* Try these other fine ELK products *
Magic Module Series

MM443	Magic Module, 4 Input, 4 Output, Programmable
MM447	Automation Controller w/Voice,Caddx Interface
MV480	Recordable Voice Module, 400 Channels
MKHOME1	Home Control Kit for Caddx NX Controls
MK400	Starter Kit, Includes MM443 & MK485
MK485	Programming Kit, MB485, Cables, Software
MK410	X-10® Transceiver Kit, Programmed MM443
MK420	iButton™ Access Kit w/ MM443, MA100, MA101
MA100	iButton™ 'Touchkey' Reader & Interface Pack
MA101	iButton™ 'Touchkeys',10 pcs w/keyring holders
MA290	Proximity / Wiegand Data Interface to MM443
MB485	Data Bus Interface, RS232 to RS485
MC100	Clock / Calendar Module for MM443
ML8	Link Interface to Caddx NX Controls
MT100	Temperature Sensor Module for MM443
MM220	Magic Module, 2 Input, 2 Output, Programmable

Rust Free Sirens / Speakers

1RT	Speaker & Stainless Steel Enclosure
150RT	Siren & Stainless Steel Enclosure
155RT	Voice Siren in Stainless Steel Box

Speakers & Sirens

44	Speaker, 30 W,8 Ohm Compact Horn
45	Siren, Compact Horn, 118db
55	Voice Siren, Compact Horn
M120	Siren, Single Tone, 107db, Mini Horn
SP15	Speaker, 15 watt, Small Horn
SP30	Speaker, 30 watt, Horn
SP35	Speaker, 20 watt, Interior
SP40	Speaker, 40 watt, Horn
SS15	Siren, Dual Tone, 110db, Horn
SS30	Siren, Dual Tone, 120db, Horn
SS36	Siren, Dual Tone, 105db, Interior

ECHO™ Sirens & Speakers

73	ECHO Speaker, 20 Watt, Interior
74	ECHO Dual Tone Siren, Interior
75	ECHO Voice Siren, Interior
870	ECHO Speaker, Self Amplified

Siren & Voice Drivers

100	High Performance Siren Driver
110	Voice Siren Driver, English & Spanish
120	Recordable Voice Module and Siren
124	Recordable Voice Module, 4 Channels

Surge Suppressors

950	Surge Suppressor, Phone & Power Line
951	Surge Suppressor, Phone - Single Line
955	Surge Suppressor, Phone - Dual Line

Relay Modules

912	Compact Relay,12 Vdc, SPDT
912B	Heavy Duty Compact Relay,12/24 Vdc, SPDT
924	Sensitive Relay, 12/24 Vdc, DPDT
941	Alarm Output Director
960	Delay Timer Relay, 1 sec. to 60 min.

Power Products

1240	Battery, Lead Acid, 12v, 5Ah
1270	Battery, Lead Acid, 12v, 8Ah
12100	Battery, Lead Acid, 12v, 12Ah
12170	Battery, Lead Acid, 12v, 18Ah
12250	Battery, Lead Acid, 12v, 25Ah
P112	12 Volts DC, 1 Amp Power Supply w/Enclosure
P124	24 Volts DC, 800mA Power Supply w/Enclosure
P1216	12 Volts DC, 1.5 Amp Power Supply
P412	12 Volts DC, 4 Amp Power Supply
P624	Power Supply & Battery Charger
PD9	Power Distribution Module
965	Low Battery Cutoff and Power Switch
TRG1640	Transformer, 16.5VAC @ 40 VA
TRG2440	Transformer, 24VAC @ 40 VA

Accessories

129	Computer Sound Card Interface
800	Audio Amplifier, 10 Watts
900-2	"B" Connectors,Unfilled,500 pcs
902-2	"B" Connectors,Gel filled,500 pcs
980	Telephone Line Fault Monitor
998	Warning Alarm System Decals
999	Double Sided Tape
SL1	Strobe Light, 4 colors available
WK1	Wall Mount Kit for SL1 Strobes

For more information contact your local Distributor or:
ELK PRODUCTS, INC **828-397-4200** FAX 828-397-4415
http://www.elkproducts.com   Email: info@elkproducts.com
05/02

Magic Module Series

Clock/Calendar Module

ELK-MC100

APPLICATION:
The Clock/Calendar is an accessory for the Magic Module programmable controller series. It can be used in a vast array of Clock & Calendar applications requiring Minute, Hour, Day, Weekday, and Monthly timing. It also provides an on-board connection for the Temperature Sensor Module(ELK-MT100) (optional).

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Magic Module Series

ELK-MC100

Clock/Calendar Module

7 62158 50100 5

Accessory for the ELK Magic Module

FEATURES:
- Adds Clock & Calendar Functions to the ELK Magic Module(ELK-MM443(S)).
- Plugs into Accessory Connector(J1).
- Battery Back-Up Included.
- Daylight-Savings Time Program Option.
- Automatic Leap Year Adjustment.
- Lifetime Limited Warranty, call for details.
- On-board Connection for Temperature Sensor Module(ELK-MT100) (optional).

SPECIFICATIONS:
- Size: 2.2" x 1.5" (60mm x 38mm).
- Operating Voltage: 9.6-15 Volts D.C.
- Current Required: 200uA.
- Battery: 3 Volt Lithium (CR2032).

REQUIRED EQUIPMENT: (not included)
- ELK-MM443 Module, 4 input, 4 output.
- Programming Software to set the clock.

Features and Specifications subject to change without notice.

ELK
PRODUCTS, INC.

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PO Box 100 • Hwy. 70W • Hildebran, NC 28637 • USA

Instructions Printed On Inside

MAGIC CLOCK / CALENDAR INSTRUCTIONS

The ELK-MC100 adds Clock and Calendar functions to the Magic Module(ELK-MM443) programmable controller. This board plugs into the Magic Module Accessory Connector (J1). The 4 screw terminals on the Clock allow for connection to an optional Temperature Sensor(ELK-MT100) which connects via a 4 conductor cable. Refer to the Temperature Sensor Instructions for more information. Figure 1 shows the Clock plugged into a Magic Module circuit board.

Installation
Insert the flanged end of the nylon standoffs (supplied) into the holes opposite the connector and on the bottom side of the Clock circuit board. Plug the circuit board into the white 5-pin Accessory Connector (J1) on the Magic Module as shown in figure1. Snap in the standoffs to secure the board. Remove the paper on the battery. NOTE: Before use, the Time and Date must be set in the Clock by using the Magic Module Software Program. Refer to the Magic Module Development Kit for programming instructions.
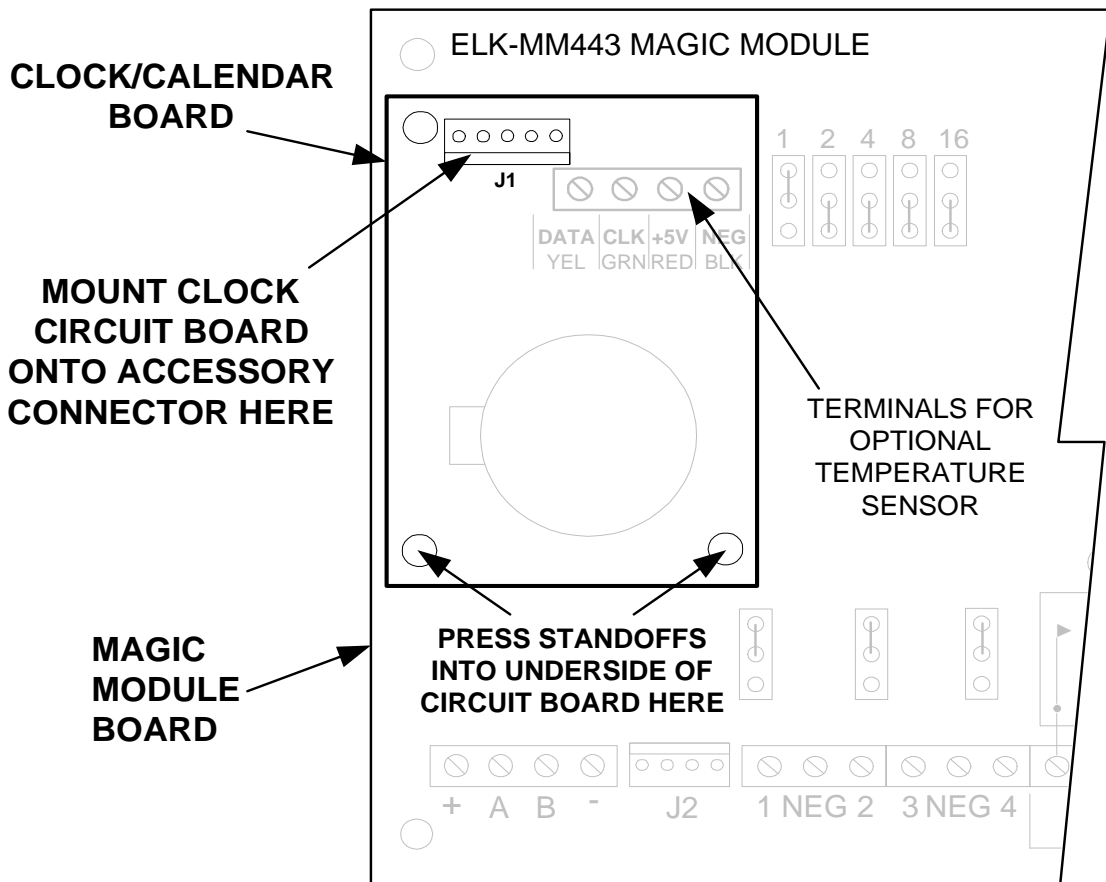

Figure 1. Clock/Calendar mounted on a Magic Module

Sample Real Time Clock Program for the Magic Module
This program will turn relay 1 on for 2 seconds at 8,12, and 5 o'clock PM

	set	EvtTMR1	Tmr1Evt	
	set	EvtRTC	RTCStart	
main	goto	main		
				;Main Program
Tmr1Evt	set	OUT1	Off	;Timer1 Event (turns relay 1 off after 2 seconds)
	return			
				;return from timer 1 event
RTCStart	if	Rhrs not= 8	RTCEvt1	;Hour-RTC (turn relay 1 on for 2 secs if 8 o'clock)
	if	Rmin not= 0	RTCEvt1	;Minute-Real Time Clock
	goto	RingBell		
RTCEvt1	if	Rhrs not= 12	RTCEvt2	;Hour-RTC (turn relay 1 on for 2secs if 12 o'clock)
	if	Rmin not= 0	RTCEvt2	;Minute-Real Time Clock
	goto	RingBell		
RTCEvt2	if	Rhrs not= 17	RTCEvt3	;Hour- RTC (turn relay 1 on for 2secs if 5 o'clock)
	if	Rmin not= 0	RTCEvt3	;Minute-Real Time Clock
RingBell	set	T1SEC	2	;(set timer 1 for 2 seconds; on time for relay 1)
	set	OUT1	On	;(turns relay 1 on) connect this relay to a horn
RTCEvt3	return			;RTCEnd