

Electronic Controls

Intermatic offers a full line of 24-hour, 7-day, and dusk-to-dawn astronomic Electronic Time Controls to satisfy nearly any price point, schedule, or feature set that may be needed to fulfill a customer's needs.

The Basic Series handles simple schedules; the Basic Plus Series accommodates basic schedules that also require some tweaks, such as holidays or special events; and the Advanced Series can automate even the most demanding and constantly changing schedules.

From straightforward 24-hour, to 7-day with off-day and holiday exceptions, to complex 365-day advanced BEMS integration, we are working diligently to ensure that simple and affordable controls are available to meet all of your application needs.

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ET91615CR



ET90215CRE



ET90115C

ET90000 Series

365-Day Astronomic Time Switches

The ET90000 Series combines powerful and intuitive scheduling with truly maintenance-free convenience. The PC App and Mobile App provide real-time remote control, and the USB connection and Ethernet capabilities enable in-field updates.

Applications

- School districts • Banks • Small hotels • Franchises • Retail stores
- Municipalities • Parking lots • Offices

Features

- Automatic input voltage selection from 120 to 277 VAC, 50/60 Hz
- Over 2,000 events plus holiday schedules
- Advanced scheduling including relative dating, such as fourth Thursday of November or first week of year
- 30 A rated contacts
- 100-hour supercapacitor eliminates the need for batteries
- USB connection for uploading, downloading and transferring programs
- Easy-to-follow on-screen menus for programming to-the-minute accuracy
- Non-volatile memory protects programming indefinitely
- Firmware upgradable in-field via USB or Ethernet
- Internally expandable, in 4-circuit increments, up to 16-circuits for 4, 8, and 12-circuit models
- PC App for easy scheduling or control, either remotely or through USB flash drive
- Mobile app for real time status and overrides

Model #	Circuits	Enclosure	Ethernet
ET90115C	1	Type 1 Metal	Optional
ET90115CE	1	Type 1 Metal	Included
ET90115CR	1	Type 3R Metal	Optional
ET90115CRE	1	Type 3R Metal	Included
ET90115M*	1	—	Optional
ET90215C	2	Type 1 Metal	Optional
ET90215CE	2	Type 1 Metal	Included
ET90215CR	2	Type 3R Metal	Optional
ET90215CRE	2	Type 3R Metal	Included
ET90215M*	2	—	Optional
ET90415CR	4	Type 3R Metal	Included
ET90815CR	8	Type 3R Metal	Included
ET91215CR	12	Type 3R Metal	Included
ET91615CR	16	Type 3R Metal	Included

*Replacements for 1 & 2 circuits only.

Note: The electronic mechanism snaps into the standard Intermatic enclosure for easy upgrading of mechanical mechanisms, if desired.

Accessories

Door Assembly	ET9100
Ethernet Module	ET9232
Relay Module	ET9250

Load Type	NO (Normally Open)	NC (Normally Closed)	Voltage
General Purpose & Resistive	30 A	—	12-240 VAC
General Purpose & Resistive	20 A	10 A	12-240 VAC
Resistive	20 A	10 A	28 VDC
Magnetic Ballast	20 A	3 A	120-277 VAC
Tungsten	5 A	—	12-120 VAC
Pilot Duty	470 VA	275 VA	120-240 VAC
Motor	1 HP	¼ HP	120 VAC
Motor	2 HP	½ HP	240 VAC



Ratings	
Cycle	50/60 Hz
Wiring Terminals	#20 to #6 AWG wire
MIN ON/OFF Times	1 second
MAX ON/OFF Times	365 days
Operating Temperature	-40° F to 104° F (-40° C to 40° C)
Warranty	3-year limited

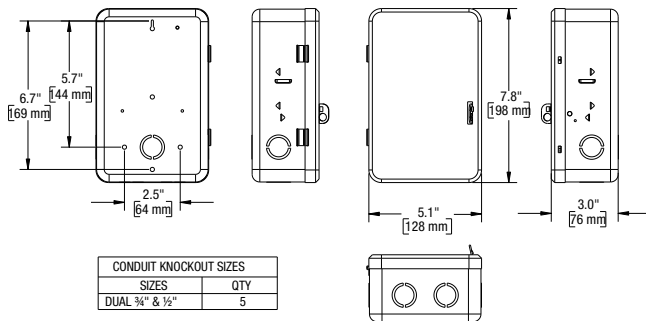
Selection Guide

Scan the QR code with your smartphone or tablet for a side-by-side comparison of our electronic control features.

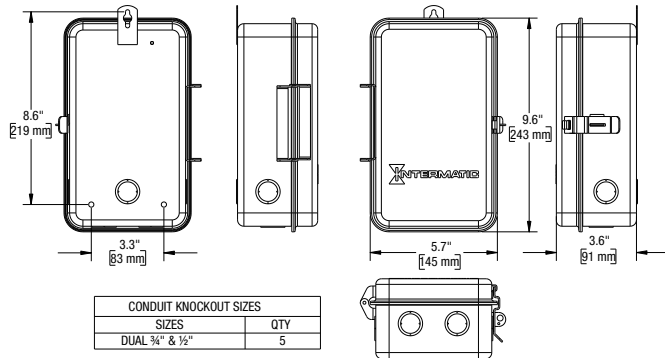


Enclosure Dimensions

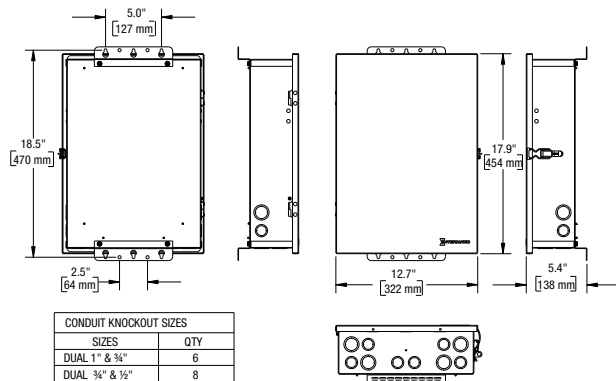
Type 1, 1-2 Circuit



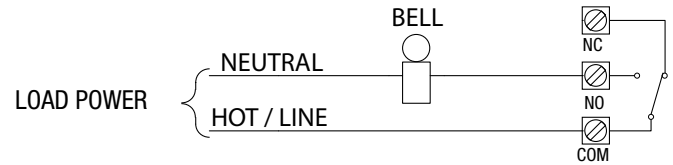
Type 3R, 1-2 Circuit



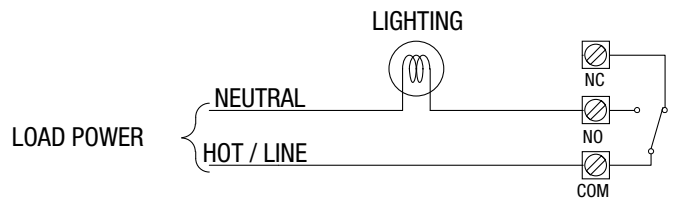
Type 3R, 4-16 Circuit



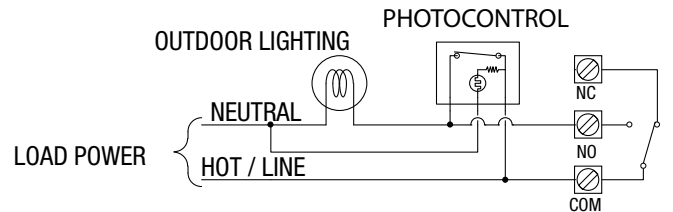
Wiring Diagrams



Typical bell, buzzer, or ringing installation. Multiple loads may be wired concurrently, within the maximum output ratings for the circuit.



Typical lighting installation. Multiple loads may be wired concurrently, within the maximum output ratings for the circuit.



Typical installation for photocontrol in parallel with time switch contacts. Either the time switch OR the photocontrol must be ON to power the load. Ideal for improved safety. Loads will activate at the scheduled times, at night, or during low-light conditions such as a storm.

ET90000 Apps

ET90000 PC App



The ET90000 PC App enables real-time remote control of each ET90000 device from the convenience of your laptop. It's a great tool for creating schedules before, during, or after installation. Plus, with the PC App you can control circuits, perform firmware updates, or download events, zones, and holidays from wherever you are working.

ET90000 Mobile App



Use the ET90000 Mobile App to check the status of your circuits in real-time from your smartphone or tablet. The remote override feature allows you to conveniently make quick changes to currently running schedules.

Electronic Controls

Building Energy Management System Interface Box

ET9500

BEMS Interface Box

The ET9500 Building Energy Management System (BEMS) Interface Box integrates the ET90000 Series with your building's automation or energy management system — for a hassle-free "integration-in-a-box" solution.

Features

- Simple Web interface for easy installation
- No configuration files to manually build or download in the field
- Field selectable for specific BEMS/BAS protocol
- Scalability to expand lighting control system when and as needed
- Each ET9500 supports up to 40 ET90000s
- Standard Type 3R metal enclosure
- BTL-certified

Compatible with
3rd Party BEMS/BAS
(BACnet®, Modbus,
Metasys® N2)



Customer Router & LAN



Ethernet

Ethernet



ET9500
BEMS Interface Box

ET90000 Electronic
Time Switch

3rd Party Devices

Applications



Schools



Office Buildings



Gas Stations



Retail Stores/Banks

Model #	Description	Enclosure
ET9500	BEMS Interface Box	Type 3R Metal



Ratings

Power Requirements	120-277 VAC, 50/60 Hz
Operating Temperature	-40° F to 104° F (-40° C to 40° C)
Relative Humidity	10% - 90%, non-condensing
Enclosure Dimensions H x W x D	12" x 12" x 4 1/4" (304.8 mm x 304.8 mm x 108.0 mm)
Warranty	3-year limited

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BACnet® is a registered trademark of ASHRAE.

Versatile 24-Hour, 7-Day and 7-Day Astronomic ET Series Time Switches feature several different switching output configurations to meet the needs of nearly any application. They can be installed using the surface mount bracket, or with an indoor metal, outdoor metal, or outdoor plastic enclosure. Specific models are available as a mechanism only for easy replacement. Whatever the application, we'll deliver the ideal solution for your needs!

Selection Options

Select from two options that cost-effectively meet your needs:

Basic Series

- Battery backup
 - Simple scheduling
- See pages 14-15

Basic+ Series

- Supercapacitor backup
 - USB port
 - Holiday, exception and more complex scheduling
- See pages 12-13

Pick the schedule that best meets the needs of the facility:

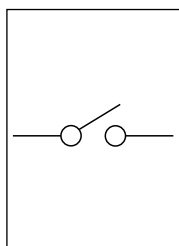
24-Hour

7-Day

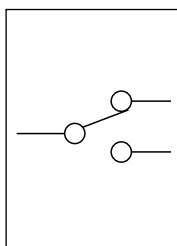
7-Day Astronomic

Select a circuit/switch type:

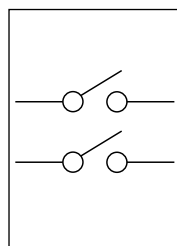
One SPST Circuit



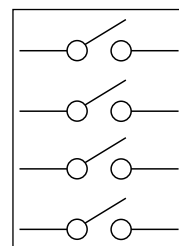
One SPDT Circuit



Two SPST Circuit



Four SPST Circuit



House your control in one of these enclosures:



Indoor Type 1 Metal



Outdoor Type 3R Metal



Outdoor Type 3R Plastic

For enclosure line drawings and knockout locations, see pages 164-165.



ET2105C



ET2705C



ET2725CP



ET2845CR

ET2000 Series

Basic Plus Electronic Time Switches

The ET2000 Series offers an easy-to-use user interface while still allowing to-the-minute scheduling capabilities for nearly any application. This series provides 50 holiday blocks with independent scheduling to ensure the loads are always in the proper ON/OFF state. This series also includes 96 ON/OFF events for even the most demanding schedules. The scheduling capabilities, configurable outputs, and a 100-hour backup without the need of batteries, make this series ideal for nearly any application.

Applications

- Interior lighting • Exterior lighting • Electric pumps
- Electric motor control • Various other electrical loads

Features

- 100-hour supercapacitor eliminates the need for batteries
- Up to 96 set points or events
- Up to 50 holiday blocks with schedule capabilities
- Automatic input voltage selection from 120 to 277 VAC, 60 Hz
- Additional mode of operation turns the ON/OFF buttons into 2-hour overrides
- Configurable outputs allow the control of various voltages and applications
- Relays incorporate zero-crossing technology to extend the life of the control
- Non-volatile EEPROM memory protects programming indefinitely
- LED compatible
- USB port makes transferring and saving of schedules easy
- 2-year limited warranty

24-Hour Schedule

Model #	Enclosure
1-Circuit SPST Switch	
ET2105C	Indoor Type 1 Metal
ET2105CP	Outdoor Type 3R Plastic
ET2105CR	Outdoor Type 3R Metal
1-Circuit SPDT Switch	
ET2115C	Indoor Type 1 Metal
ET2115CP	Outdoor Type 3R Plastic
ET2115CR	Outdoor Type 3R Metal
2-Circuit SPST Switch	
ET2125C	Indoor Type 1 Metal
ET2125CP	Outdoor Type 3R Plastic
ET2125CR	Outdoor Type 3R Metal
4-Circuit SPST Switch	
ET2145C	Indoor Type 1 Metal
ET2145CP	Outdoor Type 3R Plastic
ET2145CR	Outdoor Type 3R Metal

7-Day Schedule

Model #	Enclosure
1-Circuit SPST Switch	
ET2705C	Indoor Type 1 Metal
ET2705CP	Outdoor Type 3R Plastic
ET2705CR	Outdoor Type 3R Metal
1-Circuit SPDT Switch	
ET2715C	Indoor Type 1 Metal
ET2715CP	Outdoor Type 3R Plastic
ET2715CR	Outdoor Type 3R Metal
2-Circuit SPST Switch	
ET2725C	Indoor Type 1 Metal
ET2725CP	Outdoor Type 3R Plastic
ET2725CR	Outdoor Type 3R Metal
4-Circuit SPST Switch	
ET2745C	Indoor Type 1 Metal
ET2745CP	Outdoor Type 3R Plastic
ET2745CR	Outdoor Type 3R Metal

7-Day Astronomic Schedule

Model #	Enclosure
1-Circuit SPST Switch	
ET2805C	Indoor Type 1 Metal
ET2805CP	Outdoor Type 3R Plastic
ET2805CR	Outdoor Type 3R Metal
1-Circuit SPDT Switch	
ET2815C	Indoor Type 1 Metal
ET2815CP	Outdoor Type 3R Plastic
ET2815CR	Outdoor Type 3R Metal
2-Circuit SPST Switch	
ET2825C	Indoor Type 1 Metal
ET2825CP	Outdoor Type 3R Plastic
ET2825CR	Outdoor Type 3R Metal
4-Circuit SPST Switch	
ET2845C	Indoor Type 1 Metal
ET2845CP	Outdoor Type 3R Plastic
ET2845CR	Outdoor Type 3R Metal

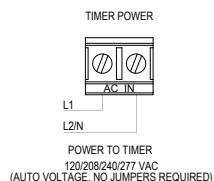
Note: The electronic mechanism snaps into the standard Intermatic enclosure for easy upgrading of mechanical mechanisms, if desired.

Selection Guide

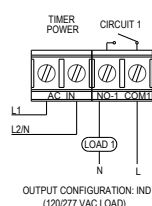
Scan the QR code with your smartphone or tablet for a side-by-side comparison of our electronic control features.



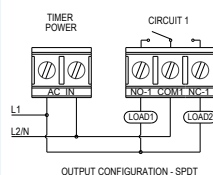
Timer Power



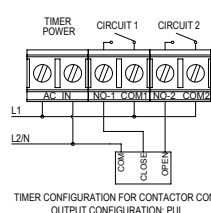
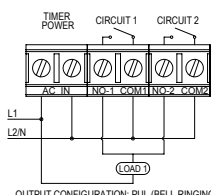
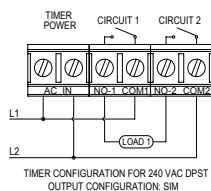
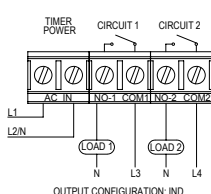
1-Circuit



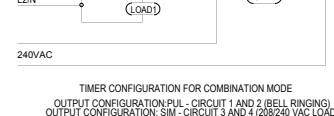
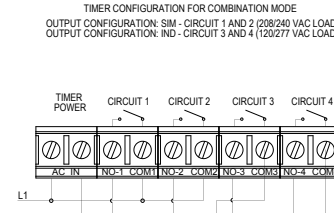
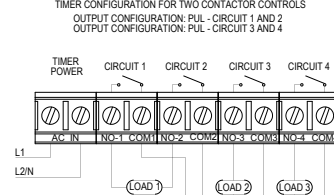
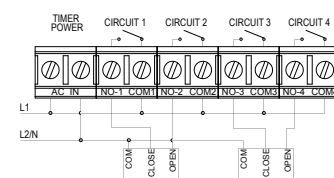
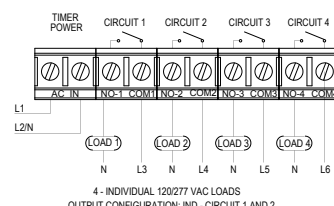
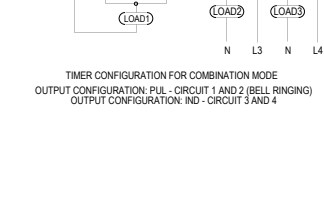
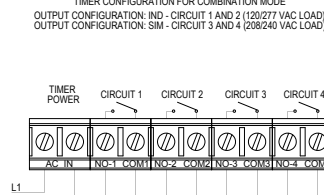
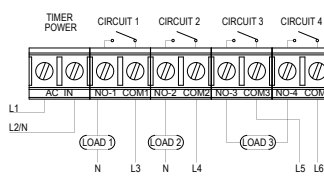
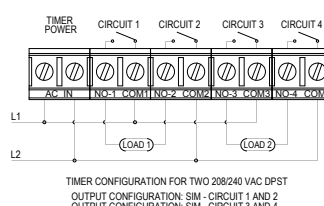
1-Circuit SPDT



2-Circuit



4-Circuit



Ratings – SPDT	
Input Voltage	120-277 VAC, 60 Hz
Switch Type	SPDT
Resistive (NO)	20 A, 28 VDC; 20 A, 120-240 VAC, 60 Hz
Resistive (NC)	10 A, 28 VDC; 10 A, 120-240 VAC, 60 Hz
Inductive (NO)	20 A, 120-240 VAC, 60 Hz
Inductive (NC)	10 A, 120-240 VAC, 60 Hz
Magnetic Ballast (NO)	20 A, 120-277 VAC, 60 Hz
Magnetic Ballast (NC)	3 A, 120-277 VAC, 60 Hz
Electronic Ballast (NO)	10 A, 120/277 VAC, 60 Hz
Motor (NO)	1 HP, 120 VAC, 60 Hz; 2 HP, 240 VAC, 60 Hz
Motor (NC)	¼ HP, 120 VAC, 60 Hz; ½ HP, 240 VAC, 60 Hz
Operating Temperature	-40° F to 104° F (-40° C to 40° C)
Wiring Terminals	#14 to #8 AWG
MIN ON/OFF Times	1 minute
MAX ON/OFF Times	Indefinite
Warranty	2-year limited

Ratings – SPST	
Input Voltage	120-277 VAC, 60 Hz
Switch Type	SPST
Resistive (NO)	30 A, 120-240 VAC, 60 Hz; 20 A, 28 VDC
Inductive (NO)	30 A, 120-240 VAC, 60 Hz
Magnetic Ballast (NO)	20 A, 120-277 VAC, 60 Hz
Electronic Ballast (NO)	10 A, 120/277 VAC, 60 Hz
Tungsten (NO)	5 A, 120-277 VAC, 60 Hz
Motor (NO)	1 HP, 120 VAC, 60 Hz; 2 HP, 240 VAC, 60 Hz
Operating Temperature	-40° F to 104° F (-40° C to 40° C)
Wiring Terminals	#14 to #8 AWG
MIN ON/OFF Times	1 minute
MAX ON/OFF Times	Indefinite
Warranty	2-year limited

Enclosure	
Enclosure Dimensions H x W x D	
Metal Indoor	7 7/8" x 5 1/8" x 3 7/16" (200 mm x 130.2 mm x 87.3 mm)
Plastic Outdoor	10" x 6 1/2" x 4" (254 mm x 165.1 mm x 101.6 mm)
Metal Outdoor	10 1/8" x 6 1/2" x 3 3/8" (257.2 mm x 165.1 mm x 92.1 mm)
Knockout Dimensions Side/Back Bottom	(1) 1/2" and 3/4" combination (2) 1/2" and 3/4" combination

For enclosure line drawings and knockout locations, see pages 164-165.



ET1105C

ET1725CPD82

ET8415CR

ET1100, ET1700, ET8000 Series

Basic Electronic Time Switches

This series offers an easy way to upgrade from a basic mechanical time switch to an electronic time switch. These timers will allow for up-to-the-minute programming, battery backup for power loss, 14 ON/OFF events per circuit, and automatic daylight saving time corrections without the need of user interaction. They come in standard 24-hour, 7-day, and 7-day astronomic (sunrise to sunset) versions.

Applications

- Interior lighting • Exterior lighting • Electric pumps
- Electric motor control • Various other electrical loads

Features

- Selector switch to determine input voltage between 120-277 VAC, 50/60 Hz
- 14 ON/OFF events per circuit
- To-the-minute accuracy
- Temporary override or permanent manual override
- Automatic Daylight Saving Time adjustment
- Astronomic models enable dusk-to-dawn scheduling

24-Hour Schedule

Model #	Enclosure
1-Circuit SPST Switch	
ET1105CM	—
ET1105C	Indoor Type 1 Metal
ET1105CPD82	Outdoor Type 3R Plastic
ET1105CR	Outdoor Type 3R Metal
1-Circuit SPDT Switch	
ET1115CM	—
ET1115C	Indoor Type 1 Metal
ET1115CPD82	Outdoor Type 3R Plastic
ET1115CR	Outdoor Type 3R Metal
2-Circuit SPST Switch	
ET1125CM	—
ET1125C	Indoor Type 1 Metal
ET1125CPD82	Outdoor Type 3R Plastic
ET1125CR	Outdoor Type 3R Metal

7-Day Schedule

Model #	Enclosure
1-Circuit SPST Switch	
ET1705CM	—
ET1705C	Indoor Type 1 Metal
ET1705CPD82	Outdoor Type 3R Plastic
ET1705CR	Outdoor Type 3R Metal
1-Circuit SPDT Switch	
ET1715CM	—
ET1715C	Indoor Type 1 Metal
ET1715CPD82	Outdoor Type 3R Plastic
ET1715CR	Outdoor Type 3R Metal
2-Circuit SPST Switch	
ET1725CM	—
ET1725C	Indoor Type 1 Metal
ET1725CPD82	Outdoor Type 3R Plastic
ET1725CR	Outdoor Type 3R Metal

7-Day Astronomic Schedule

Model #	Enclosure
1-Circuit SPST Switch	
ET8015CM	—
ET8015C	Indoor Type 1 Metal
ET8015CPD82	Outdoor Type 3R Plastic
ET8015CR	Outdoor Type 3R Metal
1-Circuit SPDT Switch	
ET8115CM	—
ET8115C	Indoor Type 1 Metal
ET8115CPD82	Outdoor Type 3R Plastic
ET8115CR	Outdoor Type 3R Metal
2-Circuit SPST Switch	
ET8215CM	—
ET8215C	Indoor Type 1 Metal
ET8215CPD82	Outdoor Type 3R Plastic
ET8215CR	Outdoor Type 3R Metal
4-Circuit SPST Switch	
ET8415CR*	Outdoor Type 3R Metal



Ratings	
Input Voltage	120/208/240/277 VAC, 50/60 Hz
Resistive	20 A, 28 VDC; 30 A, 120/240 VAC
Inductive	30 A, 120/240 VAC
Magnetic Ballast	20 A, 120-277 VAC
Tungsten	5A, 120-240 VAC
Motor	1 HP, 120 VAC; 2 HP, 240 VAC
Operating Temperature	-40° F to 104° F (-40° C to 40° C)
Wiring Terminals	#14 to #8 AWG
MIN ON/OFF Times	1 minute
MAX ON/OFF Times	Indefinite
Warranty	1-year limited

Selection Guide

Scan the QR code with your smartphone or tablet for a side-by-side comparison of our electronic control features.



Note: The electronic mechanism snaps into the standard Intermatic enclosure for easy upgrading of mechanical mechanisms, if desired.

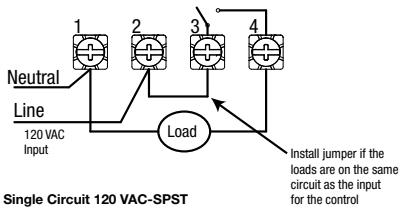
** ET8415CR is UL Listed and includes automatic voltage detection between 120-277 VAC, 50/60Hz.*

Enclosure	
Enclosure Dimensions H x W x D	
Metal Indoor	7 7/8" x 5 1/8" x 3 3/8" (200 mm x 130.2 mm x 87.3 mm)
Plastic Outdoor	10" x 6 1/2" x 4" (254 mm x 165.1 mm x 101.6 mm)
Metal Outdoor	10 1/8" x 6 1/2" x 3 3/8" (257.2 mm x 165.1 mm x 92.1 mm)
Knockout Dimensions	
Side/Back	(1) 1/2" and 3/4" combination
Bottom	(2) 1/2" and 3/4" combination

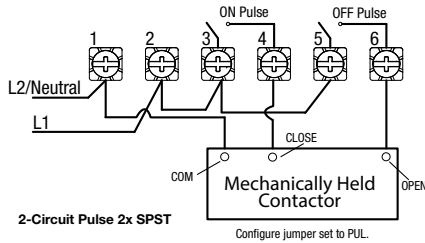
For enclosure line drawings and knockout locations, see pages 164-165.

ET1100, ET1700, ET8000 Series

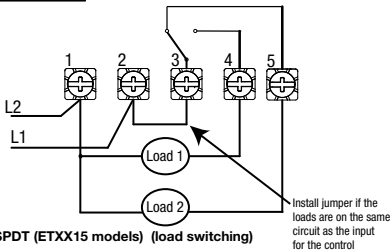
Timer Power



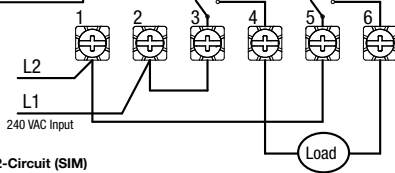
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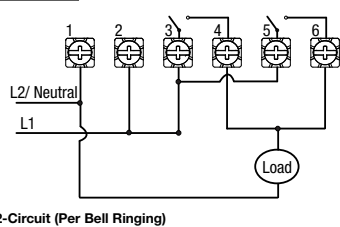
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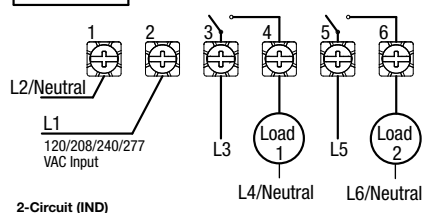
Timer Power



Timer Power



Timer Power



ET8415CR Wiring Diagrams

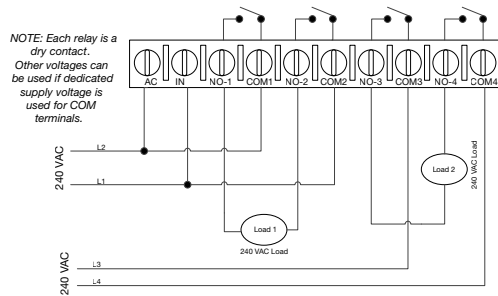
There are many different ways to set the relays on the ET8415CR Time Switch. The four relays can be used individually or in pairs of two. Refer to the table below for a complete list of ways to set the relays and illustrations for some of the common wiring installations.

Possible switching configurations		
IND/IND	SIM/IND	PUL/IND
IND/SIM	SIM/SIM	PUL/SIM
IND/PUL	SIM/PUL	PUL/PUL

Note:
IND= Independent SIM= Simultaneous PUL= Pulse

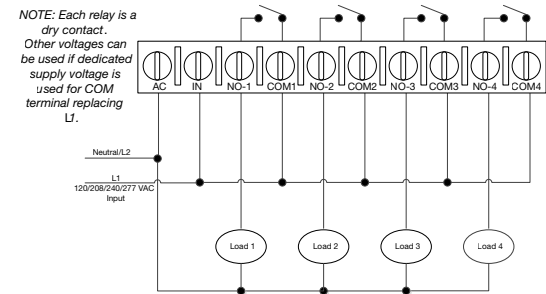
2x DPST

Operation Mode set to SIM for both sets of contacts, input and output voltage are the same.



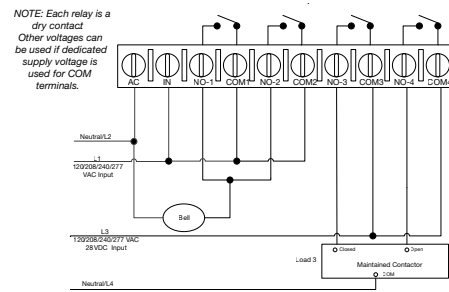
4x SPST

Operation Mode set to IND, input and output voltage are the same.



2x Pulse

Operation mode set to PUL for both sets of contacts, each ON and OFF event for circuit 1 will ring the bell. Each ON event for Circuit 3 will close contactor and each OFF event will open contactor.

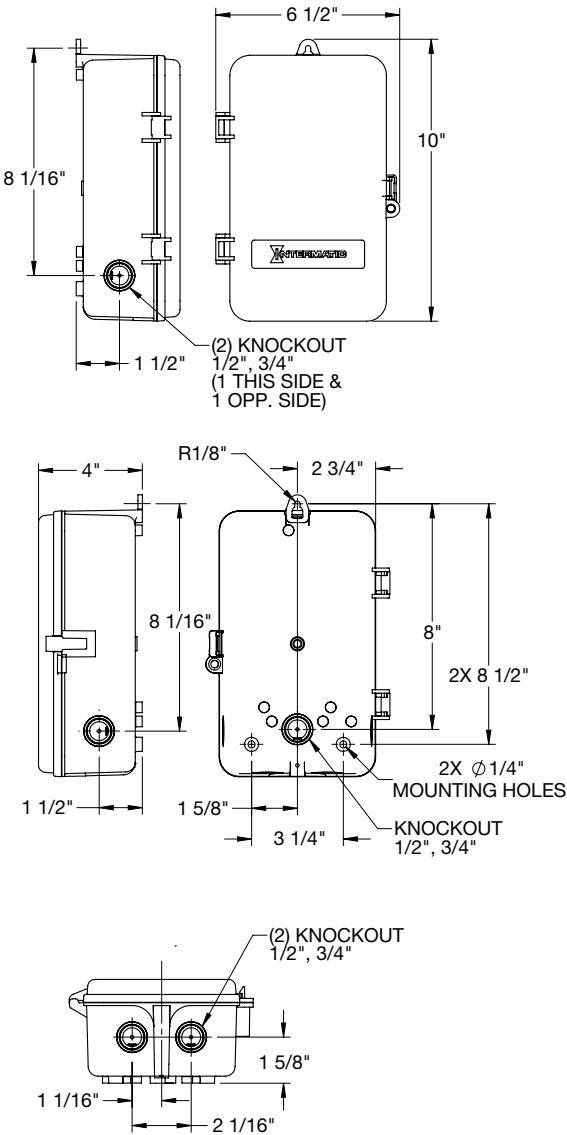




ET8215B

Dimensions

Type 3R Plastic



ET8215B

7-Day Astronomic Cellular Electronic Control

The ET8215B Cellular Electronic Control provides customized, real-time notifications, allows users to take control of their locations from anywhere, and handles a variety of different load types. Scheduling can also be configured from remote locations through an easy-to-use Web-based portal. The only tool needed for creating or modifying the schedule is a device with access to the Internet.

Applications

- Sign lighting • Safety lighting • Pumps • Electric motors
- Billboard lighting • Exterior lighting • Other critical loads

Features

- Load monitoring
- Automatic input voltage selection from 120 to 277 VAC, 50/60 Hz
- Configurable outputs
- Cellular connectivity to ensure proper notifications get sent
- 100-hour supercapacitor eliminates batteries
- Automatic circuit recovery
- Finger-safe terminals
- USB port to easily save and transfer schedules

Model #	Circuits	Enclosure	Switch Configuration
ET8215B	2	Type 3R Plastic	Optional

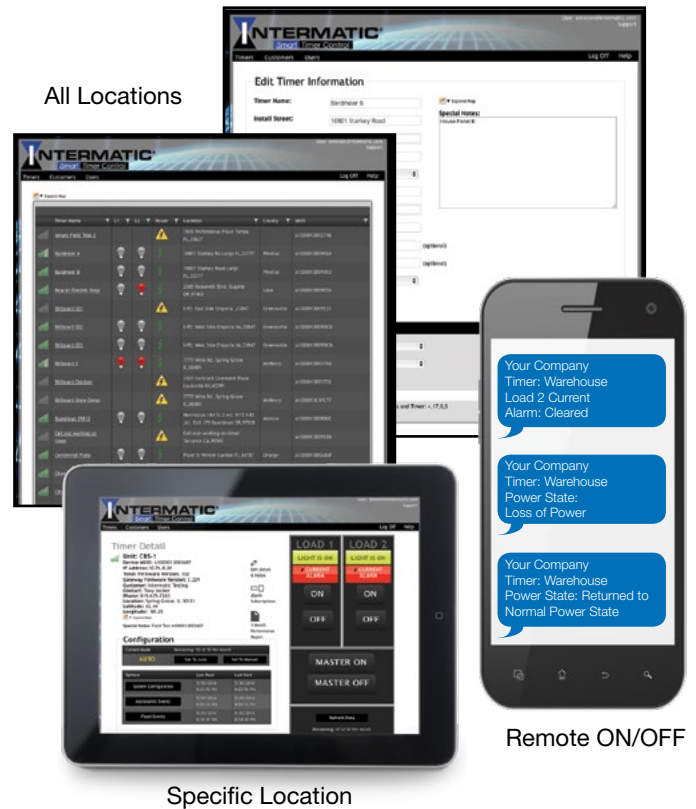


Ratings	
Input Voltage	120-277 VAC, 50/60 Hz
Switch Type	2x SPST
Resistive	20 A, 28 VDC; 30 A, 120/240 VAC, 50/60 Hz
Inductive	30 A, 120/240 VAC, 50/60 Hz
Magnetic Ballast	20 A, 120-277 VAC, 50/60 Hz
Electronic Ballast	4.5 A, 120-277 VAC, 50/60 Hz
Tungsten	5A, 120/240 VAC, 50/60 Hz
Motor	1 HP, 120 VAC, 50/60 Hz 2 HP, 240 VAC, 50/60 Hz
Operating Temperature	-40° F to 104° F (-40° C to 40° C)
Wiring Terminals	#14 to #8 AWG
MIN ON/OFF Times	1 minute
MAX ON/OFF Times	Indefinite
Enclosure Dimensions H x W x D	10" x 6 1/2" x 4" (254 mm x 165.1 mm x 101.6 mm)
Knockouts Dimensions	
Side/Back	(1) 1/2" and 3/4" combination
Bottom	(2) 1/2" and 3/4" combination
Warranty	1-year limited

The ET8215B Web Portal user interface allows for control and scheduling to be completed from any device that has access to the Internet. Make scheduling changes, turn loads ON or OFF in real time, take notes of all maintenance activities, and see all of your controls no matter where they are located.

Features

- Conveniently view the status of all your loads and controls from any location
- Real-time control
- Easily create or change scheduled events from any location with a web browser on a smartphone, tablet, or PC
- Customizable details and notes page easily keep track and save performed maintenance details
- Set up alerts to make sure the proper personnel are informed when issues arise
- Create monthly reports to keep track of proof of performance
- Map of the location of the control saves time by providing maintenance staff with exact coordinates
- Easily place the control into manual mode from nearly any device to stop scheduled events from taking place
- Track the who, what, when and where with a customizable notes section that details maintenance history



Typical Wiring Installation Diagrams

