

3:40:29

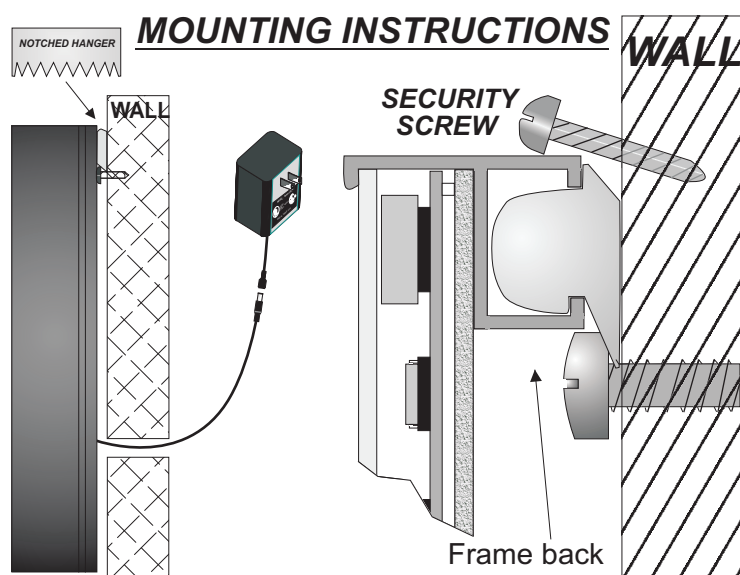
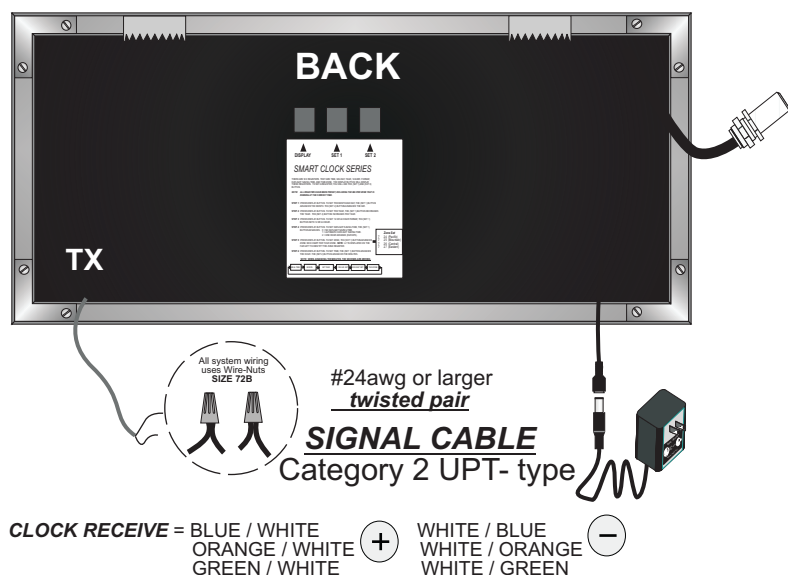
GPS MASTER

GPS SYSTEM

MGP-25

SPECIFICATIONS

TYPE: ----- DIGITAL
DISPLAY: ----- 6-DIGIT, 7 SEGMENT RED SUPER BRIGHT LED
CHARACTER HEIGHT: ----- 2.5"(63.5 mm) HR./MIN. 1.8" (45.72 mm) SEC.
VISIBILITY: ----- 150 Ft. (45.72 METERS)
POWER REQUIREMENTS: 1500 ma AT 12vdc (**110/220 switching power supply**)
FRAME: ----- ALUMINUM (BLACK ANODIZED FINISH)
DIMENSIONS: ----- 5.125 X 18.37 X 1.375
WEIGHT: ----- 3 lbs. DISPLAY AND 1 lbs TRANSFORMER
OPERATING TEMP.: ----- -17° TO 190° F
HUMIDITY: ----- 0% TO 95% NON-CONDENSING
OPERATING MODE: ----- 10 YEAR LITHIUM BATT., 12/24 SELECTABLE AND AUTOMATIC DAYLIGHT. RS-485 DDS PROTOCOL OUTPUT.



ANTENNA SHOWN ACTUAL SIZE

SIZE: ----- 3.04" diameter x 2.93" high
WEIGHT: ----- 0.9 lbs.
MOUNTING ---- 1" diameter #14 thread

GPS SETUP



NOTE: SATELLITE ACQUISITION AND LOCKON IS AUTOMATIC.

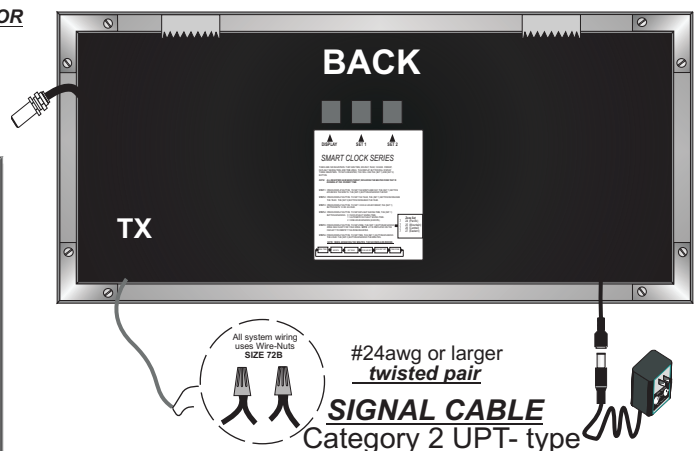
AT POWER UP: ----- The (Time Invalid) indicator is on for 10 seconds to establish communications. Next the (Comm. Set-up) indicator is on and the (Time Invalid) indicator goes off.

SATELLITES ACQUISITION: --- The (Comm. Set-up) indicator is on approximately 1 minute to acquire satellites. The (Time Invalid) indicator is now on for approximately 5 minutes to verify time.

VERIFYING PRECISE TIME:---- When the (Time Invalid) indicator goes out, the master will set, automatically. With both Indicators off, the master is now running in GPS mode and is receiving Time, Month, Day and Year. Time is verified every 10 seconds from the satellites.

CAUTION: The coaxial cable carries 5vdc to power the antenna. Prolonged shorting of the coaxial line may damage the Master. If coaxial is shorted display dims 50% and may lock up. Remove short and re-power Master to restore.

THE GPS SYSTEM COMES WITH 100ft. OF COAXIAL CABLE, AND A MOUNTING BRACKET.. IF LONGER DISTANCES ARE REQUIRED THE SPEC. IS NO MORE THEN A 10DB LOSE AT 1.5GHZ

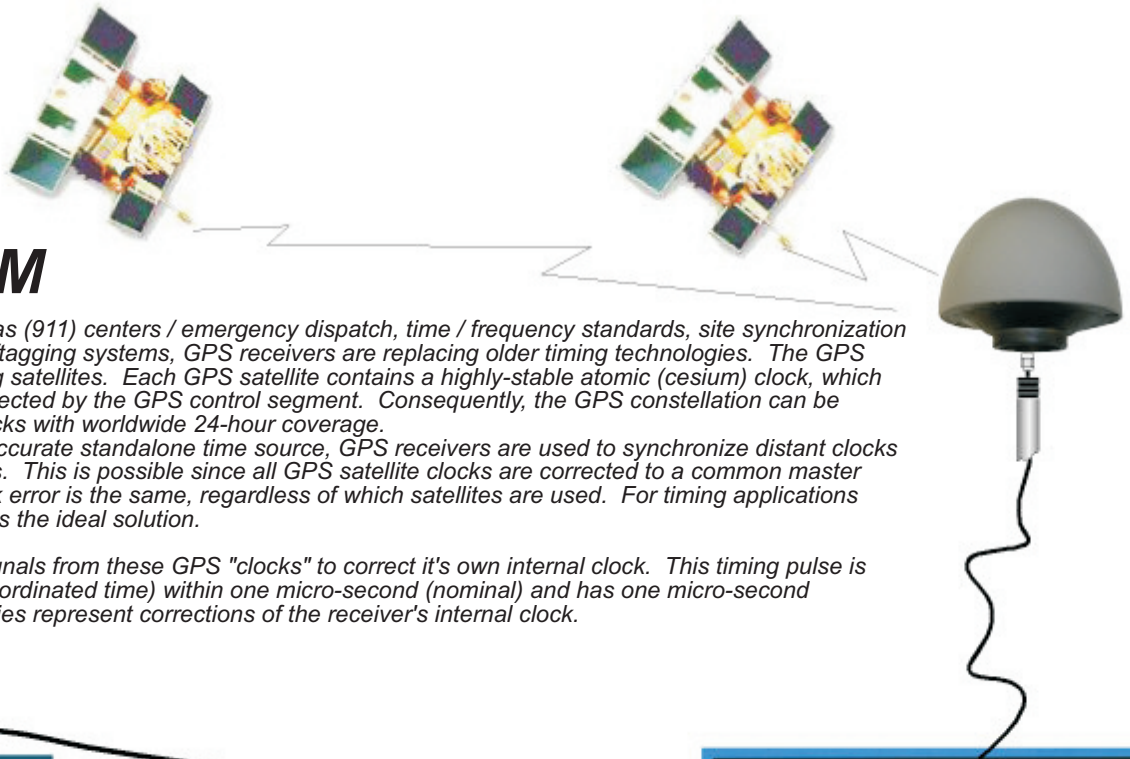


Will GPS work inside?

Unlike CDMA, GPS will not work inside buildings. To receive GPS signals the antenna must have a view of the sky. The best location is on a roof-top with the antenna in view of a maximum amount of sky.

I don't have roof-top access. What do I do?

1. Mount your GPS antenna in a south facing window.
2. Purchase a CDMA-synchronized Clock which works very well inside buildings.



GPS SYSTEM

In many timing applications, such as (911) centers / emergency dispatch, time / frequency standards, site synchronization systems and event measurement /tagging systems, GPS receivers are replacing older timing technologies. The GPS constellation consists of 24 orbiting satellites. Each GPS satellite contains a highly-stable atomic (cesium) clock, which is continuously monitored and corrected by the GPS control segment. Consequently, the GPS constellation can be considered a set of 24 orbiting clocks with worldwide 24-hour coverage. In addition to serving as a highly-accurate standalone time source, GPS receivers are used to synchronize distant clocks in communication or data networks. This is possible since all GPS satellite clocks are corrected to a common master clock. Therefore, the relative clock error is the same, regardless of which satellites are used. For timing applications requiring a "common clock", GPS is the ideal solution.

The DDS GPS master uses the signals from these GPS "clocks" to correct it's own internal clock. This timing pulse is synchronized to UTC (universal coordinated time) within one micro-second (nominal) and has one micro-second discontinuities. These discontinuities represent corrections of the receiver's internal clock.

