stryker INSTRUMENTS

4100 East Milham Avenue
Kalamazoo, MI 49001
Phone (616) 323-7700
(800) 253-3210

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TPS Plus 5100-001-000 and 5100-050-000 Modifications

One change was made to the circuit design that was the addition of L11 to the RFID receiving circuit. L11 is a 22uH inductor that was added in parallel to the R151 (825 ohm), one of which connects to the RFID receive pin 29 of U37, the other end essentially is RF ground (to VMID and ground through a 0.1uF capacitor). The addition of L11 reduces the input impedance of the RFID pin by about 100 ohms at 13.56MHz. L11 is intended to attenuate frequencies below 13MHz at the RFID receive pin to improve noise rejection. Additional filtering was also added to the RF circuit to improve the harmonic emissions.

C194 and C195 were originally hand mounted to the PCB in the vicinity of C192 and C193, they were soldered onto existing component leads, now they are mounted directly to the PCB with their own through-holes. The values/components are unchanged, and the circuit design is unchanged. C192, C193 and J7 were moved slightly to make room for C194 and C195.

The wire that provided RF ground to the pump motor is now connected to the PCB through a 1/4" Fast-On connector, the wire has been shortened by 1/4" to compensate for the length of the added connector, the electrical length and topology of this connection is essentially unchanged from the original wire that was soldered directly to the PCB.

The two pin screw terminal connector (J4) which provides connection for the backlight CCFT lamp has been rotated 90 degrees, and all internal planes in the PCB have been removed from under J4 and the secondary of T1 and C3 which connect to it. The circuit design remains unchanged.

The 40 volt input power connector (J1) was by itself on the end of a 1.6" tab that extended from the rear of the PCB, that tab has been shortened by about 1", the connector and circuit connections are unchanged, they just have shorter traces.

The control wires to the hand piece connectors and the footswitch connector wires are no longer directly soldered to the PCB but instead are connected to the PCB through several IDC connectors, some of the passive components near the PCB connections were moved slightly to accommodate the PCB mounted IDC connectors. The lengths of the wire connections were not altered.

Paul Welch
Staff Approvals Engineer
Stryker Instruments
269-323-7700 x-3246