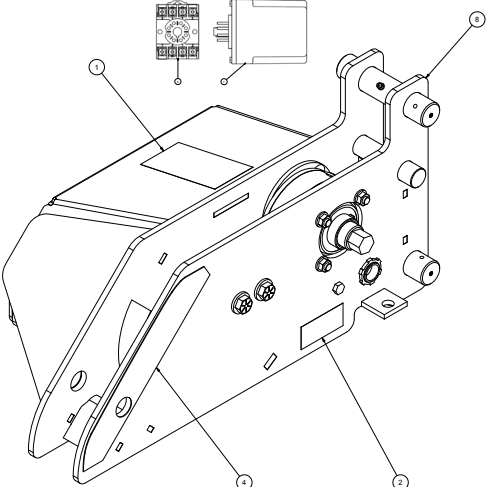
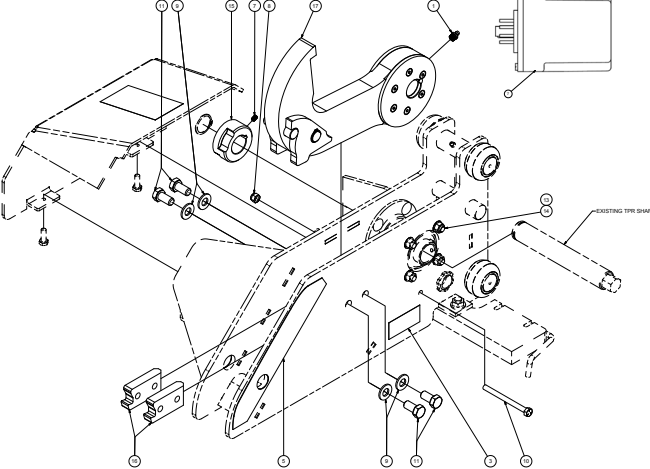


TPR UniLock Field Retrofit

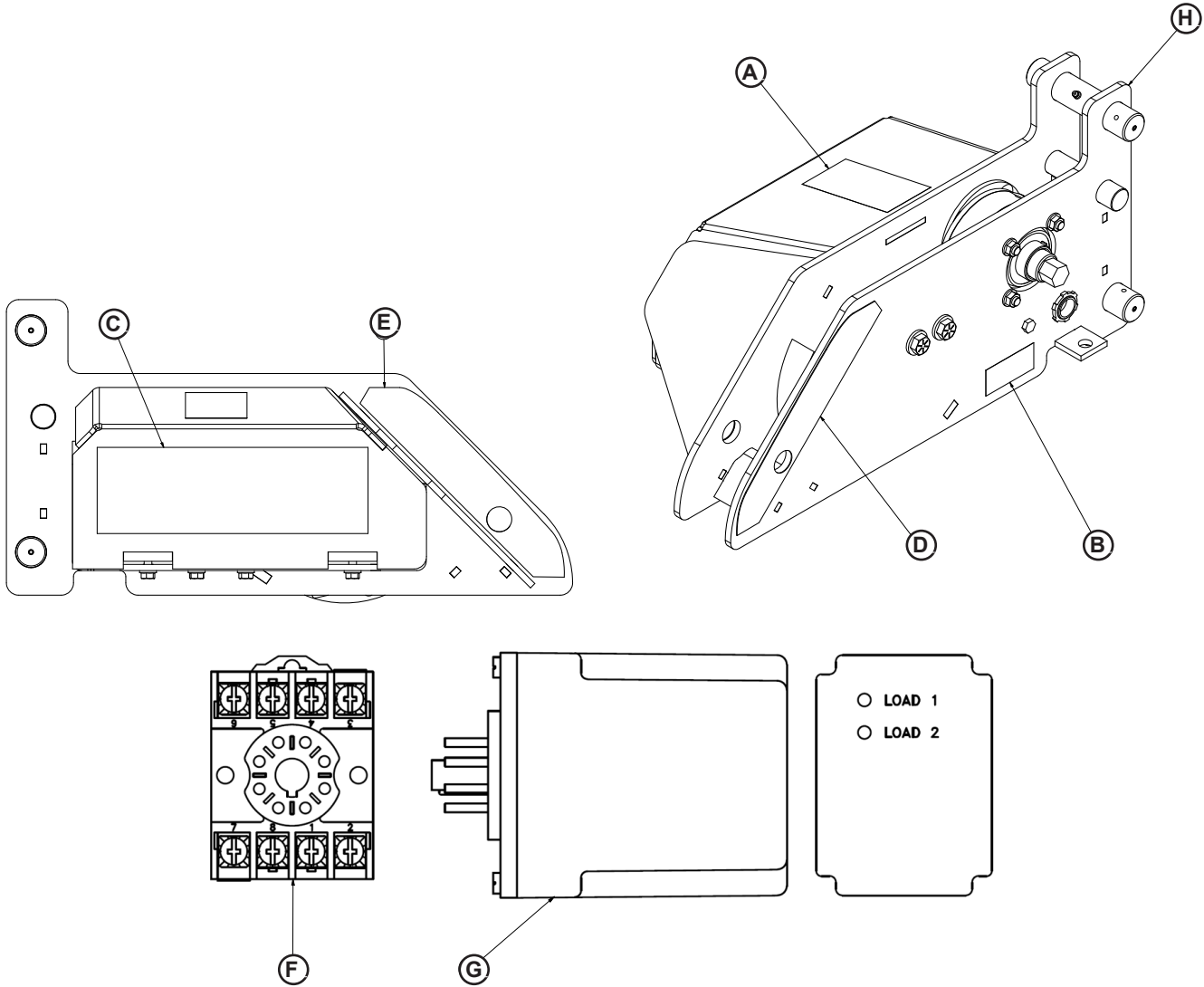
To provide Poweramp, McGuire and DLM TPR restraint owners a cost-effective upgrade option, Systems, LLC is introducing two retrofit kits that enable conversion of standard TPR restraints to the new TPR UniLock design. These retrofit kits offer significant savings over purchasing an entirely new restraint by re-using existing components where possible, only providing the parts that are needed to upgrade to the new UniLock design.

There are two variations of the kit available:

	<p>9706-0003: UniLock carriage replacement</p> <p>For units manufactured before 9/27/2017 (serial # 106160), full carriage replacement is required to upgrade. This kit is also ideal for customers with later units whose existing TPR carriages may be damaged or missing parts, as the entire carriage assembly will be replaced but the existing TPR control box and wiring can be re-used.</p> <p>Includes UniLock carriage assembly, decals, timer socket, and 3.0 second timer relay.</p>
	<p>9706-0004: UniLock component retrofit kit</p> <p>For TPR units manufactured after 9/27/2017 (serial # 106160), it's possible to upgrade the existing TPR carriage with new components. Providing only the essential parts for UniLock conversion, this component retrofit kit re-uses the existing carriage, control box, and wiring.</p> <p>Includes UniLock hook assembly, latch plates, limit switch cam, necessary hardware, decals, and 3.0 second timer relay.</p>

The following pages of this Technical Service Bulletin contain installation instructions for each version of the TPR UniLock retrofit kit. If issues arise during installation, or if any aspect of the instructions is unclear, contact Systems, LLC Technical Services for support.

TPR UniLock Field Retrofit 9706-0003 Bill of Materials

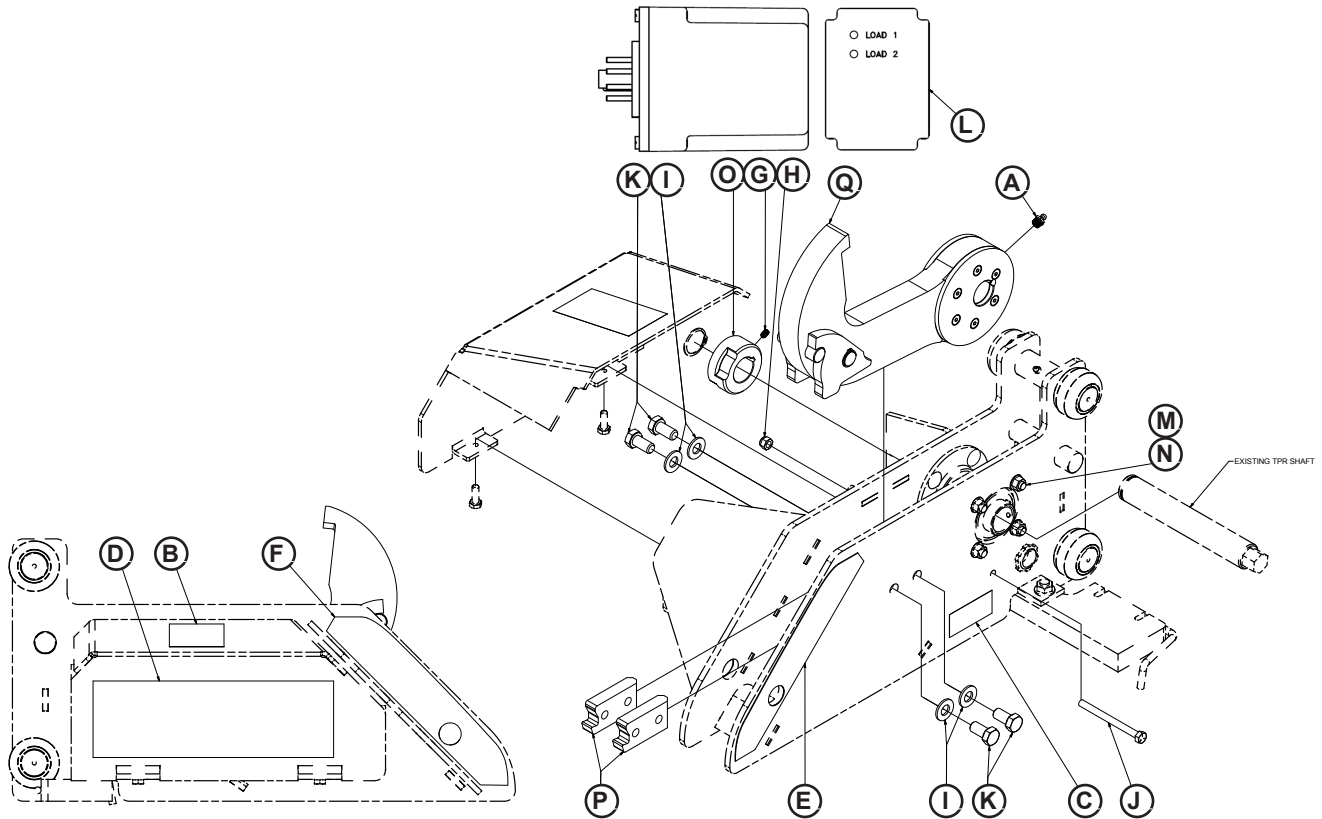


Item	Qty.	Part no.	Description
A	1	1751-0149	Decal, No Step
B	1	1751-0735	Decal, Made In USA
C	1	Varies	Decal, TPR UniLock, Motor Cover
D	1	Varies	Decal, TPR UniLock, Stripe, RH Side
E	1	Varies	Decal, TPR UniLock, Stripe, LH Side
F	1	3051-0061	Socket, Timer For 3051-0060 & 0173
G	1	3051-0209	Timer 3.0 Sec. Dual One Shot
H	1	9701-0317	Assy, Carriage, TPR UniLock

TPR UniLock Field Retrofit 9706-0003 Installation

1. Post safety warnings and barricade the work area.
2. Shut off power to the restraint and controls, and perform Lock Out/Tag Out procedures according to OSHA regulations and approved local electrical codes.
3. Disconnect the TPR wiring harness from the junction box on the building wall.
4. Disassemble the TPR carriage assembly and roller track enough to be able to remove the entire carriage assembly.
5. Install the new TPR UniLock carriage assembly (**H**) into roller track.
6. Re-wire harness to junction box on building wall.
7. Clean unit and install decals (**A-E**) as shown on page (2).
8. With the power still shut off, locate the timer relay in the control box.
 - **If the existing timer is hard-wired (units manufactured before early 2013)**, see **Technical Service Bulletin 14-032** for updated Timer Socket (**F**) installation, or contact Systems, LLC Technical Services for assistance.
 - **If the existing timer is plug-in style (units manufactured after early 2013)**, remove timer by pulling out of socket.
9. Plug the included 3.0 second timer (**G**) into socket.
10. Restore power to restraint and controls.
11. Verify correct operation of restraint by testing interlocks (if equipped), engage and release cycles.
12. Return restraint to service.

TPR UniLock Field Retrofit 9706-0004 Bill of Materials



Item	Qty.	Part no.	Description
A	1	0521-0201	Ftg, Grease Zerk
B	1	1751-0149	Decal, No Step
C	1	1751-0735	Decal, Made In USA
D	1	Varies	Decal, TPR UniLock, Motor Cover
E	1	Varies	Decal, TPR UniLock, Stripe, RH Side
F	1	Varies	Decal, TPR UniLock, Stripe, LH Side
G	1	2101-0033	Screw, SHSS, Black Oxide
H	1	2101-0039	Nylon Lock Nut
I	4	2101-0079	Washer - Flat - Zinc Plated
J	1	2101-0327	Screw, HHCS, Grade 5, Zinc Plated
K	4	2101-0339	HHCS - Grade 8
L	1	3051-0209	Timer 3.0 Sec. Dual One Shot
M	2	9701-0204	Nut, Serrated Flange
N	2	9701-0211	Screw, Carr. Bolt
O	1	9701-0247	Collar, Sensor Cam
P	2	9701-0253	Plate, Latch Barrier
Q	1	9705-0001	Hook Assembly

TPR UniLock Field Retrofit 9706-0004 Installation

1. Post safety warnings and barricade the work area.
2. Shut off power to the restraint and controls, and perform Lock Out/Tag Out procedures according to OSHA regulations and approved local electrical codes.
3. Remove motor and chain cover.
4. Remove snap ring, sensor cam, and sensor mounting bracket from main shaft.
5. Loosen set screws on bearing collars, chain sprocket and TPR hook.
6. Slide main shaft out far enough to remove TPR hook.
7. Remove hex screws from bearing housings and replace with carriage bolts and serrated nuts (**M, N**).
8. Install over-travel hex screw (**J**) and lock nut (**H**).
9. Install latch stops (**P**) and hardware (**I, K**) using Blue Loctite on fasteners. Torque to 77 ft-lbs.
10. Remove key from existing hook and insert into keyway of new UniLock hook assembly (**Q**).
11. Position hook in carriage and slide the main shaft back through the hook, bearing, and chain sprocket.
12. Tighten set screws in bearing housings, hook assembly, and chain sprocket. Check for proper chain tension, adjusting if needed.
13. Tighten set screw on hook assembly, and install grease zerk fitting (**A**) into hook.
14. Install sensor mounting bracket.
15. Remove key from existing sensor cam and install into new sensor cam (**O**).
16. Position sensor cam so that large corner chamfer is facing towards the hook, and install sensor cam on shaft.
17. Set position to have both sensors contacting the cam, then tighten the set screw (**G**).
18. Install snap ring on main shaft.
19. Install motor and chain cover.
20. Remove slope extension, clean unit, and install decals (**B-F**) as shown on page (4).
21. With power still shut off, locate timer relay in control box. Remove timer by pulling out of socket.
22. Plug included 3.0 second timer (**L**) into socket.
23. Restore power to restraint and controls.
24. Verify correct operation of restraint by testing interlocks (if equipped), engage and release cycles.
25. Return restraint to service.