Pellx 20 & 35 kW Pellet Burner with External Auger

pellx

Test

High Effect —
Operation — 6 Max Run time
— 7 High Effect Fan Speed
Standby / Start — 5 Boiler Temp — 9 Start Up Pellet Amount
— 8 Operation Pellet Amount

Alarm / Test
Operating switch on

Operation Settings
Temperature Differentials
0=ΔT 50° F
1=ΔT 60° F
2=ΔT 70° F
3=ΔT 80° F

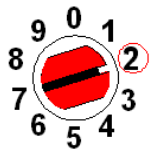**Made in Sweden**

Control Panel Adjustments

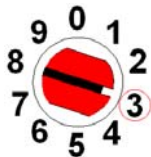**Run Operation Settings # 0 - 3**

Run Operation Setting # 0:
Start up temperature 50° F (10° C) below maximum boiler setting.

Run Operation Setting # 1:
Start up temperature 60° F (15° C) below maximum boiler setting.

Run Operation Setting # 2:
Start up temperature 70° F (20° C) below maximum boiler setting.

Run Operation Setting # 3:
Start up temperature 80° F (25° C) below maximum boiler setting.

Run Operation Setting # 4: Function Test: (Ignition element and fan run for 5 minutes. The flame sensor measures light intensity. (0 - 10 segments))
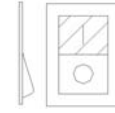

Turn the power switch to the off position.
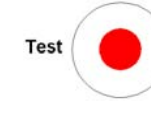
Turn the setting switch to # 4.

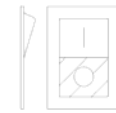Turn the power switch to the on position. The Test LED is off and the Operating LED flashes green.

Push the test button once.

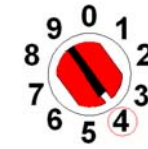The Test LED is on as solid red and the Operating LED flashes green.

The heating element and fan run for 5 minutes. The flame sensor measures the light and displays the value on the LED bar.

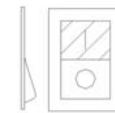**Run Operation Setting # 4: Self Cleaning Valve Test: (Cycles the self cleaning valves twice.)**

Turn the power switch to the off position.

Turn the setting switch to # 4.

Turn the power switch to the on position. The Test LED is off and the Operating LED flashes green.

Push the test button once.

The Test LED is on as solid red and the Operating LED flashes green.

Wait 5 seconds or more.

Push the test button twice.

The Test LED is off and the Operating LED flashes green.

Both self cleaning valves will open and close twice. Turn the burner power switch off after the cycling of the valves.

Run Operation Setting # 5: Displays The Boiler's Turn Off Temperature and Current Temperature.

Turn the power switch to the off position.
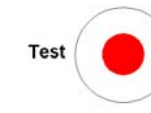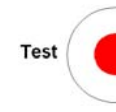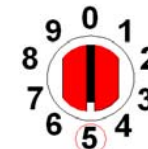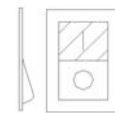
Turn the setting switch to # 5.

Turn the power switch to the on position. The Test LED is off and the Operating LED flashes green.

Push the test button once.

The Test LED is on as solid red and the Operating LED flashes green.

The boiler's stop temperature (maximum temperature) is displayed by the number of green LED (2 - 10) bars.

10 Bar = 190 F (90 C)
6 Bar = 160 F (70 C)
2 Bar = 122 F (50 C)

5 Boiler Temp

The stop temperature (maximum temperature) can be adjusted using the # 5 Boiler Temp potentiometer.

Push the test button once.

The boiler's current temperature is displayed by the number of green LED (2 - 10) bars.

Push the test button once.

The second temperature sensor (if installed) displays the current boiler temperature by the number of green LED (2 - 10) bars.

Push the test button once.

This cancels the test.

Run Operation Setting # 6: Maximum Run Time Adjustment.

Turn the power switch to the off position.	Turn the setting switch to # 6.	Turn the power switch to the on position. The Test LED is off and the Operating LED flashes green.	Push the test button once.	The Test LED is on as solid red and the Operating LED flashes green.	Push the test button once.	The LED bars display the maximum run time with each LED bar equal to 60 minutes.	The maximum run time can be adjusted using the # 6 Max Run Time potentiometer.

10 Bar = 11 hrs

5 Bar = 6 hrs

1 Bar = 2 hr

Note: If you have poor quality pellets and long run times, clinkers or sinter can form. Reducing the run time forces the burner to shut down and go through a cleaning cycle. The burner will re-ignite and continue operation.

Run Operation Setting # 7: High Effect Fan Speed Adjustment.

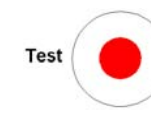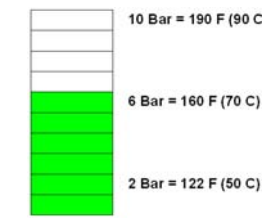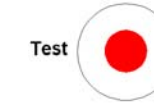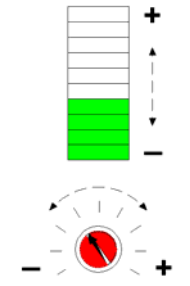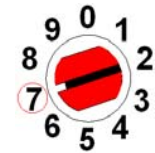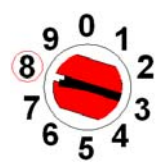|						
Turn the power switch to the off position.	Turn the setting switch to # 7.	Turn the power switch to the on position. The Test LED is off and the Operating LED flashes green.	Push the test button once.	The Test LED is on as solid red and the Operating LED flashes green.	The LED bar displays the maximum fan speed for high effect.	The high effect fan speed can be adjusted using the # 7 High Effect Fan Speed potentiometer.

Note that the high effect fan speed can be adjusted while the burner is in full operation mode without having to change the function switch. When you adjust the #7 High Effect Fan Speed potentiometer, wait a couple of minutes and then recheck the flame quality and combustion gasses.

Run Operation Setting # 8: Test and Adjust Pellet Feed Rate.

Turn the power switch to the off position.	Turn the setting switch to # 8.	Turn the power switch to the on position. The Test LED is off and the Operating LED flashes green.	Push the test button once.	The Test LED is on as solid red and the Operating LED flashes green.	The LED bar displays the feed rate and feeds pellets for 6 minutes.	The pellet feed rate can be adjusted using the # 8 Operation Pellet Amount potentiometer.

Note that the pellet feed rate "operation" can be adjusted while the burner is in full operation mode without having to change the function switch. When you adjust the #8 Operation Pellet Amount potentiometer, wait a couple of minutes and then recheck the flame quality and combustion gasses. In #8 Test mode, collect the pellets during the 6 minute test, weigh them, and check the "supplied effect" graph in the installation manual to determine the BTU output.

Run Operation Setting # 9: Start Up Pellet Amount.

Turn the power switch to the off position.

Turn the setting switch to # 9.

Turn the power switch to the on position. The Test LED is off and the Operating LED flashes green.
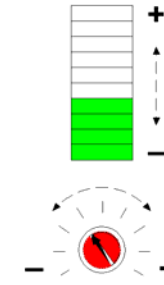
Push the test button twice.

The Test LED is on as solid red and the Operating LED flashes green.

The LED bar displays the start up pellet amount.

The start up pellet amount can be adjusted using the # 9 Start Up Pellet Amount potentiometer.

The start up amount of pellets should be around 8 oz. (250 grams) or 1 cup. If the start amount is too low, the burner won't start. If the start amount is too high, the burner will "pop".

Run Operation Setting # 9: To Load Pellet Auger: (Runs auger for 15 minutes.)

Turn the power switch to the off position.

Turn the setting switch to # 9.

Turn the power switch to the on position. The Test LED is off and the Operating LED flashes green.

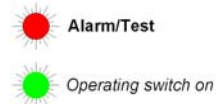Push the test button once and wait 5 seconds.

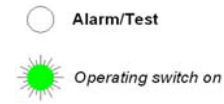The Test LED is on as solid red and the Operating LED flashes green.

Wait 5 seconds.

Push the test button twice.

The Test LED flashes red and the Operating LED flashes green.

The pellet auger runs for 15 minutes.

The Test LED is off and the Operating LED flashes green.

CONTROL BOX

Air Solinoids

SV 1   SV 2

Earth   Earth

Out1 Out2 Out3 Out4

+3.3V GND 1 2 3 4

16 Bit Processor
V 2.xx USA

9,10,11,12,13,14,15

1,2,3,4,5,6,7,8

NC
NC Alarm Relay

1 2 3 4 5 6 7 8 9 10 11 12

Signal cable

Alarm relay NC
max 1 A, 24V

T1   T2

Burner Plug

Fuse 4A

CABLE CLAMP

WHITE (Neutral) N   BLACK (Line) L

Operating switch
on / off

INSTALLER SUPPLIED   CHECK LOCAL CODES

Junction Box

Line
Push to Reset Over Temp Device
Max Temp 200 F

Line
Low Water Cut Off - LWCO

Line
ON / OFF SWITCH NEAR BOILER

INSTALLER SUPPLIED

BLACK (Line) L
To Elec Panel 120 Volt 60 Hz

GREEN (Ground) G, Earth

WHITE (Neutral) N

Fuse 4A

Burner Cable

Auger Cable

3
2
1

RED Grey Black Y/G

M
Auger Motor

Earth

OH Prot. Triac

Phase (L) Zero (N) Phase (L) Zero (N)

Triac unit on Burner

1 2   3 4 5 6 7 8 9 10

Flame sensor

Overheat protection

Fan

Ignition element