



QUICK START GUIDE

PM3 LEGACY™ EXPRESS LIMIT CONTROLLER

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



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

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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).

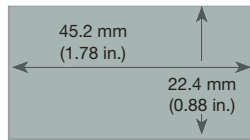


Figure 1

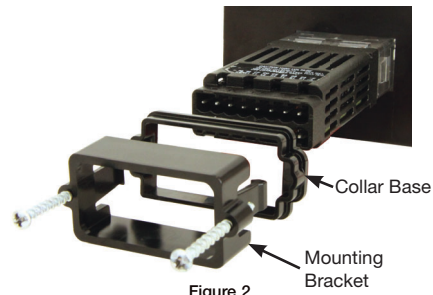


Figure 2

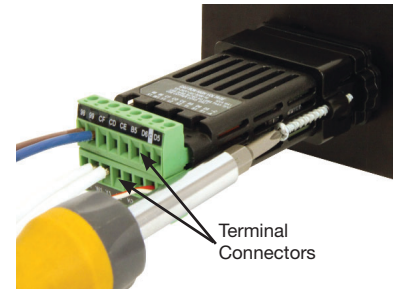


Figure 3

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.

Thermocouple



Process Voltage or Current
Voltage: 0 to 10V@ 20kΩ
Current: 4 to 20 mA @ 100Ω

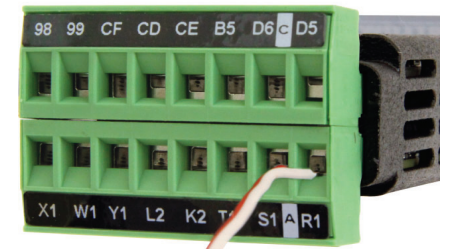
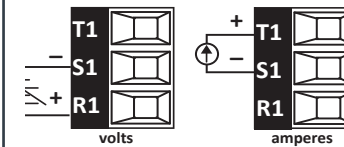
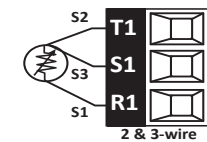


Figure 4: Thermocouple Wiring Example

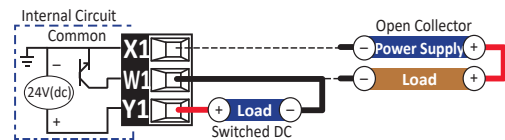
Platinum 100Ω
20Ω max. round trip lead resistance



3 - WIRE OUTPUT 1

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

PM3 _ [C] _ AAAH _ : Switched DC or Open Collector



PM3 _ [E] _ AAAH _ :
Mechanical Relay 5A Form C Relay

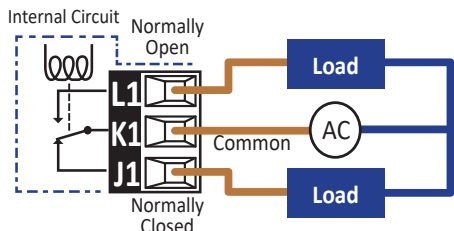
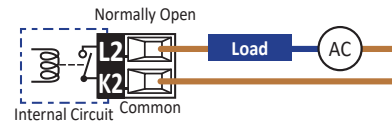


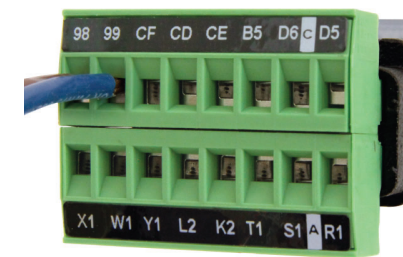
Figure 5: Switched DC Output Wiring

4 - WIRE OUTPUT 2

PM3 _ [J] _ AAAH _ :
Mechanical Relay 5A Form A Relay



5 - CONNECT POWER



Configuration Code:
PM3 _ [1,3] _ AAAH _

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

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

6 - CE DECLARATION OF CONFORMITY

CE Declaration of Conformity - Series EZ-ZONE™ PM
WATLOW Electric Manufacturing Company
241 Bangor Blvd., Watlow, MN 55957 USA

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

Designation: Series EZ-ZONE™ PM (Panel Mount)
Model Number: PM (3, 5, 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 three letters or numbers)
Classification: Temperature: Installation Category (I, II, Pollution degree 2, Temp 100 to 240 V (ac 50/60 Hz) or 15 to 16 V (dc) 24 V (ac 50/60 Hz 10 VA maximum) PM3, PM3 Models
Rated Voltage and Frequency: 14 VA maximum PM3, PM3 Models
Rated Power Consumption: 14 VA maximum PM3, PM3 Models

2014/53/EU Electromagnetic Compatibility Directive
EN 61326-1:2013 Electrical equipment for measurement, control and laboratory use - EMC requirements (Industrial, Mobile and Medical) - Class B (Broadcasters)
IEC 61010-4-2:2009 Electrostatic discharge immunity
IEC 61010-4-2:2007 - A1:2008 A2:2010 Radiated, radio-frequency electromagnetic field immunity 10V/m 80-1000 MHz, 3 V/m 1.4-2.7 GHz
IEC 61010-4-2:2012 Electrical fast transient / burst immunity
IEC 61010-4-2:2014 - A1:2017 Surge immunity
IEC 61010-4-2:2017 Immunity to conducted disturbances induced by radio-frequency fields

2014/35/EU Low-Voltage Directive
EN 61010-2:2014 Voltage dips, short interruptions and voltage variations immunity
EN 61010-3:2014 Limits for harmonic current emissions for equipment < 16 A rms per phase
EN 61010-3-2:2013 - A1:2017 Voltage fluctuations and flicker < 16 A rms per phase
EN 61010-3-2:2013 - A1:2017 Standoff for semiconductor immunity (IEC 61010-3-2)

2014/30/EU Radio Equipment Directive (RED)
EN 61010-1:2010 Safety Requirements of electrical equipment for measurement, control and laboratory use. Part 1: General requirements
EN 61326-1:2013 Safety Requirements of electrical equipment for measurement, control and laboratory use. Part 1: General requirements
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EN 61326-1:2013 Safety Requirements of electrical equipment for measurement, control and laboratory use. Part 1: General requirements
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
EN 301 489-1 V3.1.1 Specific conditions for Broadband Data Transmission Systems. Harmonized Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU
EN 302 528 V1.1.1 Electromagnetic compatibility and Radio spectrum Matters (ERM); Radiated (unintentional) systems. Data transmission equipment operating in the 2.4 GHz ISM band and using wide band modulation techniques. Harmonized Standard covering the essential requirements of article 3.2 of the RATE Directive
EN 302 528 V2.1.1 N/A AP Test Report 10028454-4
EN 302 528 V2.1.1 Additional Receiver blocking test for to cover requirements for 2014/53/EU. N/A AP Test Report 1164848-2

Contains Module FCC ID: VPIYLBZY Part 15C.2
Contains Module IC: 772C-LBZY R68 210

Output Power: Frequency Range 2402.2 - 2483.0
Output Power 0.201 Watts. Antenna gain: -2.6 dB PCB antenna

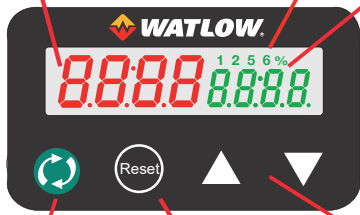
China Kaituo
North of Automobile Representative
Director of Operations
May 2018
Signature of Authorized Representative

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

Right Display: Home at beginning displays limit status. Entering into menus displays the parameter name



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

Advance Key: Advances through menu prompts.

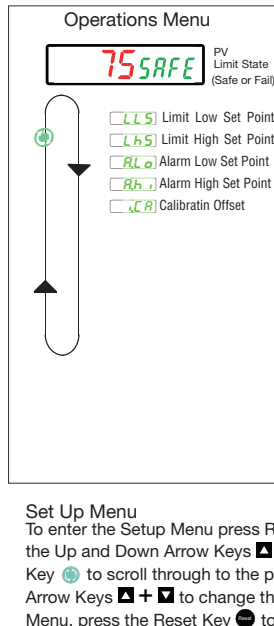
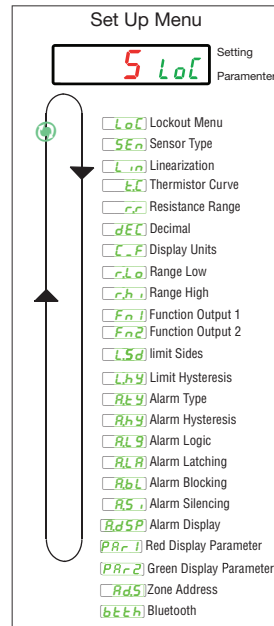
Reset Key: Reset limit, clears or silence alarm when active else return home

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



Menu 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 guide. It will show you how to navigate to frequently used areas of your controller. As an example, settings process outputs are not documented in this QSG. Refer to the User Manual for more detailed instructions. NOTE: These diagrams might vary depending on the controller programming.

Introduction to the Set Up & Operating Menus

Upon power up, the display will default to the Home display in the Operations Menu. The red row displays the process value (PV), defined by PAR1 in the Set Up Menu. The green row displays the limit state (LS.t), defined by PAR2 in the Set Up Menu.

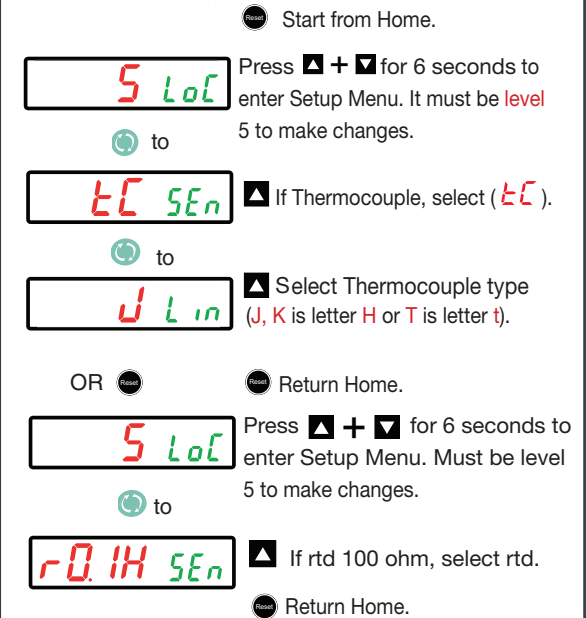
Operations Menu

To enter the Operations Menu, press to return to the Home Page. Press the green Advance Key to scroll through the various prompts found in the Operations Menu. Press the Reset Key at any point to return to the Home Page. Use Arrow Keys + to adjust settings or change selection.

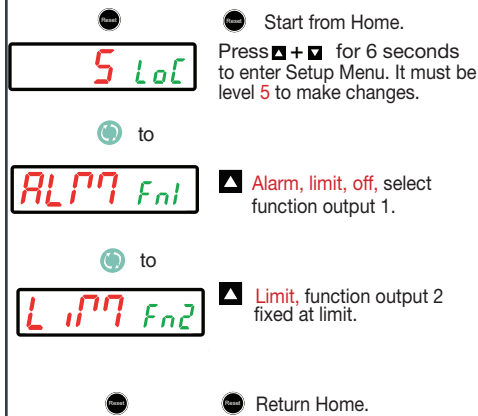
Set Up Menu

To enter the Setup Menu press Reset Key to return to Home. Press and hold the Up and Down Arrow Keys + for 6 seconds. Press the green Advance Key to scroll through to the prompt of choice. Use the Up and Down Arrow Keys + to change the range. At any point within the Setup Menu, press the Reset Key to return to the Home Page.

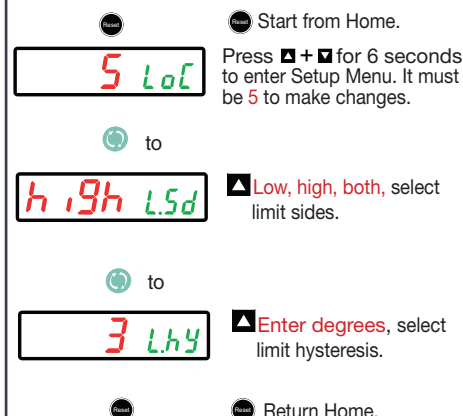
9 - SET UP THE INPUT



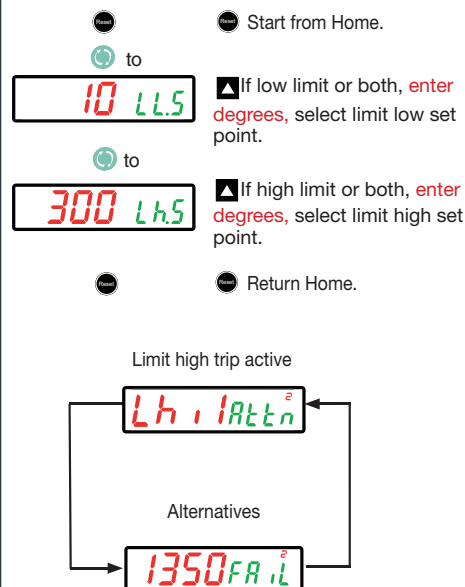
10 - SET UP OUTPUTS



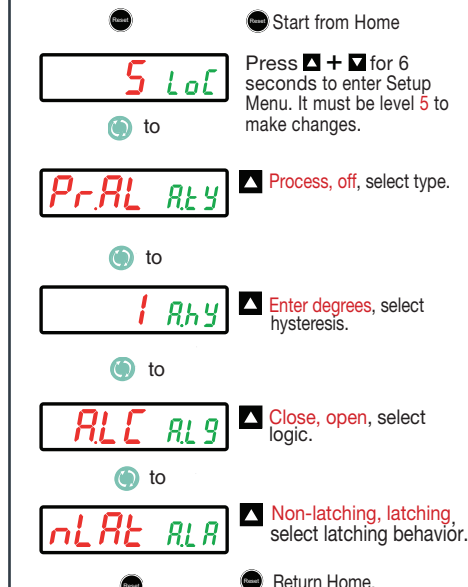
11 - SET LIMIT



12 - SET LIMIT SET POINTS



13 - SET ALARM



14 - SET ALARMS SET POINTS

