

# W4IKS

170, 170HC11, 170ATC Local/ Master Software



## 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.

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

- 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.



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## FEATURES—CONTINUED

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

### Timing Intervals per Phase:

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

### GPS Time Update Version:

Wapiti has developed a special GPS Time Update version of W4IKS local firmware and W7OSM master firmware for both the 6800 processor and the HC11 processor. This version allows your controllers to connect to a GPS receiver for ultra-accurate time reference.

### 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 will operate on 170 controllers with Motorola 6800 processors & HC11 processors. 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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