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2-Way Twin Heat Module

Standard Features Are:

Stainless Steel Case with Handle
2 Channel Contactorized Switching
Neon Indicators for both Channels
Neon Indicator Power-On
EHS Custom Temperature
Controllers Dual Thermocouple Jacks
Size: 10” high x 20” deep x 9” wide

Twin Heat Module Parts

(2) EHS 3216 Temperature Controllers	Part # 21427
(3) 110 Volt Neon Lights	Part # 21332
(2) Fuse Holders (5-Amp Fuses)	Part # 21333
(2) 300Amp Female Panel Mounts	Part # 24502
(2) 300Amp Male Panel Mounts	Part # 24501
(2) Dual Female Type “K” T/C Jacks	Part # 25249
(2) SW200 Albright Contactors	Part # 21250
(1) Replacement Stainless Steel Frame	Part # 21311
(1) Replacement Stainless Steel Lid	Part # 21312

Parts List Above for 2006-2019 Units

Read Carefully before operating

1) Upon receipt of your new Twin Heat Module visually inspect it for any damage that might have occurred during shipment. If there are any signs of damage please call EHS Immediately so a damage claim can be processed.

2) The Twin Heat Module Weighs less than 30 Pounds.

3) Never operate the Twin Heat Module with the top removed. Serious electrical shock can occur if care is not taken.

4) Always use a Stable 120 volt source. The Twin Heat Module uses less than 5 amps. The Twin Heat module as a three prong plug and must be grounded at all times during use.

5) Make sure the Primary Input & Output Tapings have been placed on the correct locations, make sure you have a tight connection. The contactors are rated for 250 Amps maximum we suggest you stay around 200 amps maximum.

6) If you should have any questions please call us 24 hours a day 7 days a week at our office # (609) 588-0900

Getting Started set up Procedure

1) Make sure that all primary power connections are properly and tightly connected. Make sure that the unit is grounded and that the supply power is connected to the correct input tapings.

2) Connect the Cable Sets to the Input Twistlocks (Male) and the output Twistlocks, (female) and see that the corresponding thermal-couples are plugged into the proper T.C. jacks.

NOTE !! When attaching the thermal-couples to the workpiece or reattaching a broken thermal-couple, it is very important to temporarily disconnect the T.C. from the Jack on the Console and the Jack on the Recorder. The electrical spark of the TAU may travel through the T.C. wire and cause damage to the recorder or the controller.

OPERATING INSTRUCTIONS for the EUROTHERM 3216 RAMP to SET-POINT CONTROLLER

There are four keys on the face of the 3216 Controller.

The "  " key returns the operator to the **HOME** display.

The " " key is used to select new parameters.

The △ key and the ▽ key increase or decrease a value.

There are **three modes of operation** that can be used with the 3216 controller.

1. **Ramp to Set-Point**: The controller **ramps** to a set-point at a set **rate**. The controller is set to **Auto**, with the **Ramp** "**ON**".

2. **Straight to Set-Point**: The controller goes straight to the set point as quickly as possible when set to **Auto**, with the **Ramp** "**OFF**".

3. **Percentage Timer**: The controller turns on and off according to a set percentage when set to **Manual**, with the **Ramp** "**OFF**".

The " " key moves from one option to another and the △ and ▽ keys are used to insert numbers for set point, ramp rate, or percentage values.

Scrolling messages appear on the bottom of the controller to give various status, set-up, or alarm information. For example; INPUT SENSOR BROKEN says that the Thermo-Couple is either broken or not plugged in.

Ramp to Set-Point Mode

When the 3216 Ramp controller powers on in the **Ramp** mode the top of the display will be **flashing** between **rP** and the **input value**. The lower display value is the **ramping set-point** that shows the programmed set-point climbing at the programmed rate.

1. Press the advance key to see No This is asking if you wish to **pause** the Ramp. Using the ▽ arrow key **PAUSE** you can change this to **YES .** Now the controller will maintain the current set point without ramping up.

2. Press the advance key to see **On** This says that the controller is in the Ramp mode. **RP**

3. Press the advance key to see **number value** and a scrolling message ***"RAMP RATE".*** This is asking for a value **RATE** to be chosen for the **Ramp Rate**.

4. Press the ▽ or △ arrow keys to change the "**number value** " to the desired **Ramp Rate**.

5. Press the advance key to see **32** and a scrolling message **"*TARGET SETPOINT* "** This is asking for **a ESP** value to be chosen for the END-SET-POINT.
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6. Press the ▽ or △ arrow keys to change the "**number value** " to the desired **set point**.

7. Press the advance key to see **AUTO** and a scrolling message **"*LOOP MODE AUTO MANUAL OFF*".** **A-M**

8. Press the advance key to return to the HOME screen. The controller will be flashing but we must change the **PAUSE** to **NO** to continue ramping. Press the advance key to see YES Press the ▽ arrow key to change the YES to NO.
PAUSE

9. Press the "  " key to return to the HOME screen.

The controller will now start ramping from the input temperature to the target set-point (**ESP**), at the chosen Ramp **Rate**. The upper section of the display will begin **flashing** between the input value and "**Rp**". The lower section of the display will show the ramping set-point. **If the controller is not flashing, then it is not Ramping !!!**

Values for the Set point or the ramp rate may be changed any time throughout the heating process. The Ramp may also be put into "**pause**" (similar to **hold** in the **Remote Mode**) by pressing the advance key to see NO and a scrolling message **"*Ramp Pause*".** Use the ▽ key to change the **PAUSE** NO to YES.

Straight to Set-Point Mode

1. Press the advance key to see No This is asking if you wish to **pause** the Ramp. Using the ▽ arrow key **PAUSE** you can change this to **YES .** Now the controller will maintain the current set point without ramping up.

2. Press the advance key to see **ON** and a scrolling message **"*Ramp Enable*".**
RP

3. Press the ▽ or △ arrow keys to change the "**ON** " to "**OFF**".

4. Press the advance key to see **32** and a scrolling message **"*TARGET SETPOINT* "**
ESP This is asking for a value to be chosen for the SET-POINT .

5. Press the ▽ or △ arrow keys to change the "**number value** " to the desired **set point**.

6. Press the advance key to see **AUTO** and a scrolling message **"*LOOP MODE AUTO MANUAL OFF*".**
A-M

8. Press the advance key to return to the home page. The upper value indicates the input temperature, and the lower value indicates the set-point .

The Op 2 light will show on the controller indicating that the controller is calling for heat, and will stay ON continuously until the input temperature reaches the set-point temperature. In this mode there is no ramping control and care must be taken to avoid over-shooting of the set-point.

Percentage Timer Mode

1. Press the advance key ↺ to see **rmt** and a scrolling message **"*remote setpoint select*"** **L-R** This indicates that the controller is in the **Remote** mode.

2. Press the ▽ arrow key to change the **Remote** mode to **Local**. You will see **LoC** **L-R**

3. Press the advance key ↺ to see **OFF** **RP** and a scrolling message **"*Ramp Enable*".**

4. Press the advance key ↺ to see **32** **ESP** and a scrolling message **"*TARGET SETPOINT* "** This is asking for a value to be chosen for the SET-POINT .

5. Press the ▽ or △ arrow keys to change the "**number value** " to the desired **set point**.

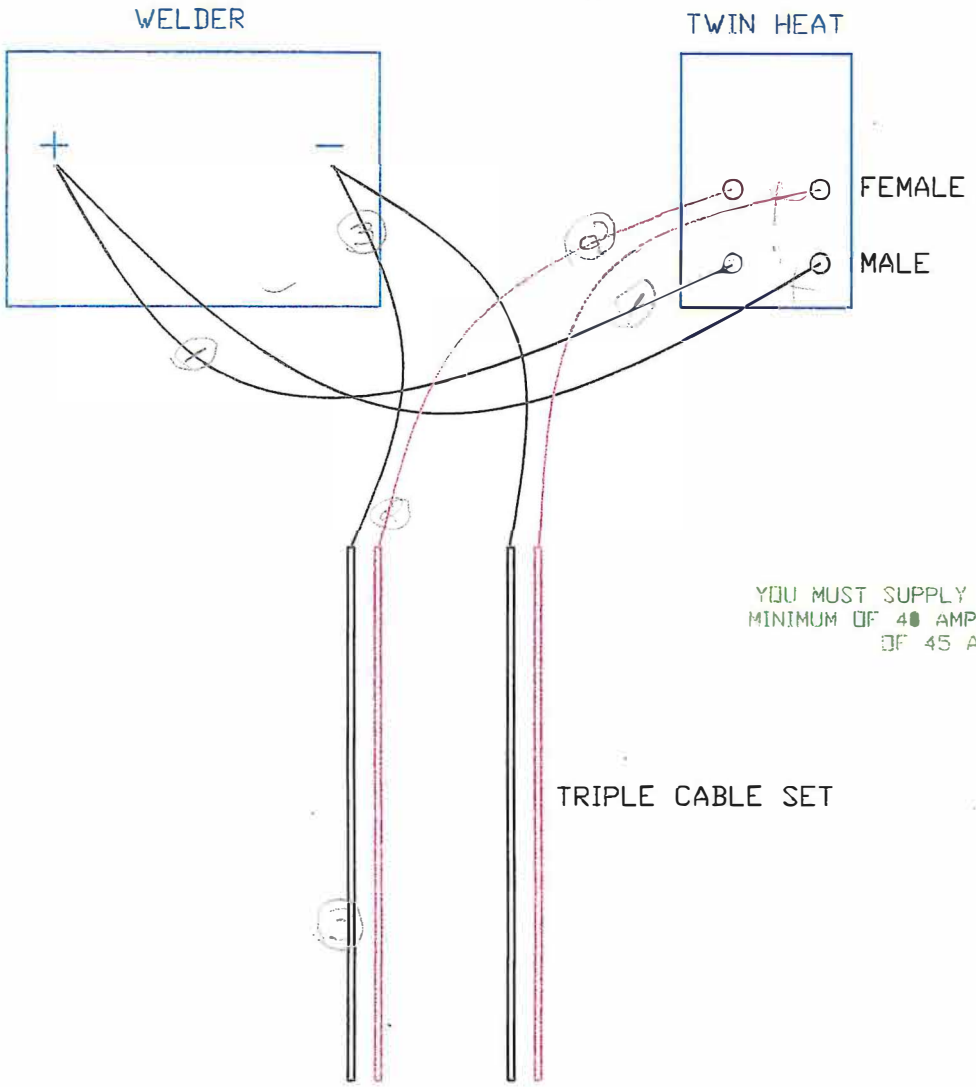
6. Press the advance key ↺ to see **AUTO** **A-M** and a scrolling message **"*LOOP MODE AUTO MANUAL OFF*".**

5. Press the ▽ or △ arrow keys to change the **"AUTO** " to **mAn**

6. Press the advance key ↺ to see **1** **ADDR** and a scrolling message **"*ADDRESS*" .**

7. Press the advance key ↺ to return to the home page. The upper value indicates the input temperature, and the lower value indicates the percentage of operation. The percentage may be changed at any time using the ▽ or △ arrow keys.
For example; if the controller is set to 50% it will cycle on and off approximately every two seconds. If the controller is set to 75% it will cycle on for approximately six seconds and off for about two seconds.

TWIN HEAT MODULE CONNECTION



YOU MUST SUPPLY EACH HEATER A MINIMUM OF 40 AMPS AND A MAXIMUM OF 45 AMPS