

W4IKS-GPS

Accurate Time Reference Update



DESCRIPTION

W4IKS is the most advanced, user friendly, and most widely used local controller firmware in the country. The IKS stands for “Includes the Kitchen Sink” and this firmware certainly lives up to it’s name. W4IKS operates all 170, 170HC11, and 170ATC controllers. This versatile 170 program uses terms and timing parameters found in NEMA programs with the addition of many important features not found in any other programs. A unique command box feature allows users to “customize” the program to accomplish things that no other program can.

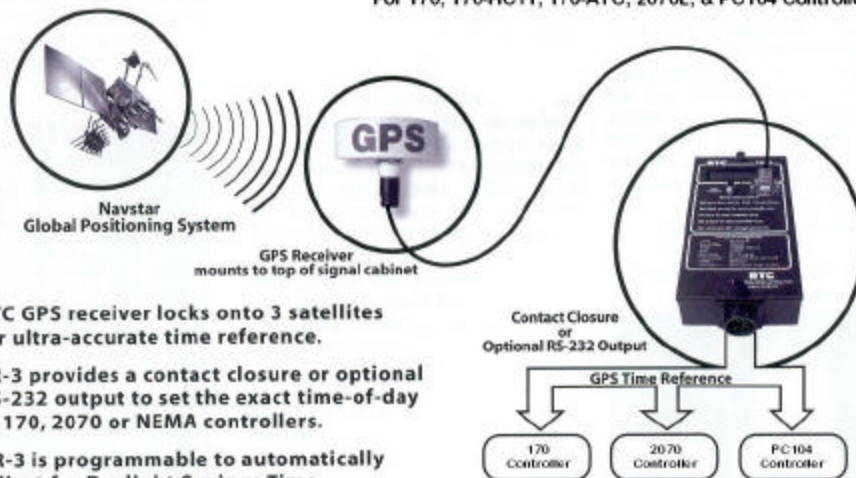
Wapiti now has a unique Time Reference Update version for local & master controllers, giving you an “Ultra-Accurate” Time Reference when used with a GPS Model TR-3 as manufactured by RTC.

The philosophy at Wapiti Micro Systems is to provide a software package that is versatile enough to meet any unique applications your intersection may require. This concept eliminates the need for single application software that will only work in limited locations, this allowing the user to standardize on one software package that can be used anywhere! We designed the structure and operation of the program to meet the needs of the practicing Traffic Engineer and Signal Technician for now and in the future.

FEATURES

MODEL TR-3, GPS Time Reference

For 170, 170-HC11, 170-ATC, 2070L, & PC104 Controllers



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FEATURES—CONTINUED

- Provides 2 thru 8 phase operation of either isolated or coordinated traffic signals.
- Provides dual ring, fully actuated operation with either concurrent or exclusive phase timing.
- 8 independent programmable pedestrian outputs.
- 8 programmable overlaps, with outputs assignable to any loadswitch.
- 3 separate timing plans with separate phasing, input and output re-assignment, and extended outputs are available by time of day.
- Records vehicle counts for 12 phase detectors with a minimum duration of 95 hours.
- Provides pre-emption sequences for both railroad & emergency vehicle applications.
- Timing data backed up by EEPROM and NAVRAM contained on a prom module.
- 18 coordination plans, plus free and flash functions.
- 64 time of day and week entries and 9 yearly event functions.
- Timing data backed up by EEPROM and NAVRAM contained on a prom module.
- Provides a Time Clock for TOD/DOW control of phase timing, coordination, & external output functions.
- Timing accuracy of each timed interval shall be within 100 milliseconds of the programmed value.
- Provides two right turn arrow overlaps and eight full overlaps and all can be used in conjunction with emergency pre-emption.
- Utilizes a command box feature with a memory block of 384 bytes, which allows the operator to set up logic gates that can control any input or output.

Functions on a per Phase Basis:

Vehicle recall (max & min)
 Ped recall
 Lock and non-lock detection
 Lead phases
 Double entry
 Sequential timing
 Exclusive phasing
 Simultaneous gap
 Restrictive phasing
 Rest in walk
 Advance walk

Functions on a per Phase Basis:

Red rest
 Volume density (gap reduction)
 Max phase time
 Sequential timing phases

Timing Intervals per Phase:

Max
 Max II
 Min green
 Passage time

Timing Intervals per Phase:

Min gap
 Max initial
 Yellow
 Red Clearance
 Walk
 Ped Clearance
 Added initial
 Time to reduce
 Time before reduction
 Red revert
 Walk II

Traffic Management:

W4IKS firmware has been designed to operate with W7OSM, an on-street master program also developed by Wapiti Micro Systems. Both have been developed to communicate with [TrafficView32](#), a Closed Loop Traffic Management System. The purpose is to create a powerful system that allows a Traffic Engineer to fully control & maintain all of his intersections right from his desktop. [Traffic View Pocket](#) is another management tool that allows users to communicate to a controller through a pocket pc instead of a bulky laptop.

Hardware:

W4IKS-GPS will operate on 170 controllers with Motorola 6800 processors & HC11 processors in conjunction with RTC model TR-3. A new version of W4IKS is now available to work with the 2070 controller operating a PC104 engine board and OS9 operating system.

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4565 Glenbrook Rd Willoughby, OH 44094
 PH# 440-975-1167 FX# 440-951-8203