



INSTRUCTION SHEET FOR REPLACEMENT OF  
THE CONTROL BOARD IN EARLIER EC1002 OR EC2002  
POWER UNITS WITH AN EC214 KIT  
(TO REPLACE THE CONTROL BOARD IN LATER MODELS  
EC1002A AND EC2002A REFER TO THE TECH SHEETS)

General

The control board in this replacement kit (EC214) is a different type than the one used in the original EC1002 and EC2002 power units (EC209); however, it is a functional equivalent. With the addition of this board, the unit becomes an EC1002A or EC2002A unit and the tech sheets provided should then be referred to for further information on testing and calibration. The subassembly as shipped is factory calibrated. (Refer to tech sheets supplied for final calibration after installation.) The control board is supplied with a new receptacle attached. A matching plug and cord guard are also supplied to allow the EC1201 to be upgraded to a EC1201A by replacing its original plug.

This kit includes the following parts:

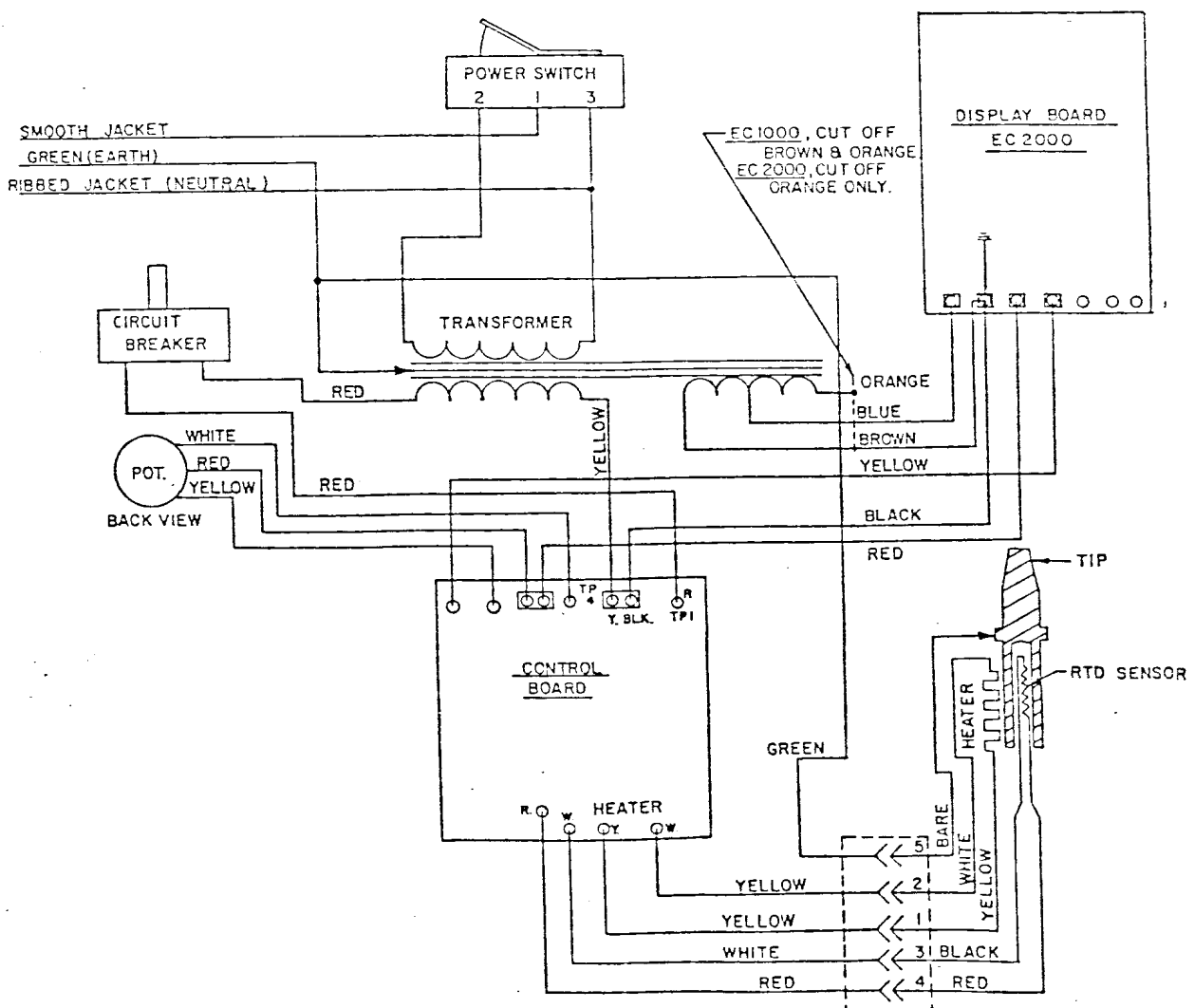
- 1 - Control board with receptacle, leads and temperature set control attached--calibrated
- 1 - Cord guard
- 3 - Tin plated crimp pins
- 2 - Gold plated crimp pins
- 1 - Plug housing
- 1 - Green lead with terminals attached
- 1 - EC1000 tech sheet
- 1 - EC2000 tech sheet
- 1 - Instruction sheet

Power Unit:

1. Remove bottom cover by removing rubber feet and removing four phillips head screws under feet.
2. Cut the red, yellow, orange and brown wires from the transformer close to the control board. On some models the red wire is connected to the circuit breaker.
3. Cut the smaller diameter green wire at the terminal attached to the transformer core. Do not cut the larger diameter ground wire from the cordset. (In earlier models the smaller diameter green wire was connected to the control board. In later models it was connected directly to the receptacle.)
4. (EC2002 ONLY) Cut the yellow, black and red wires connected to the "display" board. Remove wire ends and solder from the display board holes.
5. Remove two hold down screws from the old control board. Remove knob from front panel by pulling outward. Remove locknut and hold down nut from temperature setting control.
6. Remove the old control board along with the temperature set control and receptacle. Discard.
7. Install the new control board, temperature set control and receptacle. Position the new control board over the center screw boss in the case. Use one screw to hold the board. Place the shaft of the temperature control through the hole and add the locknut and hold down nut. Replace the knob.
8. (EC2002 ONLY) Insert the red, yellow and black leads attached to the new "control" board into their proper locations on the display board. Refer to EC2000 tech sheet for proper hookup. Solder the red and yellow leads only at this time. (For EC1002 units, the red, yellow and black leads are not required and should be cut flush with the control board and discarded.)

Power Unit (cont'd)

9. Insert the new receptacle into the upper housing making sure the anti-rotation key is engaged in the slot in the housing. Bend the plastic ears on the receptacle upward to hold it in place.
10. Cut off the orange wire close to the transformer. It is not used. If an EC1002 power unit, also cut the brown wire close to the transformer.
11. Strip the insulation from the red wire from the circuit breaker (or transformer), the yellow wire from the transformer and the brown wire (if to be used) from the transformer about 1/8 inch and tin them.
12. (EC2002 ONLY) Insert the brown wire into its place on the "display" board along with the black lead previously put into place. Solder both wires.
13. Insert the red wire into the new "control" board at the hole marked "R" and "TP1". Insert the yellow wire into the control board at "Y" and "TP4". Solder both wires.
14. Insert the green lead included in this kit into the unused hole (No. 5) of the receptacle. Remove the transformer hold down screw holding the ground wire. Place the eyelet on the opposite end of the green lead on this screw and replace. This completes the ground circuit.
15. Perform final calibration by adjusting R23 and R25 on the display board according to the instructions in the EC2000 tech sheet included in this kit.

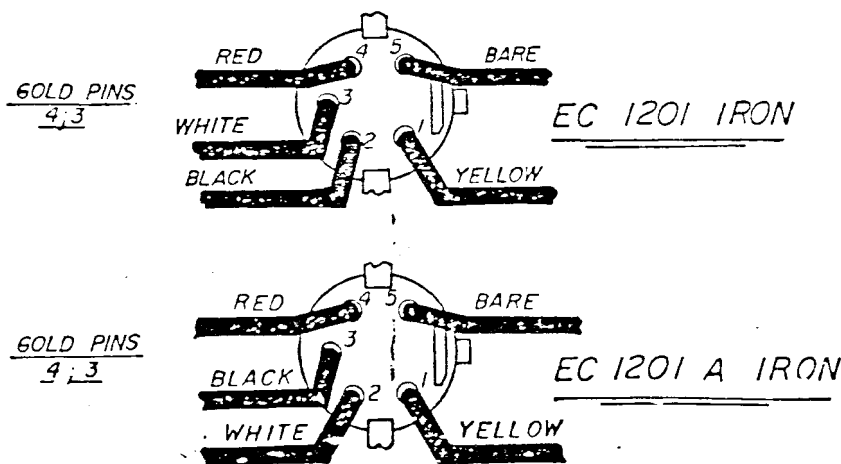
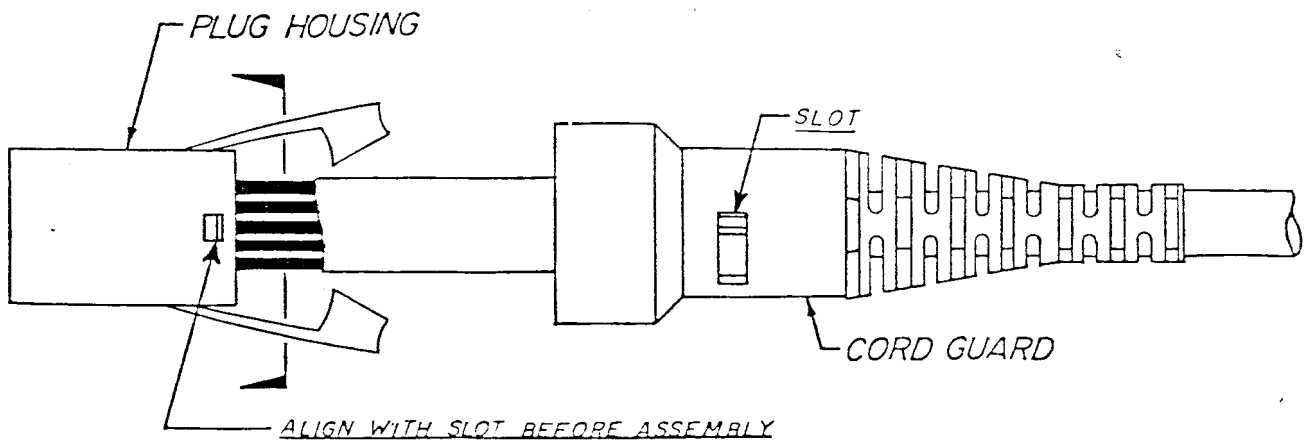


Soldering Tool:

1. Cut off existing plug.
2. Trim outer jacket 5/8" and remove filler threads.
3. Strip and tin leads 1/8".
4. Slide cord guard on cord (refer to illustration below).
5. Crimp and solder two gold pins and three tin pins to leads. (Refer to illustration for proper color code hookup.) Use minimum solder in crimp area only.
6. Insert pins in plug housing. (Refer to illustration for color code to pin no. correlation.)
7. Align cord guard slot with housing key, compress strain relief fingers against cord and insert housing in cord guard. Force cord guard over housing key by placing housing face against a flat surface. Key should snap into slot.
8. Perform the following resistance tests before plugging iron into power unit:

- Pin 3 to Pin 4 - 21-27 ohms
- Pin 1 to Pin 2 - 12-14 ohms
- Pin 5 to Tip - 1 ohm max.
- Pin 5 to all other pins - 10 megohms min.
- Pin 1 to Pin 3 - 10 megohms min.

Recheck wire hookup and/or refer to troubleshooting guide for unit if the test is failed.



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