

**CONSTANT
TEMPERATURE OVEN
MICROPROCESSOR
CONTROLLED**

**FLOOR MODELS:
FX14-2 & FX28-2**

INSTALLATION AND OPERATIONAL MANUAL

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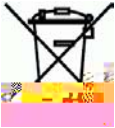
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These units are general purpose air ovens for professional, industrial or educational use where the preparation or testing of materials is done at approximately atmospheric pressure and no flammable, volatile or combustible materials are being heated. These units are not intended for hazardous or household locations or use.

GRAPHIC SYMBOLS

Your oven is provided with a display of graphic symbols which should help in identifying the use and function of the available user adjustable components.

- 2.1  This symbol indicates that you should consult your manual for further description or discussion of a control or user item.
- 2.2  Indicates “**AC Power**”
- 2.3  Indicates “**Manual Control**”
- 2.4  Indicates “**Timer**”
- 2.5 °C Indicates “**Degrees Celsius**”
- 2.6  Indicates “**Temperature**”
- 2.7  Indicates “**Over Temperature Safety**”
- 2.8  Indicates “**Earth Ground**”
- 2.9  Indicates “**Potential Shock Hazard**” behind partition
- 2.10  Indicates “**Unit should be recycled**” (Not disposed of in land-fill)

INSTALLATION

Local city, county or other ordinances may govern the use of this equipment. If you have any questions about local requirements, please contact the appropriate local agency. Installation may be performed by the end user. Under normal circumstances this unit is intended for use indoors, at room temperatures between 5° and 40°C, at no greater than 80% Relative Humidity (at 25°C) and with a supply voltage that does not vary by more than 10%. Customer service should be contacted for operating conditions outside of these limits.

Installation of the FX28-2 requires hard wiring and should be performed by a qualified electrical technician. The next higher circuit breaker value above the data plate amperage may be used provided the requirements in article 422 of the National Electric Code are met (USA). The FX14-2 can be installed by the end user without a technician.

- 3.1 Power Source:** The electrical supply circuit to the oven must conform to all national and local electrical codes. Consult the incubator's serial data plate for the voltage, cycle wattage and ampere requirements before making connection. **VOLTAGE SHOULD NOT VARY MORE THAN 10% FROM THE SERIAL PLATE RATING.** This unit is intended for 50/60 Hz application. A separate circuit is recommended to prevent possible loss of product due to overloading or fail31 EAYl

standing upright, turn the leveling feet counterclockwise to raise level. If the unit must be moved, turn the leveling feet in all the way to prevent damage.

- 3.5 3.5 Cleaning:** The oven interior was cleaned at the factory, but not sterilized. Remove all interior parts if assembled and clean with a disinfectant that is appropriate to your application. **DO NOT USE** chlorine-based bleaches or abrasives as this will damage the stainless steel interior. **DO NOT USE** spray cleaners that might leak through openings and cracks and get on electrical parts or that may contain solvents that will harm the coatings. A similar periodic cleaning is



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TEMPERATURE ACTIVATION

Light thermostat

Controller
Light

The main power
to the unit
The switch

The
control
for a timed

the
the heat is

temperature
sets of the
temperatures

marked SET/TEMPERATURE
DOWN arrow pads for input

- 5.4 Overtemperature Safety Thermostat:** This control is marked HIGH LIMIT and is equipped with a graduated dial from 0-10. It is independent of the Main Controller and guards against any failure which would allow the temperature to rise past the Main Controllers set point. This allows continued operation of the oven until the problem can be corrected or service can be arranged. It is not recommended that the unit be operated for extended periods of time using only the Overtemperature Safety as the controller as temperature uniformity will suffer.
- 5.5 OTP Light:** This pilot lamp is marked OTP and is directly above the Overtemperature Safety Thermostat. The light will come on when the Safety Thermostat has been activated and taken control of the oven. Under normal operating conditions this pilot lamp should never be on.
- 5.6 Timer Control:** This control is marked SET/TIMER and consists of a digital display, UP/DOWN arrow pads, a RESET "PUSH" pad, a START/STOP "PUSH" pad and a TIMER ACTIVATED Light. This control provides the ability to set a timed heat interval, activate the start-up of the timed heat cycle and shut down the timed heat cycle automatically.
- 5.7 Temperature Activated Light:** This pilot lamp will be lit when the elements are receiving power.

Thermostat counterclockwise with a flat-head screwdriver until the OTP light turns ON. Next, turn the Thermostat clockwise just until the OTP light turns OFF. Then turn the thermostat clockwise two (2) of the smallest divisions on its scale past the point where the light went out. This sets the Safety Thermostat at a temperature approximately 10

already been activated, push the START/STOP button to “STOP” the timer, then repeat steps A through D above.

- 6.7** To set the timer so that timed operation will not start until the oven is stable at set point, pre-heat the oven in the normal mode until the desired temperature has stabilized. Turn on the TIMER switch. Push and hold the RESET button until the timer display blinks, this is to be sure that the pre-set timed value is correct.

thermometer don't match

- 1/ Calibration error – see section 6.4.
- 2/ Temperature sensor failure – call Customer Service.
- 3/ Controller failure – call Customer Service.
- 4/ Allow at least two hours to stabilize.
- 5/ Verify that reference thermometer is certified.

Can't adjust set points or calibration

- 1/ Turn entire unit off and on to reset.
- 2/ If repeatedly happens, call Customer Service.

Calibrated at one temperature, but not at another

This can be a normal condition when operating temperature varies widely. For maximum accuracy, calibration should be done at or as close to the set point temperature.

MECHANICAL

Motor doesn't move

- 1/ If shaft spins freely: check connections to motor and check voltage to motor.

1/ If shaft spins freely: check connections to motor and check voltage to motor.

Front panel displays are all off



UNIT SPECIFICATIONS

These units are 240 volt. Please refer to the unit data plate for its individual specifications.

Unit	Dimensions WxDxH		Weight		Capacity
FX14-2	37X34X47	30.75x24.75x47	490 lbs.	280 lbs.	14
FX28-2	37.5x24.75x78.25	30.75x24.75x62.5	550 lbs.	390 lbs.	28

Temp. °C Range Uniformity Heat022 -0.78 ref252.36 56144.a8 ref4864 -0.06 red3.

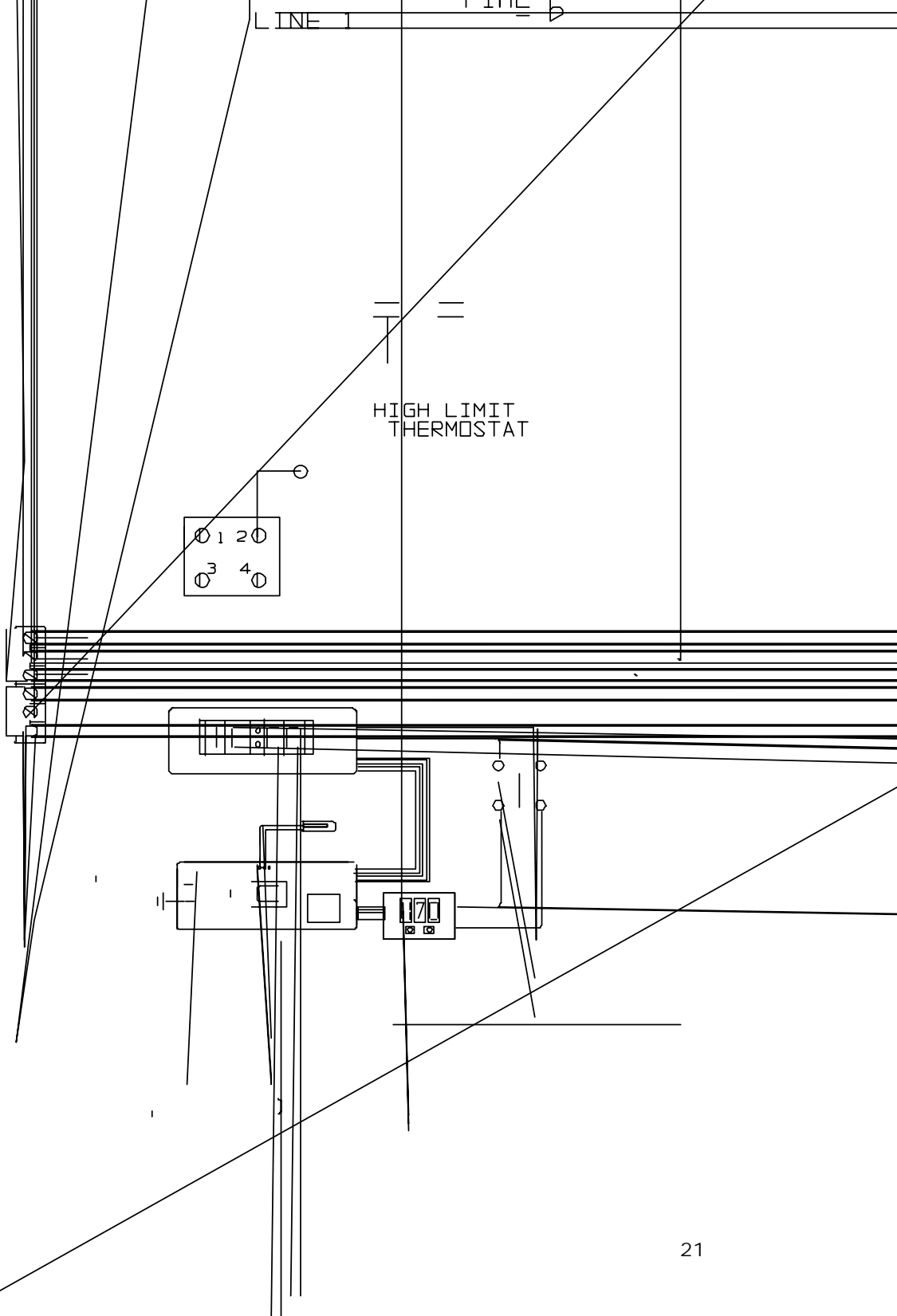
WIRE DIAGRAM FX14-2

TIMER
SWITCH
SAFETY

ELEMENT
POWER RELAY

QUENCH-ARC

WIRE DIAGRAM FX28-2



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**SHELDON MANUFACTURING, INC.
LIMITED WARRANTY
(Parts only, exclusive of labor)**

Sheldon Manufacturing, Inc., ("Manufacturer") warrants for the original user of this product that all parts, not including finished goods products, it manufactures or resells will be free from defects in material and workmanship for a period of one year from the date of delivery of this product to the original user (the "Warranty Period"). During the Warranty Period, Manufacturer, at its election and expense, will repair or replace parts that are proven to Manufacturer's satisfaction to be defective, or, at Manufacturer's option, refund the price or credit the price of any parts that are proven to Manufacturer's satisfaction to be defective. This warranty does not cover any labor or damage due to accident, misuse, negligence, or abnormal use. Use of parts in a system that includes components not manufactured by Manufacturer is not covered by this warranty. Any alteration or removal of the serial number on Manufacturer's parts will void this warranty. **Under no circumstances will Manufacturer be liable for indirect, incidental, consequential, or special damages.** The terms of this warranty are governed by the laws of the state of Oregon without regards to the principles of conflicts of laws thereof. If any provision of this limited warranty is held to be unenforceable by any court of competent jurisdiction, the remainder of this limited warranty will remain in full force and effect.

This warranty is in lieu of and excludes all other warranties or obligations, either express or implied. Manufacturer expressly disclaims all implied warranties, including without limitation, the warranties of merchantability and fitness for a particular purpose.



For fast and efficient support, please have the following information available anytime you request service:

Model _____

Serial No. _____

Part No. _____