

# TIME MACHINES®



## TIME-ZONE CLOCKS (2-ROW DOT MATRIX)



### SYNCHRONIZED, ACCURATE TIME.

TimeMachines® TimeZone Clock/Timers are an integral part of a synchronized time solution. Our digital NTP PoE and WiFi displays function as networked devices without the issues of atomic clocks with reception issues. Each display has an IP address on the LAN and use Simple Network Time Protocol (SNTP) to request time from a primary or backup time source. TimeMachines® displays do not require a master clock for synchronization, but operate as stand alone devices using network based time sources. In addition to the core clock function, the TimeZone displays support a second matrix line showing any text, including infinitely flexible date display, static and scrolling text, and API access for integration into larger control systems.



### THE POWER OF POE.

PoE (802.3af) is a recognized standard for delivering power over an Ethernet cable. If VoIP PBX phones are in use, PoE is likely present to provide power, creating a system where a single cable provides both power and time synchronization signals. Using low voltage Cat 5/6 cabling saves on installation costs and maintenance. If existing network equipment doesn't support PoE, an optional Power injector is available to convert non-PoE capable network equipment to PoE. It's recommended that an Un-interruptible Power Supply (UPS) be part of the Ethernet network system to maintain clock function during a power outage.

## TIMER FUNCTIONS.

TimeMachines® clocks function as more than just great clocks. The built in up/down timers, and timer programs make them the most versatile timer product on the market. Controllable from our free Windows/MAC software, as well as Android/IOS apps, these clocks can be used for fitness classes, presentation and debate timing, meeting timers, and race timers to name a few. The Time-Zone clocks add the text and bar graph display options to existing timer functions and timer programs.



# DIGITAL POE AND WIFI CLOCKS

## 2.25" AND 4" (ACTUAL DIGIT SIZES)

### MULTI-COLOR RGB

# TIME MACHINES®

#### SPECIFICATIONS:

##### GENERAL INFORMATION:

- Cases are black, powder coated 18-gauge steel with acrylic lenses. Displays are not waterproof, nor intended for outdoor use.
- Clock displays use multi-color RGB, 7-segment LEDs for each digit and discrete LEDs for AM/PM indication. Color can be set to any of the standard presets (Red, Green, Blue, Yellow, Magenta, Cyan, or White). RGB component values can be adjusted with TM-Manager.
- Network connection is required for clock or timer functionality. POE or WiFi options available. WiFi models don't support POE.
- Two separate colors can be shown simultaneously. The left most 2 digits (4/6 digit clocks) are independent.
- 2nd Line Dot Matrix supports the same RGB colors as the digits and can be independently set.
- TM-Manager (Windows/MAC) and TM-Timer (IOS/Android) are free applications supporting setup, monitoring, and control of multiple displays simultaneously. Visit [timemachinescorp.com](http://timemachinescorp.com) for more information or to download this software.
- Clocks will operate from -40C to +70C. Humidity non-condensing. Minimum startup temperature -20C.

##### CONFIGURATION and CUSTOMIZATION:

- Configuration of device managed using a web browser. Initial configuration requires DHCP. Static IP or DHCP may be used.
- Uses any SNTP server as a time source. (S)NTP synchronization frequency can be set for each device.
- Supports multiple time servers, which can be within the LAN or external (Internet-based).
- Loss of network time source will be indicated by blinking of the display.
- Also supported: 24hr modes, time zone and daylight savings time, date display, timer functions, alarms, auto start timers.
- Clocks can be configured for 12-hour or 24-hour formats. Can display time or date, or alternate between time and date mode.
- Simple and complex timer capabilities are available for individual displays or as part of a synchronized setting across multiple displays.
- Programmable alarm timing possible with integrated relay: 5-pin terminal with NO and NC contacts, +12VDC

##### 2nd LINE CONFIGURATION OPTIONS:

- Narrow and bold fonts are configurable.
- Single time-zone can be set from web page, TM-Manager allows up to 5 timezones to be set with programmable time display of each.
- Static text such as time-zone "Central", or city "New York", or Date "MM/DD/YY" or "Day-Mon DOM", variably programmable.
- Scrolling right to left, bottom to top, blinking, and bar graph display of timers are also supported. Integrated to timer programs.
- API support from network interface via UDP/IP allowing override of displayed text for any desired message.

##### POE SPECIFICATIONS:

- Power: 802.3af 15W (48V). Typical usage 8-12W
- 2.5" Displays: 4 digits=6-9W, 6 digit=7-10W
- 4.0" Displays: 4 digits=8-11W

##### WiFi SPECIFICATIONS:

- Power: 12V, 1A, 90-240VAC, 50/60Hz, International adapters included.
- WiFi Antenna: 2.2 dBi dipole, magnetic mount, RP-SMA connector, 1.4 oz.
- Frequency: 2.4GHz Band ONLY. Security Support: WEP, WPA, or WPA2 with pre-shared keys. WPA2 Enterprise is NOT supported.

- \* Due to variations in WiFi systems and signal coverage, location-specific compatibility testing is recommended before bulk purchase.

#### MOUNTING INSTRUCTIONS:

Time-Zone clocks have teardrop shaped cutouts for wall mounting using screws and plastic drywall anchors (included with purchase).

\* Warranty coverage is one year from date of shipment. TimeMachines® liability under this warranty is limited to repairing or replacing the defective equipment, at TimeMachines® discretion. TimeMachines® will not cover any claim if it is found that the product has been subjected to abuse, used in a manner for which it is not designed or acts of nature beyond TimeMachines® control such as, but not limited to, lightning strikes, power surges, misuse, neglect, or if unauthorized repairs have been made or attempted by anyone other than authorized personnel by TimeMachines®. The standard warranty can be extended for an additional year with the purchase of the optional Service Agreement. In no event will TimeMachines® be liable for any indirect, special, incidental, or consequential damages from the sale or use of this product. This disclaimer applies both during and after the term of the warranty. TimeMachines® disclaims liability for any implied warranty, including implied warranties of merchantability.

\* Specifications subject to change without notice. Check [www.timemachinescorp.com](http://www.timemachinescorp.com) for downloads/updates.

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