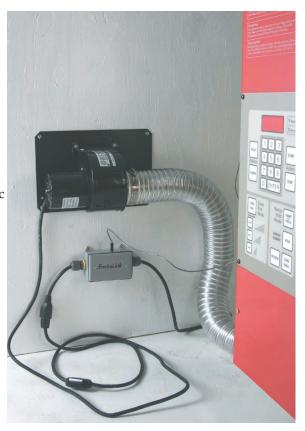# EnviroLink Manual

INTRODUCTION

The *EnviroLink* was developed by engineers at Skutt to provide kiln owners with the ability to automatically control the Skutt *EnviroVent* and *EnviroVent 2*. The device utilizes a programmable power output (OUTPUT 4) on Skutt *KilnMaster* and *GlassMaster* Controllers to turn on/off the *EnviroVent* and *EnviroVent* 2. The kiln may be programmed to control the vent during any segment of a *Ramp/Hold* Program or during preset times of a *ConeFire* or *Glass Fire Mode* program.

The *EnviroLink* may also be used to control competitor's kiln vents and other devices such as remote alarms and automatic dialers. The vent, or other device, plugs into the *EnviroLink* and a control wire is run from the *EnviroLink* to a designated output (Output 4) on the controller. The *EnviroLink* is then plugged into a standard 120V outlet. When the controller signals the device to turn ON, a relay is switched within the *EnviroLink* which provides power to the device. A red indicator light signals that there is power to the *EnviroLin*k and a green indicator light signals that the *EnviroVent* is in the ON position

The *EnviroLink* will only work with 600 and 700 series Skutt *GlassMaster* and *KilnMaster* Controllers manufactured after January 1st of 2001. The *EnviroLink* is rated to cycle components up to 12 amps. Consult the manufacturer prior to installing the *EnviroLink* on devices other than the *EnviroVent* or *EnviroVent 2*.

WHO CAN BENEFIT FROM AN ENVIROLINK?

- **Teachers** - Even though most vents do not draw a lot of energy, most teachers do not feel comfortable letting the fan motor run all weekend or even overnight. The EnviroLink will shut the kiln off when the program is complete or when the kiln reaches a specific temperature. Since it works with ConeFire Mode, it is very easy to program.

- **Potters** - Crystal Glazes and Cone 6 Glazes can be very sensitive to cooling rates. Artists can now use the Ramp/Hold programming mode to control whether the kiln vent is on for each segment of the firing program.

- **Glass Artist** - Artists who fire glass want to cool quick and hold steady. With the EnviroLink they can program the vent to come on when crash cooling and then turn off during annealing when they are trying to hold the temperature steady.

ENVIROLINK MANUAL (CONTINUED)

INSTALLING THE ENVIROLINK

UNPLUG THE KILN.

1. Remove the four screws that hold the control panel in place on the face of the Control box.

2. Drill a 7/16" hole in the side of the kiln control box on either side up near the top. Be careful not to hit any components or wires. You should be able to locate a good spot by looking through the mounting hole for the controller. If you cannot see whether or not you have a clear path for drilling, we recommend that you remove the control box from the kiln and open the heat baffle for a clearer view.

3. Pass the *EnviroLink* cable through the hole.

4. Make sure there is sufficient wire length to plug the wires into the controller. Place the strain relief (black plastic plug) around the cable on the outside of the control box and close the connector. Push the strain relief and cable into the hole.

5. Unplug the wires on the Center Tap output of the controller. It is labeled in white letters on the right side of the board.

6. The black wire from the *EnviroLink* cable is a piggyback connector. Plug this onto the controller's Center Tap.

7. Plug the wires that you removed onto the piggyback connector.

8. Plug the red wire from the *EnviroLink* cable onto the controller's connector that is closest to the round black speaker at the top of the board. This is marked Output 4 on the KM 600 and GM 600 boards (not marked on some GM 700 boards).

9. Screw the controller back in place.

10. Plug the *EnviroLink* into a 120V outlet and your vent into the *EnviroLink*.

11. Plug in the kiln. The installation is complete. (Be sure the in-line toggle switch on the vent is in the on position.)

PROGRAMMING THE ENVIROLINK

Once the *EnviroLink* has been installed, the controller must be configured to use it. There are four optional settings that control how the *EnviroLink* cycles the power to the vent. Programming instructions vary slightly depending on the controller and the version of the controller.

- *GlassMaster* 600 Board (Red LED Display) 1/02 - 1/8/06

- *KilnMaster* 600 Board (Red LED Display) 1/01 - 3/20/06

- *GlassMaster* 700 Board (Green LED Display) 1/9/06 to present

- **KilnMaster** 700 Board (Green LED Display) 3/21/06 to present

Programming the Skutt GlassMaster 600 for use with the EnviroLink

OP A (Option A), OP b (Option B), OP C (Option C)

In the 600 Board version of the GlassMaster Controller Option A, B, and C are the same. When these options are selected the *EnviroLink* will turn on when the kiln is started and turn off when it is complete if you are using *GlassFire Mode*. If you are using *Ramp/Hold Mode* to program your kiln it will ask you at the end of each segment while programming whether you want to have the **FAN ON** or **OFF**. Use the **1** key to toggle between **ON** and **OFF** and then press **ENTER**.

(continued)

ENVIROLINK MANUAL (CONTINUED)

SAFt (Safety)

This is the factory default setting. If the *EnviroLink* is not being utilized this is the setting that should be selected. When this option is selected the *EnviroLink* will turn on when the kiln is started and turn off when it is complete if you are using *GlassFire Mode* or *Ramp/Hold Mode*. If you are using *Ramp/Hold* it will <u>NOT</u> ask you if you want the **FAN ON** or **OFF**.

Turn the in-line toggle switch on the *EnviroVent* cord to the off position, if you do not want the vent to come on at any time.

To select an option:

1. From *Idle Mode*, Press **MENU**. Continue to press **MENU** until the screen displays **rSET**

2. Press **4** then **4** then **3**

3. Continue to press **MENU** until you reach **OP A**, **OP B**, **OP C**, or **SAFt**.   Do not select **PC**t. When you arrive at the option you want press **ENTER**.

Programming the Skutt GlassMaster 700 for use with the EnviroLink

OP A (Option A)

When Option A is selected, Output 4 will turn on during segments 1,2,3 and 6 of a *GlassFire Mode* program. This program is designed to vent out fumes during the beginning of the program and allow for faster cooling from the process temperature down to the annealing temperature.

When a *Ramp/Hold* program is entered it will ask whether you want the fan (or other accessory) on for each segment you program. After you enter the hold time for each segment the display will show **FAN** along with the number of the segment you are programming. Alternately it will flash the current setting, either **OFF** or **ON**. To change the setting toggle it with the **1** key and press **ENTER** to select that setting.

OP b (Option B)

When Option B is selected Output 4 will turn on only during segment 6 of a *GlassFire Mode* program.   This program is designed to limit a fan from coming on when fusing extremely sensitive large pieces of glass. It will come on between the process temperature and the annealing temperature to help prevent devitrification.

 When a *Ramp/Hold* program is entered it will ask whether you want the fan (or other accessory) on for each segment you program. After you enter the hold time for each segment the display will show **FAN** along with the number of the segment you are programming. Alternately it will flash the current setting, either **OFF** or **ON**. To change the setting toggle it with the **1** key and press **ENTER** to select that setting.

OP C (Option C)

When Option C is selected Output 4 does not come on during any portion of a *GlassFire Mode* program.

When a *Ramp/Hold* program is entered it will ask whether you want the fan (or other accessory) on for each segment you program. After you enter the hold time for each segment the display will show **FAN** along with the number of the segment you are programming. Alternately it will flash the current setting, either **OFF** or **ON**. To change the setting toggle it with the **1** key and press **ENTER** to select that setting.

ALR4 (Alarm 4)

This is the factory default setting. If Output 4 is not being utilized this is the setting that should be selected. This feature can also control an external alarm or autodialer to initiate if an Error Code is generated or if the internal temperature of the kiln reaches the temperature programmed for the **ALARM** setting of the program. To deactivate the alarm press **ENTER**.

ENVIROLINK MANUAL (CONTINUED)

To select an option:

1. From *Idle Mode*, Press **MENU** until the display reads **CNFG** (Configuration) and press **ENTER**.

2. Press **MENU** until the display reads **OUT4** (Output 4). Press **ENTER**.

3. Press **MENU** until you reach the option you want and press **ENTER**. (Do not select **PCT**)

Programming the Skutt KilnMaster 600 for use with the EnviroLink

OP A (Option A)

When Option A is selected Output 4 will turn on when a *ConeFire Mode* program is started. When the program has run and the kiln has cooled to 150 °F output 4 will turn off.

When a *Ramp/Hold* program is entered it will ask whether you want the fan (or other accessory) on for each segment you program. After you enter the hold time for each segment the display will show **FAN** along with the number of the segment you are programming. Alternately it will flash the current setting, either **OFF** or **ON**. To change the setting toggle it with the 1 key and press **ENTER** to select that setting.

OP b (Option B)

During a *ConeFire* program Output 4 will turn on when **START** is pressed. It will then turn off at 1450 °F. It will turn back on when the kiln is cooling and the temperature drops below 1000 °F. It will then turn off when the kiln cools to 150 °F.

 When a *Ramp/Hold* program is entered it will ask whether you want the fan (or other accessory) on for each segment you program. After you enter the hold time for each segment the display will show **FAN** along with the number of the segment you are programming. Alternately it will flash the current setting, either **OFF** or **ON**. To change the setting toggle it with the **1** key and press **ENTER** to select that setting.

OP C (Option C)

When Option C is selected Output 4 does not come on during any portion of a *ConeFire Mode* program.

When a *Ramp/Hold* program is entered it will ask whether you want the fan (or other accessory) on for each segment you program. After you enter the hold time for each segment the display will show **FAN** along with the number of the segment you are programming. Alternately it will flash the current setting, either **OFF** or **ON**. To change the setting toggle it with the 1 key and press **ENTER** to select that setting.

ALR4 (Alarm 4)

This is the factory default setting. If Output 4 is not being utilized this is the setting that should be selected. This feature can also control an external alarm or autodialer to initiate if an Error Code is generated or if the internal temperature of the kiln reaches the temperature programmed for the **ALARM** setting of the program. To deactivate the alarm press **ENTER**.

To select an option:

1. From *IDLE Mode*, Press **MENU**. You will see **CHG °**

2. Press:

> **8** then **2** for Option A
>
> **8** then **3** for Option B
>
> **8** then **4** for Option C
>
> **8** then **5** for Alarm 4

(continued)

ENVIROLINK MANUAL (CONTINUED)

Programming the Skutt KilnMaster 700 for use with the EnviroLink

OP A (Option A)

When option A is selected Output 4 will turn on when a *ConeFire Mode* program is started. When the program has run and the kiln has cooled to 150 °F output 4 will turn off.

When a *Ramp/Hold* program is entered it will ask whether you want the fan (or other accessory) on for each segment you program. After you enter the hold time for each segment the display will show **FAN** along with the number of the segment you are programming. Alternately it will flash the current setting, either **OFF** or **ON**. To change the setting toggle it with the **1** key and press **ENTER** to select that setting.

OP b (Option B)

During a *ConeFire* program Output 4 will turn on when **START** is pressed. It will then turn off at 1450 °F. It will turn back on when the kiln is cooling and the temperature drops below 1000 °F. It will then turn off when the kiln cools to 150 °F.

 When a *Ramp/Hold* program is entered it will ask whether you want the fan (or other accessory) on for each segment you program. After you enter the hold time for each segment the display will show **FAN** along with the number of the segment you are programming. Alternately it will flash the current setting, either **OFF** or **ON**. To change the setting toggle it with the **1** key and press **ENTER** to select that setting.

OP C (Option C)

When Option C is selected Output 4 does not come on during any portion of a *ConeFire Mode* program.

When a *Ramp/Hold* program is entered it will ask whether you want the fan (or other accessory) on for each segment you program. After you enter the hold time for each segment the display will show **FAN** along with the number of the segment you are programming. Alternately it will flash the current setting, either **OFF** or **ON**. To change the setting toggle it with the 1 key and press **ENTER** to select that setting.

ALR4 (Alarm 4)

This is the factory default setting. If Output 4 is not being utilized this is the setting that should be selected. This feature can also control an external alarm or autodialer to initiate if an Error Code is generated or if the internal temperature of the kiln reaches the temperature programmed for the **ALARM** setting of the program. To deactivate the alarm press **ENTER**.

To select an option:

1. From *IDLE Mode*, Press **MENU** until the display reads **CNFG** (Configuration) and press **ENTER**.
2. Press **MENU** until the display reads **OUT4** (Output 4). Press **ENTER**.
3. Press **MENU** until you reach the option you want and press **ENTER**. (Do not select **PCT**)

Caution : If you are using the EnviroLink with the original EnviroVent (motor mounts directly under the kiln) then be sure to choose an option that ensures the fan stays on at temperatures above 2000 °F. Long term exposure to high temperatures while the motor is not running may damage the motor.

ENVIROLINK MANUAL (CONTINUED)

600 and 700
Circuit Board

Marked on 700 Board
Marked "Output 4 on 600 Board

(Does not exist on 600 Board)

Red

Marked "Center Tap" on
600 and 700 Board

Black

To EnviroLink

REV 04/24/06