

The National Time & Signal 3M Series clock mechanisms are built to last with worm-gear drive design and box construction. The 3M mechanisms are driven by a permanent magnet, 115V 50Hz or 60Hz synchronous gear motor. These mechanisms offer mounting options to suit all applications of dial sizes up to 48" diameter. Custom shaft lengths up to 12" can be provided to meet specific project requirements.

Variations:

3MR- The 3MR employs an innovative clutch system and reversible motor that will advance the hands 10 times speed for time correction. Time correction can be controlled remotely using a 970 or 980 series manual control. A Master Clock Controller will provide automatic time corrections for daylight savings and power outages.

3MDR- The 3MDR is a double face version of the 3MR. A single mechanism drives back-to-back clock dials with spacing between 8" and 16" with appropriate shaft selection.

3MI- The 3MI minute impulse advances the mechanism incrementally each minute utilizing a single direction motor. An MC3 master clock controller is required for operation and provides automatic corrections. 3MI clocks will not drift when employed in countries that do not regulate their frequency or in installations that may use generator backup systems. The MC3-MI master clock with the MC3-4SW circuit expansion switches allows the user to remotely adjust up to 4 clocks independently during installation or repair.



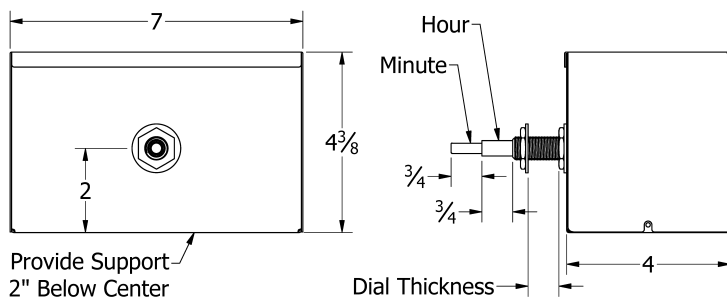
Common Features:

- Dial sizes to 48"
- Rugged box construction
- Shaft extension to eliminate illuminated dial shadows
- Through wall applications to 12" thick
- Front mount applications
- UL 48 Listed
- Manufactured in the U.S.A.

Specifications

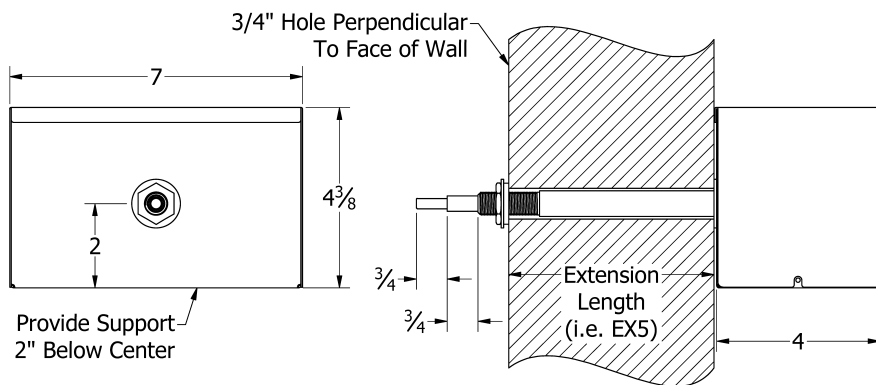
Input power:	120 VAC (specify 50Hz or 60 Hz)
Watts:	3
Weight:	4.75 lbs – 2.16kg. (Approximate)

Standard Mounting



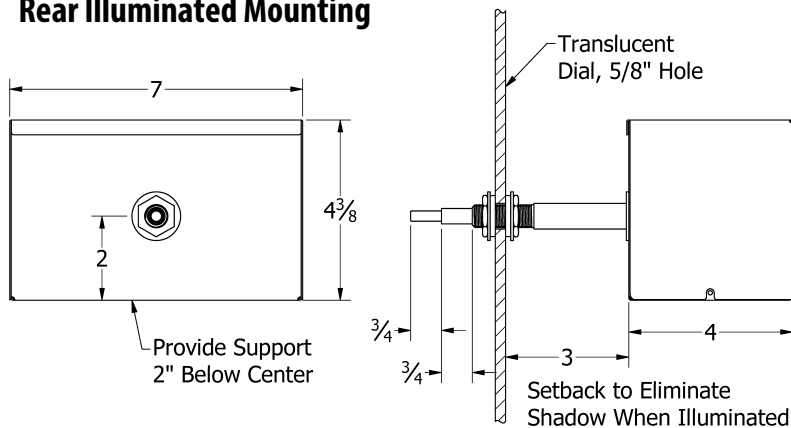
For solid clock dials up to $\frac{3}{4}$ " thick. Order (-LB) for dial thicknesses up to $1\text{-}1\frac{1}{4}$ ".
(-LB2) for dial thicknesses up to $1\text{-}3\frac{1}{4}$ "

Through Wall Mounting



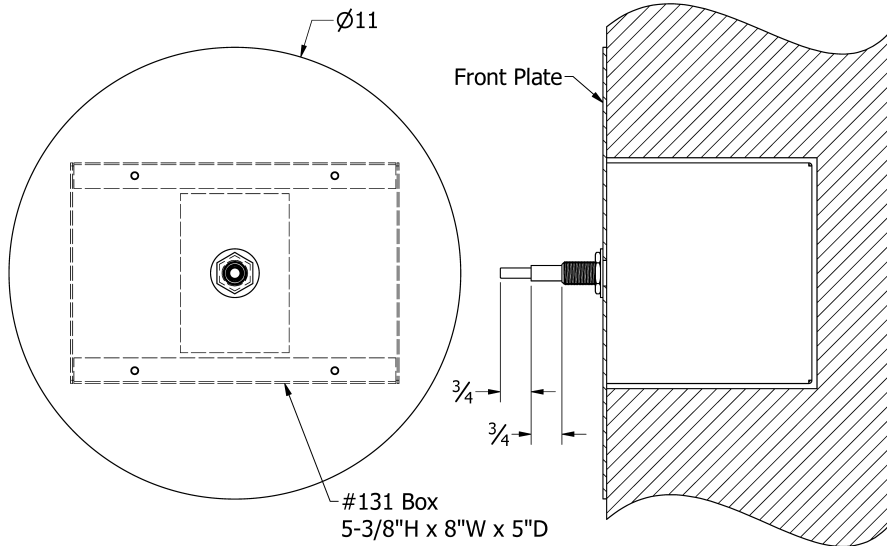
Shaft extensions up to 12" for through wall applications.

Rear Illuminated Mounting



When using a translucent dial and back lighting, the EX3 shaft extension will provide a set-back to eliminate the shadow of the movement housing.

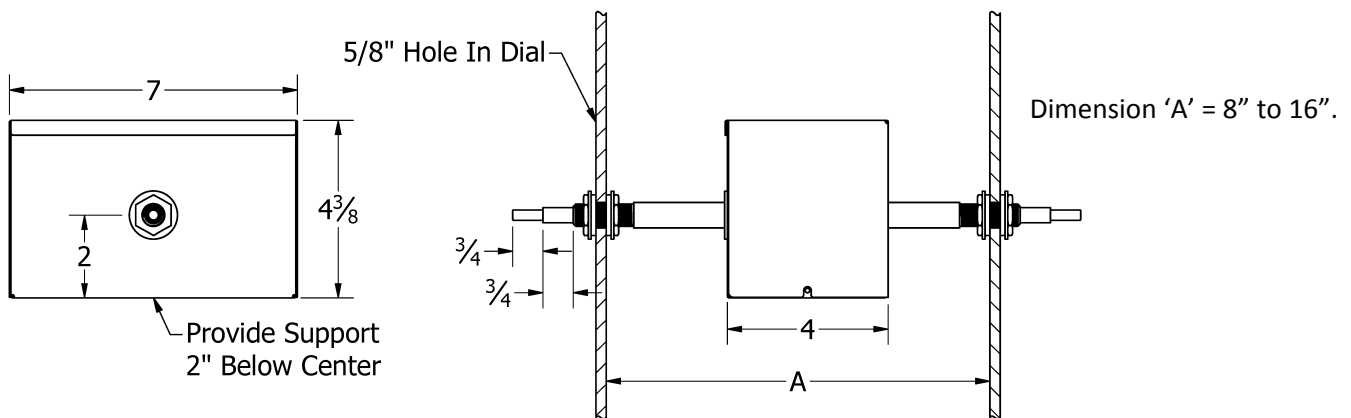
Front Mounting



Front mounting requires the #131 Wall Box mounted flush or slightly recessed to the finished wall. An 11" diameter aluminum front plate will cover the rough opening and support the 3M mechanism. Flat head screws secure the front plate to the wall box. Custom shaped front plates are available.

See 500 Series for more information.

Back-to-Back Mounting



Part Numbers

3M<type> -<hand length>- <extension shaft >

<type>= R, I, or DR

<hand length>= Length of minute hand center to tip; blank=without hands

<extension>= Blank, LB (long bushing) or EX+ Length of extension (2-12 inches)

Examples:

3MI-21-EX3 : Impulse Series 21" center to tip minute hand and 3" extension

3MR-00-EX5 : Synchronous Series clock with 5" extension; no hands

3MI-18 : Impulse Series with 18" center to tip minute hand, Standard Mounting

3MDR-9-10: Double face Synchronous Series, 9" center to tip minute hand, 10" back to back dials.

131: Wall box for flush mount installations

131FP-11: Front plate for front mounting. 11" Diameter, 0.090" aluminum, Primed for paint.

Consult factory for custom dimensions to fit your application.

Choose hand styles from our selection tool or create custom hands.

Clock Controllers



970 Manual switches



980-4-SA Manual switches



MC3 Master Clock



MC3 Master Clock with 4 Switches



MC100 and MC100-WP Weather proof Master Clock