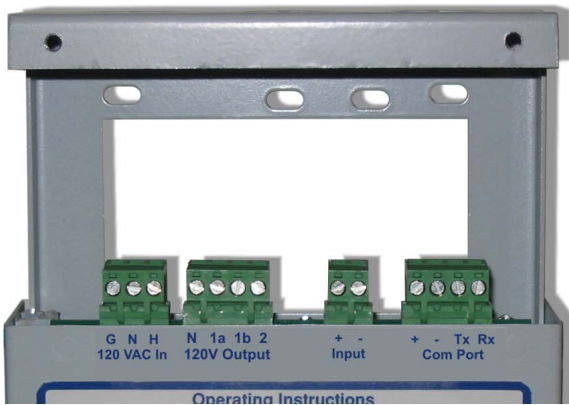


The **MC3 Master Clock** combined with National Time's complete line of clocks creates a state-of-the-art time system. Our MC3 uses the power-line frequency to keep accurate time, eliminating the drifting inaccuracies of crystal oscillators found in other products. In addition, it can also be equipped with a Global Position Satellite (GPS) antenna or Local Area Network (LAN) module to synchronize time with the National Institute of Standards and Technology (NIST) time base that is accurate to one second over a million years thus creating a maintenance-free time system automatically adjusting for daylight savings and power outages. The environmentally friendly battery-less design maintains time & data internally for over 150 days without power. The MC3 will also synchronize time with other systems that provide a synchronizing output. This universal system synchronization is easy with an optically isolated input capable of receiving synchronization pulses of 17-132VAC from other sources. The synchronization pulses can be a simple contact closure at 12:00 or one of many common clock reset formats using National's Automatic Protocol Detection algorithm.

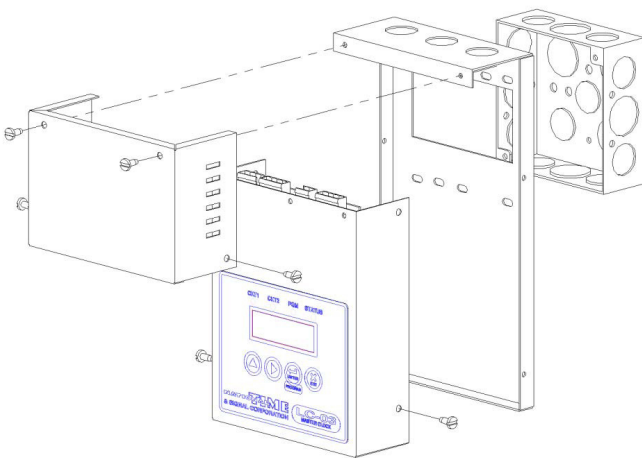
- \*\*Daylight savings correction**
- \*\*Power failure correction**
- \*\*Power-line frequency time base**
- \*\*NIST time synchronization with optional GPS antenna**
- \*\*UL 863 listed**
- \*\*Battery-less 150 day minimum time & data storage**
- \*\*Time sync with other systems**



## Physical Description

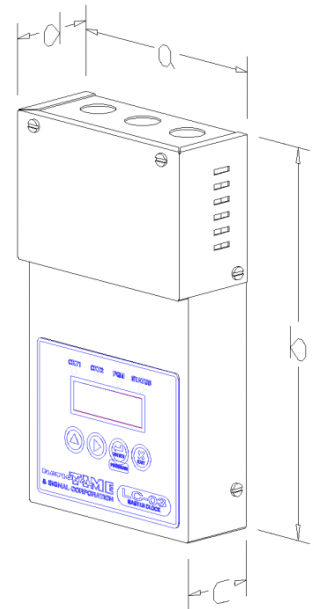


The MC3's durable metal enclosure provides mounting to standard electrical boxes (4"sq., single gang, double gang, handy box etc.) or surface 1/2" conduit entry through 3 top knockouts. Removable wiring cover facilitates easy connections with ample wire cavity. Terminations are to plug-in connectors.



### Dimensions

a= 5.50"  
b= 9.75"  
c= 2.00"  
d= 2.38"



## Specifications

<b>Primary Volt</b>	120VAC @ 60 Hertz
<b>Primary Current</b>	
<i>Full Load (max devices):</i>	7.025 AMPS @ 120VAC/60Hz
<i>No Load (no devices):</i>	0.025 AMPS @ 120VAC/60Hz
<i>Typical load:</i>	0.025AMO + Device Load @ 120VAC/60Hz
<b>Universal Input Voltage:</b>	17 to 132 VAC
<b>Universal Input Current:</b>	
<i>120VAC Source:</i>	21.5mA
<i>24VAC Source:</i>	3.0mA
<b>Primary Fuse:</b>	10Amp 250VAC Very Fast Type GBB
<b>Solid State Output Rating:</b>	
<i>Per Circuit:</i>	3 Amp @ 120VAC
<i>3 Circuit Total:</i>	7 Amp @ 120 VAC
<b>Available Serial Port 24VDC</b>	
<i>MC3:</i>	100mA @ 24 VDC Nominal
<b>RS232 Serial Port Distance</b>	
<i>MC3-GPS:</i>	30 Feet (Standard) -100' using shielded low cap cable
<b>LAN Connector:</b>	RJ45
<b>Ambient Temperature Range</b>	32 to 95 Degree Fahrenheit
<b>Humidity</b>	85% Non-condensing Max
<b>Mounting Enclosures</b>	
<i>Semi-flush Mount:</i>	Mounts to flush mounted 4" square, Double Gang, Handy box, Single Gang
<i>Surface Mount:</i>	Mounts to wall with surface conduit connections
<b>Conduit Entry</b>	
<i>Surface Mount:</i>	3 Knockouts @ ½ inch
<i>Flush Mount:</i>	Refer to selected enclosure
<b>Dimensions:</b>	5.50" W x 9.75" H x 2.38" D

## Ordering Information

Order No.	Description
MC3	Master Clock with Solid State 120VAC outputs; Two clock circuits
MC3-GPS	NIST Time based GPS antenna for use with MC3 Master Clock