Quick Start Instruction for PID-RS

Before you begin: Change only the settings listed below. Leave all other settings at their factory defaults.

Know the four buttons

Button	What it does while entering settings
SET	Saves the number and moves to the next setting.
◀ Shift	Moves to another digit so you can change it.
▲ Up / ▼ Down	Raises / lowers the selected number.

Read the display: The top number is the measured temperature; the bottom is the target. In a menu, the top shows a code and the bottom shows its value.

1) Basic setup

Hold **SET** for 3 seconds to open the menu. Press **SET** to move through the settings.

To change a parameter value: Use ▲ / ▼ keys to change a parameter value. For the numbers, use ◀ key to select a digit and then with ▲ / ▼ keys you can change the value of each digit. Press **SET** to save and move to the next parameter.

Setting	Enter	Meaning
dp	0	Decimal point placement. When set on 0 controller displays whole numbers (without decimals)
AT	0	Auto tuning for RUN 3
CF	F	Temperature in Fahrenheit
ALP	0	Alarm off
P-SH	2300	Highest temperature allowed in the setting 2300°F

2) Program settings

Hold SET and ◀ key together for 3 seconds to open the program menu. Press **SET** to move through the settings. Enter these values:

Setting	Enter	Meaning
SEC	0	Time unit in programs is in minutes
LOOP	0	Do not repeat the program when program ends
PdE	3	After a power cut, don't continue the program from where it stopped, instead automatically restart from the first segment
AL_P	30	Wait zone
RUN	3	RUN must be 3 to start the program
PRO	1	Start from the first program

3) Enter your program

In the same menu (started with **Holding SET and ◀ key together for 3 seconds)** , continue pressing SET to reach r01 parameter, followed by t01, c01, r02, t02, c02 and …

r = time to reach the target temperature, in minutes.
t = time to hold at that temperature, in minutes.
c = target temperature.

Example program

Heat to 250F as fast as possible, no hold
Heat to 1000F over 3 hours, hold at 1000°F for 10 minutes
Heat to1500F over an hour, hold at 1500°F for 10 minutes
Cool to850F (500°F/hr), hold at 850°F for 30 minutes
Cool to 400F (125°F/hr) drop, hold at 400°F for 1 hour and 15 minutes
Program ends

For the above example you should enter the values of **r**, **t** and **c** parameters in order (r01, then t01, then c01, continue with r02, t02 and c02 and …) according to the following table.

When you finish: Leave the buttons untouched for about 10 seconds to return to the normal display.

Step	Ramp time r Enter in minutes	Hold time t Enter in minutes	Temperature c Enter in °F	What this row does
1	r01 = 2000	t01 = 1	c01 = 77	This is the mandatory room-temperature warmup starting step. This first step must be included in each program.
2	r02 = 2000	t02 = 0	c02 = 250	Heat to 250°F as fast as possible; no hold
3	r03 = 180	t03 = 10	c03 = 1000	Heat to 1000°F over 180 minutes (rate 250F/hour); hold for 10 minutes
4	r04 = 60	t04 = 10	c04 = 1500	Heat to 1500°F over 1 hour (rate 500F/hour); hold for 10 minutes
5	r05 = 78	t05 = 30	c05 = 850	Cool to 850°F over 78 minutes 500F/hour); hold for 30 minutes
6	r06 = 216	t06 = 75	c06 = 400	Cool to 400°F over 216 minutes (rate 125F/hour); hold for 75 minutes
7	r07 = 0	t07 = 0	c07 = 0	End the program

*** When r = 2000 means full speed (as fast as possible)
*** When t = 0 means no hold
*** When r = 0 program ends
*** Rate calculation = (target temperature – previous step temperature) x 60 / ramp time
For example the rate of Step 3 = (1000-250) x 60 / 180 = 250F/hour

4) Select the program

For the example above, set PRO = 1 to begin at Step 1.

If you store a second program: Begin it at Step 8 (after the first program ends), using r08 = 2000, t08 = 1, c08 = 77 as its starting row.

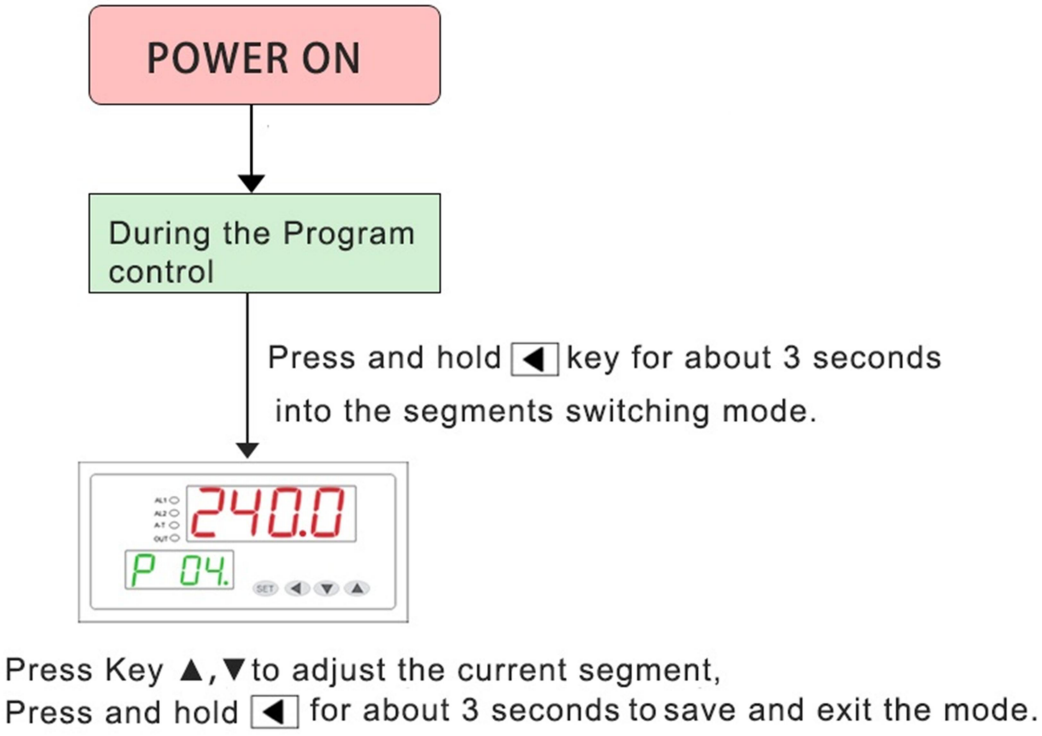
The PRO parameter defines which program you want to start

PRO = (step number × 2) – 1
where the **step number** is the number of the step, such as Step 1, Step 2, Step 3, etc in the table on page 2

In the above example, to start from the first program (**Step 1**), PRO must be set on 1
PRO = (**1** × 2) - 1 = 1

If you add a 2nd program from Step 8 and you want to start the 2nd program (**Step 8**), Pro must be set on 15
PRO = (**8** × 2) - 1 = 15

Also the following diagram shows how to change the PRO parameter from the panel face. In the following diagram PRO is set on 4 (P 04):



***** Please run some pilot projects first to make sure if the controller exactly follows what you need and then run your main project.**

PID-RS Ramp and Soak Temperature Controller Quick Start

For current product information, availability, and compatible options, use the verified ThermoMart links below. The preceding pages remain the original manual content.

PRODUCTS USING THIS DOCUMENT

Models: BBP-RS-SH, CKP-PID-RS-P&P20, CKP-RS-2S, CKP-RS-2S-96, CKP-RS-48, CKP-RS-96, PID-RS-4-20mA, PID-RS-96, PID-RS-CP-220, PID-RS-P&P, PID-RS-R-H, PID-RS-R-H-48, PID-RS-S-48, PID-RS-USB-485, RS-P&P-USB, RS-P&P20-USB

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