



ARC PID Controller User Manual  
Manual ID: PA-MAN-IM12

## Quick Start Guide

1. Connect Polyarc heater cable to back of PID controller
2. Turn PID controller using the power switch on the right.
3. Control the setpoint with the arrow buttons on the left. The Polyarc operating temperature is 293 °C.

## Installation Instructions

1. Make sure controller power button on the front of unit is in the “off” position (Figure 1)



(Figure 1)

2. Plug ARC PID controller into standard 120V grounded outlet.
3. Connect the Polyarc heater cable assembly into the back of the controller, aligning the four pins in the cable's connector with the four holes in the connector mounted on the back of the controller. Once the connectors are aligned, push them together until they stop, and tighten the locking nut on the cable connector to make sure that the cable stays fully connected. (Figure 2)



(Figure 2)

4. Turn the controller “on”.
5. After a few seconds while the controller goes through an error-checking process, the display will report the current Polyarc temperature in red digits on the left side (e.g. 32.7) and the current set-point in green digits on the right side (e.g. 293.0). (Figure 3)



(Figure 3)

*Note: due to the proprietary RTD used by the Polyarc, at room temperature the PID controller will report a negative value (e.g. -25.4)*

6. Set the temperature set-point by using the up and down arrows on the bottom right side of the controller's display. (Figure 4)



(Figure 4)

*Note: do not press the two buttons on the lower left of the controller's display, as these are used for programming functions, and changing the controller's parameters may harm the controller and/or the attached Polyarc.*

7. While the controller is on, a small red “1” will flash intermittently, at varying frequencies. This is normal and is simply displaying the controller's internal temperature control activities.
8. If you wish to monitor the temperature of the Polyarc using the PID controller without heating the Polyarc, use the down arrow on the controller to set the set-point to “0”, this will allow you to make sure that the Polyarc is cooled-off prior to removal.

## Removal of the Polyarc/Controller

1. Make sure that the Polyarc has been cooled to room temperature.
2. Turn of the PID controller using the switch on the front of the unit.
3. Disconnect the Polyarc heater cable assembly from the PID controller by first unscrewing the nut on the connector, then pull the cable connector out of the controller connector on the back of the box.
4. Unplug the controller from the 120V grounded outlet.

## Replacing the Fuse

In the unlikely event that the controller display remains blank/dark after properly installing the controller/Polyarc on your system and turning it on, the circuit protection fuse may have blown. Each unit is shipped with a spare fuse to address these situations.

1. To inspect/replace the fuse, open the small spring-loaded fuse holder located on the back-right side of the enclosure by inserting a small bladed instrument (e.g. screw driver) in the slot in the middle of the holder, and while gently pressing it in towards the enclosure, rotate it counter-clockwise until the tabs line up and the holder pops out of the enclosure. (Figures 5 and 6)



(Figure 5)



(Figure 6)

2. Remove the fuse from the holder and inspect its filament to confirm that it has blown (i.e. the small wire in the middle of the fuse will be broken).
3. If the fuse is blown, insert the new fuse into the holder (direction does not matter), and re-insert the fuse holder into the enclosure.
4. Prior to turning the PID controller back on, make sure that any potential causes that can be identified for causing the fuse to blow have been addressed.