



Customized Controls

Touchscreen Operation Manual



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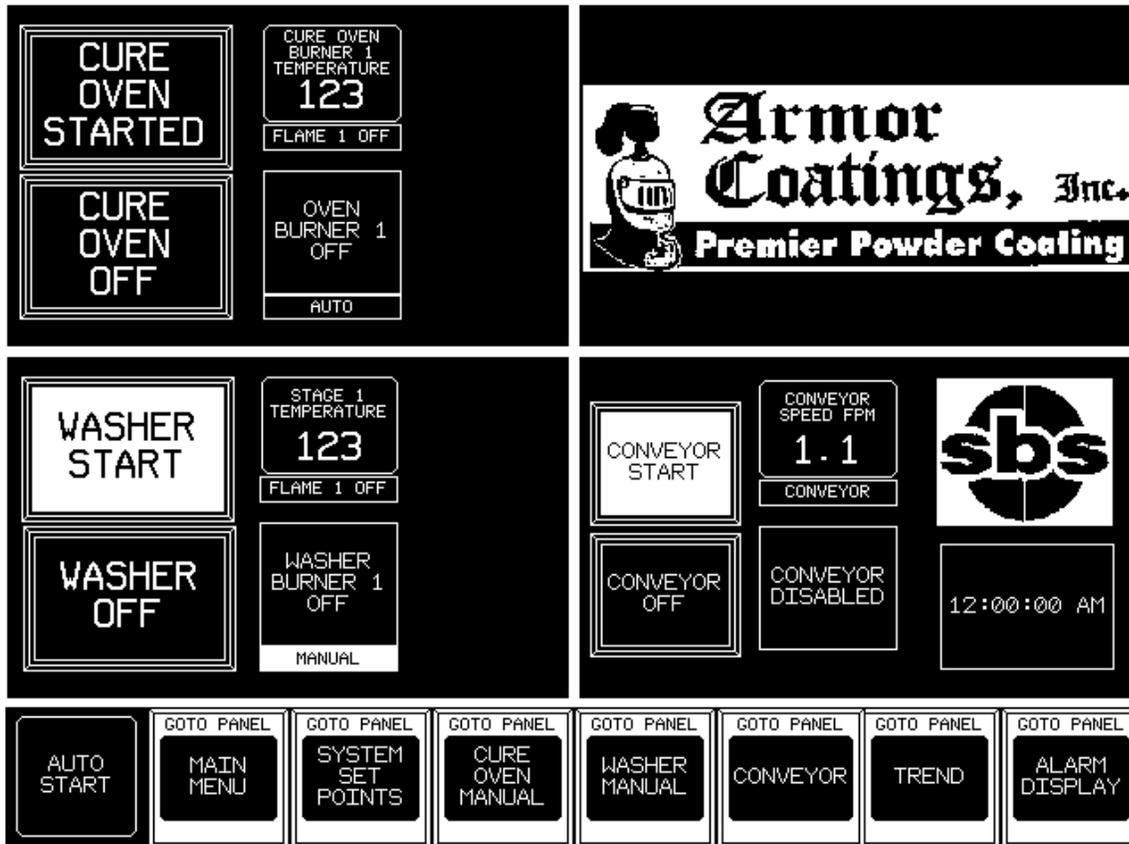
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Automatic Mode-Starting of the SBS Powder Line System.

The System may be started from the **Auto Start Screen** accessed by depressing the **Auto Start** Function button in the bottom left corner of any screen.



The Washer and Ovens must be in **Auto Mode** to be started Automatically, the Conveyor will not start Automatically but must be started separately.

If the Component is in **Auto** mode then the Burner Message will have a Black box and say Auto, if it is in **Manual** mode then the Message will have a White box and will say Manual.

Auto and **Manual** modes must be toggled from individual **Manual Start** screens.

The **ComboOven** will start when the **Oven Start Button** is depressed if it is in **Auto** mode, all of the Oven components and fans will step start. The Honeywell controller will start the Burner Fan and following a Twelve-Minute Purge time, the burner will light.

The **Washer** will start when the **Washer Start Button** is depressed if it is in **Auto** mode. The Honeywell controller will start the Burner Fan and following a two and one-half Minute Purge time, the burner will light. The pump motors will not step-start until the process temperature in Stage 1 is above 100 degrees Fahrenheit.

Automatic Mode-Starting of the SBS Powder Line System.

All of the **Oven Indicator** will display the following States of the Oven Burner.

- Oven Burner Off**
- Oven Burner Sequence Started**
- Oven Burner Purging**
- Oven Burner Lighting**
- Oven Burner Preheating**
- Oven Burner Temperature OK**
- Oven Burner Flame Disabled**
- Oven Burner Temp Out of Range**
- Oven Exhaust Cool Down**
- Oven Burner Relay Alarm**

The **Conveyor Indicator** displays the following States of the Conveyor.

- Conveyor Disabled**
- Conveyor Enabled**
- Conveyor is Running Forward**
- Conveyor is Running Reverse**
- Conveyor Frequency Drive Faulted (Must Reset)**

The **Washer Burner Indicator** displays the following States of the Washer Burner.

- Washer Burner Off**
- Washer Burner Staring**
- Washer Burner Purging**
- Washer Burner Lighting**
- Washer Burner Preheating**
- Washer Burner Temperature is OK**
- Flame Enable Switch is Off**
- Washer Exhaust Fans Cool Down**
- Washer Burner Relay Alarm**

To Stop the **Combo Oven** in Automatic Mode:

Depress the **Oven Stop Button**, the Oven burner will turn off but all of the Oven Fans will continue running until the Oven Temperature is Below 200 Degrees. When the Oven has completed its Cool-Down all Fans and Motors will turn off.

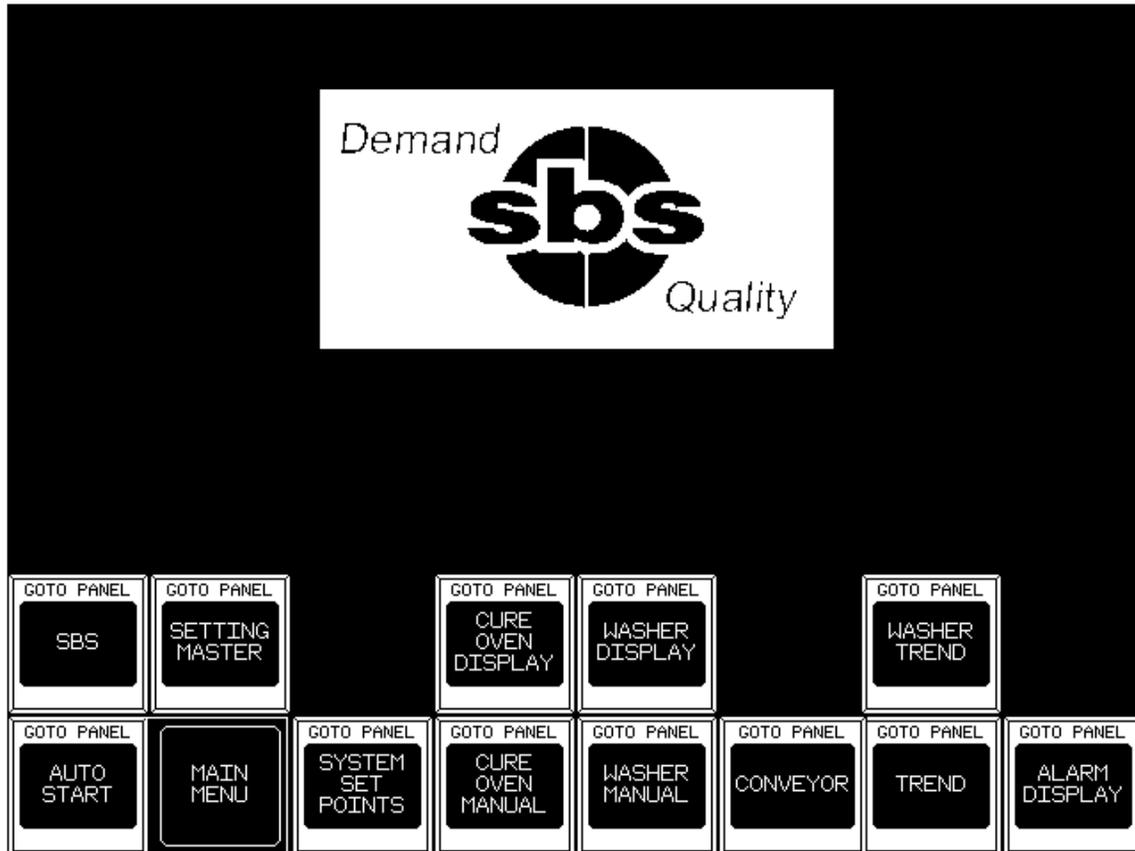
To Stop the Washer in Automatic Mode:

Depress the **Washer Stop Button**, the Washer Burner and Pumps will turn off but the Exhaust Fans will continue running for Ten Minutes to evacuate excess steam from the Washer.

Main Menu- Navigating to Different Screens

The function Keys are Located at the bottom of every screen.
They are used to navigate to all of the screens available.

The Main Menu Function Key will display a new window with 13 Function Keys.



The **Auto Start** Selection will display the **Auto Start** Screen

The **Main Menu** Selection is the currently displayed Screen

The **System Setpoints** Selection displays the **Setpoint Temperatures** and **Conveyor Speed**.

The **Oven Manual** Selection will display the **Oven Manual** Screen

The **Washer Manual** Selection will display the **Washer Manual** Screen.

The **Conveyor** Selection will display the **Conveyor Manual** Screen.

The **Trend** Selection displays the **Oven Trend** Screen.

The **Alarm Master** Selection will display the **Alarm Display** Screen.

The **SBS** Selection will display the **SBS Contact Information** Screen.

The **Oven Display** Selection will display the **Oven Flame Safety Display** Screen.

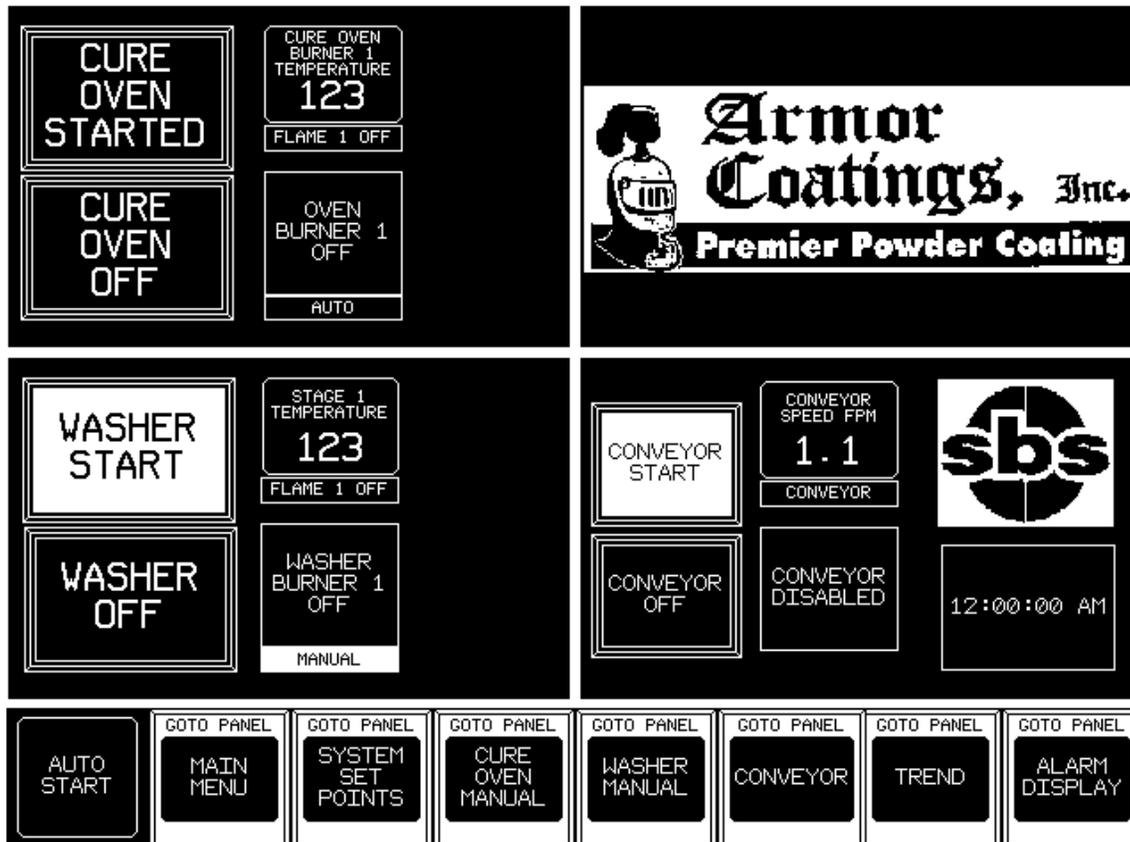
The **Washer Display** Selection displays the **Washer Flame Safety Display** Screen.

The **Washer Trend** Selection displays the **8-Hour Trend** Screen for the Washer.

The **Settings Master** Selection displays the **Touchscreen Settings** Screen.

Automatic Mode-Starting of the Powder Line Combo Oven

The Combo Oven may be started from the **Auto Start Screen** accessed by depressing the **Auto Start** Function button in the bottom left corner of any screen.



The Combo Oven must be in **Auto Mode** to be started automatically.

If **Auto** is not displayed to the right of the **Start Button** then it must be toggled from **Manual** to **Auto**.

The **Oven Start Button** is depressed to **Automatically** start all of the Oven components.

Started will be displayed on the **Oven Start Button** and the burner will light following a **Twelve-Minute Purge**.

Automatic Mode-Starting of the Powder Line Combo Oven

The **Combo Oven Indicator** displays the following States of the Oven Burner.

- Oven Burner Off**
- Oven Burner Started**
- Oven Burner Purging**
- Oven Burner Lighting**
- Oven Burner Preheating**
- Oven Burner Temperature OK**
- Oven Burner Flame Disabled**
- Oven Temp Setpoint Change**
- Oven Exhaust Cool Down**
- Oven Burner Relay Alarm**

To Stop the Oven in Automatic Mode:

Depress the **Oven Stop Button**, the Oven burner will turn off but all of the Oven Fans will continue running until the Oven Temperature is Below 200 Degrees.

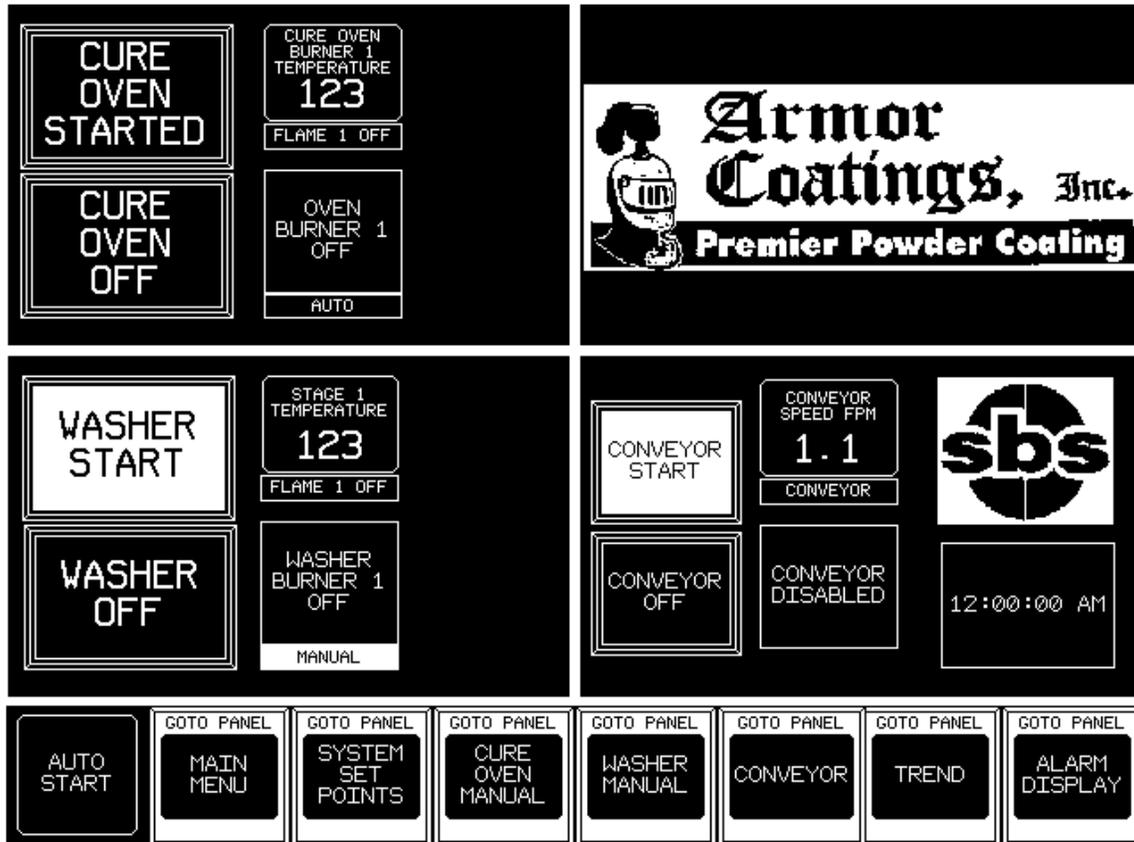
When the Oven has completed its Cool-Down all Fans and Motors will turn off.

The Current Oven Burner Temperatures are displayed to the right of the Start Button.
The Oven Range of Temperature is 0 to 500 Degrees Fahrenheit.

After the Oven is started, all of the individual Fan Start Switches will display **Running**.
When the Oven is Stopped all of the individual Fan Stop Switches will display **Stopped**.

Automatic Mode-Starting of the Powder Line Washer

The Washer may be started from the **Auto Start Screen** accessed by depressing the **Auto Start** Function button in the bottom left corner of any screen.



The Washer must be in **Auto Mode** to be started automatically.

If **Auto** is not displayed to the right of the **Start Button** then it must be toggled from **Manual** to **Auto**.

The **Washer Start Button** is depressed to **Automatically** start all of the Washer components.

Started will be displayed on the **Washer Start Button** and the burner will light but the pump motors will not step-start until the process temperature is above 100 Degrees Fahrenheit.

Automatic Mode-Starting of the Powder Line Washer

The **Washer Burner Indicators** on the **Washer Display Screen** show the following States of the Washer Burners.

- Washer Burner Off**
- Washer Burner Starting**
- Washer Burner Purging**
- Washer Burner Lighting**
- Washer Burner Preheating**
- Washer Burner Temperature is OK**
- Flame Enable Switch is Off**
- Washer Exhaust Cool Down**
- Washer Burner Relay Alarm**

To Stop the Washer in Automatic Mode:

Depress the **Washer Stop Button**, the Washer Burners and pumps will turn off but the Exhaust Fans will continue running for Ten Minutes to evacuate excess steam from the Washer.

The Current Washer Stage 1 Temperature is displayed on the **Auto Start Screen** or the **System Setpoints Screen**.

The Washer Range of Temperature is 0 to 160 Degrees Fahrenheit.

After the Washer is started, all of the individual Pump and Fan Start Switches will display **Running**.

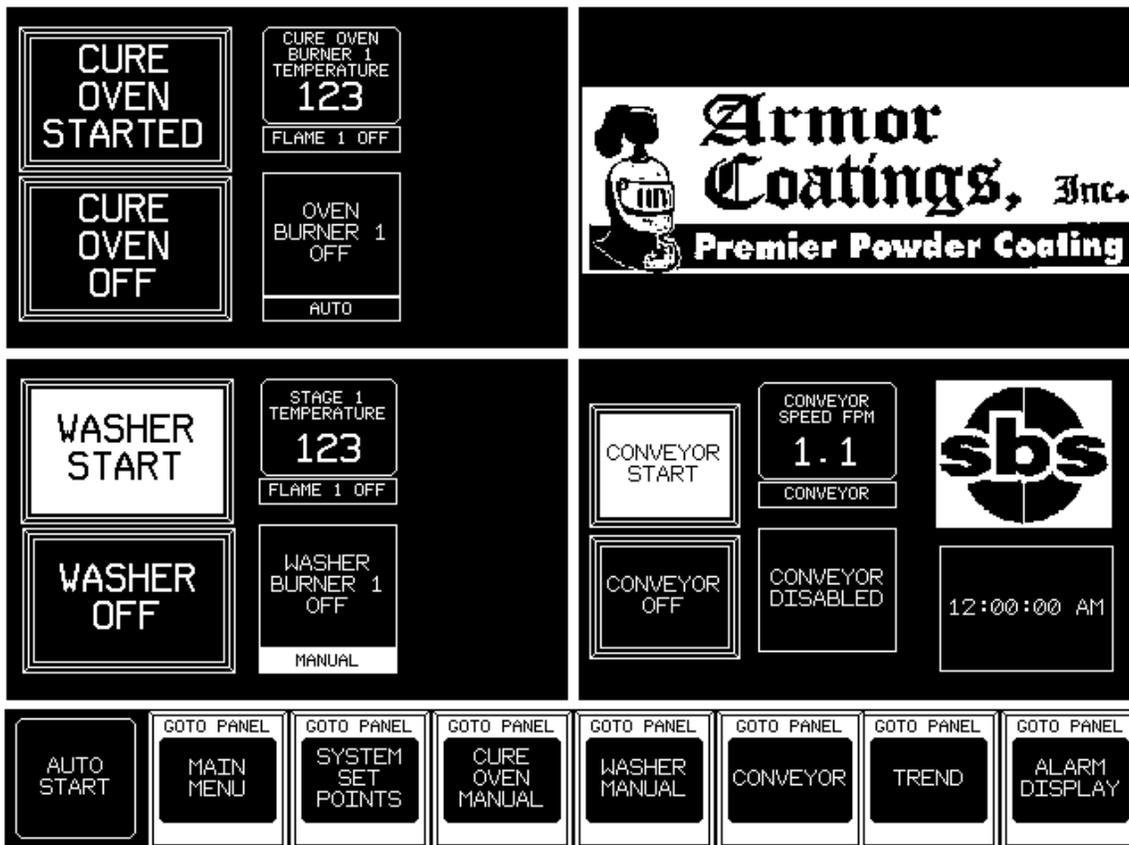
When the Washer is Stopped all of the individual Pump and Fan Stop Switches will display **Stopped**.

Automatic Mode-Starting of the Powder Line Conveyor

The Conveyor may be started from the **Auto Start Screen** accessed by depressing the **Auto Start** Function button in the bottom left corner of any screen.

The Conveyor can also be started from the **Conveyor Screen** accessed by depressing the **Conveyor** Function button in the bottom right corner of any screen.

The Conveyor will operate in **Auto Mode** or **Manual Mode** and may be started by depressing the **Start Button** on the **Conveyor Manual Screen** or the **Auto Start Screen**.



Automatic Mode-Starting of the Powder Line Conveyor

The **Conveyor Indicator** on the **Conveyor Manual Start Screen** shows the following States of the Conveyor.

- Conveyor Contactor Disabled**
- Conveyor Contactor Enabled**
- Conveyor is Starting**
- Conveyor Running Forward**
- Conveyor Running Reverse**
- Conveyor Drive Faulted**

To Stop the Conveyor in Automatic Mode:

Depress the **Conveyor Stop Button**, the Conveyor will Coast to a Stop in 7 Seconds.

To Stop the Conveyor in an Emergency:

Depress any of the **Conveyor Stops** at their remote locations or at the Control Panel, the Conveyor will come to an immediate Stop. The **Stop Switch must then be Released** and the **Conveyor Contactor must be Reset** at the Control Panel before restarting the Conveyor.

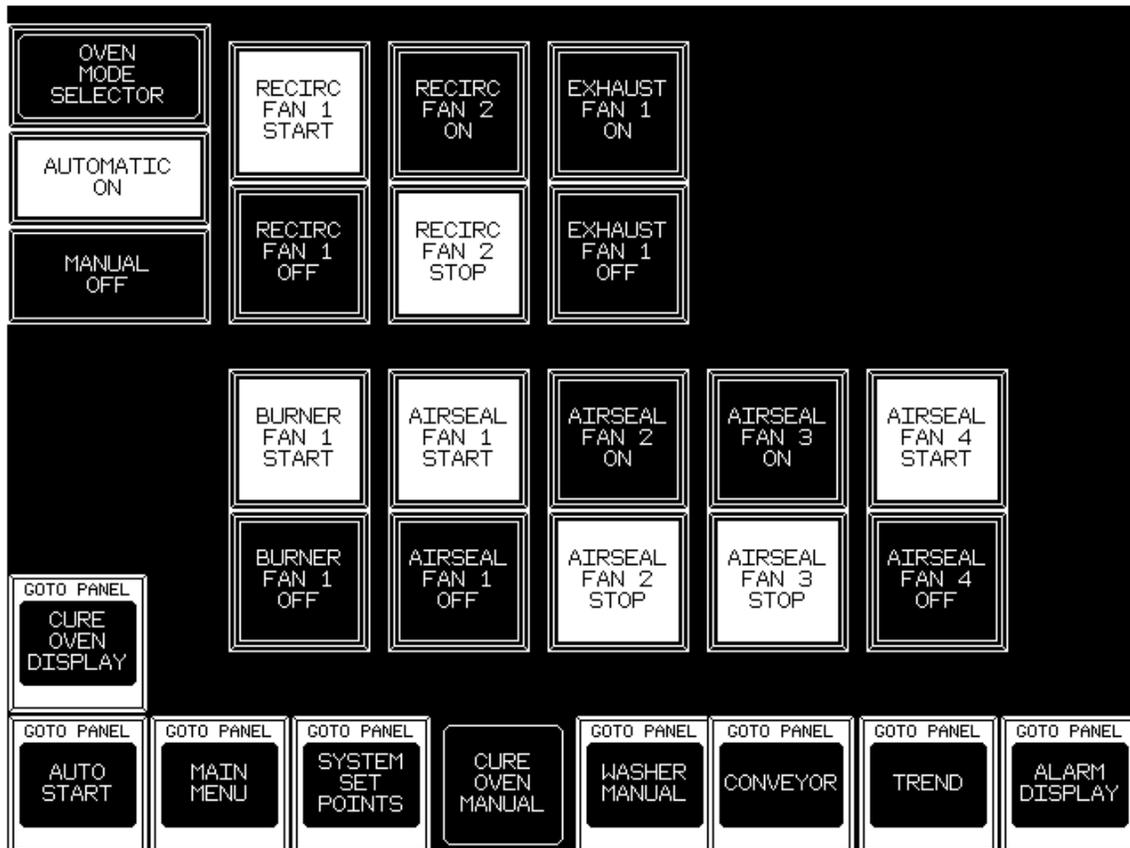
The Current Conveyor Speed is displayed on the **Auto Start Screen**, the **Conveyor Manual Screen** or the **System Setpoints Screen**.

The Conveyor Range of Speed is 2.0 FPM to 6.0 FPM.

After the Conveyor is running, the Conveyor Message Box will Display **Conveyor Running Forward** and the **Conveyor Speed Display** will change from 0.0 to the Actual Running Speed.

Manual Mode-Starting of the Powder Line Combo Oven

The Combo Oven must be started from the **Auto Start Screen** accessed by depressing the **Auto Start** Function button in the bottom left corner of any screen. Individual motors may then be started from the **Combo Oven Manual Screen** accessed by depressing the **Oven Manual** Function button on the bottom of any screen.



All components must be in **Manual Mode** to be started Manually.

If **Manual** is not displayed and flashing on the left side of the screen then it must be toggled from the **Auto** to **Manual**.

The **Oven Start Button** on the **Auto Start Screen** must already be depressed to enable all of the Motors to be Manually toggled On or Off.

The Burner Flame Enable Switch must be in Disable Mode to Start the Burner Fan in Manual Mode.

After the individual Fans have started all of the individual Fan Start Switches will display **Running**.

When the Oven is Stopped all of the individual Fan Stop Switches will display **Stopped**.

Manual Mode-Starting of the Powder Line Combo Oven

Recirculation Fan 1 can be started when the button is White and the word **Start** is displayed.

Recirculation Fan 1 can be stopped when the button is White and the word **Stop** is displayed.

Recirculation Fan 2 can be started when the button is White and the word **Start** is displayed.

Recirculation Fan 2 can be stopped when the button is White and the word **Stop** is displayed.

Exhaust Fan can be started when the button is White and the word **Start** is displayed.

Exhaust Fan can be stopped when the button is White and the word **Stop** is displayed.

Burner Fan 1 can be started when the button is White and the word **Start** is displayed.

Burner Fan 1 can be stopped when the button is White and the word **Stop** is displayed.

Airseal Fan 1 can be started when the button is White and the word **Start** is displayed.

Airseal Fan 1 can be stopped when the button is White and the word **Stop** is displayed.

Airseal Fan 2 can be started when the button is White and the word **Start** is displayed.

Airseal Fan 2 can be stopped when the button is White and the word **Stop** is displayed.

Airseal Fan 3 can be started when the button is White and the word **Start** is displayed.

Airseal Fan 3 can be stopped when the button is White and the word **Stop** is displayed.

Airseal Fan 4 can be started when the button is White and the word **Start** is displayed.

Airseal Fan 4 can be stopped when the button is White and the word **Stop** is displayed.

To Stop the Oven in Manual Mode:

Depress the **Oven Stop Button**, *all of the Oven Fans will continue running until the Oven Temperature is Below 200 Degrees.*

When the Oven has Completed its Cool-Down all Fans and Motors will turn off.

The Current Oven Temperature is displayed below the Start/Stop Buttons.

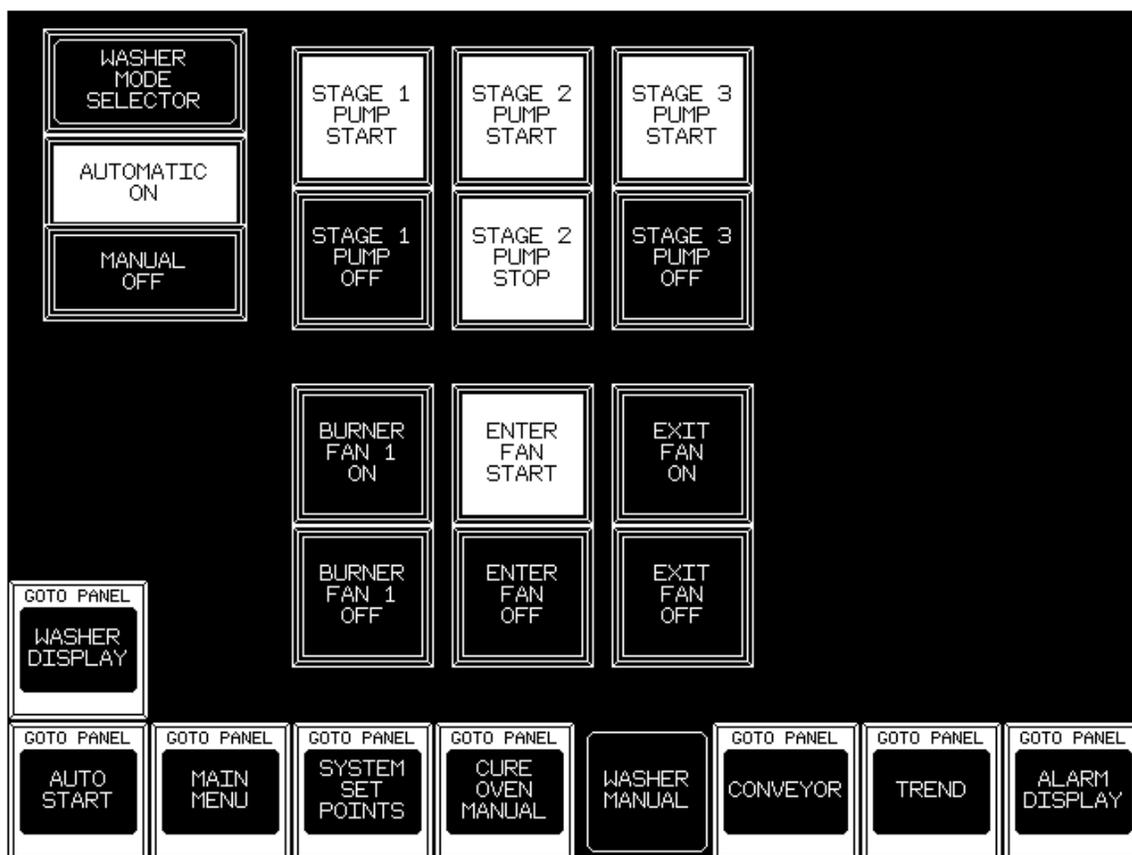
The Oven Range of Temperature is 0 to 500 Degrees Fahrenheit.

After Oven is started, all of the individual Fan Start Switches will display **Running**.

When the Oven is Stopped all of the individual Fan Stop Switches will display **Stopped**.

Manual Mode-Starting of the Powder Line Washer

The Washer must be started from the **Auto Start Screen** accessed by depressing the **Auto Start** Function button in the bottom left corner of any screen. Individual motors may then be started from the **Washer Manual** Screen accessed by depressing the **Washer** Function button on the bottom of any screen.



All components must be in **Manual Mode** to be started Manually. If **Manual** is not displayed in the box on the right of the screen then it must be toggled from the **Auto** to **Manual**.

The **Washer Start Button** on the **Auto Start Screen** must be depressed to enable all of the Motors to be Manually toggled On or Off.

The Burner Flame Enable Switch must be in Disable Mode to Start the Burner Fan in Manual Mode.

After the individual Pumps and Fans have started all of the individual Start Switches will display **Running**.

When the Washer is Stopped all of the individual Stop Switches will display **Stopped**.

Manual Mode-Starting of the Powder Line Washer

Stage 1 Pump can be started when the button is White and the word **Start** is displayed.
Stage 1 Pump can be stopped when the button is White and the word **Stop** is displayed.

Stage 2 Pump can be started when the button is White and the word **Start** is displayed.
Stage 2 Pump can be stopped when the button is White and the word **Stop** is displayed.

Stage 3 Pump can be started when the button is White and the word **Start** is displayed.
Stage 3 Pump can be stopped when the button is White and the word **Stop** is displayed.

Entrance Exhaust Fan can be started when the button is White and the word **Start** is displayed.

Entrance Exhaust Fan can be stopped when the button is White and the word **Stop** is displayed.

Exit Exhaust Fan can be started when the button is White and the word **Start** is displayed.

Exit Exhaust Fan can be stopped when the button is White and the word **Stop** is displayed.

Burner 1 CAB can be started when the button is White and the word **Start** is displayed.

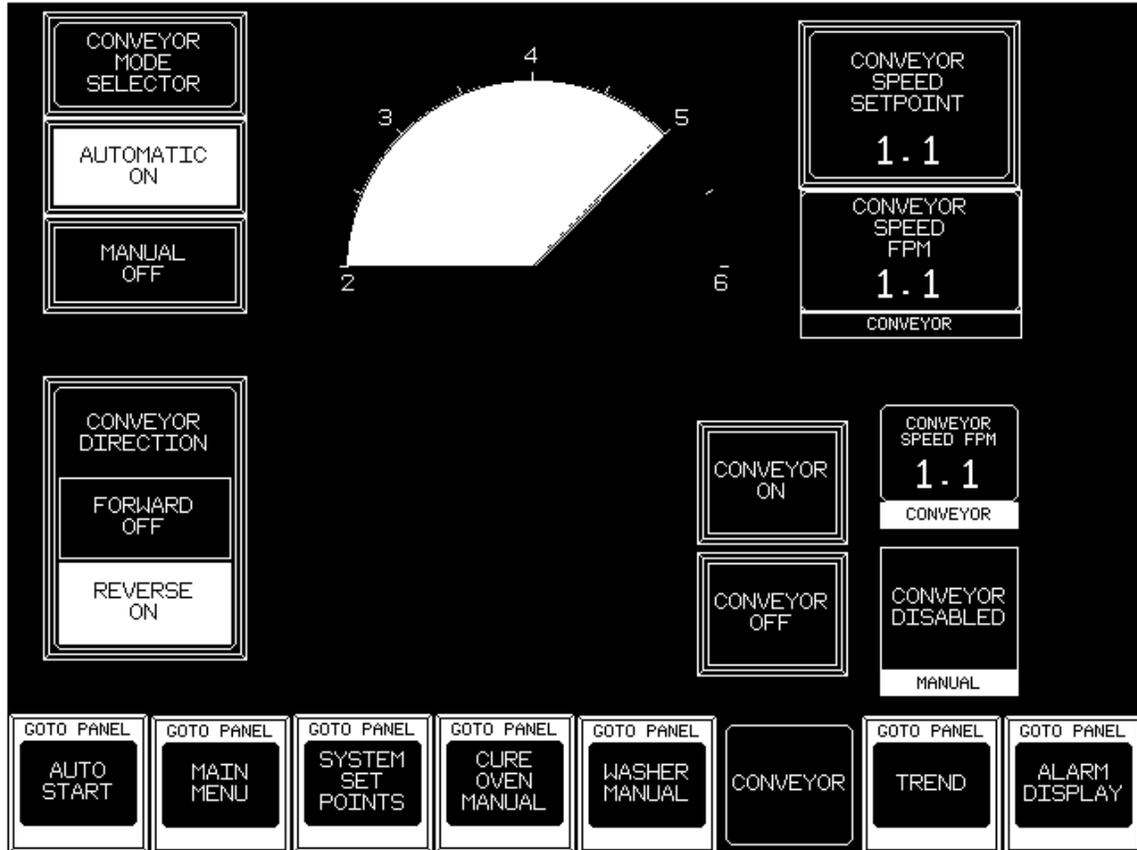
Burner 1 CAB can be stopped when the button is White and the word **Stop** is displayed.

To Stop the Washer in Manual Mode:

Depress the **Washer Stop Button**, all of the Washer Pumps and Burners will stop but the Exhaust Fans will continue running for Ten Minutes to evacuate excess Steam from the Washer.

Manual Mode-Starting of the Powder Line Conveyor

The Conveyor can be started from the **Conveyor Screen** accessed by depressing the **Conveyor** Function button in the bottom right corner of any screen.



The Current Conveyor Speed is displayed on the **Auto Start Screen** or the **Conveyor Manual Screen**.

The Conveyor Range of Speed is 2.0 FPM to 6.0 FPM.

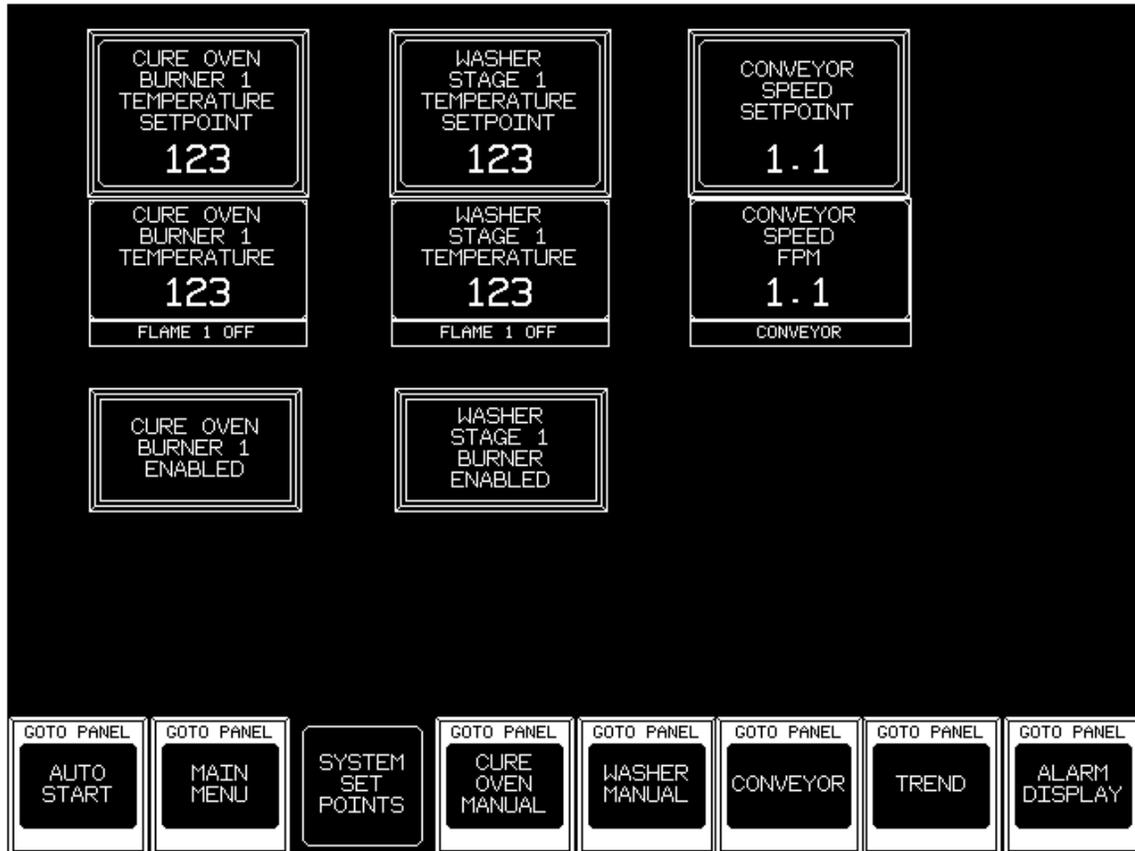
After the Conveyor is running, the Conveyor Message Box will Display **Conveyor Running Forward** and the **Conveyor Speed Display** will change from 0.0 to the Actual Running Speed.

The **Conveyor Indicator** on the **Conveyor Manual Start Screen** shows the following States of the Conveyor.

- Conveyor Contactor Disabled**
- Conveyor Contactor Enabled**
- Conveyor is Starting**
- Conveyor Running Forward**
- Conveyor Drive Faulted**

System Setpoints-Entering New Setpoint Variables

The status of the System Temperature Setpoints and Current operating Temperatures are viewed by depressing the **System Setpoints** Button.



A new Temperature Setpoint can be entered by depressing any of the Oven or Washer Temperature Setpoint buttons above the Current Setpoint Temperature.

A new Setpoint can be entered when the Keypad window is displayed

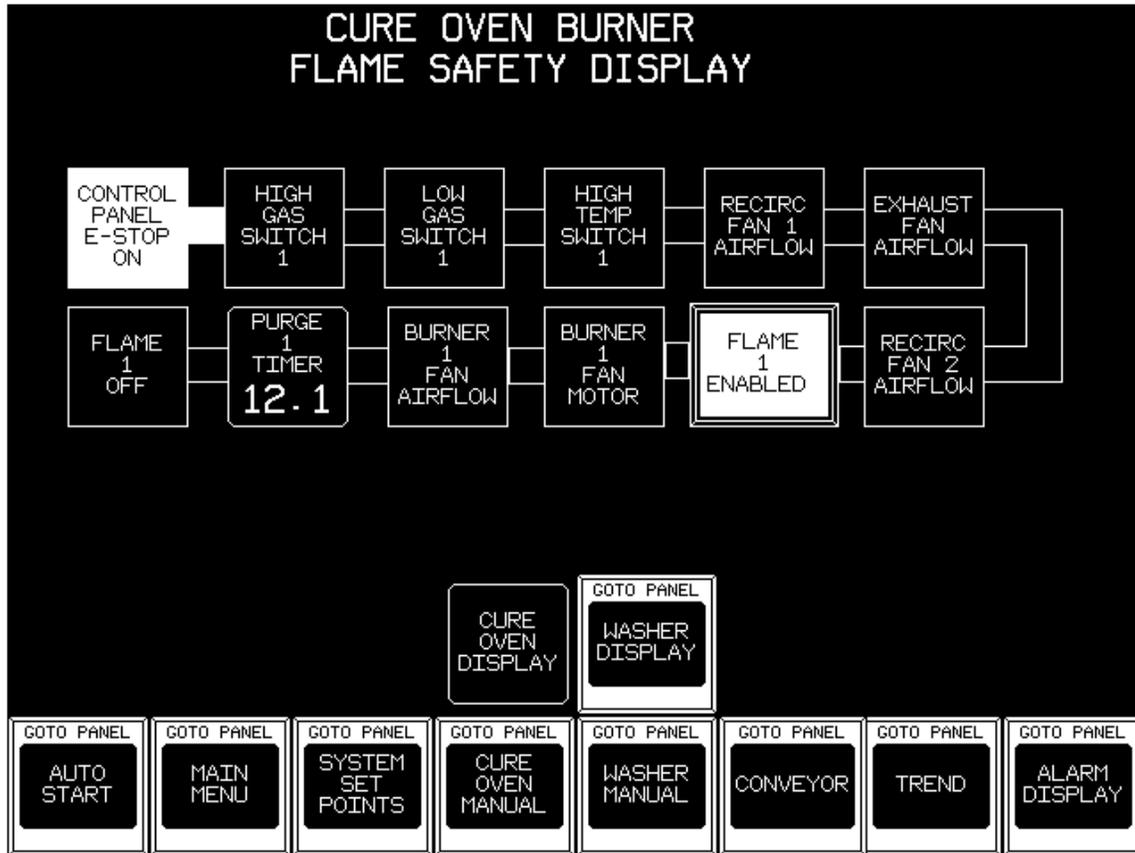
The Combo Oven Setpoint parameters are between 0 and 600 Degrees Fahrenheit.

The Washer Setpoint parameters are between 0 and 160 Degrees Fahrenheit.

The Conveyor Setpoint parameters are between 2.0 and 6.0 Feet Per Minute.

Oven Display-Viewing the Combo Oven Burner Flame Safety

By pressing the **Oven Display Selection** from the **Main Menu** screen you can monitor the status of the **Combo Oven Burner Flame Safety**.



Each of the Flame Safeties are field wired in series, hence each must turn White on the Display Screen sequentially starting from the **Emergency Stop Input, Master Control**.

If both **Gas Pressures** are in range then the Display will be White up to the **High Temperature Switch**.

A Black **High Temperature Switch** indicates that it must be reset, it is located next to the Oven burner on top of the Oven.

As each Oven Fan is turned on its Airflow Switch will turn White.

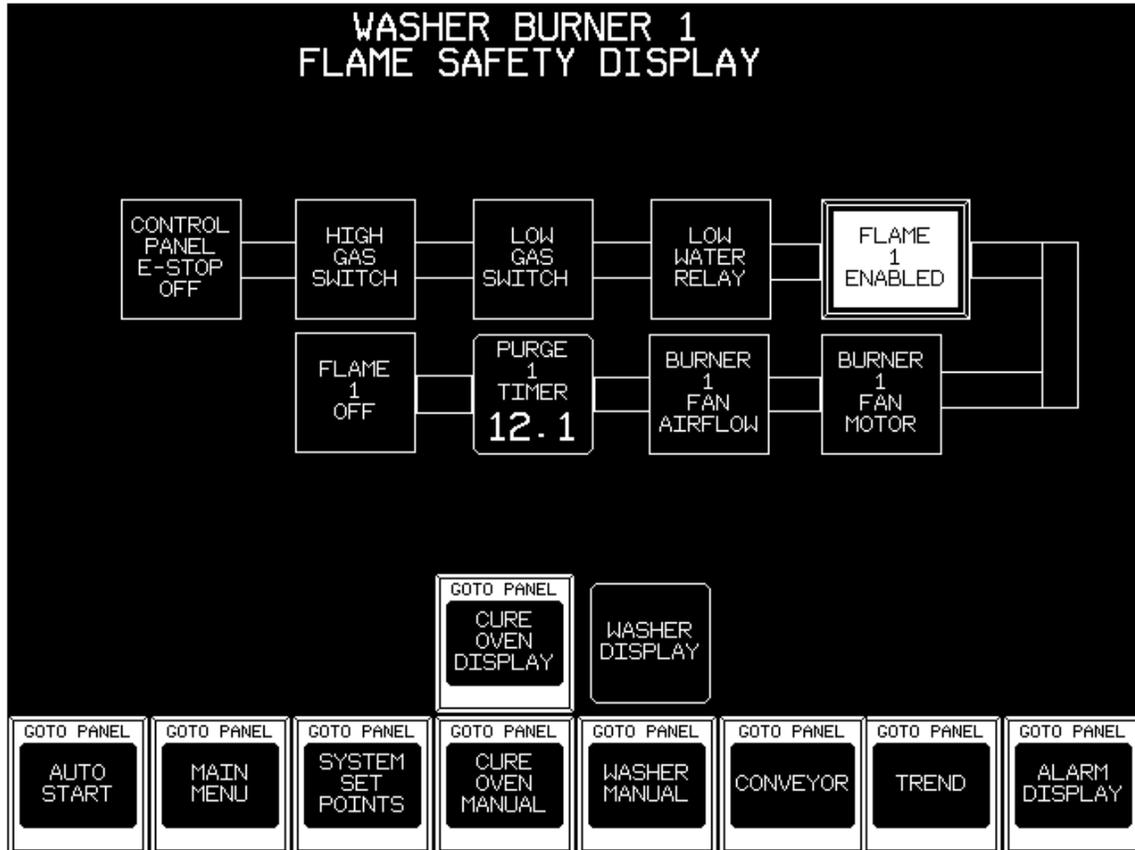
The Individual Burners may be disabled by depressing the **Flame Enable/Disable** buttons.

The **Purge Time** remaining will be displayed when all of the **Flame Safeties** are made.

The **Oven Burner Flame Off** will turn White and display a Flame which indicates the Current Flame Output when a **Main Flame** is detected.

Washer Display-Viewing the Washer Burner Flame Safety

By pressing the **Washer Display** Selection from the **Main Menu** screen you can monitor the status of the **Washer Burner Flame Safety**.



Each of the Flame Safeties are field wired in series, hence each must turn White on the Display Screen sequentially starting from the **Emergency Stop**.

If both **Gas Pressures** are in range then the Display will be White up to the **Low Water Switch**.

A Black **Low Water Switch** indicates that the Water in that Stage is too low to operate the Burner, it is located on top of the side tank and the Probe is in the Solution .

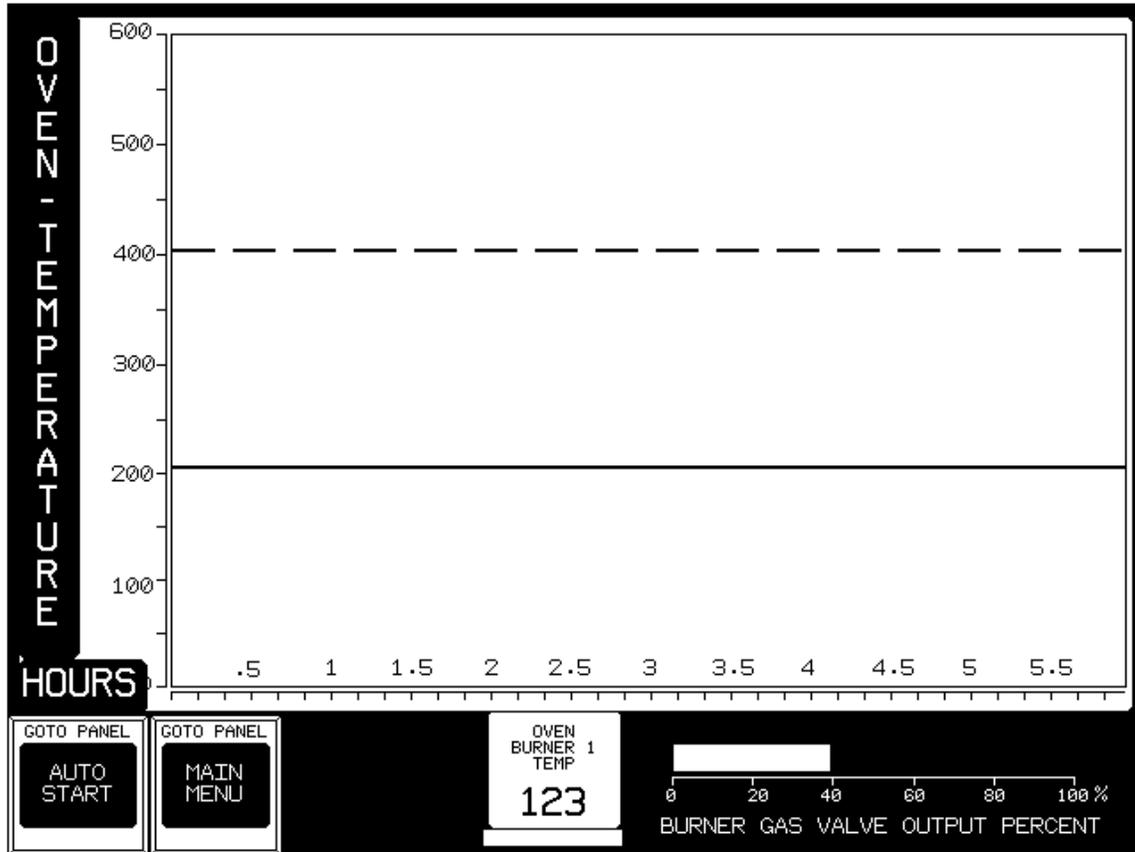
The Individual Burners may be disabled by depressing the **Flame Enable** buttons.

As each Burner Fan is turned on its Airflow Switch will turn White.

The **Purge Time** remaining will be displayed when all of the **Flame Safeties** are made.

Oven Trend Display

The status of the Combo Oven Temperature and Setpoint is viewed on a Trend by depressing the **Trend** Button from any screen.



The recorded Temperatures move from **Right** to **Left** the way a Chart recorder operates.

The Temperatures and Setpoints are displayed in a Six-Hour time span and may only be viewed while they are displayed.

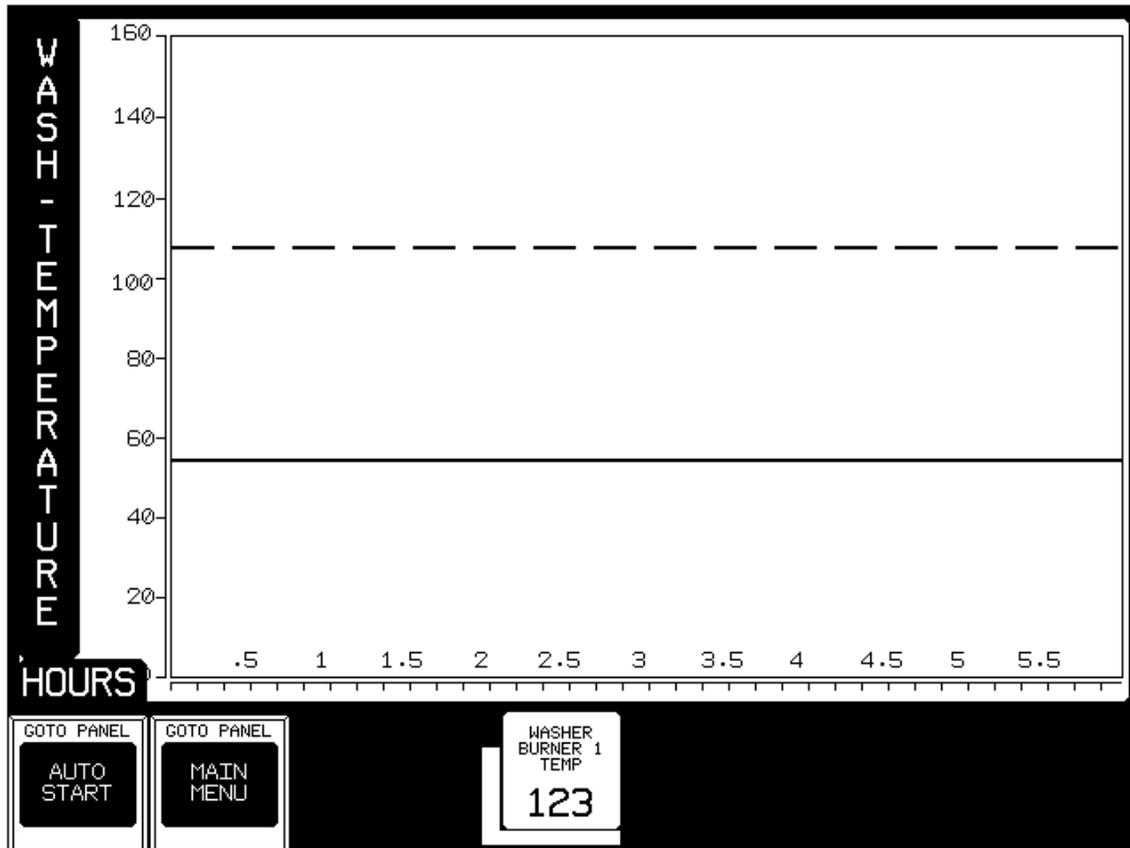
The Trend Display will update every Two Minutes.

The **Burner 1 Temperature** is Displayed with a **Black Line**.

The **Burner 1 Setpoint** Temperature is Displayed with a **Dashed Black Line**.

Washer Trend Display

The status of the **Stage 1** Temperature and Setpoint is viewed on a Six-Hour Trend by depressing the **Washer Trend** Button from the **Main Menu** screen.



The recorded Temperatures move from **Right** to **Left** the way a Chart recorder operates.

The Temperatures and Setpoints are displayed in an Six-Hour time span.

The Trend Display will update every Two Minutes.

The **Stage 1 Temperature** is Displayed with a **Black Line**.

The **Stage 1 Setpoint** Temperature is Displayed with a **Dashed Black Line**.

Alarms-Viewing Current and Acknowledged Alarms

When a new alarm occurs the Alarm Master Screen is Automatically Displayed.
Depressing the **Alarm Master** from any screen will access the Alarm Screen.

IMPORTANT!

If an Alarm is Acknowledged with the **Acknowledge All** Button the PLC will Ignore the Alarm and the Beacon will turn Off.

If an Alarm is Reset with the **Reset All** Button then if the Alarm is still Active it will reactivate the Alarm Screen and Beacon and will be displayed again, if it is not still Active then it will not be displayed again.

ALARM DISPLAY

-TRIGGERED ALARM-	1234567890123456789012345678901234567890123456789012345678
-ACKNOWLEDGED ALARM-	1234567890123456789012345678901234567890123456789012345678
-CLEARED ALARM-	1234567890123456789012345678901234567890123456789012345678
-TRIGGERED ALARM-	1234567890123456789012345678901234567890123456789012345678
-ACKNOWLEDGED ALARM-	1234567890123456789012345678901234567890123456789012345678
-CLEARED ALARM-	1234567890123456789012345678901234567890123456789012345678
-TRIGGERED ALARM-	1234567890123456789012345678901234567890123456789012345678
-ACKNOWLEDGED ALARM-	1234567890123456789012345678901234567890123456789012345678
-CLEARED ALARM-	1234567890123456789012345678901234567890123456789012345678
-TRIGGERED ALARM-	1234567890123456789012345678901234567890123456789012345678
-ACKNOWLEDGED ALARM-	1234567890123456789012345678901234567890123456789012345678
-CLEARED ALARM-	1234567890123456789012345678901234567890123456789012345678
-TRIGGERED ALARM-	1234567890123456789012345678901234567890123456789012345678
-ACKNOWLEDGED ALARM-	1234567890123456789012345678901234567890123456789012345678
-CLEARED ALARM-	1234567890123456789012345678901234567890123456789012345678
-TRIGGERED ALARM-	1234567890123456789012345678901234567890123456789012345678
-ACKNOWLEDGED ALARM-	1234567890123456789012345678901234567890123456789012345678
-CLEARED ALARM-	1234567890123456789012345678901234567890123456789012345678
-TRIGGERED ALARM-	1234567890123456789012345678901234567890123456789012345678
-ACKNOWLEDGED ALARM-	1234567890123456789012345678901234567890123456789012345678
-CLEARED ALARM-	1234567890123456789012345678901234567890123456789012345678
-TRIGGERED ALARM-	1234567890123456789012345678901234567890123456789012345678
-ACKNOWLEDGED ALARM-	1234567890123456789012345678901234567890123456789012345678
-CLEARED ALARM-	1234567890123456789012345678901234567890123456789012345678

TOUCH ALARMS TO ACTIVATE **12:00 AM**

GOTO PANEL AUTO START	GOTO PANEL MAIN MENU	GOTO PANEL SYSTEM SET POINTS	GOTO PANEL CURE OVEN MANUAL	GOTO PANEL WASHER MANUAL	GOTO PANEL CONVEYOR	GOTO PANEL TREND	GOTO PANEL ALARM DISPLAY
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Alarm Messages- Currently Programmed Alarms

Currently Programmed Alarm are:

Combo Oven

- Oven Recirculation Fan 1 Airflow Alarm
- Oven Recirculation Fan 2 Airflow Alarm
- Oven Exhaust Fan Airflow Alarm
- Oven Burner Fan 1 Airflow Alarm
- Oven Recirculation Fan 1 Contactor Overload Alarm
- Oven Recirculation Fan 2 Contactor Overload Alarm
- Oven Exhaust Fan Contactor Overload Alarm
- Oven Burner Fan 1 Contactor Overload Alarm
- Oven Burner 1 High Gas Pressure Alarm
- Oven Burner 1 Low Gas Pressure Alarm
- Oven Burner 1 High Temperature Limit Switch Alarm
- Oven Burner 1 Honeywell Control Relay Alarm
- Oven Burner 1 Temperature Input Error
- Oven Burner 1 High Temperature Flame Off Alarm

Conveyor

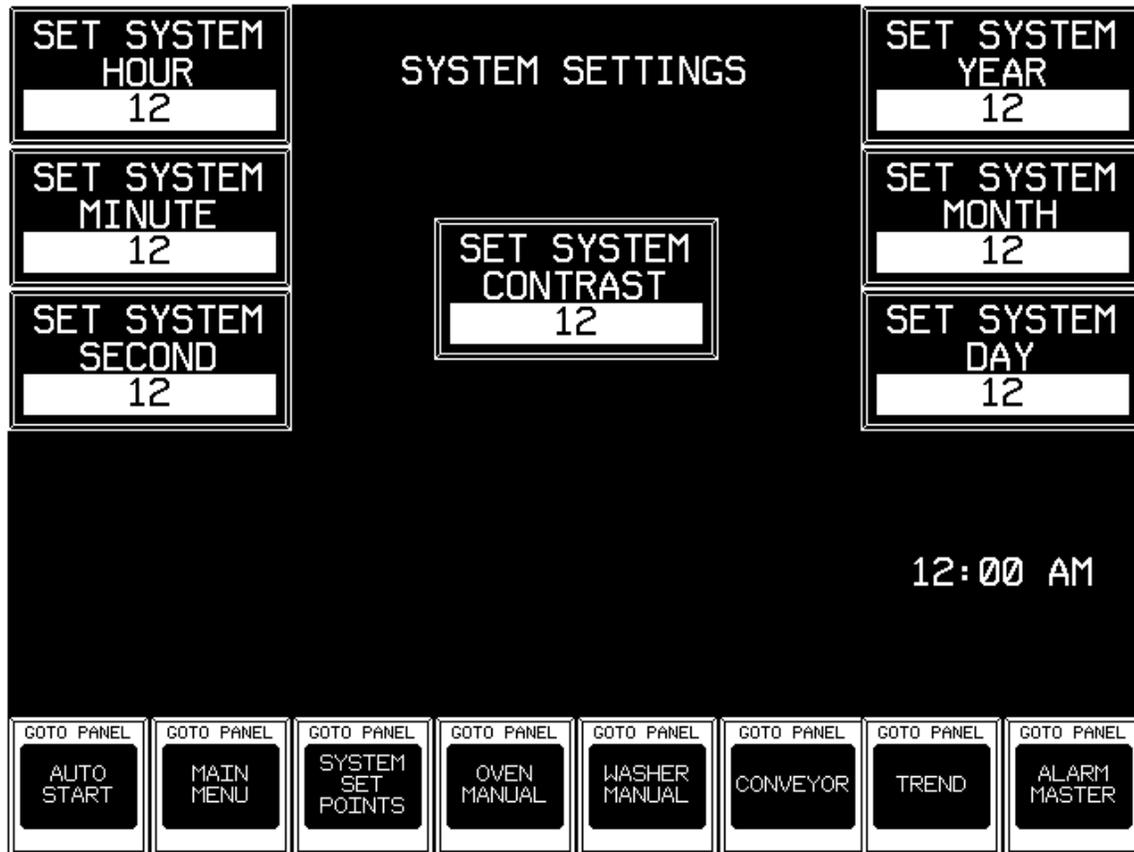
- Conveyor Frequency Drive Faulted (Must Reset)

Washer

- Washer Stage 1 Pump Contactor Overload Alarm
- Washer Stage 2 Pump Contactor Overload Alarm
- Washer Stage 3 Pump Contactor Overload Alarm
- Washer Stage 1 Burner Fan Contactor Overload Alarm
- Washer Entrance Exhaust Fan Contactor Overload Alarm
- Washer Exit Exhaust Fan Contactor Overload Alarm
- Washer Stage 1 High Gas Pressure Alarm
- Washer Stage 1 Low Gas Pressure Alarm
- Washer Stage 1 Low Water Alarm
- Washer Stage 1 Honeywell Control Relay Alarm
- Washer Stage 1 Temperature Input Error Alarm
- Washer Stage 1 Temperature Input Error Alarm
- Washer Stage 1 High Temperature Burner Off Alarm

Setting Master-Touchscreen Settings

Pressing the **Setting Master** Selection from the **Main Menu** screen displays the settings for the Touchscreen.



The Time used on the Touchscreen Displays as well as the Alarm Message Time Stamps are set using the **System Hour**, **System Minute** and **System Seconds** input buttons.

The Date used on the Touchscreen Displays as well as the Alarm Message Date Stamps are set using the **System Year**, **System Month** and **System Day** input buttons.

The Contrast used on all the Screens is set using the **System Contrast** input button.