DWA-H
work-alerter™
Programmable Sounding Device

OPERATIONS MANUAL

Lathem

Keeping Americans On Time Since 1919

Operation Manual Addendum
DWA-H

To improve the performance and reliability of this product, we have replaced the previous 10 AMP Dry Contact Relay, with a 10 AMP Solid State Relay. The new Solid State Relay only operates with 24 - 240 VAC external devices (bells, horns, etc.). External DC powered devices should not be connected to this unit.

Due to this change, please note the following corrections to this manual:

Page 3   FIGURE 2, item 9 should read **10 AMP Solid State Relay 24 - 240 VAC Only.**

Table of Contents

INTRODUCTION

The DWA-H, digital **work-alerter**™, is a self contained user-programmable sounding device. It is capable of having up to 32 events that will repeat daily, and or weekly and can be scheduled for any combination of days. Other useful features include an easy to understand keypad, programmable signal duration, 12/24 hour display and battery back-up.

Read all directions carefully before programming and operating the DWA-H. Should it be necessary to return the unit, retain the original packing materials for shipping. This operations manual is designed to provide basic installation and operating instructions. For service beyond the scope of this manual, contact the dealer from whom the equipment was purchased or Lathem Time Company.

INSTALLATION INSTRUCTIONS

The DWA-H can be set on a desk or shelf, or mounted on a wall. A key hole for mounting is located on the back of the DWA-H. Hang the unit on a screw through the keyhole and then tighten the screw. Insert screws through the other two mounting holes inside the unit to secure on wall.
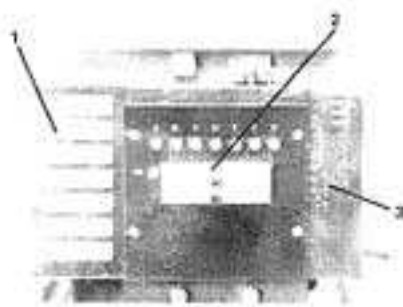
REFERENCE FIGURE

FIGURE 1

FIGURE 2

1   Data Entry Keypad
2   Digital Clock Display
3   Printed Circuit Board
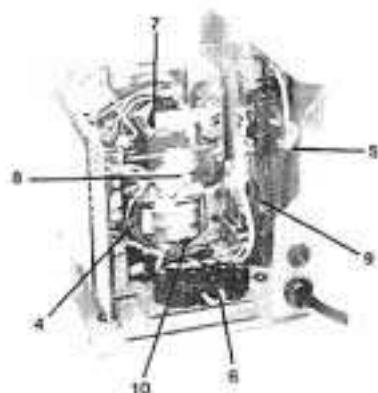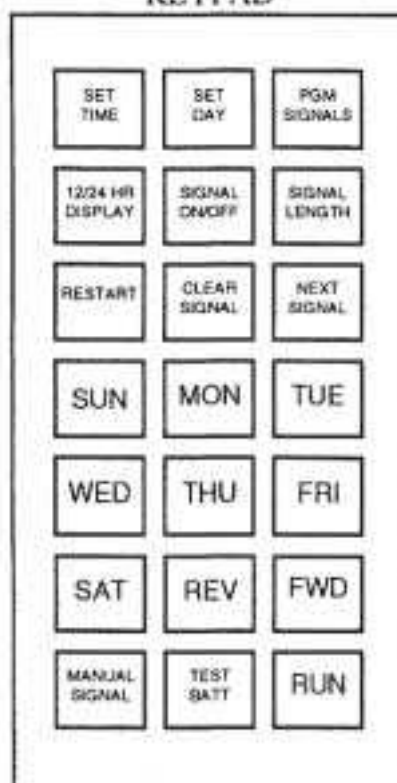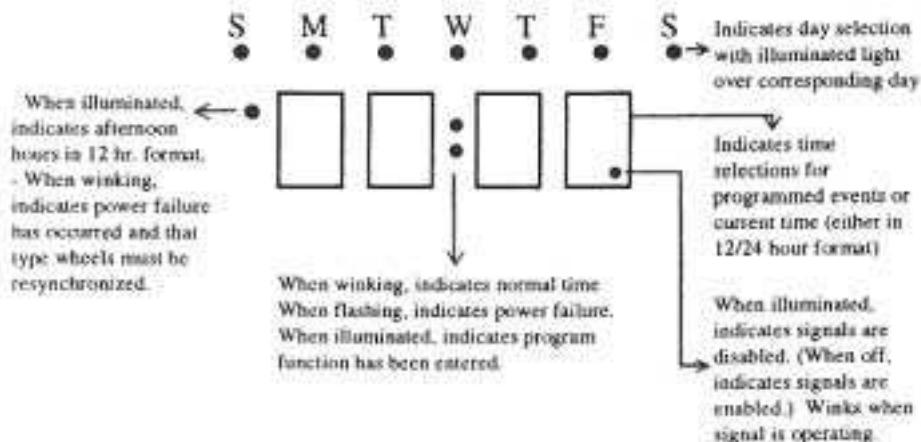
4   9 V Alkaline Battery
5   Terminal Block #1 (TB1)
6   Terminal Block #2 (TB2)
7   Horn Assembly
8   Electrical Connector
9   10 Amp Relay
10 Transformer

SETTING INSTRUCTIONS FOR DWA-H SERIES

KEYPAD

SET TIME	SET DAY	PGM SIGNALS
12/24 HR DISPLAY	SIGNAL ON/OFF	SIGNAL LENGTH
RESTART	CLEAR SIGNAL	NEXT SIGNAL
SUN	MON	TUE
WED	THU	FRI
SAT	REV	FWD
MANUAL SIGNAL	TEST BATT	RUN

No security code is required to access program functions since the keypad is behind the locked cover. Unlock and remove the case cover.

LED DISPLAY

S M T W T F S

Indicates day selection with illuminated light over corresponding day

When illuminated, indicates afternoon hours in 12 hr. format.
- When winking, indicates power failure has occurred and that type wheels must be resynchronized.

When winking, indicates normal time.
When flashing, indicates power failure.
When illuminated, indicates program function has been entered.

Indicates time selections for programmed events or current time (either in 12/24 hour format)

When illuminated, indicates signals are disabled. (When off, indicates signals are enabled.) Winks when signal is operating.

FUNCTIONS OF THE KEYPAD

SET TIME	Initiates program to set time
SET DAY	Initiates program to set day of week
PGM SIGNALS	Initiates program to set signal schedule
12/24 HR DISPLAY	Allows choice of standard or continental hour format
SIGNAL ON/OFF	Allows enabling or disabling of programmed events signals
SIGNAL LENGTH	Allows choice of duration of signal events
RESTART	Restarts the clock after a display lock-up condition, leaving all schedules intact
CLEAR SIGNAL	Deletes previously programmed event; also stops signal currently in progress
NEXT SIGNAL	Displays programmed signals from the current time forward
SUN , **MON** , **ETC.**	Allows identification of current day of the week or day(s) of the week for programmed signal events
REV	Allows count-down in setting current time, times for programmed signal events, or duration of signals
FWD	Allows count-up in setting current time, times for programmed signal events, or duration of signals
MANUAL SIGNAL	Manually activates the signalling device
TEST BATT	Displays the battery's status ("Good" or "Lo")
RUN	Completes program sequence and returns clock to normal operation

GETTING STARTED

1. Plug the clock into the wall socket.
2. Install 9 V akaline battery (not supplied)
3. Choose the time format desired. (Below)
4. Set the digital face. (below)
5. Program the signals. (Page 7)
6. THAT'S IT! You're ready to go.

TO CHOOSE THE TIME FORMAT

The clock defaults to the 12 hour format and will appear on the display as 12:00, if the 12 hour format is desired, no action is required. If 24 hour format is desired;

1. Press [12/24 HR DISPLAY] The display should read 00:00. The key toggles between the two formats. To go back to 12 hour format, simply press this key again.

SETTING THE DIGITAL FACE

TO SET THE CURRENT TIME

The clock defaults to 12 midnight.

1. Press [SET TIME]

3. Press [FWD] or [REV] To advance or reverse numerals on Hr:Min face until correct time is shown. Minutes are advanced or reversed first, followed by the hour.

5. Press [RUN] The time is now set.

TO SET THE CURRENT DAY

The clock defaults to Sunday

1. Press [SET DAY]

2. Press [SUN] , [MON] , ETC. Corresponding light over chosen day will illuminate.

3. Press [RUN] The day is set.

TO PROGRAM SIGNAL EVENTS

The user may define the occurence, duration, and frequency of signal events. Up to 32 events, each consisting of a time and days of the week, may be assigned. The same time on multiple days is considered one event. During an attempt to program more than 32 events, the display, "Full", appears, and the attempt is aborted.

TO ESTABLISH SIGNAL LENGTH

1. Press [SIGNAL LENGTH]   The duration default is 5 seconds.

2. Press [FWD] or [REV]   to alter the duration of the signal until the desired duration is reached. Duration possibilities range from 01 to 99 seconds.

3. Press [RUN]   The duration is set.

TO ESTABLISH SIGNAL EVENTS

1. Press [PGM SIGNALS]   The clock defaults to 12:00 midnight and will display consistent with the time format you previously selected. The colon will be illuminated and fixed, indicating the clock is in a programming mode.

2. Press [NEXT SIGNAL]   to verify that the desired signal does not exist or to quickly advance through the schedule to the event nearest the event you wish to add.

3. Press [FWD] or [REV]   To advance or reverse numerals on Hr:Min face until desired time is displayed. Minutes are advanced or reversed first, followed by the hour.

4. Press [SUN], [MON], ETC.   To which corresponding signal applies. Light over the chosen day(s) illuminates.

Other events may be programmed by repeating steps 2 through 4. When all programs have been entered:

5. Press [RUN]   The signal(s) has been added.

TO DELETE SIGNALS

1. Press **PGM SIGNALS**

2. Press **NEXT SIGNAL** As many times as necessary to reach the identified signal to be deleted. The signals scroll from current time forward.

3. Press **CLEAR SIGNAL** to delete signal. All day LED's extinguish.

4. Press **RUN** The signal has been deleted.

TO SOUND A SIGNAL THAT HAS NOT BEEN PROGRAMMED

1. Press **MANUAL SIGNAL** to sound the signal. The signal will sound as long as the key is depressed.

This signal is independent of the program signals function and works in either the enabled or disabled mode. When the manual signal is operated the disable light at the lower right of the minute display will flash.

TO ENABLE OR DISABLE SIGNALS GLOBALLY

To toggle between all programmed signals on or all programmed signals off:

1. Press **SIGNAL ON/OFF**

To determine whether the programmed signals are on or off, look to the right of the minute display. If a light is illuminated, all signals are off and no signal will sound. If the light is not visible, all signals are on and will occur as programmed.

TO REVIEW SIGNALS

1. Press **NEXT SIGNAL** to review all signals which have been installed. If no signal has been programmed, the display remains the same current time. Review starts from current time.

POWER FAILURE

The clock's display keeps time according to line frequency (typically 60 Hz). During power failure, the unit automatically switches to an internal quartz crystal to maintain time. A 9-volt non-rechargeable battery maintains display time and memory for up to 15 accumulated days. When power is interrupted, the digital display disappears with the exception of the flashing colon and the programmed signals will not sound.

TO TEST THE BATTERY

1.   Press | TEST BATT | The display indicates "Good" or "Lo"

Since the battery is non-rechargeable, it should be replaced when the display indicates "Lo".

INTERNAL WIRING DIAGRAM

USER WORK SHEET TO ASSIST IN PROGRAMMING

Current Day: S   M   T   W   T   F   S   (circle one)
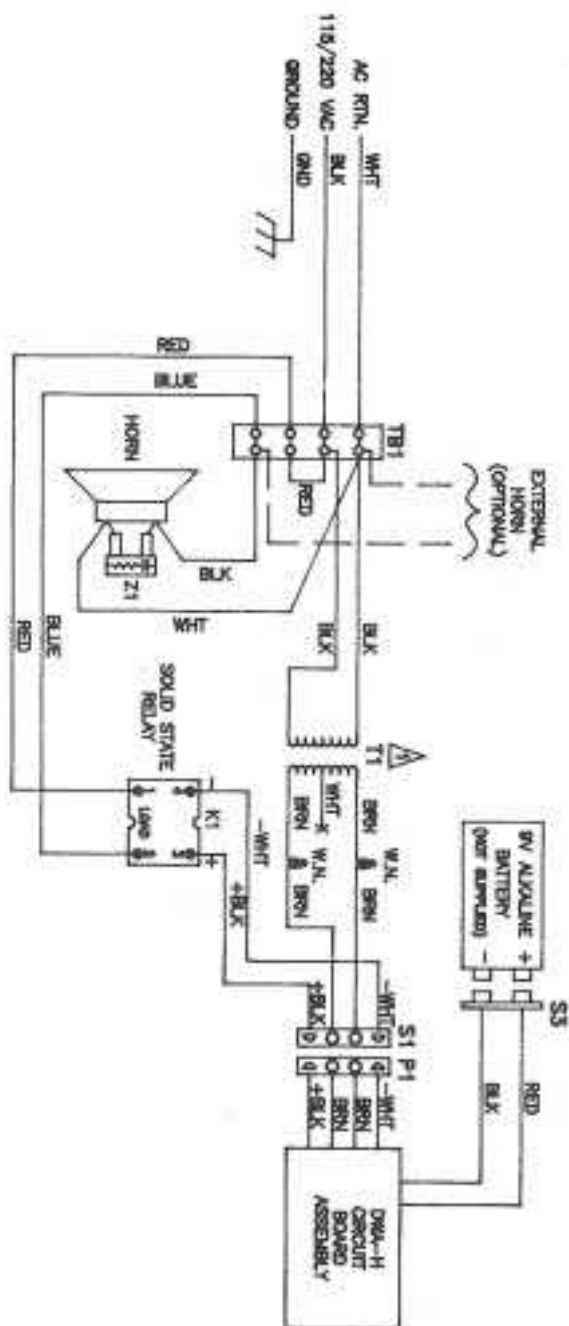
Time Format: ❏ 12 hour   ❏ 24 hour

Duration of signal: _____ seconds

Signal Events:

Time	(Circle Applicable Days)	Time	(Circle Applicable Days)
_____ S M T W T F S	_____ S M T W T F S
_____ S M T W T F S	_____ S M T W T F S
_____ S M T W T F S	_____ S M T W T F S
_____ S M T W T F S	_____ S M T W T F S
_____ S M T W T F S	_____ S M T W T F S
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SPECIFICATIONS

PHYSICAL

Height:	5 3/5 inches
Width:	7 inches
Depth:	5 1/4 inches
Weight:	6 lbs. 4 oz.
Shipping Weight:	9 lbs.
Case:	Parkerized, Wrinkle Finish
Color:	Gray
Power Cord:	6 feet, grounded

FEATURES

Display:	Time: 4 Digit, 7 Segment LED (Red)
	Day of Week: individual red LEDs

POWER REQUIREMENTS

Voltage:	115 VAC (220 VAC Optional)
Power:	26.5 Watts
Frequency:	50 or 60 Hz
Battery:	9 V Alkaline (not supplied)

POSSIBLE SHOCK HAZARD EXISTS WHEN CASE COVER IS REMOVED AND AC POWER IS CONNECTED. EXERCISE CAUTION WHEN SETTING TIME DISPLAY. BE CERTAIN TO AVOID CONTACTING FOREIGN OBJECTS WITH CIRCUIT BOARDS.