

Network Dryer Operation Tips

(Software Version 1.08 and Up)

Important Software and Troubleshooting tips

Present Software Version Numbers: Display → 1.19 Heater → 1.19 IO → 1.18

1. When ever you install a new display board. After you flash the software in and restart you may see an ERROR Message with some garbage characters or a negative number for temperature such as -2785 degrees. Do a Hard Boot by holding the **Reset key** and turning the power on to correct this stuck register value.
2. **Always do a Hard Boot after installing a new Display board!!!**
3. **If you have a blank or all black screen see the Contrast Adjustment in Tip #6**
4. **Also when flashing new software to the IO Board turn off the level auger breaker.** Due to a design characteristic the level auger will run whenever the IO board is being flashed.
5. If only the Load and Unload Augers will not run check to make sure the 110 volt breaker on the IO board is turned on.
6. **The newest Display boards (5/1/02) can now be used on either a Topdry or Portable Dryer.** In the past a Dryer Display board had to have wires soldered in place for the Meter Roll Speed Pot and they can also be used on either a Top Dry or Portable Dryer. **The past Top Dry Display board without these wires could be used on a Top Dry only.** The newest boards now have a six pin connector that the Meter Roll Speed Pot is connected to.
7. The Metering Roll Speed Pot connection at the pot is correct when the visible copper on the connector is on the bottom.
8. As Dryers age the contacts in the safeties start reducing the DC voltage passed through and may have to be replaced. Check the voltage if you get repeated error warnings from what seems to be a good safety.

General Tips and suggestions.

- 1) **In Version 1.19** the Moisture Control differential was reduced from 4 to 2 degrees. The dryer will cycle quicker and control moisture better.
- 2) **In Version 1.18** the ability to Calibrate Bushels readings was implemented.
- 3) **In version 1.17 and greater** Holding down an UP or DOWN arrow key while changing a Timer or Delay setting will start changing the setting at a much faster rate.
- 4) **In version 1.17 and greater** Pressing Reset while changing a Timer or Delay setting will return the setting to its Default setting.
- 5) Hold the **“HELP”** button in. Turn on the Control Power, and Release the **“HELP”** button.
Switch and Keypad Test (Turn any of the switches or press any of the keypad buttons, and the one that you activated will be displayed on the screen. This is for diagnostic purposes.
- 6) **Contrast adjustment for the display.** While turning the control power on, hold in on the screens key, and this will enter the contrast adjustment mode. Now use the UP/DOWN arrow keys to adjust. If the screen is solid black press the down arrow key, if nothing appears on the screen press the up arrow keys. **NOTE: You cannot hold in on the UP/DOWN arrow keys to adjust, you must continue to press and then release them or nothing will happen. It could take 100 or more presses.**
- 7) Hold the **“HOUR”** button in, Turn on the Control Power, and Release the **“HOUR”** button.
Timer Default Settings (This option returns all programmed timer to the factory settings)
- 8) Hold the **“RESET”** button in, Turn on the Control Power, and Release the **“RESET”** button.
Caution (This option will **return all options back to the factory defaults**).
- 9) Hold both the **“GRAIN”** and **“PLENUM”** buttons in, Turn on Control Power, and Release the buttons.
Disables the Air switches. This is a one step method for disabling the air pressure switches.
- 10) Hold both the **“DRY”** and **“COOL”** buttons in, Turn on the Control Power, Release the buttons.
Reset Shutdown History (This will erase all the shutdowns in the computer history).
- 11) Press the **“UP”** and **“DOWN”** arrow buttons in at the same time, before hitting start on dryer.
Enables you to view the shutdown history. History will hold the last 256 dryer shutdowns.
Do this while changing a Timer or Delay setting and it will change the setting to 0.00.
- 12) Press the **“SCREENS”** button after the dryer is running
 - A. Out of Grain Set “Out of Grain” Timer
View :Out of Grain” Timer
Check “Last Load Time”
 - B. User Hour Meter Reset the “User Hour Meter”
 - C. Grain Temps
 - D. Meter Roll Speed Average. Monitors the percentage of time the meter rolls spend on both High and Low Speed
- 13) **DELAYS**
 - A. Load Delay
 - B. Out of Grain
 - C. Fan Delay
 - D. Unload Clean Out Delay
- 14) **Temperature Sensor Testing**
 1. You can find charts with the Resistance readings at various Temperatures in the following manuals

The Network Dryers use the Thermister type sensors, the bolt style for the Plenum and the round style for the Grain Temperature. Located in **Resource 2003 CD** in the **“Resources – Manuals”** Folder

PNEG-630 Portable Dryer – Trouble Shooting Feb 1999.pdf **Page 54** (Portable Dryers | Trouble Shooting – Operating Tips)

PNEG-377 Fan & Heater – Service Manual Feb 2000.pdf **Page 50** (Fans and Heaters | Trouble Shooting Guide)

Special Wire Terminals

J2-13 - Air System (**Pneumatic System**) Failure if 12 volt not present

J3-01 - **User Supplied Safety**

J3-6 - **12 volt Ground for using a test meter.**

J3-4 - **12 volt Ground for using a test meter.**

The third unused connection on any network connector is also a 12 volt ground.

Setup Screens

Reached by pushing the “**SETUP**” Button

1. Reset Batch Counter
2. Clear Total Bushels
3. Change User Message

Special Setup Screens

Pressing and **HOLDING** the “Modify” button *while the power is off*, turn on the control power for the dryer, then **RELEASE** the modify button, you will be able to access certain dryer features that rarely need to be changed.

Pressing **ENTER** *after releasing the Modify button* will allow you to view and/or change the special setup screens in the following sequential order:

Option	Select
1. Test Meter Rolls	No ----yes
2. Test Air Switch	Yes ----No
3. Meter Roll reverse	No ----Yes
A: Set Reverse Time	5 Minutes , but is adjustable
B: Set Forward Time	55 Minutes , but is adjustable
4. Unload System	2 Speed ----3 Speed
5. Dryer Address	01 ----Used for WatchDog Only
6. Attempt to Refill	No ----Yes
7. Model Number	Dryer Model Number (Must be exact for Dryer to operate correctly)
8. Temperature Scale	Fahrenheit ----Celsius
9. Burner Setup	Enter to Change----Reset to Bypass
A: Set Fan/Heater Drying Mode	High/Low Fire ----On/Off Fire
B: Set Fan/Heater Active/Inactive	Active ----Inactive
10. Set Time and Date	Time and Date
11. Fill system	End Fill ----Center Fill----Dual Fill
12. Unit of Measure	Bushels ----Metric Tons
13. Burner Differential	Enter to Change----Reset to Bypass
A: Set Burner Differential in degrees	Default is 3 Degree in Hi/Low and 1 Degree in On/Off Fire
	This default is not effective until software version 1.16

Selections in Bold are the default settings.

Series 2000 Fan & Heater Dipswitch Settings

- | | |
|-------|-----------------------------|
| Fan 1 | #1 OFF / All others ON |
| Fan 2 | #2 OFF / All others ON |
| Fan 3 | #1 & #2 OFF / All others ON |
| Fan 4 | #3 OFF / All others ON |
| Fan 5 | #1 & #3 OFF / All others ON |
| Fan 6 | #2 & #3 OFF / All others ON |