equipment complies with CISPR emission requirements.

CAUTION

- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their expense. In the event of interference, please relocate or reorient the Power-LOAD system or interfering product.
- Always relocate or reorient the Power- LOAD system or interfering product in the event of interference. This device complies with Part 18 of the FCC Rules.
- Do not use portable RF communications equipment (including peripherals such as antenna cables and external antennas) closer than 30 cm (12 in.) to any part of the **Power-LOAD** system, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment may result.
- The emissions characteristics of this equipment make it suitable for use in industrial areas and hospitals (CISPR 11 class A). This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area (for which CISPR 11 class B is normally required) is likely to cause harmful interference, in which case the user will be required to correct the interference at their expense. In the event of interference, please relocate or reorient the **Power-LOAD** system or interfering product.

Guidance and manufacturer's declaration - electromagnetic emissions

Power-LOAD is intended for use in the electromagnetic environment specified below. The customer or the user of **Power-LOAD** should assure that it is used in such an environment.

Emissions test	Compliance	Electromagnetic environment
RF Emissions CISPR 11	Group 1	The Power-LOAD system uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF Emissions CISPR 11	Group 2	The Power-LOAD system must emit electromagnetic energy in order to perform its intended function. Nearby electronic equipment may be affected.
RF Emissions CISPR 11	Class A	The Power-LOAD system is suitable for use in all establishments other than domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.

6390-509-002 Rev AB.0 137 EN

Recommended separations distances between portable and mobile RF communications equipment and Power-LOAD

Power-LOAD is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of **Power-LOAD** can help prevent electromagnetic interferences by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and **Power-LOAD** as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter	Separation distance according to frequency of transmitter		
W	150 kHz to 80 MHz d=(1.2) (√P)	80 MHz to 800 MHz d=(0.35) (√P)	800 MHz to 2.7 GHz d=(0.70) (√P)
0.01	0.12	0.04	0.07
0.1	0.38	0.11	0.22
1	1.20	0.35	0.70
10	3.79	1.11	2.21
100	12	3.5	7

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer. Note 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies. Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

Guidance and manufacturer's declaration - electromagnetic immunity

Power-LOAD is suitable for use in the electromagnetic environment specified below. The customer or the user of **Power-LOAD** should assure that it is used in such an environment.

Immunity test	EN/IEC 60601 test level	Compliance level	Electromagnetic environment-guidance
Electrostatic discharge (ESD) IEC 61000-4-2	<u>+</u> 8 kV contact <u>+</u> 15 kV air	<u>+</u> 8 kV contact <u>+</u> 15 kV air	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Surge IEC 61000-4-5	±1 kV line(s) to line(s) ±2 kV line(s) to ground	±1 kV line(s) to line(s) ±2 kV line(s) to ground	Mains power quality should be that of a typical commercial or hospital environment.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
Electrical transient conduction along supply ISO 7637-2	per ISO 7637-2	per ISO 7637-3	N/A

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Guidance and manufacturer's declaration - electromagnetic immunity				
Conducted RF IEC 61000-4-6 Radiated RF IEC 61000-4-3	3 Vrms 6 Vrms in ISM and amateur radio bands 150 kHz to 80 MHz 10 V/m 80 MHz to 2.7 GHz	3 V 6 Vrms in ISM and amateur radio bands 10 V/m	Portable and mobile RF communications equipment should be used no closer to any part of Power-LOAD , including cables, than the recommended separation distance calculated from the equation appropriate for the frequency of the transmitter. Recommended separation distance D=(1.2) (√P) D=(.35) (√P) 80 MHz to 800 MHz D=(0.70) (√P) 800 MHz to 2.7 GHz where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site a should be less than the compliance level in each frequency range.b Interference may occur in the vicinity of equipment marked with the following symbol:	

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Guidance and manufacturer's declaration - electromagnetic immunity

Note 1: At 80 MHz and 800 MHz, the higher frequency range applies.

Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

Note 3: The ISM (industrial, scientific and medical) bands between 0.15 MHz and 80 MHz are 6.765 MHz to 6.795 MHz; 13.553 MHz to 13.567 MHz; 26.957 MHz to 27.283 MHz; and 40.66 MHz to 40.70 MHz. The amateur radio bands between 0.15 MHz and 80 MHz are 1.8 MHz to 2.0 MHz, 3.5 MHz to 4.0 MHz, 5.3 MHz to 5.4 MHz, 7 MHz to 7.3 MHz, 10.1 MHz to 10.15 MHz, 14 MHz to 14.2 MHz, 18.07 MHz to 18.17 MHz, 21.0 MHz to 21.4 MHz, 24.89 MHz to 24.99 MHz, 28.0 MHz to 29.7 MHz and 50.0 MHz to 54.0 MHz.

Note 4: Evaluated for immunity to proximity fields from RF wireless communication equipment per IEC 60601-1-2: 2014 Table 9.

^a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast, and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which **Power-LOAD** is used exceeds the applicable RF compliance level above, the **Power-LOAD** system should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating **Power-LOAD**.

^b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 20 V/m.

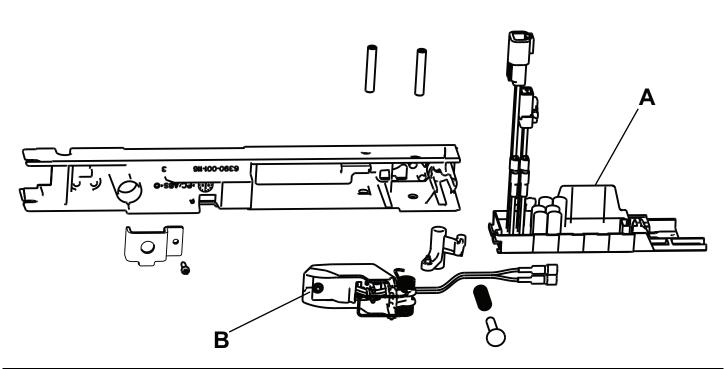
EN 140 6390-509-002 Rev AB.0

Recycling passport

639002010023

Rev AE





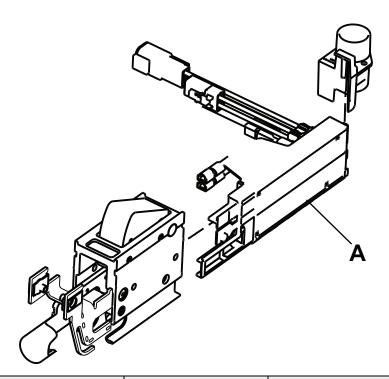
Item	Recyclable part number	Material code	Important information	Quantity
Α	639003010147	Inductive primary board		1
В	6390-001-030	Anchor coil assembly, middle		1

6390-509-002 Rev AB.0 141 EN

639001010024

Rev AE



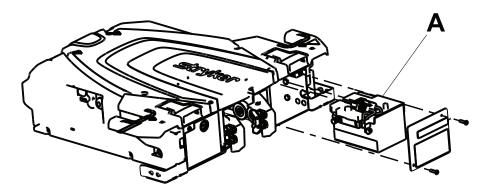


Item	Recyclable part number	Material code	Important information	Quantity
А	639003010147	Inductive primary board		1

EN 142 6390-509-002 Rev AB.0

Rev AA



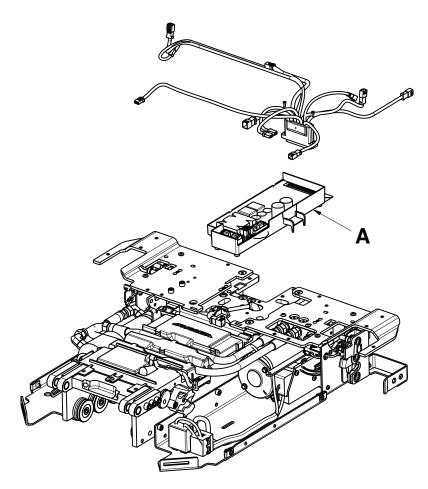


Item	Recyclable part number	Material code	Important information	Quantity
Α	6390-001-026	12V, 5 Ah lead acid battery		1

6390-509-002 Rev AB.0 143 EN

Rev AC



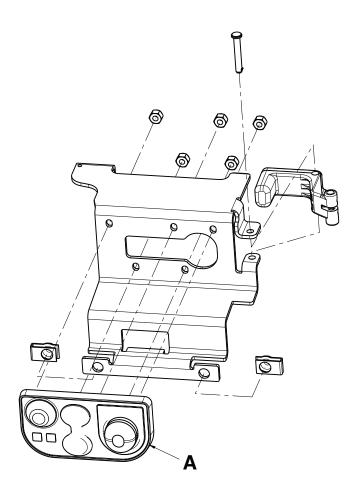


Item	Recyclable part number	Material code	Important information	Quantity
A	639002010014	Control board assembly		1

EN 144 6390-509-002 Rev AB.0

Rev AC



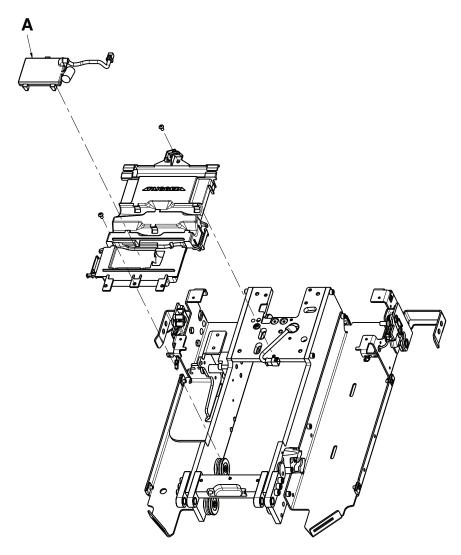


Item	Recyclable part number	Material code	Important information	Quantity
Α	6390-001-450	Master On/Off switch		1

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Rev AC



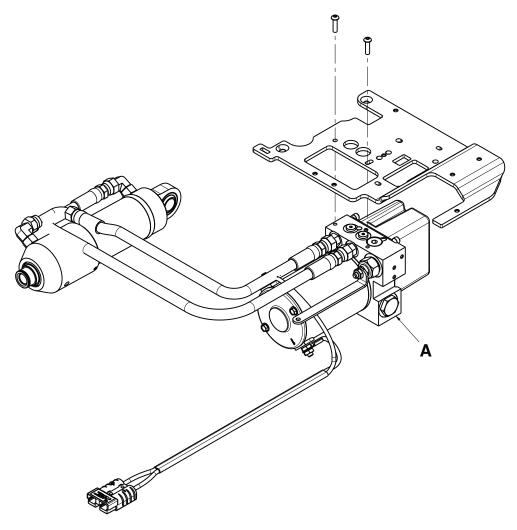


Item	Recyclable part number	Material code	Important information	Quantity
А	6390-001-378	Trolley comm board		1

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Rev A



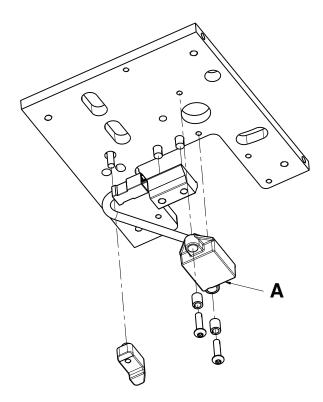


Item	Recyclable part number	Material code	Important information	Quantity
A	6390-001-039	Hydraulics assembly		1

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Rev AA



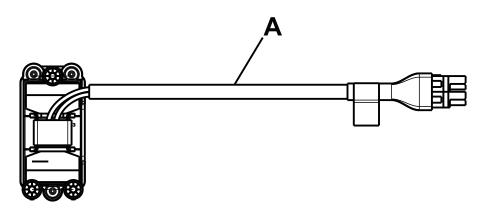


Item	Recyclable part number	Material code	Important information	Quantity
Α	6390-001-361	TPS sensor assembly		1

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Rev AA





Item	Recyclable part number	Material code	Important information	Quantity
Α	6390-001-337	Trolley secondary coil		1

6390-509-002 Rev AB.0 149 EN



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