

Power-LOAD® Cot Fastener System

Maintenance Manual

REF 6390



Table of Contents

Warning/Caution/Note Definition	4
Summary of safety precautions	4
Pinch points	5
Introduction for service	6
Expected service life	6
Contact information	6
Serial number location	6
Preventive maintenance	7
Regular inspection and adjustments	7
Every month	7
Every three months	7
Every twelve months	8
Flat roller and V-guide part replacement schedule	8
Transfer lock bearing part replacement schedule	9
Maintenance record	9
Training record	10
Troubleshooting	11
Transfer/cot does not move out of the transport position	11
Trolley does not roll smoothly	11
Trolley rolls part of the way and stops	12
Trolley makes noise while rolling	12
Trolley LEDs stay off in the loading position	12
Cot release button does not unlock the cot from the trolley	13
Trolley release handles do not release the cot from the trolley	13
Trolley does not lock in the loading position	14
Trolley will not unlock from the transfer position	14
Trolley pump runs for an extended time after cot jog up	14
Cot does not lock into the trolley and LEDs flash amber	14
Cot locks into the trolley at the loading position but LEDs are not on	15
Cot will not jog up when released from the transport position	15
Cot will not jog up high enough when released from the transport position	16
Cot takes a long time to jog up	16
Lifting arms do not lower, but the cot legs extend when you press the extend (+) button	16
Lifting arms lower, but the cot legs do not extend when you press the extend (+) button	17
Lifting arms lower cot too quickly when you press the extend (+) button	17
Lifting arms lower the cot too slowly when you press the extend (+) button	17
Trolley does not lower smoothly when you press the extend (+) button	17
Trolley hydraulic motor is noisy when you press the extend (+) or retract (-) button	18
Lifting arms do not lower cot low enough when you press the extend (+) button	18
Cot drifts down or goes into high speed retract when you press the retract (-) button	18
Cot legs are retracted, but the cot is not lifted by the lifting arms when you press the retract (-) button	18
Cot is lifted by the lifting arms, but the cot legs do not retract when you press the retract (-) button	19
Trolley lifts the cot too slowly when you press the retract (-) button	19
Lifting arms lift the cot too quickly when you press the retract (-) button	19
Trolley does not lift smoothly when you press the retract (-) button	20
Cot does not lift high enough	20
Cot does not jog down once in the transport position	20
Trolley manual release button does not lower the lifting arms	21
Trolley manual release button lowers the lifting arms, but not smoothly	21
Trolley error LED indicates an error (solid amber)	21
Trolley control panel does not move the lifting arms	21
Trolley stops part way while rolling to the transport position	21
Trolley is in the transport position with a cot and the trolley LEDs are not illuminated green	22
Trolley is in the transport position and the cot is not locked in at the foot end	22
Transfer does not lock into the anchor	22

Cot/trolley battery charging issues	23
Checking the battery voltages	23
Checking the incoming power to Power-LOAD	24
Service	28
Transfer removal	28
Trolley removal	28
Cover removal and replacement	30
Manual release button assembly removal and replacement	32
Control board assembly removal and replacement	34
Master on/off switch replacement	34
Trolley actuator assembly replacement	35
Hydraulics assembly removal and replacement	36
Hydraulic cylinder rod end replacement	39
Communication board replacement	40
Inductive coil replacement	41
Trolley position sensor (TPS) replacement	43
Flat roller and V-guide roller replacement	45
Hydraulic cylinder removal and replacement	45
Velocity fuse removal and replacement	47
Non-locking manual valve removal and replacement	48
Hose removal and replacement	49
Pump/motor assembly replacement	50
Motor cable removal and replacement	51
Motor replacement	52
Pressure compensated flow control valve replacement	53
Battery replacement	54
Filling the reservoir	55
Primary coil replacement, foot end	55
Primary coil replacement, head end	58
Transfer lock bearing removal and replacement	60
Power-LOAD assembly	62
Assembly kit, Power-LOAD - 6390-001-054	65
Anchor assembly	66
Anchor pawl assembly, head end	69
Anchor plunger assembly, middle	72
Transfer assembly	73
Fastener assembly, foot end	77
Transfer trolley lock assembly	78
Trolley assembly	79
Trolley main frame	83
Trolley/transfer interface mechanism	96
Wing assembly, left	97
Hydraulics assembly	98
Manifold assembly	99
Trolley manual release assembly	101
Trolley arm assembly	103
Arm, left	104
Arm, right	105
Trolley actuator assembly - 6390-001-028	106
Floor plate, install components	107
Wheel guide, option	108
Wheel guide assembly, option - 6390-001-017	109

Transfer lock pin assembly 110

Power-LOAD assembly, MTS - 639000550010 111

Power-LOAD assembly without floor plate, MTS - 639000550011 112

EMC information 113

Recycling passport 117

 639002010023 117

639001010024 118

6390-001-013 119

6390-001-015 120

6390-001-015 121

6390-001-015 122

6390-001-035 123

6390-001-043 124

6390-001-066 125

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. 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.

- 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

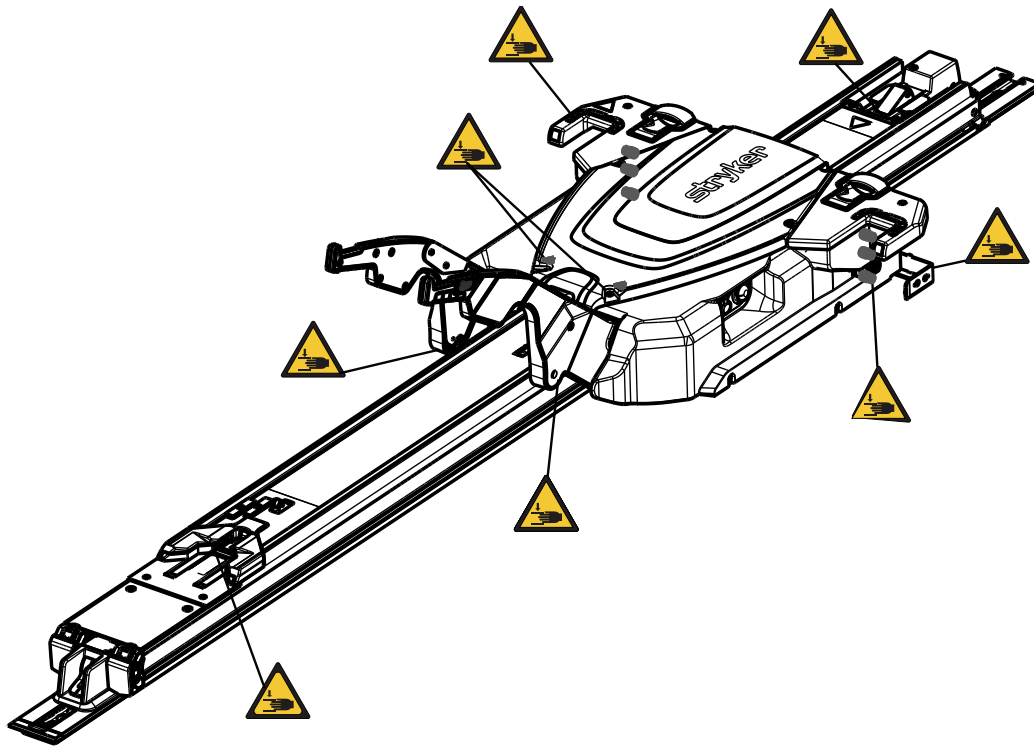


Figure 1 – Pinch points

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.

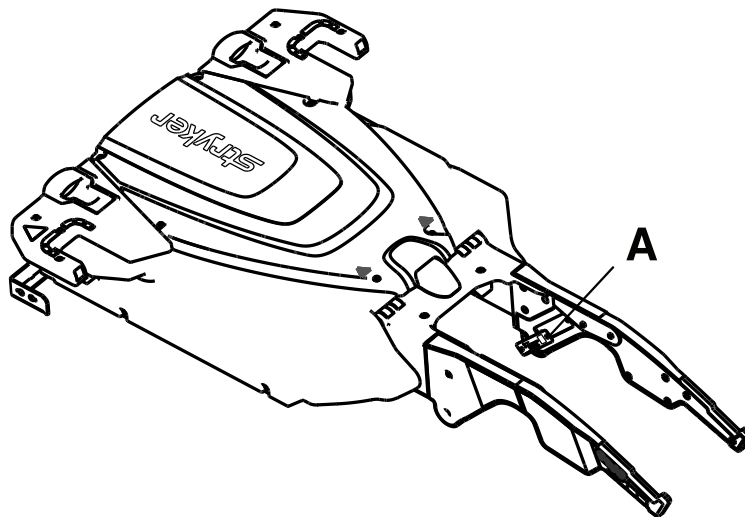
Stryker Medical
3800 E. Centre Avenue
Portage, MI 49002
USA

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



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

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

Every three months

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

Every twelve months

Check	Routine
Battery	Replace if lifting is sluggish
All parts	<p>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</p> <p>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.</p>
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 <i>Installation checklist</i> in the Operations Manual
Hydraulic	Check for hydraulic leaks
Transfer lock bearing	<p>Replace once per year</p> <p>Note - During bearing replacement, make sure that the surrounding area is clean (anchor) and apply molybdenum disulfide grease to the transfer lock pin.</p>
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.

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	By	Hours

Training record

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

Troubleshooting

Transfer/cot does not move out of the transport position

Transfer/cot does not move out of the transport position when you press the release lever at the foot end of the anchor.

If the lifting arms are over the base tube (powered mode):

1. With the help of another person, simultaneously press the transfer release lever at the foot end of the anchor and the trolley release button at the head end of the anchor.
2. If the cot is free, then inspect the head end anchor mechanism.
3. If the cot still will not move, then repeat step 1 while simultaneously pulling on the patient right transfer lock trigger at the foot end of the transfer.

Note - This should allow you to pull cot out while the cot is still locked into the trolley and transfer.

4. With the cot pulled out, look at the underside of the transfer. About 15 in. from the foot end, you will see the metal hook with a semi-circle cutout at its head end.
 - a. Push up on the semi-circle and the cot should be free to move.
 - b. With assistance from another person, pull the cot out.
5. With the cot free, check the foot end anchor mechanism.
 - a. Remove the transfer to inspect the foot end anchor pin.
 - b. Remove the anchor mechanism from the foot end anchor.

If the lifting arms are under the base tube:

1. With the help of another person, press the transfer release lever and lift one of the cot release handles on the trolley at the same time.
2. If the cot is free, remove the cot and determine whether the black pin will extend up from the anchor head end cover.

Note - The trolley must be in the mid position and the release lever pressed to elevate the pin.

- a. If the pin extends out without signs of damage, check the casting in the trolley release handle mechanism (6390-001-328) or the plastic lever in the trolley middle mechanism.
- b. If the pin does not extend out, check the head end anchor mechanism for damage.

If the cot still will not move:

1. Insert a screwdriver into each notch at the head end of the trolley side covers to release the cot head section latches.
2. After the latches are unlocked, use the release lever at the foot end to release the cot.
3. After the cot is removed, inspect the release handle mechanism in the trolley.

Trolley does not roll smoothly

If rolling is difficult while the trolley is rolling on the transfer:

1. Check the rods in the channels on the outside of the transfer extrusion for debris or foreign material and remove, if necessary.
2. If rolling is still difficult, check to see if the transfer extrusion is worn around the channels. If so, replace the V-guide rollers on the trolley.

If rolling is difficult while the transfer is rolling on the anchor:

1. Check the metal dead stops (639000010246) at the head end of the transfer to make sure that they are fully seated and that they are not rubbing on the anchor extrusion.
2. Check the rods in the channels on the inside of the transfer extrusion. Remove any debris or foreign material.

3. If rolling is still difficult, check to see if the transfer extrusion is worn around the channels. If so, replace the V-guide rollers on the anchor.

Trolley rolls part of the way and stops

1. Check the transfer lock bearing in the anchor.
 - a. Clean the transfer lock pin.
 - b. Replace the bearing.
 - c. 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.

Trolley makes noise while rolling

If the noise occurs when the trolley rolls on the transfer and the trolley gets to the foot end of the transfer before the transfer moves:

1. If no, the transfer lock pin in the anchor, or its return spring, may be the problem. The pin should return to the full up position after pressed.
 - a. Check the transfer lock pin.
 - b. Clean or replace the return spring or bearing as needed.
2. If yes:
 - a. Remove any debris or foreign objects from the transfer and vehicle floor.
 - b. Inspect the transfer extrusion for wear. Replace if needed.
 - c. Remove the trolley from the transfer.
 - d. Remove or clear any debris from the trolley rollers.
3. If this does not solve the problem, or if the transfer extrusions are worn around the rods, replace the V-guide rollers (6390-001-025) on the trolley.

If the noise occurs when the transfer is rolling on the anchor:

1. If the noise is a high-pitched squeak, check the detent roller. If the noise is a grinding sound, check the transfer lock pin.

Trolley LEDs stay off in the loading position

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

1. Confirm that the trolley is powered on and the battery is charged.
2. Make sure that the magnet activator (6390-001-106) is present and fastened at the foot end of the anchor.
3. With the lifting arms down, push on the trolley. Make sure that the system does not roll away from the loading position and is locked in this position.
4. Remove the transfer. Make sure that the magnet mover trigger (6390-001-205) is intact and undamaged.
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 left side.
 - a. Check that the magnet nested into that link is present and intact.
 - b. Check that the return spring on the link is in good condition.
7. Remove the trolley covers. Check the connection of the trolley position sensor (TPS) cable (6390-001-361). If necessary, replace the trolley position sensor (TPS) (6390-001-361).

8. Check the connection of the trolley main cable (6390-001-391) to the control board assembly (6390-101-014). If necessary, replace the control board assembly (6390-101-014).
9. Check the connection of the trolley LED cables (6390-001-396). If necessary, replace each of the trolley LEDs (6390-001-396).
10. Replace the trolley main cable (6390-001-391).

Cot release button does not unlock the cot from the trolley

1. Confirm that both the cot and the trolley have power, that there are no errors, and that both are operational independently.
2. Make sure that the cot release handles on the trolley are able to release the cot from Power-LOAD.
3. Confirm that communication exists between the cot and **Power-LOAD** by lifting the cot using the cot controls.
4. Press the release button on the second switch. If this works, the issue is with the first switch or there is a bad connection in the cot.
5. In a quiet area, press the release button and 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 asleep.
6. If there is a sound, a broken part in the actuator assembly or an improperly installed actuator assembly (6390-001-478) may be the problem.
7. If there is no sound, remove the trolley top and the patient left side covers.
 - a. Confirm that the connection of the actuator (6390-001-478) to the circuit board is good and the contacts appear to be in good condition.
 - b. Confirm that the connection of the trolley main cable (6390-001-391) to the control board assembly (6390-101-014) is good, the connector screws are tight, and the contacts appear to be in good condition.
 - c. Test **Power-LOAD** with a new actuator (6390-001-478).
 - d. Test **Power-LOAD** with a control board assembly (6390-101-014).

Trolley release handles do not release the cot from the trolley

1. Confirm that the system is in the loading position with the cot wheels on the ground and the head section locked into the trolley.
2. Confirm that the lifting arms are in the full down position.
3. Are the release handles on the trolley free to rotate (they should rotate about 20 degrees)?
4. If yes:
 - a. Inspect the release handle mechanism. Pay particular attention to the activation cams (6390-001-329).
 - b. Inspect the trolley latches (6390-001-318 and 6390-001-319).
5. If no:
 - a. Remove the trolley covers.
 - b. In the mechanism in the center of the trolley at the head end, check the trolley arm (6390-001-334) or its return spring. Check to see if the spring is broken or jammed by debris.
 - c. Make sure that the trolley arm mechanism (6390-001-045) in the trolley is not jammed.
 - d. Make sure that the trolley latches (6390-001-318 and 6390-001-319) are not stuck or broken.

Trolley does not lock in the loading position

If the trolley is unlocking from the transfer:

1. Remove the cot.
2. Move the trolley to the middle of the transfer.
3. On the extended transfer (located just to the head end of the foot end fastener), the transfer trolley pawl (6390-001-073) should be sticking out of the transfer about 1/2". If the pawl is not sticking up or does not return when pressed, check its return spring. Make sure that there is no debris in the return spring.
4. Make sure that the pin of the roller in the pawl is not sticking out on either side.
5. Remove the transfer head end dead stops.
6. Remove the transfer from the anchor.
7. Clear any debris or foreign material from the top of the anchor and the channels in the transfer.

Note - Foreign objects that prevent the trolley from reaching the full out position may result in improper operation.

8. Inspect the trolley stop ramp (6390-001-325) on the underside of the trolley middle mechanism. Make sure that the trolley stop ramp is present and secure.

If the transfer is unlocking from the anchor:

1. Remove the cot.
2. Move the trolley to the middle of the transfer.
3. Check for debris around the transfer lock trigger (6390-001-231).
4. Push the transfer all the way to the transport position.
5. Pull to make sure that the transfer is locked.
6. If the transfer is not locked, the transfer lock pin in the anchor may be stuck or broken.
7. Check the return spring and look for burrs or debris.

Trolley will not unlock from the transfer position

1. Remove the cot.
2. Using the head end transfer lock override slide (6390-001-261), move the transfer in and put the trolley in the mid position.

Trolley pump runs for an extended time after cot jog up

1. Check the angle position sensor (APS) (6390-001-397) calibration set point. Contact Stryker Technical Support.
2. Remove the patient right side cover. Make sure that the hydraulic cylinder is not "over-stroking."

Note - A ~1/8" back settle in the rod of the hydraulic cylinder at full extension is a sign of the over-stroke condition

3. Check for damage of components in the chain of load bearing parts from the lifting arms to the patient right side plate (6390-001-344).

Cot does not lock into the trolley and LEDs flash amber

1. Remove the cot from **Power-LOAD**.
2. Make sure that the cot is a **Power-LOAD** compatible cot and that the load wheel horns and pins (6500-002-104) are present, tightened, and in good condition.
3. Make sure that the handle release mechanism (6390-001-046) moves freely and the release handles return to the full down position. Make sure that there is no debris under the release handles.

4. Remove the trolley covers. Check the connection of the trolley latch switch cables (6390-001-318 and 6390-001-319).
5. Check the connection of the trolley main cable (6390-001-391) to the control board assembly (6390-101-014). If necessary, replace the trolley main cable (6390-001-391) and the control board assembly (6390-101-014).
6. Remove and inspect the actuator assembly (6390-001-028) from the trolley.
7. Check the return springs connecting the release cams (6390-001-329) to the trolley bottom pans.
8. Examine the trolley latches (6390-001-318 and 6390-001-319). Make sure that the electronic switch is compressed when the latch is locked. Make sure that no cables obstruct the pin on the top of the latch and that there is not a broken spring internal to the latch.
9. Replace each latch, if necessary.

Cot locks into the trolley at the loading position but LEDs are not on

1. Confirm that the trolley is on and the battery is charged.
2. Make sure that the magnet activator (6390-001-106) is present and fastened at the foot end of the anchor.
3. With the lifting arms down, push on the trolley. Make sure that the system does not roll away from the loading position.
4. Remove the transfer. Make sure 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.
7. Pull out the link in the channel on the patient right side.
8. Make sure that the magnet nested into that link is present and intact.
9. Make sure that the return spring on the link is in good condition.
10. Remove the trolley covers.
11. Check the connection of the trolley position sensor (TPS) cable (6390-001-361). If necessary, replace the trolley position sensor (TPS) (6390-001-361).
12. Check the connection of the trolley main cable to the control board assembly (6390-101-014). If necessary, replace the trolley main cable (6390-001-391) and the control board assembly (6390-101-014).
13. Check the connection of the trolley LED cables (6390-001-396). If necessary, replace one of the trolley LEDs (6390-001-396).

Cot will not jog up when released from the transport position

Check the trolley control panel LEDs. They should be solid green without any solid amber error indication.

If there are no trolley control panel LEDs illuminated:

1. Press the main power button to turn the product on. You may need to turn the product on and then off to make sure that **Power-LOAD** is not in sleep mode.

If the trolley control panel LEDs are illuminated:

1. Flashing amber means that the battery is low. Return the trolley to the transport position.
2. Make sure that the product begins to charge as indicated by a flashing green battery LED.

Note - The low battery indication (flashing amber) may continue as the battery recharges.

3. Solid green battery LED and solid amber LED mean that there is a system error. Call Stryker Technical Support for advanced troubleshooting. The following may be attempted:

Note - If you hear the motor run as you pull the product from the transport toward the loading position, the hydraulic unit may be the problem.

- a. Replace the hydraulics assembly (6390-001-039).
- b. Replace the motor cable (6390-001-431).

- c. Replace the angle position sensor (APS) (6390-001-397).
- d. Replace the trolley position sensor (TPS) (6390-001-361).
- e. Replace the control board assembly (6390-101-014).

Cot will not jog up high enough when released from the transport position

1. Check the angle position sensor (APS) (6390-001-397) calibration set point. Contact Stryker Technical Support.
2. Remove the patient right side cover and make sure that the hydraulic cylinder is not “over-stroking.”

Note - An approximate 1/8" back settle in the rod of the hydraulic cylinder at full extension is a sign of the over-stroking condition

3. Check for damage of components in the chain of load bearing parts from the lifting arms to the patient right side plate (6390-001-344).

Cot takes a long time to jog up

1. Check 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).

Lifting arms do not lower, but the cot legs extend when you press the extend (+) button

1. Make sure that the trolley is powered on.
2. Make sure that the head end LED indicators are green to confirm that **Power-LOAD** recognizes the loading position.

If the head end LED indicators are not on:

1. Check the trolley control panel LEDs to make sure that the product is on.

Note - The LEDs should appear as a solid green battery symbol with no illumination of error indication.

2. If the trolley control panel LED illuminates solid green only, then the trolley control panel may not see what position the trolley is in.
 - a. Make sure that the magnet activator (6390-001-106) is present.
 - b. Make sure that the magnet activator (6390-001-106) is fastened and secure at the foot end of the anchor.

If the head end LED indicators are on:

Make sure that the trolley motor is running when you press the cot switch.

1. If the trolley motor is audible, then the problem is with the low pressure relief valve in the trolley hydraulics assembly.
 - a. Extend the cot legs.
 - b. Use the trolley manual release to drop the lifting arms until they no longer support the cot.
 - c. Press the down button on the trolley side panel to finish lowering the arms.
 - d. If the arm moves, replace the hydraulics assembly (6390-001-039).
2. If the trolley motor is not audible:
 - a. Check the motor and voltage to the motor. If voltage is present, replace the motor (6390-101-132).

- b. Check the motor and voltage to the motor. If voltage is not present, replace the motor cable (6390-101-431) or the control board assembly (6390-101-014).
 - c. Run the lifting arms down using the trolley control panel. If the product lowers, communication may be the problem. Check both sides of the communication link. Replace the communication boards (6390-001-378 or 6500-002-100) as necessary.
3. If the trolley control panel LED error indication is illuminated, contact Stryker Technical Support for advanced troubleshooting.

Lifting arms lower, but the cot legs do not extend when you press the extend (+) button

1. Make sure that the cot battery has sufficient power to drive the cot (no amber battery indicator).
2. Check to see if the cot pump motor is audible.
 - a. If yes, the problem is with the cot hydraulic unit.
 - b. If no, check for error codes on the cot LCD.
 - c. Check all cable connections at the control board and hydraulic unit.
 - d. Replace the cot control board (6390-101-014).
 - e. Replace the cot hydraulics assembly (6500-001-030).
 - f. Replace the cot main cable (6500-002-159).

Lifting arms lower cot too quickly when you press the extend (+) button

1. Check for proper operation of the support sensor (6390-001-452). Make sure that both switches have continuity when you apply weight < 100 lb to the lifting arms.
 - a. If there is no continuity, replace the rod end assembly (6390-001-040).
2. Check for loose cable connections from the support sensors (6390-001-452) to the control board (6390-101-014).

Lifting arms lower the cot too slowly when you press the extend (+) button

1. Check the trolley control panel LEDs for low battery indication.
2. Check for false closure of the velocity fuse.
3. Raise the cot using the trolley control panel. Determine if the cot lowers at the correct rate.
 - a. If the cot does not raise, check for loose or bad trolley pump motor connection.
4. Lower the cot using the trolley control panel.
 - a. If yes, replace the hydraulic velocity fuse (6390-001-381).
 - b. If no, replace the motor (6390-101-132).

Trolley does not lower smoothly when you press the extend (+) button

1. Make sure that the trolley hydraulics have sufficient oil in the reservoir when lifting arms are all the way down. Look for any leaks and repair, if necessary.

Note - The oil level should be just below the fill port.
2. Close the docked/locked latch and use the trolley control panel to cycle the lifting arms up and down a few times without a cot.

3. Check for proper operation of the support sensor (6390-001-452). Make sure that both switches have continuity when you apply weight < 100 lb to the lifting arms.
 - a. If no continuity, replace the rod end assembly (6390-001-040).
4. Check for loose cable connections from the support sensors (6390-001-452) to the control board (6390-101-014).

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

1. Make sure that the trolley hydraulics have sufficient oil in the reservoir when the lifting arms are all the way down. Look for any leaks and repair, if necessary.
Note - The oil level should be just below the fill port.
2. Close the docked/locked latch and use the trolley control panel to cycle the lifting arms up and down a few times without a cot.
3. Cycle the product up and down three to five times, especially if this problem occurs happens right after a repair.
4. Replace the motor (6390-101-132) on the hydraulic unit.
5. Replace the hydraulics assembly (6390-001-039).

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

Check the trolley control panel for errors.

If an error occurs when the lifting arms are loaded:

1. The safety limit for loaded operation of the arms has been reached. This can happen at high load heights (> 34 in.) with heavy loads (> 400 lb).
 - a. Check the support sensor (6390-001-452) or angle position sensor (APS) (6390-001-397) for damage.

If an error occurs when the lifting arms are unloaded or become unloaded:

1. Make sure that the arms are not being held up on or by the cot legs.
2. Check for a broken angle position sensor (APS) (6390-001-397) or angle position sensor (APS) attachment hardware.
3. Check for loose cable connections from the angle position sensor (APS) to the control board.
4. Replace the control board (6390-101-014).

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

1. Make sure that the trolley is on and functions without errors.
2. Make sure that the cot and trolley communication modules are connected, undamaged, and operate.
 - a. Try the cot with a known, good **Power-LOAD**.
 - b. Try the trolley with a known, good cot.
3. Check all cable connections associated with communication leading back to the control board.
4. Replace the communication board (6390-001-378 or 6500-002-100).
5. Replace the control board assembly (6390-101-014 or 6500-002-014).

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

1. Make sure that the trolley is on and functions without errors.

2. Make sure that the cot and trolley communication modules are connected, undamaged, and operate.
 - a. Try the cot with a known, good **Power-LOAD**.
 - b. Try the trolley with a known, good cot.
3. Check all cable connections associated with communication leading back to the control board.
4. Replace the communication board (6390-001-378 or 6500-002-100).
5. Replace the control board assembly (6390-101-014 or 6500-002-014).

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

1. Check the support sensor (6390-001-397) on the trolley.
2. Check the cable and connections to the control board.
3. Check for an error on the trolley control panel. If there is an error, contact Stryker Technical Support.
4. Check the cot by itself for proper functionality.
5. Make sure that the cot indicates a good battery and no errors are present on the cot LCD. If you have an error, replace the battery.
6. Press the retract (-) button on the cot.
 - a. If you hear the cot pump motor run, the issue is a stuck rod-side manual valve (patient left manual valve) on the cot.
7. Remove the pressure switch connection from the cot main cable (at the end closest to the hydraulics) to check for a faulty pressure switch.
 - a. Jumper the cable to simulate a closed switch and press the retract (-) button.
 - b. If you do not hear the motor, the cable connections or pump motor may be the problem.
 - c. Fix the connection or replace the pump motor.
8. Check the cot control board (6390-101-014) and replace, if necessary.

Trolley lifts the cot too slowly when you press the retract (-) button

1. Make sure that the trolley battery voltage is > 12.2V DC.
 - a. If the battery is charged and the voltage is < 10.0V DC when you press the retract (-) button, replace the trolley battery.
2. Check for an error on the trolley control panel LEDs while you move the lifting arms with the trolley control panel.
 - a. If an error is active only when you use the lifting arms, replace the support sensor (6390-001-452).
3. Replace the hydraulics assembly (6390-001-039).
4. Replace the control board assembly (6390-101-014).

Lifting arms lift the cot too quickly when you press the retract (-) button

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

Trolley does not lift smoothly when you press the retract (-) button

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

Cot does not lift high enough

1. Check the angle position sensor (APS) (6390-001-397) calibration set point. Contact Stryker Technical Support.
2. Remove the patient right side cover and make sure that the hydraulic cylinder is not “over-stroking.”
Note - A ~1/8" back settle in the rod of the hydraulic cylinder at full extension is a sign of the over-stroke condition
3. Check for damage of components in the chain of load bearing parts from the lifting arms to the patient right side plate (6390-001-344).

Cot does not jog down once in the transport position

Check the trolley control panel LEDs.

Note - The LEDs should be solid green without any solid amber error indication.

1. If no trolley control panel LEDs are illuminated, press the main power button to turn the product on.
Note - You may need to turn the product on and then off to make sure that the **Power-LOAD** is not in sleep mode.
2. If trolley control panel LEDs are illuminated:
 - a. Flashing amber means the battery is low.
 - b. Return the trolley to the transport position.
 - c. Make sure that the product begins to charge as indicated by a flashing green battery LED.
Note - Low battery indication (flashing amber) may continue while the battery recharges.
 - d. Solid green battery LED and solid amber LED mean system error. Contact Stryker Technical Support for advanced troubleshooting.
3. Check the following items:
 - a. Hydraulics assembly (6390-001-039)
 - b. Motor cable (6390-101-431)
 - c. Angle position sensor (APS) (6390-001-037)
 - d. Control board assembly (6390-101-014)
4. Pull the trolley from the transport position. If you hear the motor running as you pull the product from the transport position toward the loading position, the problem is with the hydraulic unit.
5. Check the magnet in the anchor pawl at the head end that initiates jog down. Make sure that the pawl is securely connecting with the catch on the trolley when the trolley is in the transport position and that the trolley is not stuck.

Note - This can be done by visual inspection, but a good indicator of a secure connection is that the release lever at the foot end of the anchor is fully up and not pushed part way in.

Trolley manual release button does not lower the lifting arms

1. Remove the patient right side cover. Make sure that the linkages of the manual release that attaches to the side controls are connected and actuating the manual release valve on the hydraulic pump.
 - a. If the manual release valve is actuating, then the problem is a faulty velocity fuse. The velocity fuse (6390-001-381) is located in the cap end cylinder port under the elbow fitting. Remove and replace the velocity fuse.
 - b. If replacing the velocity fuse does not solve the problem, replace the pressure compensated flow control (6390-001-151).
 - c. Replace the hydraulics assembly (6390-001-039).

Trolley manual release button lowers the lifting arms, but not smoothly

1. Remove and replace the velocity fuse (6390-001-381).

Note - The velocity fuse is 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).

Trolley error LED indicates an error (solid amber)

Contact Stryker Technical Support.

Trolley control panel does not move the lifting arms

1. Make sure that the power is on (solid green LED on the trolley control panel).
2. Make sure that the trolley is in the loading position and the latches are engaged.

Note - The trolley control panel will only work if the trolley is in the loading position and the latches are connected. When the lifting arms are supporting weight, they only lower to a certain angle. These are safety features.
3. Check the head end indicators (solid green LED) to make sure that the product is in the loading position and that both latches are engaged.
 - a. If there is no head end indicator LED activity, then the product is not in the loading position.
 - b. If the head end indicator LEDs are flashing amber, one or both of the latches are not closed. Check the status of the latches.
 - c. If the problem persists, check the switches and connectivity back to the control board.
4. Check connectivity from the trolley control panel back to the control board.
5. Replace the trolley control panel board (6390-001-450).

Trolley stops part way while rolling to the transport position

1. Remove the transfer from the anchor.
 - a. Check for and remove any debris from the anchor and the channels on the inside of the transfer.
 - b. Examine the trolley to transfer lock release ramp (6390-001-144). Make sure that the transfer lock release ramp is intact, tightly fastened, and not excessively worn.

Note - The transfer lock release ramp is located about 24 in. from the foot end of the anchor.

- c. Examine the trolley to transfer lock pawl assembly (6390-001-144). Make sure that the pawl rotates freely and, when pressed, rotates fully below the surface of the transfer.
- d. Examine the V-guide rollers and the flat rollers on the trolley and anchor. Replace any rollers that do not roll smoothly or are excessively worn.

Trolley is in the transport position with a cot and the trolley LEDs are not illuminated green

1. Pull the trolley out of transport position.
2. Inspect the trolley head end pawl. The trolley head end pawl should return firmly when pressed down. If not, check the following:
 - a. Make sure that the pawl is free of debris or foreign objects that may stop the pawl from returning.
 - b. Make sure that the head end anchor release button is free of debris that may prevent motion.
 - c. Check the return springs on the pawl (0038-885-000).
3. Check the trolley stop ramp (6390-001-325) on the underside of the trolley middle mechanism.
4. Remove the transfer from the anchor. Make sure that the channels where the trolley and anchor rollers travel are free of debris or foreign objects that could limit the range of motion.

Trolley is in the transport position and the cot is not locked in at the foot end

Make sure that the cot foot end casters are on the vehicle floor.

1. If yes, pull the cot manual release and push down on the foot end of the cot.
 - a. If the cot still does not drop into the lock, pull the cot all the way out and push the cot retract (-) button to full retract the cot base.
 - b. Load the cot again without using the manual release lever.
 - c. If the cot is still held up by the foot end casters, then the problem is in the cot hydraulic system.
2. If no, did **Power-LOAD** run the motor to jog the cot down when the cot reached the transport position at the head end?
 - a. If no, see *Cot does not jog down once in the transport position* (page 20).
 - b. If yes, make sure that the cot foot end guide (6500-002-111) is aligned with the transfer foot end guide (6390-001-220).
 - c. To confirm alignment, firmly move the cot foot end back and forth and the cot should drop in place.
 - d. Remove the cot and look for debris in the transfer guide that may prevent the cot from locking.

Transfer does not lock into the anchor

Push the transfer in by hand to make sure that the transfer is against the bumper stops.

1. If yes, then the transfer lock bearing in the anchor may be the problem.
 - a. Clean the transfer lock pin.
 - b. Replace the bearing.
 - c. Apply molybdenum disulfide lubricant (6390-001-263) to the inside of the new bearing.
 - d. Inspect the transfer lock override slides (6390-001-261) for excessive wear.
2. If no, remove the transfer head end dead stops.
 - a. Remove the transfer from the anchor.

- b. Clear any debris from the top of the anchor and the channels in the transfer.

Note - Foreign objects that prevent the trolley from reaching the full out position may result in improper operation.

Cot/trolley battery charging issues

Low voltage to **Power-LOAD** can result in misleading errors logged on the cot and trolley. Proceed with repairs after you verify sufficient power in the battery and incoming to **Power-LOAD**.

Tools required:

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

Checking the battery voltages

Make sure that the cot and trolley batteries can be charged. 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. Check the voltage across the positive and negative terminals.
 - a. Confirm the cot battery voltage is $> 12.5V$ (Figure 2).
 - b. Confirm the trolley battery voltage is $> 8V$.



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 24).

Note - Low battery voltage may be due to other charging-related issues. Complete all troubleshooting and identify the root cause of the problem to avoid repeated battery failure.

Checking the incoming power to Power-LOAD

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

Tools required:

- Needle nose pliers
- Multimeter

Complete the following 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 for at least three minutes.

Note

- The trolley and cot battery LEDs flash green when 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. Use the two status LED indicators on the inductive primary board (639003010147) to determine incoming voltage to the anchor.
 - a. Pull the trolley and transfer out of the vehicle patient compartment.
 - b. Place the trolley in 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).



Figure 3 – Window plug location

- d. See the table below to determine incoming voltage and charging state.

Voltage	LED state	Charging state	Description
$\geq 12.7V$	Green: on Red: off	Charging	Required anchor voltage to charge the batteries (cot and trolley)
$< 12.7V$ and $\geq 12.2V$	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 $\geq 11.7V$	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 $\geq 11.0V$	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
Not applicable	Green: off Red: frequent, long flash or frequent, short flash	Not charging	Both LED states have to do with primary coil over current errors.
<p>Common causes of insufficient voltage include:</p> <ul style="list-style-type: none"> • Preferred method was not used during wiring installation (see the Floor Plate Installation Instructions) • Circuit fuse/resettable breaker was blown or tripped • Poor or partial connections between the product and vehicle • Poor or partial connections between the vehicle-to-anchor cable and anchor • Nicked or cut wiring • Corrosion 			

4. If you still cannot identify the cause of the charging issue, it may help to monitor the anchor voltage while the batteries are charging. Complete the steps below.

- a. Look between the transfer and anchor at the head end to view the inductive primary board status LEDs. If visible, perform steps 4c, 4d, and 4n only.

Note

- See the table in step 3d to determine incoming voltage and charging state while the batteries are in a charging state.

- Perform step 4f to make it easier to see the status LEDs.
- b. Disconnect the main connection to remove power from **Power-LOAD**.
- c. Raise and lower the trolley arms (at least ten times) to drain the trolley battery.
- d. Raise and lower the cot (at least ten times) to drain the cot battery.

Note

- Only drain fully charged batteries (trolley battery > 12.8V; cot battery > 27.7V).
 - Drained batteries will accept maximum current while charging. This will help reveal any wiring-related issues during troubleshooting.
- e. Press the main power button to turn off **Power-LOAD**.
 - f. Remove the patient left dead stop. Extend the transfer to expose the anchor inductive primary cover.
 - g. Modify a separate cot charging cable (639000010139) and place in line with the main connection.

Note - Reverse the wires on the female connector end to continue.

To reverse the wires:

- i. Using needle nose pliers, remove the wedgelock (Figure 4).
- ii. Depress the connector latches to back the pins out of the connector (Figure 5).
- iii. Reverse the pins and reinsert them into the connector. Make sure that the pins are pushed in all the way.
- iv. Reinsert the wedgelock.

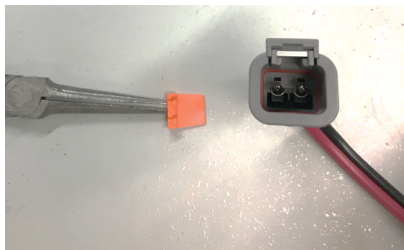


Figure 4 – Remove the wedgelock



Figure 5 – Depress the connector latches

- h. Expose the copper wire in the middle of the length of the cable.
- i. Wrap the exposed copper with electrical tape so shorting does not occur.
- j. Connect the anchor-to-vehicle cable (modified in step g) to the connector on the anchor assembly (Figure 6). Match red cables to the red cables and black cables to the black cables.
- k. Push the connectors back into the anchor. Run the wire alongside the anchor (Figure 7).

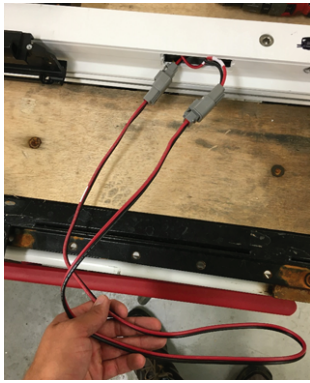


Figure 6 – Match the red and black wires



Figure 7 – Run the wire alongside the anchor

- l. Guide the transfer back to the transport position. Do not pinch the wire between the anchor and transfer.
- m. Restore vehicle power and turn **Power-LOAD** on.
- n. Make sure that the trolley and cot batteries begin to charge.
- o. Using a multimeter, check the anchor-to-vehicle cable voltage (Figure 8). See the table in step 3 to determine any charging-related issues.



Figure 8 – Check the copper wire voltage

- 5. Repeat steps 1-4 for each use case to make sure that you resolved the problem.

Service

Transfer removal

Tools required:

- T25 Torx driver
- 5/32" hex wrench

Procedure:

1. Remove the trolley. See *Trolley removal* (page 28).
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 9). Save the screws.
4. Using a 5/32" hex wrench, remove the screw (C) that secures the trolley magnet activator (D) to the anchor extrusion (Figure 9). 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 (Figure 9).

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.

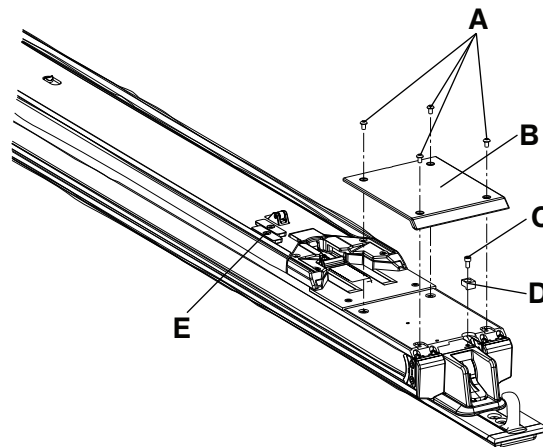


Figure 9 – Foot end transfer components

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 10).
2. Press the trolley release button at the head end of the anchor (B) (Figure 10).
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 (Figure 10).

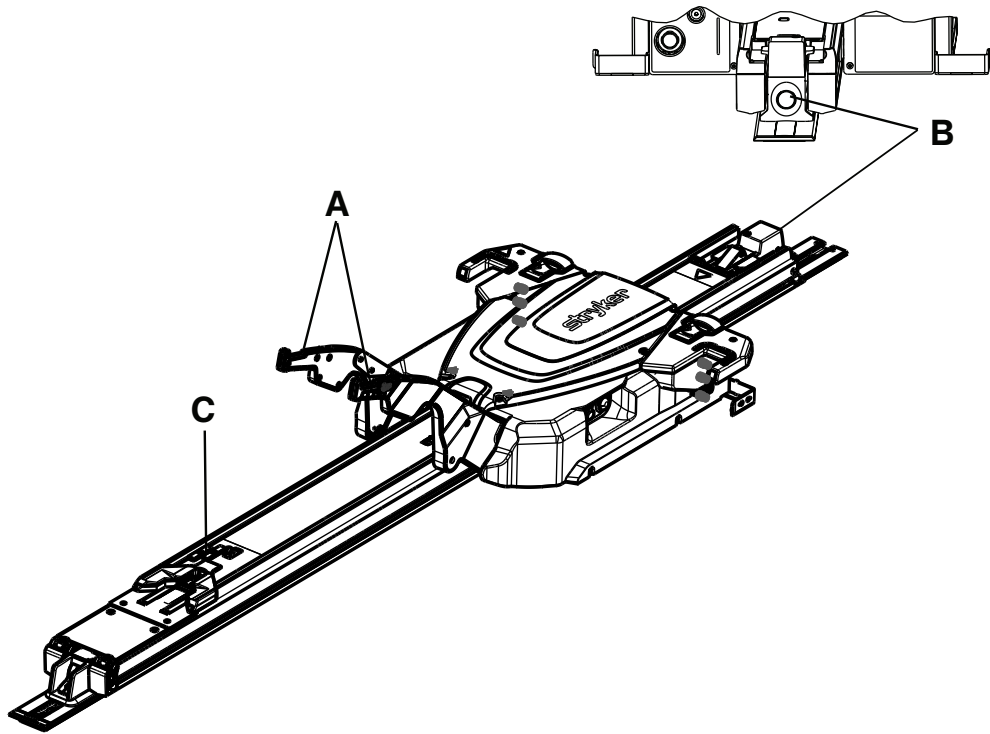


Figure 10 – Trolley mid transfer position

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 11). 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.

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 (Figure 11).

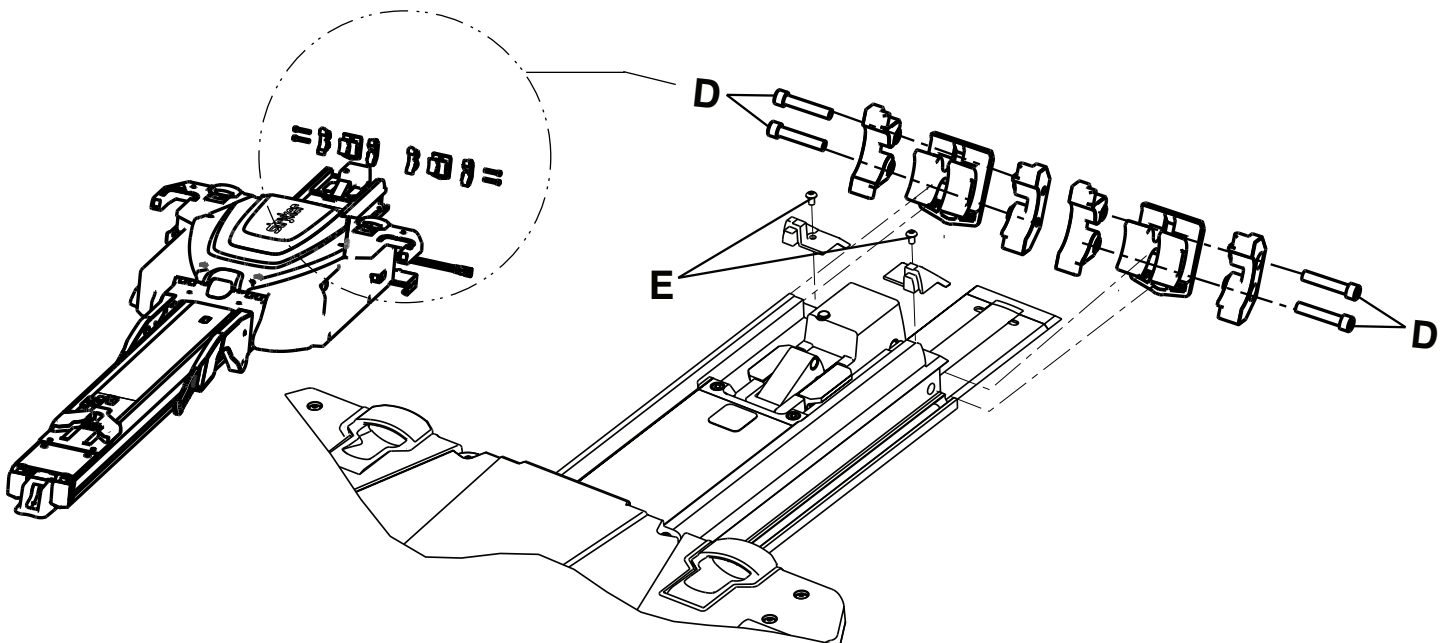


Figure 11 – Trolley screws

8. Push on the screws (loosened in step 7) to loosen the dead stops from the transfer.

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 12).
 - d. Installer 2, position hands at B1 and B2 (Figure 12).
 - 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.

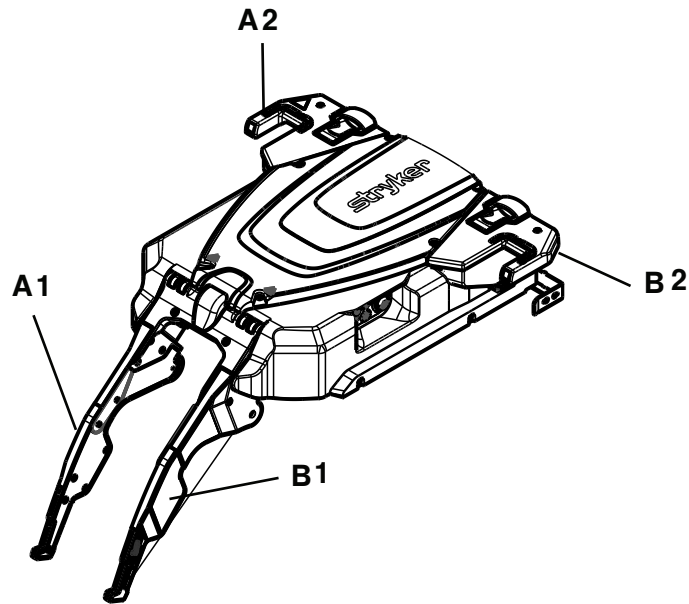


Figure 12 – Trolley hand positions

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

Cover removal and 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 13). Save the screws.

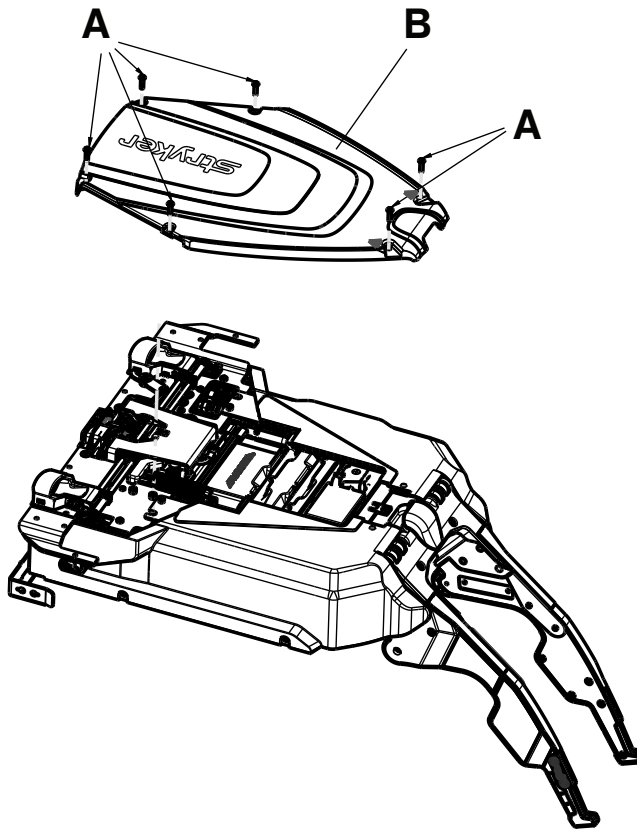


Figure 13 – Trolley top cover

2. Using a T25 Torx driver, remove the three screws (C) left side cover (D) (Figure 14). 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 14). 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 14).

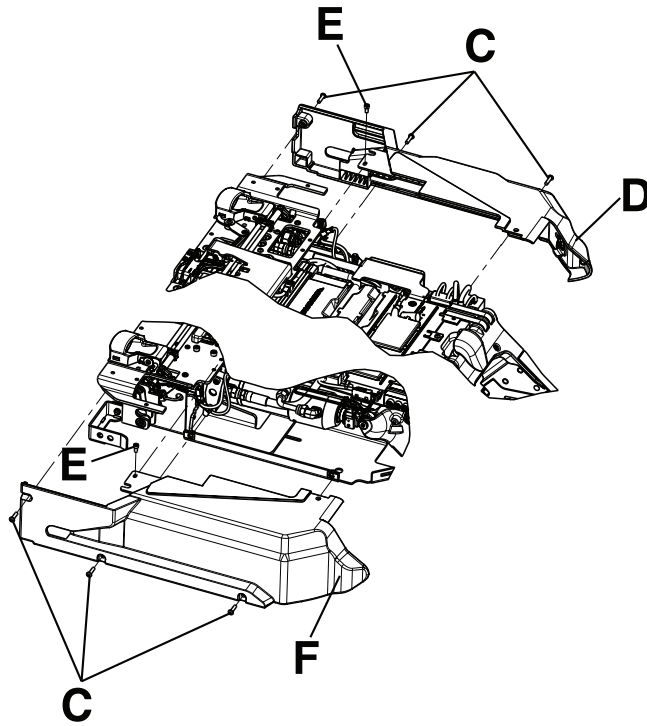


Figure 14 – Trolley side covers

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

Manual release button assembly removal and 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 removal and replacement* (page 30).
3. Press the main power button to turn the product off.
4. Remove the slic pin (A) from the switch/bracket assembly (Figure 15). 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 15). 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 15).

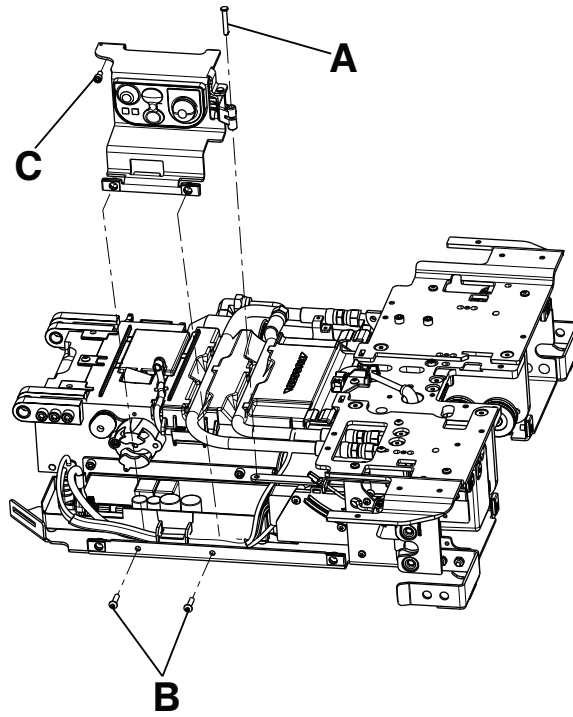


Figure 15 – Manual release button assembly

7. Unplug the cables from the master On/Off switch (D) and remove the manual release button assembly (Figure 16).

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

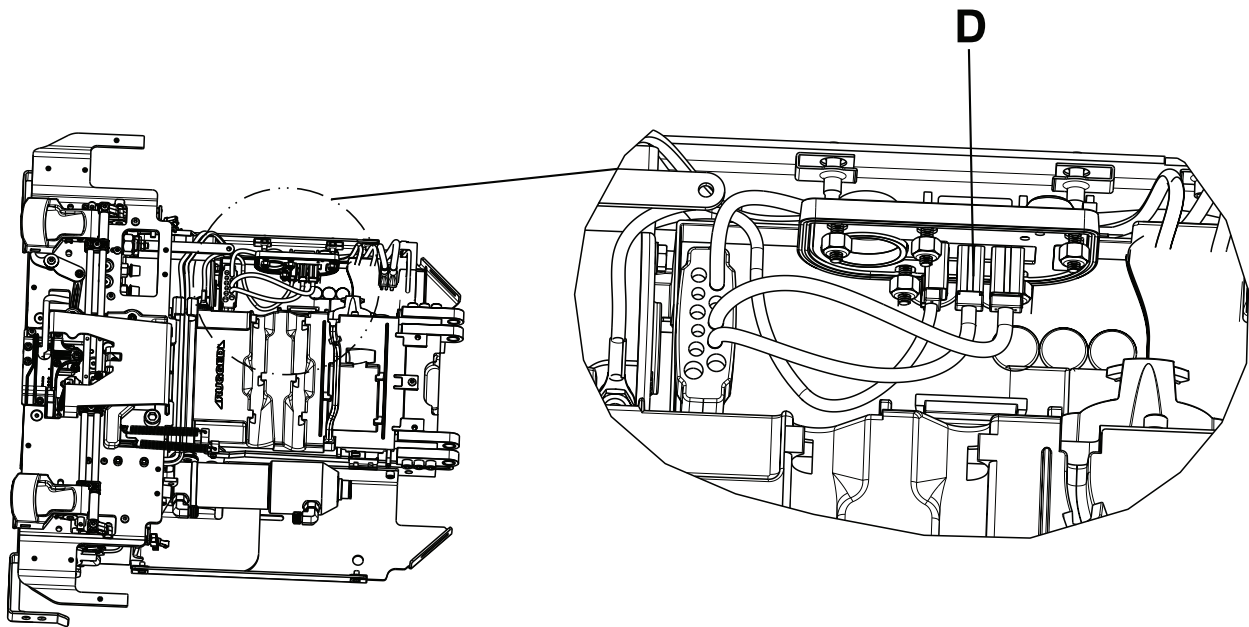


Figure 16 – On/Off switch cable locations

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

Control board assembly removal and replacement

Tools required:

- 3/32" hex wrench
- ESD

WARNING - Always take ESD precautions when you handle the control board. 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 removal and replacement* (page 32).
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 17).
3. Unplug all of the other cables from the control board assembly (C). Remove and discard the control board assembly (Figure 17).

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.

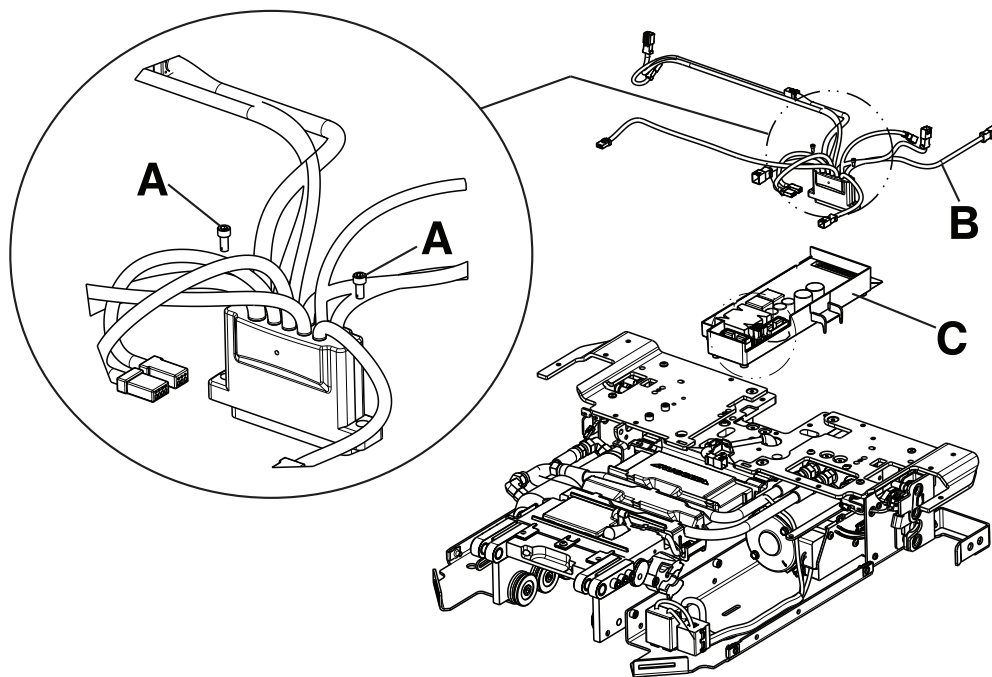


Figure 17 – Control board assembly

Master on/off switch replacement

Tools required:

- 1/32" nut driver

Procedure:

1. Remove the manual release button assembly. See *Manual release button assembly removal and replacement* (page 32).
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 18). 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.

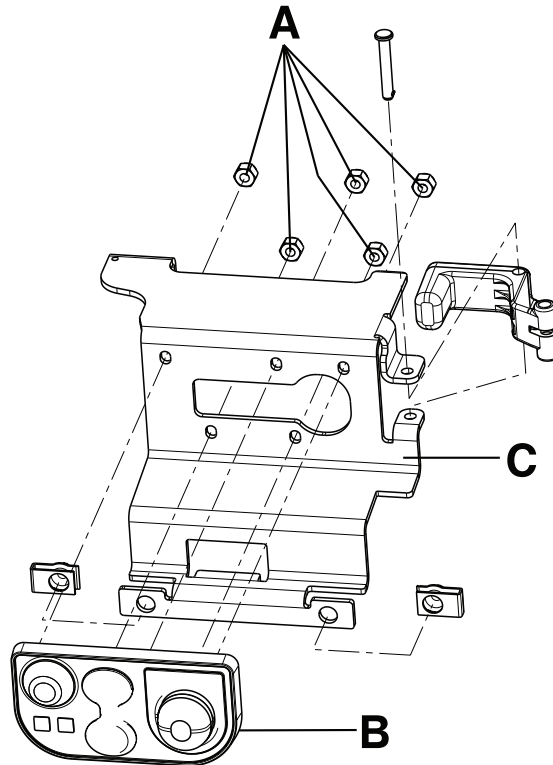


Figure 18 – Master On/Off switch and manual release button bracket assembly

Trolley actuator assembly replacement

Tools required:

- T20 Torx driver

Procedure:

1. Remove the manual release button assembly. See *Manual release button assembly removal and replacement* (page 32).
2. Using a T20 Torx driver, remove the three delta screws (A) that secure the trolley actuator (B) to the trolley frame (Figure 19). Save the screws.

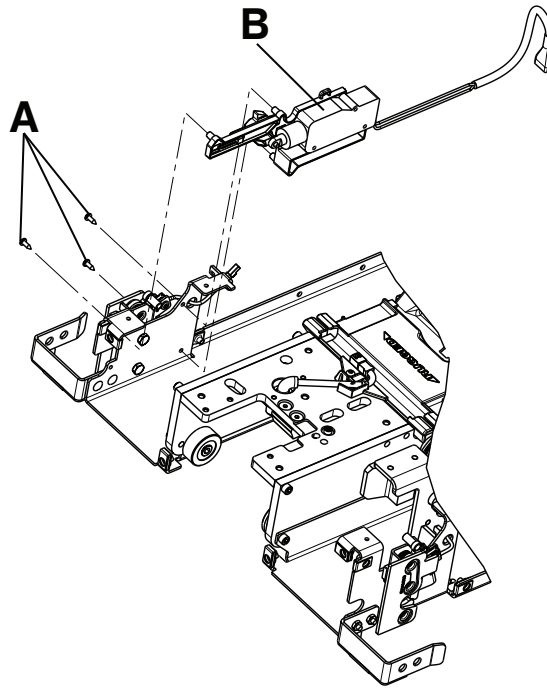


Figure 19 – Trolley actuator assembly

3. Unplug the cable (C) from the trolley actuator to the main cable assembly (Figure 20).
4. Pull the actuator out and up toward the trolley control board 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.

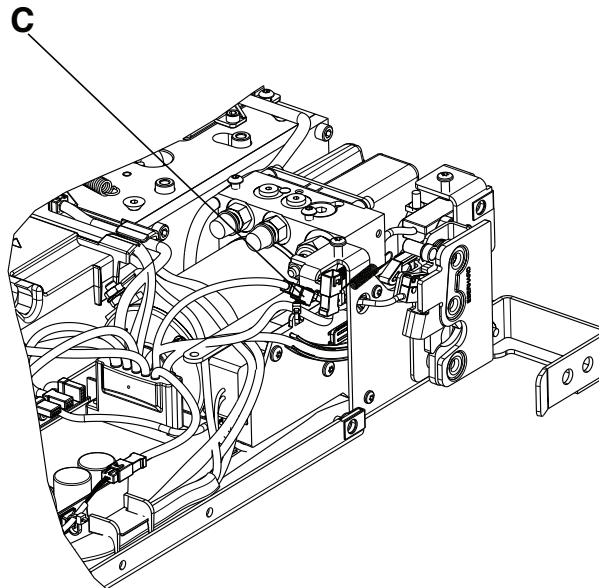


Figure 20 – Main cable assembly

Hydraulics assembly removal and replacement

Tools required:

- T25 Torx driver

- 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 removal and replacement* (page 34).
2. Remove the trolley actuator assembly. See *Trolley actuator assembly replacement* (page 35).
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 21). Save the screws.

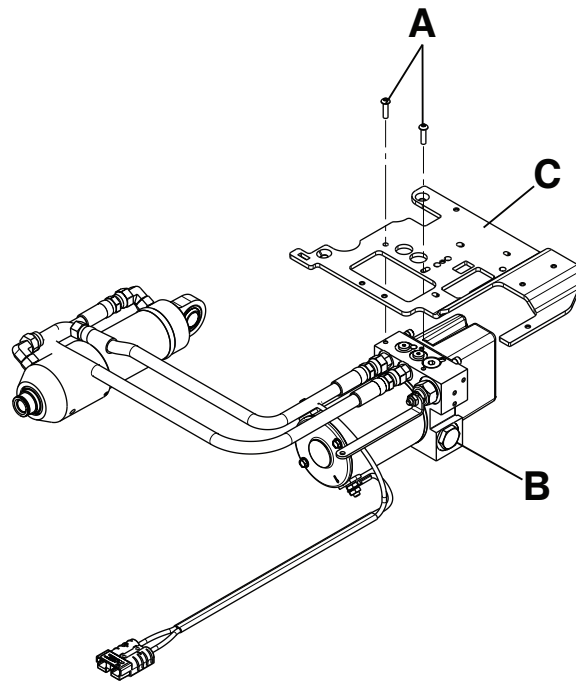


Figure 21 – Hydraulics assembly

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 22). Save the end cap cylinder pin and nut.

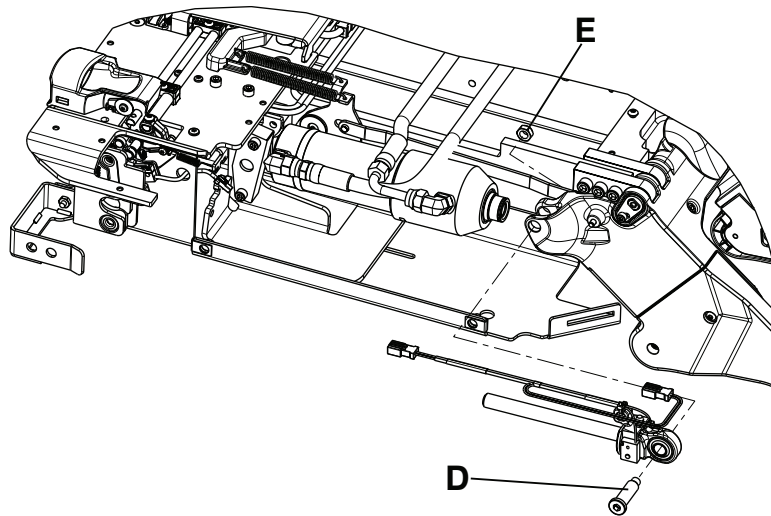


Figure 22 – End cap cylinder pin and nut locations

9. Using diagonal pliers, cut the cable ties (F) that secure the hydraulic cylinder rod end assembly cable to the plastic cover (Figure 23).

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

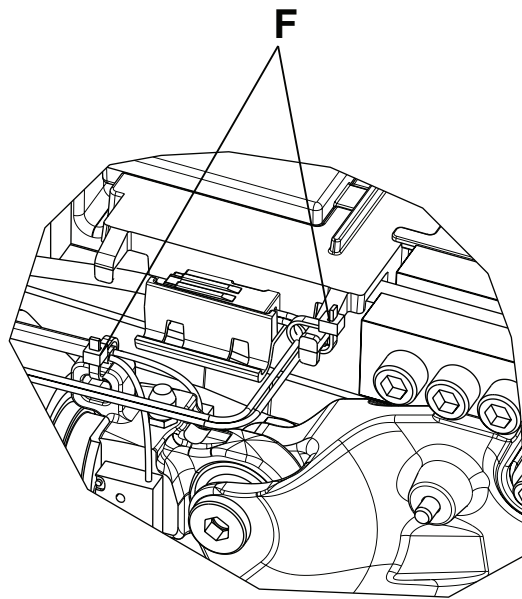


Figure 23 – Cable ties location

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 24). Save the screws.
12. Remove the pin (I) and lift the hydraulic cylinder out (Figure 24). Save the pin.

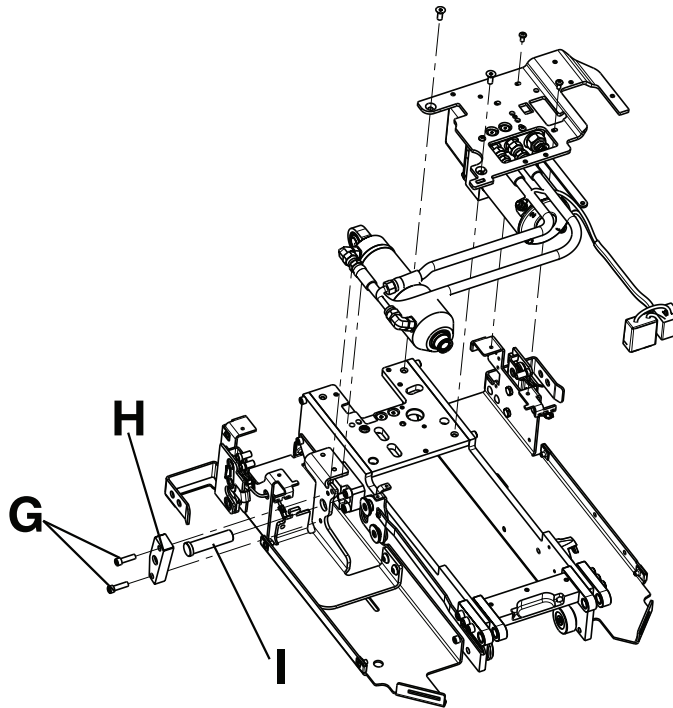


Figure 24 – Pin and hydraulic cylinder removal

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 removal and replacement* (page 30).
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 25). Save the end cap cylinder pin and nut.

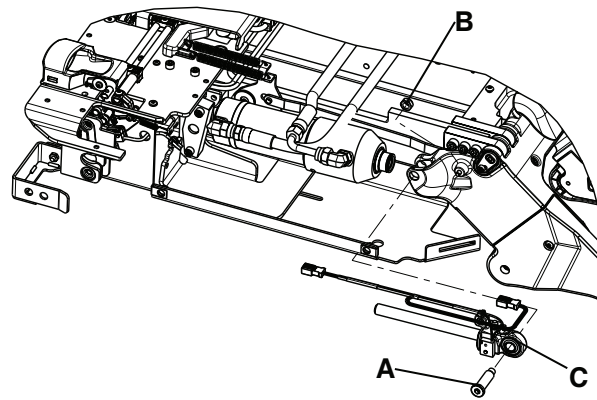


Figure 25 – Hydraulic cylinder rod end assembly

5. Using diagonal pliers, cut the cable ties (D) that secure the hydraulic cylinder rod end assembly cable to the plastic cover (Figure 26).

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

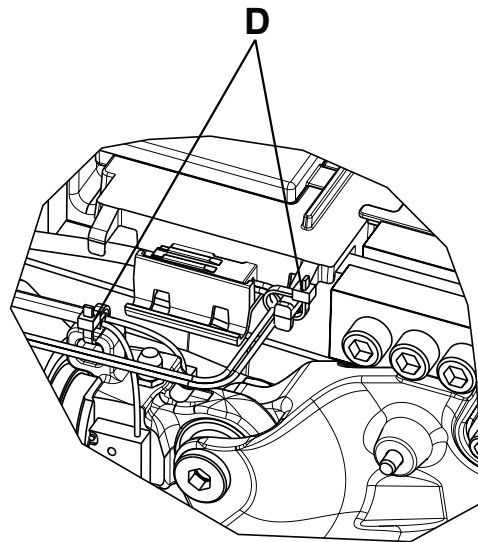


Figure 26 – Cable ties location

6. Lift the cylinder while you pull the hydraulic cylinder rod end assembly (C) out (Figure 25). 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 removal and replacement* (page 30).
3. Using diagonal pliers, cut the cable tie that secures the hydraulic cylinder rod end assembly cable to the plastic cover.

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

4. Lift the trolley communication board (A) to remove (Figure 27). 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.

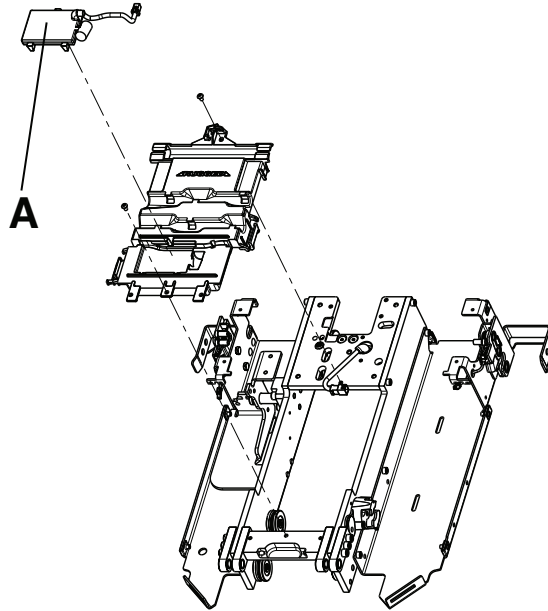


Figure 27 – Communication board assembly

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 removal and replacement* (page 32).
2. Using a 5/32" hex wrench, remove the screw (A) that secures the inductive coil assembly to the frame (Figure 28). Save the screw.
3. Using a 3/16" hex wrench, remove the screw (B) that secures the inductive coil assembly to the frame (Figure 28). Save the screw.
4. Remove and save the cover (C) (Figure 28).

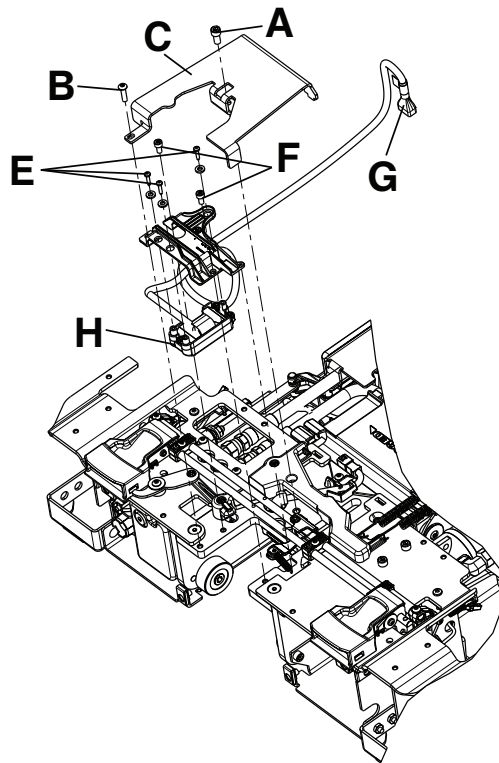


Figure 28 – Inductive coil assembly

5. Remove and save the return spring (D) (Figure 29).

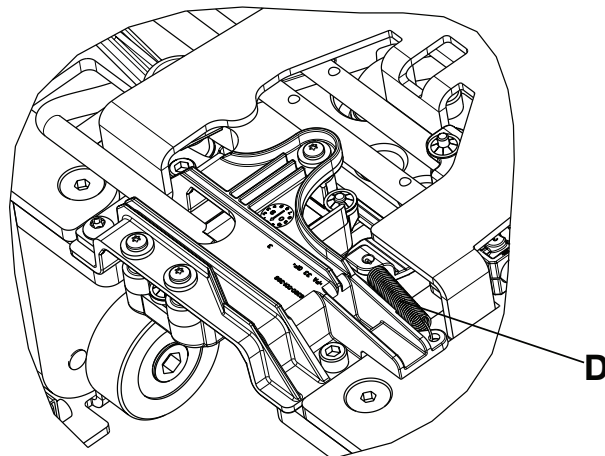


Figure 29 – Return spring location

6. Using a T25 Torx driver, remove the screws (E) that secure the charge bracket (Figure 28). Save the screws.
7. Using a 5/32" hex wrench, remove the screw (F) that secures the charge bracket (Figure 28). 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 and remove the inductive coil (H) (Figure 28). 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.

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 28).
2. Remove the trolley covers. See *Cover removal and replacement* (page 30).
3. Unplug the TPS cable (A) from the main cable assembly (Figure 30).

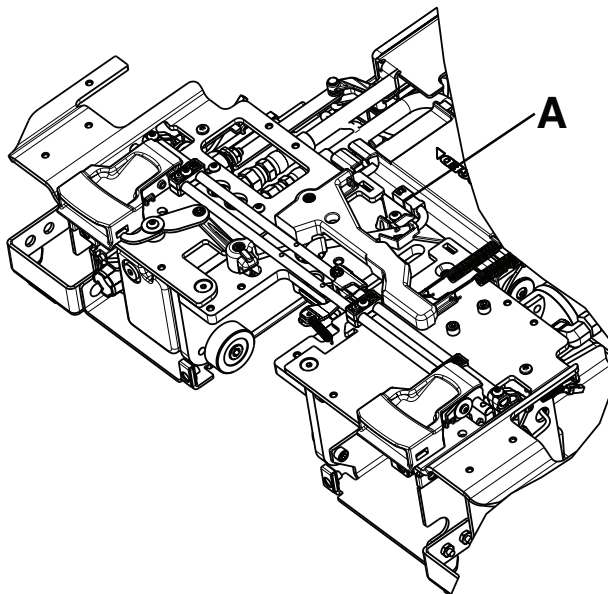


Figure 30 – Main cable assembly

4. Using a 5/32" hex wrench, loosen (do not remove) the socket head cap screw (B) that secures the trolley mechanism arm (Figure 31).
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 31). 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 31).

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

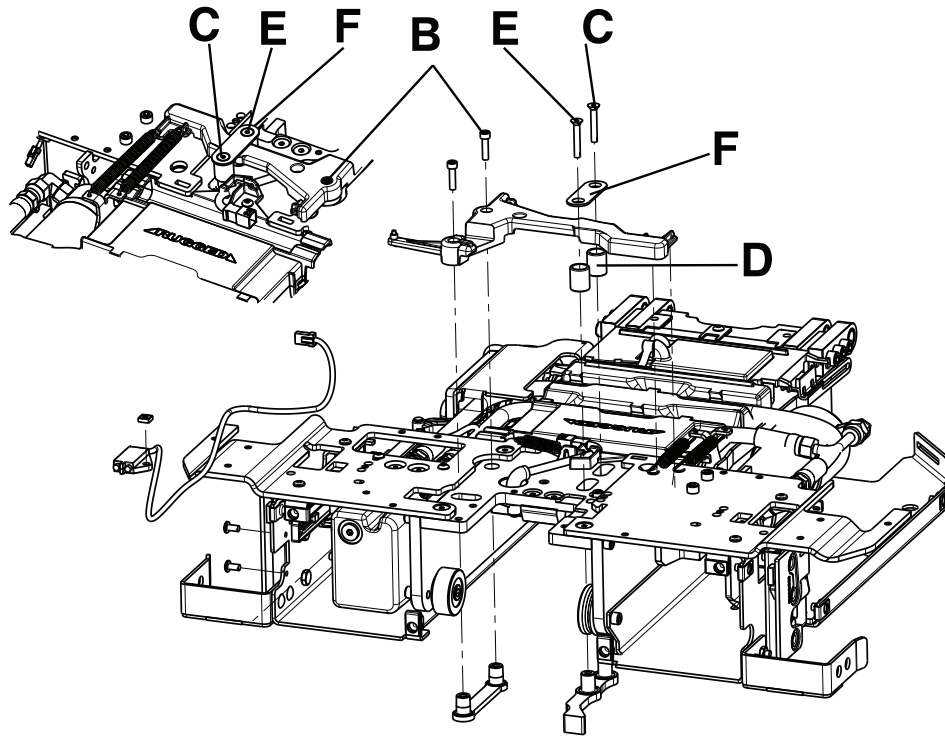


Figure 31 – TPS assembly

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 32). 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.

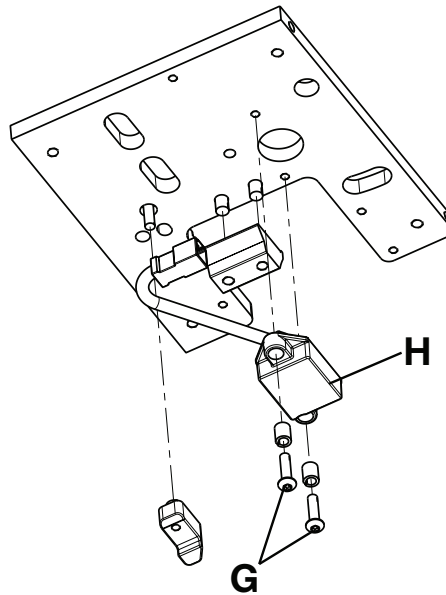


Figure 32 – TPS assembly bottom view

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

Flat roller and V-guide roller replacement

Tools required:

- 3/8" drive ratchet
- 1/4" socket
- Torque wrench (in-lb) > 317 in-lb

Procedure:

1. Remove the trolley. See *Trolley removal* (page 28).
2. Set the trolley upright on its head end (Figure 33).

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 33).

4. Reverse steps to reinstall. Make sure that you torque all bolts to 235 - 317 in-lb.
5. Verify proper operation before you return the product to service.

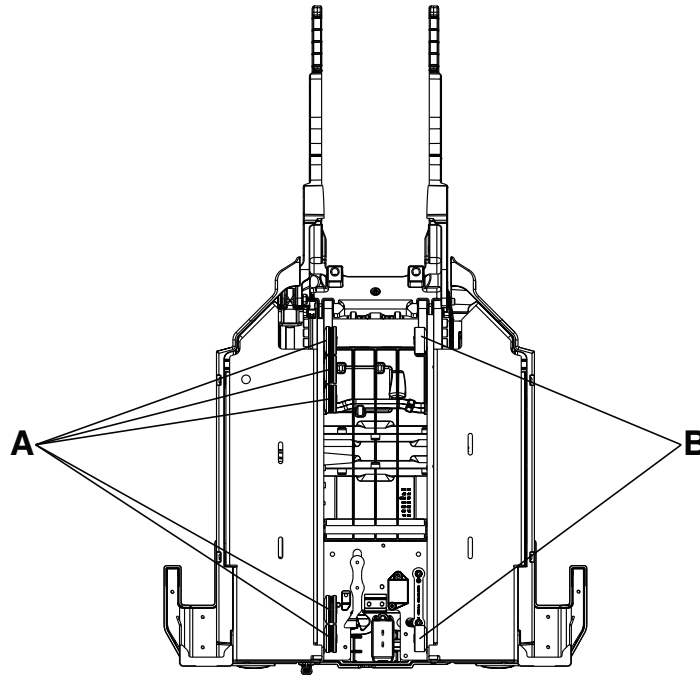


Figure 33 – Trolley bottom view of the V-guide rollers

Hydraulic cylinder removal and replacement

Tools required:

- 1/4" hex wrench
- 1/8" hex wrench
- 1/2" combination wrench
- Diagonal pliers
- 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 removal and replacement* (page 30).
4. Using a 1/4" hex wrench and a 1/2" combination wrench, remove the end cap cylinder pin (A) and nut (B) (Figure 34). Save the end cap cylinder pin and nut.

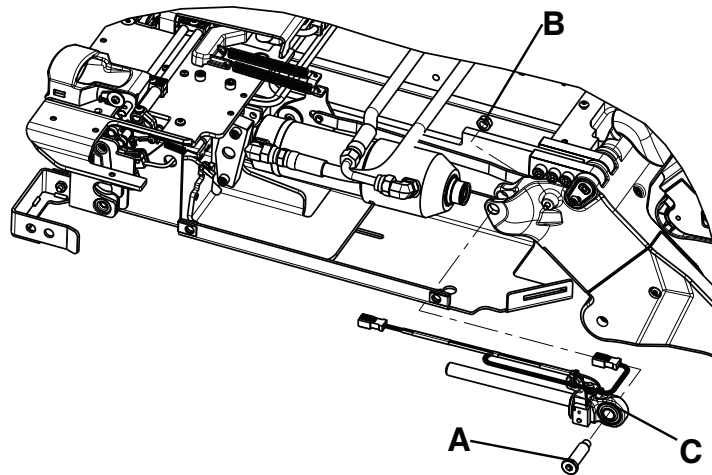


Figure 34 – Hydraulic cylinder assembly

5. Using diagonal pliers, cut the cable ties (D) (Figure 35) that secure the hydraulic cylinder rod end assembly (C) cable to the plastic cover (Figure 34).

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

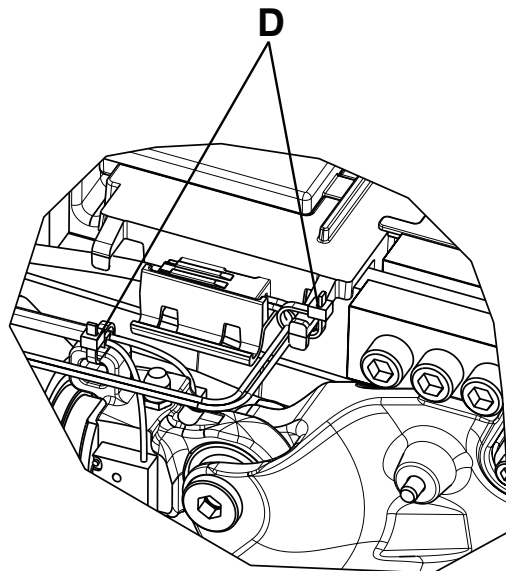


Figure 35 – Cable ties locations

6. Lift the cylinder while you remove the hydraulic cylinder rod end assembly (C) (Figure 34). Save the hydraulic cylinder rod end assembly.

- Using an 11/16" combination wrench, disconnect both hoses from the cylinder. See *Velocity fuse removal and replacement* (page 47).

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

- 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.

- Using a 1/8" hex wrench, remove the velocity fuse from the hydraulic cylinder. Save the fuse.
- 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 36). Save the screws.

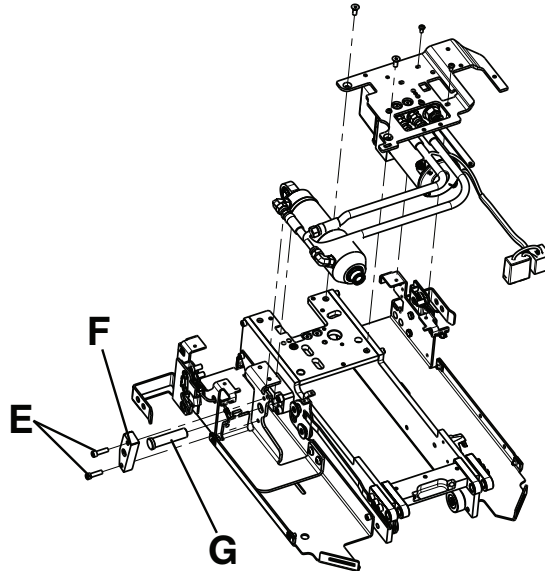


Figure 36 – Hydraulic cylinder pin location

- Remove and discard the hydraulics assembly.
- Using a 1/8" hex wrench, install the velocity fuse into the cylinder.
- Reverse steps to reinstall.
- Check the fluid level before you return the product to service. See *Filling the reservoir* (page 55).
- Verify proper operation before you return the product to service.

Velocity fuse removal and replacement

Tools required:

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

Procedure:

- 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.
- Remove the trolley covers. See *Cover removal and replacement* (page 30).

- 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).

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

- 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) (Figure 37). Save all parts.
- Using a 1/8" hex wrench, remove the velocity fuse (D) from the hydraulic cylinder (C) (Figure 37). Discard the fuse.
- Reverse steps to reinstall.

Note - When you reinstall the cylinder hose fitting (B), lubricate the O-ring with ATF 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.

- Check the fluid level before you return the product to service. See *Filling the reservoir* (page 55).
- Verify proper operation before you return the product to service.

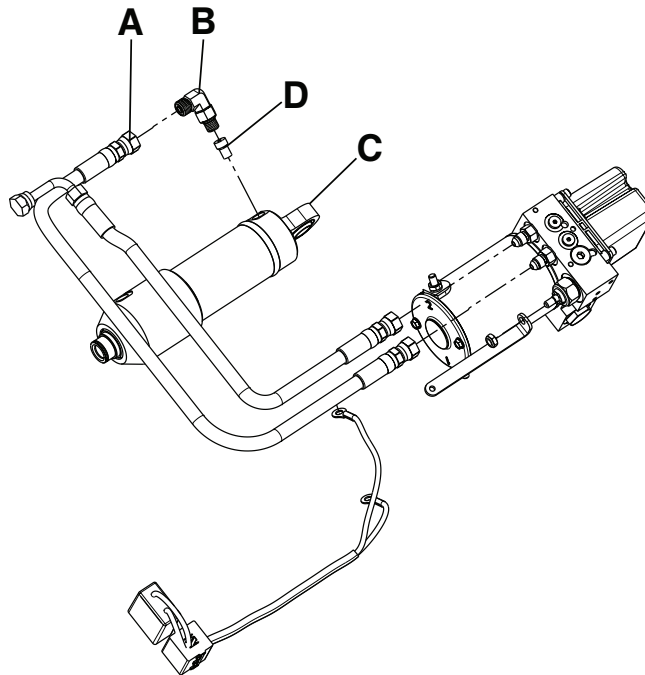


Figure 37 – Velocity fuse components

Non-locking manual valve removal and replacement

Tools required:

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

Procedure:

- 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.

- Lower the lifting arms.
- Remove the trolley covers. See *Cover removal and replacement* (page 30).

4. Remove the manual release button assembly. See *Manual release button assembly removal and replacement* (page 32).
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 38). 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 38).

6. Using a 7/8" deep well socket and 3/8" drive ratchet, remove the non-locking manual valve (B) (Figure 38). 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 55).
9. Verify proper operation before you return the product to service.

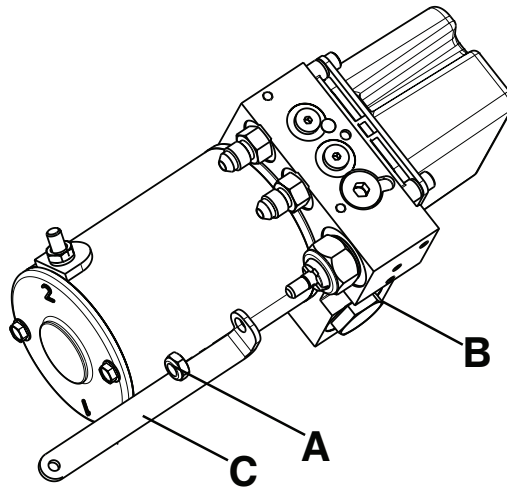


Figure 38 – Non-locking manual valve

Hose removal and 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 removal and replacement* (page 30).
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 39 and Figure 40).

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

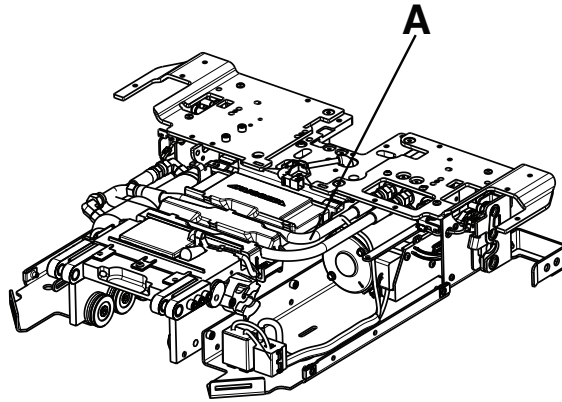


Figure 39 – Hydraulic hose location

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 40).

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

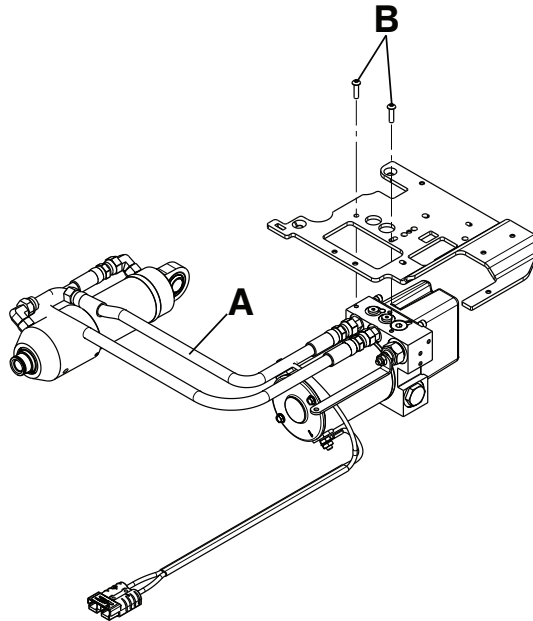


Figure 40 – Manifold fitting screws location

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 55).
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 removal and replacement* (page 36).
3. Using two 9/16" combination wrenches, loosen (do not remove) the hose end connectors (A) from the manifold to remove both hoses (Figure 41).

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

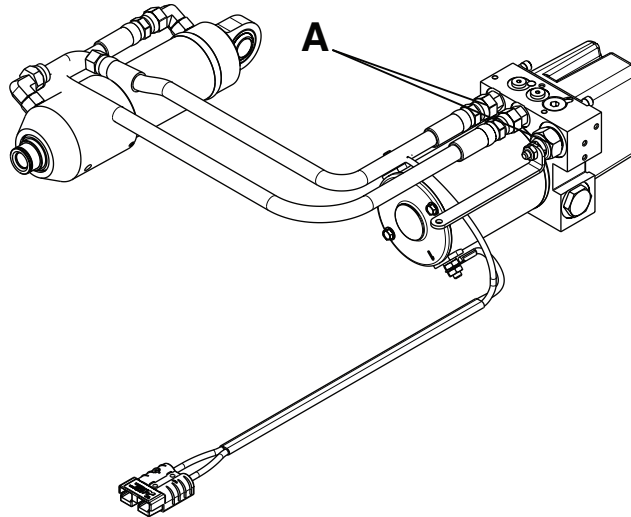


Figure 41 – Hydraulics assembly hose end connectors

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

Motor cable removal and 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 removal and replacement* (page 30).
3. Remove the hydraulics assembly. See *Hydraulics assembly removal and replacement* (page 36).
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 42). Save the nuts and washers.

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

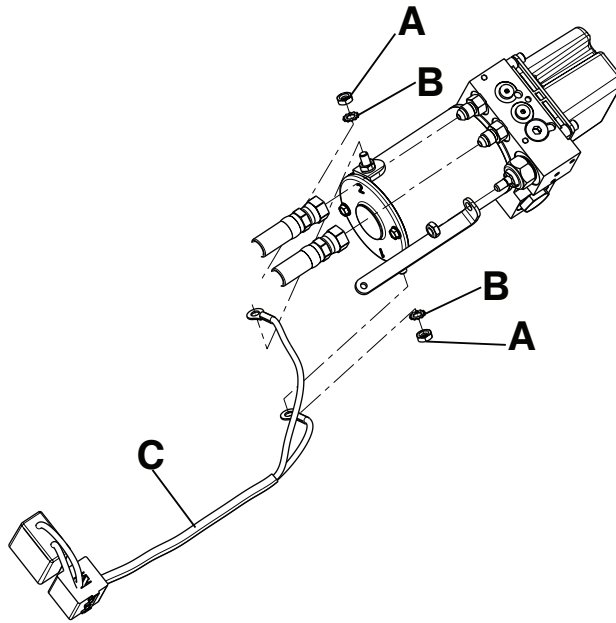


Figure 42 – Motor assembly

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 removal and replacement* (page 30).
3. Remove the motor cable. See *Motor cable removal and replacement* (page 51).
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 43). Save the bolts.

Note - Do not overtighten the bolts during reinstallation.

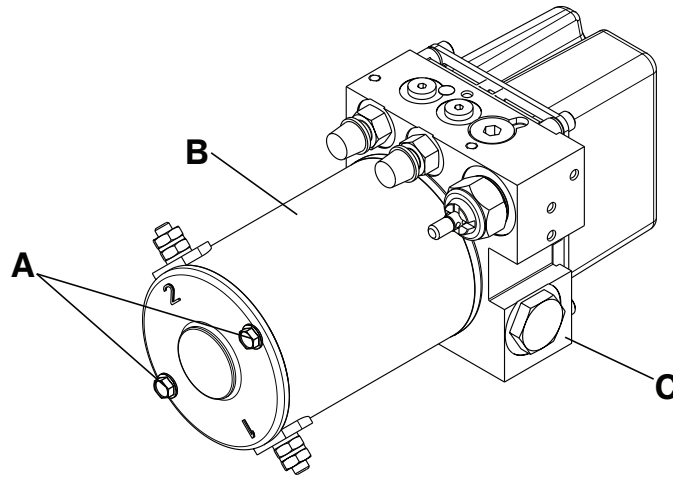


Figure 43 – Motor replacement parts

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 removal and replacement* (page 30).
3. Remove the hydraulics assembly. See *Hydraulics assembly removal and replacement* (page 36).
4. Using a 1/4" hex wrench, remove the hex plug (A) from the top of the hydraulic manifold assembly (Figure 44). Save the hex plug.

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

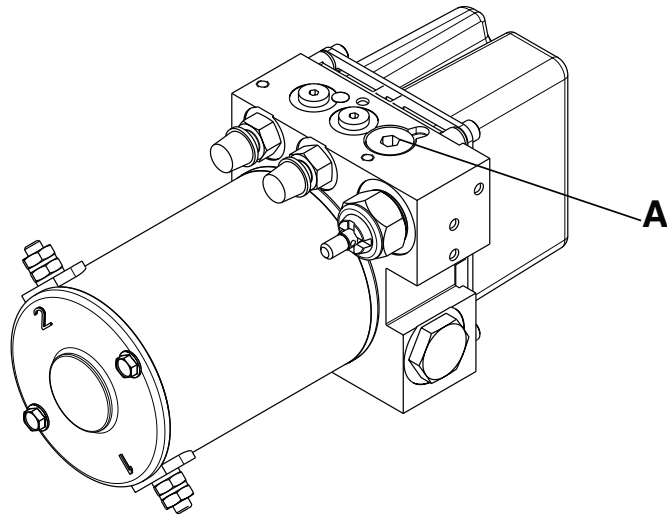


Figure 44 – Hex plug location

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 55).
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 45). Remove the cover. Save the screws.
3. Pull to remove the battery housing assembly (C) (Figure 45).

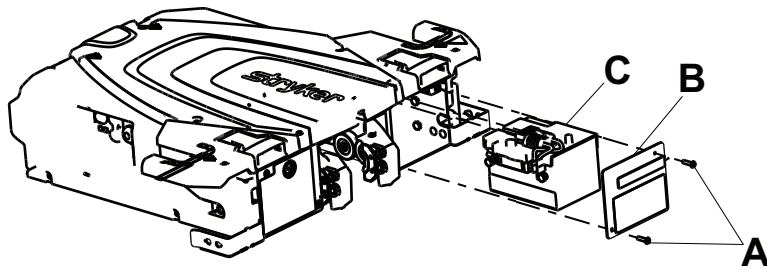


Figure 45 – Battery housing components

4. Remove and discard the battery.

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.

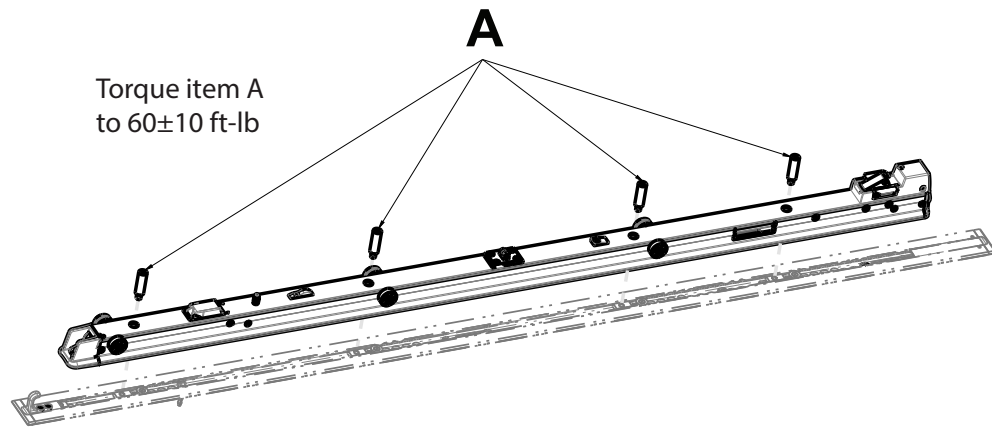
Primary coil replacement, foot end

Tools required:

- (2) 1/8" hex wrench
- 1/4" hex wrench
- 3/8" hex driver
- Torque wrench (ft-lb) > 60 ft-lb
- Torque wrench (in-lb) > 235 in-lb

Procedure:

1. Remove the trolley. See *Trolley removal* (page 28).
2. Remove the transfer. See *Transfer removal* (page 28).
3. Using a 3/8" hex driver, remove the four anchor mounting posts (A) that secure the anchor to the floor plate (Figure 46). Save the mounting posts.



Torque item A
to 60 ± 10 ft-lb

Figure 46 – 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 47). Save the screws.

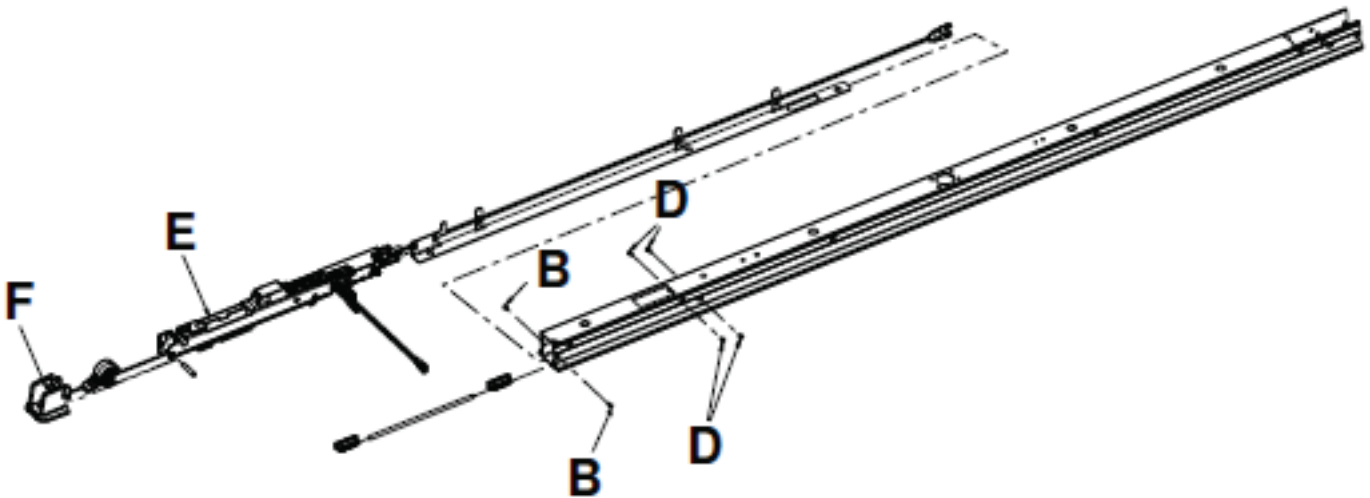


Figure 47 – Remove the anchor plunger assembly

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 48). Save the screws.

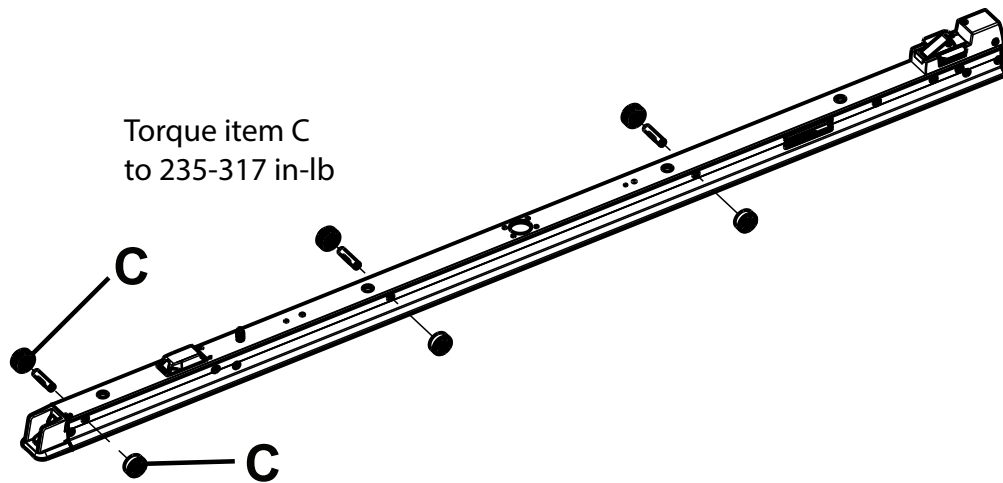


Figure 48 – Remove the flat roller assembly and V-guide roller assembly

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 47). 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 47). 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 47).
12. Remove the anchor pivot pin (G) that holds the anchor coil assembly (H) to the anchor housing (J) (Figure 49). Save the pin.
13. Unplug the coil wires from the inductive primary board (I) (Figure 49). Discard the anchor coil assembly.

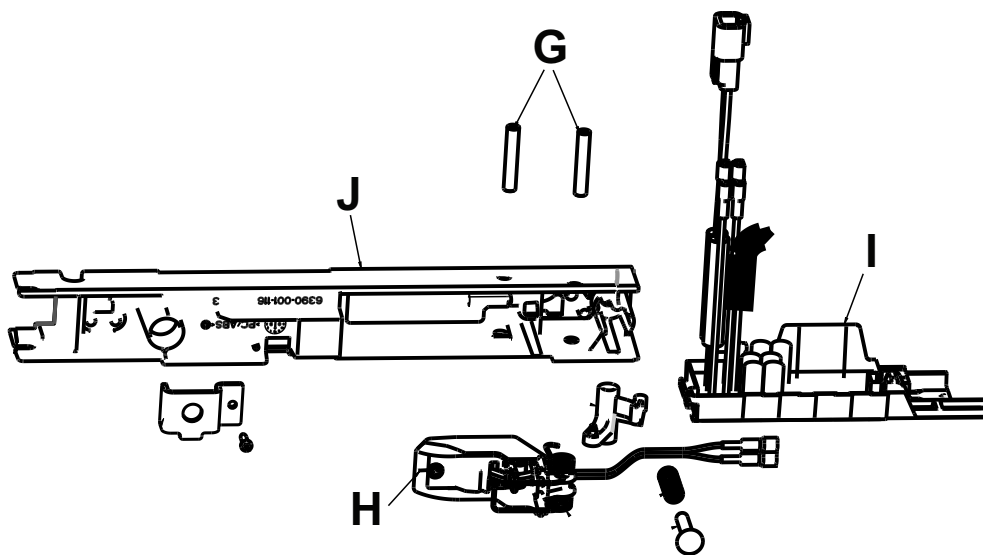


Figure 49 – Unplug coil wires from the inductive primary board

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

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) > 60 ft-lb

Procedure:

1. Remove the trolley. See *Trolley removal* (page 28).
2. Remove the transfer. See *Transfer removal* (page 28).
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 50). 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 (Figure 50). Save the screws.
7. Pull the anchor pawl assembly toward the head end of the anchor. Remove and save the anchor pawl assembly.

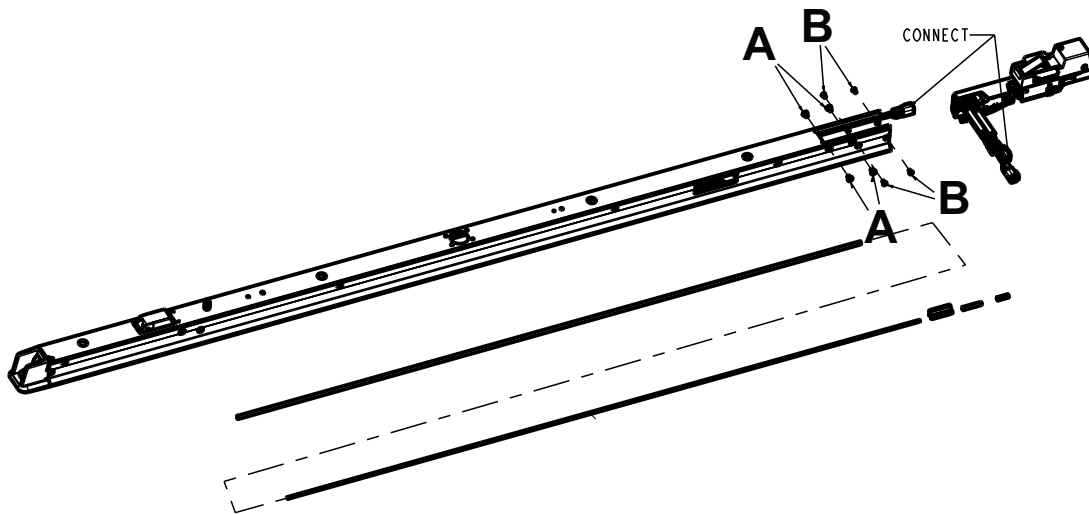


Figure 50 – Remove the anchor pawl assembly from the anchor

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 51).

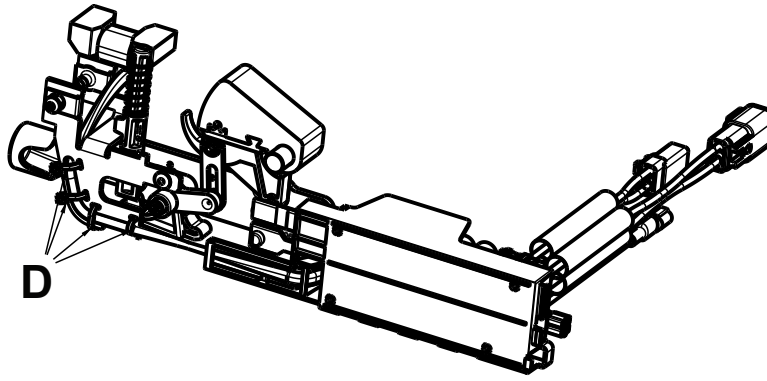


Figure 51 – Remove cable ties

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 52). Save the screws.

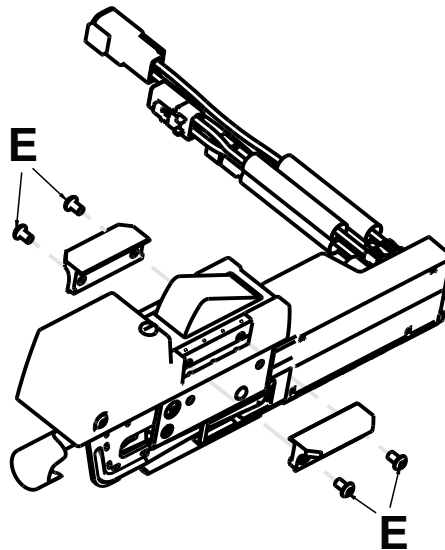


Figure 52 – Remove the retainer wings

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 53). 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.

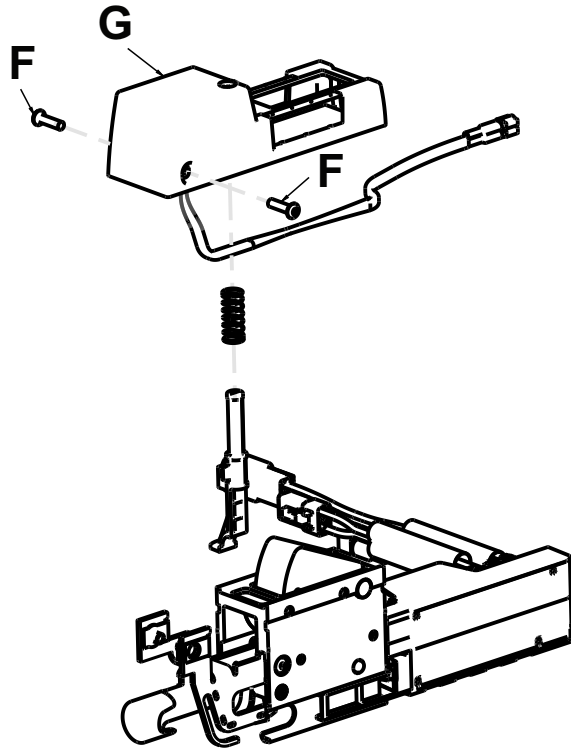


Figure 53 – Remove the anchor housing assembly

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 removal and replacement

Tools required:

- 5/32" hex wrench

Procedure:

1. Remove the trolley. See *Trolley removal* (page 28).
2. Remove the transfer. See *Transfer removal* (page 28).
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 54). Save the screws.
4. Remove and save the transfer lock cap (B) (Figure 54).
5. Remove the transfer lock pin assembly (C), compression spring (D), and bronze bearing (E) from the anchor extrusion (Figure 54). Discard the bronze bearing. Save the pin and spring.
6. Clean the transfer lock pin assembly (C) and compression spring (D) thoroughly (Figure 54).
7. Install the supplied bronze bearing (D), compression spring (D), and transfer lock pin assembly (C) into the anchor extrusion (Figure 54).

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

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 28).
10. Reinstall the trolley. See *Trolley removal* (page 28).
11. Verify proper operation before you return the product to service.

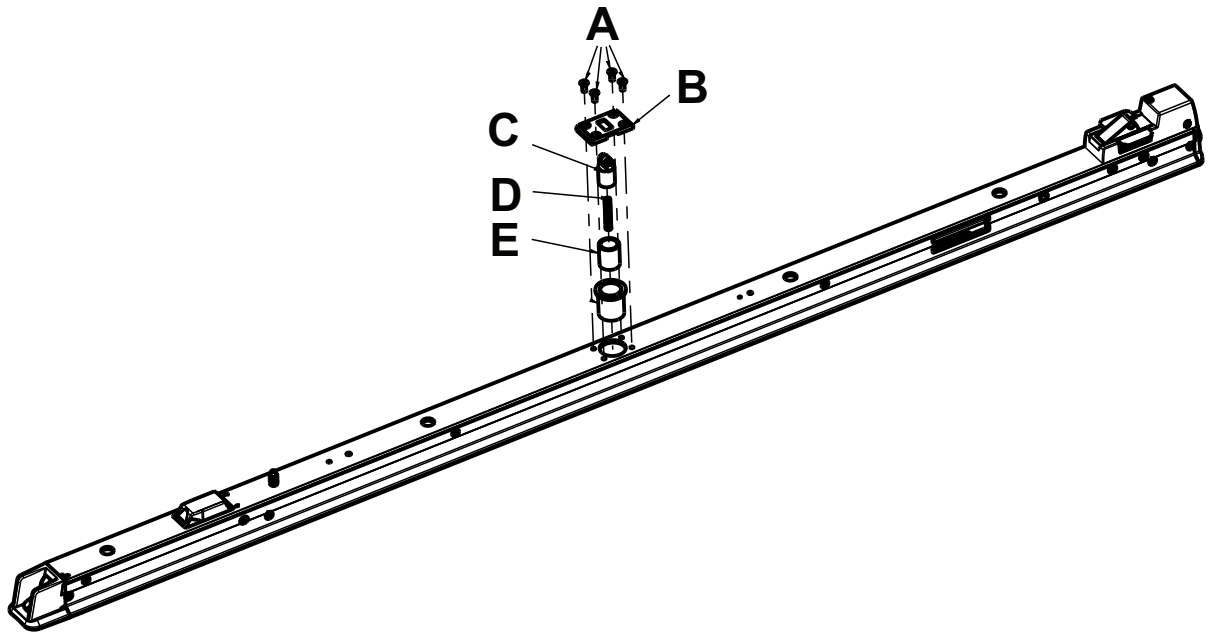
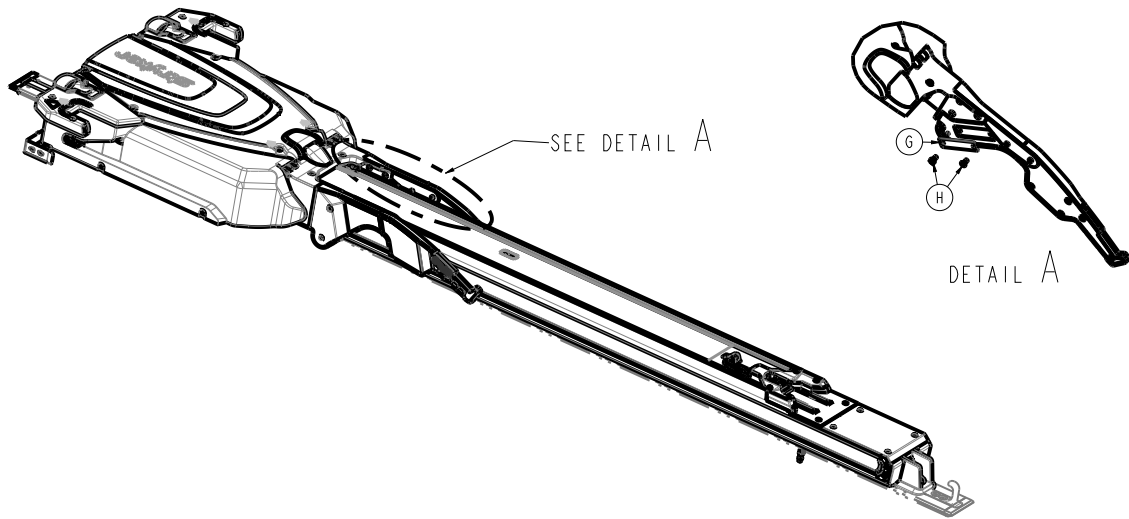


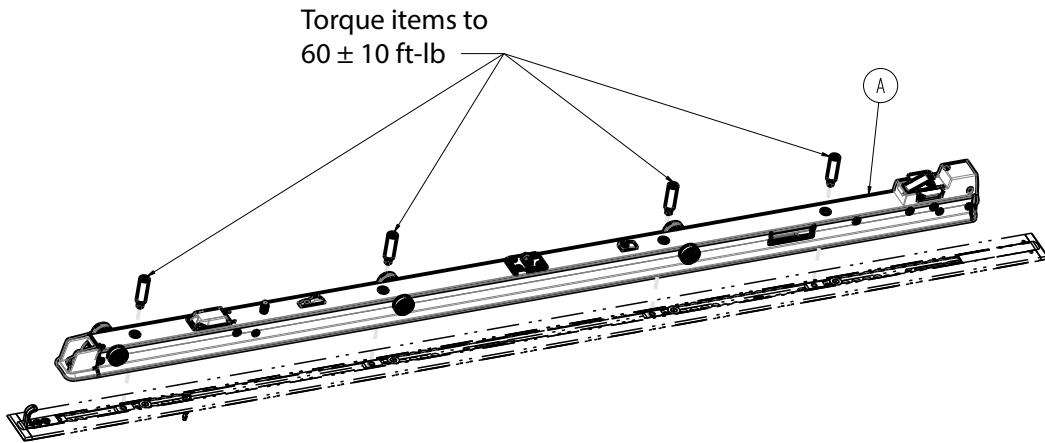
Figure 54 – Transfer lock bearing removal and replacement

Power-LOAD assembly

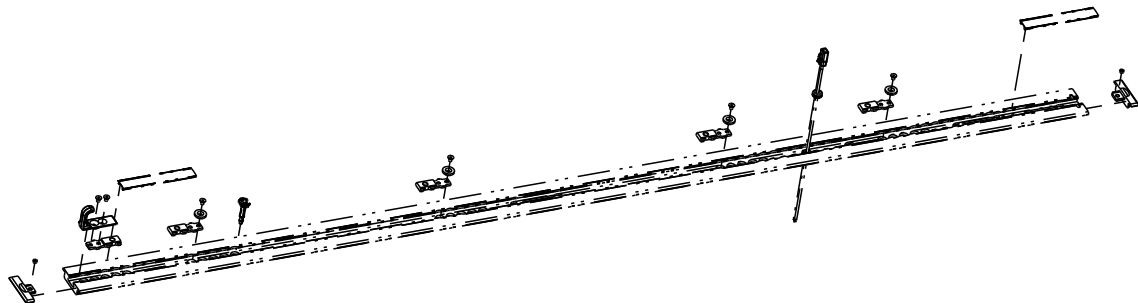
6390-001-010 Rev AF (Reference only)



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

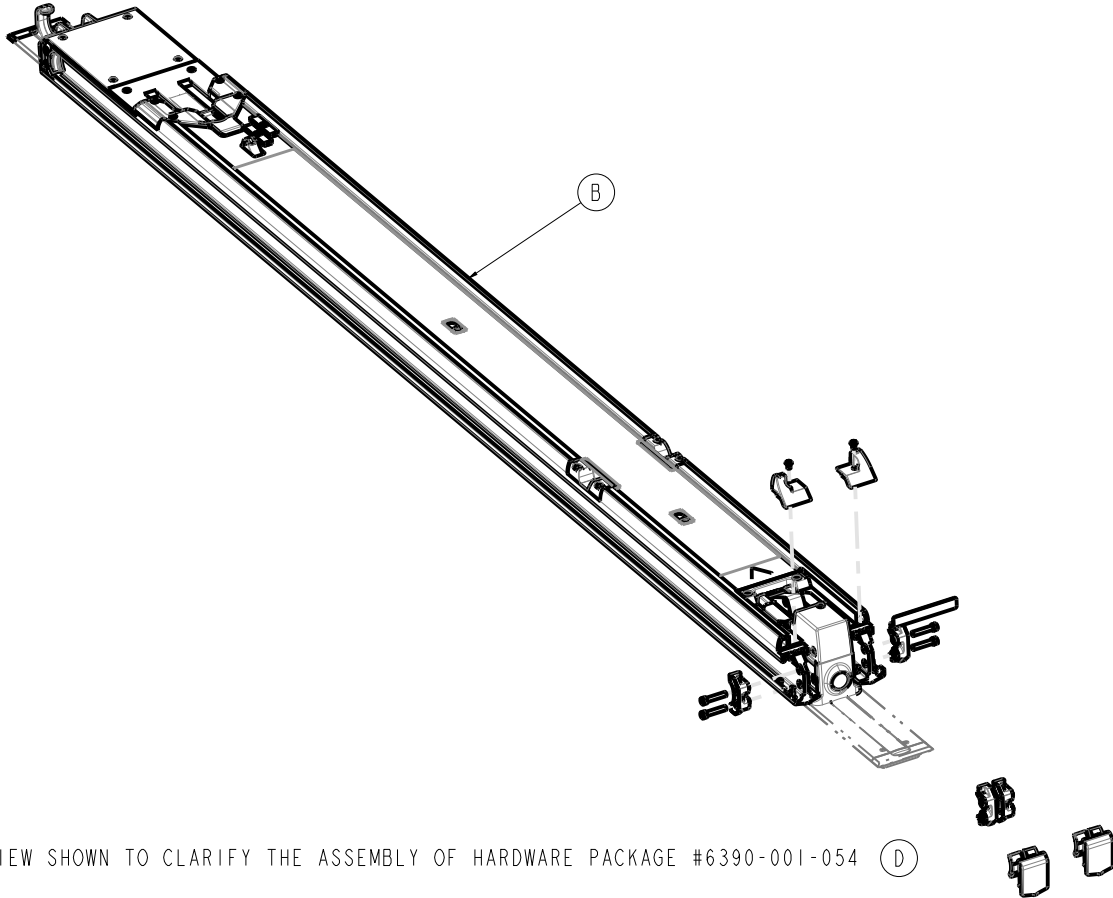


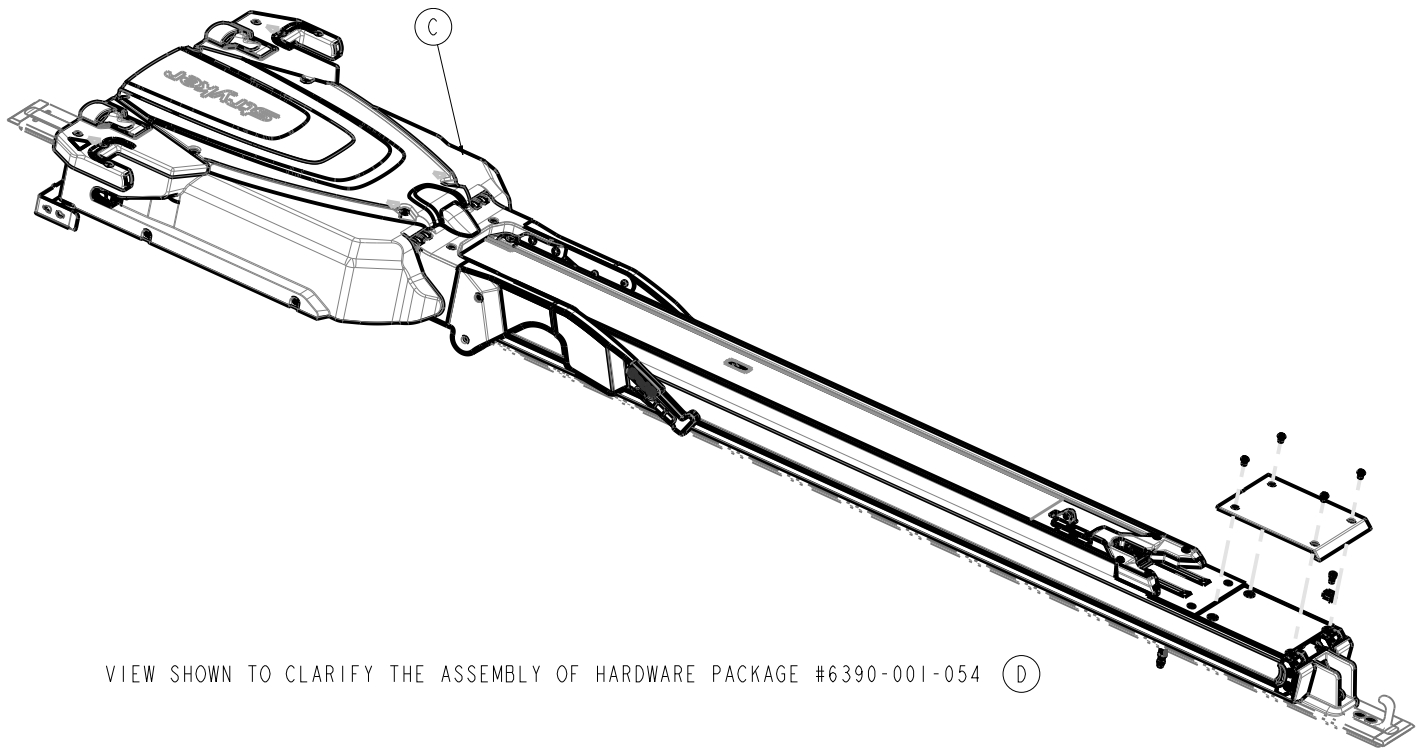
VIEW SHOWN TO CLARIFY THE ASSEMBLY OF MOUNTING POSTS WHICH ARE INCLUDED IN HARDWARE PACKAGE # 6390-001-054 (D)



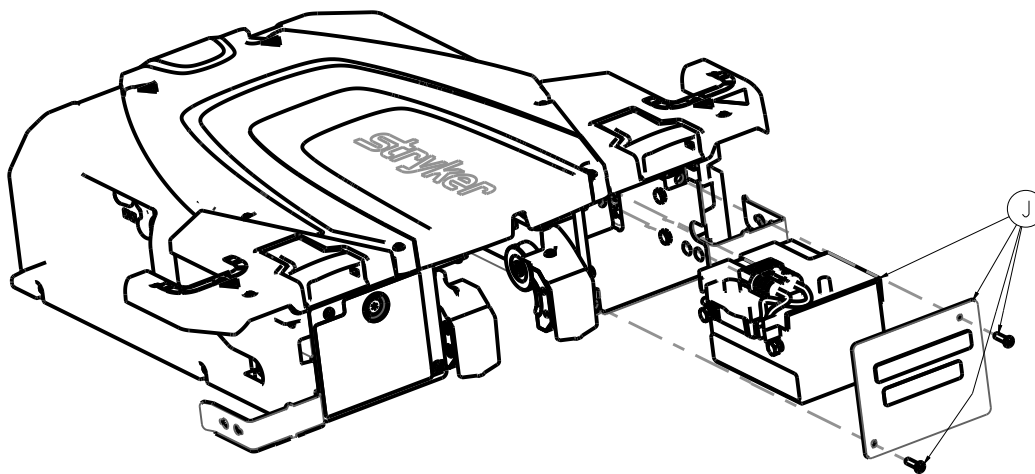
VIEW SHOWN TO CLARIFY THE ASSEMBLY OF THE UNIVERSAL FLOOR PLATE OPTION 6390-028-000.

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 pre-machined pocket locations only.
5. Wireless label options shown for assembly reference only. Refer to 6390-000-000 **Power-LOAD** for part number.





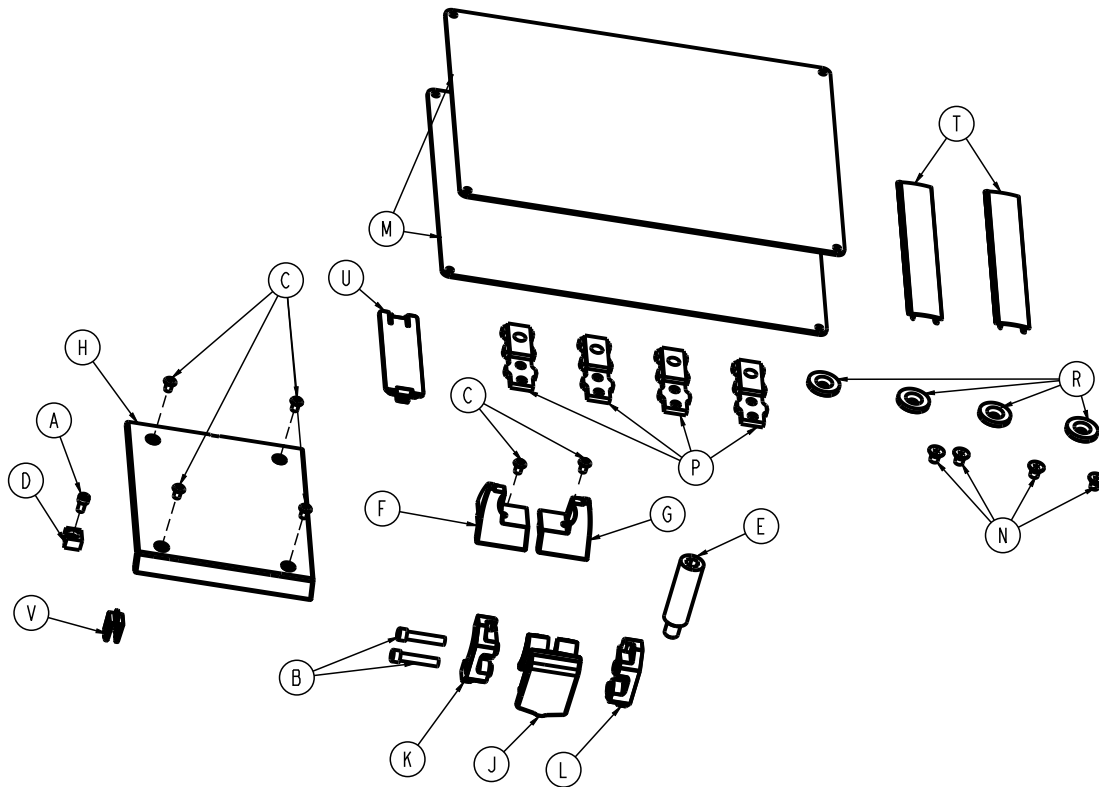
VIEW SHOWN TO CLARIFY THE ASSEMBLY OF HARDWARE PACKAGE #6390-001-054 (D)



Item	Number	Name	Quantity
A	6390-001-011	Anchor assembly (page 66)	1
B	6390-101-012	Transfer assembly (page 73)	1
C	6390-001-013	Trolley assembly (page 79)	1
D	6390-001-054	Assembly kit, Power-LOAD - 6390-001-054 (page 65)	1
G	6390-001-926	6390 tag, serial number	1
H	0025-079-000	Dome head rivet	2
J	639001010026	Battery installation assembly	1

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

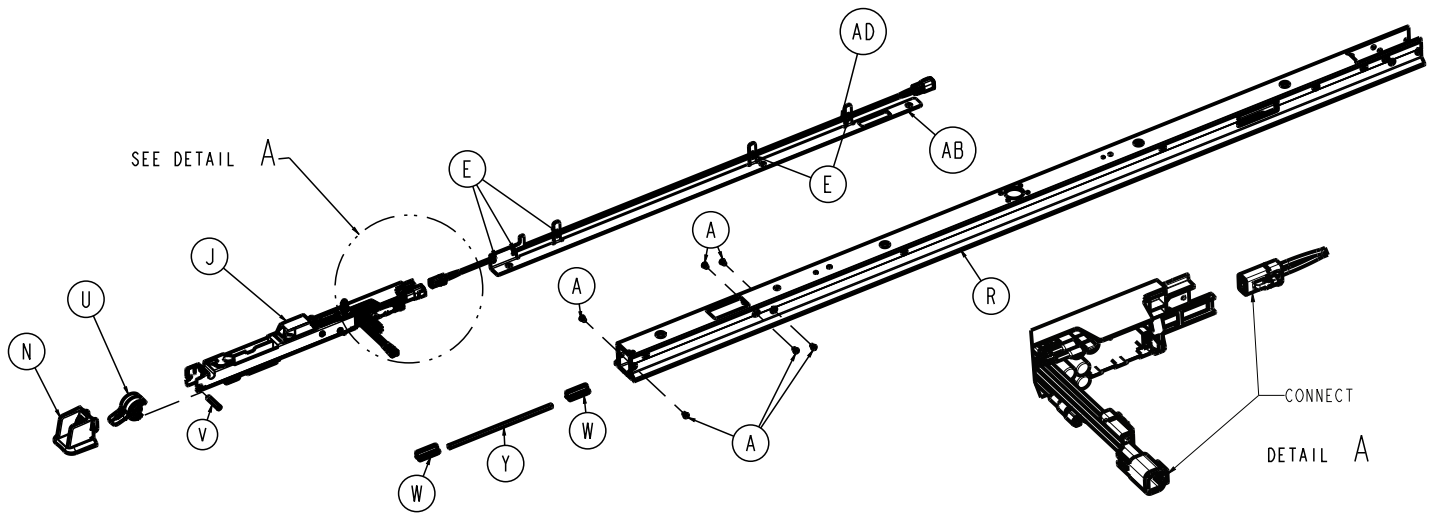
Rev AC (Reference only)



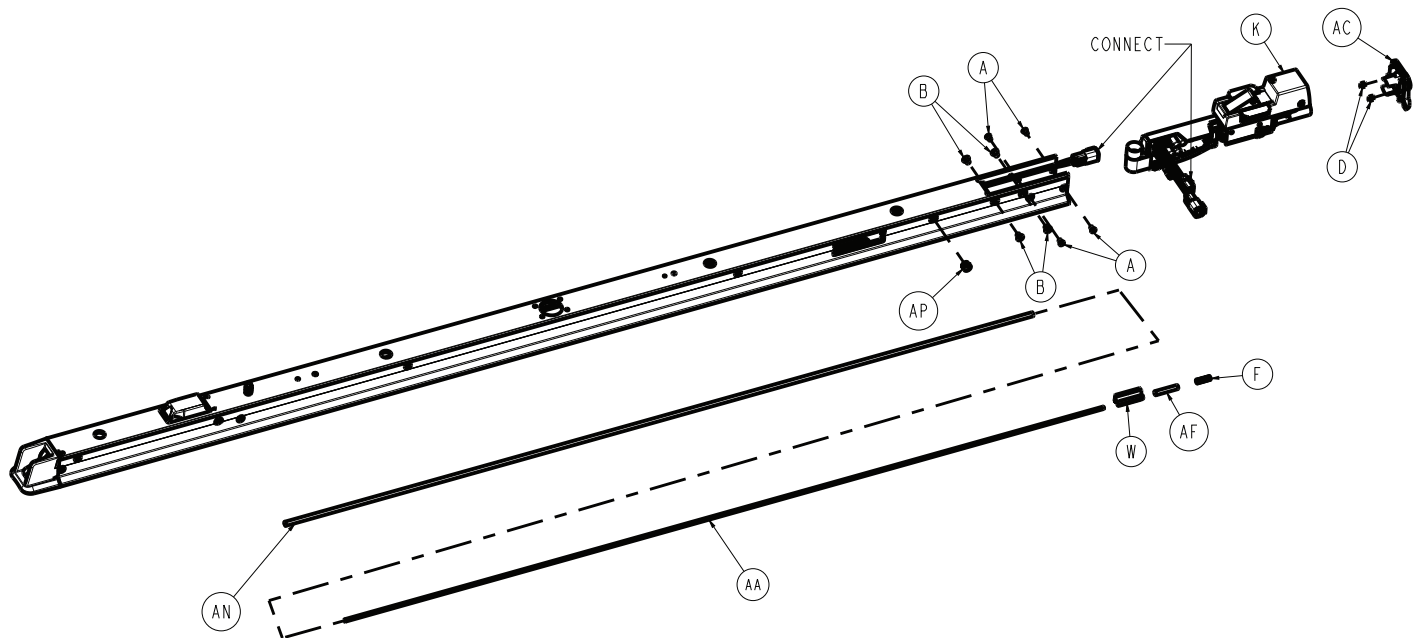
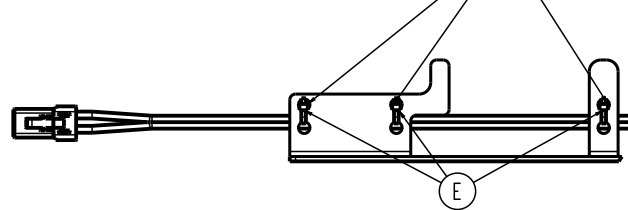
Item	Number	Name	Quantity
A	0004-658-000	Socket head cap screw	1
B	0004-662-000	Socket head cap screw	4
C	0004-665-000	Button head cap screw	6
D	6390-001-106	Trolley magnet activator	1
E	6390-001-150	Anchor mounting post	4
F	639000010210	Transfer trim, head end, left	1
G	639000010211	Transfer trim, head end, right	1
H	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
P	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

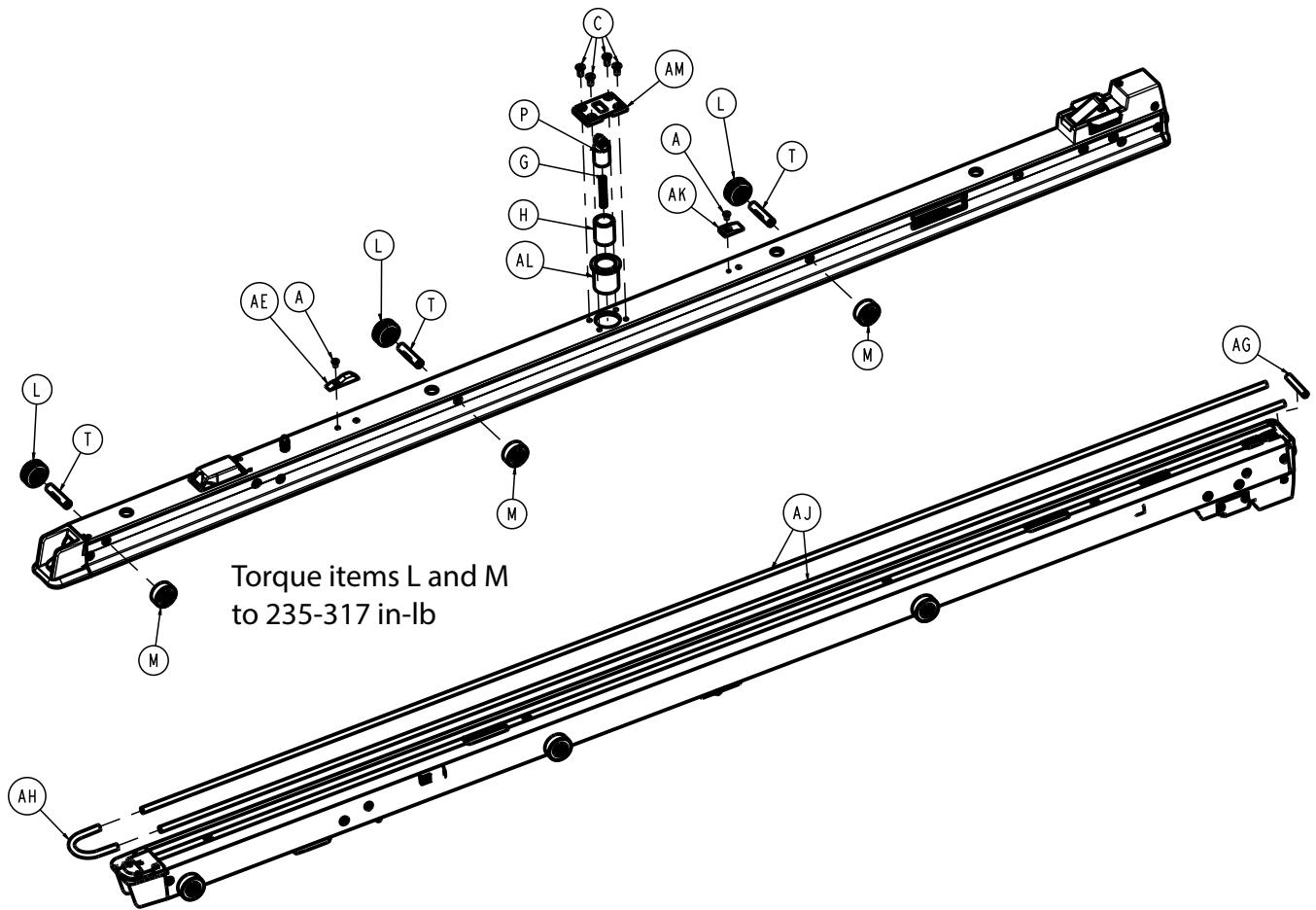
Anchor assembly

6390-001-011 Rev AC (Reference only)



ZIP-TIE CABLE TO OUTSIDE OF FLANGES AND
ORIENT ZIP-TIE RETAINER TO INSIDE OF FLANGES,
AS SHOWN, 5 PLACES



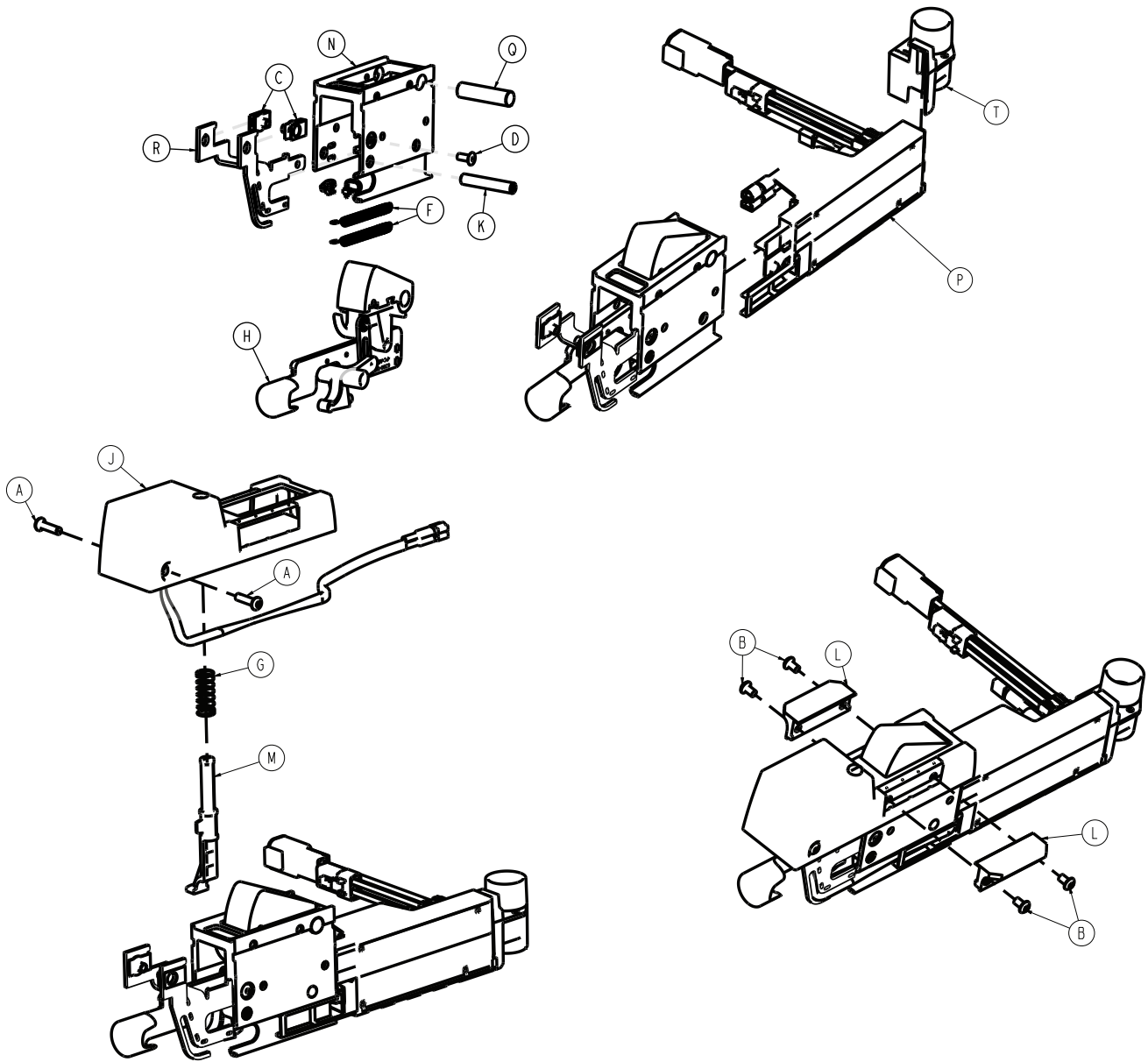


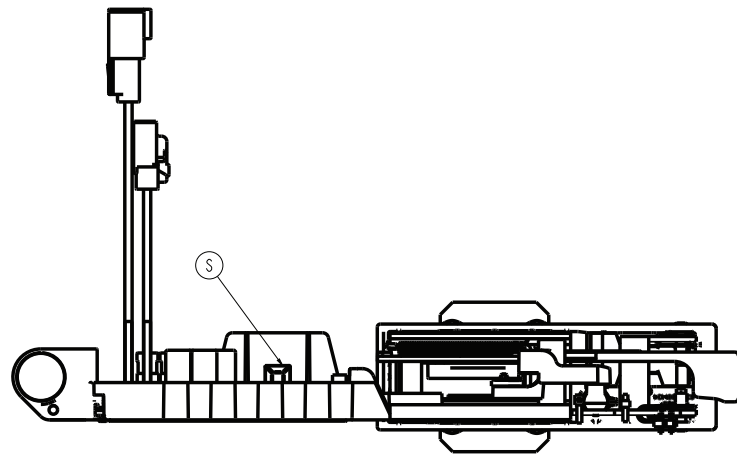
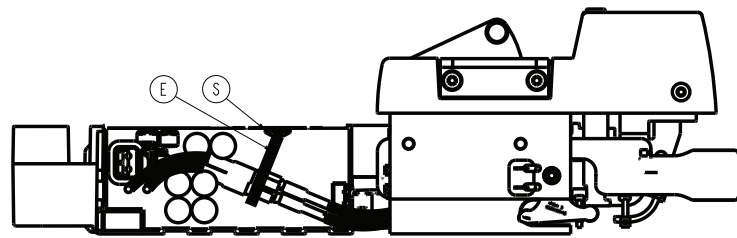
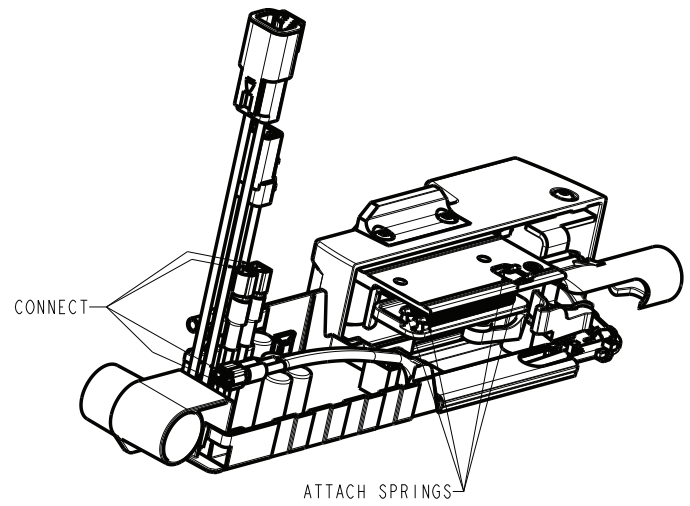
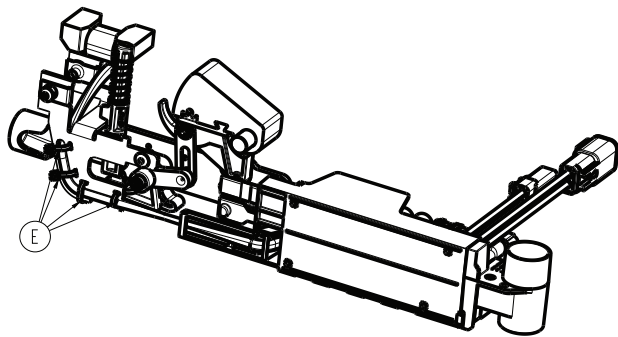
Item	Number	Name	Quantity
A	0001-193-000	Flat head cap screw	12
B	0001-194-000	Flat head cap screw	4
C	0001-195-000	Flat head cap screw	4
D	0015-087-000	Square nut	2
E	0038-111-000	Cable tie	5
F	0038-887-000	Compression wire	1
G	0038-606-000	Compression wire	1
H	0081-439-000	Bronze bearing	1
J	639002010023	Anchor plunger assembly, middle (page 1 72)	1
K	639001010024	Anchor pawl assembly, head end (page 1 69)	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
P	639001010074	Transfer lock pin assembly (page 110)	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
Y	6390-001-114	Anchor drive rod, medium	1

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

Anchor pawl assembly, head end

639001010024 Rev AE (Reference only)



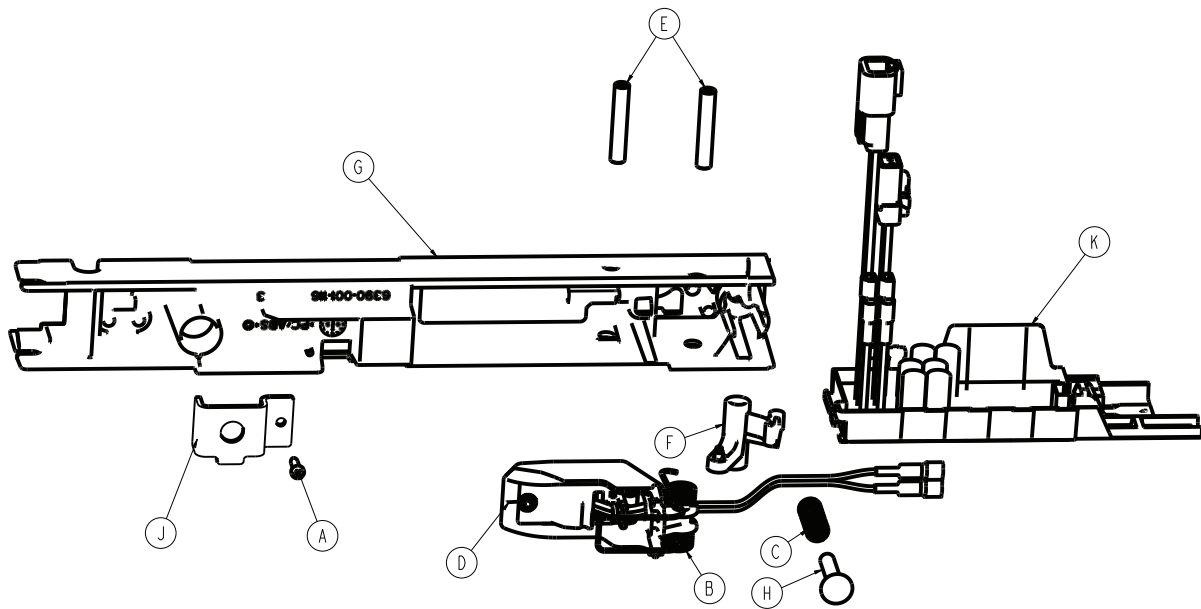


Item	Number	Name	Quantity
A	0004-396-000	Button head cap screw	2
B	0004-665-000	Button head cap screw	4
C	0018-009-000	Extruded "U" nut	2
D	0025-079-000	Dome head pop rivet	1
E	0038-111-000	Cable tie	5
F	0038-885-000	Pawl return spring	2
G	0038-888-000	Compression, wire	1
H	6390-001-070	Manual release 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

Item	Number	Name	Quantity
M	6390-001-124	Anchor actuator pin, head end	1
N	6390-001-125	Anchor housing, head end	1
P	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

Anchor plunger assembly, middle

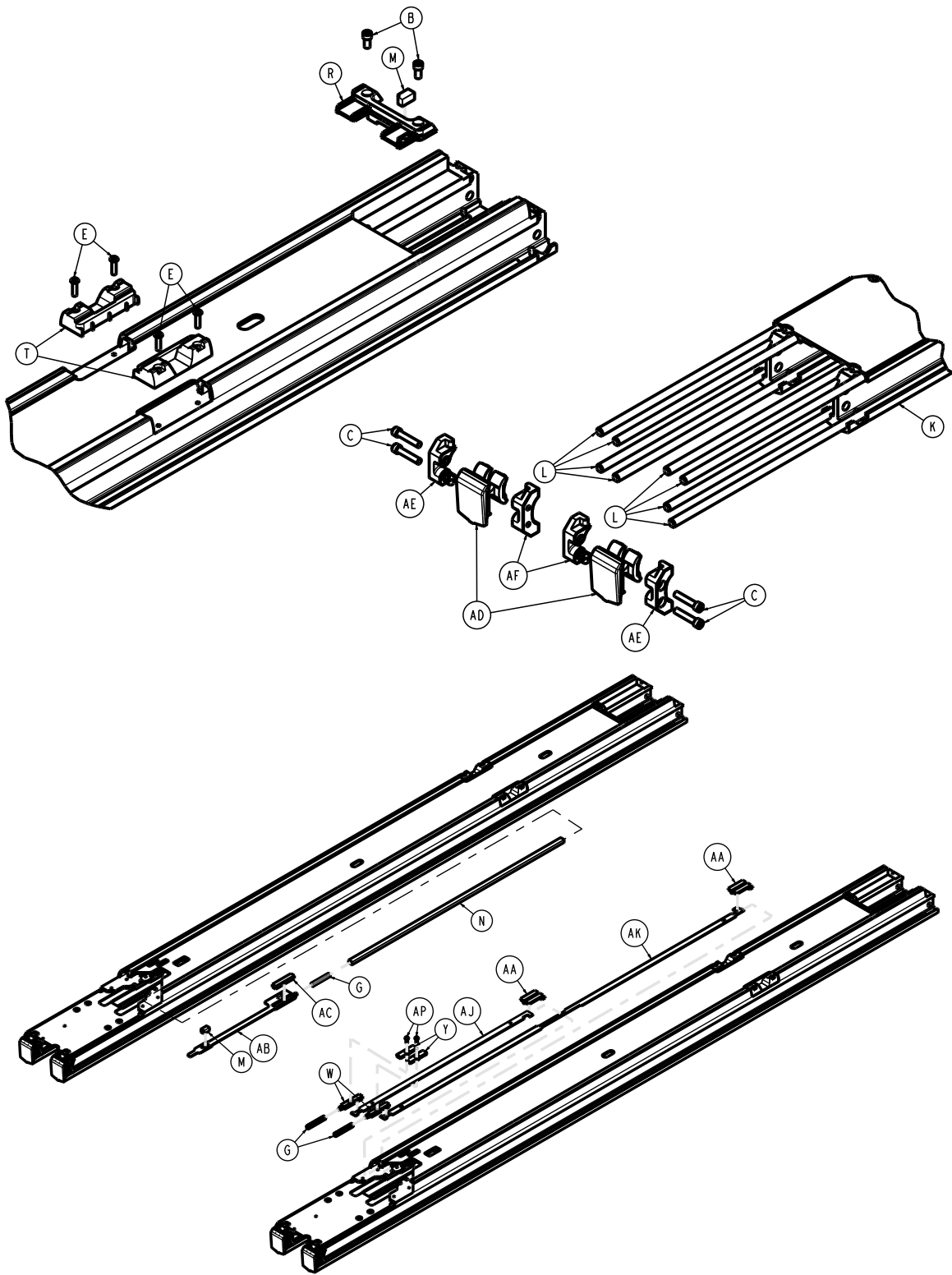
639002010023 Rev AE (Reference only)

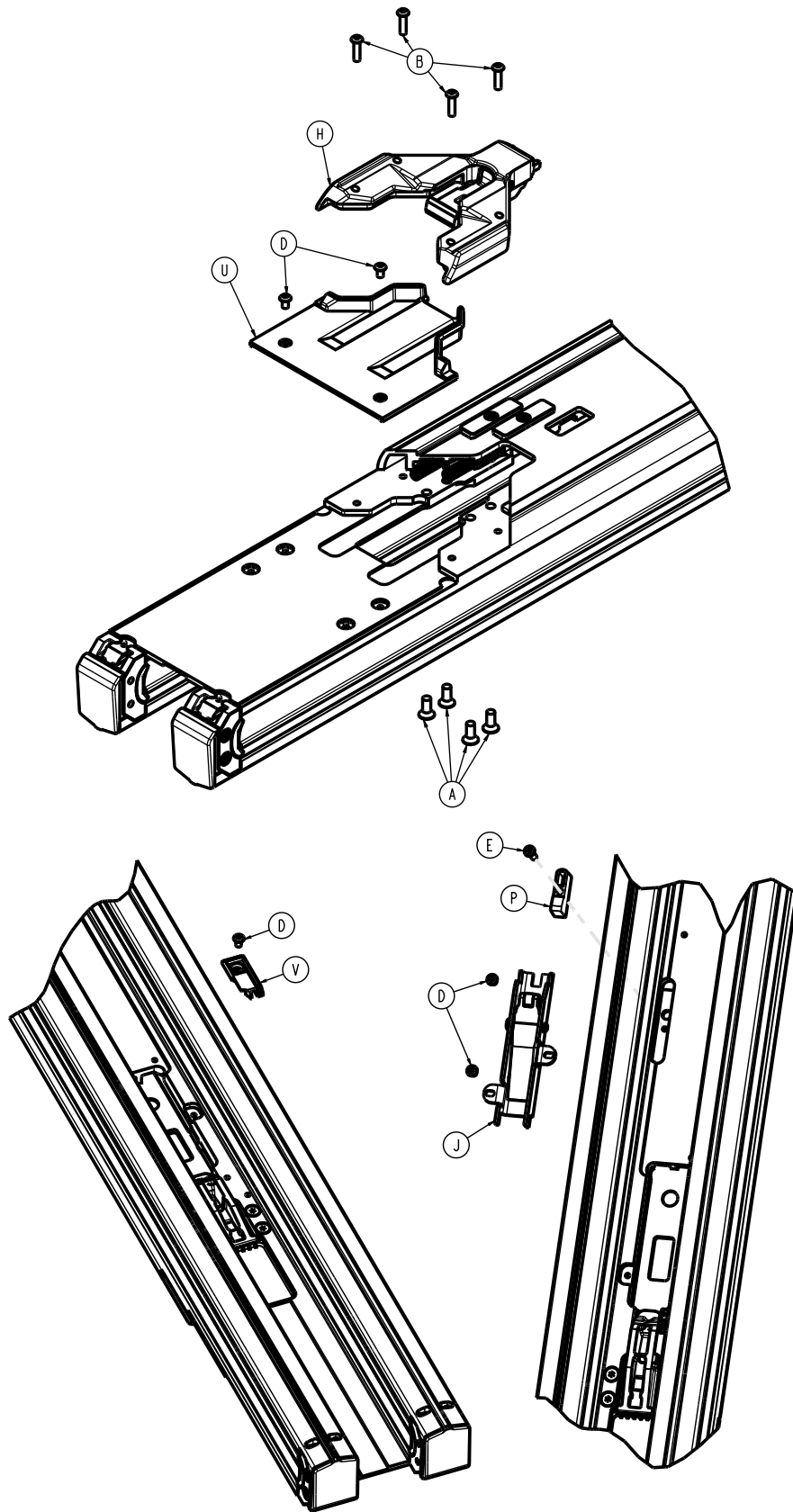


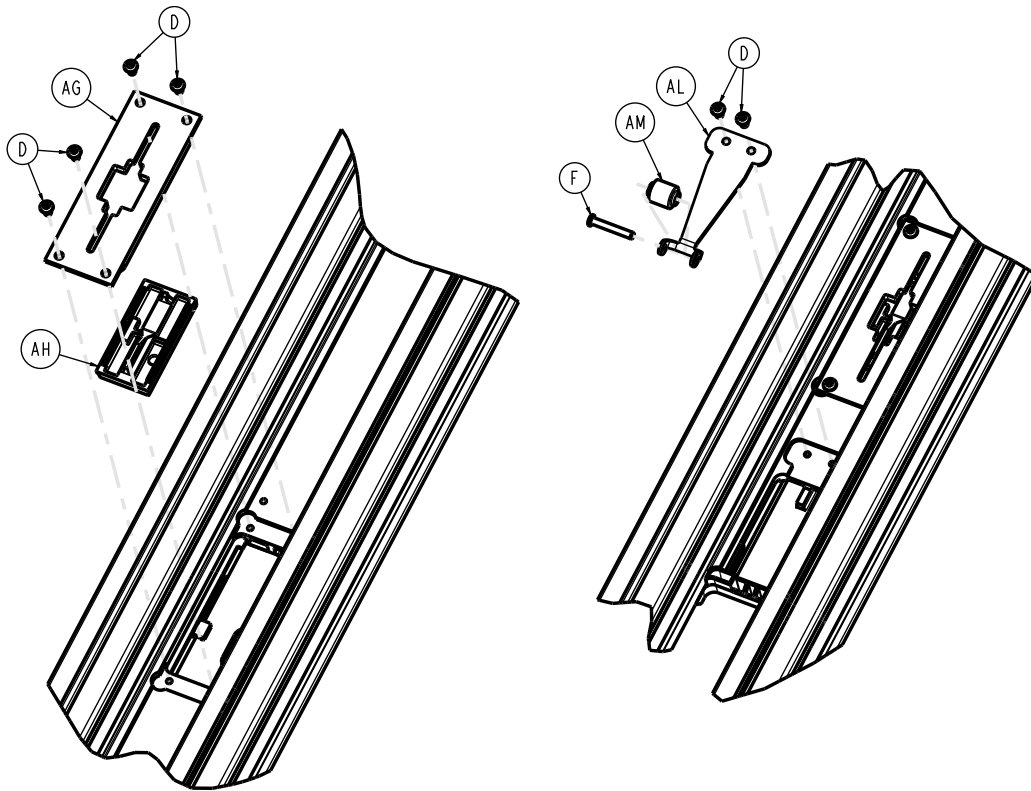
Item	Number	Name	Quantity
A	0023-163-000	Pan head tapping screw	1
B	0038-886-000	Torsion spring - anchor coil housing	1
C	0038-888-000	Compression, wire	1
D	6390-001-030	Anchor coil assembly, mid	1
E	6390-001-112	Anchor pivot pin, threaded	2
F	6390-001-115	Pivot actuator	1
G	6390-001-116	Anchor housing,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

Transfer assembly

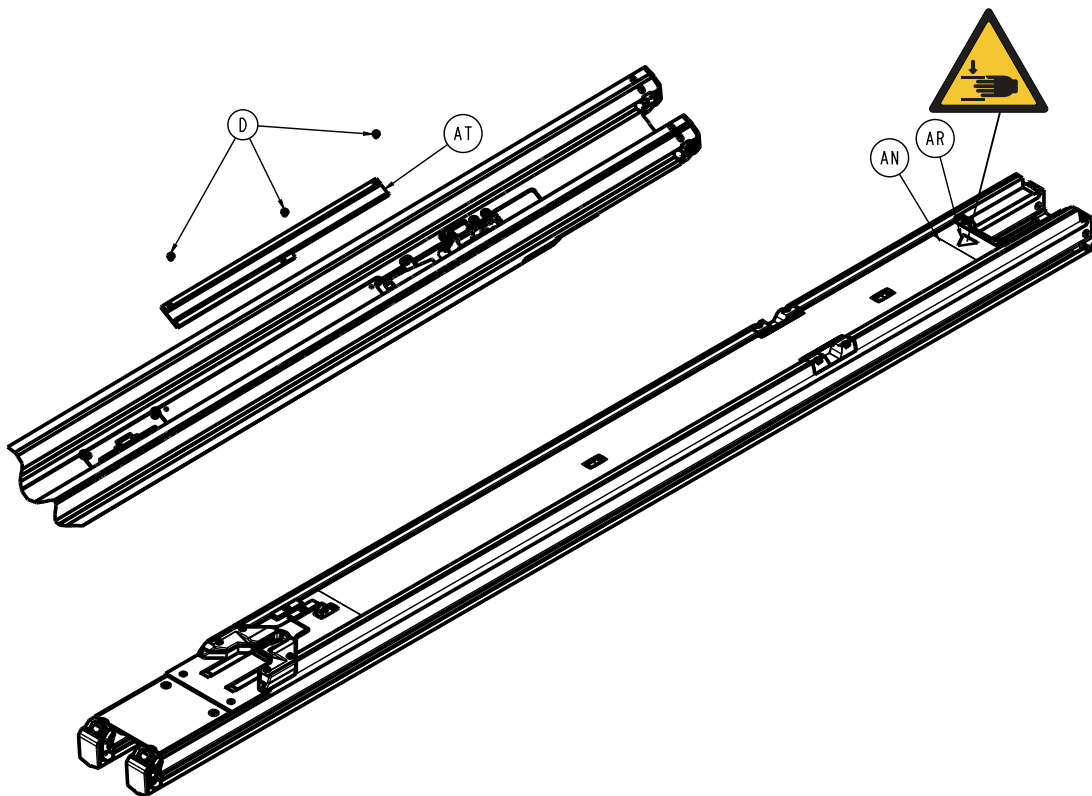
6390-101-012 Rev AC (Reference only)







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.

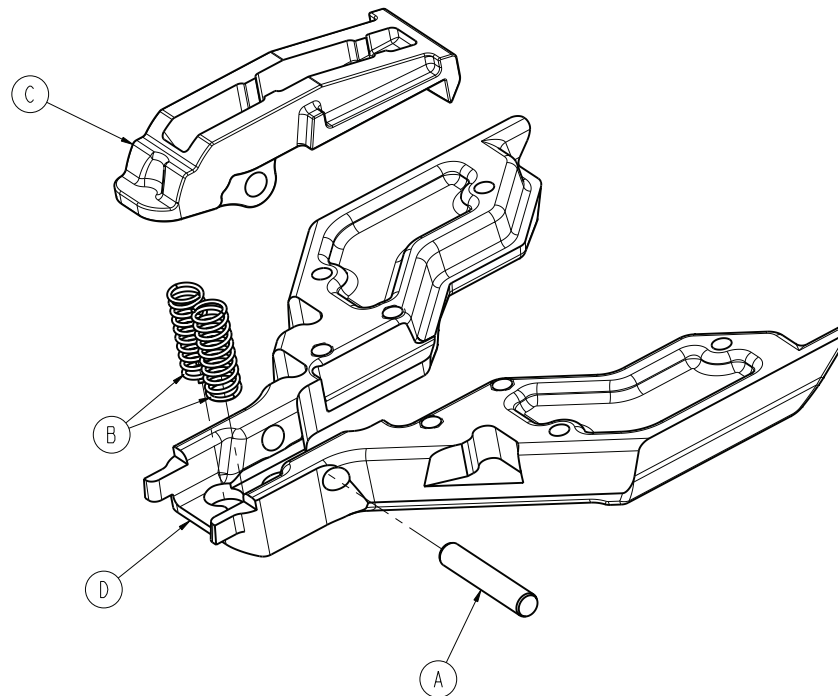


Item	Number	Name	Quantity
A	0001-195-000	Flat head cap screw	4
B	0004-660-000	Socket head cap screw	2

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
H	6390-101-018	<i>Fastener assembly, foot end (page 77)</i>	1
J	6390-001-021	<i>Transfer trolley lock assembly (page 78)</i>	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
P	6390-001-205	Magnet mover trigger	1
R	6390-001-207	Transfer back cover	1
T	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
Y	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

Fastener assembly, foot end

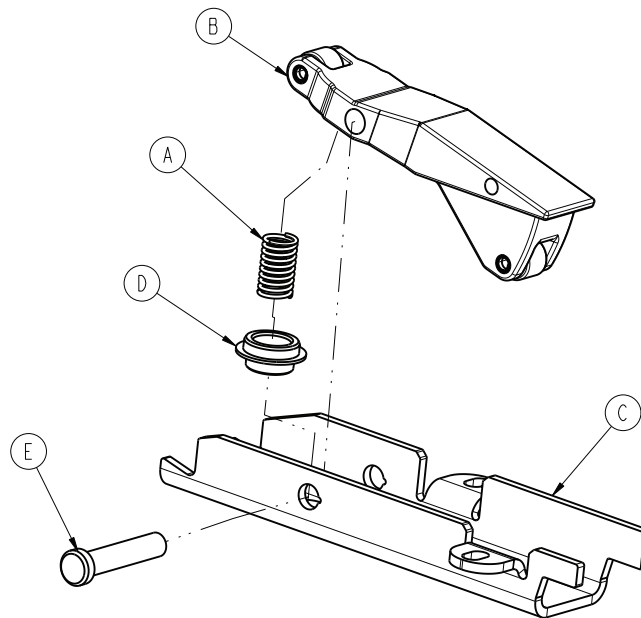
6390-101-018 Rev AA (Reference only)



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

Transfer trolley lock assembly

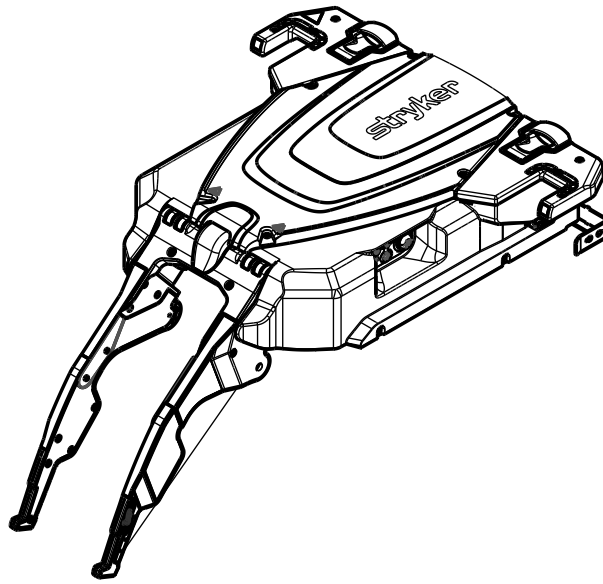
6390-001-021 Rev A (Reference only)



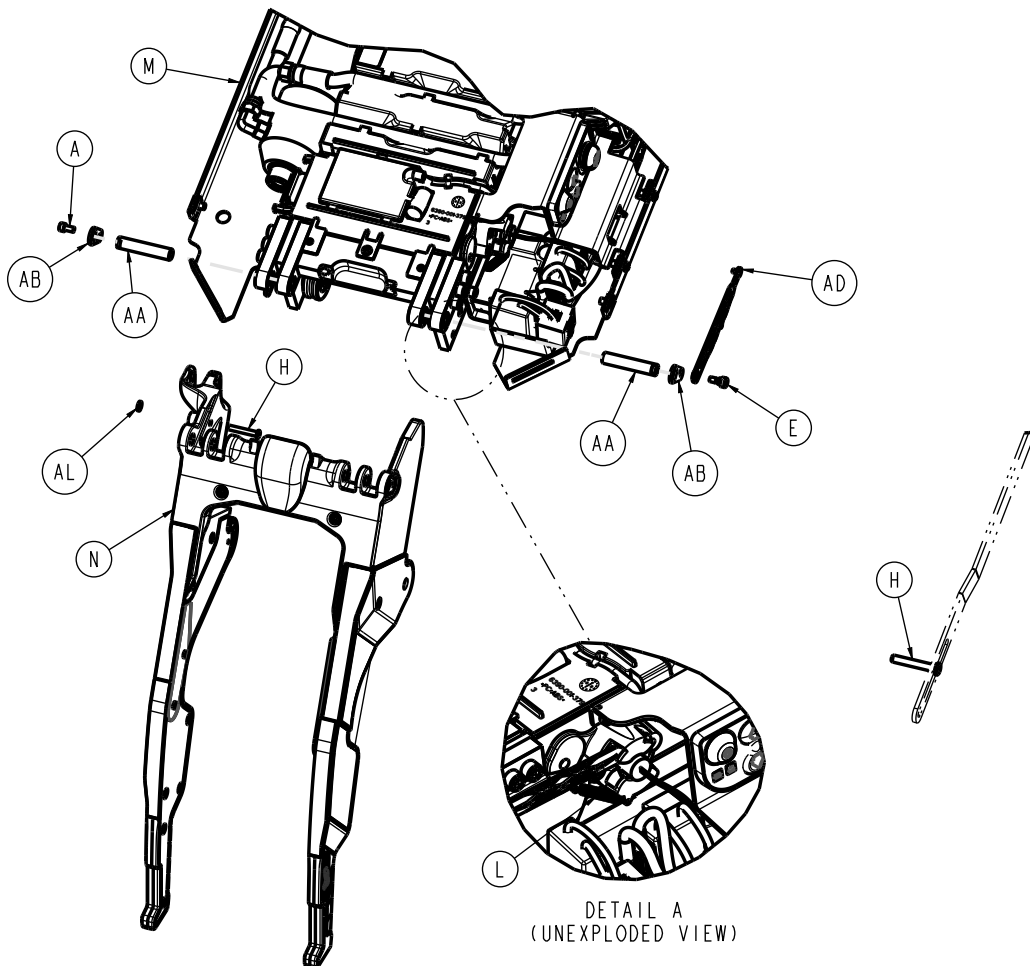
Item	Number	Name	Quantity
A	0038-890-000	Compression, spring	1
B	6390-001-073	Transfer trolley lock assembly	1
C	6390-001-250	Transfer trolley bracket	1
D	6390-001-252	Transfer trolley lock spring cap	1
E	6390-001-259	Trolley lock pivot pin	1

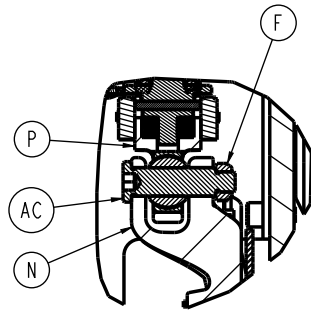
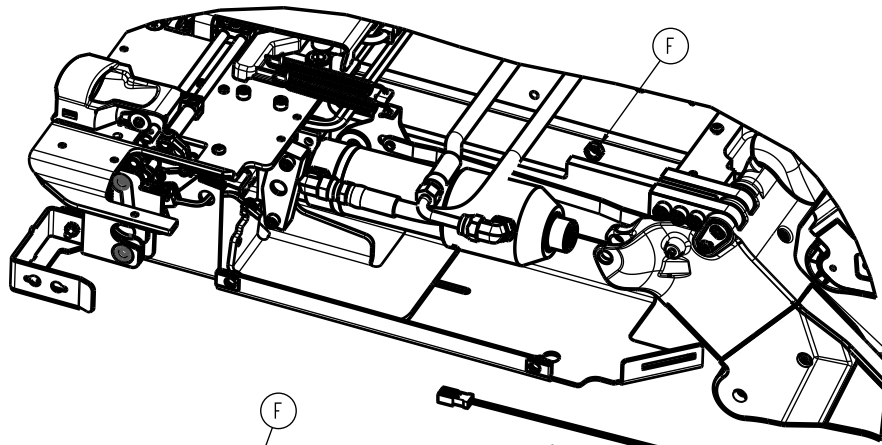
Trolley assembly

6390-001-013 Rev AA (Reference only)

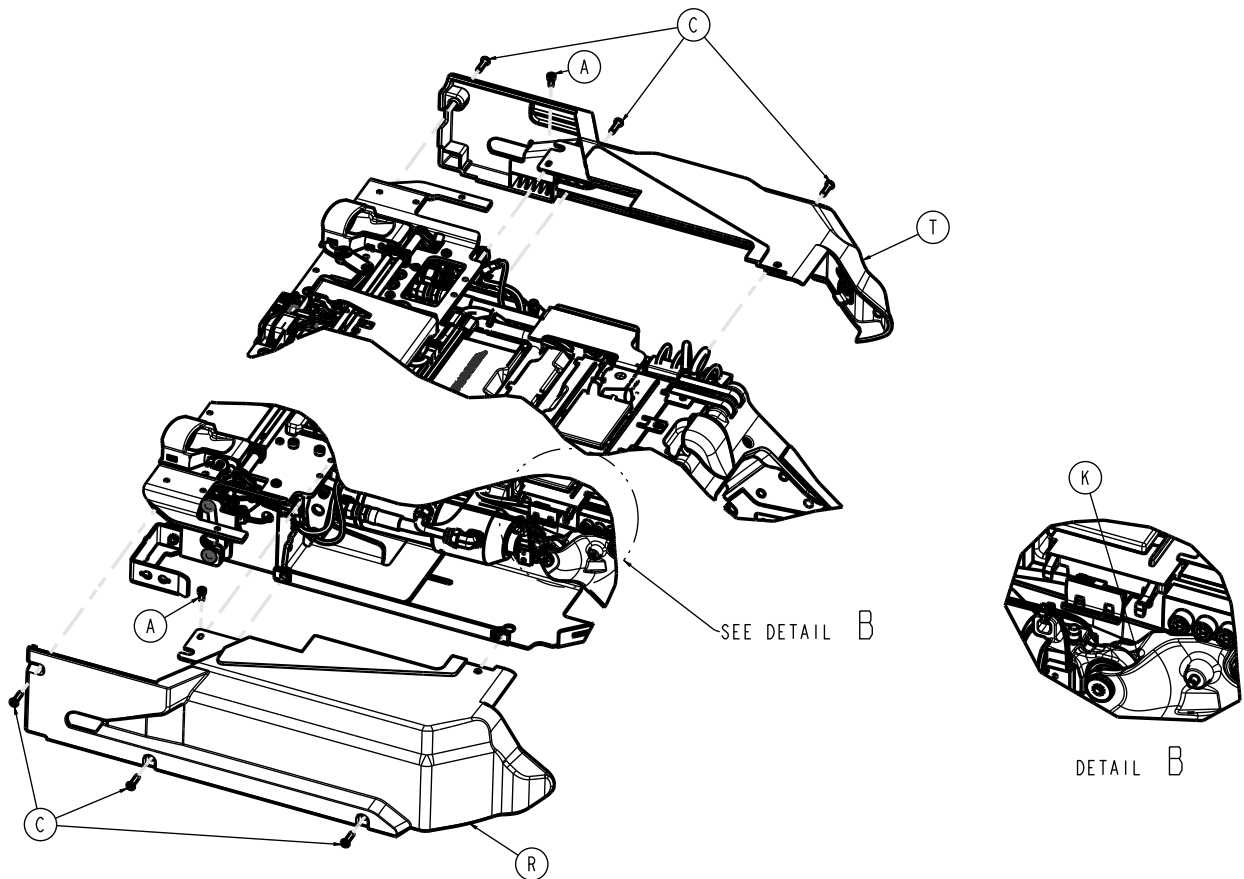
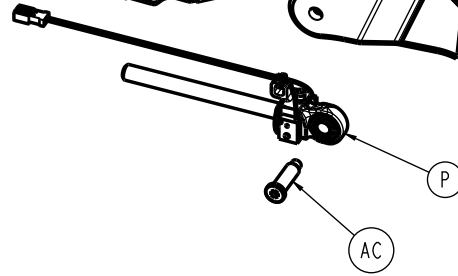


1. Angle sensor to be connected to Item AD with indicating dot oriented to top.
2. Item H orientation.

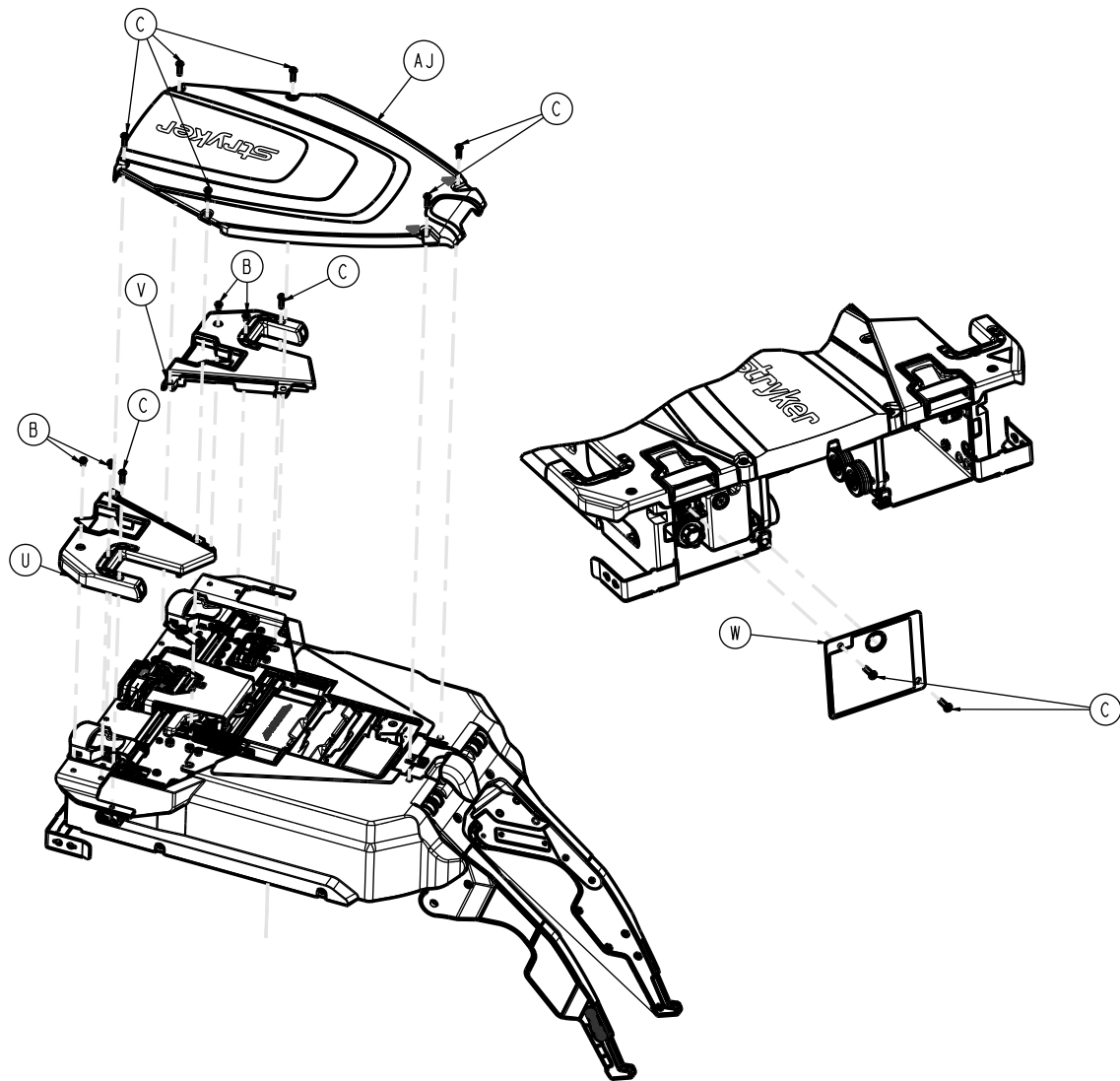




TOP VIEW SECTION
(THRU ITEM "AC")



DETAIL B

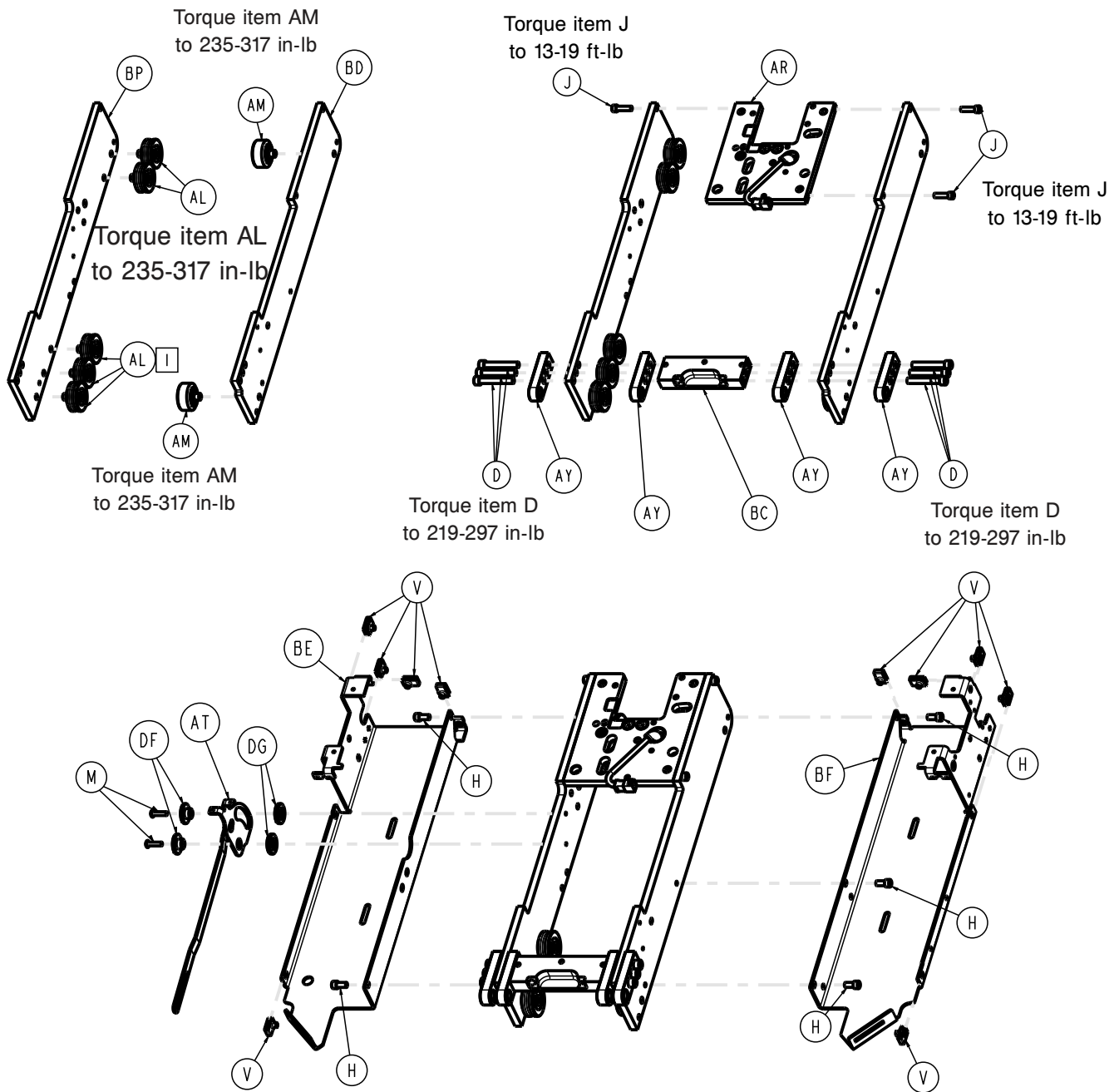


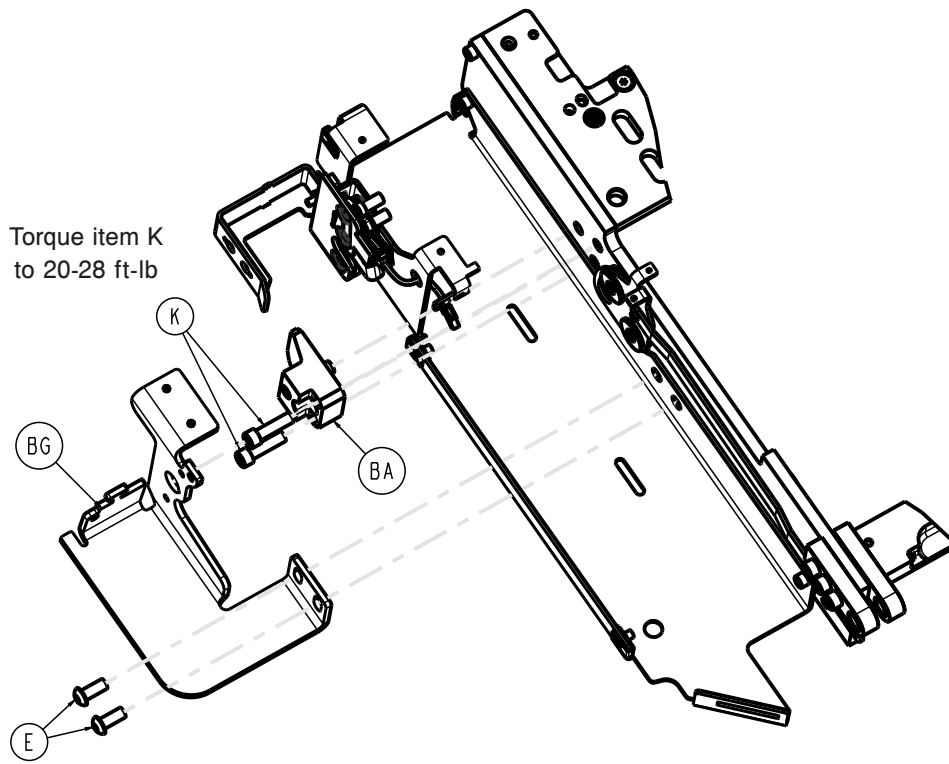
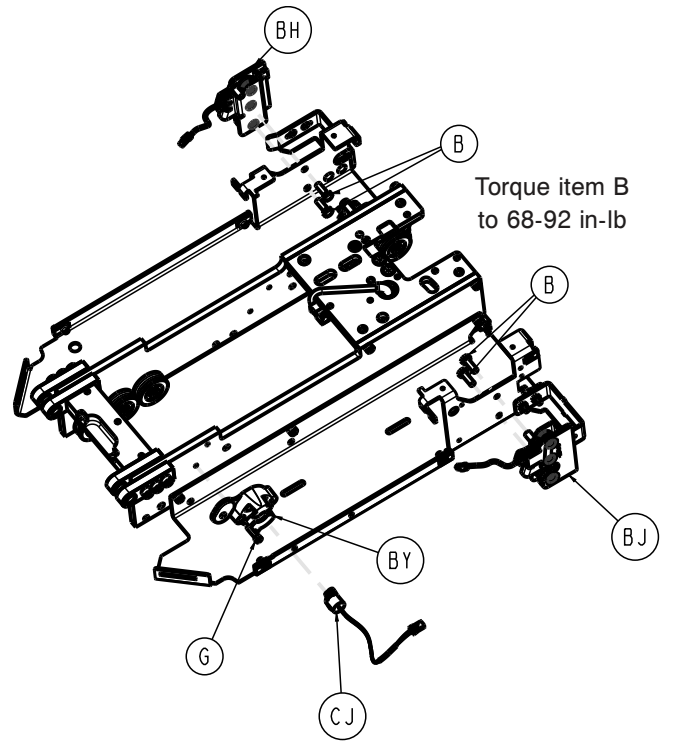
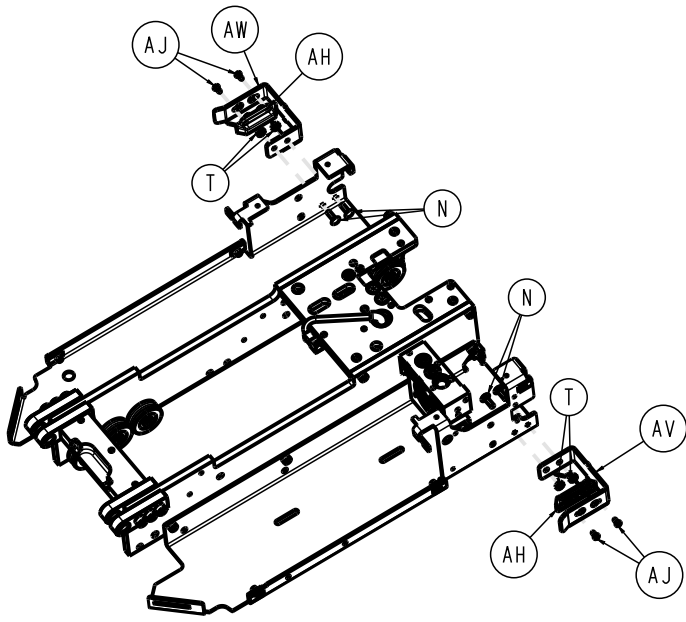
Item	Number	Name	Quantity
A	0004-658-000	Socket head cap screw	3
B	0004-665-000	Button head cap screw	4
C	0004-666-000	Button head cap screw	16
E	0008-082-000	Socket head set screw	1
F	0016-132-000	Nylock hex nut	1
H	0027-778-000	Slic pin	1
K	0038-111-000	Cable tie	1
L	0038-896-000	Extension spring	1
M	6390-001-015	Trolley main frame (page 83)	1
N	6390-001-016	Trolley arm assembly (page 103)	1
P	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

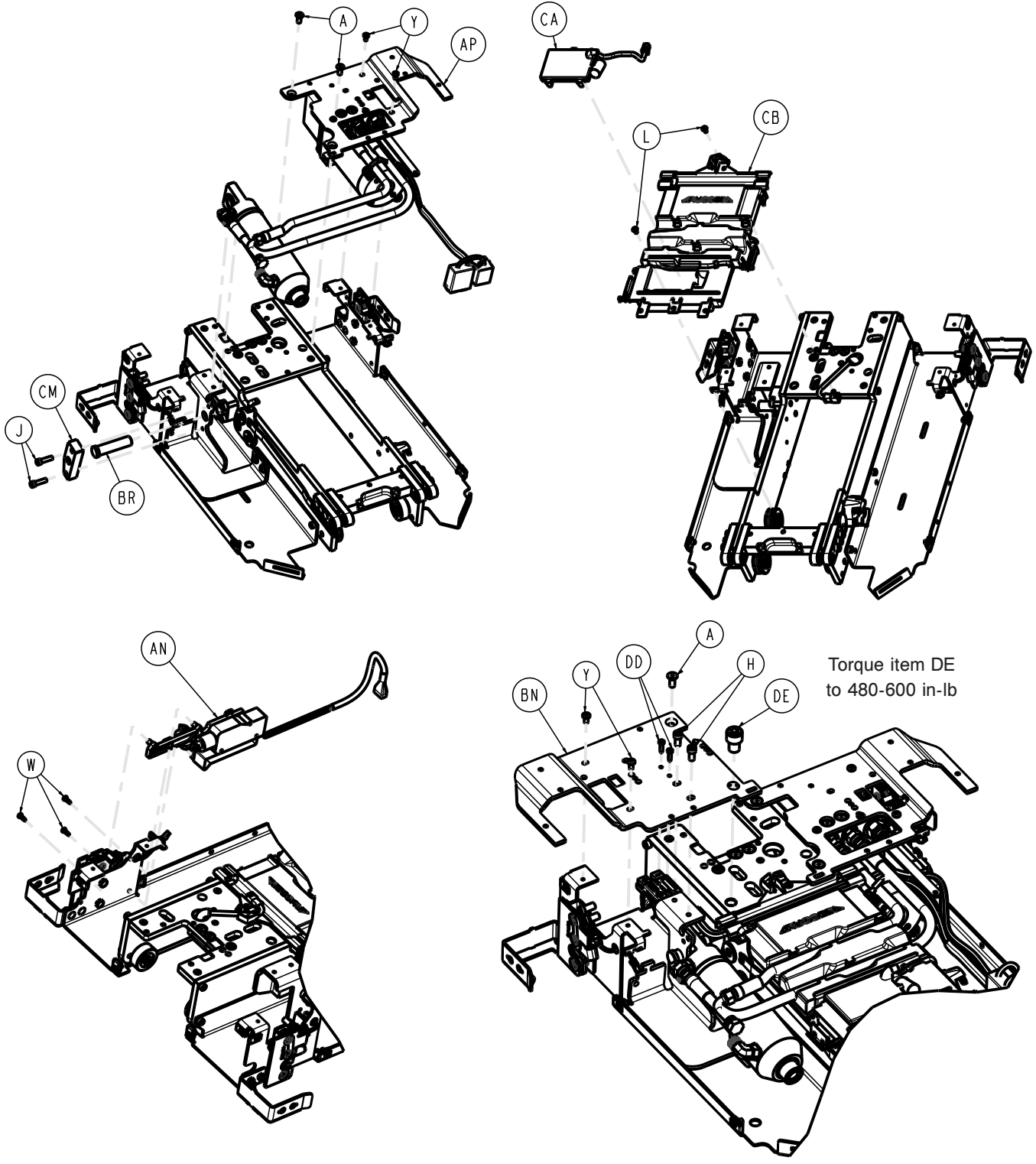
Item	Number	Name	Quantity
AA	6390-001-309	Arm hinge pin	2
AB	6390-001-311	Hinge cover plate	2
AC	6390-001-313	Cylinder clevis pin	1
AD	6390-001-377	Angle sensor link	1
AJ	639001010420	Trolley top cover	1
AL	0011-454-000	Plain washer	1

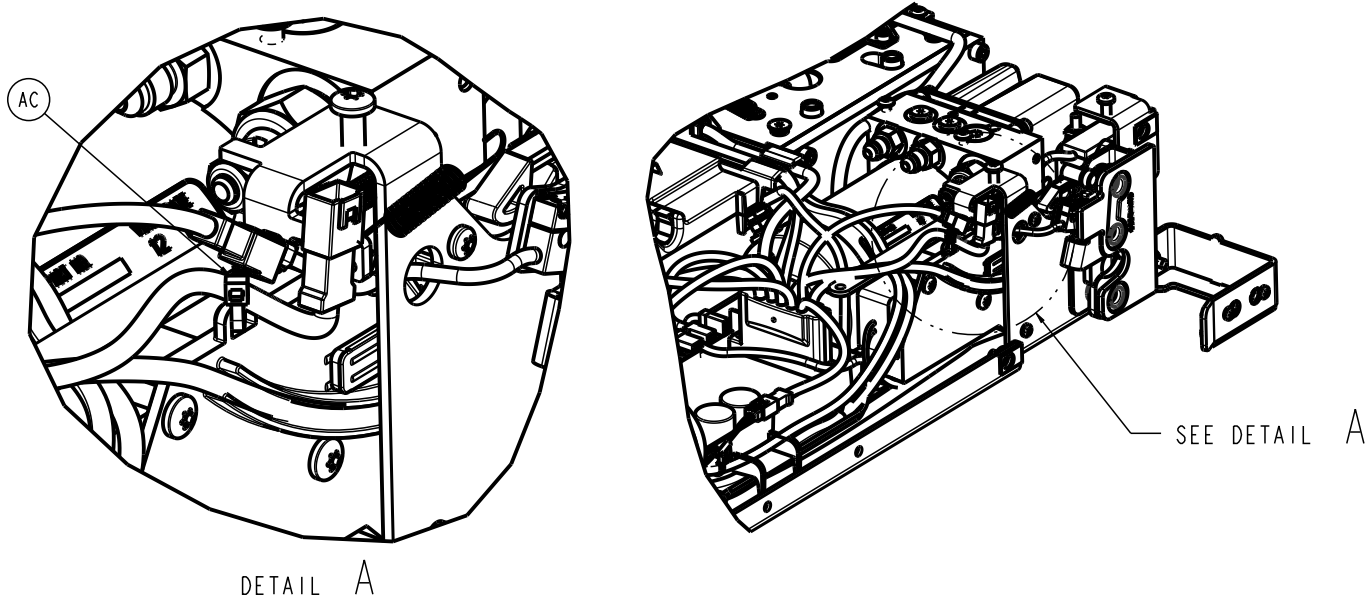
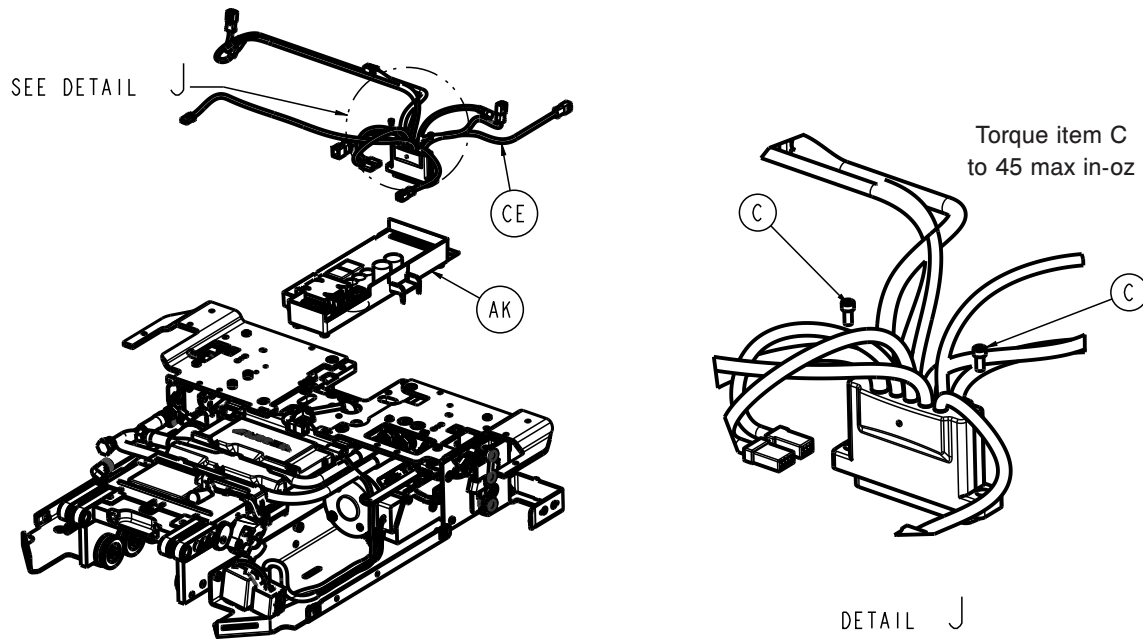
Trolley main frame

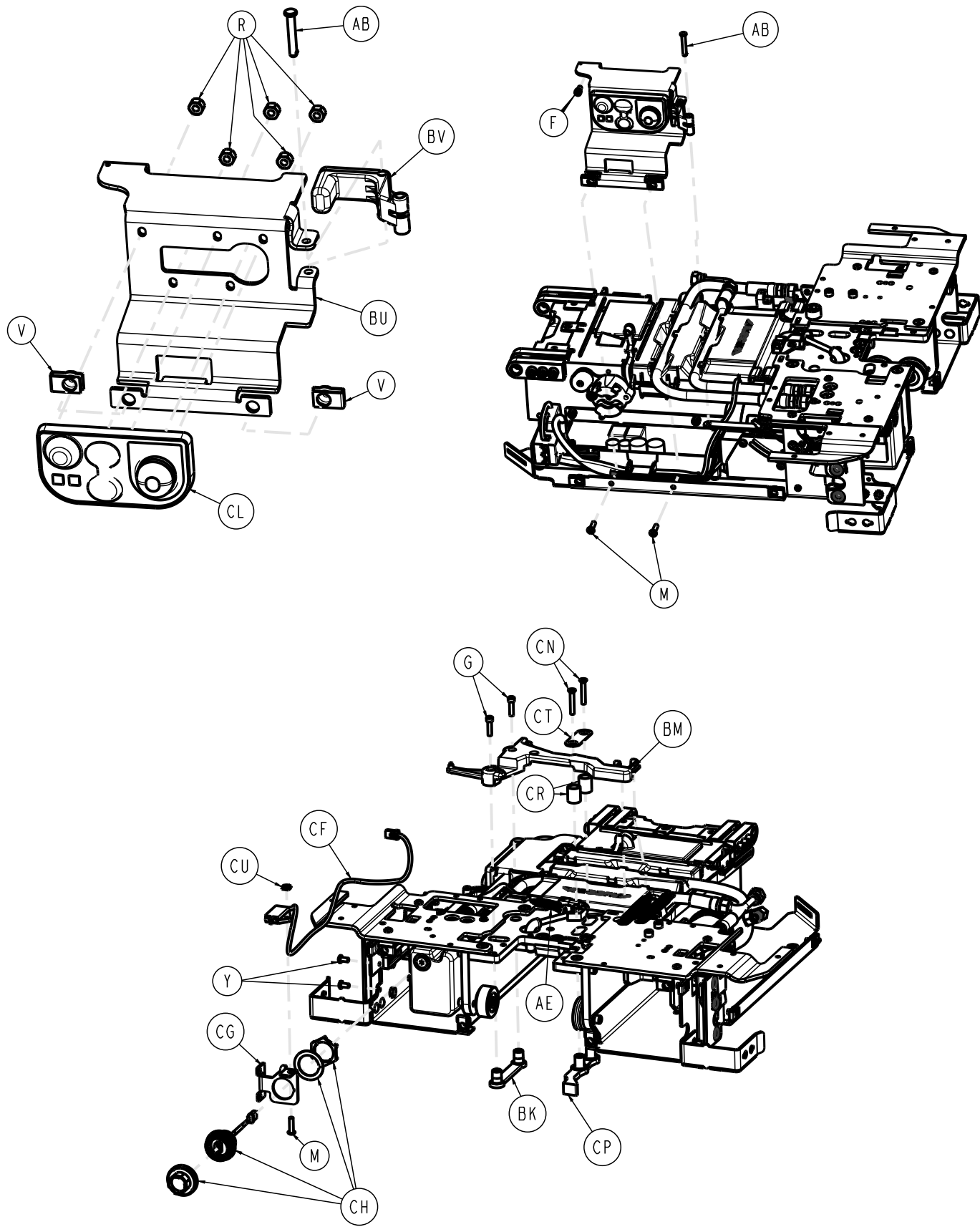
6390-001-015 Rev AB (Reference only)

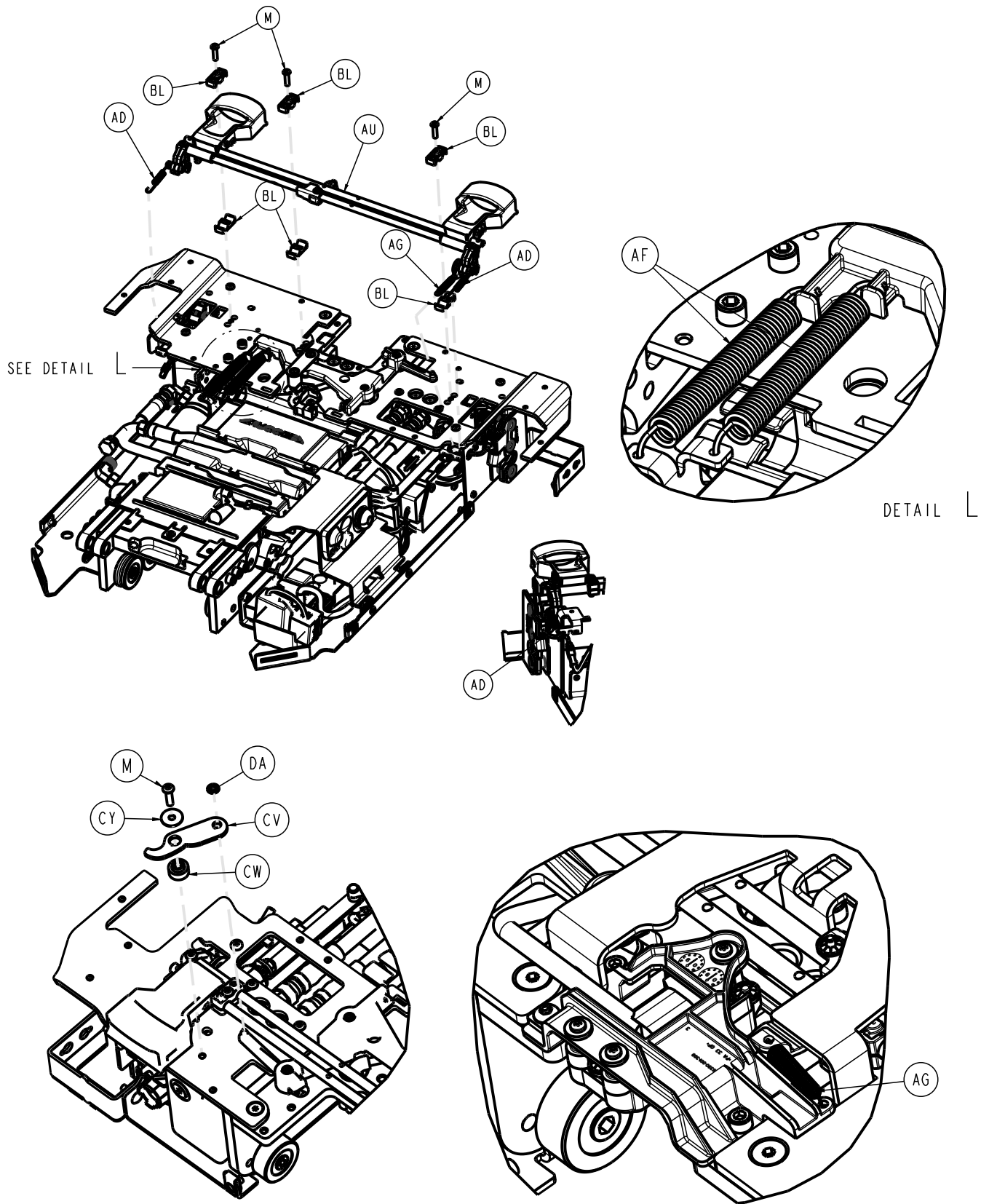


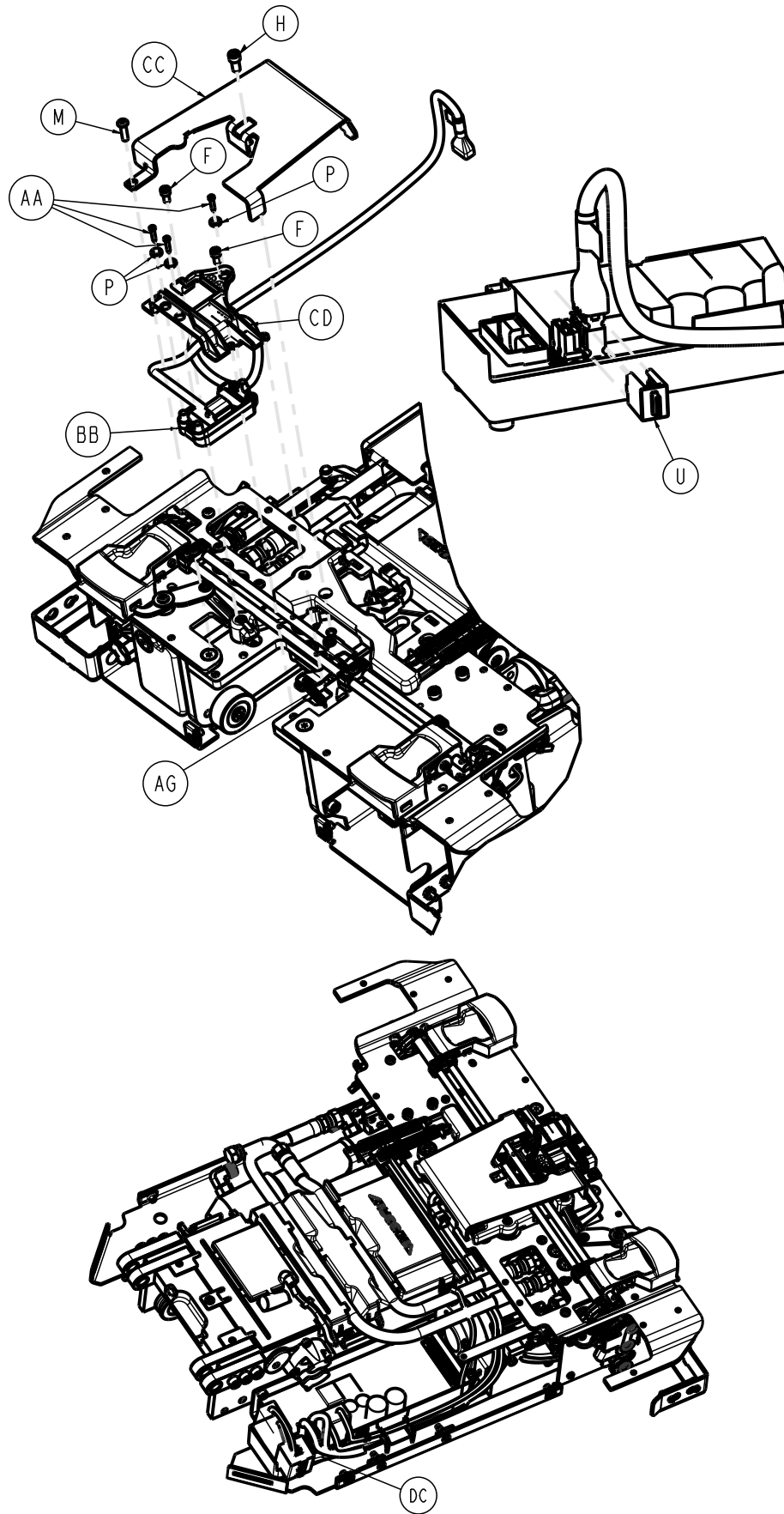


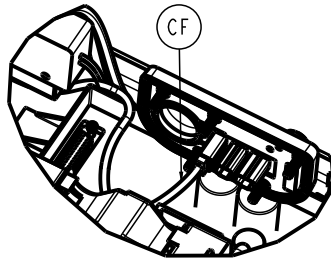




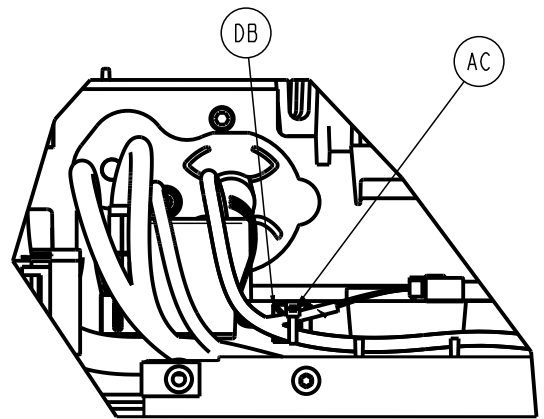
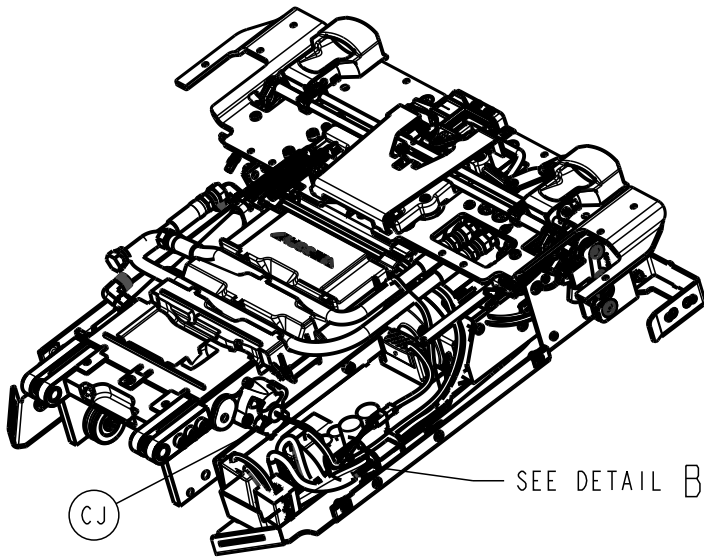
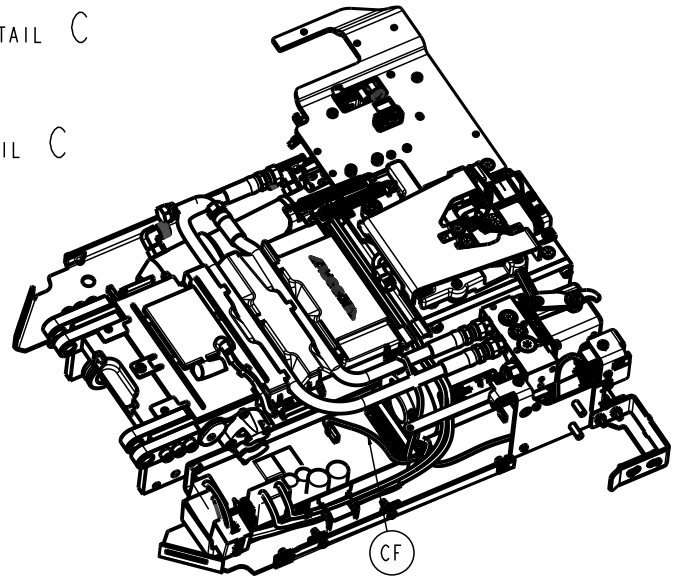
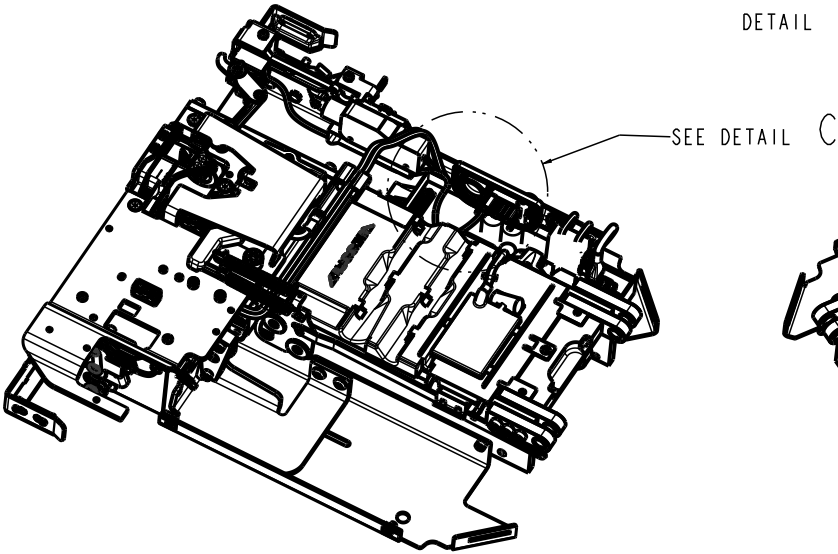




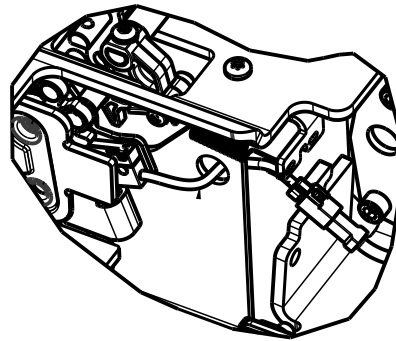
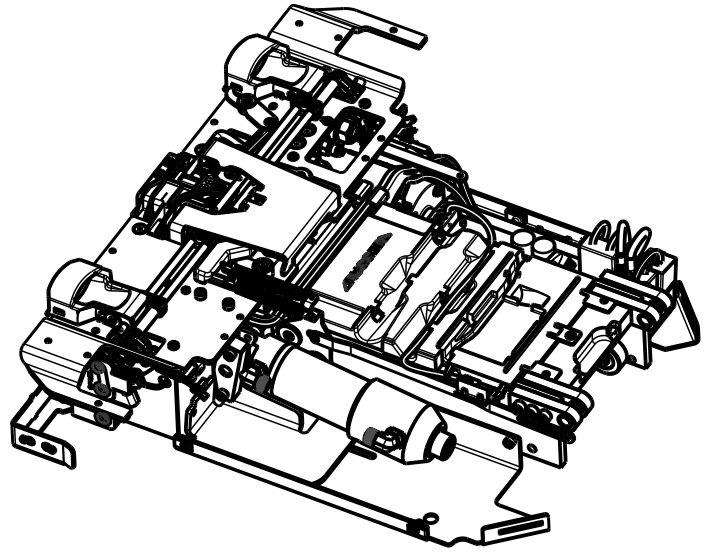
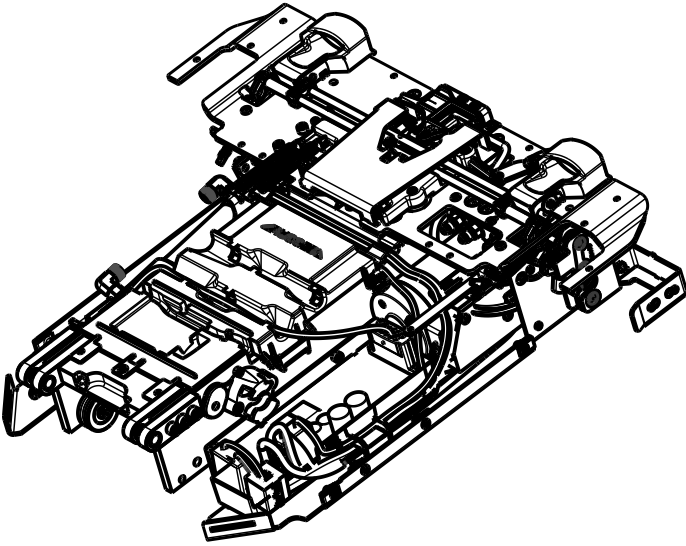




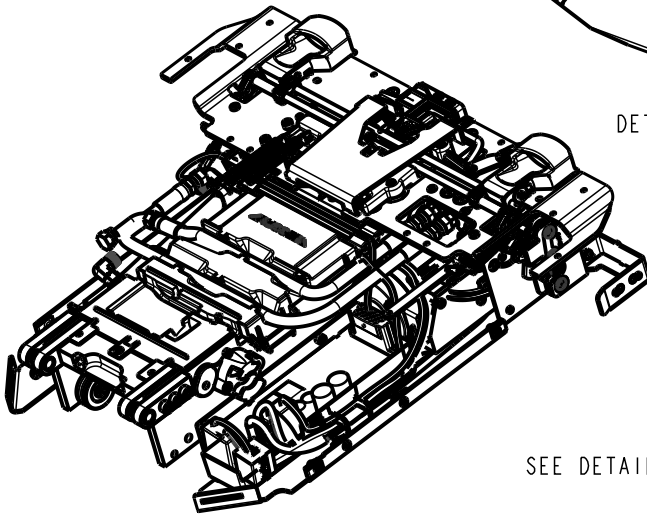
DETAIL C



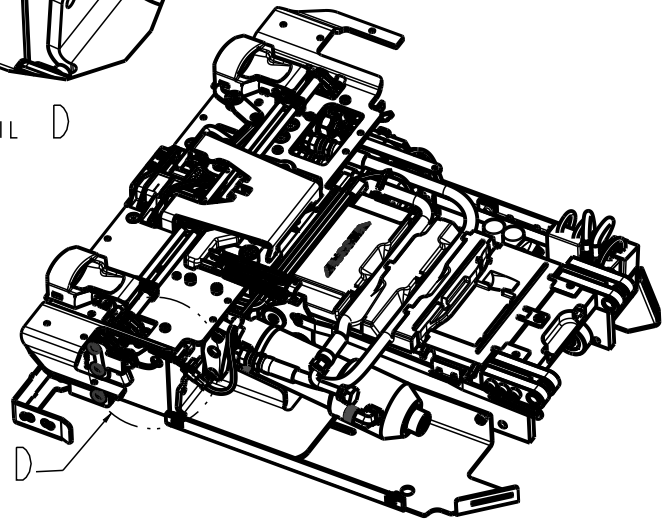
DETAIL B

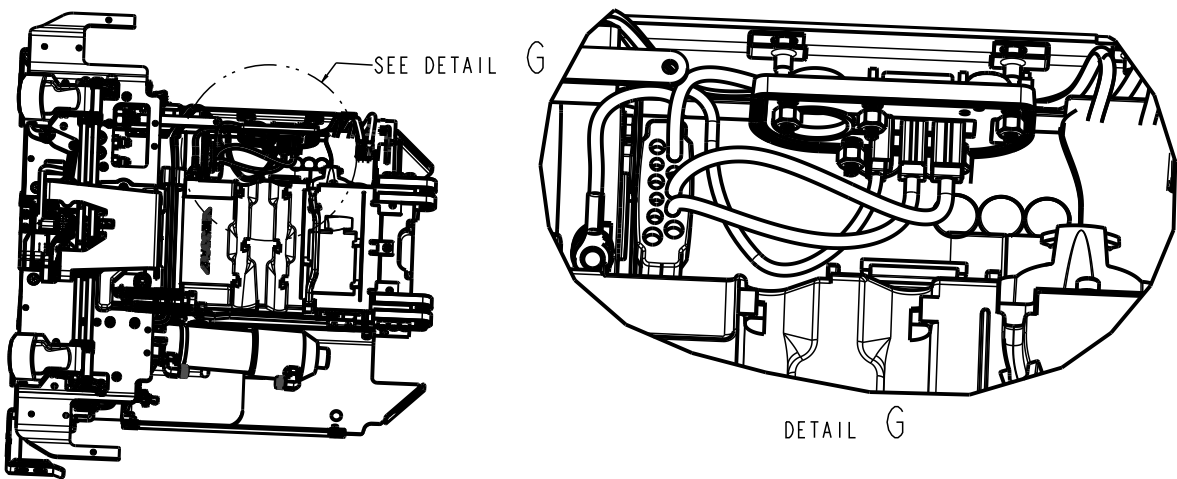
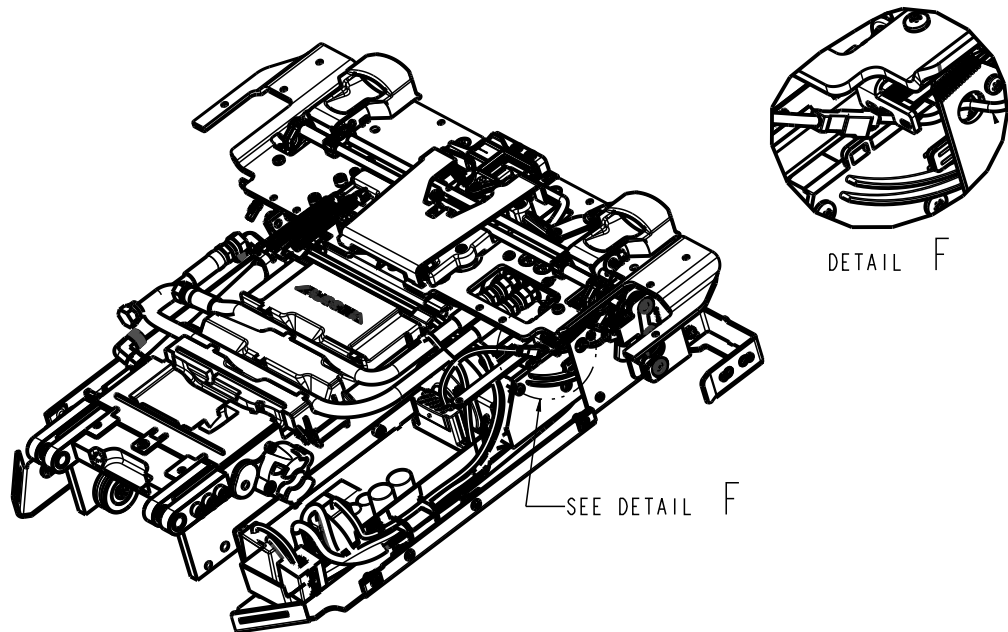
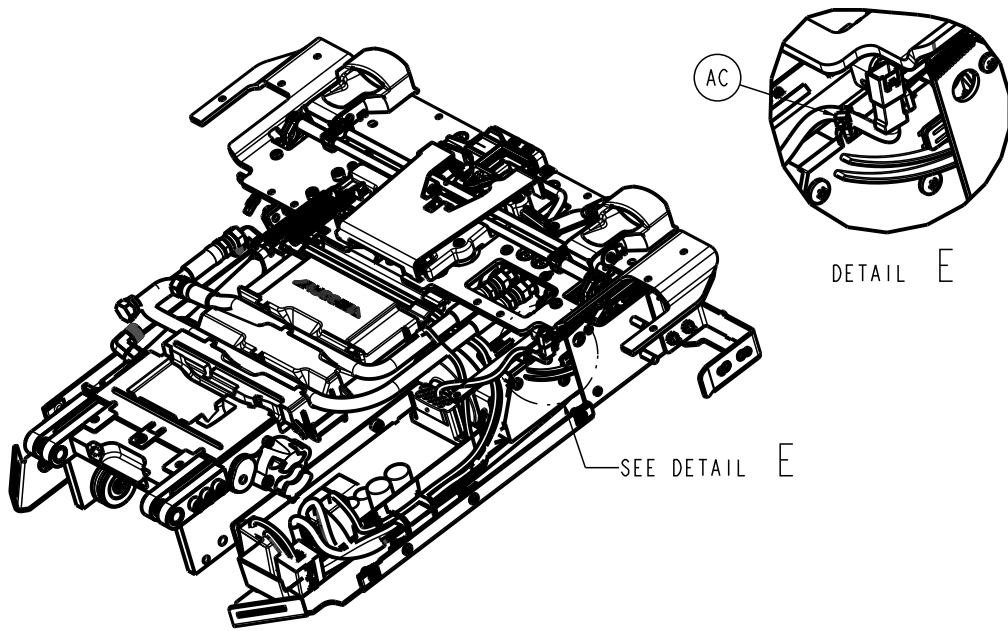


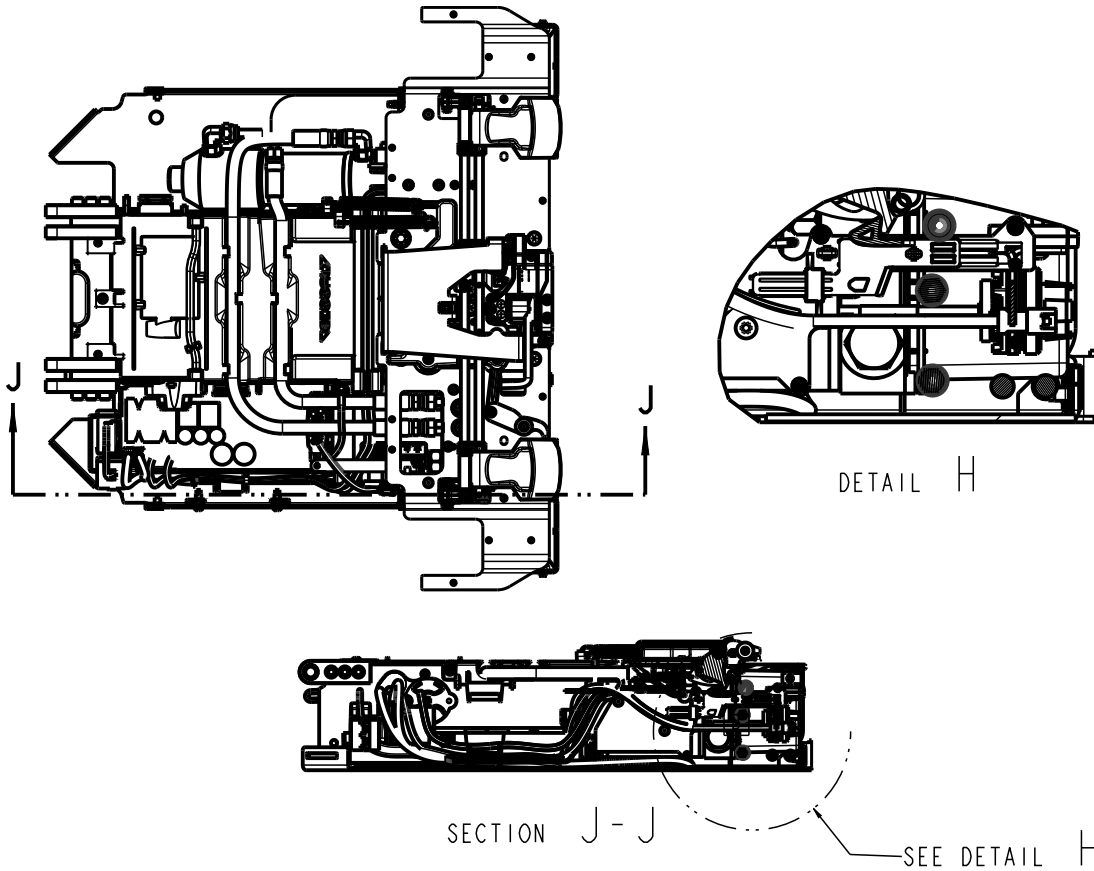
DETAIL D



SEE DETAIL D







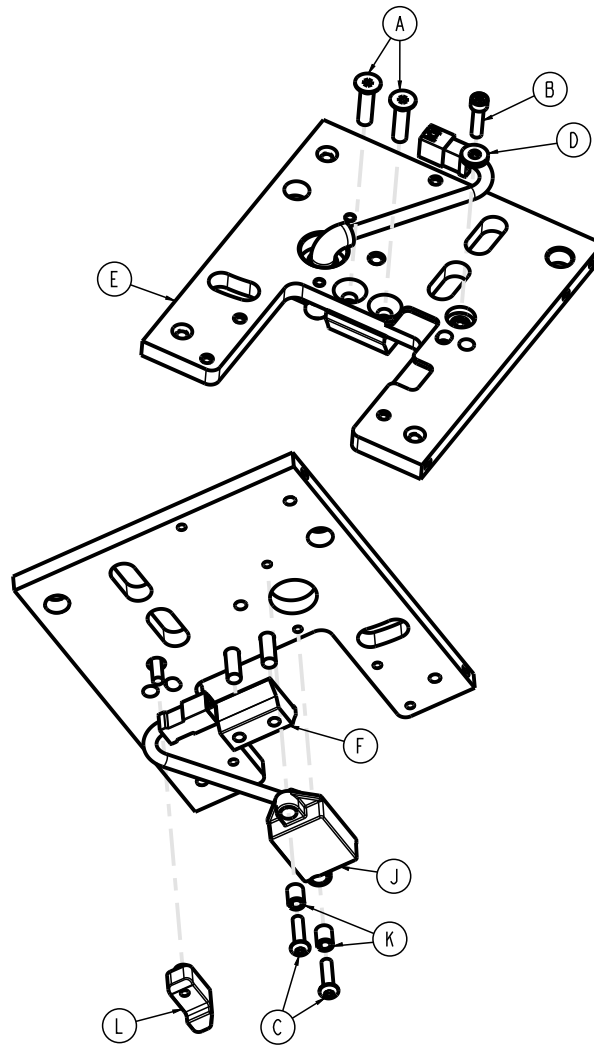
Item	Number	Name	Quantity
A	0001-195-000	Flat head cap screw	3
B	0003-148-000	Hex head cap screw	4
C	0004-874-000	Socket head cap screw	2
D	0004-352-000	Socket head cap screw	6
E	0004-652-000	Button head cap screw	2
F	0004-658-000	Socket head cap screw	3
G	0004-659-000	Socket head cap screw	3
H	0004-660-000	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
P	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
Y	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

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	6390-101-014	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	<i>Trolley actuator assembly - 6390-001-028 (page 106)</i>	1
AP	6390-001-035	<i>Wing assembly, left (page 97)</i>	1
AR	6390-001-043	<i>Trolley/transfer interface mechanism (page 96)</i>	1
AT	6390-001-045	Trolley arm mechanism	1
AU	6390-001-046	<i>Trolley manual release assembly (page 101)</i>	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
BH	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
CB	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

Item	Number	Name	Quantity
CJ	6390-001-397	Angle position sensor	1
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

Trolley/transfer interface mechanism

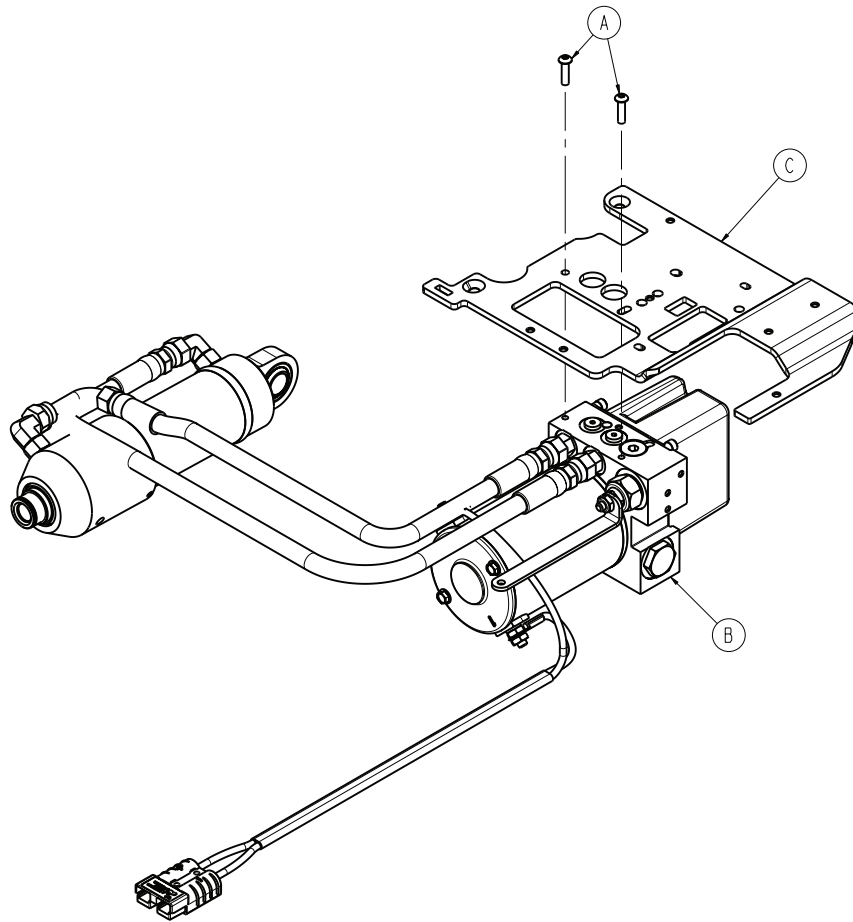
6390-001-043 Rev AA (Reference only)



Item	Number	Name	Quantity
A	0001-004-011	Flat head cap screw	2
B	0004-659-000	Socket head cap screw	1
C	0004-666-000	Button head cap screw	2
D	0011-517-000	Washer	1
E	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

Wing assembly, left

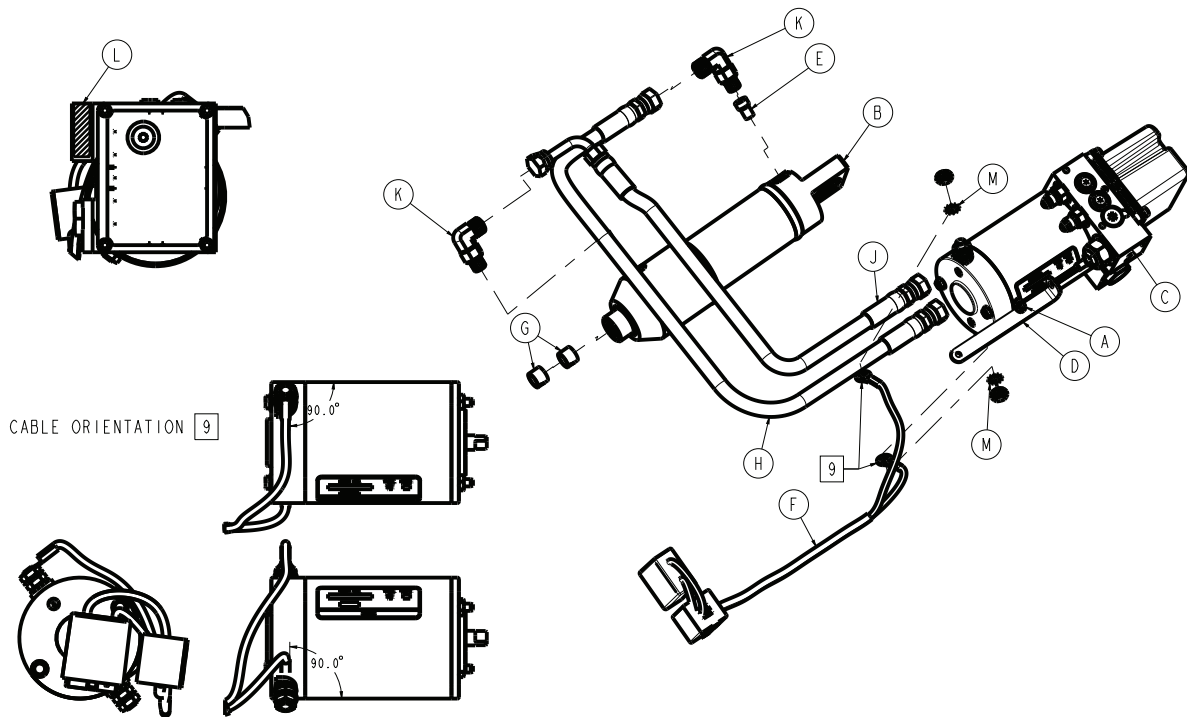
6390-001-035 Rev A (Reference only)



Item	Number	Name	Quantity
A	0004-666-000	Button head cap screw	2
B	6390-001-039	Hydraulics assembly (page 98)	1
C	6390-001-339	Wing plate, left	1

Hydraulics assembly

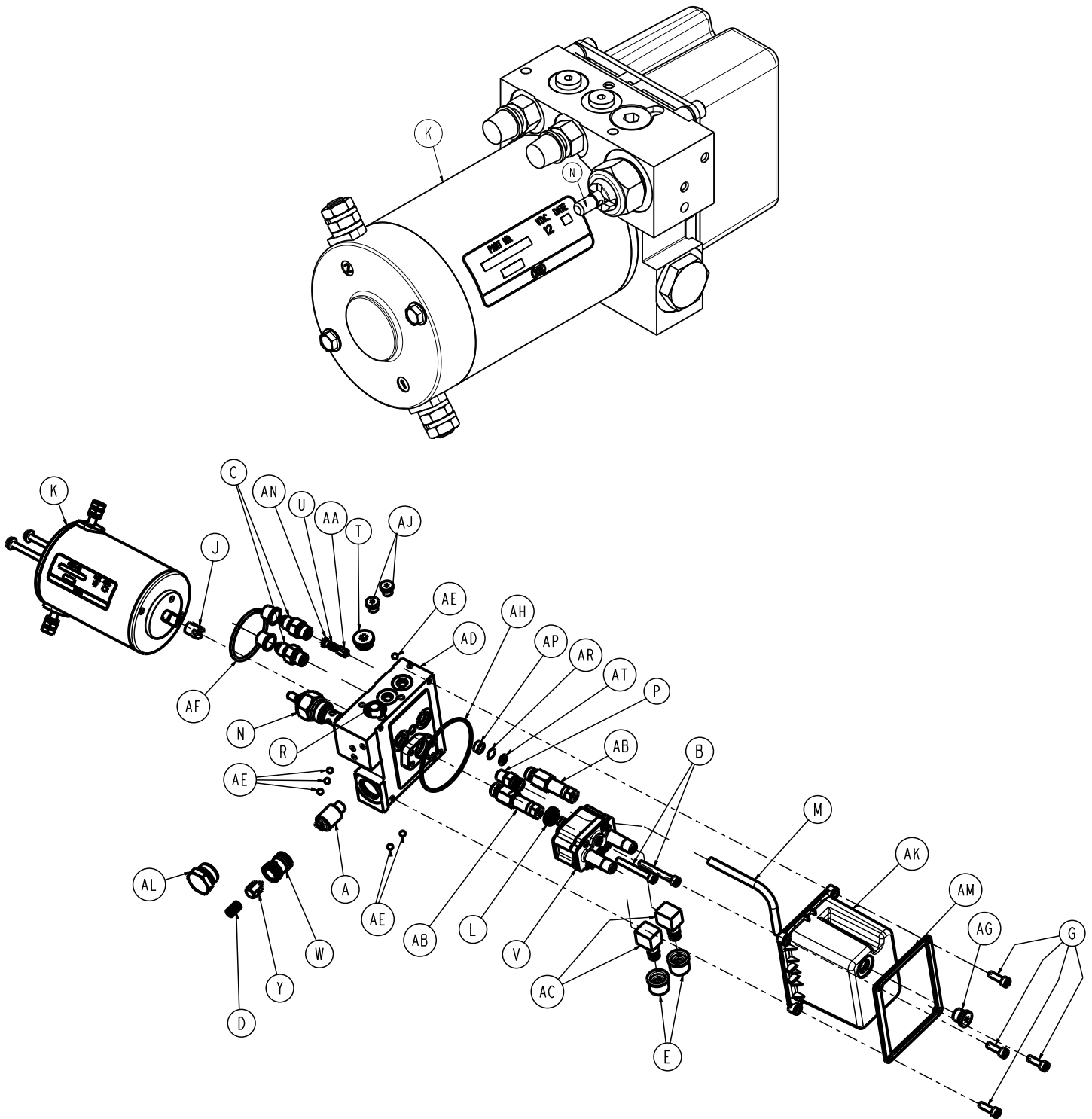
6390-001-039 Rev AC (Reference only)



Item	Number	Name	Quantity
A	0016-102-000	Nylock hex nut	1
B	6390-001-029	Hydraulic cylinder	1
C	6390-101-038	Manifold assembly (page 99)	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
H	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

Manifold assembly

6390-101-038 Rev AB (Reference only)

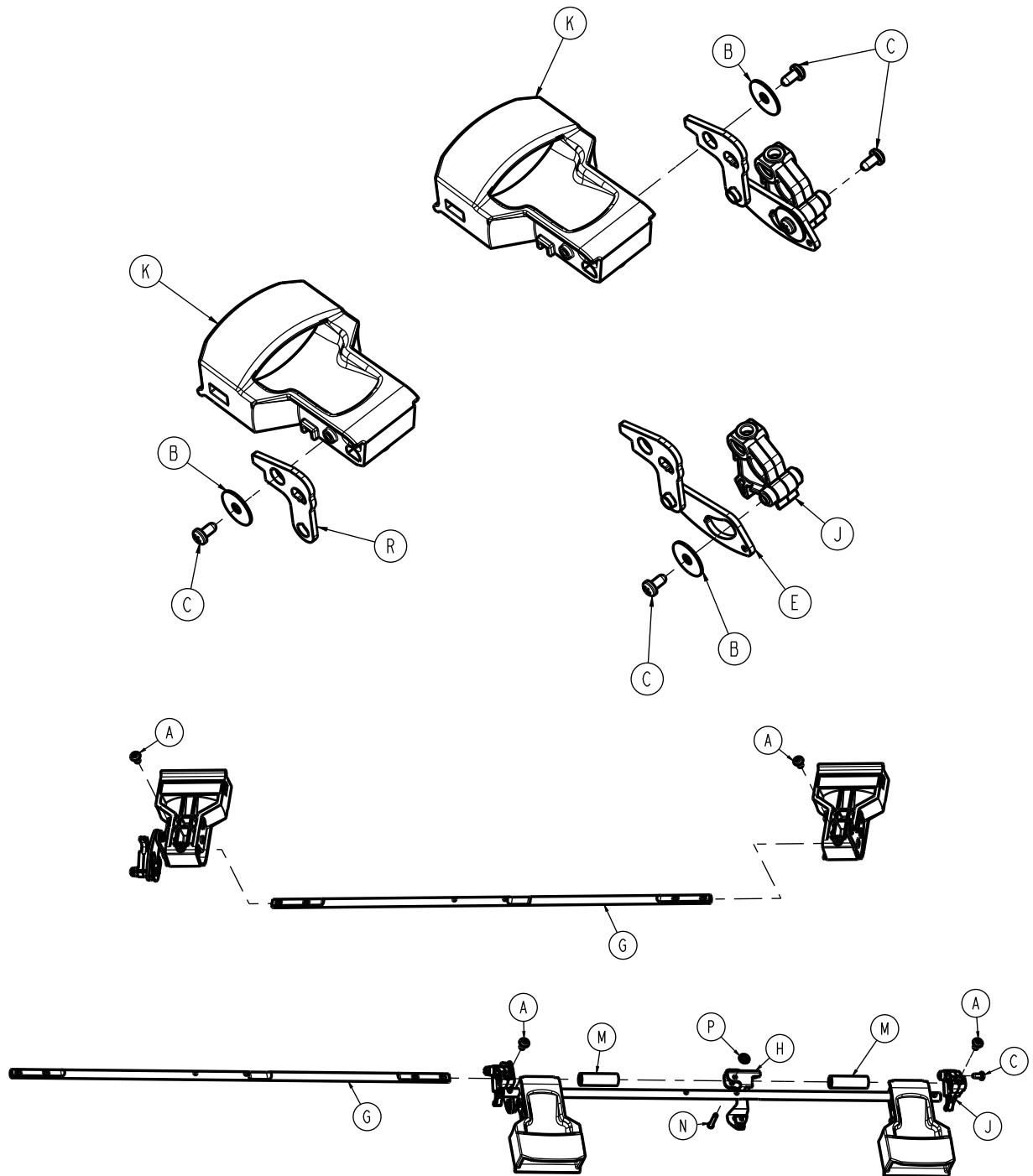


Item	Number	Name	Quantity
A	6390-001-438	Shuttle spool	1
B	406187	Socket head cap screw	2
C	6390-001-146	Fitting STR SAE4 J1C4	2
D	410462	Compression spring	1

Item	Number	Name	Quantity
E	410521	Filter	2
G	416242	Socket head cap screw	4
J	413528	Coupling	1
K	6390-101-132	Motor 12DC 108/165AY	1
L	413675	Seal shaft	1
M	414885	Return tube	1
N	6500-001-289	Non-locking manual valve	1
P	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
Y	773776	Poppet assembly	1
AA	774585	Poppet assembly	1
AB	775905	Relief valve assembly	2
AC	775942	Filter assembly suction filter	2
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	6390-001-128	Reservoir loader	1
AL	776573	Hex plug retainer assembly	1
AM	6390-001-209	Flange RSVR loader	1
AN	414669	RV spring retainer	1
AP	364094	AL spacer	1
AR	411888	Filter screen	1
AT	401273	O-ring	1

Trolley manual release assembly

6390-001-046 Rev AA (Reference only)

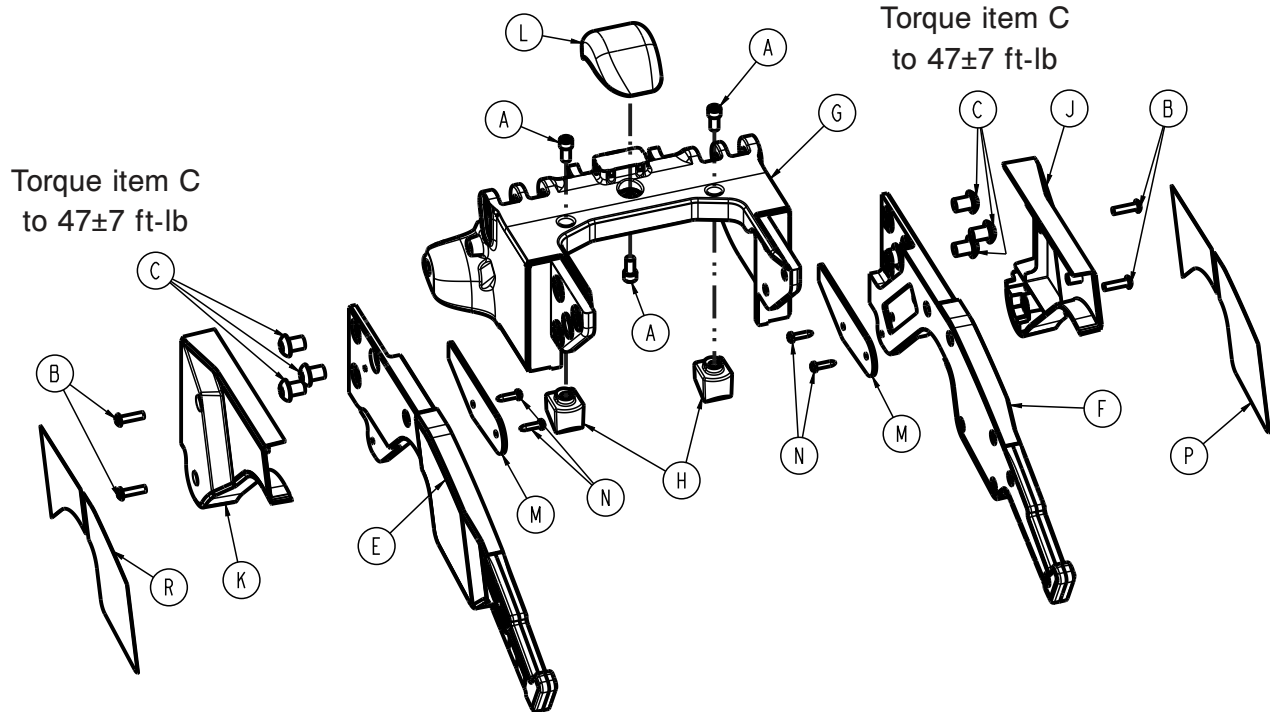


Item	Number	Name	Quantity
A	0004-665-000	Button head cap screw	4
B	0011-518-000	Washer	3
C	0023-163-000	Delta screw	5
E	6390-001-060	Manual release linkage assembly, left	1
G	6390-001-326	Actuation rod	2
H	639000010342	Manual cot release slider block	1

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
P	0028-217-000	Push nut	1
R	6390-001-382	Trolley release handle link arm	1

Trolley arm assembly

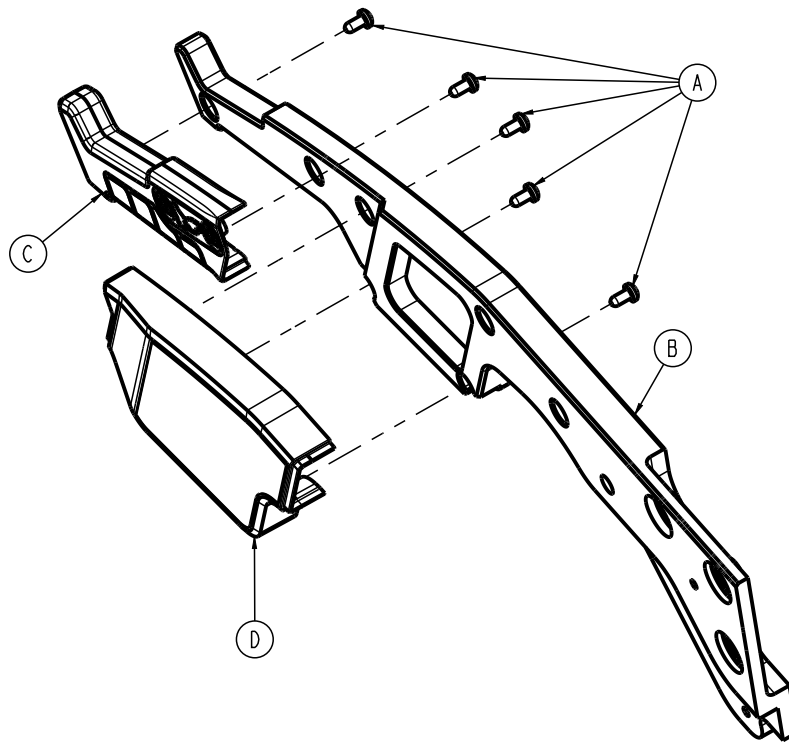
6390-001-016 Rev AB (Reference only)



Item	Number	Name	Quantity
A	0004-660-000	Socket head cap screw	3
B	0004-666-000	Button head cap screw	4
C	0004-668-000	Button head cap screw	6
E	6390-001-036	Arm, right (page 105)	1
F	6390-001-037	Arm, left (page 104)	1
G	6390-001-305	Middle arm	1
H	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
P	639000010410	Label, arm cover, left	1
R	639000010411	Label, arm cover, right	1

Arm, left

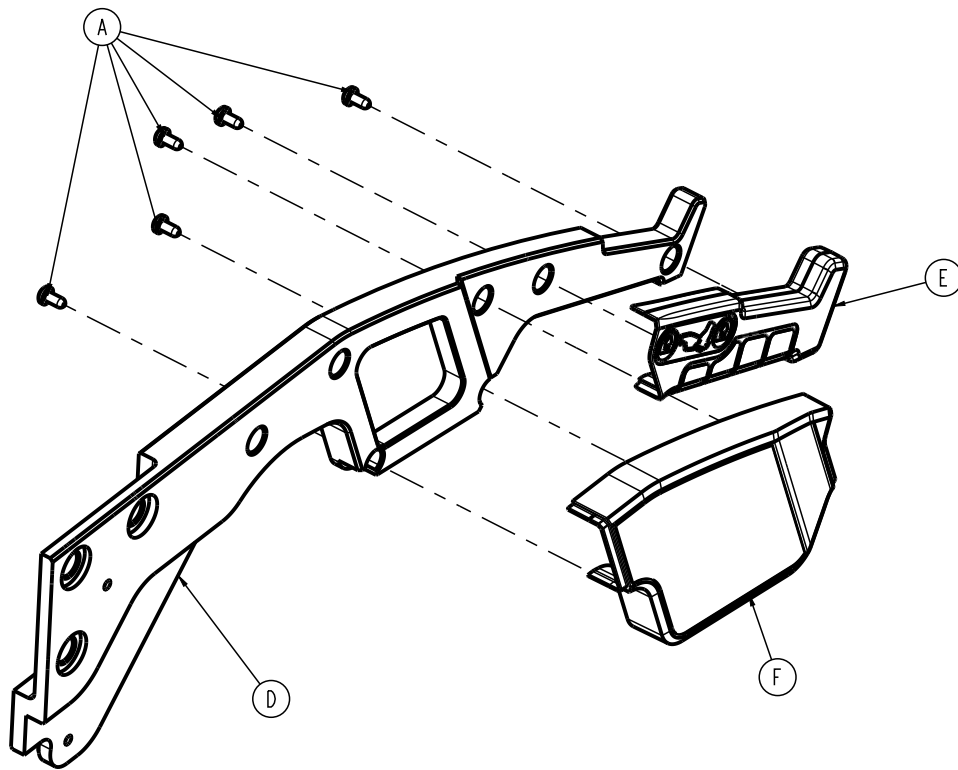
6390-001-037 Rev AB (Reference only)



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

Arm, right

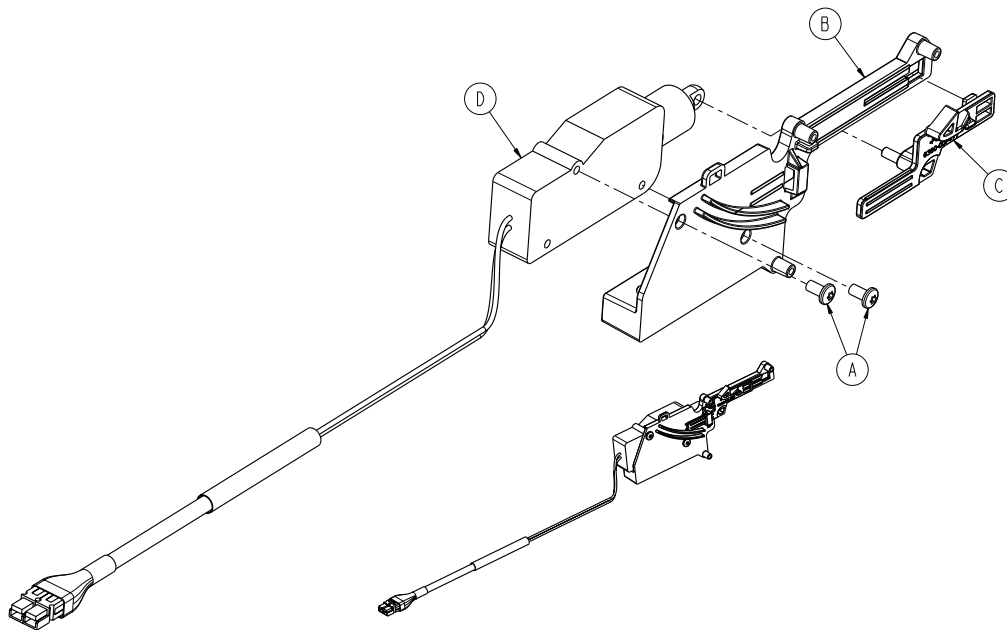
6390-001-036 Rev AB (Reference only)



Item	Number	Name	Quantity
A	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

Trolley actuator assembly - 6390-001-028

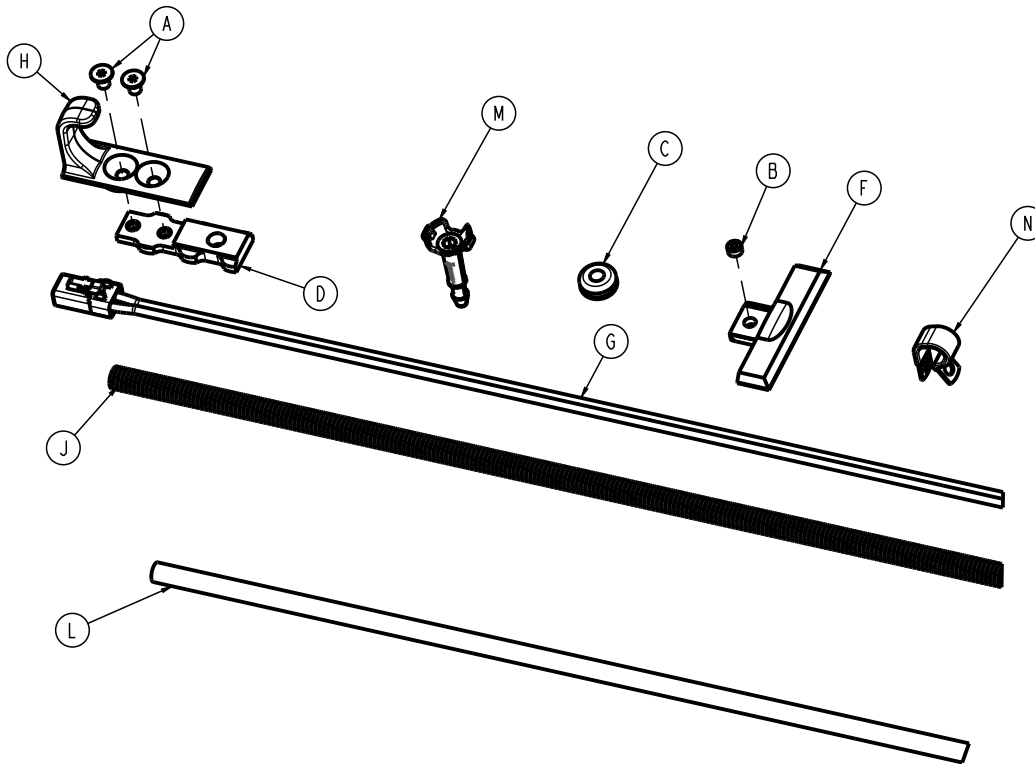
Rev A (Reference only)



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

Floor plate, install components

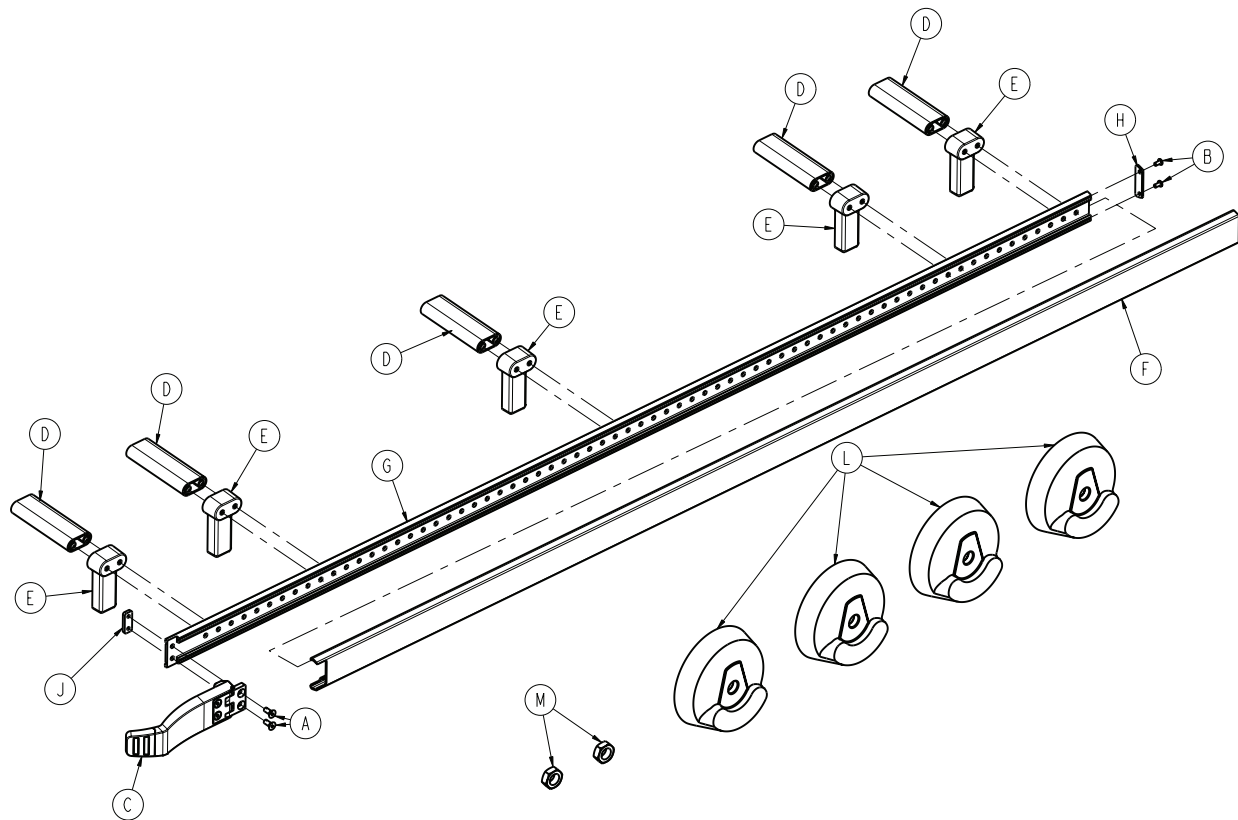
6390-001-055 Rev AB (Reference only)



Item	Number	Name	Quantity
A	0001-194-000	Flat head cap screw	2
B	0021-197-000	Set screw	2
C	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
H	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

Wheel guide, option

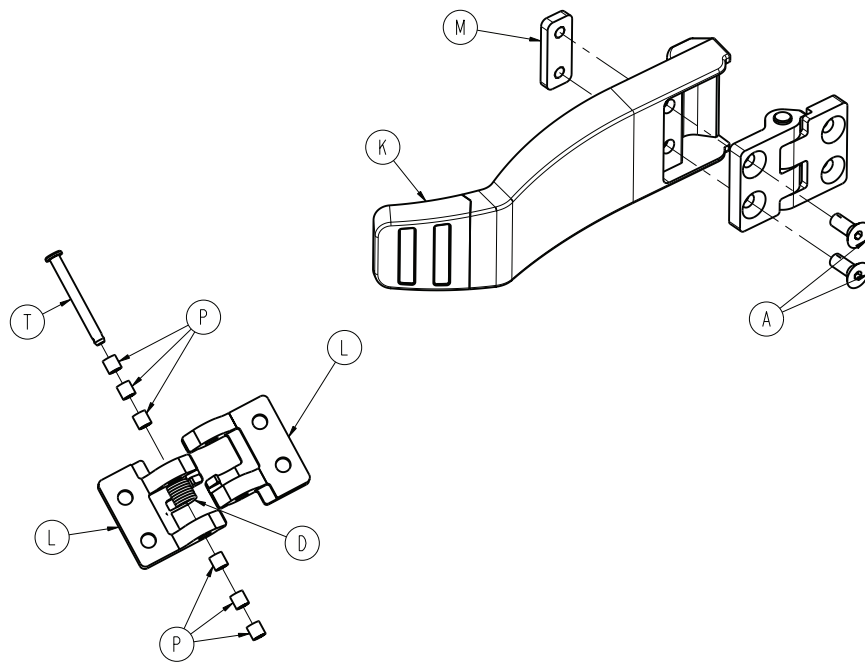
6390-027-000 Rev D (Reference only)



Item	Number	Name	Quantity
A	0001-195-000	Flat head cap screw	2
B	0023-296-000	Pan head machine screw	2
C	6390-001-017	Wheel guide assembly, option - 6390-001-017 (page 109)	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
H	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

Wheel guide assembly, option - 6390-001-017

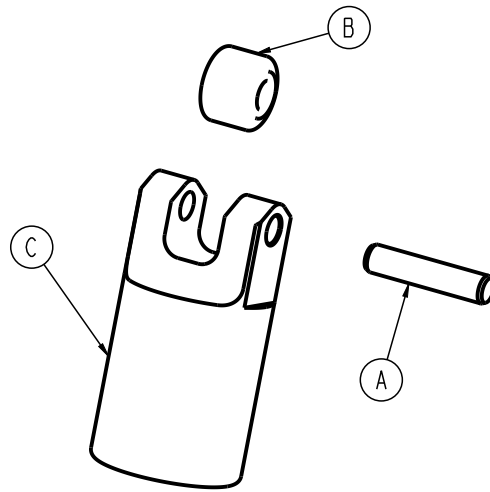
Rev C (Reference only)



Item	Number	Name	Quantity
A	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
P	0081-500-000	Bearing	6
T	0026-403-000	Clevis pin	1

Transfer lock pin assembly

639001010074 Rev AA (Reference only)



Item	Number	Name	Quantity
A	0026-684-000	Dowel pin	1
B	6390-001-199	Transfer lock roller	1
C	639000010197	Transfer lock pin	1

Power-LOAD assembly, MTS - 639000550010

Rev AB (Reference only)

Note - See drawing *Power-LOAD assembly* (page 62) for assembly view and drawing notes.

Item	Number	Name	Quantity
A	6390-001-011	<i>Anchor assembly</i> (page 66)	1
B	6390-101-012	<i>Transfer assembly</i> (page 73)	1
C	6390-001-013	<i>Trolley assembly</i> (page 79)	1
D	6390-001-054	<i>Assembly kit, Power-LOAD - 6390-001-054</i> (page 65)	1
G	639000010900	Tag, serial number	1
H	0025-079-000	Dome head pop rivet	2
J	639001010026	Battery installation assembly	1

Power-LOAD assembly without floor plate, MTS - 639000550011

Rev AA (Reference only)

Note - See drawing *Power-LOAD assembly* (page 62) for assembly view and drawing notes.

Item	Number	Name	Quantity
A	6390-001-011	<i>Anchor assembly</i> (page 66)	1
B	6390-101-012	<i>Transfer assembly</i> (page 73)	1
C	6390-001-013	<i>Trolley assembly</i> (page 79)	1
D	6390-001-054	<i>Assembly kit, Power-LOAD - 6390-001-054</i> (page 65)	1
E	639000010903	Tag, serial number	1
F	0025-079-000	Dome head pop rivet	2
G	639001010026	Battery installation assembly	1

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.

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 W	Separation distance according to frequency of transmitter m		
	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
0.1	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	±8 kV contact ±15 kV air	±8 kV contact ±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

Guidance and manufacturer's declaration - electromagnetic immunity

<p>Conducted RF IEC 61000-4-6</p> <p>Radiated RF IEC 61000-4-3</p>	<p align="center">3 Vrms</p> <p>6 Vrms in ISM and amateur radio bands</p> <p align="center">150 kHz to 80 MHz</p> <p align="center">10 V/m</p> <p align="center">80 MHz to 2.7 GHz</p>	<p align="center">3 V</p> <p>6 Vrms in ISM and amateur radio bands</p> <p align="center">10 V/m</p>	<p>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.</p> <p>Recommended separation distance</p> <p>$D=(1.2) (\sqrt{P})$</p> <p>$D=(.35) (\sqrt{P})$</p> <p>80 MHz to 800 MHz</p> <p>$D=(0.70) (\sqrt{P})$</p> <p>800 MHz to 2.7 GHz</p> <p>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).</p> <p>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</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p> 
--	--	---	---

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.

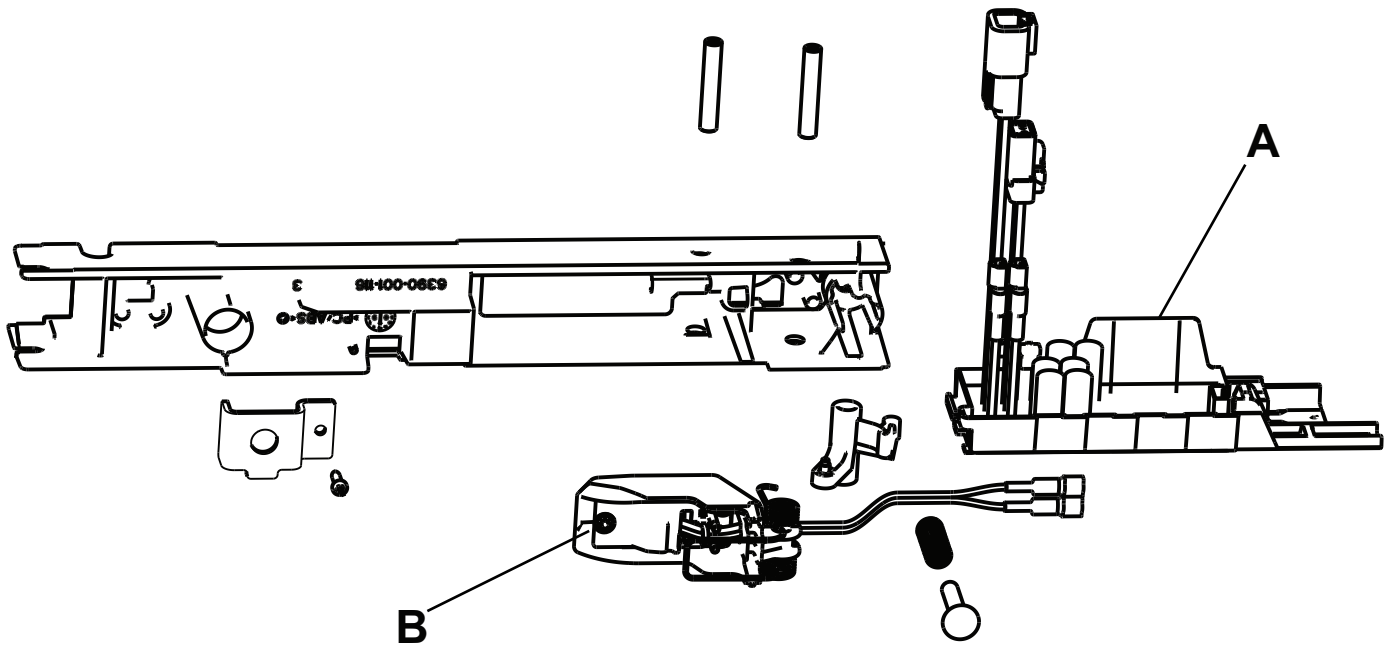
^a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast, and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, 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.

Recycling passport

639002010023

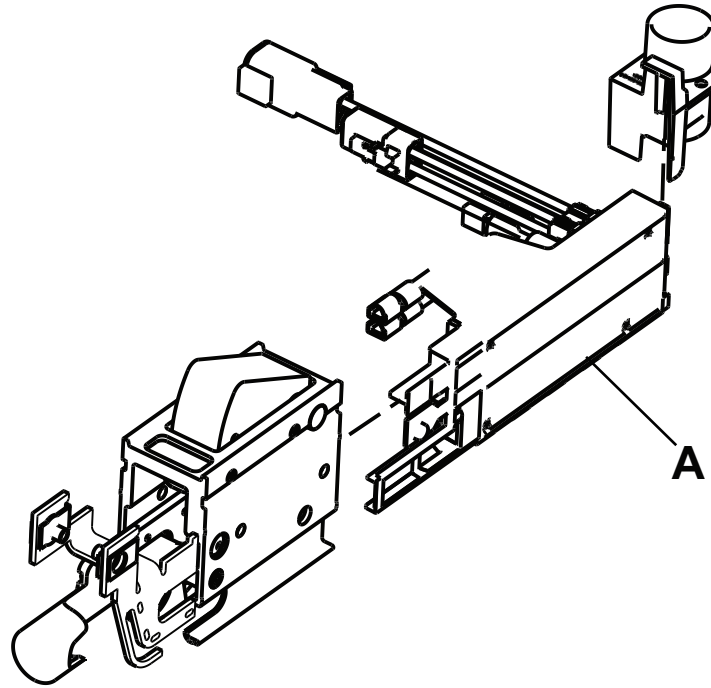
Rev AE



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

639001010024

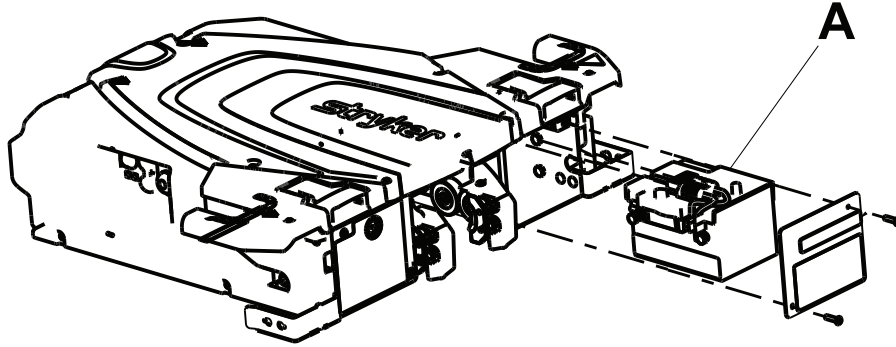
Rev AE



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

6390-001-013

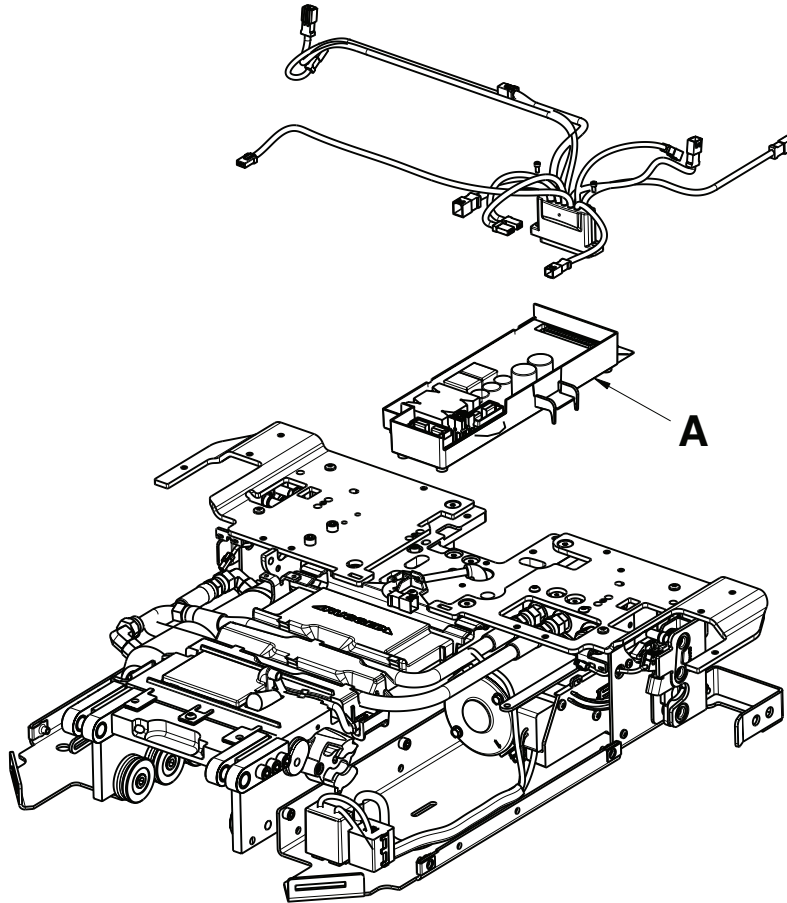
Rev AA



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

6390-001-015

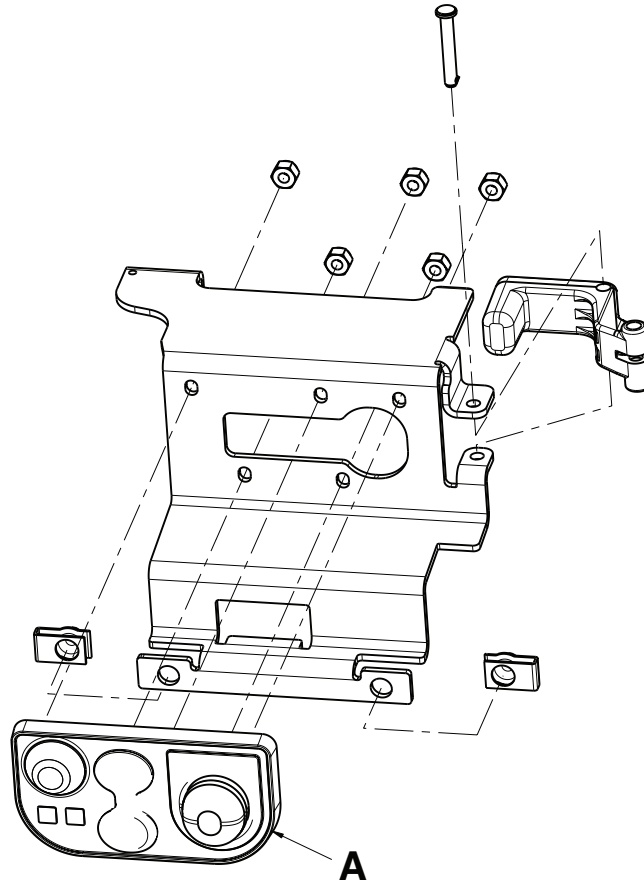
Rev AC



Item	Recyclable part number	Material code	Important information	Quantity
A	6390-101-014	Control board assembly		1

6390-001-015

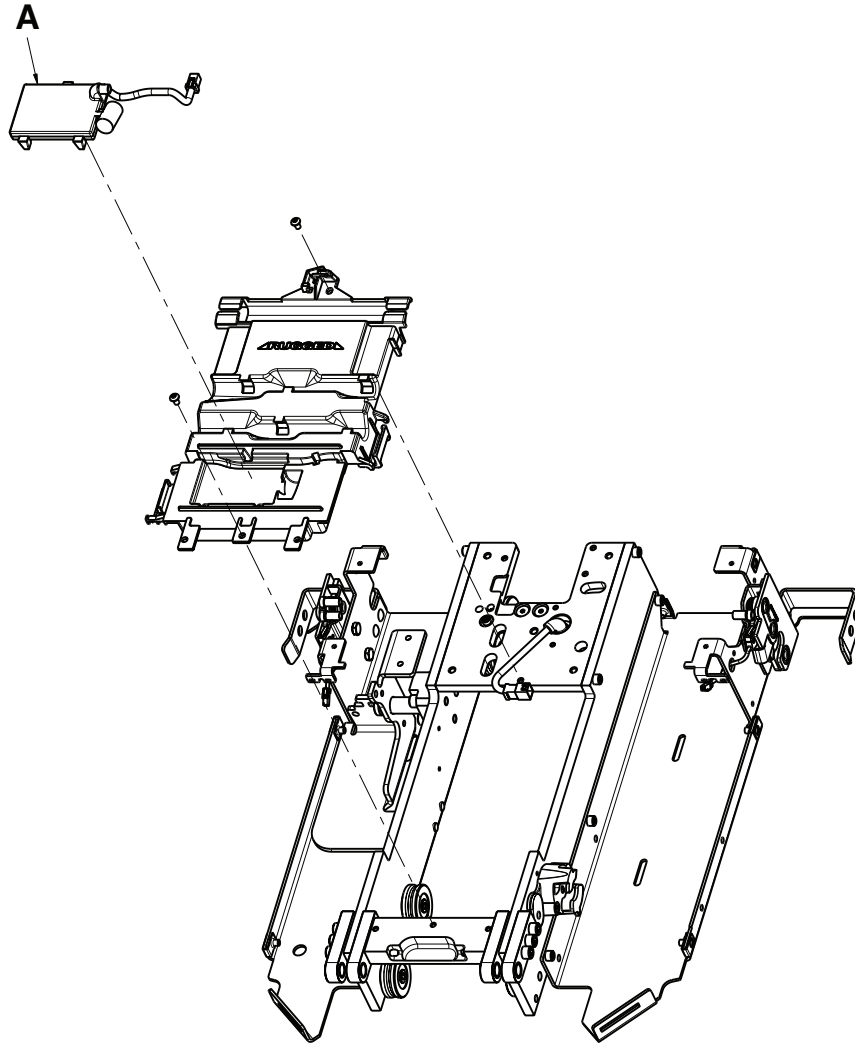
Rev AB



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

6390-001-015

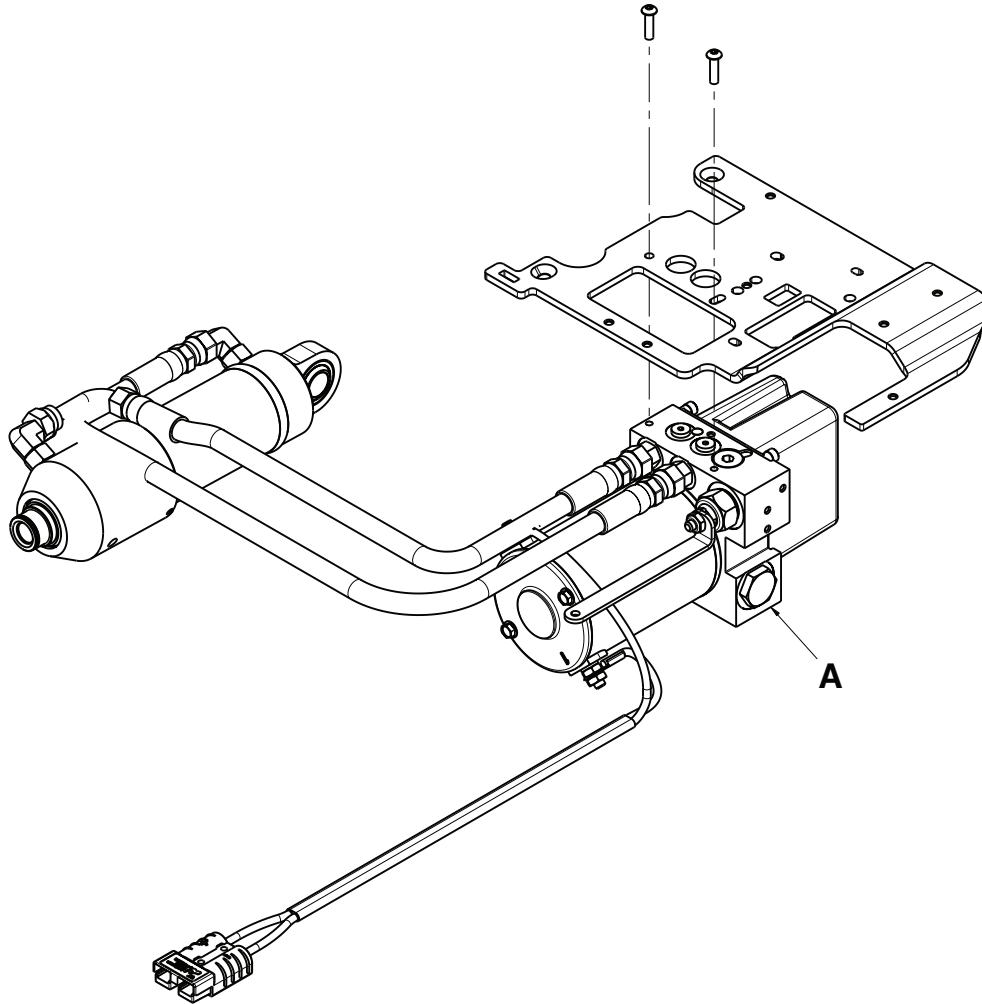
Rev AB



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

6390-001-035

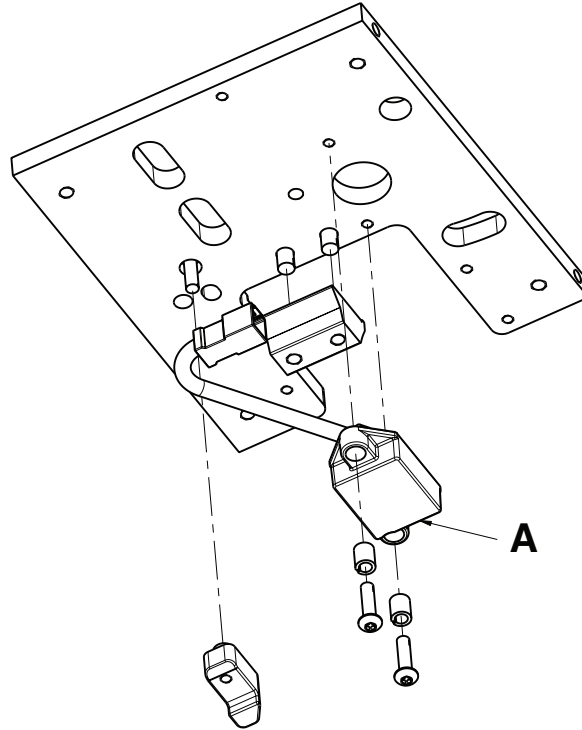
Rev A



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

6390-001-043

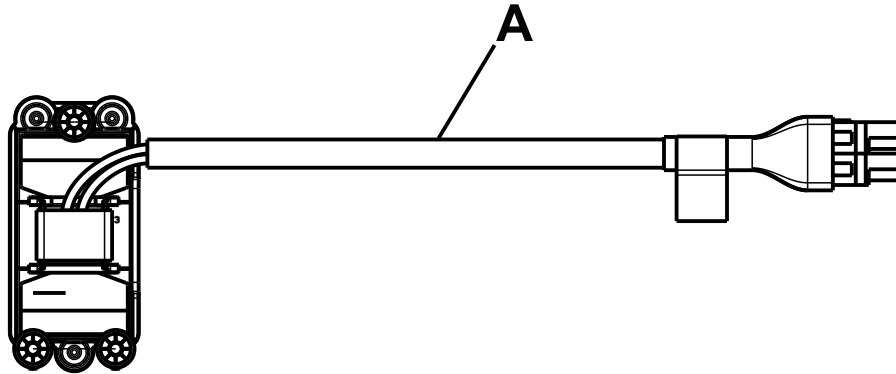
Rev AA



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

6390-001-066

Rev AA



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

stryker



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