

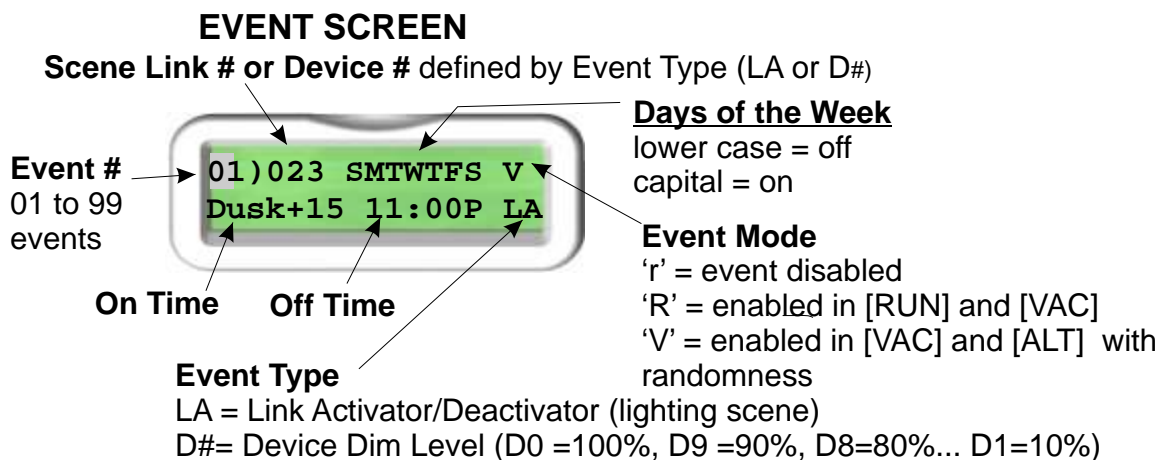
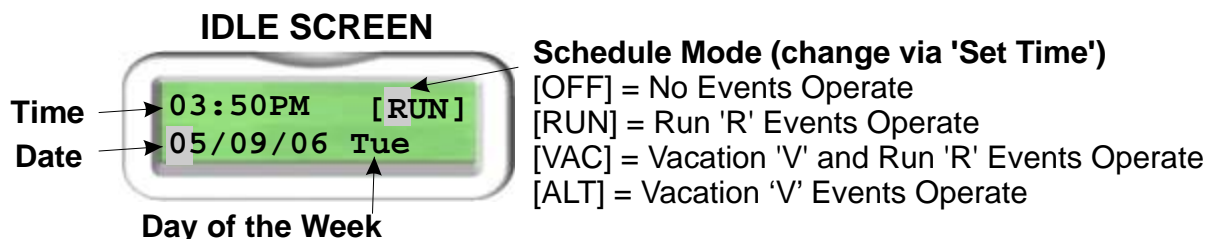


Controller, Scheduler-Timer Model UCS-01

User Guide



QUICK REFERENCE GUIDE



***Hint:** ENTER button selects a menu item, saves settings, advances to the next editable field, and executes commands. The MENU button accesses the main menu and exits a screen without saving changed settings.*

MENU

- | | |
|------------------|-------------------------|
| 1) Set Event | 6) Set Randomness |
| 2) Set Time | 7) Set Contrast |
| 3) Set Location | 8) CIM Mode |
| 4) Set Network | 9) Clock Source |
| 5) Delete Events | 10) Use (with) Repeater |

QUICK START

Step 1) Plug Scheduler in to power (fully charged in 24 hours).

Step 2) Press Menu button, select 'Set Time' and press enter; set time and mode data, then press enter to save and exit.

Step 3) Select 'Set Location' and press enter; input zip code and press enter (3 times as prompted) to save and return to main menu.

Step 4) Select 'Set Network' and press enter; input your network ID* and press enter to save.

Step 5) Select 'Set Events' to begin editing schedule.

* Note: for Pre-Configured Kits (e.g. DKIT-0x) and their Accessories, the network ID is 250 and each device is labeled with its ID number.

DESCRIPTION

The UPB Controller, Scheduler-Timer (model UCS) provides control of UPB devices or UPB scene links according to a user defined event or schedule. It is designed to communicate with a UPB network when connected to a standard power receptacle; using the L-shaped power connector or the 6 foot power cord, both included.

The UCS is simple and flexible. It is often used in place of more complex whole home automation system schedulers because it is easier for the home owner to adjust. Up to 99 events can be configured once the time, location and Network ID# are set in the UCS. Location is set by entering zip code or latitude/longitude.

Each of the 99 available events can control a device or a scene link with respect to time, sunrise (dawn), sunset (dusk) or a combination of a time \pm minutes from sunrise or sunset. Each event has a mode setting (Event Mode) which can be configured as enabled ('R' = event enabled for [RUN] and [VAC] Schedule Modes), disabled ('r' = event disabled for all Schedule Modes) or enabled ('V' = event enabled for [VAC] and [ALT] Schedule Modes) with random time settings. The Schedule Modes ([RUN] where all 'R' enabled events are ON, [OFF] where all events are OFF, [VAC] where vacation 'V' and 'R' events are ON and [ALT] where only vacation 'V' events are ON) allow the user to quickly change the operation of the Scheduler-Timer so the corresponding Event Modes occur. For example when the Schedule Mode is set for normal [RUN] operation only events set for Event Mode 'R' operate. However when vacation Schedule Mode [VAC] is selected, normal run 'R' events operate and vacation 'V' events operate with randomness.

The easy to navigate menus allow configuration without the use of a PC or software. The Scheduler-Timer is intended for use by an installer or homeowner who knows the Network ID#, Device # and scene link numbers.

In the CIM Mode the Scheduler-Timer may be used as a serial Rs232 Computer Interface Module, allowing a PC with UPStart configuration software to connect to a UPB network through the UCS.

IMPORTANT SAFETY INSTRUCTIONS

When using electrical products, basic safety precautions should always be followed, including the following:

1. READ AND FOLLOW ALL SAFETY INSTRUCTIONS.
2. Keep away from water. If product comes into contact with water or other liquid, unplug immediately.
3. Never use products that have been dropped or damaged.
4. Do not use this product outdoors.
5. Do not use this product for other than its intended use.
6. To avoid risk of fire, burns, personal injury and electric shock, install this product out of reach of small children.
7. Do not cover the product with cloth, paper or any material when in use.
8. This product uses polarized plugs and sockets (one blade is wider than the other) as a feature to reduce the risk of electric shock. These plugs and sockets fit only one way. If they do not fit, contact a qualified technician.
Do not use with an extension cord unless plugs can be fully inserted. Do not alter or replace plugs.
9. SAVE THESE INSTRUCTIONS.

INSTALLATION

The Scheduler-Timer is designed for indoor use. Simply plug the appropriate end of the power cord or L-shaped connector into the top of the UCS, and the other end into any 120 VAC outlet. For convenience the L-shaped power connector is designed to hang the unit from a high (mid-wall) receptacle, typically found in the kitchen or garage. The 6 foot power cord can be used when programming events, or when mounting the unit in some other location (e.g. table top).

When the clock's super-capacitor in the Scheduler-Timer is fully charged (24 hours of powered / charging time required to achieve a full charge) the device can be unplugged or un-powered for up to one week without losing time. Programmed events are stored in non-volatile memory until manually deleted regardless of the clock's super-capacitor charge. This feature also makes programming and testing of room lighting easy since the user can power and program the unit in one location, then unplug the device to move it to another 'plug-in' location within the house without losing the time or programmed events. The UCS requires 120VAC power to operate.



When power is provided to the Scheduler-Timer the unit runs a start-up routine, and then displays the 'Idle Screen'.

Idle Screen showing: time Schedule 'RUN' Mode, date and day of the week.

The Diagnostic LED should be lit with an AMBER color indicating the Scheduler-Timer is ready for use.



FUNCTION / NAVIGATION

The Scheduler-Timer has an LCD display with 2 lines of 16 characters, a diagnostic LED, 7 buttons, a polarized power connector and a DB-9 serial port. The 7 buttons provide easy navigation through the menus on the LCD display and are described as follows:



MENU: Provides access to the main menu from the Idle Screen. It will also return the display to the previous menu or Idle Screen from any sub-menu by exiting the selection without saving the configuration data.

ENTER: Enters a menu item or saves a selected setting. It provides movement through a selected menu item's editable fields and executes commands.

UP and DOWN: Provide movement through the menus and toggles through characters when editing a selection.

RIGHT and LEFT: Provide movement across the display.

FUNCTION: Toggles the backlight on the LCD display.

Diagnostic LED: The diagnostic LED operates just like the LED of a Computer Interface Module (CIM). In CIM Mode the Scheduler-Timer exchanges UPB messages between the powerline and connected computer or controller via an RS-232 / DB9 cable. The indicator on the UCS will glow AMBER when powered, flash RED when UPB messages are seen on the power line and flash GREEN when a UPB message is transmitted from the Scheduler-Timer.

DB9 Port: Connect a standard (DB9, male to female) serial cable between the UCS and a computer's RS-232 port to use the Scheduler-Timer as a Computer Interface Module. The DB9 port may also be used to upgrade the firmware in the UCS, if needed (see "Updating the Controller Scheduler-Timer" section at the end of this User Guide).

INITIAL CONFIGURATION

NOTE: In order to completely configure the Scheduler-Timer it is necessary to know the Network ID, Device ID(s) and Scene Link ID(s) to be controlled, writing down the Device ID or Scene Link ID for each UPB device to be scheduled is recommended. The ID information is found in the UPStart network file. Or, if Pre-Configured Kits are being used (e.g. DKIT-01) the network ID is 250 and each device is labeled with its ID number (e.g. 001, 002, 003, etc...).

With the UCS plugged into power on a configured UPB network, press **MENU** from the Idle Screen. The following menu selections are available:

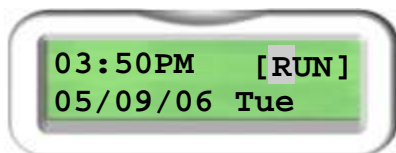
- | | |
|------------------|-------------------|
| 1) Set Event | 6) Set Randomness |
| 2) Set Time | 7) Set Contrast |
| 3) Set Location | 8) CIM Mode |
| 4) Set Network | 9) Clock Source |
| 5) Delete Events | 10) Use Repeater |

Step A: Set Time

Press the Down button to select Set Time.



Press **ENTER** ↵ button to view the Set Time screen.

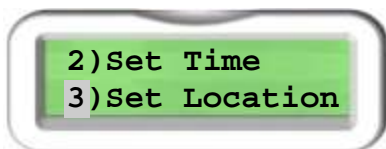


- Move cursor with Right and Left buttons to select character to change
- Use Up and Down buttons to change character.
- Adjust time by hours and minutes, Up or Down from character on the display.
- Use the Right button to select the Schedule Mode field, then use Up or Down buttons to select [OFF], [RUN], [VAC] or [ALT]. The Scheduler-Timer will be turned ON by selecting either run [RUN], vacation [VAC] or alternate [ALT] vacation mode. See page 8 for a description of Schedule Mode operation.
- Adjust month / day / year and day of the week, similarly.
- When the time, mode, date and day of the week have been set, press the **ENTER** ↵ button to save the settings.

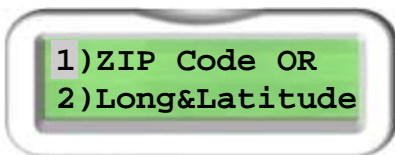
NOTE: Pressing the MENU button instead of the ENTER ↵ button will exit the screen without saving the settings.

Step B: Set Location

- Press **MENU** from the Idle Screen.
- Press the **Down** button to select **Set Location**.



- Press **ENTER** ↵ button to view the Set Location sub-menu



- Select Zip Code and press Enter ↵.
 - Zip Code – Enter Zip by using Up / Down and Right / Left.
 - Press **ENTER** ↵ to save.
 - Screen will toggle to Longitude & Latitude screen.
 - Make adjustments if necessary and known, otherwise do not change.
 - Press **ENTER** ↵.
 - UCS will calculate and display Dawn (sunrise) and Dusk (sunset)
- Press **ENTER** ↵ button to save.

Step C: Set Network

- Press **MENU** from the Idle Screen.
- Press the **Down** button to select **Set Network**



- Press **ENTER** ↵ button .
- Enter the UPB Network ID.
- Press **ENTER** ↵ button to save

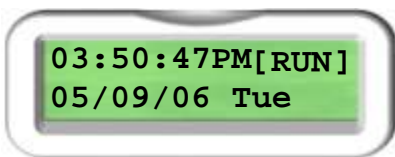
Hint: if the Network ID is unknown it will be necessary to run the UPStart configuration software or the Pocket Programmer (model UPP-20) to determine the Network ID. To find the Network ID in UPStart, from the top menu select Network, then Network Properties.

Step D: Set Events

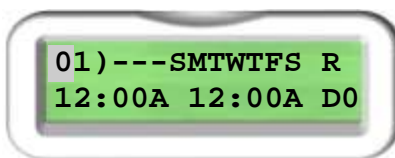
Press **MENU** from the IDLE Screen



Select Set Events and press **ENTER** ↵ button.



Or, from the IDLE Screen press the Up or Down button and scroll to an available event.

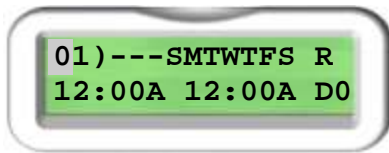


Hint: Each Event in the Scheduler-Timer requires the Device ID of the UPB device or the Link ID of the UPB scene link to be controlled. It is highly recommended that the user creates a list of Device ID and Link ID numbers correlating to the UPB devices to be controlled before setting up the events. This will prove useful when entering events since the list can be quickly referenced.

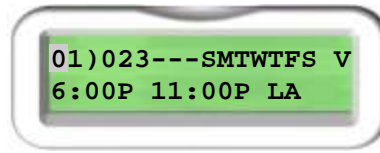
- Use the Right / Left buttons to move the cursor across the screen and the Up / Down buttons to change the character at the cursor.
- The first two-digit number on the screen is the Event ID number. There are 99 Event ID numbers from which to choose, 01 to 99. We recommend selecting 01 as the first event, 02 as the second and so on, so that you can easily see how many events are used and know how many remain unused.
- The three-digit number following the “)” represents the Device ID of the device being controlled or the Link ID of a scene link being controlled. Enter the Device ID or Link ID for the event using the Up / Down buttons.
- The next characters represent the days of the week. A capital letter turns the event ON for that day and lower case turns the event OFF for that day. Using the Up / Down buttons, enter the days of the week in which the event should be ON (capital) or OFF (lower case).
- The next character represents the Event Mode which can be R, V or r.
 - R = Event is enabled in Schedule Modes [Run] and [VAC] without random time settings.
 - V = Event is enabled in the Schedule Mode [VAC] and [ALT] only; with random time settings applied.
 - r = Event is disabled. The event will not occur in either [RUN], [VAC] or [ALT] Schedule Modes. This 'r' setting is used to temporarily turn off an event. For example if the user does not want an event to run when going on vacation, or to avoid deleting an event that may be used later.
- Select the desired Event Mode using the Up / Down buttons.

The following table details the Schedule Mode and Event Mode operation. Schedule Mode is displayed on the Idle Screen and adjusted from the Set Time screen. Event Mode is displayed and

Schedule Mode: (as viewed on Idle Screen)	Event Mode: Off mode = 'r'	Event Mode: Run mode = 'R'	Event Mode: Vacation mode = 'V'
[OFF]	Off	Off	Off
[RUN]	Off	Run	Off
[VAC]	Off	Run	Run with vacation randomness
[ALT]	Off	Off	Run with vacation randomness



Event 001, factory default



Event 001, set for Vacation
Activating Link 023 at 6PM and
Deactivating at 11PM, all week.

- **Set On Time / Off Time:**

- The Up / Down buttons scroll through the hours:minutes, AM / PM and deviations from Dusk and Dawn selections.
- Examples:
 - 07:00P 11:00P, where the event turns on at 7PM and turns off at 11PM.
 - Dusk+15 Dawn-30, where the event turns on at Dusk plus 15 minutes and turns off at Dawn minus 30 minutes.
 - ----- 11:00P, where the event (only) turns off at 11PM. This function is used to make sure one or more devices are turned off at a specific time (e.g. all off command). Conversely, an event could be set to only turn ON by entering an ON time and then entering "-----" for the OFF time.
- A = AM, P = PM.

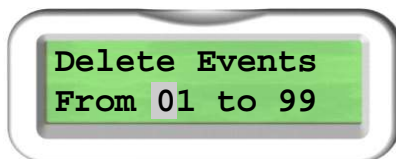
- **Set Event Type:**

- The Up / Down buttons scroll through the dim levels D0 through D9, and LA for Link Activator/Deactivator.
 - Dim levels: D0 = 100%, D9 = 90%, D8 = 80%... D1 = 10%.
 - LA is Link Activator, where the device(s) receiving the Link control how they respond for dim Level and Rate.

- Press **ENTER** ↵ button to save Event.
- Once the event is saved, press **ENTER** ↵ button to test Event On function and press **ENTER** ↵ button another time to test Event Off.
The event must be displayed on the Scheduler-Timer screen to run the tests and a Device or Link ID must be valid and stored for the specific event.

OTHER MENU SELECTIONS

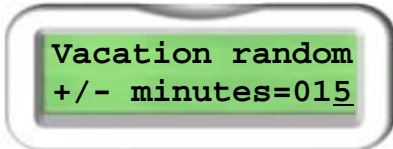
Delete Events



A range of events can be deleted by entering the event range, for example from 5 to 10, then pressing **ENTER** ↵, which would delete events 5 through 10. A single event may be deleted by specifying the range to be the same number (e.g. from 5 to 5, would delete event 5).

Input the desired events to be deleted then press the **ENTER** ↵ button to delete the range of events.

Set Randomness



Vacation random
+/- minutes=015

Vacation Events are designed so that the ON and OFF time can be random, from plus or minus 1 to 60 minutes, so that the home has a 'lived in' look. As an example, if Vacation random limit is set to +/-10 minutes, and the Schedule Mode is set for [VAC] Vacation or Alternate [ALT] vacation, then all events set for Event Mode 'V' will turn ON and/or OFF within plus or minus 10 minutes of the scheduled ON or OFF time. A new random number, within the limit, is applied to each of the Vacation Events every day and is the same random number for both ON and OFF time.

Select the number of minutes then press **ENTER** ↵ button to save.

Set Contrast



Set Contrast=070

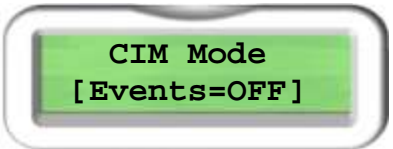
To adjust the display contrast (i.e. viewing angle), hold the Up or Down button until the desired contrast is displayed. Press **ENTER** ↵ button to save contrast level.

CIM Mode



7)Set Contrast
8)CIM Mode


To configure the Scheduler-Timer to operate as a Computer Interface Module (CIM), allowing a PC with UPStart to access a UPB network, select the CIM mode from the menu and press **ENTER** ↵ button to initiate CIM mode operation. Note the unit will not run scheduled events when in the CIM mode. During CIM mode operation pressing any button will end the CIM mode function. There is no time-out period for CIM mode.



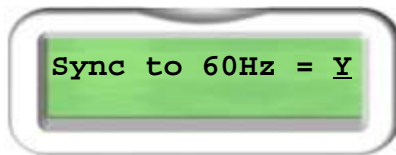
CIM Mode
[Events=OFF]

The UCS may now be used via the RS-232 port as a Computer Interface Module. The default mode is Message Mode. UPStart will put the UCS into Pulse Mode when selecting 'connect' to UPB Device Interface within UPStart. It may be necessary to exit and re-enter CIM mode to put the UCS back into Message Mode for third party controller interface.

Clock Source



8)CIM Mode
9)Clock Source



The Scheduler-Timer is synchronized by the 60hz power signal for maximum accuracy. Selecting N for NO synchronization sets the Scheduler-Timer to operate using the internal clock, which has a maximum error of ± 1.7 seconds per day. For maximum accuracy select Y for YES to synchronize the Scheduler-Timer to the 60hz power source. Press Up / Down to select Y(es) or N(o).

Press **ENTER** \leftarrow button to save.

Use Repeater



The UCS may be used in applications where a sequential, three-phase repeater is installed (e.g. model UTR). The UCS is not a repeater nor is it capable of repeating a UPB message.

For typical residential operation set: "Use Repeater = N".

When using with a sequential repeater set: "Use Repeater =Y".



Using the UCS, Controller Scheduler-Timer

The Scheduler-Timer is designed for accuracy and maximum flexibility. Once the UCS is set for time, date, day of the week, location and Network ID, then all that is needed is setting each event for the desired ON and OFF time. Upon completion of configuring the Scheduler-Timer, switching from ON [RUN] to vacation [VAC] mode should be all that is needed for years of reliable use.

Updating the Controller Scheduler-Timer

Minor firmware updates have been made to the UCS. To update your UCS to the latest firmware revision, please visit www.Simple-Automated.com/UCS-UPDATE/ and follow the instructions. A personal computer with a connection for a DB9 serial cable is required.

