

Questions? – User’s Manual References

- Feature Overview – Section 1.1
- Specifications – Section 2.0
- Installation Configurations – Section 3.0
- Fusing – Section 3.1
- Jumpers, Internal Diode – Section 3.2
- Front-Panel Interface – Section 4.3.1
- Remote Interface – Section 4.3.2
- Analog Input Control – Section 4.4
- Diagnostics – Section 5.3

Questions? Diagnostics. is my unit working?

An efficient method by which to conclude that the PWMC 205 is connected properly and the output is working is to use a typical handheld DMM and measure the voltage across a load (does not have to be your device). A standard DMM will respond very slowly and will provide some “average” value that will change as the duty cycle is varied.

Questions? – Support:

Support for your application is available by contacting Applied Processor and Measurement, Inc. directly. Contact information is provided below. You may also e-mail us your intended application / connection and questions so that our engineers may best address your installation by analyzing your intended use.

Web: www.appliedprocessor.com
Phone: 716-741-1141
e-mail: support@appliedprocessor.com

Factory Set-Up

Model Number: _____ 205 _____
Options: _____
Serial Number: _____
Fuse Installed: _____

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NOTICE !

Read This First Before Proceeding

INSTALLATION GUIDE

**MODEL 205
PULSE WIDTH MODULATION
CONTROLLER**

DOCUMENT NO. 00215-03



**Applied Processor and
Measurement, Inc.**

Thank you for purchasing the Applied Processor and Measurement, Inc. Model 205 Pulse Width Modulation Controller. We are pleased to provide this high quality, feature rich, and value minded product for use in your laboratory.

The purpose of this guide is to ensure proper usage and installation of your Model 205 Pulse Width Modulation Controller (PWMC 205) for your application.

This guide will:

- describe what you need to control your device with the PWMC 205
- describe how to set the internal fuse in your PWMC unit for safe operation
- illustrate how to connect the PWMC 205 in a low side drive application
- reference the User's Manual for further information

What you will need to set up your application with the PWMC 205:

- your device that is to be driven by the PWMC 205
- a power supply capable of providing the voltage and current necessary to drive your device and power the PWMC 205 unit
- wire – 20 AWG (or greater capacity) preferred

Fusing:

Before connecting, set the fuse in your PWMC 205 unit! The PWMC 205 contains an internal fuse in series with the PWM OUT- output for protection of your device and for protection of the unit's internal power MOSFET.

The Model 205 is internally fused with a standard mini-ATO type fuse at 4A with a maximum voltage rating of 32V DC (as indicted on the back of this guide). In order to protect your specific device, you may LOWER the fuse value as necessary. This selection is VERY IMPORTANT so as to protect your device as well as the PWMC MOSFET output.

To replace the fuse, simply remove the back cover, the fuse is installed in a holder on the back of the main circuit board.

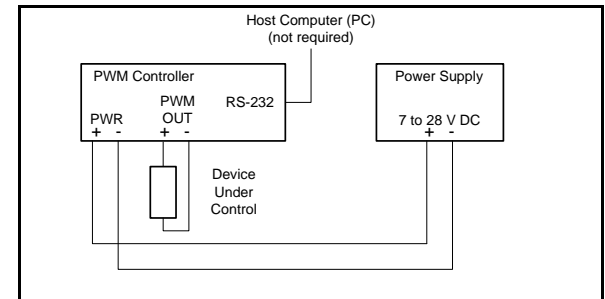
Note that an external fuse of your choice may also be added in series with your device.

Model 205 V4 (2022 or later) Differences from earlier Model 205 units (V3):

- an external connection between the PWR+ and the OUT+ terminals is **NO LONGER NECESSARY in the version 4** Model 205 PWM Controller
- the Control I/O connections are slightly different and the User IO connector is newly available – see the I/O connection supplement on the website or refer to the user manual

Connection:

If you are driving your device using a low side drive configuration with a single DC power supply between 7V and 28V DC, refer to the figure below.



Refer to the User's Manual for other possible connection configurations (Section 3.0 Installation).

Operation:

The PWMC is equipped with a front panel interface which provides three pushbuttons for control of the PWMC output signal. A 4 line by 20 character backlit LCD displays the current mode of operation, the frequency, and the duty cycle. The three pushbuttons allow for mode selection and variance of the PWM output signal settings:

- SELECT – selects which field on the display that UP or DOWN will operate on (SELECT moves the cursor)
- UP – change value by incrementing
- DOWN – change value by decrementing.