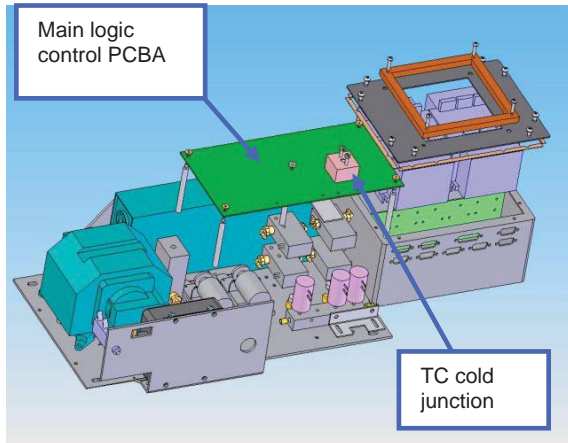


Replace Main Logic Control APR-XL-LCPCB



CAUTION!!!: This procedure involves handling ESD sensitive components. Proper ESD precautions should followed.

REQUIRED TOOLS:

- | | |
|---------------|----------------------------|
| 1/16" hex key | 3/16" hex key |
| 5/64" hex key | 5/16" hex nutdriver |
| 3/32" hex key | Small flat-tip screwdriver |
| 7/64" hex key | |

Remove Main Logic PCBA

1. Remove the APR XL top plate (6 screws).
2. Remove the rear handle (2 screws) and rear cover panel (11 screws) to access the chassis assembly.
3. Locate the main logic control PCBA. Label all wire harness and PCBA connectors for reference during reassembly. Carefully remove all PCBA connectors.
4. Remove shorting plug to J26M. Install shorting plug on new PCBA.
5. Disconnect the hose from the vacuum sensor U46. Label the hose for reference during reassembly.
6. Remove DB connector J91 from the EMI/Lynx box enclosure. One of the wires on the other end of this short harness is soldered to Q13. If the new PCBA does not include this harness, desolder this connection and solder to Q13 on the new PCBA.
7. Remove the two screws from the TC harness mounting bracket from the DC power supply.
8. Remove the five nuts holding down the PCBA.
9. Lift up the PCBA to access the bottom. Remove the two nylon screws holding the TC cold junction cover.
10. Lift up the TC cold junction cover. Remove the TC wiring to J21M and J22M.
11. Remove the old PCBA from the chassis.

Main Logic Control PCBA Connections	
J1M	To J91 DB, Lynx enclosure
J2M	Pre-heater fan blower
J3M	Air-line valve
J4M	Air-line valve
J5M	Air-line valve
J6M	Air-line valve
J7M	Air line valve
J8M	Nitrogen valve
J9M	Nitrogen valve
J10M	Vacuum pump
J11M	Vacuum pump
J12M	DC power supply
J13M	Rear cover fan
J14M	Pre-heater fan blower
J15M	Pre-heater solid state relay
J16M	Nitrogen valve
J17M	Pre-heater solid state relay
J18M	RTD
J21M	TC1, TC2, TC3
J22M	TC4, TC5
J23M	Reflow pump
J24M	Action button board
J25M	N/C
J26M	Shorting plug, pin 3 to pin 6
J27M	N/C
J28M	AC line
J29M	N/C
J30M	Main harness
J31M	Reflow head heater
J32M	N/C
J33M	N/C
P1	RS232
U46	Vacuum sensor

Install Main Logic PCBA

1. Connect TC wiring to J21M and J22M.
2. Install TC cold junction cover.
3. Mount the PCBA into the chassis.
4. Install all connectors to the PCBA, including the J26M shorting plug.
5. Install hose to U46 vacuum sensor.
6. Install DB connector J91 to the EMI/Lynx control enclosure. The red wire on the other end should be soldered to Q13 on the PCBA.
7. Mount the TC bracket to the DC power supply.
8. Install the rear cover.
9. Install the top plate.
10. **IMPORTANT:** With replacement of the main PCBA, it will be necessary to perform all thermal, airflow, thermocouple, and optical calibration procedures.