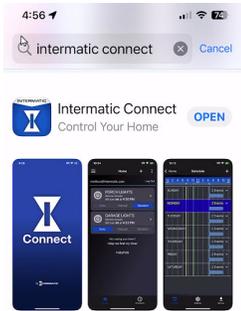


Programming Guide Models ETW2CP, ETW3CP

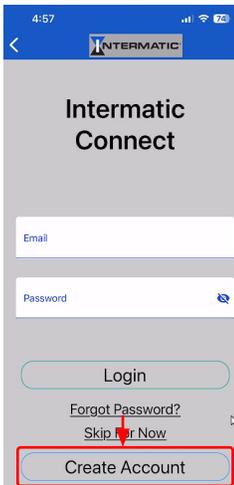
INITIAL SETUP- CREATING AN INTERMATIC CONNECT ACCOUNT

Follow these instructions to download, open and register the Intermatic Connect app.

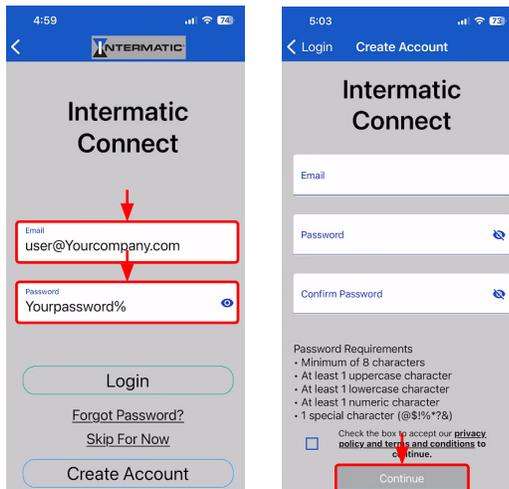
1. Download the Intermatic Connect App from the Apple Store or Google Play Store.



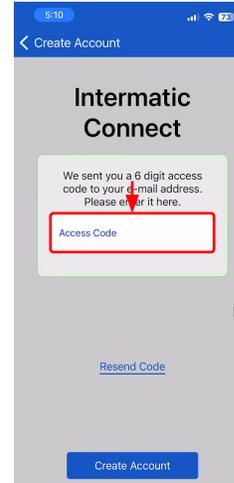
2. Open the app and select "Create Account".



3. Enter your email and password, select agree to terms and then select "Continue".



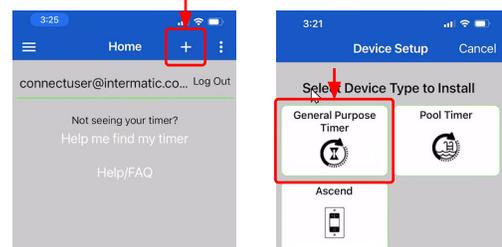
4. Check your email for the 6 digit access code and input in the app when prompted.



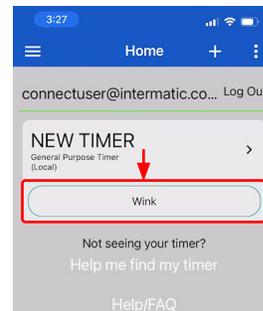
ADDING A DEVICE

Follow these instructions to install the timer switch.

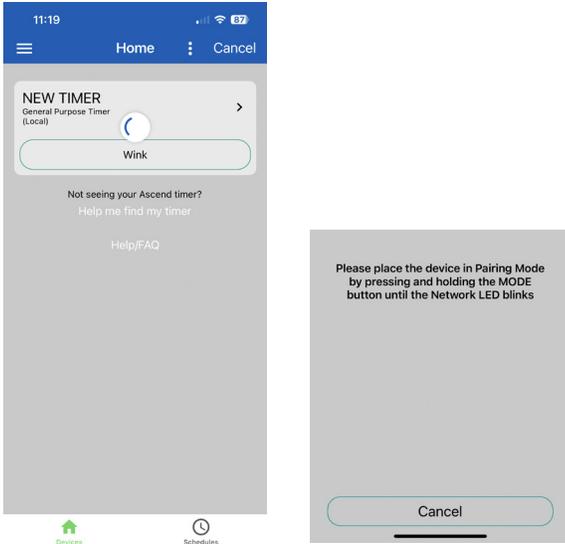
1. From Home screen, select the "+" symbol in the upper right of the home screen then select the "General Purpose Timer" icon on the Device Setup screen/page.



2. Displayed will be the timer name, type of timer and the type of connection. Within Bluetooth range of the timer, verify communication by selecting the "Wink" button on the app and the Mode light will briefly flash yellow. (typically around 20 - 30 feet)



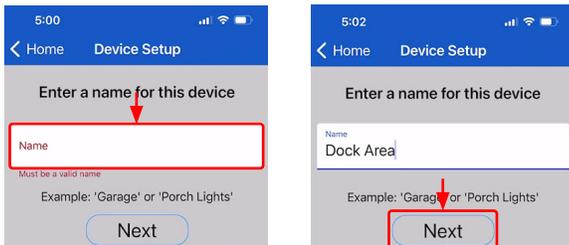
3. Then, Press **"NEW TIMER"**.



NOTE: Once notified, press the **"MODE"** button on the unit until the Network light flashes green, this will enter pairing mode. This pairing message is a one time pairing process between Device and Connect account

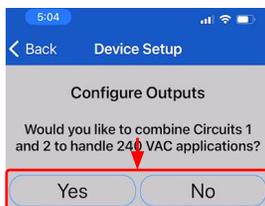
4. Name the device and select **"Next"**.

(**Note:** Letters, numbers, and spaces are all acceptable characters)



5. Configure Outputs (**C1,C2,C3**).

Select **Yes** to combine circuits 1 and 2 into a DPDT circuit. On a three circuit, circuit 3 will always be independent. Select **No** for one to three 120 VAC Outputs.



6. Choose **Normal** or **Extended Override** value for each available Output.

Normal:

Off to On - Turns on for 120 minutes before turning off.

On to Off - Remains off regardless of schedule until overridden on again. (Or until the next scheduled event.)

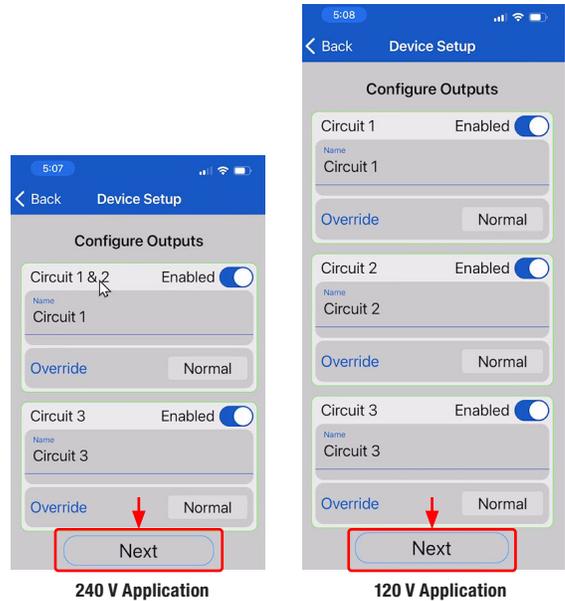
Extended:

Off to On - Defaults on for 120 minutes before turning on Override time setting value expires, then checks and returns to scheduled state.

On to Off - Defaults to 120 minutes before turning off or Override time setting value expires, then checks and returns to scheduled state.

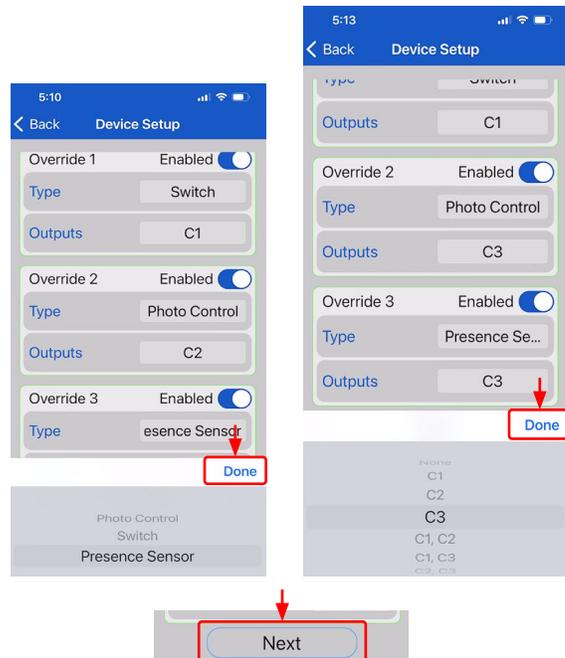
View/select which circuits are enabled and press **"Next"**.

NOTE: Each circuit can be renamed accordingly, but this step is not required.



7. Configure Inputs.

Select the type of Override: Switch, Photo Control or Presence Sensor. Next, select the outputs to control for each Override. When all Overrides are set, press **"Next"**.



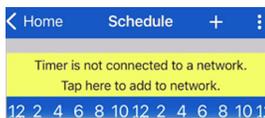
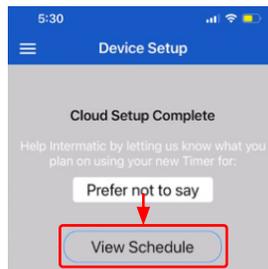
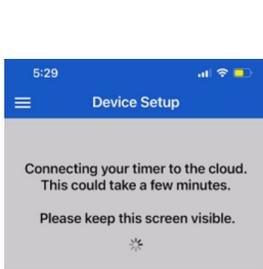
8. Press **"Connect to Network"** or **"Finish Setup Now"** if you are not ready to connect the device.

Connect to Wi-Fi and Cloud

1. Connect to your desired Wi-Fi network



2. Once notified that the cloud connection has completed, select "View Schedule".

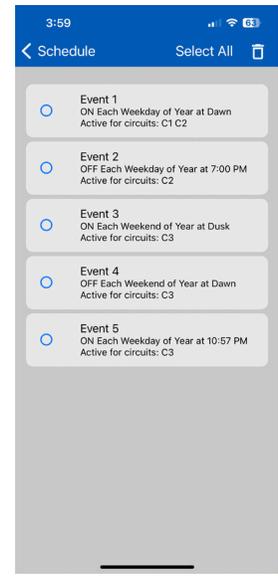
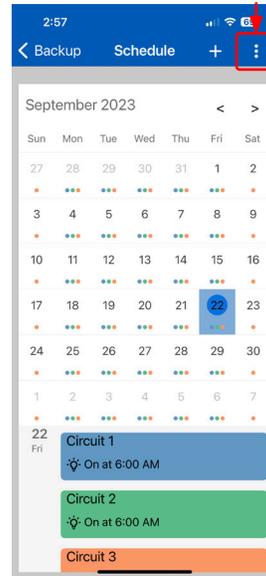


Note: If you did not Connect to the Wi-Fi Network you will be reminded in the scheduling page

SCHEDULING

Smart Wi-Fi Timer via Connect App (Supported Events)

Users can program up to 256 events and 64 holiday events choosing Specific or Relative dates, Specific or Astronomical timing (Timing accuracy +/- 15 minutes annually), and choose between ON/OFF control or Sensor Enable/Disable.



(Note: Use the three-dot menu to toggle between weekly, monthly and event based views.)

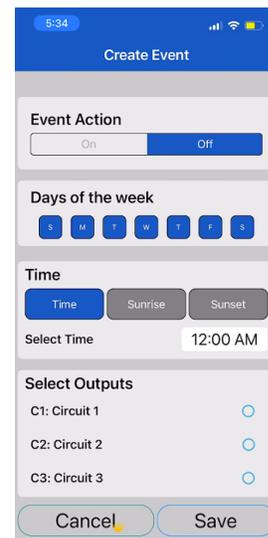
Basic Scheduling Functions

Event Action: On or Off

Days of Week: 7 Days of the week are defaulted as selected. Deselect days to exclude from the event.

Time: Select Time of Day OR Sunrise & Sunset with an offset option of + or - 120 Minutes, or a combination of Time & Sunrise or Sunset" after 120 Minutes, and before the period.

Select Outputs: Select which Circuit loads to schedule On or Off.



Basic Schedule

Advanced Scheduling Functions

ON/OFF Schedules: This allows for programming the output state of the relays for each Circuit. ON events will be associated to the Normally Open (NO) contacts, while OFF events will be associated to the Normally Closed (NC) contacts.

A. Basic: This allows for typical 24 hour, 7-Day, or 7-Day Astronomic programming.

B. Advanced: This allows for Relative and Specific Dates to be programmed.

i. Relative: Select the occurrences in which these events will operate:

Available Options:

1 st - 366 th	Monday - Sunday	January - December
Each	Week	Year
Last	Weekday	Month
	Weekend	
	Day	

Examples: 4th Thursday of November, last Sunday of month, 1st day of year.

ii. Specific: Select the date and month in which these events will operate:

Available Options:

1 st - 31 st	January - December
------------------------------------	--------------------

Example: 25th of December, 1st of January, 31st of May

iii. Holiday Schedules: If the need to have events take place outside of the normal schedule that is in place, you can do this by utilizing Holiday Scheduling. These events can be programmed using the same relative and specific options that are available in section B. Advanced.

C. Saving Schedules: You can create as many schedules as you would like on your app, but it is important to remember the control itself is limited to 256 ON or OFF events with 64 holiday exceptions.

Additional Functions

Event Types: ON/OFF or Sensor Enable/Disable for remote inputs.

Holiday: When a Holiday Event is active, all non-Holiday Events are ignored.

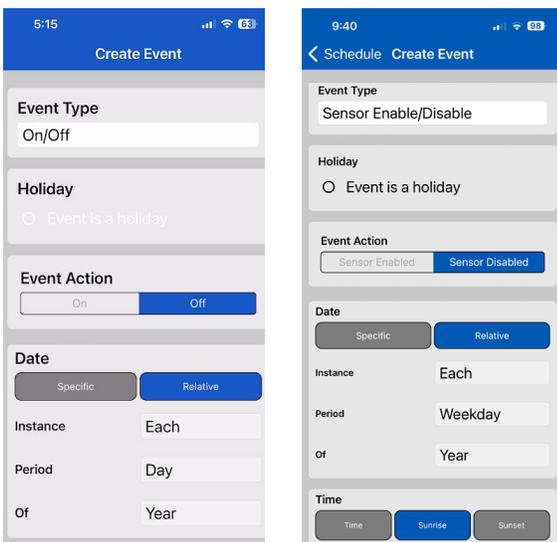
Date

A. Specific: Allows Specific Start and End dates.

B. Relative: Options for instances of Last, Each and 1st to 366th.

i. Period: Options for Day, Weekend, Weekday, or each Day of the week.

ii. Of: Options for Year, Month or Specific Month.

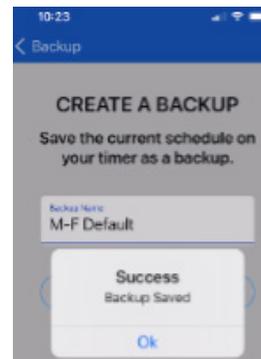
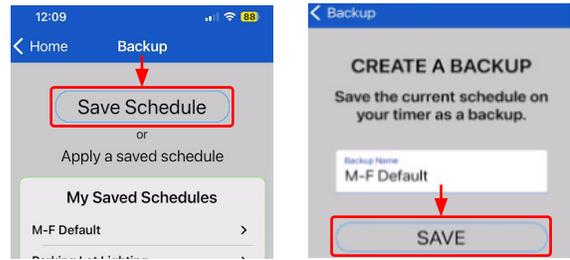


Advanced Schedule

BACKUP

The Backup feature is used to save your current schedule, recall or delete other saved schedules.

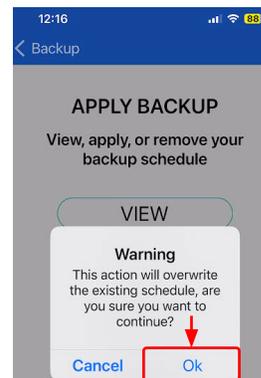
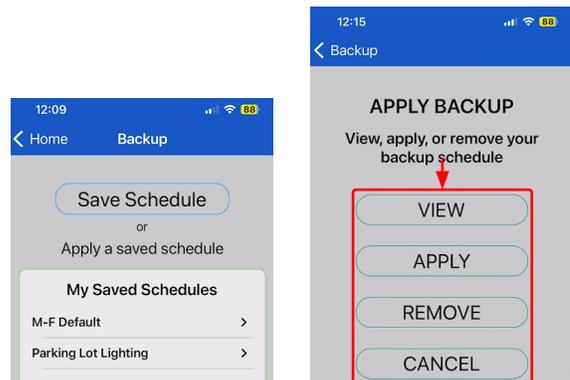
In the Schedule page, after creating a schedule, select “Backup” and “Save Schedule” and name it, then Press “Save”.



Apply a Saved Schedule and View

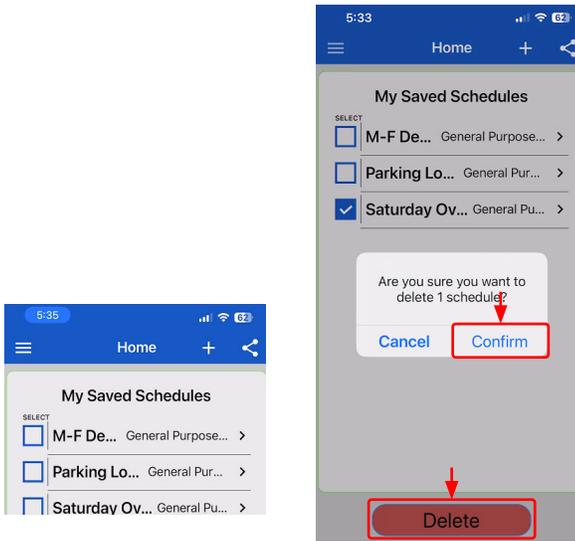
In the Schedule page, select “Backup”, Select the desired schedule to view, apply, or remove schedules.

Select “OK” and the current Schedule page loads.



Deleting Schedules

To delete a saved schedule, select a **Schedule** from Home, then select **“Delete”** and **“Confirm”**.

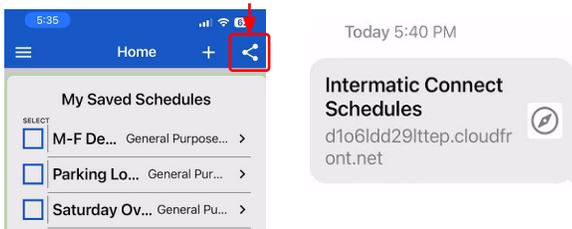


Schedule Sharing

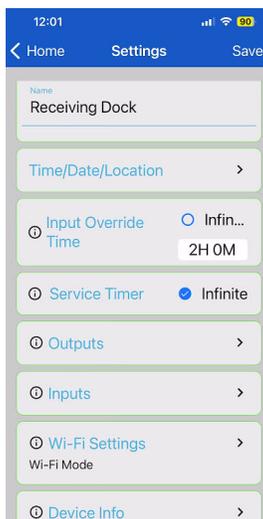
Send a schedule via text or email.

From the **Home Screen Schedules**.

Select the **“Share Icon”** in the upper right and a link will be created. Then select your method of delivery on your mobile device.

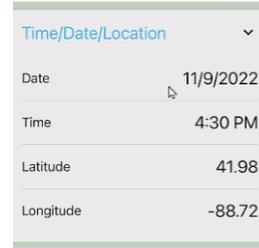


SETTINGS



Time/Date/Location

This information is populated once connected to Wi-Fi and the Cloud.



Input Override Time

Select **“Infinite”** if Override is the master (Output will stay overridden).

Select **“Override Time”** to expire and return to scheduled state. Choose between 1 minute and up to 23 hours and 59 minutes



Service Timer

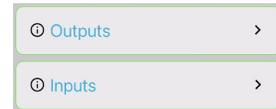
Select Infinite or limit service mode to expire and return to scheduled state.

Choose between 1 minute and 23 hours and 59 minutes.



Outputs and Inputs

Selecting these will open the page to adjust inputs or outputs.

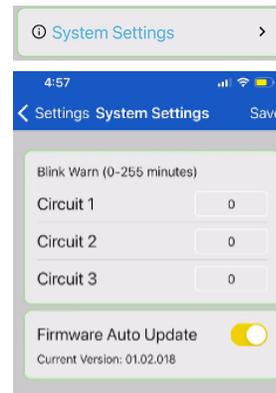


System Settings

Select a **value** for a Blink Warn for each circuit (0-255 minutes).

This will momentarily flash the circuit off once the set value is reached.

Select **“Firmware Auto Update”**. Deselect for manual update.



Wi-Fi Settings

To reset Wi-Fi settings, perform a Wi-Fi reset by pressing and holding all circuit On/Off buttons on the unit simultaneously for 3 seconds until the circuit LEDs flash once in sequence.



Full Unit Reset Button

Press and hold **reset button** until mode LED flashes red and reset begins. The Reset button is located on the unit below the Mode button. This will return the unit to factory default settings.

Communications

ETW Wi-Fi Platform devices employ one Bluetooth® Low Energy (BLE) and one Wi-Fi communications interface. When a Wi-Fi Platform device is powered up for the first time, the BLE interface will present its unique identification and device type. The mobile app will be able to scan and connect (peer-to-peer) to the BLE interface when within range of such device. The user will have to interact with the device to complete a simple pairing process to complete a successful connection of a discovered device. Once connected to the device, the user can configure the device's Date/Time, Daylight Saving Time, Location, Wi-Fi connection, schedule, device name and channel names. Once connected to the internet and logged into their Intermatic Connect account, the user can add the device to the cloud for remote access.

DEVICE SETUP WITH THE INTERMATIC CONNECT APP

Schedule Example

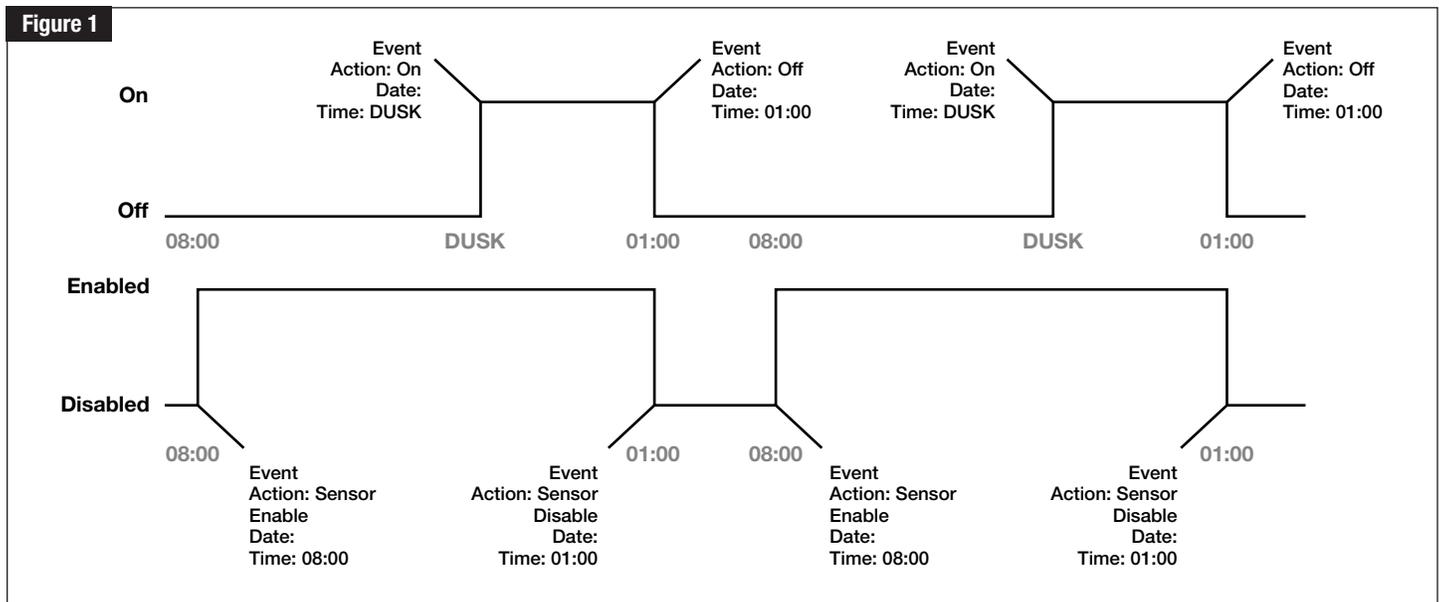
The diagram in **Figure 1** (see below) explains how the Wi-Fi Platform would address the following user story:

There are often times that a standard photocontrol or occupancy sensor is needed as an override for the scheduled control. This could work in two different ways, the first would override the schedule events, the second would only allow for the override to work outside of the scheduled operations.

As an example: A business is open from 8 AM to 1 AM, this is controlling the outside entryway lighting. The end user wants the lights to turn ON at Dusk and turn OFF at 1 AM. The end user also wants for a photocontrol to be used to allow for the lights to turn ON if it gets dark prior to Dusk (Storm or other anomaly), but still wants the lights to remain OFF from 1 AM till at least 8 AM.

Factory Default Settings

- When power is first applied to an out of the box device, the device will default to the Manual Mode of operation and all Outputs will be in the Off state.
- No schedule will exist in the device, so the device will not allow the user to place it in Auto Mode (Device Buttons, Mobile App or Voice Control).
- The Network LED will be Off, indicating the device is not configured for a network and the mobile app is not connected.
- Default output channel configuration:
 - Gen Purpose Timer ETW2CP:
 - Channel 1: SPDT
 - Channel 2: SPDT
 - General Purpose Timer ETW3CP:
 - Channel 1: SPDT
 - Channel 2: SPDT
 - Channel 3: SPDT
- Default input configuration:
 - Gen Purpose Timer ETW2CP:
 - Input 1: Switch, 120-minute override
 - Input 2: Switch, 120-minute override
 - General Purpose Timer ETW3CP:
 - Input 1: Switch, 120-minute override
 - Input 2: Switch, 120-minute override
 - Input 3: Switch, 120-minute override
- User will be able to press and command channel override buttons to activate/deactivate the circuits.
- User will not be able to put the device into Auto mode.
- User can place the device into the Service mode.



Modes

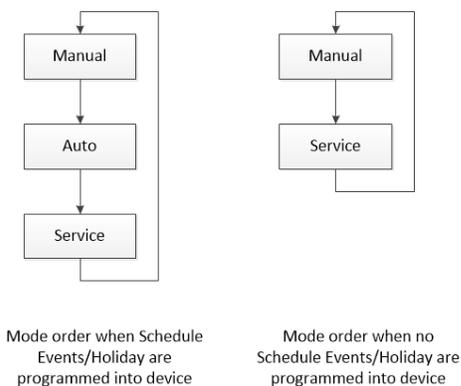
Switching modes using the Mode button: When the user presses the Mode button, the LED associated with the next Mode (see below) will begin to blink on and off. This Mode LED will continue to blink for 3 seconds, and if no further Mode button presses occur, the device will switch Modes and the LED associated with the selected Mode will stop blinking and turn to solid on. If the user presses the Mode button before the 3 second timeout, the LED associated with the next Mode will begin to blink and the 3 second timer will restart.

If the user presses the Mode button enough times to get back to the Mode the device is currently in, the Mode LED will turn to solid on, letting the user know there in the current Mode already.

For example:

Initial state: Mode = Manual and schedule exists

- **1st button: press → Auto LED blinks**
- **2nd button: press (within 3-secs) → Service LED blinks**
- **3rd button: press (within 3-secs) → Manual LED goes solid on**



1.1.1 Manual

- Default mode out of the box and after a factory reset.
- Transition to other Modes can be done by user via Device Buttons/Mobile/Voice UI.
- Schedule events/holidays are ignored.
- Circuit override buttons are enabled.
- Override inputs (if enabled) can override associated Circuit.
- Mobile app overrides are enabled when device is connected to the cloud (Remote).
- Voice UI overrides are enabled when device is connected to the cloud (Remote).

1.1.2 Auto

- Requires at least 1 schedule event or holiday in device to enter Auto mode.
- The device will follow the schedule/holiday events when in Auto mode.
- The device can be placed into Auto mode using the Mode button on the device, mobile application, or Voice UI.

1.1.3 Service

Service Mode is to be utilized by a service technician.

- The only method of placing the device into Service Mode is at the device using the Mode button only.
- Circuit/Output override buttons are enabled.
- If the device is cloud connected, entering Service mode will start BLE communications, allowing a local service technician the ability to connect to the device and perform local operations. BLE communications will remain enabled until the device is placed into another mode of operation (Auto or Manual).
- Mobile App connected via the Cloud will not be able to make changes to the device while in Service Mode.

- Mobile App connected via the Cloud will be able to show a user the device is in Service Mode.
- An onsite service technician connected locally to the device (peer-to-peer via Bluetooth) will have the ability to fully configure settings and schedule.
- When the Service timer expires, the device will automatically revert to the previous mode of operation (Auto or Manual) prior to entering Service Mode. This assumes the service technician didn't delete all schedule/holiday events. If all events are removed while in Service Mode, the timer will return to Manual Mode and set the output/Circuit to Off.
 - Schedule events/holidays are ignored.
 - Sensor (Presence or Light) override inputs are automatically disabled in Service Mode.
 - Changing device mode via Voice UI is disabled.
 - Voice UI override commands (sets) are disabled when device is in Service mode. Voice UI shall tell the user why they can't command Mode/State.
 - "[Device Name] is in Service mode, overrides are not allowed while in this mode".
 - Voice UI: The user shall be able to ask what mode the device is in while in Service mode.
 - Response from Voice UI while in Service Mode: "[Device Name] is in Service mode which will expire at 4:30 PM".
- For Cloud onboarded devices, Bluetooth communications will be re-enabled when a user places the device in Service mode.
- Overrides are not honored while in Service Mode.
- When entering Service Mode, from either Auto or Manual, all Outputs will be commanded Off.
- When leaving Service Mode (either by the user pressing the Mode button or Service timer expiration), the device act as follows:
 - If the previous Mode was set to Manual, Outputs will be restored to their previous values prior to entering Service Mode.
 - If the previous Mode was set to Auto, when leaving Service Mode, the Outputs will be set based on the Schedule and Sensor Override Inputs.

Overrides

"Override" is defined as the manual action of toggling an output from "On" to "Off" or "Off" to "On" state. "Off" is defined as power is removed from the Normally Open contact on the Relay, "On" is defined as Power is applied to the Normally Open contact of the Relay. Overrides only occur when the product is in Auto Mode, i.e manually overriding the scheduled state in Auto Mode. If the product is in Manual Mode, the "override" concept doesn't exist. In Manual mode, overrides change the state of the output for eternity or until the user changes the Mode or State.

California title 20/24 mandates that an override is not to exist more than 2 hours. Default override time for General Purpose and Pool Timer products will be 120 minutes.

Physical override inputs exist on the General Purpose and Pool Timer devices only. An active physical override is defined as a high voltage (level) present on the input. All 3 products can be overridden by the mobile App and Voice UI.

Overrides are generated from the following inputs:

- Override Button (Toggle - On/High, Off/Low)
 - Override buttons are tied directly to their corresponding circuit.
 - L1 -> C1
 - L2 -> C2
 - L3 -> C3
 - In the case where Circuits 1 and 2 are combined to handle larger loads:
 - L1 -> C1 & C2
 - L2 -> Does nothing
 - L3 -> C3
- Discrete Digital Input (Configurations Below)
 - Switch (Toggle)
 - Presence Sensor (Occupancy On/High/Vacancy Off/Low)
 - Standard Photocontrol (On/High when light level is below X Lux, Off/Low when light level is greater than X Lux)
- Mobile (While connected locally, Bluetooth only).
- Alexa or Google voice assistants.

Types of Overrides:

The following types are on a per Circuit/Output basis. Meaning the override type is stored in Output configuration.

Normal:

- **[Override Off to On]** When an Output/Circuit is Off and an override is issued, the Output/Circuit is driven On and an override timer is started. When the Override Timer expires, the Output/Circuit is driven Off.
- **[Override On to Off]** If an Output/Circuit is On and the Output/Circuit is overridden Off, the Output/Circuit is driven Off, regardless of what the schedule would command the Output/Circuit.

Extended:

- **[Override Off to On]** When an Output/Circuit is Off and an override is issued, the Output/Circuit is driven On and an override timer is started. The Output/Circuit will remain On for the duration of the override. When the Override Timer expires, the firmware will check the calculated schedule output state, if the calculated schedule state is On, the firmware leaves the Output/Circuit On. If the calculated schedule state is Off, the firmware turns the Output/Circuit Off.
- **[Override On to Off]** If the Output/Circuit is On and an override is issued, the Output/Circuit will remain in the On state for the duration of the Override Time. When the override timer expires, device will evaluate the schedule to determine whether to leave the Output/Circuit On or to turn Off based on the schedule. If the schedule is Off at the end of the override, the Output/Circuit is switch Off. If the Schedule is On at the end of the override period, the Output/Circuit will remain On.
- Enable/Disable Sensor Overrides with Schedule Event
- Discrete sensor override inputs can be enabled or disabled using a schedule event. The enable/disable feature is only active during Auto Mode. Discrete overrides will be enabled when in Manual or Service Modes.
- If a Circuit/Output is actively overridden by an Input configured as a Light Sensor and the Light Sensor Input is disabled by an Enable/Disable Schedule Event, the override is terminated immediately.
- When a discrete override input is configured as a Switch, the input can't be disabled.
- If an Input is configured as a Presence Sensor, the Override Time property is not used. A Circuit/Output overridden by a Presence Sensor will not time out using the internal Override Time property. If a Circuit/Output is actively overridden by a Presence Sensor and the Presence Sensor Input is disabled by the schedule, the active override isn't terminated until the Presence Sensor no longer detects occupancy and times out.

- If both a Presence Sensor and Light Sensor override inputs are driving a common Circuit/Output(s), the Presence Sensor will keep the Circuit/Output overridden On while presence is detected.
- By default, out of the box, each discrete override input will be enabled as a "switch" type out of the box. Input 1 is connected to Circuit/Output 1. Input 2 is connected to Circuit/Output 2. Input 3 is connected to Circuit/Output 3.
- In the event a user combines Circuit 1 and Circuit 2, discrete Input 2 will no longer point to Circuit/Output 2, as it will no longer point to a Circuit/Output.
- A schedule Event to enable/disable a discrete sensor override input:
 - Applies to override inputs configured as presence and light sensors
 - Date (Specific and Relative)
 - Time (Specific, Dusk or Dawn)
 - Discrete Input(s) (DI1, DI2, DI3)
 - One input, combination of any, or all 3
 - Enable or Disable
- Override Time is a settable property by a mobile app user. Override time value is used for all overrides except for Inputs configured for Presence and Light Sensors.
- When a device's output has an actively overridden Output/Circuit, the mobile app will reflect this on the dashboard for the specific Device and Output/Circuit. The override time remaining will also be shown when active.
- If Mode is changed from Auto to Manual or Service modes while an override is active, the override is cancelled, and the Circuits/Outputs will remain in the current On/Off state.

Firmware Upgrade (OTA)

Firmware upgrades can be initiated by a user when connected locally or remotely through the Intermatic Connect Cloud. Firmware upgrades can also be automatically scheduled from the cloud and user preferences.

User can select how and when an OTA can be executed.

- Automatic when upgrade is made available
 - Device will determine when a good time to perform an OTA. Conditions for performing a cloud-connected Automatic Update are as follows:
 - All relays de-energized OR ...
 - 24 hours have passed where 1 or more relays have been continuously energized AND it's between 3:00-3:59am.
 - ... whichever comes first.
- User commanded OTA (local OTA)
 - On demand
 - User starts OTA

1.2 Mobile Phones/Tablets Supported**Apple**

- Apple iPhone that supports the latest version of iOS and minus one for the iPhone and iPad. (Today that would be iOS 17 and 16)
- Apple iPad. Ascend App supports iPad

Android

- Android OS 9 or newer is supported