PTM™

7 Day Programmable Timer

Instruction Manual

The PTM seven day timer allows for the programming of open and closing times for automated doors, gates, and parking barriers. The relay can handle currents of 16 A @ 120 VAC for automation of powered products such as pumps, lighting systems, and other 5V to 120V solutions. It supports up to 18 on/off events, and input on multiple days or single days to an event.

Cautions and Warnings

Install the PTM according to instructions from the gate or door operator manufacturer. Comply with all applicable codes and safety regulations.

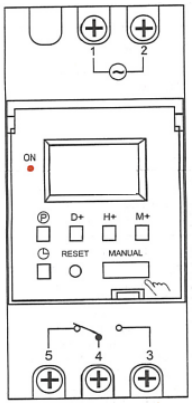
Specifications

Power & Current Draw	12 VDC/AC – 6 mA standby, 46 mA activated (PTM-12)
	24 VDC/AC – 15 mA standby, 37 mA activated (PTM-24)
	120 VAC – 33 mA standby and activated (PTM-120)
Events	18 ON/OFF per day
Daily Program Options	15 combinations
Relay Contact Rating	SPDT 16 A @ 24 VDC / 120 VAC
Operating Temperature	14º F to 122ºF (-10°C to 50°C)
Mounting	DIN rail
Dimensions (L x W x H)	3.41” (86.5 mm) x 1.42” (36 mm) x 2.70” (68.5 mm)

Ordering Information

- PTM-12 12 VDC/AC programmable timer
- PTM-24 24 VDC/AC programmable timer
- PTM-120 120 VAC programmable timer

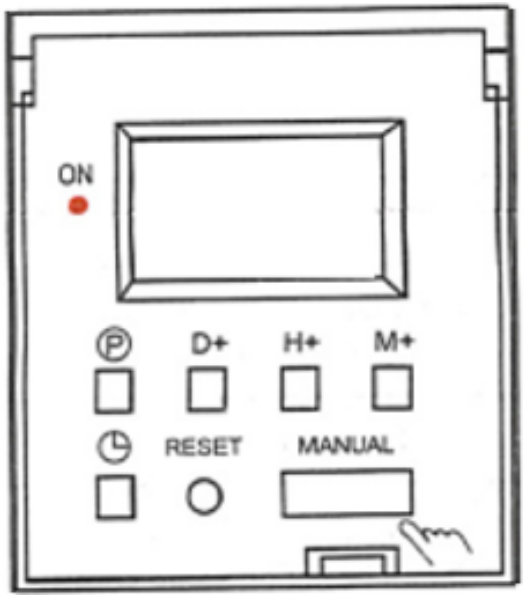
Wiring Connections



Terminal	Description
1	Power -
2	Power +
3	Relay – NO
4	Relay – COM
5	Relay – NC

User Interface

Button	Function
Ⓟ	Program Adjust
D+	Day Adjust
H+	Hour Adjust
M+	Minute Adjust
◷	Clock Adjust
RESET*	Reset Timer
MANUAL	Set on On/Off/Automated. Cycle twice to load new Parameters when changing local time or events.



Installation

1. Attach the PTM to the DIN rail. Lift the clear access cover. Press RESET to turn on the display.
2. **Power setup:**
   - Connect power to terminals 1 & 2. Connect terminal 3 (relay NO) and terminal 4 (relay COM) to the correct terminals in the operator as specified by the manufacturer.

TIP: On Gates and doors this will often be the Exit/Exit loop/ Free Exit/ Radio inputs.

- Battery life will be reduced if unit is powered off repeatedly each night.
- The unit must be on and powered to operate. The PTM cannot run relay operation off the memory back-up battery. It can, however, be programmed without input power.
- Install the PTM away from inductive loads. Inductive loads must have MOV or RC suppressors. If possible, use a separate power source for the timer.

3. **Current time and date setup:**

Step	Operation	State
1	Press and hold CLOCK and tap H+	Sets the current hour
2	Press and hold CLOCK and tap M+	Sets the current minute
3	Press and hold CLOCK and tap D+	Sets the current day

- D+ supports single days and batches (MoTuWeThFrSaSu or MoTuWeThFr,for example) for batches. Days appear at top of screen.
- Press and hold CLOCK for over 3 seconds to shift from 24 hour to 12 hour format.

For Day light savings time the local time must be set manually twice a year. Events will not need to be changed. The manual button can be set to ON to permanently engage the relay. It can be set to off to make the timer not operate. In most cases it will be set to AUTO.

4. Program setup: *Press RESET before programming

Step	Operation	State
1	Press P	Enter program mode
2	Tap D+ until desired Day(s) are shown	Set 1st event ON Day(s). 15 options, table on right →
3	Tap H+ and M+ until desired ON time	Sets Event 1 on time.
4	Press P again	Shows 1st event OFF time
5	Tap D+ until desired Day(s) are shown (must match on event)	Set 1st event OFF Day(s). 15 options, table on right →
6	Tap H+ and M+ until desired OFF time	Sets Event 1 off time.
7	If needed, repeat steps 2-6	If needed, set 2-16 ON/OFF events
8	Press CLOCK	Exit program mode

15 Daily Program Options							
1	**MO**	**TU**	**WE**	**TH**	**FR**	**SA**	**SU**
2	**MO**	**TU**	**WE**	**TH**	**FR**	**SA**	
3	**MO**	**TU**	**WE**	**TH**	**FR**		
4						**SA**	**SU**
5	**MO**	**TU**	**WE**				
6				**TH**	**FR**	**SA**	
7	**MO**		**WE**		**FR**		
8		**TU**		**TH**		**SA**	
9	**MO**						
10		**TU**					
11			**WE**				
12				**TH**			
13					**FR**		
14						**SA**	
15							**SU**

5. Refreshing the programming:(To be done after any event or local time change)

- Tap the manual button until the bottom right of the screen displays the word "off".
- Tap manual 7 additional times. It should have cycled between on/off/auto twice and will be set to auto.
- Set up is now complete

Example Programming

A sample event for a business that opens from 9 AM to 5 PM 7 days week would be:

Event & Command	TIME	DAYS
Event 1: ON	9:00 AM	MoTuWeThFrSaSu
Event 1: OFF	5:00 PM	MoTuWeThFrSaSu

A sample event for a business that is open M-F 9 AM to 5 PM, Saturday 10AM-4PM, and Sunday 11AM to 3 PM would be:

Event & Command	TIME	DAYS
Event 1: ON	9:00 AM	MoTuWeThFr
Event 1: OFF	5:00 PM	MoTuWeThFr
Event 2: ON	10:00 AM	Sa
Event 2: OFF	4:00 PM	Sa
Event 3: ON	11:00 AM	Su
Event 3: OFF	3:00 PM	Su

If you have split times in one day, just use an additional event. Do not overlap times and days in separate events.

Troubleshooting

PROBLEM:	SOLUTION:
My timer will activate but will not disengage.	1. Be sure your timer to close on gate is set to on. The timer does not handle closing. It tells the gate to open and stops telling it to open. 2. Make sure you cycled through manual twice and are set to auto. 3. Check for “stray events” mistakes made during programming. An empty event should be represented by dashes. All unused events should be no numbers, just dashes. If you have any extra events, reset and reprogram the timer. An example would be an on event without an off event. 4. Make sure your input voltage matches your timer model (ptm-12 ptm-24 ptm-120). Make sure your input voltage matches your timer model (ptm-12 ptm-24 ptm-120).
Daylight savings time.	Hold clock, modify the current time. Set manual to off and press manual 7 additional times.
I want to delete an event.	An event, once added, can be modified, but not removed. Reset the timer and program to wanted specifications if event cannot be modified.

Warranty

EMX Industries, Inc. products have a warranty against defects in materials and workmanship for a period of two years from date of sale to our customer.