

Setting up a stock MD10P for pizza ovens

Setting up the MD10P control for your oven requires a few settings that your particular equipment has. The first is finding which pickup unit is on the motor or drive-train. The Dart Controls, Inc. PU-E pickups have 2, 4, 20, and 40 magnets associated with the pickup unit. This is printed on the magnet. Divide the number on the magnet by 2 to get the pulse per revolution for that pickup unit. This is the first required parameter we need when programming the control unit. It is entered in Program item #32, so make note of it here:

Magnet says: **PPR** is:

The next thing is to make sure that the control is able to be programmed. The JP1 jumper is located under the dust cover on the back end of the upper board. When the jumper is set to the "Off" position, all programming features are locked out to the front panel user. When the jumper is in the "On" position, the programming parameters are open to change. JP1 is shipped from the factory set in the "On" position.

Next make the control go back to the software defaults.

The software-default settings can be easily restored using this method. This method requires the Program Enable jumper to be in the "On" position. The first step is to apply power to the unit with both the Enter and Down buttons pressed for 3 seconds. The display will read "init" when this occurs indicating that it was successful. If it does not read "init" check the JP1 jumper setting

Press and hold the **Enter** button until "P 0" shows on the display. This is the program mode of the control. Hold the **Up** button until 32 is on the display then touch the **Enter** button. Change the value displayed to indicate the **PPR** you recorded above and touch **Enter**. The display now reads 32 again. Touch the **Down** button and hold it until the display once again reads "P 0". Now touch the **Enter** button which returns the control to the operating mode.

Using the **Up** and **Down** buttons set the control speed to a value that is quick for your oven but not full speed. This number is NOT a time value but is an arbitrary RPM figure we are using for program reference. Note the number on the display and record it here.

Number on display:

You now need to measure the time that it takes for an item to go through the oven. You measure the time from when the leading edge of the item goes into the oven to when the leading edge is just coming out of the oven. Convert the completed time to seconds, (for example; 6 min and 37 sec is equal to 360 plus 37 is equal to 397 sec) and record this number.

The number of seconds is:

Repeat this exercise (3) times to verify that your numbers are correct. Mistakes can cause longer cook times which would cause burning.

Press and hold the **Enter** button until "P 0" shows on the display. This is the program mode again. Hold the **Up** button until 30 is on the display then touch the **Enter** button. Change the value using the **Up** and **Down** buttons to be the number of seconds that you recorded earlier. Touch the **Enter** button and 30 is redisplayed. Touch the **Up** button and the display reads 31. Touch **Enter** and using the **Up** and **Down** buttons change the value to the number on display that you recorded earlier. Touch the **Enter** button and 31 is redisplayed.

Optional:

To set the minimum bake time (fastest time) press the **Down** button until the display reads 20. Touch the **Enter** button and using the **Up** and **Down** buttons to make the value the number of seconds for the fastest time. (4 minutes is 60 times 4 equals 240 sec) Press the **Enter** button and the display reads 20 once again. To set the maximum time (slowest time) press the **Up** button and the display reads 21. Touch the **Enter** button and using the **Up** and **Down** buttons to make the value the number of seconds for the slowest time. (10 minutes is 60 times 10 equals 600 sec) Press the **Enter** button and the display reads 21 once again.

Finally you need to press the **Down** button until the display reads 10. Touch the **Enter** button and using the **Up** and **Down** buttons to make the value 2 to change to the Time mode of operation. Touch the **Enter** button and 10 is redisplayed. Using the **Down** button make the display once again read "P 0" and press the **Enter** button to exit the program mode.

The control will now return to operating in time mode. Test the times on the display to verify that the times are proper for the oven and the values you have programmed. After verification, press and hold the **Enter** button until "P 0" shows on the display. This is the program mode again. Hold the **Down** button until 98 is on the display then touch the **Enter** button. Change the value using the **Up** and **Down** buttons to 5 and touch the **Enter** button. This saves the programming that you have done for this application. Using the **Up** button make the display once again read "P 0" and press the **Enter** button to exit the program mode. Now set JP1 to the "Off" position to disable the program mode function and return the cover on the control unit.