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Quick Start Guide - West 4400 Digital Point Set Controller



Introduction

Surely you have not turned your controller on and started pushing buttons yet. Of course you have. Now, turn it off. We need to talk.

The Glass Artist has needs different from those of a glass manufacturer. Fortunately for everyone, this controller will cover both. Unfortunately the operators manual is geared more toward the manufacturer. This supplement is for you, "the Glass Artist".

Now then, our intent is to fill the gaps left by the manual (how to write a program, what a set point actually is, pretune?...). But you will also learn to understand your manual. In spite of its difficult nature, it is a wealth of information. So, read pages 2-1, 2-2 and 2-3 now and become familiar with the front of your controller. Particularly 2-1 and 2-3. This may raise questions, but for now just learn what everything is called.

Now turn to page 8-1 and follow these instructions: we are going to go through them and make sure that the controller is programmed for you. You should not have to change anything in these settings but knowing where they are is helpful.

Turn the controller on with the toggle switch.

Press: Scroll and Up keys simultaneously and hold until “unlock appears in the message display window.

Press: Scroll once. The message display window will read Final SP. Press: Prog key 8 times and the letter “A” will appear in the P.N.* (program number) window. The display will run through 1,2,3,4,S,6,7,8,A. When “A” appears message area will read “Start On”.

Press: Up or Down keys to select “Proc” in the lower display. (If correct then Continue). Message display reads Start on.

Press: Scroll key Message display window reads End on. Lower display should read SEtP. If not use the Up or Down arrow keys to change.

Press: Scroll key Message display window will read Delay. Set to 0:00 by using the up or down arrow keys.

Press: Scroll key, Message display window reads LockProg. Set to Off using Up or Down arrow keys.

Press: Scroll, message display reads Recovery. Setting to 0 by using the up or down arrow keys.

What does all of this mean?

Start on: Proc, means that your program will always start at whatever temp it is inside the unit.

End on: SEtP, means that the controller will go to the “control set point” when the program has finished running. The “control set point” is a temperature at which the unit will remain “off” as far as temp control concerned.

Delay: Is the amount of time you want the controller to wait before it starts the program after you have hit the run button.

LockProg: Is to make it possible or impossible to change the program while it is running.

Recovery: 0, is that, in the event that there is a power failure the unit will turn off and stay off.

Writing Your Own Program

Your little West 4400 owner's manual tells you everything you could ever possibly want to know about this controller except for one thing. How do I actually write the program? It doesn't actually say. So let us go there. On page 8-5 of the owner's manual there is a good guess at how to make it work. Let's explain the functions. To begin with, your control is only using the "Final SP" (final setpoint) and the "Time" (real time) features. The "Ramp Rate" and "Event Outputs" are not being used and won't appear on your control. You have 16 segments per program and you have 8 programs. You can also link the programs if you need more segments. There is a "Guaranteed Soak" feature written into your controller that allows you to write in a zero ramp time which will allow the unit to climb or drop at full speed to a specified temperature (Final SP) and stop there. Let's give a simple but extreme example. This is a paint firing program:

Press scroll & up simultaneously to get the message "Unlock". Then press the scroll button to get the message:

- Segment 1: Final SP=1250deg. (Use up or down arrow buttons to 1250.)
Time = 0.00. (Use arrow buttons.)
- Segment 2: Final SP= ---- (Dwell) Press Up & Down arrows simultaneously.
Time - 0.01 (Hold for 1 minute, do not use 0.00 as a dwell time)
- Segment 3: Final SP = ---- (Dwell)
Time - End (Press down arrow and hold it in until it says "End")

This program will go to 1250 deg as fast as the unit can go, hold for 1 minute and then shut off.

Now lets fuse something,

This will be a good program for a small project with colored glass to go to full fuse with soft edges. As in the program above, go to "Unlock" and then press scroll to get the message "Final SP".

- Segment 1: Final SP = 1000 deg (Use up or down arrow buttons to 1000)
Time = 0.45 (45 minutes, use arrow buttons)
- Segment 2: Final SP -1450
Time-0.00
- Segment 3: Final SP - — (Dwell) Press Up & Down arrows simultaneously
Time - 0.10 (10 minute hold)
- Segment 4: Final SP - 960
Time - 0.00 (Off until it reaches 960)
- Segment 5: Final SP - - (Dwell)
Time-0.30
- Segment 6: Final SP - 700
Time -1.00 (1 hour)
- Segment 7: Final SP - — (Dwell)
Time - End (Press down arrow and hold it in until it says "End")

This program will ramp to 1000 over 45 minutes, then go to 1450 as fast as possible, hold there for 10min, then shut off until it drops to 960 and will anneal for 30 min, ramp down to 700 over an hour and then shut off.

To exit programming, press the mode button twice and it will ask you if you want to "Exit?". Press scroll.
To write in program 2, press the "Prog" button before you "Unlock"

These programs are safe to use on many small projects using bullseye for example with fusing or DS Float for painting. But we all have our own numbers that we like to work with. The programs above will give you a pretty good idea of how to get your numbers plugged into this control unit and we think that you will find it very easy to work with.

To start a program, press the "Prog" button to reach the program that you want to run, then press the "Run" button (far lower right). We are sure you will be pleased.

Call 303 781-0980 with questions.

Kiln Program Sheet

Program # _____ Glass _____ Thickness _____ Layers _____ Date _____	Project Type (eg; full fuse, tack, casting, paint, etc) <hr/> Job Name _____
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Seg 1	Final SP	Time
Seg 2	Final SP	Time
Seg 3	Final SP	Time
Seg 4	Final SP	Time
Seg 5	Final SP	Time
Seg 6	Final SP	Time
Seg 7	Final SP	Time
Seg 8	Final SP	Time
Seg 9	Final SP	Time
Seg 10	Final SP	Time
Seg 11	Final SP	Time
Seg 12	Final SP	Time
Seg 13	Final SP	Time
Seg 14	Final SP	Time
Seg 15	Final SP	Time
Seg 16	Final SP	Time

Notes