

# TORK<sup>®</sup>

## INSTRUCTION MANUAL



LISTED  
Enclosed Energy  
Management  
Equipment  
4D64

### 365 DAY DIGITAL ENERGY & LIGHTING CONTROL

# ELC78 ELC712



**FOR TECHNICAL SUPPORT:  
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MLI-206(A)

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**TORK MODEL  
ELC78 EIGHT CHANNEL  
ELC712 TWELVE CHANNEL  
ENERGY AND LIGHTING CONTROL**

**READ INSTRUCTIONS CAREFULLY BEFORE  
ATTEMPTING TO INSTALL TIME SWITCH. SEE**

**WARNING ON FRONT PANEL** – Failure to comply with instructions could result in personal injury and/or property damage.

**INSTALLATION:**

UNIT IS TO BE INSTALLED BY A LICENSED ELECTRICIAN

1. To access mounting holes and terminal blocks, open enclosure door (hinge on left) and internal circuit board mounting plate (hinge on right.)
2. Mount the enclosure at eye level using screws or other suitable fastening device. Bring supply and load wires in through bottom or side knockouts. USE TOP KNOCKOUTS FOR LOW VOLTAGE WIRING ONLY.
3. Reinstall unit by reversing step #1 above and connecting wires to units as per suggested wiring diagrams at back of manual.
4. Remove battery insulator. Unit should be programmed with AC power. Do not program under super cap back up power.

**CAPABILITIES**

- 7 day scheduling
- 128 set points
- Astronomic programming
- 4 Signal (duration) programs
- 4 Duty Cycle programs
- 26 Holidays
- 10 Block holidays
- 8 Inputs for switches or photo sensor

- Momentary output

## FEATURES

**Daylight saving** - Automatic (user selectable)

**Leap year** - Automatic compensation

**Power outage** - Capacitor provides 2 days of real time back up. After two days, a lithium battery provides an accumulated time of 1 year.

**Manual override** - Until the next scheduled event

**AM/PM or 24 hour format** - user selectable

## Programming Overview:

The order of the program headers and steps is as follows:

TIME - set time, date, daylight savings time dates

CONF - 12/24 hour format, stagger up, durations 1-4, duty cycles 1-4

ASTR - sunrise, sunset, latitude, hemisphere

EVNT - on, off, durations 1-4, duty cycles 1-4

INPT - configure inputs

EVNT SENS - sensor events

HOL - set holidays

In all modes use the **NEXT** key to advance to the next item to be programmed or reviewed and the **PREVIOUS** key to go back to the previous item. Use the **+** and **-** keys to modify the current (flashing) item.

**RUN** key to end and **PROGRAM** key to start

The **OVERRIDE** mode is only accessible from the **RUN** mode.

After pressing the **PROGRAM** key, the ELC78 and ELC712 will continue to control the outputs based on the events that were operating at the time the **PROGRAM** key was pressed. The control will not check for new events until it has gone through a status update. The control remains fully functional after pressing the **REVIEW** key, provided the **REVIEW** key was not pressed while in the programming mode. During operation, the

control will be in the RUN mode.

### **Planning your Programming:**

Six common set-up choices are listed below. Review the headers required. Skipping the unneeded sections will speed programming and set-up.

#### **A:** Time ON and Time OFF program

- 1.0) TIME – Set time, date, daylight savings time dates
- 2.0) CONF – Skip
- 3.0) ASTR – Skip
- 4.0) EVNT – Set on & off times
- 5.0) INPT – Skip
- 6.0) EVNT SENS – Skip
- 7.0) HOL – Set holidays as required or skip
- 8.0) RUN – Update schedule for operation

#### **B:** Time ON and Time OFF program and timed override (momentary switch)

- 1.0) TIME – Set time, date, daylight savings time dates
- 2.0) CONF – Skip
- 3.0) ASTR – Skip
- 4.0) EVNT – Set on & off times
- 5.0) INPT – Configure for 2 hour time
- 6.0) EVNT SENS - Skip
- 7.0) HOL – Set holidays as required or skip
- 8.0) RUN – Update schedule for operation

#### **C:** Astro ON and Astro OFF

- 1.0) TIME – Set time, date, daylight savings time dates
- 2.0) CONF – Skip
- 3.0) ASTR – Set sunrise, sunset times and latitude
- 4.0) EVNT – Set ON for 12:00am
- 5.0) INPT - Skip
- 6.0) EVNT SENS - Skip
- 7.0) HOL - Set holidays as required or skip
- 8.0) RUN – Update schedule for operation

#### **D:** Astro ON and Time OFF

- 1.0) TIME – Set time, date, daylight savings time dates
- 2.0) CONF – Skip

- 3.0) ASTR – Set sunrise, sunset times and latitude
- 4.0) EVNT – Set ON time at 4:00pm and OFF time (example: 11:30pm)
- 5.0) INPT - Skip
- 6.0) EVNT SENS - Skip
- 7.0) HOL - Set holidays as required or skip
- 8.0) RUN – Update schedule for operation

**E:** Photo ON and OFF

- 1.0) TIME – Set time, date, daylight savings time dates
- 2.0) CONF – Skip
- 3.0) ASTR – Skip
- 4.0) EVNT – Skip
- 5.0) INPT - Configure input wired with photo sensor
- 6.0) EVNT SENS – Set sensor event for 12:00am ON
- 7.0) HOL - Set holidays as required or skip
- 8.0) RUN – Update schedule for operation

**F:** Photo ON and Time OFF

- 1.0) TIME – Set time, date, daylight savings time dates
- 2.0) CONF – Skip
- 3.0) ASTR – Skip
- 4.0) EVNT – Set OFF time (example: 11:30pm)
- 5.0) INPT - Configure input wired with photo sensor
- 6.0) EVNT SENS – Set sensor event for 9:00am ON
- 7.0) HOL - Set holidays as required or skip
- 8.0) RUN – Update schedule for operation

## **0.0 INITIAL POWER-UP OR RESET**

The control will display MEM CLR (memory clear). This is only accessible once. It indicates that the memory has been cleared.

Use the **NEXT** key to begin set-up.

## **0.1 CONTACT OPERATION**

Toggle between MAINTAIN (maintained) or MOMENTARY operation using the +/- key.

Note: The ELC 78 & ELC712 will normally be configured as maintained. The momentary option is intended for use with latching relays.

An EL78 configured as momentary will only have 4 channels. Relays 1, 3, 5, & 7 will provide a one second ON pulse for channels 1, 2, 3, and 4 respectively. Relays 2, 4, 6, & 8 will provide a one second OFF pulse for channels 1, 2, 3, and 4 respectively.

An EL712 configured as momentary will only have 6 channels. Relays 1, 3, 5, 7, 9 and 11 will provide a one second ON pulse for channels 1, 2, 3, 4, 5 and 6, respectively. Relays 2, 4, 6, 8, 10 and 12 will provide a one second OFF pulse for channels 1, 2, 3, 4, 5 and 6, respectively.

Use the **NEXT** key to continue set-up.

## 0.2 CLOCK FORMAT

Toggle between 12 HR (AM/PM) or 24 HR (00:00-23:59) clock format using the **+/-** key.

Press the **PROGRAM** key to begin programming steps in the TIME header.

## 1.0 TIME MODE

This mode is used for setting time, date and daylight saving time.

Use the **NEXT** key to begin programming.

### 1.1 SET CLOCK

Use the **+** and **-** keys to modify the flashing item. Use the **NEXT** key advance to the next flashing item.

Set current hours, minutes, seconds, and day of week.

## 1.2 SET DATE

Use the **+** and **-** keys to modify the flashing item.  
Use the **NEXT** key advance to the next flashing item.

Set current month, date, and year.

## 1.3 SET DAYLIGHT SAVINGS

Use the **+** and **-** keys to modify the flashing item.  
Use the **NEXT** key advance to the next flashing item

If NO daylight savings adjustment needed, press the **PROGRAM** key to bypass and go to next mode.

If daylight savings adjustment needed, select YES with **+** or **-** keys.

Set SPR (spring) dates by choosing Month (MAR), day (SUN), and week (2).

Set FALL dates by choosing Month (NOV), day (SUN), and week (1).

Press the **PROGRAM** key to go to next mode.

## 2.0 CONF MODE

Configuration mode is used for changing the clock format, selecting stagger up, setting the lengths of the 4 durations and for programming the on/off times of the 4 duty cycle patterns.

Press the **PROGRAM** key to bypass and go to next mode.

Press the **NEXT** key to go to the first setting.

## 2.1 SET CLOCK FORMAT

Use the **NEXT** key skip clock format.

Use the **+** and **-** keys to modify the flashing item.

Set 12 HR (AM/PM) or 24 HR (00:00-23:59) clock

format.

Use the **NEXT** key advance.

## 2.2 SET STAGGER START-UP

Use the **NEXT** key skip stagger.

Use the **+** and **-** keys to modify the flashing NO to the stagger time.

The following stagger-up selections are available:

NO = not used

00.05 = 5 seconds

00.15 = 15 seconds

00.30 = 30 seconds

01.00 = 1 minute

05.00 = 5 minutes

10.00 = 10 minutes

15.00 = 15 minutes

Note: The selected stagger up time between channels occurs at scheduled ON events, after a power outage, and after a status update.

Use the **NEXT** key advance.

## 2.3 SET DURATION LENGTH (SIGNAL) AND DUTY CYCLE

Use the **+** and **-** keys to modify the flashing item.

Use the **NEXT** key advance to the next flashing item.

Program dUR1 (first duration 0:00.01) hour, minutes, or seconds and continue to set each of the durations (dUR2 – dUR4.)

Note: These durations are programmable from 1 second to 23 hours, 59 minutes and 59 seconds.

Program dCF1 (first duty cycle OFF time) hours, minutes, or seconds, then program dCN1 (first duty cycle ON time) hours, minutes, or seconds to complete the pair. Continue for each of the duty cycles (dCF2 – dCF4).

Note: The off cycle is programmable from 1 second to 23 hours, 59 minutes and 59 seconds. The control will not allow an off cycle of 0:00.00. A duty cycle event will always start with the off cycle.

Press the **PROGRAM** key to go to next mode.

### 3.0 ASTR MODE

The Astro (astronomic) function provides a means for controlling lights based on the changing sunrise and sunset times throughout the year without use of a photo control. The Astro feature does not turn loads on or off. Between sunrise and sunset the load(s) are not allowed to be on. An event must be programmed to allow the load(s) assigned to Astro to turn ON (see section 4.0.)

Press the **PROGRAM** key to bypass and go to next mode.

Press the **NEXT** key to go to the first setting.

### 3.1 SET ASTRO TIMES

Look up today's sunrise and sunset times before starting. Also, to determine your location latitude use the map below.

Note: Offset Feature - program today's sunrise/sunset times with the desired offset figured in. The control will automatically update the sunrise/sunset times each day. The allowable ranges are 10 - 70 North and 10 - 70 South.

Use the **+** and **-** keys to modify the flashing item.

Use the **NEXT** key advance to the next flashing item.

Program RISE (sunrise) hour and minutes and SET (sunset) hour and minutes.

Program LATT (latitude).

Assign Astro function to each channel using the **+** and **-** keys to select YES for the flashing channel number.

## U.S. AND CANADA LATITUDE CHART

ALBANY, NY	43 N	DALLAS, TX	33 N
ALBUQUERQUE,	35 N	DENVER, CO	40 N
AMARILLO, TX	35 N	DES MOINES, IA	42 N
ANCHORAGE, AK	61 N	DETROIT, MI	42 N
ATLANTA, GA	34 N	DUBUQUE, IA	42 N
AUSTIN, TX	30 N	DULUTH, MN	47 N
BALTIMORE, MD	39 N	EDMONTON, AB	53 N
BILOXI, MS	30 N	FAIRBANKS, AK	65 N
BIRMINGTON, AL	34 N	FARGO, ND	47 N
BOISE, ID	44 N	FORT SMITH, AR	36 N
BOONE, NC	36 N	FORT WORTH, TX	33 N
BOSTON, MA	42 N	GREAT FALLS, MT	47 N
BRIDGEPORT, CT	41 N	HONOLULU, HI	21 N
BUFFALO, NY	43 N	HOUSTON, TX	30 N
BUFFALO GROVE, IL	42 N	HUNTERSVILLE, NC	35 N
CALGARY, AB	51 N	INDIANAPOLIS, IN	40 N
CHARLESTON, SC	33 N	IRVINE, CA	33 N
CHARLESTON, WV	38 N	JACKSON, MS	32 N
CHEYENNE, WY	41 N	JACKSONVILLE, FL	30 N
CHICAGO, IL	42 N	KANSAS CITY, MO	39 N
CINCINNATI, OH	39 N	LA CROSSE, WI	44 N
CLEVELAND, OH	41 N	LAS VEGAS, NV	36 N
COLUMBIA, SC	34 N	LAKE MARY, FL	28 N
COLUMBUS, OH	40 N	LITTLE ROCK, AR	35 N
CONCORD, NH	43 N	LOS ANGELES, CA	34 N
CORPUS CHRISTI	28 N	MONTREAL, QC	45 N
LOUISVILLE, KY	38 N	QUEBEC, QC	47 N
MADISON, WI	43 N	RALEIGH, NC	36 N
MANITOWOC, WI	44 N	RICHMOND, VA	37 N
MARINETTE, WI	45 N	RICHPORT, CT	41 N
MARQUETTE, MI	47 N	ROCHESTER, NY	43 N
MAYFIELD, KY	36 N	ST LOUIS, MO	39 N
MEMPHIS, TN	35 N	SALT LAKE CITY	41 N
MIAMI, FL	26 N	SAN ANTONIO, TX	30 N
MILWAUKEE, WI	43 N	SAN DIEGO, CA	33 N
MINNEAPOLIS, MN	45 N	SAN FRANCISCO	38 N
MOBILE, AL	31 N	SANTA ANA, CA	34 N
MONTPELIER, VT	44 N	SEATTLE, WA	48 N
MT VERNON, NY	41 N	SIOUX FALLS, SD	44 N
NASHVILLE, TN	36 N	SPRINGFIELD, MA	40 N
NEWARK, NJ	41 N	TAMPA, FL	28 N
NEW ORLEANS, LA	30 N	TOLEDO, OH	42 N
NEW YORK, NY	41 N	TOPEKA, KA	39 N
OKLAHOMA CITY	35 N	TORONTO, ON	44 N
OMAHA, NE	41 N	TRENTON, NJ	40 N
ORLANDO, FL	28 N	TUCSON, AZ	32 N
PHILADELPHIA, PA	40 N	TULSA, OK	36 N
PHOENIX, AZ	33 N	VANCOUVER, BC	49 N
PITTSBURGH, PA	40 N	WASHINGTON, DC	39 N
PORTLAND, ME	44 N	WINNIPEG, MB	49 N
PORTLAND, OR	46 N	WILMINGTON, DE	40 N
PROVIDENCE, RI	42 N	WICHITA, KS	38 N

60° ALASKA

50°

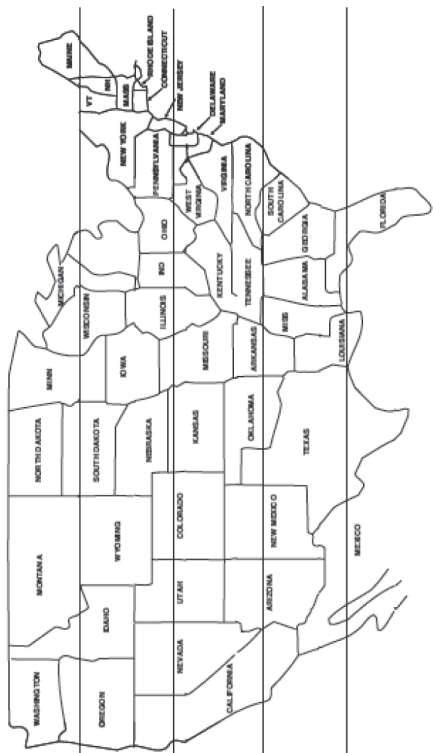
45°

40°

35°

30°

25°



21° HAWAII

18° PUERTO RICO

Press the **PROGRAM** key to go to next mode.

## 4.0 EVENT MODE

Up to 128 events can be programmed. Events can be an ON, an OFF, dUR1 (duration), dUR2, dUR3, dUR4, CYC1 (duty cycle), CYC2, CYC3 or CYC4. An event can be assigned to any channel. Each event can be assigned to any day or combination of days including the 3 holiday schedules (A, B and C).

Press the **PROGRAM** key to bypass and go to next mode.

Press the **NEXT** key to go to the first setting.

## 4.1 SET EVENTS

Use the **+** and **-** keys to modify the flashing item.  
Use the **NEXT** key advance to the next flashing item.

Choose the event number to program.

Choose the event type to change from NONE.

Choose the channel number.

Program hours and minutes for event.

For flashing day, use the **+** and **-** keys and show YES to select day. Press the **NEXT** key to advance. Move through all days and holiday A, B, and C.

Repeat for each event.

Press the **PROGRAM** key to go to next mode.

## 5.0 INPT MODE

Each input can be individually configured as a retriggerable override, a toggle override, an enabler or as one of four sensor types.

- NONE: not used
- On\d: On with off delay override (Recommended for a momentary switch closure to turn the load ON with a countdown to OFF. Maintain switch closure holds load ON until switch opens and starts countdown to OFF)
- OVr: Toggle override (First maintained switch closure turns load ON and second switch closure turns load OFF. Can include a countdown to OFF.)
- ENb: Enabler input (a maintained switch closure allows channel to follow program)
- F: Fahrenheit temperature sensor
- C: Celsius temperature sensor
- L: Light level sensor
- U: User defined sensor (Used with TORK EPC-LC light sensor)

Press the **PROGRAM** key to bypass and go to next mode.

Press the **NEXT** key to go to the first setting.

## 5.1 SET INPUTS

Use the + and - keys to modify the flashing item.

Use the **NEXT** key advance to the next flashing item.

Choose the desired input type with the + and - keys then the **NEXT** key.

- On\d (On with off delay override) next screen is used for setting the off delay time when the input is configured as an On\d override type. The off delay is programmable from 0 seconds to 23 hours, 59 minutes and 59 seconds.

Select On\d.

Program hours, minutes, or seconds.

For flashing channel number, use the + and - keys and show YES to select the channel the input will affect.

Press the **NEXT** key to advance to the next channel for same choice.

- Ovr (Toggle override with or without delay) next screen is used for setting the on time when the input is configured as an Ovr (toggle) override type. The on time is programmable from 0 seconds to 23 hours, 59 minutes and 59 seconds. When this on time is set to 0:00.00, the override functions as a toggle on/toggle off override. When a non-zero value is programmed, the override functions as a timed on/toggle off override.

Select Ovr.

Program hours, minutes, or seconds if desired.

For flashing channel number, use the + and - keys and show YES to select the channel the input will affect.

Press the **NEXT** key to advance to the next channel.

- ENb (Enabler input)

Select ENb.

For flashing channel number, use the + and - keys and show YES to select the channel the input will affect.

Press the **NEXT** key to advance to the next channel.

- Sensor settings are not assigned to channels and are used in Sensor Event Mode.

Select sensor type.

NOTE: For TORK EPC-LC light sensor select U

F: Fahrenheit temperature sensor (-40 to 215)

C: Celsius temperature sensor (-40 to 102)

L: Light level sensor (0 to 100)

U: User defined sensor (0 to 255)

Calibrate to adjust sensor input. Zero is default.

F: -12,-11,-9,-8,-6,-5,-3,-2,0,2,3,5,6,8,9,11

C: -8,-7,-6,-5,-4,-3,-2,-1,0,1,2,3,4,5,6,7

L: -4,-3,-2,-1,0,1,2,3

U: -8,-7,-6,-5,-4,-3,-2,-1,0,1,2,3,4,5,6,7

Choose the next input with the + and - keys then the **NEXT** key.

Press the **PROGRAM** key to go to next mode.

## 6.0 EVENT SENS MODE

Up to 32 sensor events can be programmed. A sensor event can be assigned to either channel. Each sensor event can be assigned to any day or combination of days including the 3 holiday schedules (A, B and C). A sensor must be configured in step 5 for this mode to function. This mode programs the start (ON) for the sensor event. Set the end (OFF) time in Event Mode section 4.0.

Press the **PROGRAM** key to bypass and go to next mode.

Press the **NEXT** key to go to the first setting.

## 6.1 SET SENSOR EVENTS

Use the + and - keys to modify the flashing item.

Use the **NEXT** key advance to the next flashing item.

Choose the event number to program.

Choose the input. (Number and type (F, C, L or U) will show. If the input is not configured as a sensor a question mark (?) is shown.)

Choose the channel number.

Program hours and minutes to start the event.

For flashing day, use the + and - keys and show YES to select day. Press the **NEXT** key to advance. Move through all days and holiday A, B, and C.

Program the turn ON set point and program the turn OFF set point.

Repeat for each event.

Press the **PROGRAM** key to go to next mode.

## 7.0 HOLIDAYS

The four holiday types with their priorities are as follows:

SPEC (special) - highest priority

DATE (month/date) - 2nd highest priority

D/WK (day of week) - 3rd highest priority

SPAN (duration) - lowest priority

Special type: These are specific holidays that are programmed to adjust each as the dates change each year. Each of the 6 special holidays can either be assigned as one of the 3 holiday schedules A, B or C or not selected.

Good Friday

Easter Sunday

Easter Monday

Thanksgiving Break (Thursday and Friday)

Boxing Day

Victoria Day

Date type: Up to 10 date type (single day) holidays can be programmed. Each of the 10 holidays can either be assigned as one of the 3 holiday schedules A, B or C or not selected. Examples of single day holidays are:

January 01 (New Years Day)

July 04 (Fourth of July)

Day of Week type: Up to 10 day of week type holidays can be programmed. Each of the 10 holidays can either be assigned as one of the 3 holiday schedules A, B or C or not selected. Examples of day of week type holidays are:

1st Monday in September (Labor Day)  
Last Monday in May (Memorial Day)

Span type: Up to 10 span (block) type holidays can be programmed. Each of the 10 blocks can either be assigned as one of the 3 holiday schedules A, B or C or not selected. Examples of span type holidays are:

December 20 beginning to January 07 ending (winter break)

March 07 beginning to March 14 ending (spring break)

Press the **PROGRAM** key to bypass and go to next mode.

Press the **NEXT** key to go to the first setting.

## 7.1 SET SPECIAL (SPEC) HOLIDAYS

Press the **+** to bypass.

Press the **NEXT** key advance to first SPEC day.

For flashing NO, use the + or - keys and show YES to select day.

Use the **+** or **-** keys to select the holiday type (A, B, or C).

Press the **NEXT** key to advance. Move through all six special day types.

Press the **PROGRAM** key to return to top of HOL screen to program another holiday type.

Press the **PROGRAM** key twice when holiday programming complete and go to next mode.

## 7.2 SET SINGLE DAY (DATE) HOLIDAYS

Press the **+** to bypass.

Press the **NEXT** key advance.

Use the **+** and **-** keys to modify the flashing item.

Use the **NEXT** key advance to the next flashing item.

Choose the holiday number to program.

Program month, date and holiday schedule (A, B, or C.)

Repeat for each holiday.

Press the **PROGRAM** key to return to top of HOL screen. Press **NEXT** key to program another holiday type.

Press the **PROGRAM** key again when holiday programming complete and go to next mode.

## 7.3 SET DAY OF WEEK (D/WK) HOLIDAYS

Press the **+** to bypass.

Press the **NEXT** key advance.

Use the **+** and **-** keys to modify the current (flashing) item.

Use the **NEXT** key advance to the next flashing item.

Choose the holiday number to program.

Program month, week of month (1st, 2nd, 3rd, 4th, or last), day of week, and holiday schedule (A, B, or C.)

Repeat for each holiday.

Press the **PROGRAM** key to return to top of HOL screen. Press **NEXT** key to program another holiday type.

Press the **PROGRAM** key again when holiday programming complete and go to next mode.

## 7.4 SET BLOCK (SPAN) HOLIDAYS

Press the **+** to bypass.  
Press the **NEXT** key advance.

Use the **+** and **-** keys to modify the flashing item.  
Use the **NEXT** key advance to the next flashing item.

Choose the holiday number to program.

Program the beginning month & date, the ending month & date, and holiday schedule (A, B, or C.)  
Repeat for each holiday.

Press the **PROGRAM** key to return to top of HOL screen. Press **NEXT** key to program another holiday type.

Press the **PROGRAM** key again when holiday programming complete and go to next mode.

## 8.0 PLACE IN RUN MODE

Press the **RUN** key to put timer in operating mode. The word UPDATING will show on the screen and disappear when timer is ready.

### OVERRIDE

This mode is reached by pressing the **OVERRIDE** key from the RUN mode. Press the **NEXT** key to continue in this mode or press the **RUN** key to exit this mode without affecting a change to the load status.

The screen shows the status channels on the bottom line of the display. If the channel number is flashing, the channel is currently overridden. If it is flashing mostly on, the channel is overridden on. If it is flashing mostly off, the channel is overridden off. The channel # currently pointed to will be flashing.

Press the **+/-** keys to select a channel. The current event for this channel is shown below the channel # (e.g. ON, OFF, dUR2, CYC4, SC03, NONE).

Press the **OVERRIDE** key to toggle the channel status until the next event. Press the **PROGRAM** key then the **RUN** key to cancel an override (this will not work for timed external overrides). To exit the override mode without making a change, press the **PREVIOUS** or **NEXT** key to return to the override header, then press the **RUN** key.

## RUN

The RUN mode is the normal operating mode. In the RUN mode the current time and day are shown. If today is a holiday, the active holiday schedule is also shown. Channel status is shown on the bottom line. The channel number is shown if that channel is on. If the channel number is flashing, that channel is currently overridden. If it is flashing mostly on, the channel is overridden on. If it is flashing mostly off, the channel is overridden off. The input # is also shown along with the status of that input. The following is a list of the possible input status messages:

Message	Input Config	Status
NONE	not config	-
On\d	On\d	input closed
OFFd	On\d	input open, in delay
-N-	On\d	not active
OVD delay	OVR	overridden on w/ delay
?-V-	OVR	not active or overridden on or off without delay
ENb	ENb	input closed (enabled)
dISb	ENb	input open (disabled)
072F	sensor, F	sensor value

LO F	sensor, F	sensor value below range
025C	sensor, C	sensor value
HI C	sensor, C	sensor value above range
055L	sensor, L	sensor value
175U	sensor, U	sensor value

The display will show the status of both inputs by automatically switching between the two every 5 seconds. To lock on one input, press the **NEXT** key. To return to the automatic sequencing of inputs, press the **NEXT** key again.

### Programming Worksheets:

Configuration		
Maint.	Mom.	Contact Operation
12hr	24hr	Clock Format
		Stagger - Up
		Astronomic Channels

Durations		
#	ON	Description
D1	: :	
D2	: :	
D3	: :	
D4	: :	

Cycle Times			
#	ON	OFF	Description
C1	: :	: :	
C2	: :	: :	
C3	: :	: :	
C4	: :	: :	

### Input Configurations:

		Type and Channel Assigned					Calibration			
Input	On\d	Ovr	Enb	Channel	F	C	L	U		
#1	:	:								
#2	:	:								
#3	:	:								
#4	:	:								
#5	:	:								
#6	:	:								
#7	:	:								
#8	:	:								



## Sensor Events

#	Sens. #	Channels	Time	Day(s)	Setpoints	
					ON	OFF
01			__ : __ am/pm	SU MO TU WE TH FR SA HA HB HC		
02			__ : __ am/pm	SU MO TU WE TH FR SA HA HB HC		
03			__ : __ am/pm	SU MO TU WE TH FR SA HA HB HC		
04			__ : __ am/pm	SU MO TU WE TH FR SA HA HB HC		
05			__ : __ am/pm	SU MO TU WE TH FR SA HA HB HC		
06			__ : __ am/pm	SU MO TU WE TH FR SA HA HB HC		
07			__ : __ am/pm	SU MO TU WE TH FR SA HA HB HC		
08			__ : __ am/pm	SU MO TU WE TH FR SA HA HB HC		
09			__ : __ am/pm	SU MO TU WE TH FR SA HA HB HC		
10			__ : __ am/pm	SU MO TU WE TH FR SA HA HB HC		
11			__ : __ am/pm	SU MO TU WE TH FR SA HA HB HC		
12			__ : __ am/pm	SU MO TU WE TH FR SA HA HB HC		
13			__ : __ am/pm	SU MO TU WE TH FR SA HA HB HC		
14			__ : __ am/pm	SU MO TU WE TH FR SA HA HB HC		
15			__ : __ am/pm	SU MO TU WE TH FR SA HA HB HC		

### Holidays (Special):

#		Holiday Schedule HOLIDAY A, B, C or NONE
1	Good Friday	
2	Easter Sunday	
3	Easter Monday	
4	Thanksgiving Thu & FR	
5	Boxing Day	
6	Victoria Day	

**Holidays (Date):**

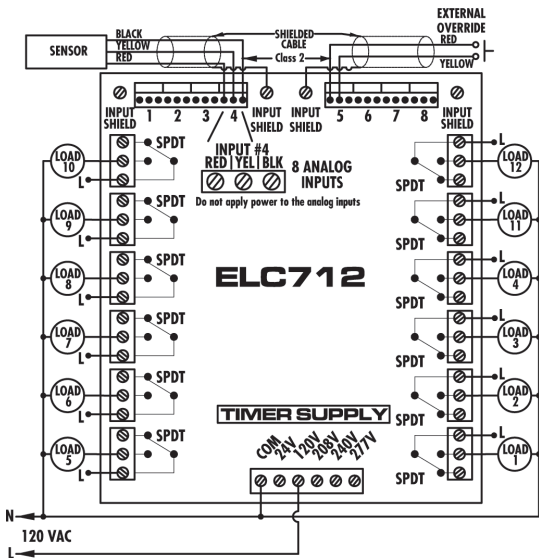
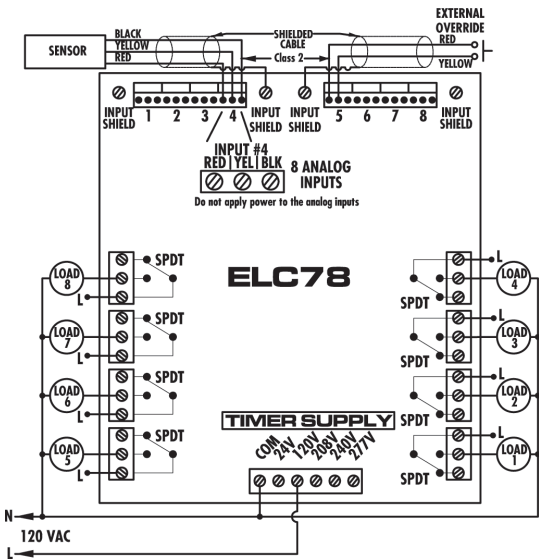
#	Month	Date	Holiday Schedule HOLIDAY A, B, C or NONE
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

**Holidays (Day of Week):**

#	Week 1st, 2nd, 3rd, 4th or last	Date	Month	Holiday Schedule HOLIDAY A, B, C or NONE
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

### Holidays (Block):

#	Week 1st, 2nd, 3rd, 4th or last	Date	Month	Holiday Schedule HOLIDAY A, B, C or NONE
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				





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