

Instructions for Service Kits 43316 and 43317

TC14 to TC14A 208V or 240V Toaster Update Kit

KIT COMPONENTS - Check that the kit includes ALL of these parts BEFORE you begin!

Qty.	P/N	Description	Qty.	P/N	Description
1	43178	Upper heater assy, 208V (inc. w/Kit 43316 only)	1	42604	Cordset, cooling fan
1	43181	Upper heater assy, 240V (inc. w/Kit 43317 only)	16	1501D8803	Flat washer, #10 (motor mounting spacers)
1	43179	Lower heater assy, 208V (inc. w/Kit 43316 only)	4	7A2S15	Screw, #10-32 x 3/4" TRS HD (motor mounting)
1	43180	Lower heater assy, 240V (inc. w/Kit 43317 only)	6	1511E8801	Screw, #8-32 x 5/16" PAN HD (element leads)
1	42444	Drive motor, 120VAC	6	4111A8824	Screw, #10-32 x 5/16" PAN HD (element leads)
1	42597	Speed controller, AC motor	1	43320	Wire, TC14A 208/240V Retro Kit
1	44539	Sprocket, motor, 12T (with set screw)	3	3002693	Wire tie, nylon, 5-1/2" (140mm)
1	34128	Sprocket, drive shaft, 20T (with set screw)	1	43313	Instructions, TC14A 208/240V Update Kit

A. OVERVIEW

The Model TC14 Conveyor Toaster has been produced in three distinct types:

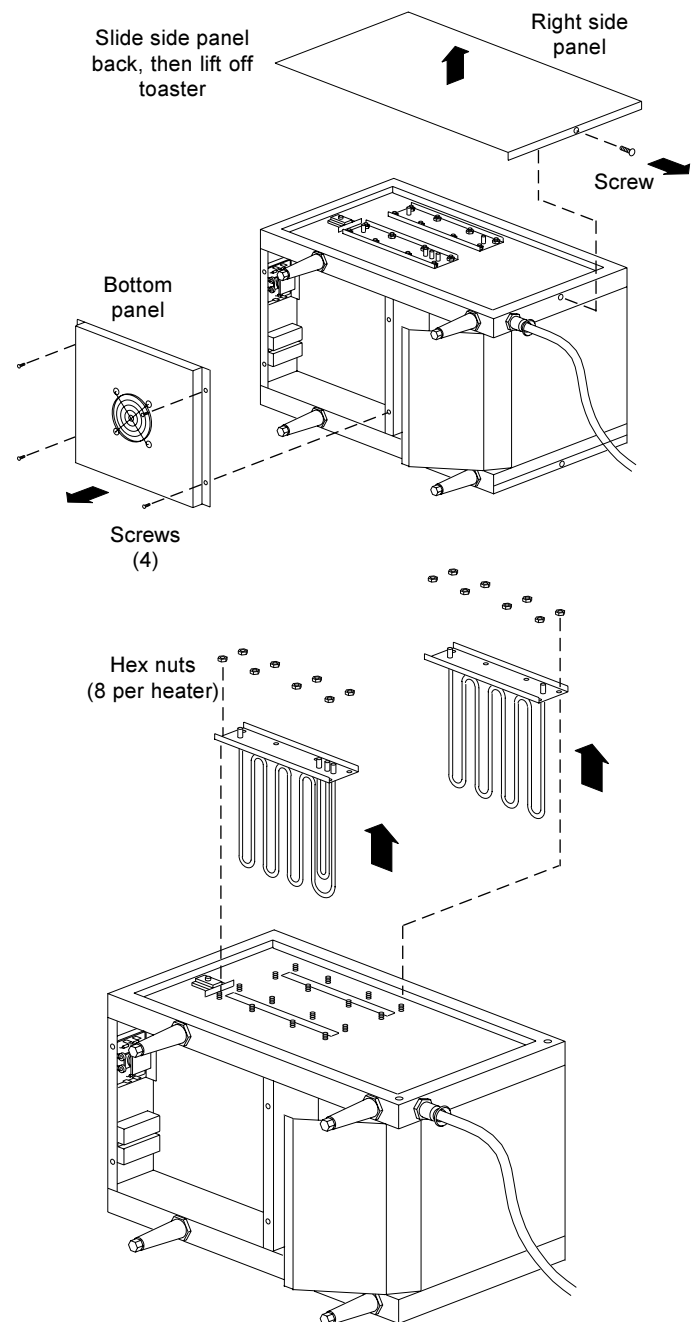
- **TC14** - Produced through 3/00. The Model TC14 Conveyor Toaster featured a DC conveyor drive motor and a 5:3 motor-to-conveyor drive ratio. 208V and 240V toasters were equipped with a single 1060W element, and a dual 1060+250W lower element.
- **TC14A Type 1** - Produced 4/00-7/00. This redesign included an AC conveyor drive motor. 208V and 240V toasters featured new heating elements (800W upper, 800+190W lower).
- **TC14A Type 2** - 8/00 or later. The current design has a motor-to-conveyor drive ratio of 3:5 to permit more flexibility in the selection of the conveyor speed.

This Service Kit will update one TC14 toaster to the current-production TC14A Type 2. Kit 43316 will update one 208V toaster. Kit 43317 will update one 240V toaster.

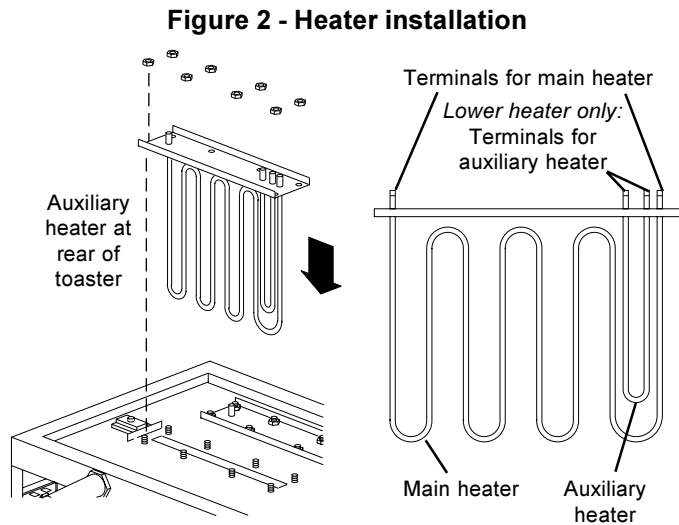
B. HEATER REPLACEMENT

1. Disconnect the toaster from its electrical power supply. Remove AND RETAIN the crumb tray.
2. Turn the toaster onto its left side.
3. Remove AND RETAIN the screw that holds the right side panel in place. Then, remove AND RETAIN the panel. See Figure 1.
4. Remove AND RETAIN the four screws that hold the bottom panel in place. Then, remove AND RETAIN the bottom panel. As you pull the panel away from the toaster, remove the fan cord plug from its socket on the side of the fan.
5. Cut the wire ties bundling the toaster's wiring together. Then, cut the wire tie that holds the power cord to the floor of the toaster.
6. Loosen the four screws that hold the drive motor in place. Then, slide the motor towards the rear of the toaster to loosen the drive chain. Remove AND RETAIN the drive chain for later reinstallation.
7. Remove the terminal screws from both heaters.
8. Remove AND RETAIN the 1/4" hex nuts that hold the top and bottom heaters in place. Then, remove and discard the heaters.

Figure 1 - Heater removal



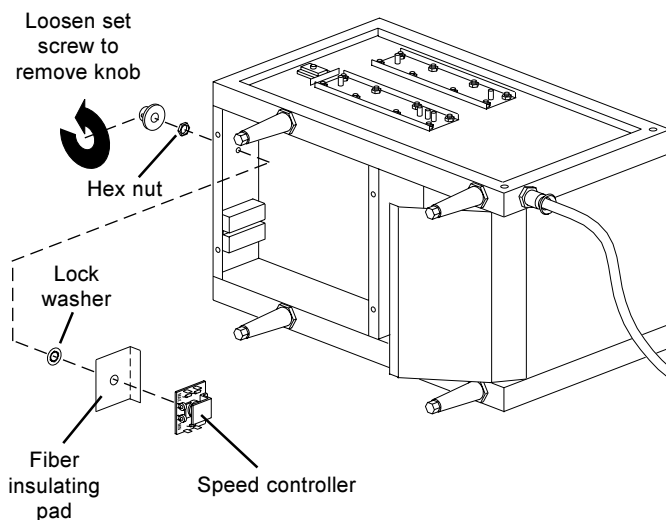
9. Install the new heater assemblies. Refer to Figure 2. As you insert each heater:
 - Check that the auxiliary heater is at the rear of the toaster (bottom heater only).
 - Check that the assembly is seated on its supports on the right side of the toasting chamber.
10. Replace the hex nuts to fasten the heaters in place. Do not reconnect the heater wiring at this time.



C. SPEED CONTROLLER REPLACEMENT

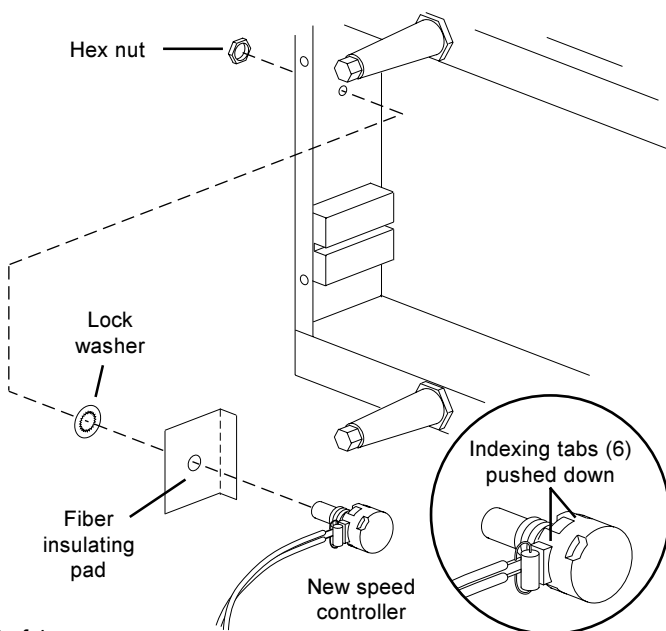
11. Disconnect the wiring from the conveyor speed controller.
12. Loosen the set screw that holds the conveyor speed controller knob in place. Then, remove AND RETAIN the knob. See Figure 3.
13. Remove the hex nut that fastens the speed controller to the control panel.
14. Pull the controller free of the rear of the control panel.
15. Remove AND RETAIN the fiber insulating pad from the speed controller. Discard the rest of the speed controller.

Figure 3 - Speed controller removal



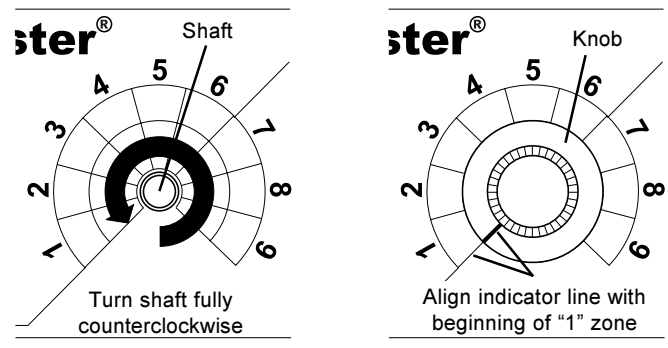
16. Check that all of the indexing tabs on the new speed controller are pushed down. See Figure 4.
17. Remove AND RETAIN the hex nut from the shaft of the new speed controller.
18. Slip the fiber insulating pad (from the original speed controller) over the end of the shaft on the new speed controller.
19. Install the new speed controller as shown in Figure 4. The lockwasher fits on the inside face of the control panel. The hex nut is tightened on the outside face of the panel. Do not connect the wiring at this time.

Figure 4 - Installing the new speed controller



20. Turn the shaft of the speed controller in a COUNTERCLOCKWISE direction as far as it will turn to set the controller to its minimum setting. See Figure 5.
21. Replace the knob onto the shaft of the speed controller. Adjust the position of the knob until the painted indicator is aligned with the line on the control panel at the beginning of the "1" range. See Figure 5.
22. Tighten the knob's set screw to fasten it in place.

Figure 5 - Replacing the speed controller knob



D. DRIVE MOTOR AND SPROCKET REPLACEMENT

23. Loosen the set screw that holds the drive motor sprocket to the motor shaft.
24. Remove and discard the four screws that hold the drive motor to the wall of the toaster. Gently pull the motor free of the inside wall. As you remove the motor, slide the sprocket off its shaft. Discard the sprocket.
25. Discard the motor and its attached wiring.
26. Remove and discard the drive shaft sprocket.
27. Hold the new AC motor with the drive shaft extending straight up. Stack four of the kit-supplied #10 washers onto one of the motor's corner mounting pads, as shown in Figure 6.
28. Carefully hold the motor in place against the inside wall of the toaster. Then, insert one of the kit-supplied #10-32 x 3/4" screws through its hole in the wall of the toaster, through the washers, and into the corner mounting pad on the motor. Insert the screw only far enough to catch the threads. This will temporarily hold the motor in place while allowing you to move the motor as necessary to slide in the remaining washers on the other three mounting pads. See Figure 6.
29. Install 4 washers and 1 screw at each of the three remaining corner mounting pads. Again, keep the screws loose to allow the motor to be repositioned.
30. Slip the new kit-supplied 12T sprocket in place on the motor shaft. Tighten its set screw to hold it in place. See Figure 7.
31. Install the new kit-supplied 20T sprocket in place on the conveyor drive shaft. Tighten its set screw to hold it in place.
32. Install the new drive chain.
33. Slide the motor forward to tighten the drive chain. DO NOT OVERTIGHTEN THE CHAIN. When the motor is correctly positioned, tighten its four mounting screws to hold it firmly in place.

Figure 6 - Installing the new motor

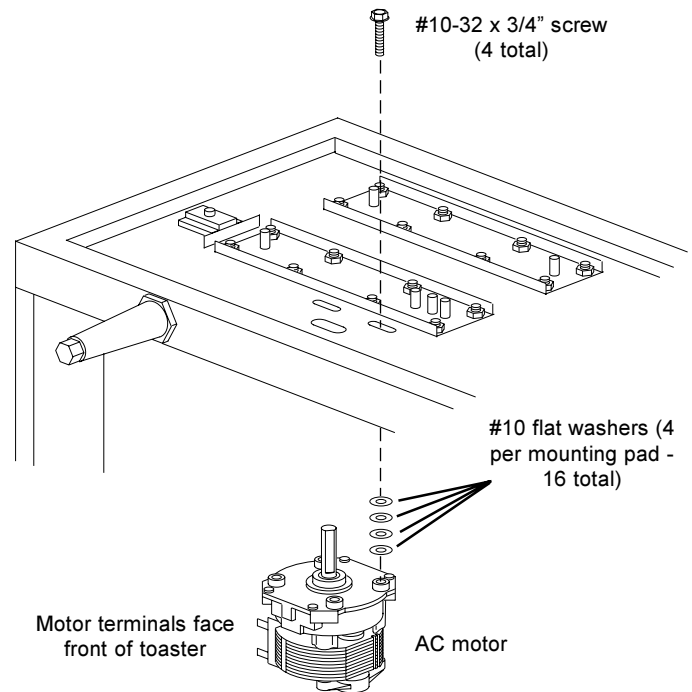
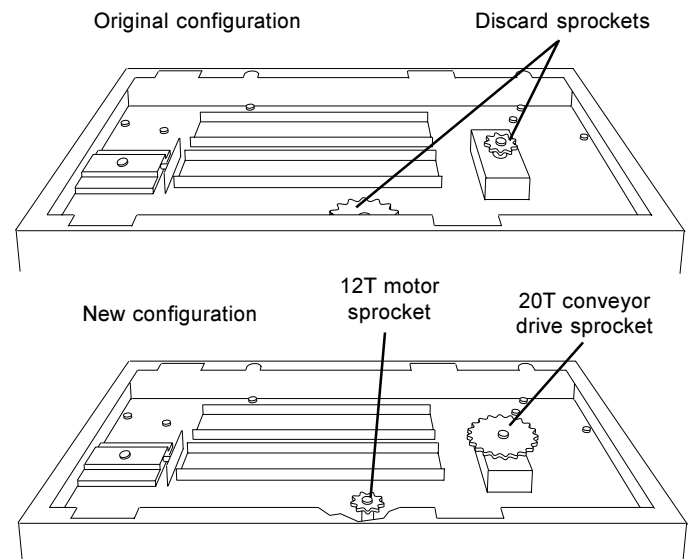


Figure 7 - Installing the new sprockets



E. REPOSITIONING THE FAN

34. In order to clear the new AC motor, the fan must be rotated 45°. See Figure 8. To reposition the fan:
 - Remove AND RETAIN the four screws that hold the fan and grill to the bottom panel.
 - Hold the grill in place against the bottom panel. Rotate it 45°, or until its four mounting holes are halfway in between the holes in the bottom panel.
 - While holding the grill in place, mark the locations of its four mounting holes onto the bottom panel. Drill out the holes with a #11 drill bit.
 - Reassemble the fan and grill onto the panel.

F. WIRING CONNECTIONS

35. Install the new kit-supplied fan cordset to the 115V side of the transformer, as shown in the wiring diagram below.
36. Wire the toaster as shown in Figure 9. The Kit includes both #8-32 and #10-32 terminal screws. Check

the size of the holes on each heater and use the appropriately-sized terminal screws.

37. Bundle the wires using the kit-supplied wire ties. Use one tie inside the right side of the toaster, and one inside the bottom cavity of the toaster.
38. Tie the power cord to the floor of the toaster using the remaining wire tie. Check that the cord is clear of the drive motor sprocket.

G. FINAL REASSEMBLY

39. Reconnect the fan cord plug into its socket on the side of the fan.
40. Replace the bottom panel, and fasten it in place with its four screws.
41. Replace the left side panel onto the toaster. Fasten it in place with its original mounting screw.
42. Reconnect the toaster to its electrical power supply. The toaster is now ready for operation.

Figure 8 - Repositioning the fan

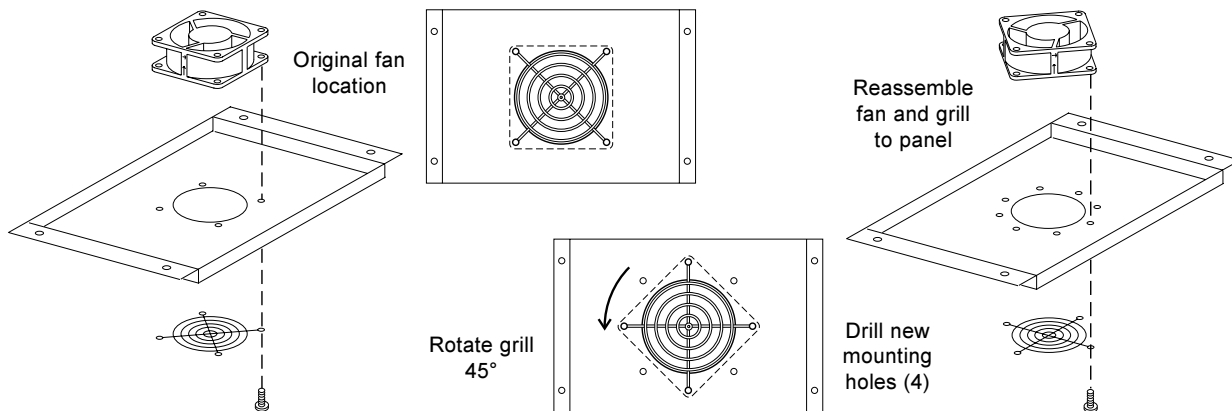


Figure 9 - Wiring diagram

