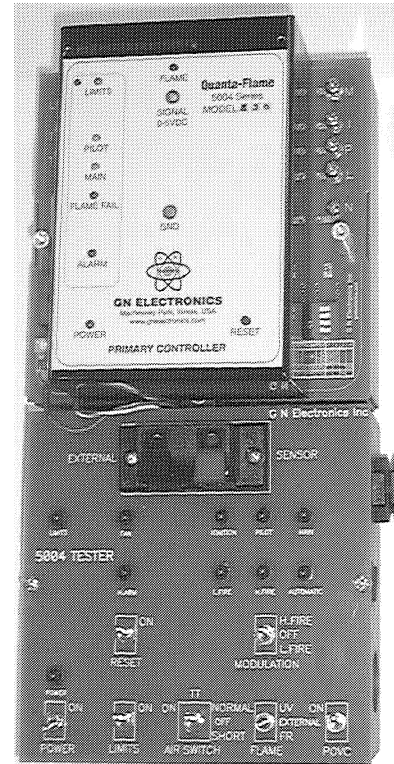


Quanta-Flame 5004-890/795 Tester

Description

The 5004-890/795 Tester is a tool for testing and demonstrating the 5004-890 and the 5004-795 Control. It can also be used to test and demonstrate various UV sensors that can be connected to the tester via the external sensor connector on the left side of the tester.

The Tester consists of a 5004-890/795 wiring base connected to a switch and light box. The switch box has seven toggle switches and ten lights. The 5004-890/795 also has built-in flame simulators to simulate a flame rod signal and an ultraviolet signal to the control.



Warning: High Voltage is exposed if the 5004-890/795 Tester is plug in to voltage without a control properly installed in the wiring base.

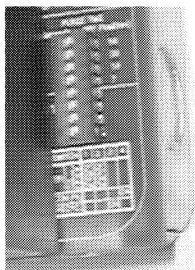
Caution: Read the GN Electronics 5004-890 product manual and thoroughly familiarize your self with the operation and features of the 5004-890 Control before performing any test with the 5004-890/795 Tester.

Testing Directions for the 5004-890:

Starting point : Before placing the control on the tester place the switches in the following positions:

Power: OFF
Limits: OFF
Air: NORMAL
Modulation: OFF
Flame: EXTERNAL
POVC: ON

Setup Dipswitches: There is a set of 8 Dipswitches under the right side cover on the control.



Dipswitches 1 and 2 set the desired trial for pilot ignition time.

This value can be 3, 5, 10 or 15 seconds

Dipswitch 3 selects interrupted or intermittent (non-interrupted) pilot.

An interrupted pilot will ignite during the trial for ignition time and be shut off 10 seconds after the main gas valve opens to light the main flame.

An intermittent pilot will ignite during the trial for ignition time and will stay lit when the main valve is open. It will remain on as long as the main burner is on and will shut down at the end of the main burner cycle.



Dipswitch 4 selects Non-Recycle or Recycle mode.

Recycle mode permits the controller to shut down and start the burner startup sequence again when a flame failure or air failure has occurred during the burner run cycle. In order for this to occur the main burner has to be up and running for 50 seconds before a recycle can occur. A flame or air failure that happens before that time results in a lockout regardless if recycle is selected or not.

Dipswitches 5 through 8 are not used on the 5004-890.

The DIP Switches under the right hand cover on the control should be set as follows:

SWITCH		1	2	3	4
TFI	3s	OF	OF		
	5s	ON	OF		
	10s	OF	ON		
	15s	ON	ON		
CON PIL					ON
RECYC				ON	

Switches 1, and 2 in the “ON” position
Switches 3, and 4 in the “OFF” position

1. Place the 5004-890 into the wiring base of the tester. Fasten all ten screws securely.
2. Insert three prong alarm plug into the alarm terminals under the left-hand side cover of the 5004-890
3. Turn on the power switch. The “POWER” light will illuminate on the tester and on the control.

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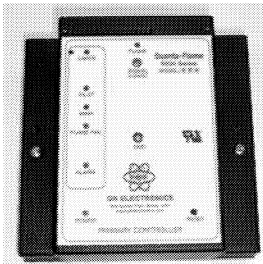
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Phone: 1-780-443-2299

Toll Free: 1-888-433-2299

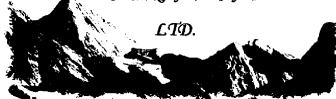
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5004-890

4. The green “INTERLOCKS” light will illuminate on the front of the 5004-890 Control.
5. Then the “IGNITION” and “PILOT” light will illuminate on the tester
6. Set the FLAME switch to the appropriate position for the flame sensor type selected on the control (FR for flame rod, UV for ultraviolet.
7. The red “FLAME” light will illuminate on the front of the control.
8. At the end of the trial for ignition (TFI), the “IGNITION” light will turn off. The “PILOT” light will remain on for 5 seconds before the “MAIN” light illuminates on the tester.
9. If interrupted pilot is selected on the DIP switch under the right hand cover on the control the pilot light will go out 10 seconds after the main light illuminates
10. Turn the FLAME switch to “OFF-EXT”
 - a. If non-recycling is selected on the Control DIP Switch, the red “FLAME FAIL” light will illuminate on the control. The red “ALARM” light will also illuminate.
 - b. If recycling is selected on the Control DIP switch, and the “MAIN” light has been illuminated for at least 35 seconds, the control will shutdown the main output (and pilot if it is on) and begin the startup sequence again from the beginning. This includes the initial safe start check of the internal components and the flame sensors. The ignition and pilot lights will then illuminate. Leave the FLAME switch turned to “OFF-EXT”, the red “FLAME FAIL” light will illuminate on the control. The red “ALARM” light will also illuminate.



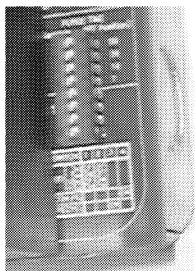
11. Set the FLAME switch to the appropriate position for the flame sensor type selected on the control (FR for flame rod, UV for ultraviolet. Reset the control by pressing the “RESET” button on the front of the control. The control will restart its sequence. The red “ALARM” light will illuminate and flash to indicate a flame is detected out of sequence. The ignition of the pilot sequence will not proceed and the “IGNITION” and the “PILOT” lights will not illuminate. If the flame switch is left in the flame position for more than 30 seconds the “ALARM LIGHT” will stop flashing and go steady. This indicates that a lock condition has occurred.

Testing Directions for the 5004-795:

Starting Point: Before placing the control on the tester place the switches in the following positions:

Power: OFF
Limits: OFF
Air: NORMAL
Modulation: OFF
Flame: EXTERNAL
POVC: ON

Setup Dipswitches: There is a set of 8 Dipswitches under the right side cover on the control.



Dipswitches 1 and 2 set the desired trial for pilot ignition time.

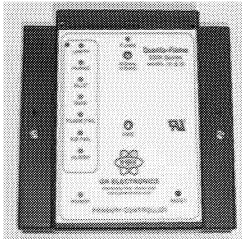
This value can be 3, 5, 10 or 15 seconds



Dipswitch 3 selects interrupted or intermittent (non-interrupted) pilot.

An interrupted pilot will ignite during the trial for ignition time and be shut off 10 seconds after the main gas valve opens to light the main flame.

An intermittent pilot will ignite during the trial for ignition time and will stay lit when the main valve is open. It will remain on as long as the main burner is on and will shut down at the end of the main burner cycle.



5004-795

Dipswitch 4 selects Non-Recycle or Recycle mode.

Recycle mode permits the controller to shut down and start the burner startup sequence again when a flame failure or air failure has occurred during the burner run cycle. In order for this to occur the main burner has to be up and running for 50 seconds before a recycle can occur. A flame or air failure that happens before that time results in a lockout regardless if recycle is selected or not.

Dipswitches 5 through 8 select the desired purge time.

Purge times as indicated on the switches are selected when the switch is in the “OFF” position. Selecting two or more purge times adds the times together for the total purge time.

The DIP Switches under the right hand cover on the control should be set as follows:

SWITCH	1	2	3	4
TFI	3s	OF	OF	
	5s	ON	OF	
	10s	OF	ON	
	15s	ON	ON	
CON PIL				ON
RECYC			ON	

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Instrumentation Sales, Design, and Service.

#100, 18016 - 105 Ave.

Edmonton, Alberta

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Web: www.terracene.com

Phone: 1-780-443-2299

Toll Free: 1-888-433-2299

Fax: 1-780-484-6074

e-mail: info@terracene.com

SWITCH		5	6	7	8
PURGE	7s	OFF			
	10s		OFF		
	30s			OFF	
	60s				OFF

Switches 1,2,5,6,and 8 in the “ON” position

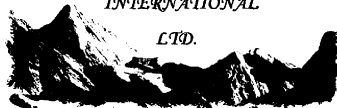
Switches 3,4,5,and 7 in the “OFF” position

1. Place the 5004-795 into the wiring base of the tester. Fasten all ten screws securely.
2. Insert three prong alarm plug into the alarm terminals under the left-hand side cover of the 5004-795
3. Turn on the power switch. The “POWER” light will illuminate on the tester and on the control.
4. The green “ INTERLOCKS” light will illuminate on the front of the 5004-795 Control.
5. The control will check to determine that the air switch is not shorted.
6. The control will then energize the combustion fan and the “PURGE” light will illuminate on the control.
7. The air switch will then close and the purge timer will start.
8. At the completion of the purge time the control will enter the trial for ignition (TFI) period.
9. Then the “IGNITION” and “PILOT” light will illuminate on the tester
10. Set the FLAME switch to the appropriate position for the flame sensor type selected on the control (FR for flame rod, UV for ultraviolet.
11. The red “FLAME” light will illuminate on the front of the control.
12. At the end of the trial for ignition (TFI), the “IGNITION” light will turn off. The “PILOT” light will remain on for 5 seconds before the “MAIN” light illuminates on the tester.

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13. If interrupted pilot is selected on the DIP switch under the right hand cover on the control the pilot light will go out 10 seconds after the main light illuminates
14. Turn the FLAME switch to “OFF-EXT”
 - a. If non-recycling is selected on the Control DIP Switch, the red “FLAME FAIL” light will illuminate on the control. The red “ALARM” light will also illuminate.
 - b. If recycling is selected on the Control DIP switch, and the “MAIN” light has been illuminated for at least 35 seconds, the control will shutdown the main output (and pilot if it is on) and begin the startup sequence again from the beginning. This includes the initial safe start check of the internal components and the flame sensors. The ignition and pilot lights will then illuminate. Leave the FLAME switch turned to “OFF-EXT”, the red “FLAME FAIL” light will illuminate on the control. The red “ALARM” light will also illuminate.
15. Set the FLAME switch to the appropriate position for the flame sensor type selected on the control (FR for flame rod, UV for ultraviolet. Reset the control by pressing the “RESET” button on the front of the control. The control will restart its sequence. The red “ALARM” light will illuminate and flash to indicate a flame is detected out of sequence. The ignition of the pilot sequence will not proceed and the “IGNITION” and the “PILOT” lights will not illuminate. If the flame switch is left in the flame position for more than 30 seconds the “ALARM LIGHT” will stop flashing and go steady. This indicates that a lock condition has occurred.



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16. Put the Flame switch back to the “OFF-EXT” position. Reset the control by pressing the “RESET” button on the front of the control. The control will restart its sequence. The green “INTERLOCKS” light will illuminate on the front of the 5004-795 Control.
17. The control will check to determine that the air switch is not shorted.
18. The control will then energize the combustion fan and the “PURGE” light will illuminate on the control.
19. The air switch will then close and the purge timer will start.
20. At the completion of the purge time the control will enter the trial for ignition (TFI) period.
21. Then the “IGNITION” and “PILOT” light will illuminate on the tester
22. Set the FLAME switch to the appropriate position for the flame sensor type selected on the control (FR for flame rod, UV for ultraviolet).
23. The red “FLAME” light will illuminate on the front of the control.
24. At the end of the trial for ignition (TFI), the “IGNITION” light will turn off. The “PILOT” light will remain on for 5 seconds before the “MAIN” light illuminates on the tester.
25. If interrupted pilot is selected on the DIP switch under the right hand cover on the control the pilot light will go out 10 seconds after the main light illuminates



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26. Turn the AIR switch to “OFF”
- i. If non-recycling is selected on the Control DIP Switch, the red “AIR FAIL” light will illuminate on the control. The red “ALARM” light will also illuminate.
 - ii. If recycling is selected on the Control DIP switch, and the “MAIN” light has been illuminated for at least 35 seconds, the control will shutdown the main output (and pilot if it is on) and begin the startup sequence again from the beginning. This includes the initial safe start check of the internal components and the flame sensors.
27. Leave the AIR switch turned to “OFF” and reset the control. The green “PURGE” light will illuminate on the control and blink. This signifies that the fan has started but the purge timer is waiting for the air switch to CLOSE.
28. Turn the AIR switch turned to “ON” and reset the control. The red “AIR FAIL” light will illuminate on the control and blink. This signifies that the fan has started but the purge timer is waiting for the air switch to OPEN.



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