1690 Brandywine Avenue, Chula Vista, CA 91911, U.S.A. Telephone (619) 216-3400 Fax (619) 216-3434 Email: lyonelec@cts.com

www.lyonelectric.com

SOLID STATE
TEMPERATURE
CONTROLLER #220-010

INSTRUCTIONS TO INSTALL

BULLETIN NO. 281-171 6/95

# INSTRUCTIONS TO INSTALL THE SINGLE TURN SOLID STATE TEMPERATURE CONTROLLER #220-010 120 VAC

### ALL REPAIRS/INSTALLATIONS SHOULD BE PERFORMED BY QUALIFIED SERVICE PERSONNEL

Carefully remove and identify the following as you unpack the controller:

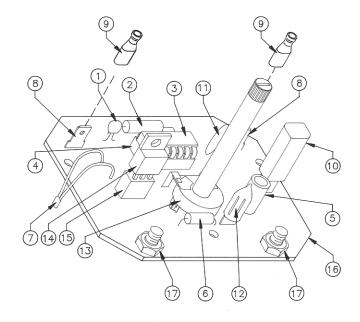
- 1. One (1) circuit board assembly.
- 2. Two (2) female AC power tabs.
- 3. Two (2) Brass washers and Hex nuts.

Materials needed to install the controller:

4. A crimping tool.

#### Installing the unit.

- 5. Remove the circuit board from packing and check for parts.
- 6. Remove the two female power tabs from the male power tabs. Crimp each of the female power tabs to a pre-stripped 22 to 18 gauge wire, (these wires come from the fan motor on TX and RX model incubators).
- 7. Slip the female power tabs back over the male power tabs. When the other end of the wire is connected to a power source, power is brought to the circuit board. (Caution: Disconnect power cord from wall socket before servicing. These terminals carry potentially lethal electric current when connected to a power source.)
- 8. Use the two brass nuts on each brass screw to attach each end of the heating coil on the inside of the incubator dome to the brass screws on the circuit board.



No.	Part No.	Description	No.	Part No.	Description
1	140-008	Capacitor 16V, 100MFD	10	220-025	Pepi Model C Thermostat
2	380-003	10K Resistor 2 Watt, 5%	11	440-006	Voltage Suppressor - Z14KOLA5
3	440-004	Integrated Circuit - RCA #CA3079	12	240-043	Mini Neon Lamp NE2
4	200-088	I.C. Socket #ICU 143 56T	13	400-009	Potentiometer - 1/4W 10K Black
5	140-009	Capacitor	14	440-003	Triac
6	380-002	Resistor 160K, .5 Watt, 5%	15	200-087	Triac Socket
7	440-002	Thermistor 10K, 10%, 55-125G	16	160-012	PC Board
8	200-086	Male AC Power Tab	17		Brass Screws, Washers, Hex Nuts
9	200-063	Female AC Power Tab			

ASSEMBLY INSTRUCTIONS SOLID STATE TEMPERATURE CONTROLLER #220-013

BULLETIN NO. 281-174 6/95

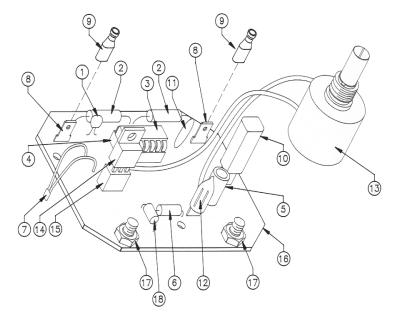
#### - ASSEMBLY INSTRUCTIONS -TEN TURN SOLID STATE TEMPERATURE CONTROLLER #220-013, 230 VAC

Carefully remove and identify the following as you unpack the controller:

- 1. One (1) circuit board assembly
- 2. Two (2) female AC power tabs
- 3. One (1) 10 turn potentiometer connected by three inch lead wires.

Materials needed to assemble the controller:

- 4. Crimping tool, Phillips screwdriver, drill with 3/8" bit, 1/8" slotted screwdriver
- 5. Remove the circuit board assembly from the box. Remove the female power tabs from the male power tabs. Crimp each of the male power tabs to a pre-stripped 22 to 18 gauge wire, (these wires come from the fan motor on TX and RX model incubators).
- 6. Slip the female power tabs back over the male power tabs. When the other end of the wire is connected to a power source, power is brought to the circuit board.
- 7. Use the two brass nuts on each screw to connect each end of the heating coil on the inside of the incubator dome to the brass screws on the circuit board.
- 8. Drill a 3/8" hole through the incubator dome positioned where the 10 turn potentiometer can be installed. Remove the knob and nut from the potentiometer. Insert the end of the potentiometer up through the hole in the dome and use the nut to secure the potentiometer to the dome. Replace the turning knob and turn the small screw on the knob to tighten the knob to the potentiometer.



No.	Part No.	Description	No.	Part No.	Description
1	140-008	Capacitor 16V, 100MFD	10	220-025	Pepi Model C Thermostat
2	380-003	10K Resistor 2 Watt, 5%	11	440-006	Voltage Suppressor - Z14KOLA5
3	440-004	Integrated Circuit - RCA #CA3079	12	240-043	Mini Neon Lamp NE2
4	200-008	I.C. Socket #ICU 143 56T	13	400-010	Potentiometer - 10 Turn 2W, 10K
5	140-009	Capacitor	14	440-003	Triac
6	380-002	Resistor 160K, .5 Watt, 5%	15	200-087	Traic Socket
7	440-002	Thermistor 10K, 10%, 55-125G	16	160-012	PC Board
8	200-086	Male AC Power Tab	17		Brass Screws, Washers, Hex Nuts
9	200-063	Female AC Power Tab			

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ASSEMBLY INSTRUCTIONS SOLID STATE TEMPERATURE CONTROLLER #220-012

BULLETIN NO. 281-173 8/94

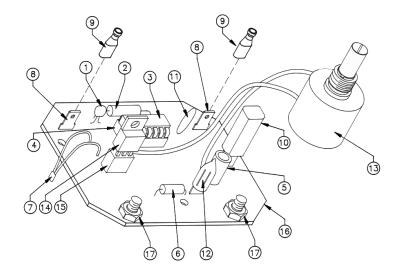
#### - ASSEMBLY INSTRUCTIONS -TEN TURN SOLID STATE TEMPERATURE CONTROLLER #220-012, 110V

Carefully remove and identify the following as you unpack the controller:

- 1. One (1) circuit board assembly
- 2. Two (2) female AC power tabs
- 3. One (1) 10 turn potentiometer connected by three inch lead wires.

Materials needed to assemble the controller:

- 4. Crimping tool, Phillips screwdriver, drill with 3/8" bit, 1/8" slotted screwdriver
- 5. Remove the circuit board assembly from the box. Remove the female power tabs from the male power tabs. Crimp each of the male power tabs to a pre-stripped 22 to 18 gauge wire, (these wires come from the fan motor on TX and RX model incubators).
- 6. Slip the female power tabs back over the male power tabs. When the other end of the wire is connected to a power source, power is brought to the circuit board.
- 7. Use the two brass nuts on each screw to connect each end of the heating coil on the inside of the incubator dome to the brass screws on the circuit board.
- 8. Drill a 3/8" hole through the incubator dome positioned where the 10 turn potentiometer can be installed. Remove the knob and nut from the potentiometer. Insert the end of the potentiometer up through the hole in the dome and use the nut to secure the potentiometer to the dome. Replace the turning knob and turn the small screw on the knob to tighten the knob to the potentiometer.



No.	Part No.	Description	No.	Part No.	Description
1	140-008	Capacitor 16V, 100MFD	9	200-063	Female AC Power Tab
2	380-003	10K Resistor 2 Watt, 5%	10	220-025	Pepi Model C Thermostat
3	440-004	Integrated Circuit - RCA #CA3079	11	440-006	Voltage Suppressor - Z14KOLA5
4	200-008	I.C. Socket #ICU 143 56T	12	240-043	Mini Neon Lamp NE2
5	140-009	Capacitor	13	400-010	Potentiometer - 10 Turn 2W, 10K
6	380-002	Resistor 160K, .5 Watt, 5%	14	440-003	Triac
7	440-002	Thermistor 10K, 10%, 55-125G	15	200-087	Traic Socket
	(Accurate to .2 Degree)		16	160-012	PC Board
8	200-086	Male AC Power Tab	17		Brass Screws, Washers, Hex Nuts

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INSTRUCTIONS TO INSTALL SOLID STATE TEMPERATURE CONTROLLER #220-011

BULLETIN NO. 281-172 6/95

# INSTRUCTIONS TO INSTALL THE SINGLE TURN SOLID STATE TEMPERATURE CONTROLLER #220-011 230 VAC

### ALL REPAIRS/INSTALLATIONS SHOULD BE PERFORMED BY QUALIFIED SERVICE PERSONNEL

Carefully remove and identify the following as you unpack the controller:

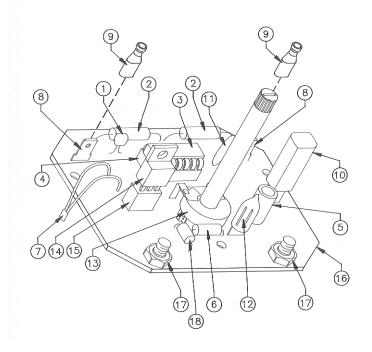
- 1. One (1) circuit board assembly.
- 2. Two (2) female AC power tabs.
- 3. Two (2) Brass washers and Hex nuts.

Materials needed to install the controller:

4. A crimping tool.

#### Installing the unit.

- 5. Remove the circuit board from packing and check for parts.
- 6. Remove the two female power tabs from the male power tabs. Crimp each of the female power tabs to a pre-stripped 22 to 18 gauge wire, (these wires come from the fan motor on TX and RX model incubators).
- 7. Slip the female power tabs back over the male power tabs. When the other end of the wire is connected to a power source, power is brought to the circuit board. (Caution: Disconnect power cord from wall socket before servicing. These terminals carry potentially lethal electric current when connected to a power source.)
- 8. Use the two brass nuts on each brass screw to attach each end of the heating coil on the inside of the incubator dome to the brass screws on the circuit board.



No.	Part No.	Description	No.	Part No.	Description
1	140-008	Capacitor 16V, 100MFD	10	220-025	Pepi Model C Thermostat
2	380-003	10K Resistor 2 Watt, 5%	11	440-007	Voltage Suppressor - Z10L441
3	440-004	Integrated Circuit - RCA #CA3079	12	240-043	Mini Neon Lamp NE2
4	200-088	I.C. Socket #ICU 143 56T	13	400-009	Potentiometer - 1/4W 10K Black
5	140-009	Capacitor	14	440-003	Triac
6	380-002	Resistor 160K, .5 Watt, 5%	15	200-087	Triac Socket
7	440-002	Thermistor 10K, 10%, 55-125G	16	160-012	PC Board
8	200-086	Male AC Power Tab	17		Brass Screws, Washers, Hex Nuts
9	200-063	Female AC Power Tab	18	440-009	Diode IN5406