

# WGPS - TIME

## GPS Time Reference Update

### DESCRIPTION

Wapiti now has the 3rd generation of GPS Time Reference WG3 for use with traffic signal controllers. The WG3 will seek the signal from at least 3 of 24 global GPS satellites and provide exact time.

The unit comes in a small compact housing with LEDs that come on to let you know that you have power, GPS Status, Time Sync and data transmitting.



### FEATURES

- 12-channel GPS receiver tracks and uses up to 24 satellites for fast, accurate time acquiring and lower power consumption.
- Serial Interface — Time and Date information includes: Year, Month, Day, Hour, Minute, and Second.
- Sync Pulse Interface— Programmable Time Sync Pulse for NEMA /170/2070/ ATC
- LED Indicators— Power/GPS Status, Message Transmit, Time Sync
- Small compact housing measures approximately: 2" x 3" x 1.125"
- Built in battery backup to maintain real time clock for 21 days.
- Flash based program and non-volatile memory.
- All Wapiti products support WG3

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## INSTALLATION

Step 1. Before drilling cabinet, test unit inside the cabinet for reception. (With a good signal, you may be able to keep antenna inside the cabinet) If not, then hold antenna where you want it placed to verify signal strength.

Step 2. According to the diameter of the screw bar on GPS antenna, drill a hole through the top of the signal cabinet, keep the cutting piece from falling into any equipment and remove all the sharp edges with a file or debarring tool.

Step 3. Insert the GPS antenna through the hole and tie tightly with the lock nut. Screw the SMA Male Plug to SMA RF Connector.

Step 4. Cable Connection - Serial or Sync Interface

Serial Interface - Plug the cable connector to WG3 antenna receptacle, & connect one DB-9 male end of DB9-C20 special cable to the WG3 DB-9 Female port. Connect the other ends to C20S for Local, or C30S for W7OSM with 6800, or C40S with HC11. (See Wapiti Application Notes). It also will obtain power supply from 170 C20S or C30S or C40S.

Sync Pulse Interface - Connect the pair of yellow(+) and Green(-) wires to your controller input file. (following the instructions from controller firmware vendor for settings). For power Supply. Connect the black(+)/white (-) (DC-Ground) wire to any cabinet DC power supply (4.75 - 28V DC).

Step 5. Check the LEDs on the WG3. The power LED should be on or flash all the time. When solid on, the GPS is not yet ready. When slowly flashing, the GPS time is ready. When fast flashing, Low DC volts. Msg Rxd/Txd indicates data transmission. Time Sync on while sending Sync Pulse.

