

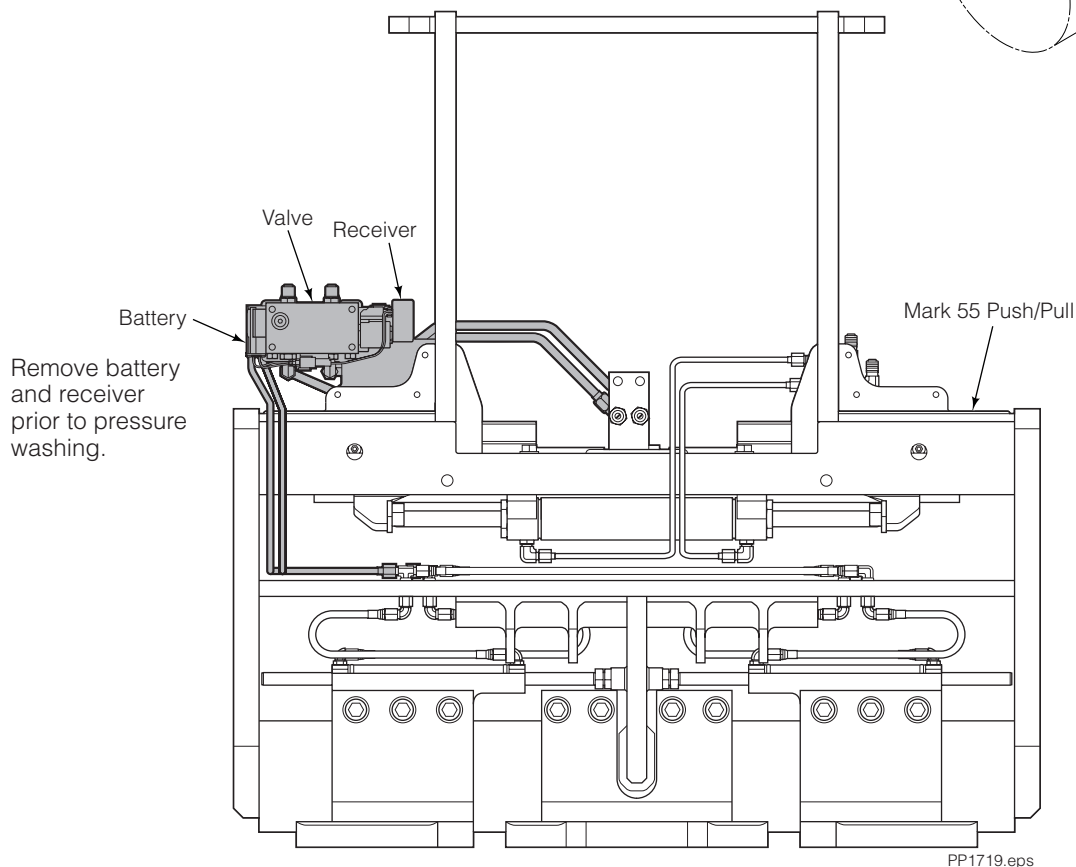
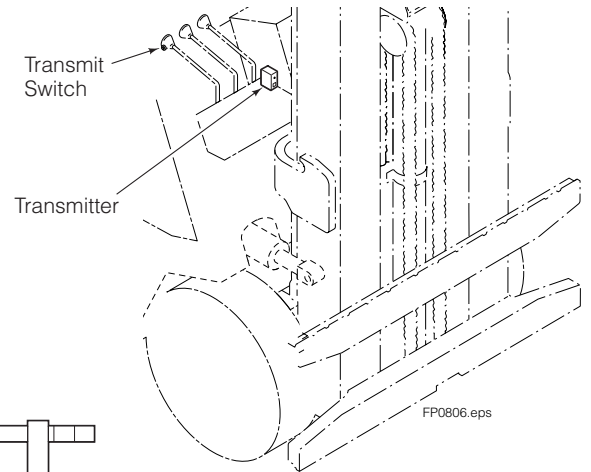


# Installation Instructions

## Mark 55 Radio Frequency (RF) Hydraulic Control Kit 6096074, 6096075, 6096080, 6096081 and Conversion Kit 6096076

This sheet provides installation instructions and replacement parts list for Cascade Hydraulic Control Kits 6096074, 6096075, 6096080, 6096081 and Cascade Conversion Kit 6096076. The kits provide two function operation using a single function hydraulic supply and radio frequency (RF) solenoid actuation to select the push/pull or platen position functions. The attachment mounted solenoid is battery powered and driver activated by a remote transmitter mounted on the truck.

**CAUTION:** If the truck or attachment will be cleaned with a pressure washer, remove the battery and receiver from the attachment prior to cleaning. High pressure water can damage the battery and receiver.



Remove battery and receiver prior to pressure washing.

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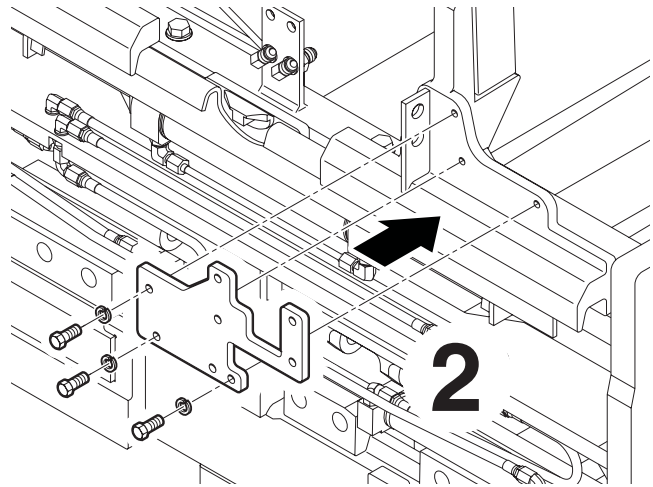
## Conversion Kit 6096076 Installation

The following instructions describe how to install the Radio Frequency Hydraulic Control kit. The kit includes new valve, tubes, brackets, receiver, transmitter, battery, and battery charger.



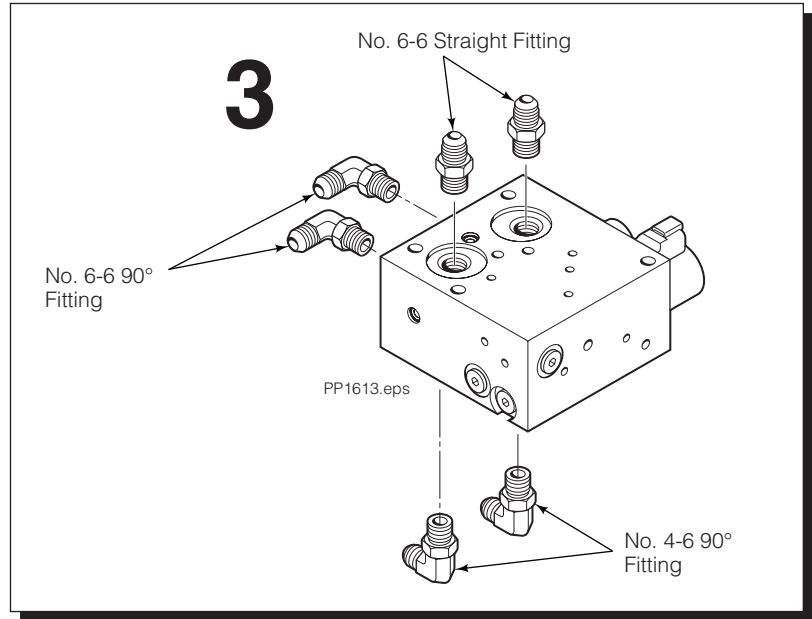
**WARNING:** Before removing any hoses, relieve pressure in the hydraulic system. With the truck off, open the truck auxiliary control valve(s) several times in both directions.

- 1 Remove existing solenoid valve(s), tubes, cables and brackets. If equipped, remove battery and receiver.
- 2 Mount bracket to attachment and tighten capscrews to 13-15 ft.-lbs. (18-20 Nm).

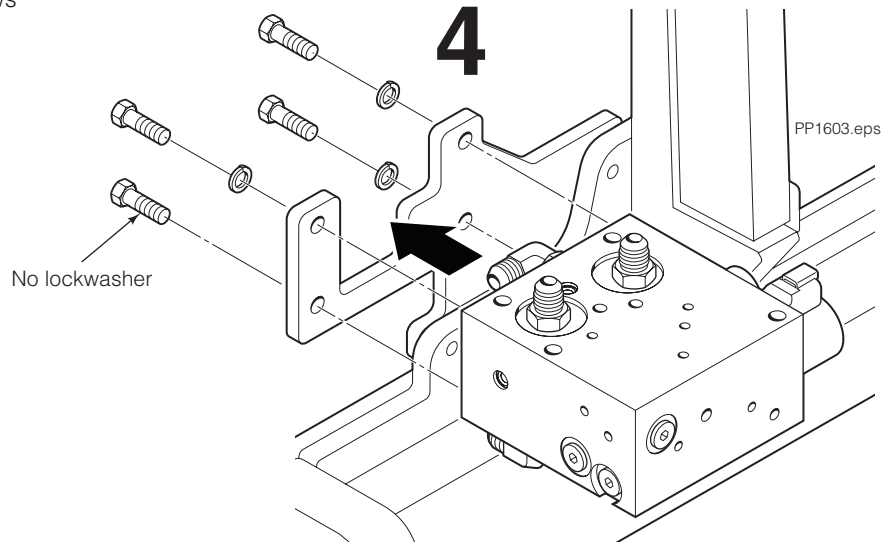


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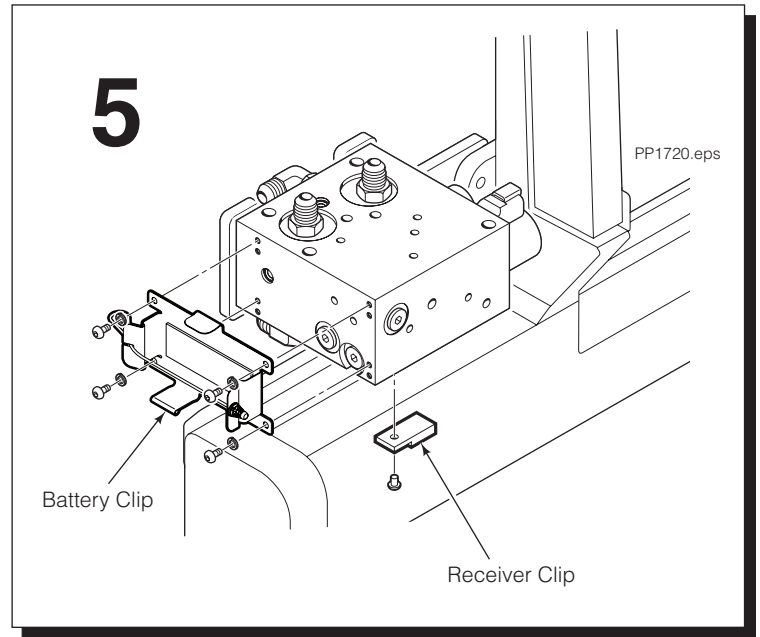
- 3 Install fittings to the valve.



- 4 Mount valve to bracket and tighten capscrews to 13-15 ft.-lbs. (18-20 Nm).

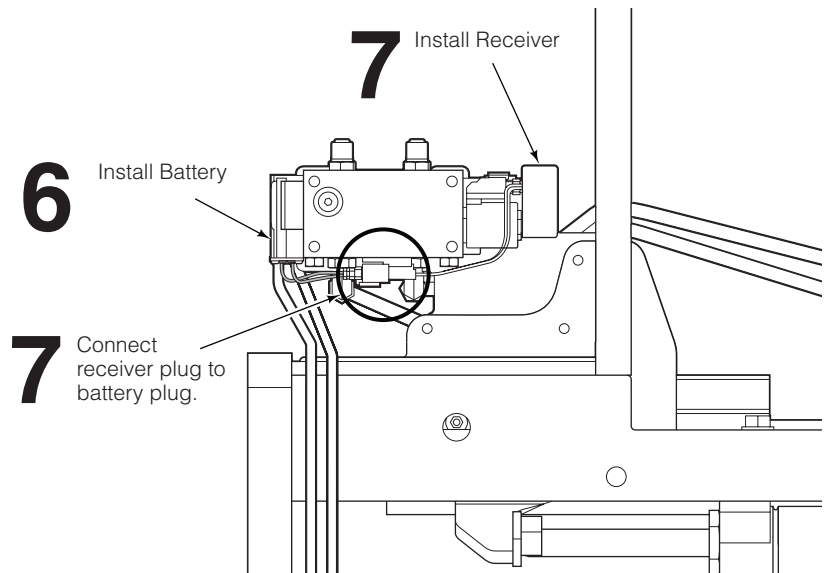


**5** Mount battery clip and receiver clip to valve.

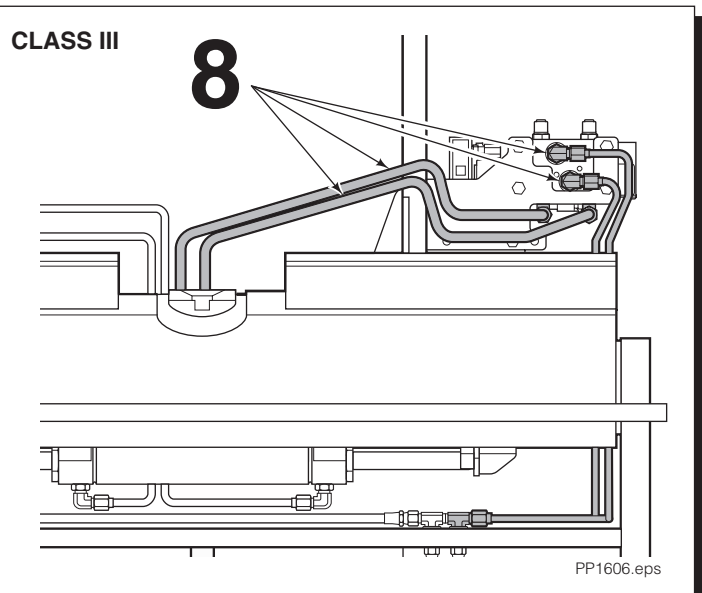
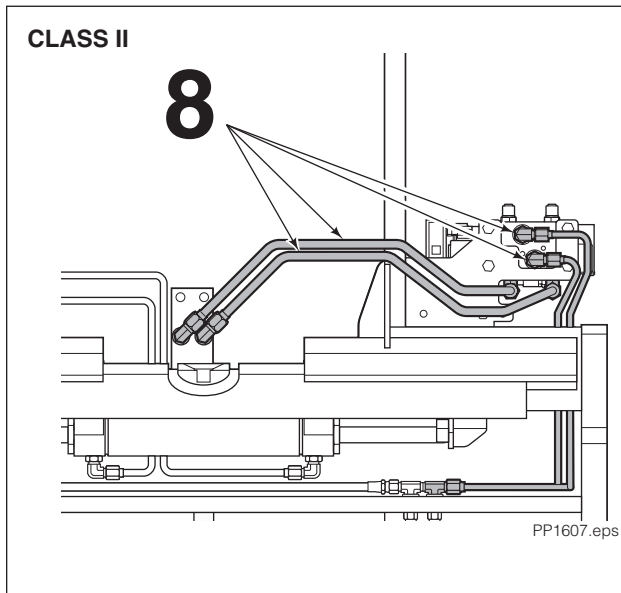


**6** Pull latch on battery clip. Install battery into battery clip and secure latch.

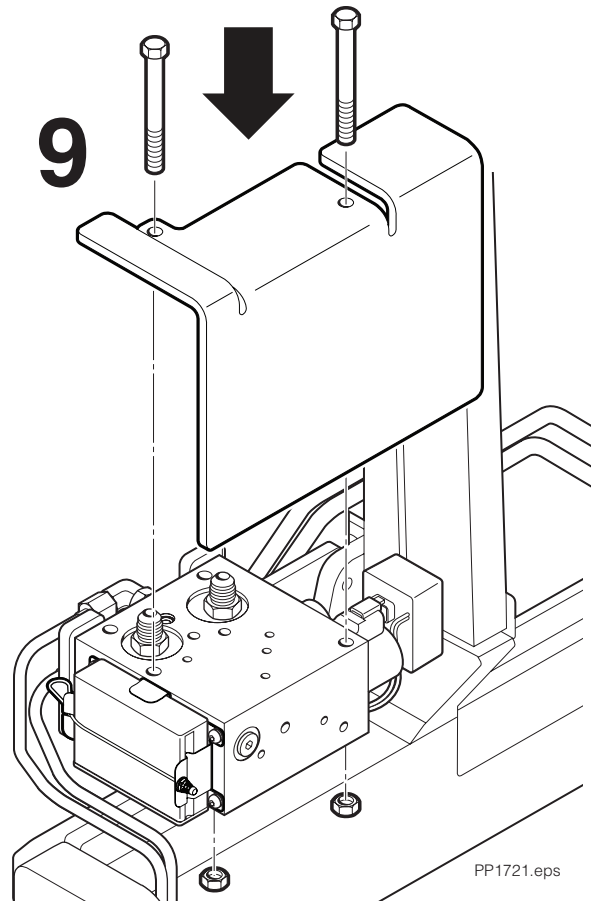
**7** Install receiver to valve solenoid. Connect receiver plug with battery plug.



**8** Install tubes and supply hoses.

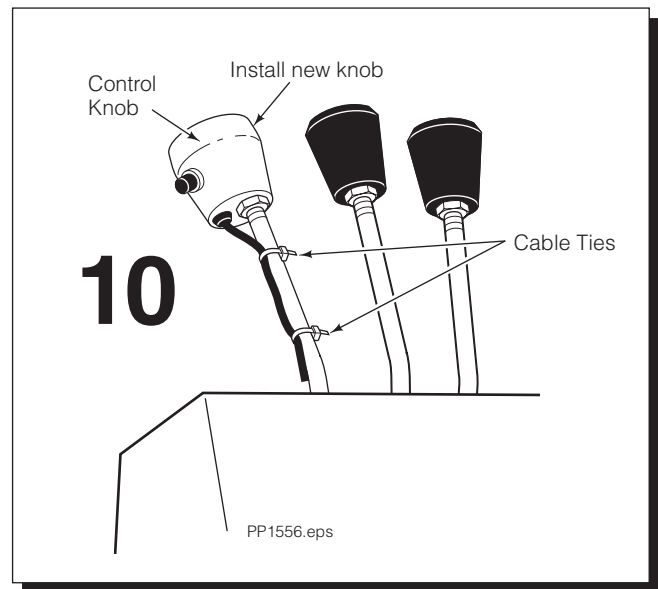


- 9** Install valve cover and tighten capscrews to 13-15 ft.-lbs. (18-20 Nm).



- 10** If kit includes knob, remove existing control knob from the Push/Pull auxiliary valve handle. Install the new knob using the adapter provided.

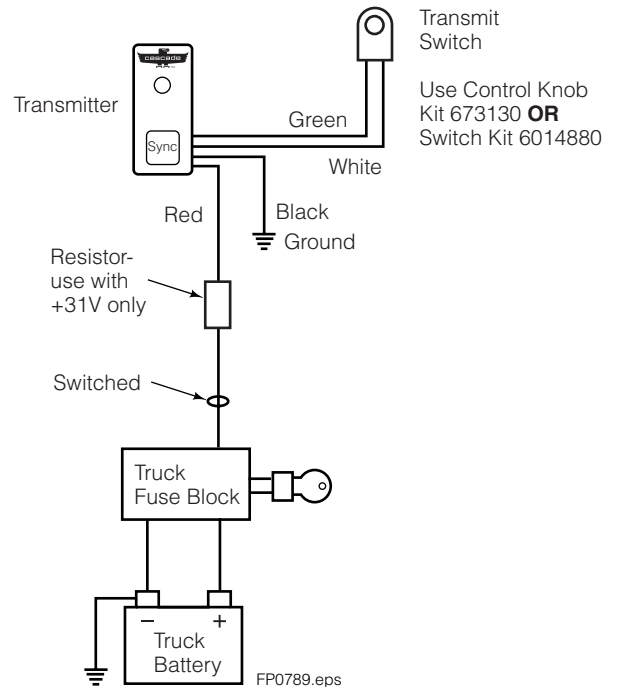
**CAUTION:** Secure the cable so it will not be pinched when the handle is actuated.



## Transmitter Installation

- 1 Install the transmitter in an easy to view and accessible location for the driver. Provide at least 8 in. (20 cm) clearance between the driver and transmitter.  
**IMPORTANT:** The transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
- 2 Connect the transmitter red wire to a switched terminal on the truck fuse block. Connect the black wire to chassis ground. Connect the two remaining wires to a control knob transmit switch. Use Cascade Control Knob Kit 673130 or Switch Kit 6014880.

**IMPORTANT:** The resistor connected to the red wire is for use on trucks operating at 31V and higher. Remove the resistor on trucks operating at 30V or less.



## Synchronizing Transmitter and Receiver

The transmitter and receiver have been synchronized at the factory. If resynchronizing is required, follow these steps:

- 1 Press and hold the SYNC button on the transmitter for 3 seconds. The LED will begin to flash red and green.



**WARNING:** Do not reach through the mast to access the receiver SYNC button. Access the SYNC button from the front of the attachment.

- 2 Within 15 seconds, press and hold the SYNC button on the receiver for 3 seconds. When the units are synchronized to each other, the flashing red and green LED will stop and the receiver will respond to the transmitter when the transmit switch is pressed.

## Operation

**Transmitter** – When the transmit switch is pressed, the LED on the transmitter will blink **green** every 1/2 second if there is communication between the transmitter and receiver. The solenoid coil clicks when the valve internal spool shifts.

The transmitter will blink **green** once a second if there is no communication with the receiver.

The transmitter LED will blink **red** once a second for a truck battery low condition.

After 1 hour of inactivity, the receiving unit goes into a sleep mode to conserve power. Press and hold the transmit switch button for 3 seconds to wake the unit for operation.

**Receiver** – The receiver will blink every 1/2 second when it is receiving a signal from the transmitter. The color of the blink changes with battery use.

The receiver LED blinks **green** when the battery is operating.

The receiver LED blinks **amber** for a short period when the battery is running low and needs to be charged.

The receiver LED blinks **red** for a short period when the battery needs to be charged and will not operate the fork positioner.

The transmitter and receiver operate in the frequency range of 902.2 –927.8 Mhz @ .004 watts output.

## Battery

**NOTE:** Charge new batteries prior to use.

It is recommended to charge the battery after each shift to optimize the life of the battery. The light on the receiver indicates battery power level:

**Green** – Full usable power.

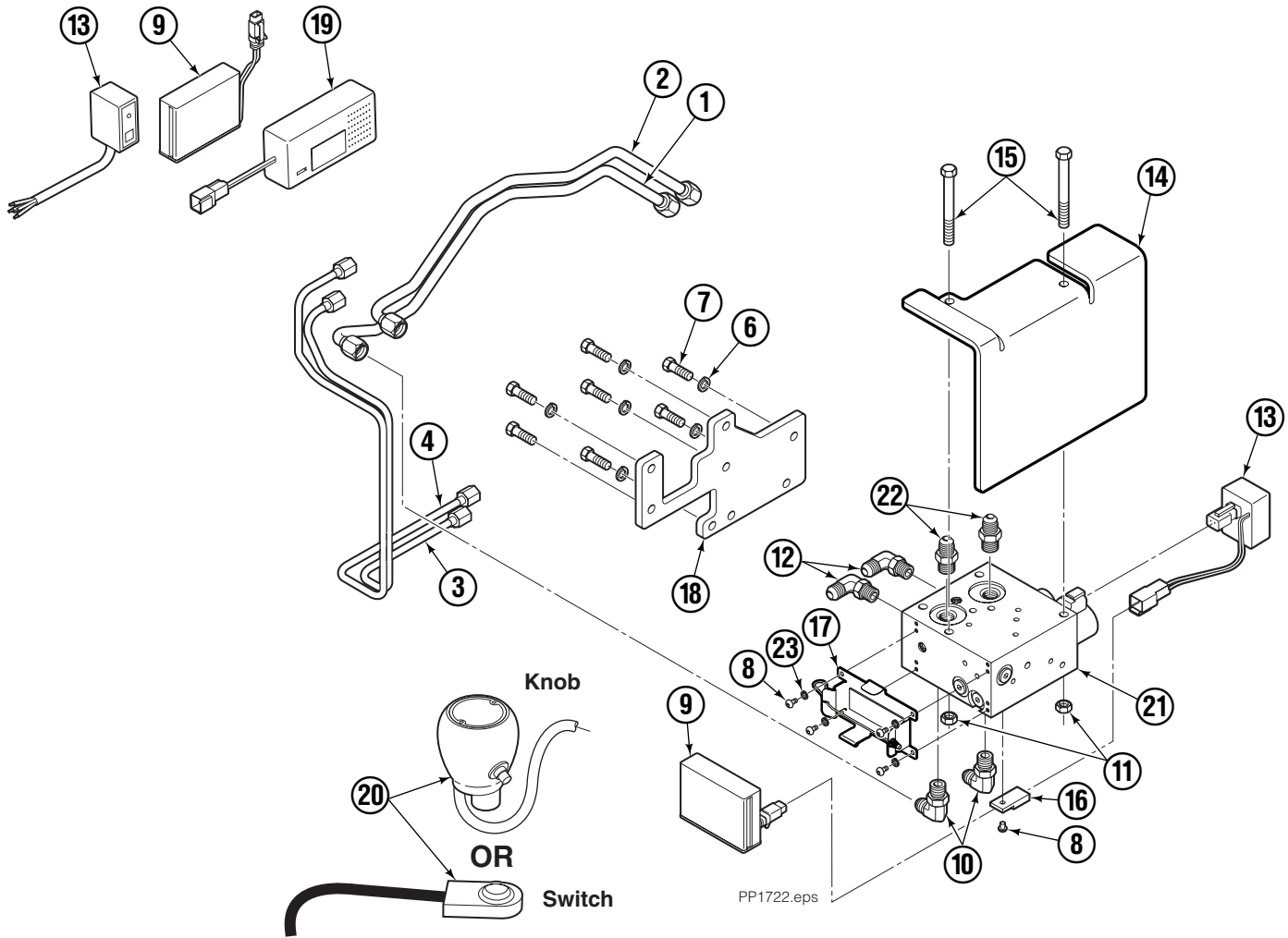
**Amber** – Low Power. Charge soon.

**Red** – No power. Recharge required.

**None** – No power. Recharge required.

Use battery charger 6055457.

# Hydraulic Control Kit



REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		6096074	RF Solenoid Adaption Kit – CL II	9	2	6075736	Battery
		6096075	RF Solenoid Adaption Kit Low Profile – CL II	10	2	601676	Fitting, No. 6-6 90° Elbow
		6096076	RF Solenoid Conversion Kit – CL II	11	2	767414	Nut, M8
		6096080	RF Solenoid Adaption Kit – CL III	12	2	666984	Fitting, JIC No. 4-6 90° Elbow
		6096081	RF Solenoid Adaption Kit Low Profile – CL III	13	1	6076165	RF Transmission Kit
1	1	6095161 ◆	Tube Assembly	14	1	6095158	Valve Protection Bracket
		6086539 ■				6405022	Capscrew, M8 x 80
2	1	6095160 ◆	Tube Assembly	16	1	6079201	Receiver Clip
		6086538 ■				6094986	Battery Clip
3	1	6095162 ◆	Tube Assembly	18	1	6095159	Bracket
		6086541 ■				6079239	Battery Charger, Lithium Ion
4	1	6095163 ◆	Tube Assembly	20	1	355058	Knob Assembly ▲
		6086540 ■				6014880	Operator Control Switch Kit ★
6	✘	787384	Lockwasher, M8	21	1	6070947	Valve Assembly ●
7	✘	787372	Capscrew, M8 x 20	22	2	604511	Fitting, No. 6-6 Straight
8	5	6076098	Button Head Capscrew, M4	23	4	685899	Lockwasher, M4

▲ Included with kit 6096074 and 6096080. See Knob Assembly page for parts breakdown.

● See Valve Assembly page for parts breakdown.

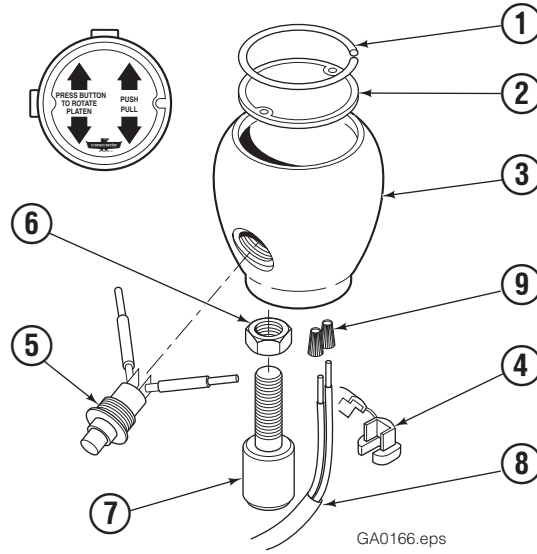
◆ Included in kits 6096074, 6096075 and 6096076.

■ Included in kits 6096080 and 6096081.

★ Included with kits 6096075 and 6096081. See Control Switch Kit page for parts breakdown.

✘ Quantity varies per kit.

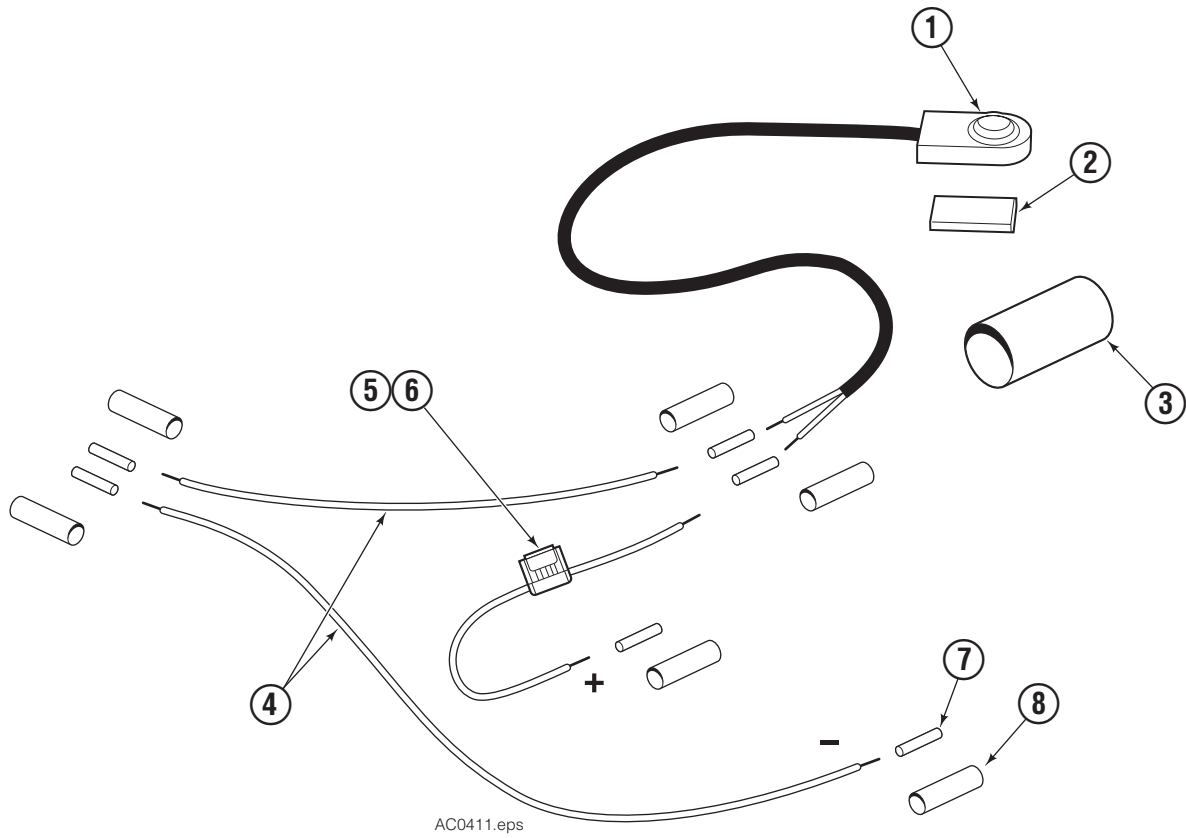
# Control Knob Two Function



REF	QTY	PART NO.	DESCRIPTION
		355058	Knob Group
1	1	665250	Snap Ring
2	1	355059	Cover
3	1	665012	Knob
4	1	665076	Strain Relief
5	1	677112	Switch ■
6	1	5902	Nut, 3/8 NC
7	1	665081	Adaptor
8	1	667718	Cable Assembly
9	2	667752	Connector – Gray

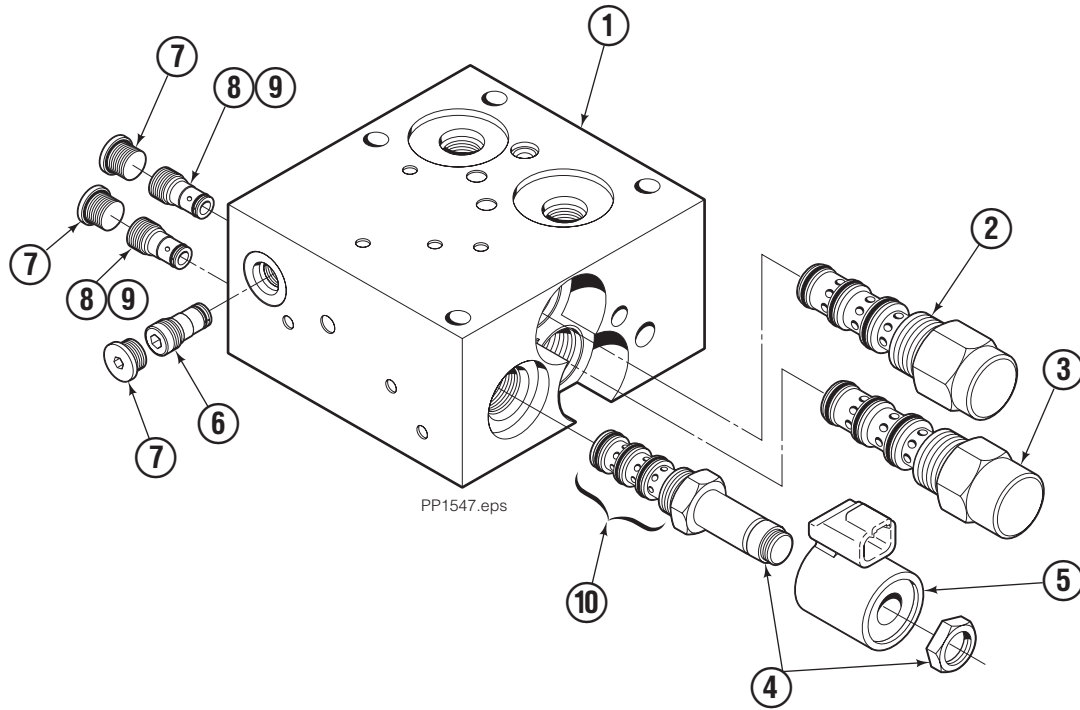
■ This switch may be purchased without wires. Order part number 665004. Soldering is required.

# Low Profile Switch Kit



REF	QTY	PART NO.	DESCRIPTION
		6014880	Operator Control Switch Kit
1	1	6009928	Switch
2	1	6014987	Double Sided Tape
3	1	6001641	Shrink Tube
4	1	6014990	Wire – 18 AWG
5	1	228154	Fuse – 7.5 Amp
6	1	219402	Fuse Holder
7	6	6014986	Connector
8	6	6016648	Shrink Tube

# Valve Assembly



REF	QTY	PART NO.	DESCRIPTION
		6070947	Valve Assembly
1	1	6070946	Valve Body
2	1	6069787	Cartridge
3	1	6069792	Cartridge
4	1	220627	Solenoid Valve Cartridge
5	1	6054451	Solenoid Coil, 10 VDC
6	1	220865	Shuttle Valve
7	3	609234	Plug
8	2	6057940	Check Valve Cartridge
9	2	6025595	Service Kit
10	1	221049	Service Kit

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