

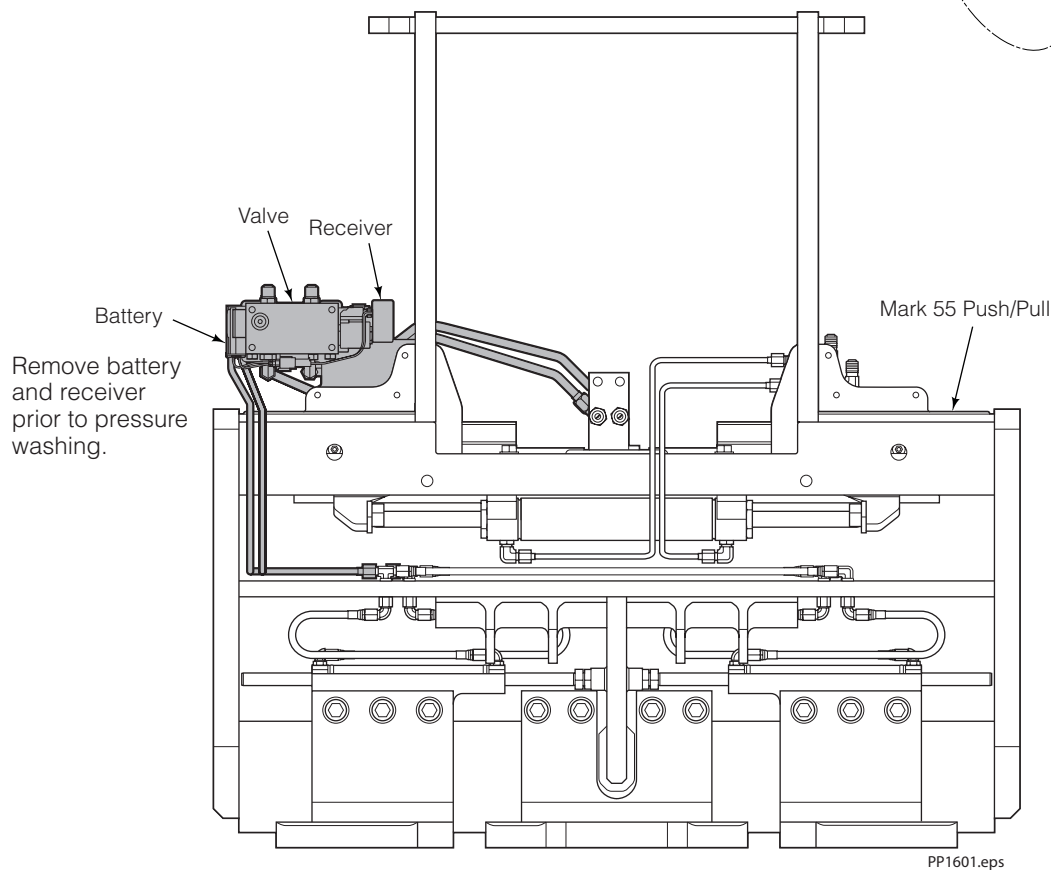
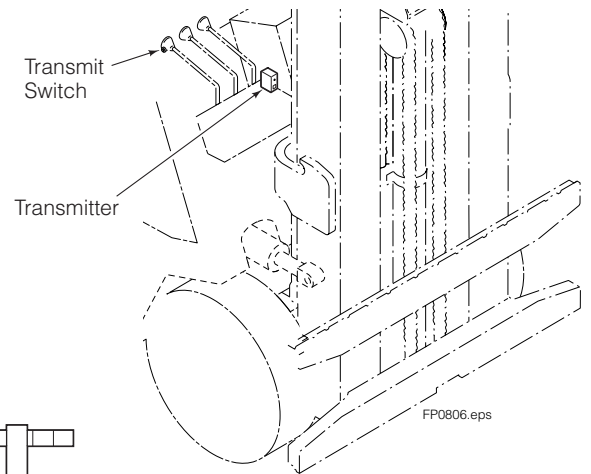


Installation Instructions

Mark 55 Radio Frequency (RF) Hydraulic Control Kit 6086328, 6086329 and Conversion Kit 6086330

This sheet provides installation instructions and replacement parts list for Cascade Hydraulic Control Kits 6086328, 6086329 and Cascade Conversion Kit 6086330. 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 adjustment 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.



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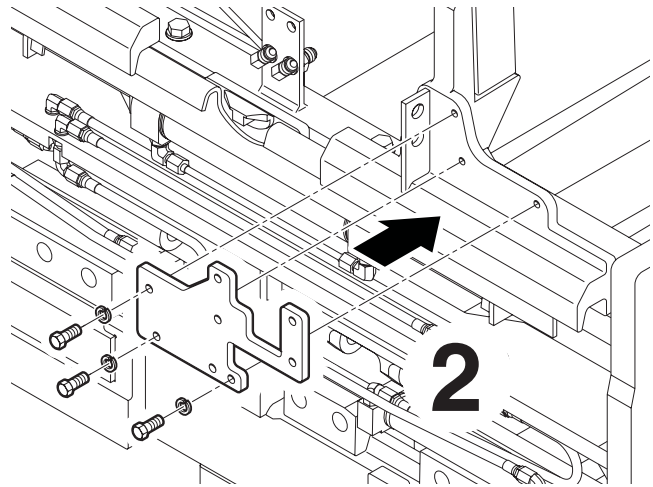
Conversion Kit 6086330 Installation

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.



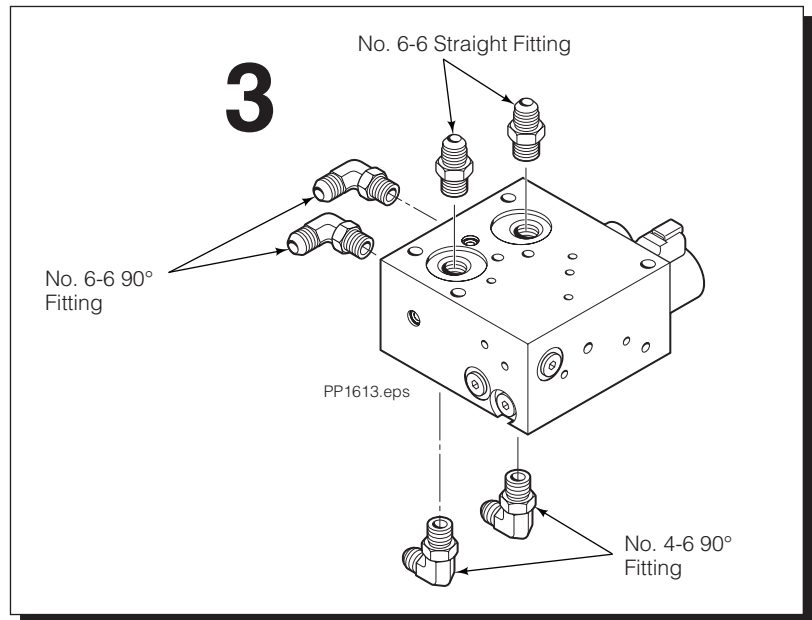
WARNING: Before removing any hoses, relieve pressure in the hydraulic system. With the truck off, open the truck auxiliary control valve(s) several times in both directions.

- 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).

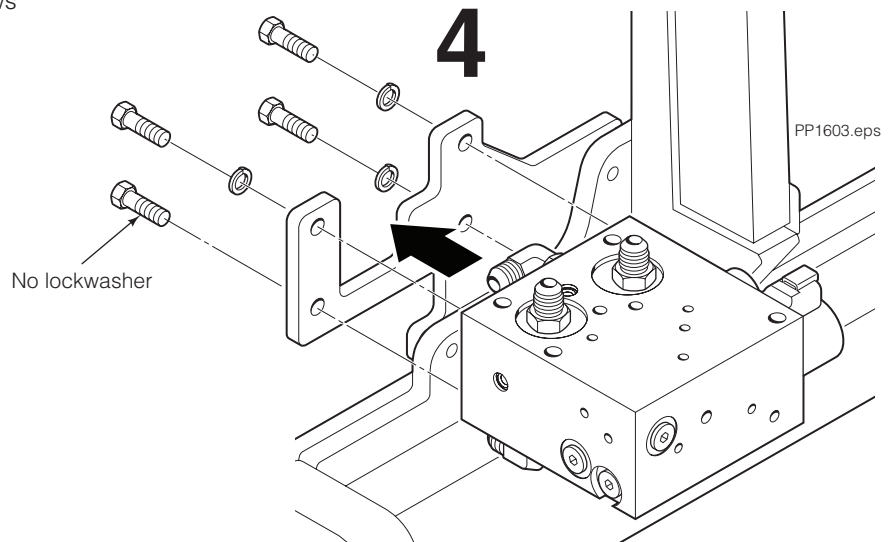


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- 3 Install fittings to the valve.

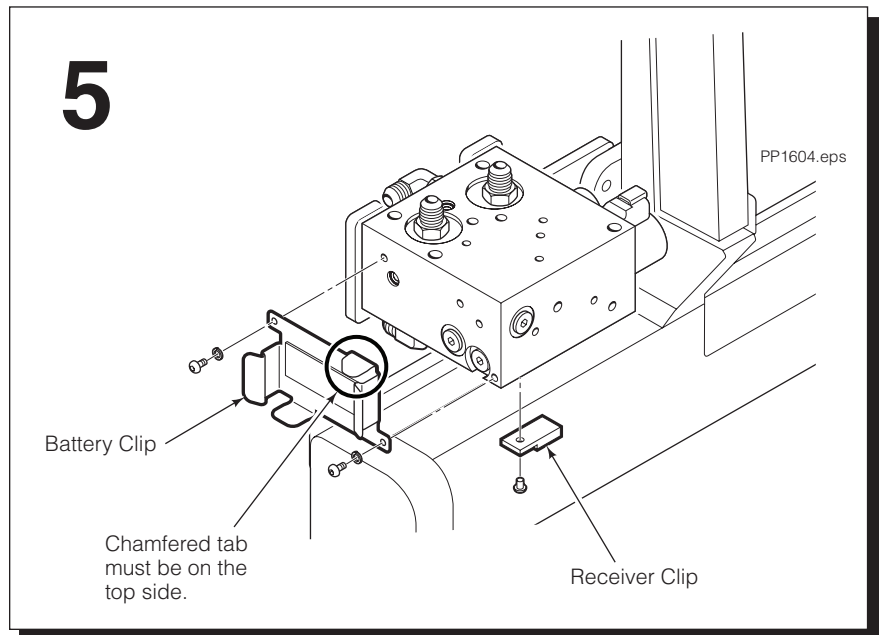


- 4 Mount valve to bracket and tighten capscrews to 13-15 ft.-lbs. (18-20 Nm).



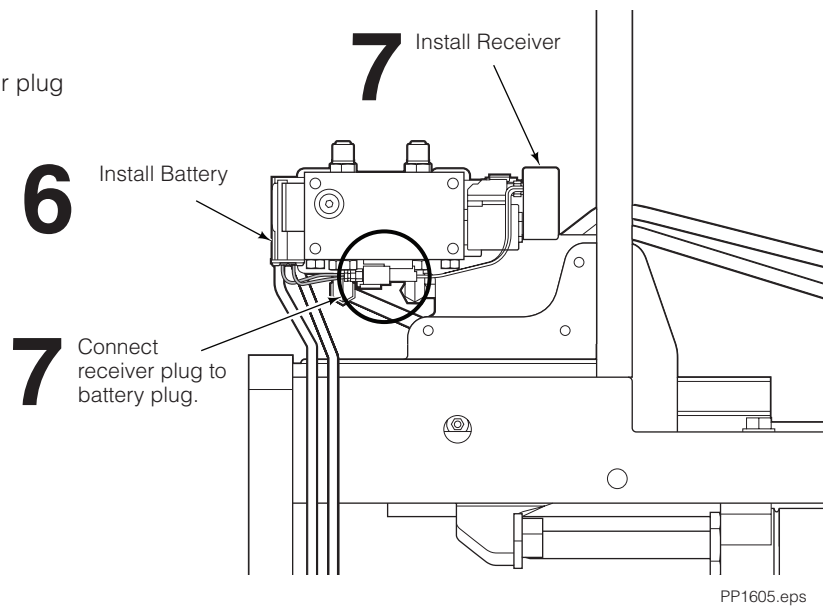
5 Mount battery clip and receiver clip to bracket.

IMPORTANT: Mount battery clip with chamfered tab on top side.

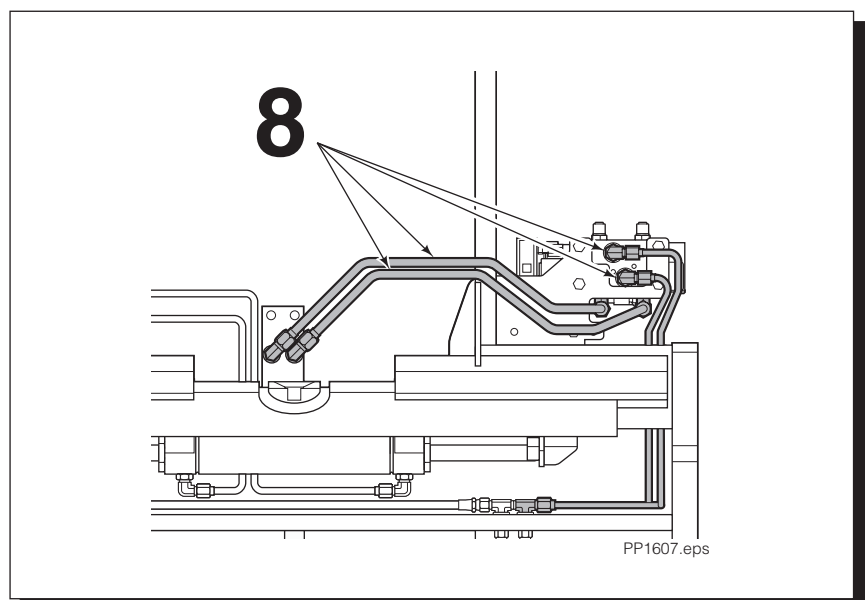


6 Install battery into battery clip.

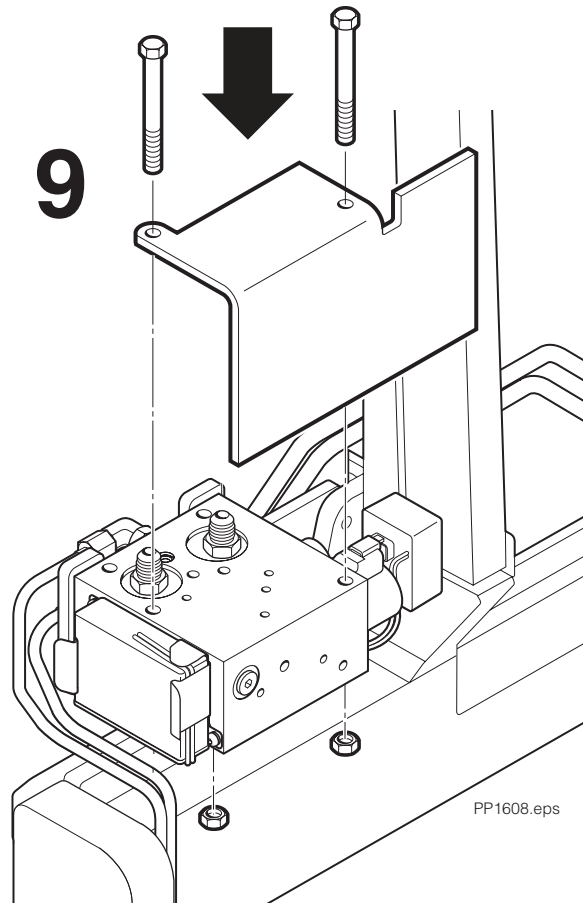
7 Install receiver to valve solenoid. Connect receiver plug with battery plug.



8 Install tubes and supply hoses.

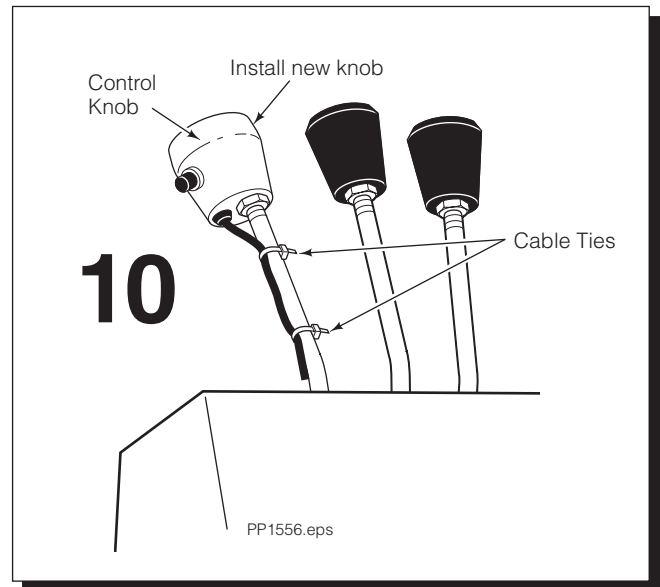


- 9** Install valve cover and tighten capscrews to 13-15 ft.-lbs. (18-20 Nm).



- 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.



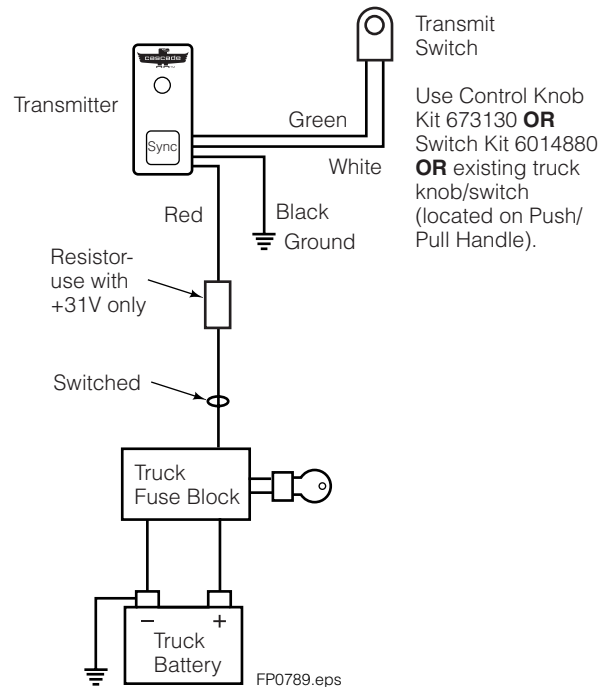
Transmitter Installation

- 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, Switch Kit 6014880 or existing truck knob/switch (located on Push/Pull handle).

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 915-928 Mhz @ .004 watts output for Australia and 902.2 –927.8 Mhz @ .004 watts output for all other locations.

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.

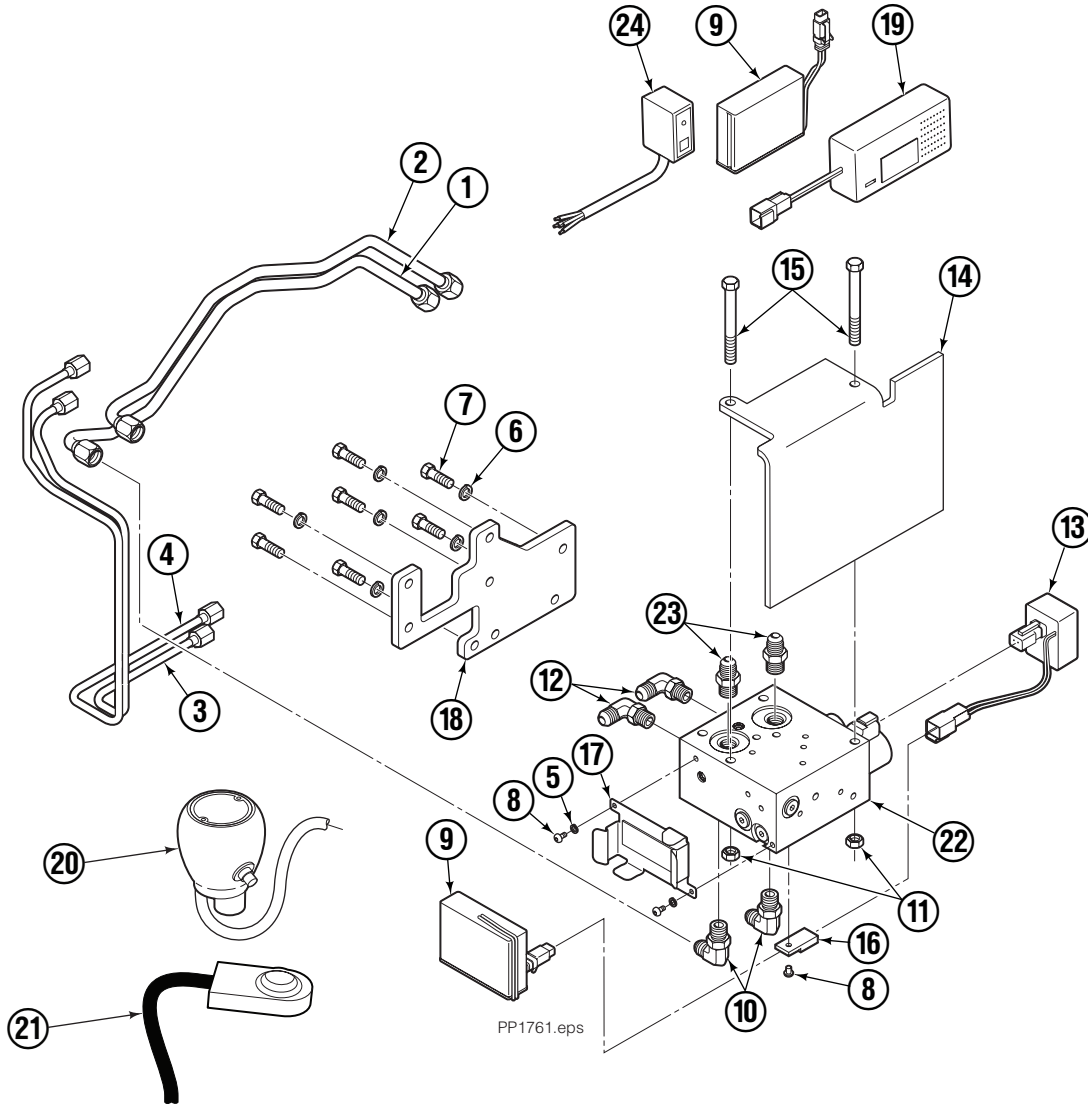
Red – No power. Recharge required.

None – No power. Recharge required.

Chargers available are listed.

Location	Battery Charger
	Part No.
USA	6079239
Americas	6079239
Europe	6079699
United Kingdom	6079701
Australia	6079697

Hydraulic Control Kit

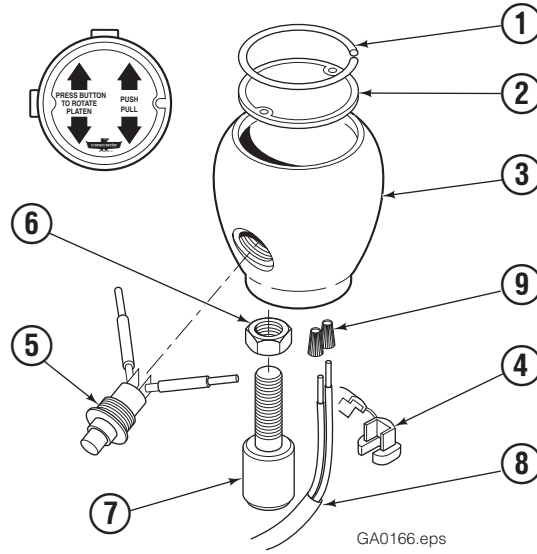


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REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		6086328	RF Solenoid Adaption Kit with Knob	12	2	666984	Fitting, JIC No. 4-6 90° Elbow
		6086329	RF Solenoid Adaption Kit with Switch	13	1	6076165	RF Transmission Kit (Receiver)
		6086330	RF Solenoid Conversion Kit	14	1	6086325	Valve Protection Bracket
1	1	6086176	Tube Assembly	15	2	6405022	Capscrew, M8 x 80
2	1	6086177	Tube Assembly	16	1	6079201	Receiver Clip
3	1	6086174	Tube Assembly	17	1	6079186	Battery Clip
4	1	6086175	Tube Assembly	18	1	6086160	Bracket
5	2	685899	Lockwasher, M4	19	1	6079239	Battery Charger, Lithium Ion
6	6	787384	Lockwasher, M8	20	1	355058	Knob Assembly ▲
7	7	787372	Capscrew, M8 x 20	21	1	6014880	Operator Control Switch Assembly ●
8	3	6076098	Button Head Capscrew, M4	22	1	6070947	Valve Assembly ◆
9	2	6075736	Battery	23	2	604511	Fitting, No. 6-6 Straight
10	2	601676	Fitting, No. 6-6 90° Elbow	24	1	6076165	RF Transmission Kit (Transmitter)
11	2	767414	Nut, M8				

- ▲ Included with kit 6086328. See Knob Assembly page for parts breakdown.
- Included with kit 6086329. See Switch Assembly page for parts breakdown.
- ◆ See Valve Assembly page for parts breakdown.

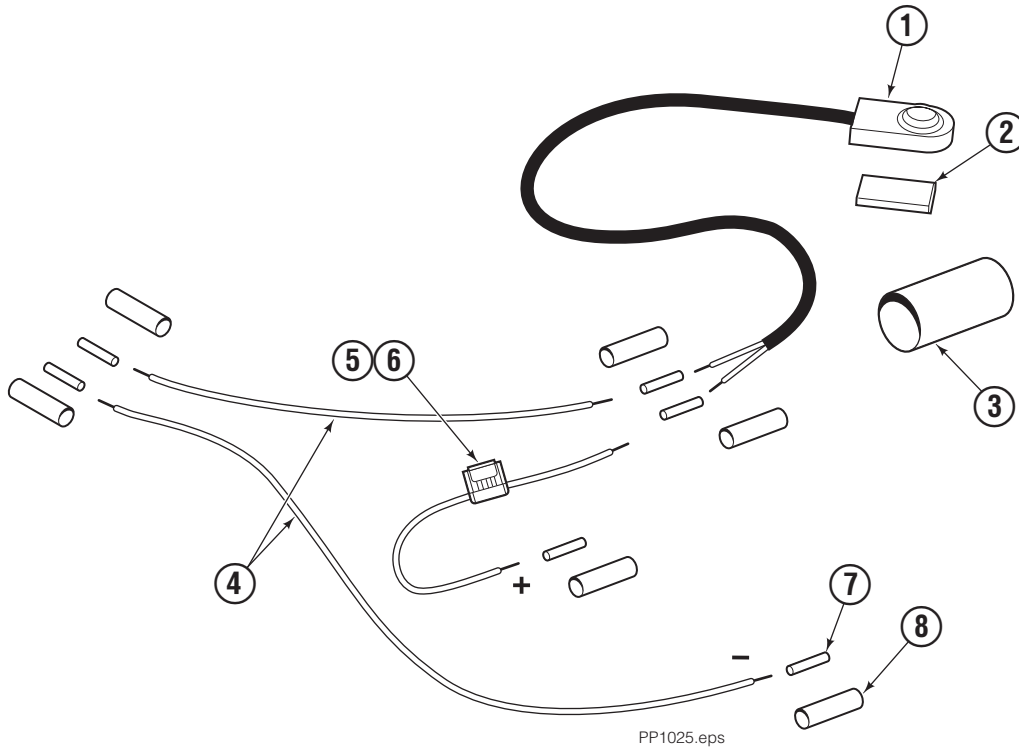
Control Knob Two Function



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

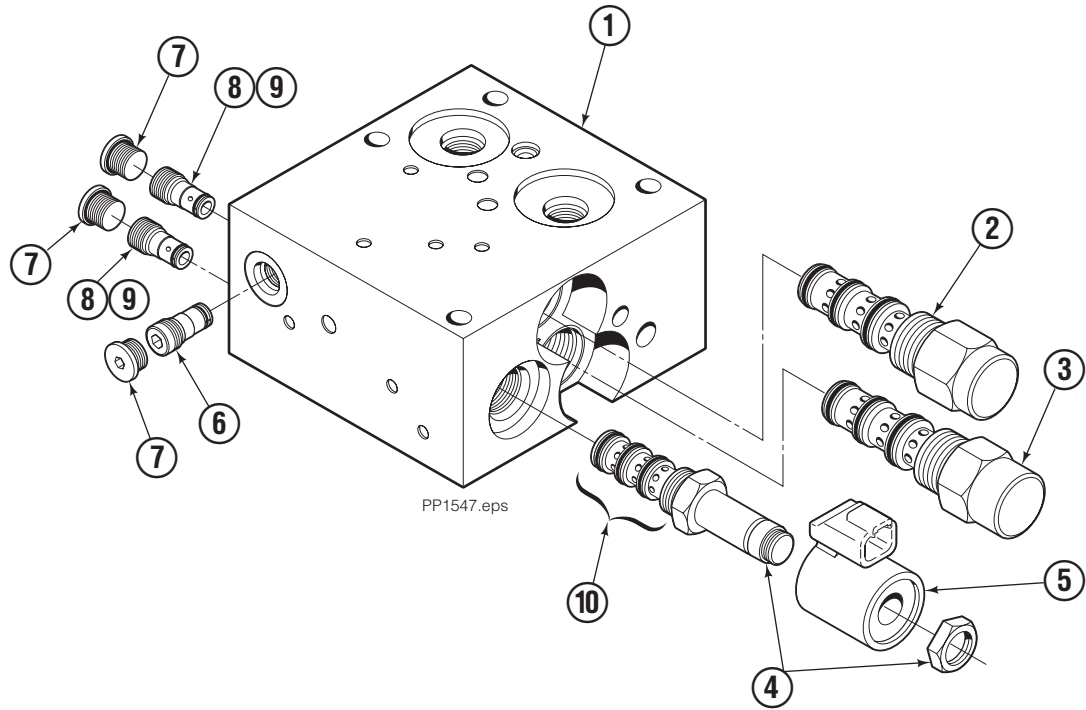
■ This switch may be purchased without wires. Order part number 665004. Soldering is required.

Operator Control Switch Assembly



REF	QTY	PART NO.	DESCRIPTION
		6014880	Knob Group
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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