WATLOW **QUICK START GUIDE**

PM3 LEGACY™ LIMIT CONTROLLER

For Configurations:
PM3 _ _ [A,C,E] J - _ AAAG _ _

For assistance contact Watlow: www.watlow.com
1-800-WATLOW2 (1-800-928-5692)
wintechsupport@watlow.com

Document #10-43057, Part# 2152-6970 December, 2020

1 - MOUNT TO PANEL

NOTE: Mounting requires access to the back of the panel.

1. Make the panel cutout using the measurements in figure 1.
2. Remove the green terminal connectors and the mounting collar assembly.
3. Insert the controller into the panel cutout from the front.
4. Orient the collar base so the flat side faces front and the screw openings are on the sides (see figure 2), then slide the base over the back of the controller.
5. Slide the mounting bracket over the controller with the screws aligned to the collar base. Push the bracket gently but firmly until the hooks snap into the slots in the case.
6. Tighten the two #6-19 x 1.5 in. screws with a phillips screwdriver until the device is flush to the panel (3 to 4 in-lbs torque).
7. Reinstall the terminal connectors to their original locations. (Or first connect field wiring as indicated in this guide and then reinstall the connectors).

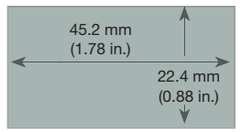


Figure 1

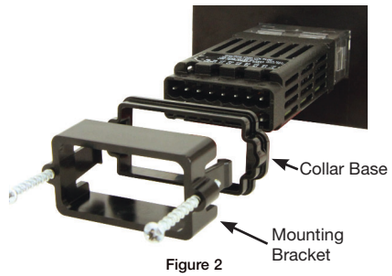


Figure 2

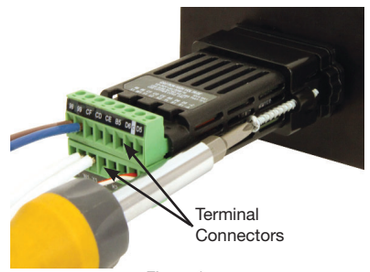


Figure 3

2 - CONNECT THE SENSOR INPUT

Connect your sensor as indicated in the diagram for your sensor input. Figure 4 is an example illustrating the connection shown for a Thermocouple.

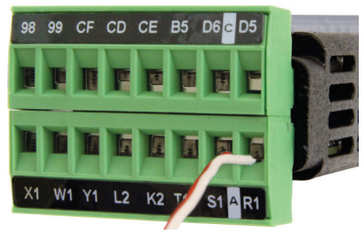
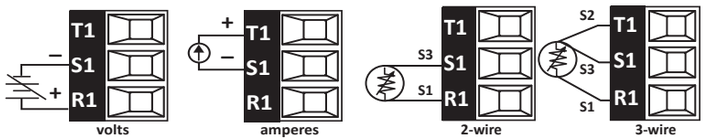


Figure 4: Thermocouple Wiring Example

Thermocouple

Process Voltage or Current
Voltage: 0 to 50 mV or 0 to 10V@ 20kΩ
Current: 0 to 20 mA @ 100Ω

Platinum 100Ω or 1000Ω RTD
20Ω max. round trip lead resistance



3 - WIRE OUTPUT 1

Refer to the wiring diagram for your configuration code and connect to the slots indicated.

PM3_ _ [C] _ _AAAG_ _: Switched DC or Open Collector

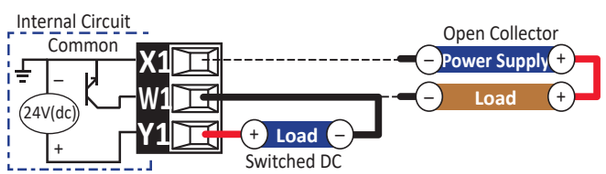
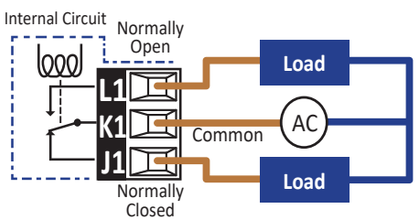


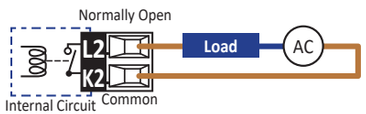
Figure 5: Switched DC Output Wiring

PM3_ _ [E] _ _AAAN_ _:
Mechanical Relay 5A Form C Relay

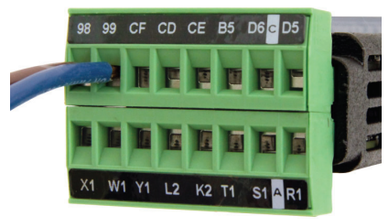


4 - WIRE OUTPUT 2

PM3_ _ _ [J] _ AAAG_ _:
Mechanical Relay 5A Form A Relay



5 - CONNECT POWER

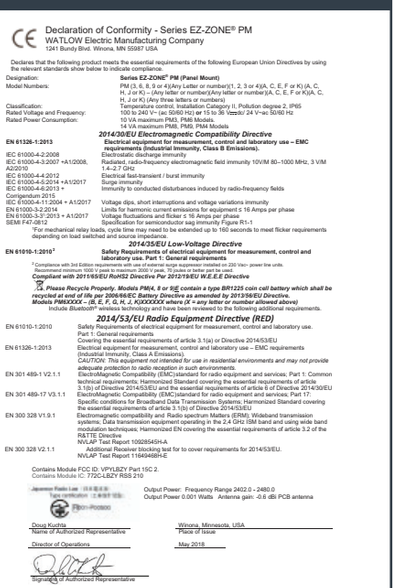


Configuration Code:
PM3 _ [1,2,3,4] _ _ _AAAG _ _

1 or 2: 120-240 V (ac)
3 or 4: 24 V (ac or dc)

CAUTION
Do not connect high voltage to a controller that requires low voltage.

6 - CE DECLARATION OF CONFORMITY


Declaration of Conformity - Series EZ-ZONE® PM
WATLOW Electric Manufacturing Company
1241 Bundy Blvd. Winona, MN 55987 USA

Declares that the following product meets the essential requirements of the following European Union Directives by using the relevant standards show below to indicate compliance:

Designation: **Series EZ-ZONE® PM (Panel Mount)**
Model Numbers: PM (3, 6, 8, 9 or 4)(Any Letter or number)(1, 2, 3 or 4)(A, C, E, F or K)-(A, C, H, J or K) – (Any letter or number)(Any letter or number)(A, C, E, F or K)(A, C, H, J or K) (Any three letters or numbers)
Classification: Temperature control, Installation Category II, Pollution degree 2, IP65
Rated Voltage and Frequency: 100 to 240 V~ (ac 50/60 Hz) or 15 to 36 Vrms/ 24 V~ac 50/60 Hz
Rated Power Consumption: 10 VA maximum PM3, PM6 Models.
14 VA maximum PM8, PM9, PM4 Models

2014/30/EU Electromagnetic Compatibility Directive

EN 61326-1:2013 **Electrical equipment for measurement, control and laboratory use – EMC requirements (Industrial Immunity, Class B Emissions).**
IEC 61000-4-2:2008 Electrostatic discharge immunity
IEC 61000-4-3:2007 +A1:2008, A2:2010 Radiated, radio-frequency electromagnetic field immunity 10V/M 80–1000 MHz, 3 V/M 1.4–2.7 GHz
IEC 61000-4-4:2012 Electrical fast-transient / burst immunity
IEC 61000-4-5:2014 +A1:2017 Surge immunity
IEC 61000-4-6:2013 + Corrigendum 2015 Immunity to conducted disturbances induced by radio-frequency fields
IEC 61000-4-11:2004 + A1:2017 Voltage dips, short interruptions and voltage variations immunity
EN 61000-3-2:2014 Limits for harmonic current emissions for equipment ≤ 16 Amps per phase
EN 61000-3-3:2013 + A1:2017 Voltage fluctuations and flicker ≤ 16 Amps per phase
SEMI F47-0812 Specification for semiconductor sag immunity Figure R1-1
For mechanical relay loads, cycle time may need to be extended up to 160 seconds to meet flicker requirements depending on load switched and source impedance.

2014/35/EU Low-Voltage Directive

EN 61010-1:2010[1] **Safety Requirements of electrical equipment for measurement, control and laboratory use. Part 1: General requirements**

[1] Compliance with 3rd Edition requirements with use of external surge suppressor installed on 230 Vac~ power line units. Recommend minimum 1000 V peak to maximum 2000 V peak. TV peaks or better part be used.

Compliant with 2011/65/EU RoHS2 Directive Per 2012/19/EU W.E.E.E Directive

CE ***Please Recycle Properly. Models PM4, 8 or 9[2] contain a type BR1225 coin cell battery which shall be recycled at end of life per 2006/66/EC Battery Directive as amended by 2013/56/EU Directive. Models PM(XXXXX – (8, E, F, C, H, J, K)(XXXXXX where (X = any letter or number allowed above)***

Include *Bluetooth*® wireless technology and have been reviewed to the following additional requirements.

2014/53/EU Radio Equipment Directive (RED)

EN 61010-1:2010 Safety Requirements of electrical equipment for measurement, control and laboratory use. Part 1: General requirements
Covering the essential requirements of article 3.1(a) or Directive 2014/53/EU
EN 61326-1:2013 Electrical equipment for measurement, control and laboratory use – EMC requirements (Industrial Immunity, Class A Emissions).
CAUTION: This equipment not intended for use in residential environments and may not provide adequate protection to radio reception in such environments.
EN 301 489-1 V2.1.1 ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements; Harmonized Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU and the essential requirements of article 6 of Directive 2014/30/EU
EN 301 489-17 V3.1.1 ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband Data Transmission Systems; Harmonized Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU
EN 300 328 V1.9.1 Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques; Harmonized EN covering the essential requirements of article 3.2 of the RED Directive
NVLAP Test Report 105265454H-A
EN 300 328 V2.1.1 Additional Receiver blocking test for to cover requirements for 2014/53/EU.
NVLAP Test Report 116494M8H-E

Contains Module FCC ID: VPYLBZY Part 15C 2.
Contains Module IC: 772C-LBZY RSS 210

Output Power: Frequency Range 2402.0 – 2480.0
Output Power 0.001 Watts Antenna gain -0.6 dBi PCB antenna

Doug Kurtti
Name of Authorized Representative

Director of Operations

Signature of Authorized Representative

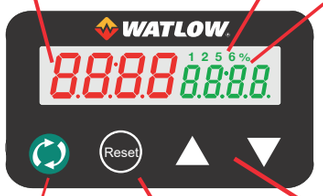
Winona, Minnesota, USA
Place of Issue

May 2018

7 - KEYPAD OVERVIEW

Left Display: Home at beginning displays process value (PV). Entering into menus displays the value or setting of parameter

Output Activity: Indicate activity of outputs 1 & 2, dio 5 & 6



Right Display: Home at beginning displays limit status. Displays page name when entering pages. Entering into menus displays the parameter name

Up and Down Keys: Changes limit set points when displayed. Changes menu inside pages. Inside menus, changes the selected setting in left display

Advance Key: Advances through menu prompts.

Reset Key: Reset limit, clears or silence alarm when active else return home

For assistance contact Watlow: www.watlow.com
+1-(507)-494-5656
wintechsupport@watlow.com

https://www.watlow.com/resources-and-support/Technical-Library

8 - INTRODUCTION TO KEYPAD AND MENU BASICS

Pages, Menus and Keypad Basics

Note: You must read and understand the role of each key on your controller keypad before proceeding.

See Panel 7 - Keyboard Overview

These instructions are not inclusive. This Quick Start Guide (QSG) is meant to be a quick reference to show you how to navigate to frequently used areas of the controller. As an example; setting process outputs are not documented in this QSG. Refer to the User's Guide for more detailed instructions.

Note: Diagrams might vary depending on programming the controller.

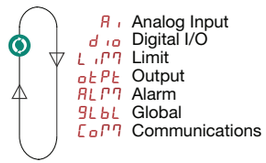
Introduction to the Operations & Setup Pages

Upon power up, the display will default to home. The left red displays process (PV). The right green displays limit status. Setup page is a collection of menus having parameters changed typically one time when controller is first installed or each time hardware changes occur. Operations page is a collection of menus having parameters changed more frequently.

Menus in each page contain common parameters that affect a particular function of the controller. Ex. Analog Input, Limit, Outputs and Alarms are commonly used functions. Parameters are grouped for each function. The Global function is where to set the display units between °F and °C. Set units first if using °C as default is °F.

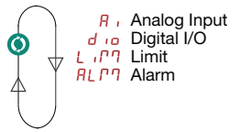
Setup Page

menu  page



Operations Page

menu  page



Setup Page

To enter the Setup Page, press both arrow keys ▲ + ▼ for 6 seconds.

Use arrow keys ▲ ▼ to select menu.

Press advance key to enter selected Menu.

Press the reset key for 2 secs. at any point within the menu to return home.

Operations Page

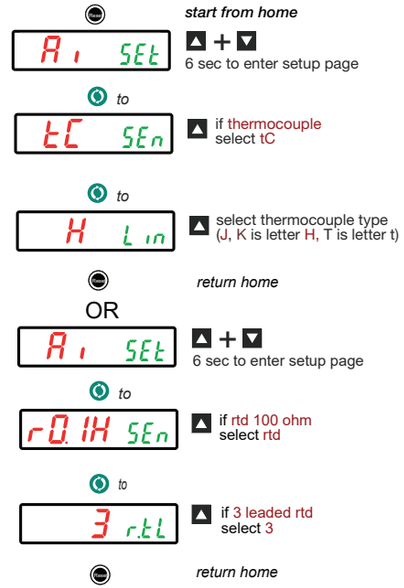
To enter the Operations Page, press both arrow key ▲ + ▼ for 3 seconds.

Use arrow keys ▲ ▼ to select menu.

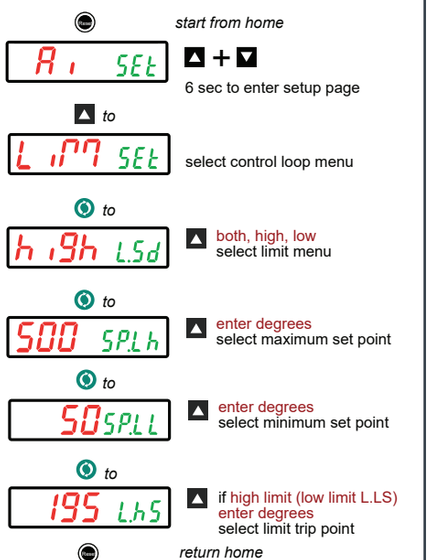
Press advance key to enter selected Menu.

Press the reset key for 2 secs. at any point within the menu to return home.

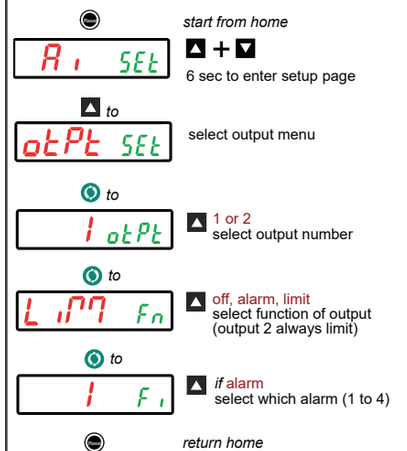
9 - SET INPUT



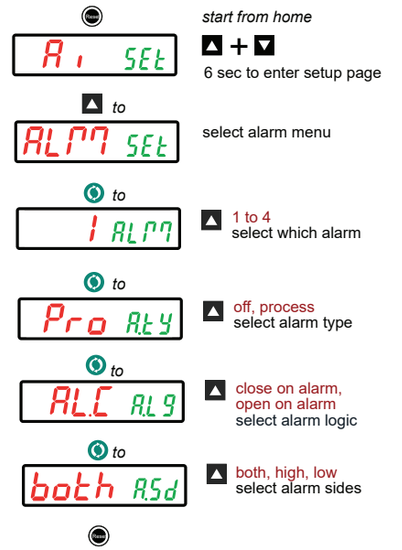
10 - SET LIMIT



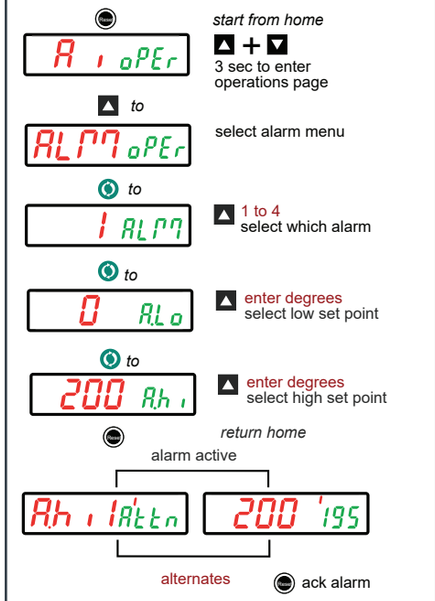
11 - SET OUTPUTS



12 - SET ALARM



13 - SET ALARM SET POINTS



14 - MESSAGES