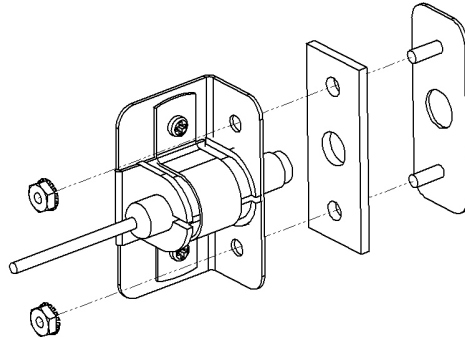




Your Solutions Partner

INSTALLATION INSTRUCTIONS

TSC 6/18 HUMIDITY PROBE REPLACEMENT INSTRUCTIONS FOR DUKE KIT #600289



This kit contains:

- 512018 (1) Drill Template, Humidity Sensor
- 512009 (1) Asm, TSC Humidity Sensor
- 512298 (1) Asm, RH Sensor
- 512019 (1) Harness, USB & RH Power
- 512299 (1) Harness, Proofer Lights & Beeper
- 512418 (1) Strap, Disposable Wrist
- 512169 (6) Cable Ties
- 512773 (1) Label, Wire Schematic TSC

Items required for this installation:

- 1/2" Drill Bit
- 3/16" or 1/4" drill bit
- 11/32" Nut Driver
- 5/16" Nut driver
- Ratchet with 11/32" socket
- Tape
- #2 Phillips screw driver
- Side cutter pliers

**IMPORTANT INFORMATION, READ BEFORE USE.
PLEASE SAVE THESE INSTRUCTIONS.**

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P/N 512017A

TSC HUMIDITY PROBE REPLACEMENT INSTRUCTIONS

Removing existing harness 512563:



WARNING



TURN OFF LINE SUPPLY POWER TO THE TSC OVEN AT MAINS SUPPLY CIRCUIT BREAKER. FOLLOW LOCK OUT / TAG OUT PROCEDURES.

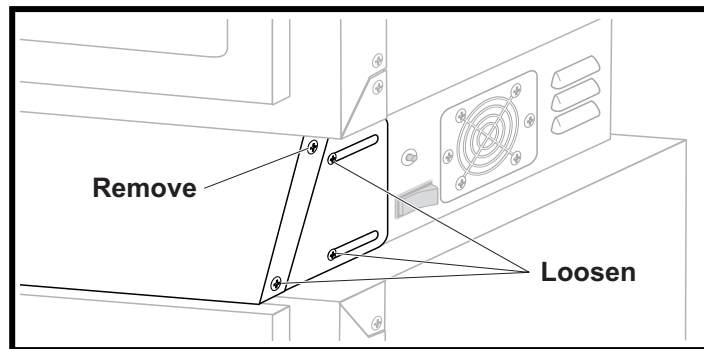


CAUTION

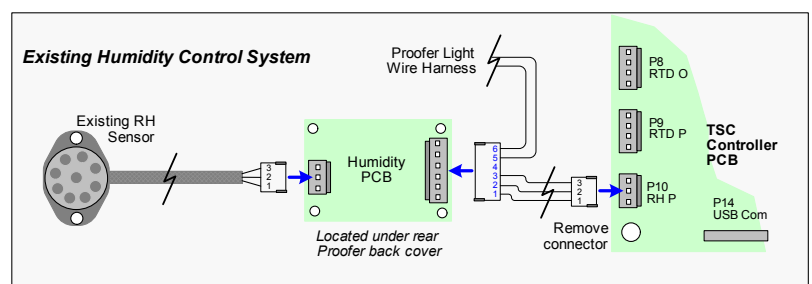
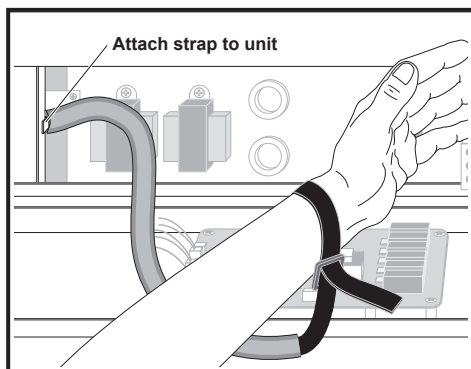


An ESD Wrist Strap is required when coming in contact with Touchpad Controller.

1. Verify line power to the unit is disconnected or deactivated and arrange for access to the right side and rear of the unit.
2. Remove the top two screws on left and right and loosen the three screws on both left and right sides of unit for access to the TSC Controller PCB as shown below. The panel will slide forward and pivot down for access.

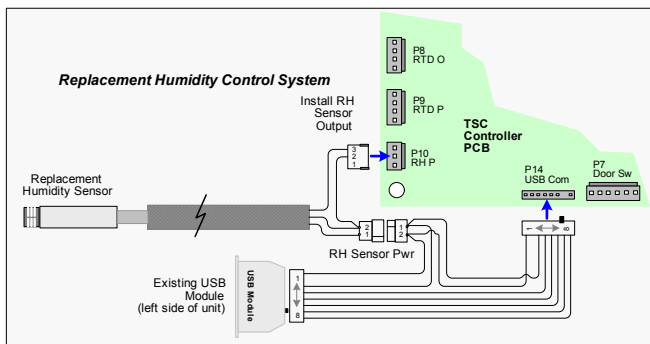


3. After properly connecting the ESD Wrist Strap to the unit and securing it properly on the wrist. Disconnect the 3-position connector installed at header **P10** of the TSC controller and disconnect the 8-position connector installed at header **P14** of the TSC controller (reference *Illustration below Existing Humidity control System*). This harness will not be reconnected to the unit. To remove the harness use side cutter pliers, cut the cable ties to free the wiring of **P14** from the balance of wiring in the left side of the front controls section. Use care to prevent damage to other wiring of the unit. Take note of harness, You will need to wire tie new harness in same fashion.



- Remove the two screws retaining the access panel for the USB Module and circuit breaker on the left side of the TSC Oven. The **P14** connects to the USB Module installed on the left side of the TSC oven. Disconnect the existing wire harness from the rear of the USB Module. Discard of the 512563 USB wire harness.

Installing Instructions for New 512019 harness:



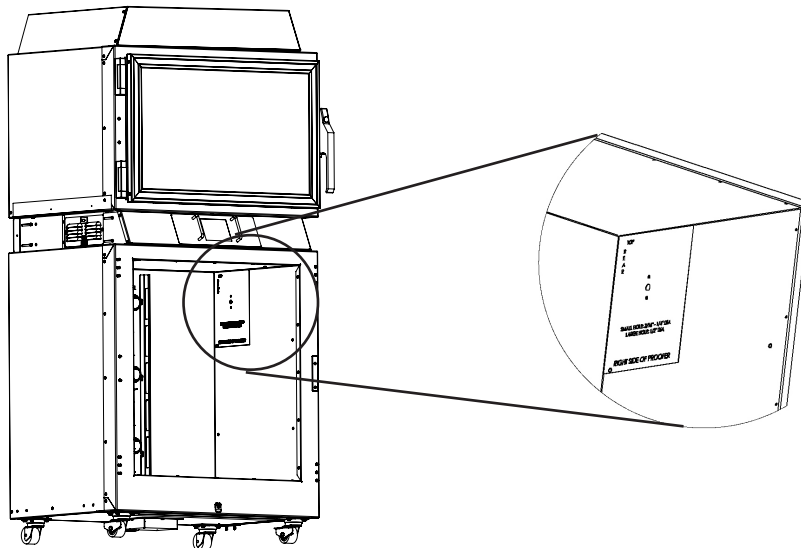
- After properly connecting the ESD Wrist Strap to the unit and securing it properly on the wrist. Plug in the new 512019 Wire Harness to **P14** of the TSC controller with the 2-position inline connector end of 512019 Wire Harness nearest **P14**. (reference Illustration above). Connector can only go on one way.
- Route harness to the USB panel that was removed earlier. Connect the other end of the 512019 harness to the rear of the USB module.
- Reinstall the left side USB access panel and cable tie the new 512019 Wire Harness to the control section wiring between the USB Module and the TSC controller similar to the original wire routing. **NO WIRES ARE TO TOUCH THE TRANSFORMER.**
- Ensure you have adequate slack in the harness to slide access panel to fully open position.

Preparing the interior proofer unit for the Installation of the new sensor:

- Remove wire racks, False bottom panel, & right side plenum duct assembly by removing screws on both sides, front and rear, and at top of air duct if installed.

TSC HUMIDITY PROBE REPLACEMENT INSTRUCTIONS

- Next align drill template 512018 to the upper rear corner of the right hand side of the unit. (See illustration below) Use the tape to secure the template in place. Drill holes to appropriate size as indicated on the template. Do not force bit through as this may damage outer finished panel. Remove all shavings from unit interior.

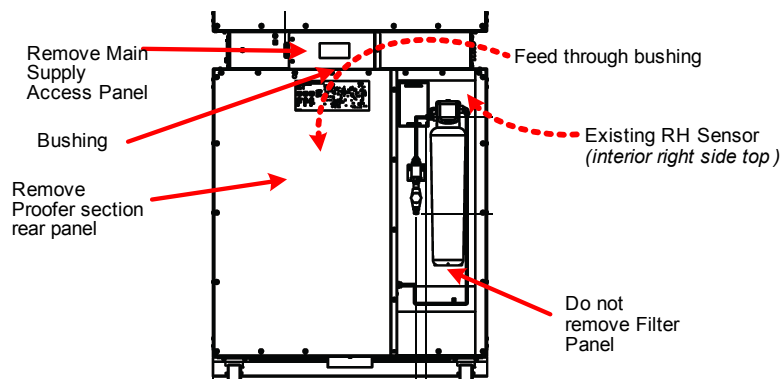


- Connect the 3-position connector of the new 512298 RH Assembly to **P10**. Connect the in-line 2-position connector of the new 512298 RH Assembly to the previously installed new 512019 Wire Harness.
- Route the probe end of the new 512298 RH Assembly through the lower wiring feed through on the rear wall of the controls section toward the rear of the TSC Oven.



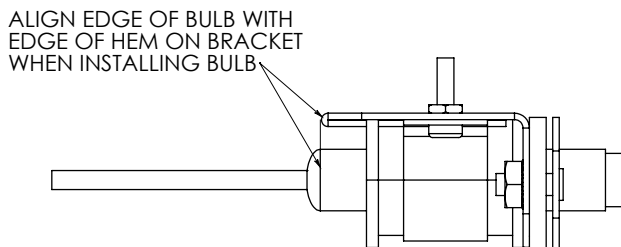
VERIFY LINE SUPPLY POWER TO THE TSC OVEN IS DISCONNECTED OR DEACTIVATED BEFORE CONTINUING.

- Using the 5/16" nut driver remove the rear access panel to the mains supply connections on the rear of the TSC Oven. Reach into the rectangular opening to the right of the mains terminal block and pull through the previously routed probe end of the new 512298 RH Assembly.

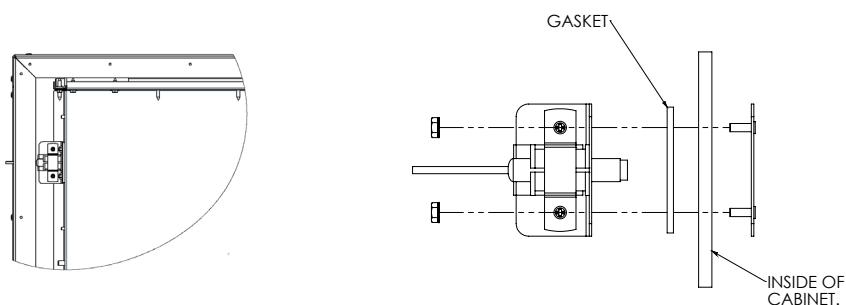


- Route the new 512298 RH Assembly through the feed through bushing down with the proofer section wiring. See diagram above for assistance.
- Do not remove the existing RH sensor & bracket from interior of oven.

16. Install the new 512298 RH Assembly probe to the 512009 Asm, TSC Humidity Sensor and install the probe onto the bracket. Using screw driver tighten screws enough to maintain sensor position. Do not overtighten you may damage sensor. See diagram below for sensor bracket alignment location.



17. Install the studded bracket of the 512009 assembly into the drilled holes from inside of the unit. Using tape hold the studded bracket into place. Do not cover the hole where the Humidity probe will go through. From the rear of the unit install the gasket over the studs. Next install the probe thru the hole of gasket and bracket taped to the liner wall. Install Keps nuts using Ratchet and 11/32 socket and tighten until you get a snug fit to seal the hole. See diagram below for how the assembly should look from the rear of the unit.



18. Reinstall the Rear Panel and Mains Supply Access Panel to the rear of the oven using the same fasteners.
19. Reinstall Right side air duct using fasteners. Install false bottom panel and wire racks.
20. Pivot Touchscreen Control Panel upright and slide panel to closed position. Reinstall screws removed earlier and retighten the three fasteners on each side to keep the panel from sliding out.

Calibrating the newly installed Relative Humidity Sensor:



WARNING

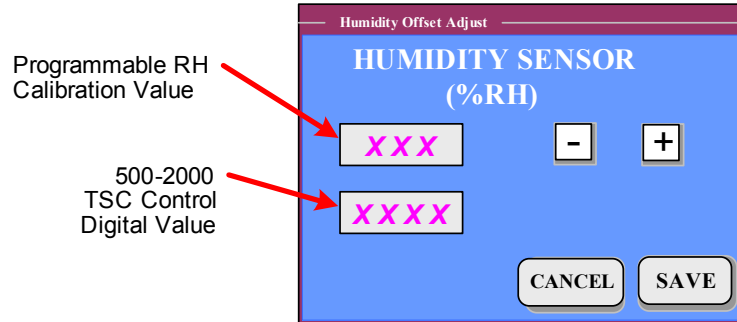


TURN ON LINE SUPPLY POWER TO THE TSC OVEN AT MAINS SUPPLY CIRCUIT BREAKER. FOLLOW LOCK OUT / TAG OUT PROCEDURES.

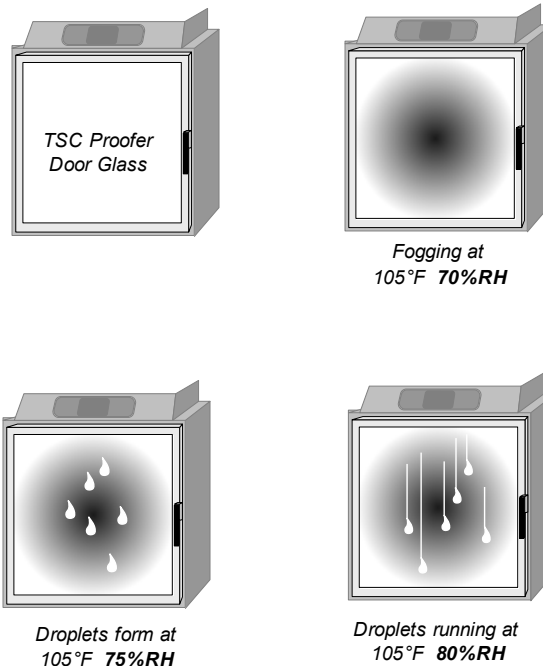
21. Make sure water supply line is turned on prior to restarting the unit.
22. Turn on the line supply to the TSC Oven. Then turn on the right side TSC main switch. Touch anywhere on the touchscreen to start. Next select the first proofer recipe. The PROOFER screen should be in PREHEAT mode.

TSC HUMIDITY PROBE REPLACEMENT INSTRUCTIONS

23. While the PROOFER is preheating, press and hold the oven power button on the TSC display until the special functions code entry screen appears. Enter code “1 7 9 0” and select humidity calibration. The number field displayed under the RH% value on the display should be between 500 and 2000. Recheck the new RH Probe interconnections if displayed numbers outside of the 500 to 1500 range on the *Humidity Offset Adjustment* screen.



24. The “Programmable RH Calibration Value” field should display an RH value close to ambient or around 30%RH. Adjust the RH value as needed to show ambient humidity or 30%RH using the “+” & “-” buttons on the RH calibration screen.
25. Save changes to the RH value by pushing the “SAVE” button & return to the main Proofer recipe run screen.
26. Allow the proofer section to preheat to temperature set point. Once the proofer recipe set point is obtained, the Proofer recipe screen will display a 10 minute count down timer. The TSC control will not begin humidity system operation until the temperature set point is obtained.
27. Press and hold the oven power button on the TSC display until the special functions code entry screen appears. Enter code “1 7 9 0” and select humidity calibration. The “Programmable RH Calibration Value” field will display rising humidity values on the *Humidity Offset Adjustment* screen.
28. The Proofer door glass will begin to fog at approximately 70%RH. Adjust the “+” & “-” buttons on the RH calibration screen to 70%RH when the proofer door glass is fogged and “SAVE” the adjustments.



29. With the door glass fully fogged & droplets begin to form on the proofer door glass, the proofer cavity humidity level is close to 80%RH. Adjust the “+” & “-” buttons on the RH calibration screen to 80%RH and “SAVE” the adjustments.
30. The lower field on the *Humidity Offset Adjustment* screen (TSC Control Digital Value, lower left field) should display “1 5 0 0” +/- 100 (1400 to 1600) when the Proofer cavity is at temperature set point and 80%RH.
31. Installation and calibration of the newly installed Relative Humidity sensor is now complete.

CUSTOMER ASSISTANCE

To aid in reporting this unit in case of loss or theft, please record below the model number and serial number located on the unit. We also suggest you record all the information listed and retain for future reference.

MODEL NUMBER:	SERIAL NUMBER:
DATE OF PURCHASE:	
DEALER:	TELEPHONE:
SERVICER:	TELEPHONE:

FOR WARRANTY, PARTS & SERVICE:

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Please provide the following information when you write or call: model number, serial number, date of purchase, your complete mailing address (including zip code), and description of the problem.



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