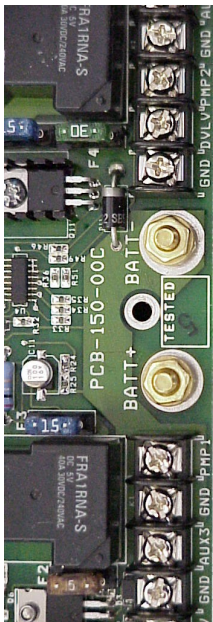


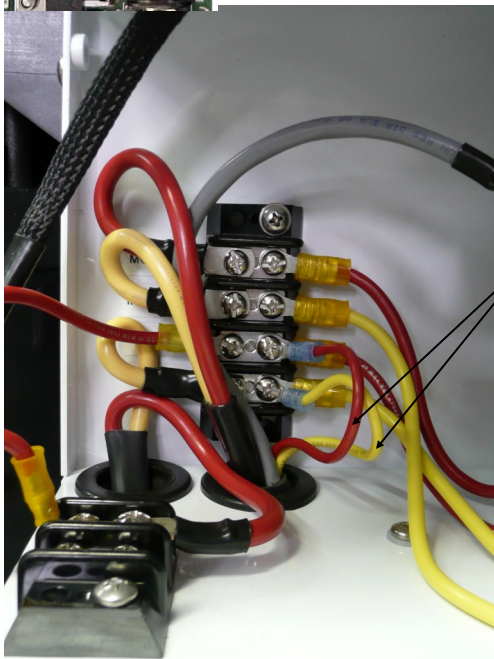
## DC-DC CONVERTER INSTALLATION NP-700 & 1000 with 24Volt Motor

The MPC –3000 and 5000 controls have a high voltage shutdown at 29.6 volts. If persistent high voltage alarms occurring due to charging systems which charge at voltages above 29.6 volts are a problem, a DC-DC converter can be installed in the power supply wiring to the MPC printed circuit board. This converter has an 18-36 volt input range and outputs 24 volts at up to 4 amps. It is installed so that the feed pump motor and DC-DC Converter are powered directly from the ships mains, and the MPC is supplied from the converter. The machine was factory wired with the Power Inlet cables running to a terminal block inside the feed pump module electrical box. From the terminal block two smaller red and yellow, power inlet wires go to the BAT+ and BAT– terminals on the MPC printed circuit board.



Install the Converter as follows:

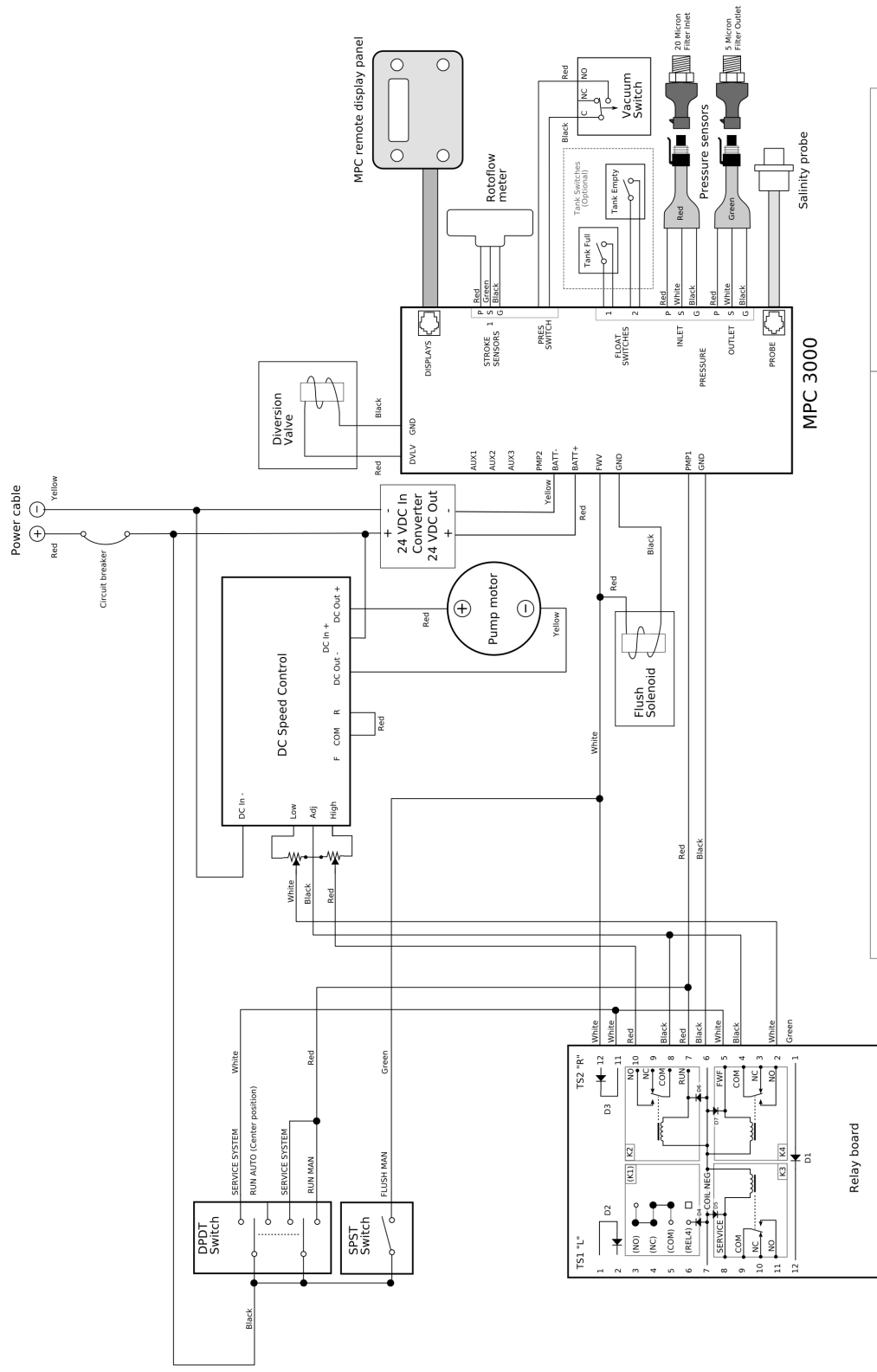
1. Disconnect the original red and yellow MPC power inlet wires at the MPC BATT+ and BATT– terminals and at the terminal strip. Leave any other wires on these terminals in place.
2. Remove and discard these wires.
3. Install the DC-DC converter in a convenient location in the bottom half of the box using the self sticking tape backing or screws.
4. Connect the shorter Output wires on the converter to the MPC board BATT+ and BATT– terminals; Red to BATT+ and Yellow to BATT-.



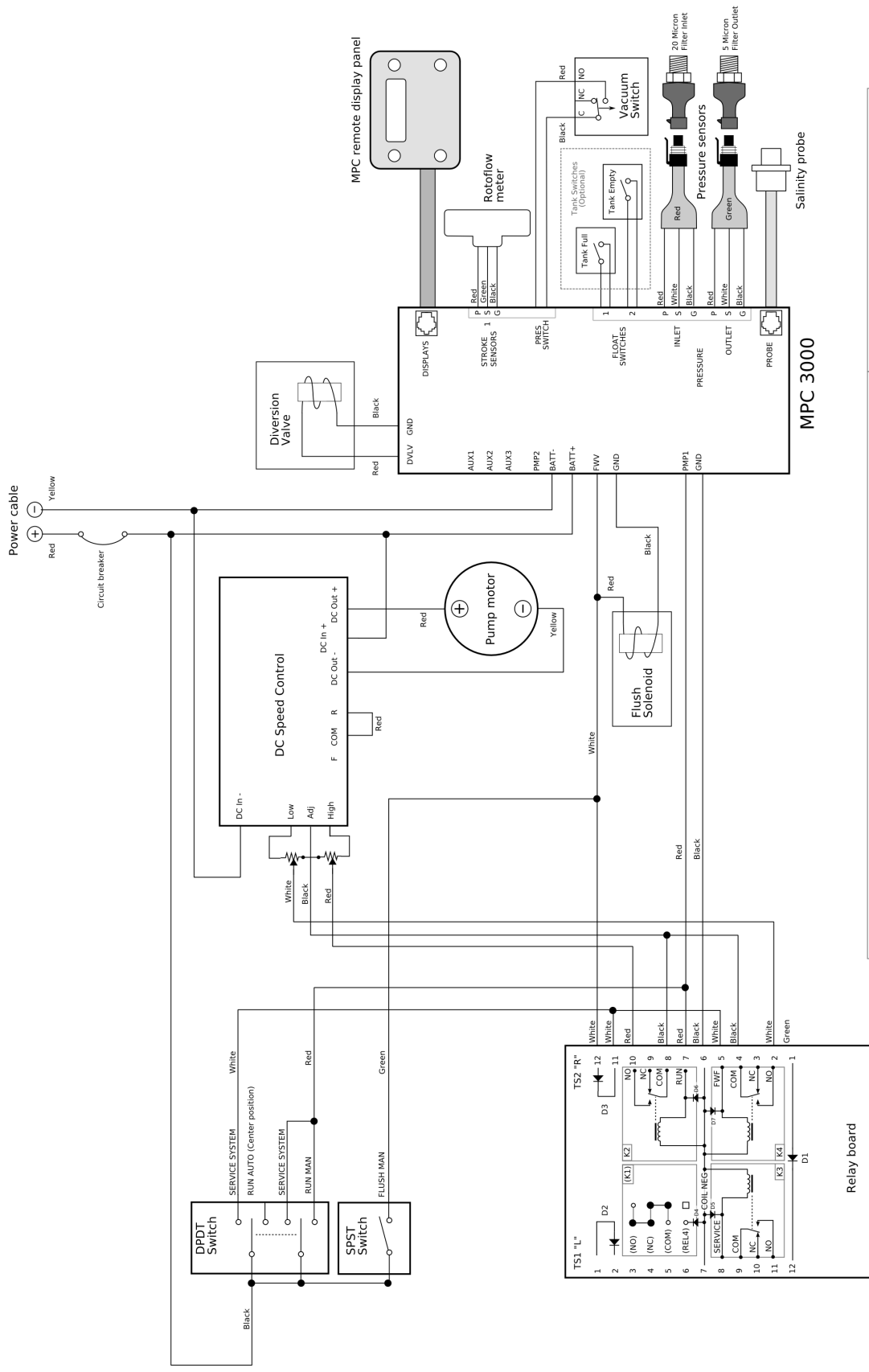
5. Connect the longer Power inlet wires to the Inlet terminal strip's two lower terminals. Red to Red and Yellow to Yellow. Leave in place any other wires on these terminals.

Remove these two wires and replace them with the converter assembly.

Warning: Reverse polarity will destroy the printed circuit board.



Newport 700/1000 DC with DC/DC Converter	
Revision: 2005-07-12	
Notes: Jumpers in relay board at pos. K1	
<b>Revision History</b>	<b>Description</b>
12 June 2005	Redo MPC layout & symbols, add RUN AUTO to switch, rename speed control terminals
20 Jan 2006	Remove Fan and related wiring
7 Feb 2007	Add DC/DC Converter



Newport 700/1000 DC	
<b>Revision History</b>	<b>Revision:</b> 2005-07-12
<b>Date</b>	<b>Notes:</b> Jumpers in relay board at pos. K1
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