# TIMEWiSE™ Scheduler & Supervision Server

# Installation Manual



MC-TW-LAN



MC-TW-LAN-R-WT

**National Time & Signal**

**TIMEWiSE Scheduler & Supervision Server**

Internet/Wi-Fi Clock System/Auxiliary Control

Bulletin 574 revB

# Contents

## 1. Introduction

The TIMEWiSE Supervision Server is an Internet/Wi-Fi based clock system and auxiliary circuit controller.  The device operates on any TCP/IP-based Ethernet network, and automatically synchronizes its internal clock with any standard SNTP time server.  If TIMEWiSE Wi-Fi clocks are present in the facility, they can be configured to check in to the Supervision Server, which can then provide a list of all devices in the facility and their status.  The Supervision Server also sends time updates, bells, and countdown events to the clocks.

The Supervision Server automatically corrects for daylight savings time and power outages.  It can be configured, programmed, and monitored from any PC on the LAN network through a standard web browser interface and a dedicated PC is not required during normal operation.  The –R version of the supervision server also provides two dry-contact outputs that can be used to activate bells, PA systems or other devices.

This document describes the wiring and connections specific to the Supervision Server module.  For more details regarding the network setup of the device and its bell schedules, please refer to cutsheet 475, the *WeCAN User Guide.*

## 2. Support Information

Should some problem arise, please contact National Time & Signal technical support for assistance:

**Mail:**
National Time and Signal Corporation
28045 Oakland Oaks Ct.
Wixom, MI 48393-3342

| **Phone:** | **Fax:** | **Email:** |
|---|---|---|
| (248) 380-6264 | (248) 380-6268 | support@natsco.net |

## 3. Installation Connections

There are 3 models of TIMEWiSE servers:

MC-TW-LAN: This model functions as a Scheduler and Supervision Server but does not have any relay contacts.  The power is supplied by a wall transformer plugged into a nearby 120VAC outlet.

MC-TW-LAN-R-WT: (WT=Wall Transformer) This model functions as a Scheduler and Supervision Server and includes two (2) programmable relay contacts.  The power for this unit is provided by a plug-in wall transformer.

MC-TW-LAN-R-HW: (HW=Hard-Wired) This model is the same as above only it includes a transformer that mounts into a standard electrical box with a120VAC supply.  The relay contact wiring can either exit the side of the enclosure (for low voltage control) or exit into the electrical box to which it is mounted.

Besides the power connections, the Supervision Servers requires one 10/100 Mbps Ethernet connection to the building's local area network (LAN).  The module can use DHCP dynamic addressing or static addressing, and it uses SNTP to acquire network time from a server in the building or on the Internet.

The network connection must always be present to maintain the system time.  If the network connection is lost, the clocks will not be corrected until the time server is re-acquired.  However, the clocks can typically run for several days or weeks before their time drift becomes an issue.  If disconnected timekeeping is desired, other National master clocks such as the MC3, MC100 are available.

## 4.  Configuration

All configuration of the Supervision Server is performed from the web interface.  This includes selection of the output circuit modes, setting time zone and time server, and programming bell schedules.  Web-based configuration procedures are fully detailed in cutsheet 475, *WeCAN User Guide*.  You can find this guide at our web site, http://www.natsco.net.

## 5. Clock/Circuit Types

The following table describes the available formats on the output relays of the MC-TW-LAN-R.

| Secondary Clock Type | Type Code |
|---|---|
| National Time RD2WS, D/ DX Digital[1] | 02 |
| National Time EX(SRAX) Sync. RESET[2] | 03 |
| National Time EX (SRAX) Sync. RUN[2] | 04 |
| Combination EX and RD2WS, D/DX[2] | 02 |
| Simplex 2310-92XX,57, 77,93-9,91-9,941-9,943-9 Series (Low Voltage Only)[3] | 07 |
| IBM 57,62,67,77,82 and 87 Series)[3] | 07 |
| Cincinnati D10 and D12[3] | 07 |
| Lathem SS12 Types[3] | 07 |
| Edwards 010 Synchronous, 2400 Series[3] | 07 |
| Rauland 2460 Series Low Voltage | 03 |
| Dukane 24030,24023,24050,24060,24010[3] | 03 |
| Honeywell St402,403,404,410-413,802-804,810-813 [3] | 08 |
| Faraday 1310,1311,1320,1321 [3] | 08 |
| Cincinnati D8 [3] | 08 |
| Standard/Faraday New Types 2310, 2331[3] | 08 |
| Standard Electric Time 2370, 2380 [3] | 07 |
| ATS CC2000 Series Digital System Clocks[3] | 07 |
| Stromberg 3000[3] | 07 |
| American A4015D10[3] | 07 |
| Combine National RDS/D/DX with any conventional synchronous on same wires. Ckt1 as type 02, Ckt2 as 07,08 etc. | 02 |

(1)  -2W Series Circuit 1, -3W Series Circuit 1 or Circuit2
(2)  -3W Series Only
(3)  -3W Series Only. Low Voltage Clocks Only. An external 24VAC Relay coil driven by Outputs A & B may be used to convert to 120 Volt control.
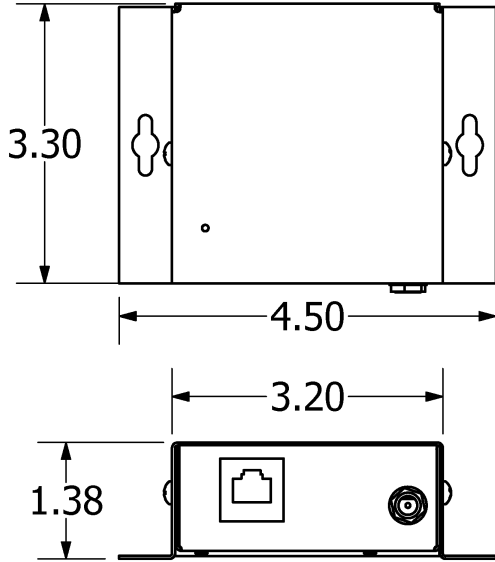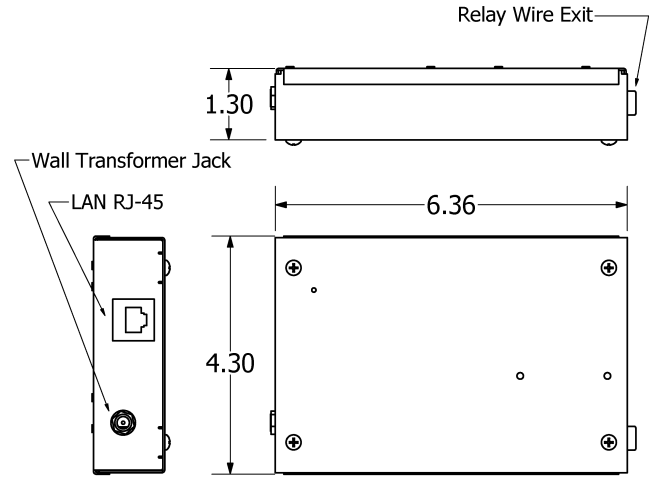
# 6. Dimensions and Installation



Figure 1: MC-TW-LAN Dimensions
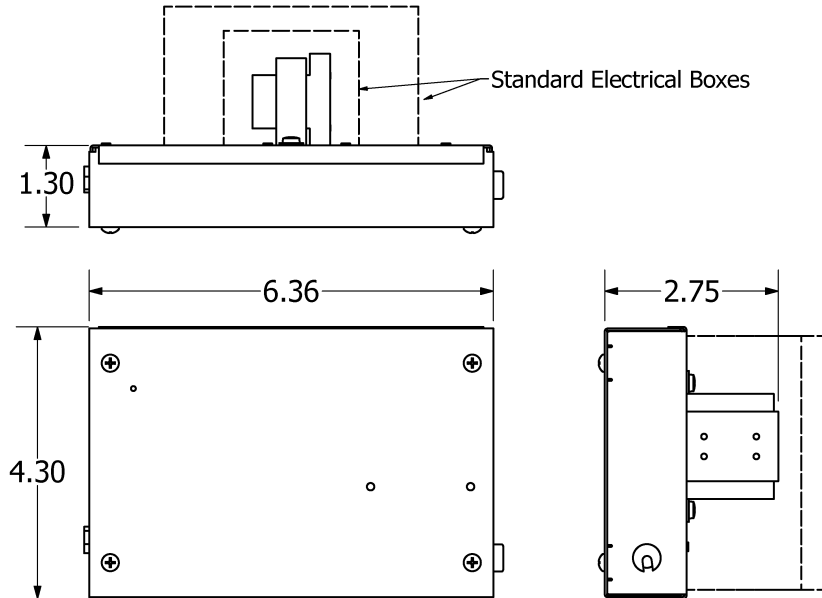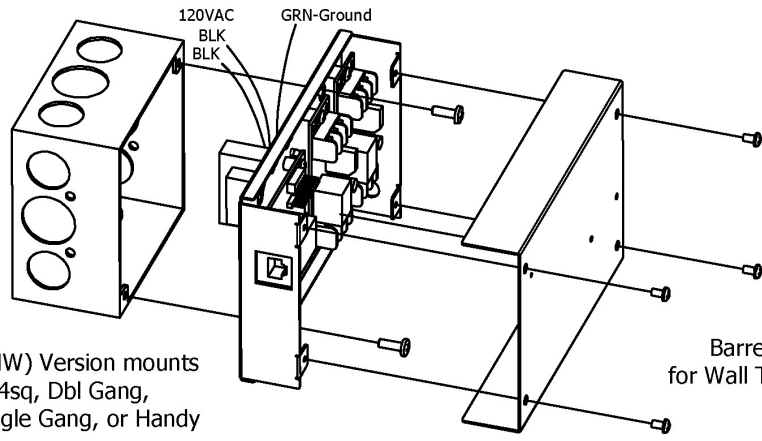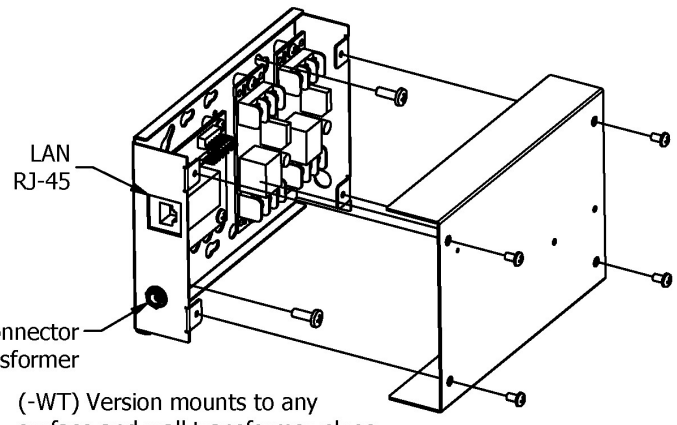


Figure 2: MC-TW-LAN-R-WT Dimensions



Figure 3: MC-TW-LAN-R-HW Dimensions

120VAC
BLK
BLK

GRN-Ground

LAN
RJ-45

Barrel Connector
for Wall Transformer
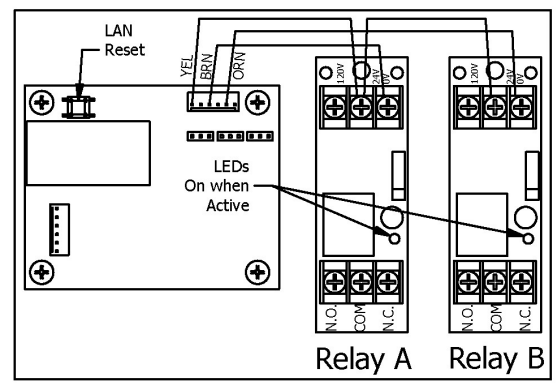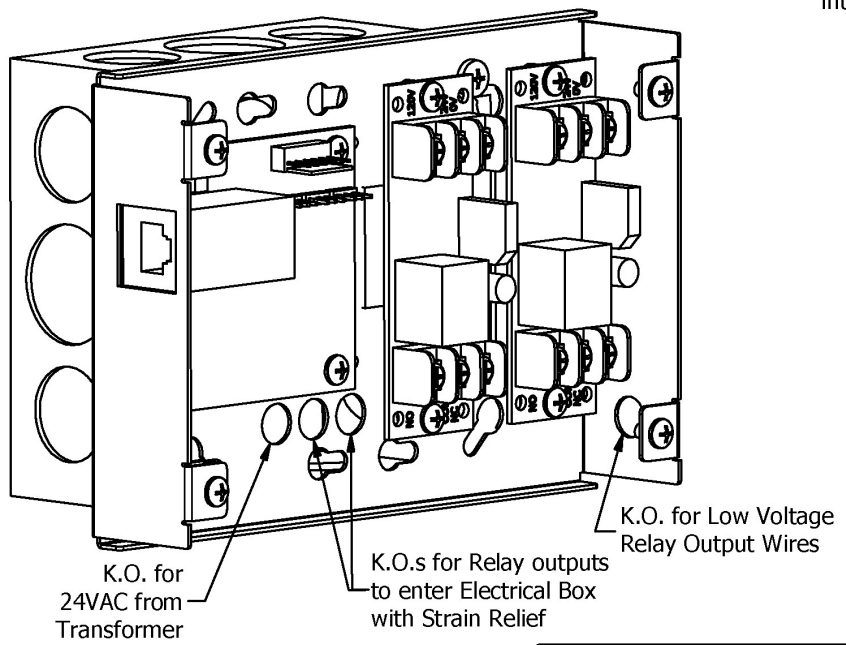
(-HW) Version mounts
to 4sq, Dbl Gang,
Single Gang, or Handy
Box

(-WT) Version mounts to any
surface and wall transformer plugs
into nearby 120VAC outlet

LAN
Reset

YEL
BRN
ORN

120V
24V
0V

120V
24V
0V

LEDs
On when
Active

N.O.
COM
N.C.

N.O.
COM
N.C.

Relay A

Relay B

Relay Contact Rating:
10A@120VAC;
7A@30VDC Resistive

K.O. for Low Voltage
Relay Output Wires

K.O.s for Relay outputs
to enter Electrical Box
with Strain Relief

K.O. for
24VAC from
Transformer

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