Instruction Manual for Kichler Design Pro LED Controller
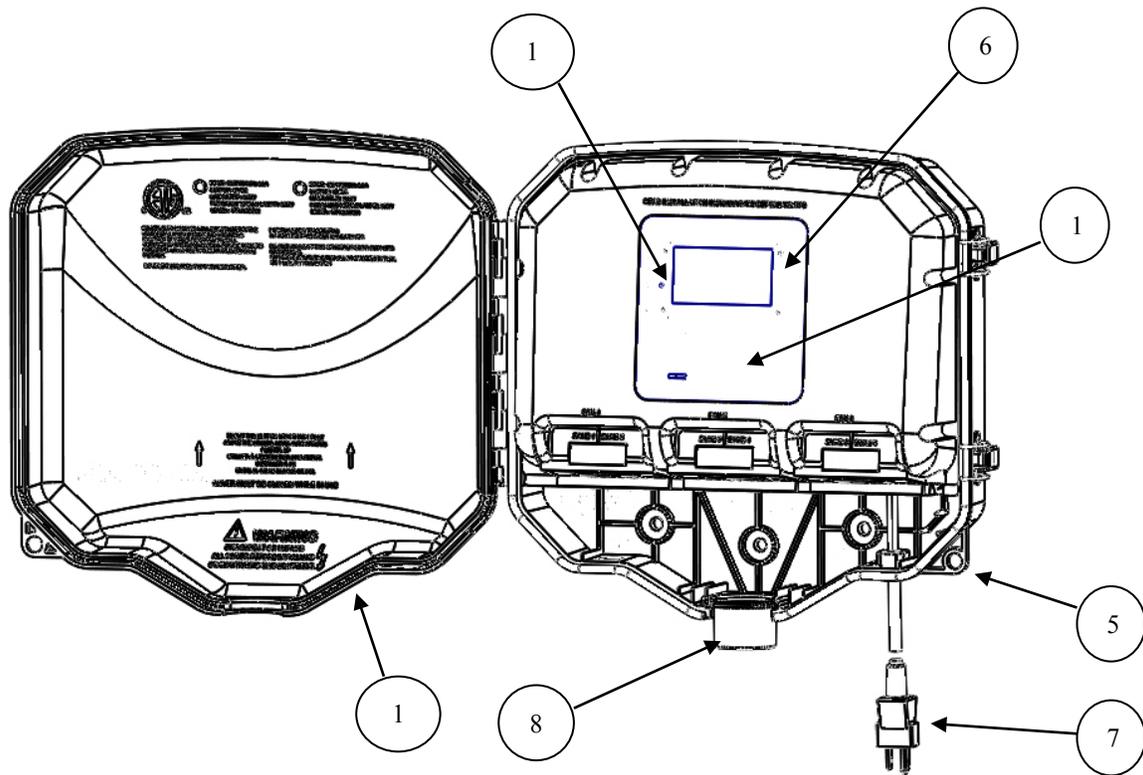
15DC100, 15DC200 and 15DC300

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Para las versiones en francés y español de estas instrucciones, por favor consulte: www.kichler.com
Pour les versions française et espagnole de ces instructions, veuillez consulter le site à www.kichler.com
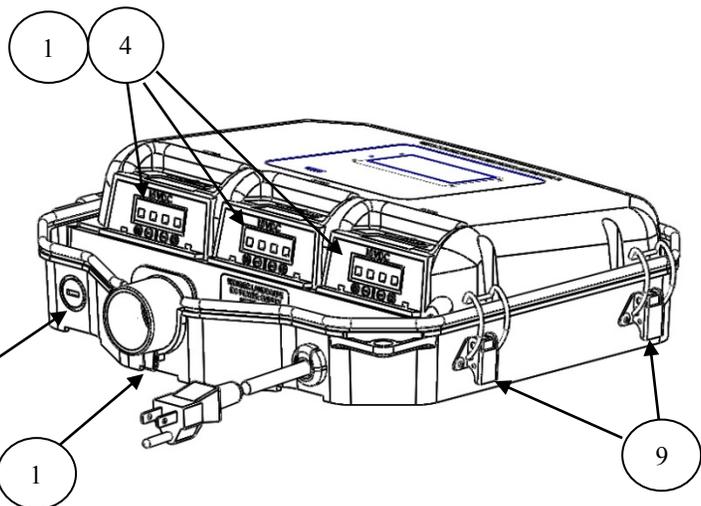
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Design Pro LED Controller

LCD Display

Reset button

"Enter" button

Navigation buttons
Left arrow also functions as
"Go Back" to previous menu

"Home" menu button
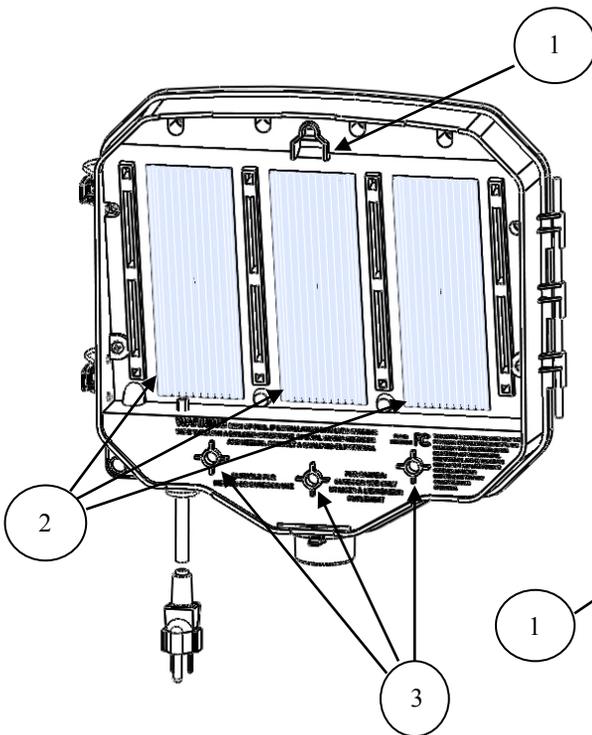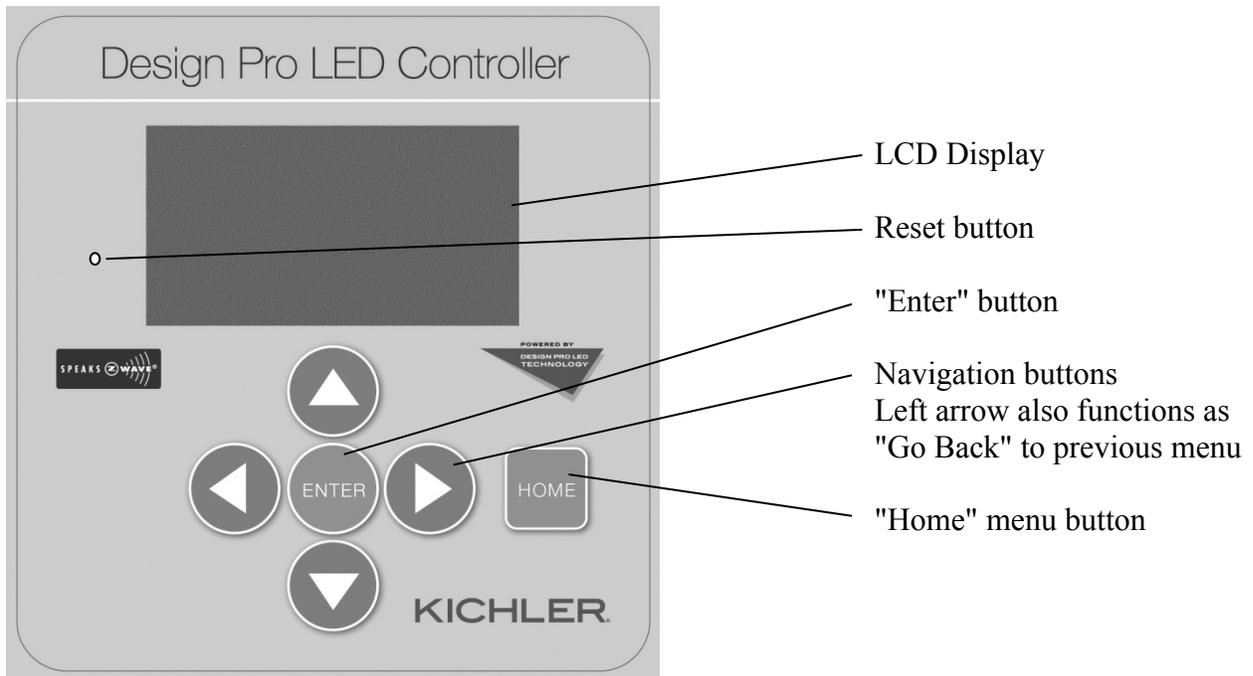
LCD Display – Graphical interface for user input and feedback

Reset button – Resets all hardware and software to factory settings

"Enter" button – User button for sending input to the CPU

Navigation buttons – User buttons for navigation of menu(s)

"Home" button – User button for return to beginning of main menu from any point

Installing the Kichler Design Pro LED Controller

Read these instructions carefully before installing this unit.

• This power supply is for use with landscape lighting systems only.

• Do not submerge power supply.

• This device is accepted as a component of a landscape lighting system where the suitability of the combination shall be determined by National Electric Code or local authorities having jurisdiction.

• **WARNING:**

• RISK OF ELECTRIC SHOCK: use only with low voltage landscape fixtures and accessories. DO NOT use with swimming pool or spa lighting fixtures.

• Do not connect two or more power supplies in parallel.

• Suitable for indoor or outdoor use.

• For use in dwellings only with provided conduit connection for secondary wiring.

• National Electrical Code requires that wiring where concealed or extended through a building wall must be enclosed in conduit.

• Power supply should be mounted close to power source. Extension cords should not be used with this unit.

WARNING:

• RISK OF ELECTRIC SHOCK. Install power unit 5 feet (1.5m) or more from the pool, spa, or fountain where the power unit is installed (a) indoor within 10 feet (3.0m) of a pool, spa, or fountain, or (b) outdoor, connect power to unit to a receptacle protected by a GFCI.

• This outdoor power unit shall be connected to a 115/120 volt covered GFCI receptacle marked "Wet Location" while in use.

• Mount the rain-tight power supply at least one foot above ground level with the wire terminals facing down. **NOTE:** Do not energize power supply until installation of system is complete.

• Direct burial rated wire is to be buried a minimum of 6" (152mm) beneath the surface of the ground.

NOTE: If additional Direct Burial wire is needed, contact your local Kichler® landscape distributor.

   • 12 GA wire can be purchased in lengths of 100' (30 M), 15501BK; 250' (76 M), 15502BK; 500' (152M), 15505BK; and 1000' (304 M), 15506BK. 14 GA wire can be purchased in lengths of 250' (76 M), 16088BK; 16 GA wire can be purchased in lengths of 250' (76 M), 16089BK

Installation guidelines for locating the Kichler Design Pro LED Controller

1) Determine desired location for mounting the power supply. **NOTE:** When deciding location for mounting consideration should be taken for the requirements listed above.

2) The mounting location should be in a well ventilated area that is away from sprinklers and irrigation spray.

3) The mounting location should be such that it promotes efficient routing to the various zones of a property, but minimizes excessive wire runs.

4) The power supply has a 66" [1.7 m] #18 ga. supply cord. It should be mounted near a 115/120 volt covered GFCI receptacle marked for wet location while in use. Do not use an extension cord with this lighting system product. If a 115/120V branch circuit power source is not available, it must be installed by a qualified electrician according to the NEC and local electric codes.

Mounting the Kichler Design Pro LED Controller

1) The power supply must be installed a minimum of 12" [30 cm] above the surface of the ground when measured to the point where the secondary wire exits the unit.

2) On the mounting surface, mark the desired position of top keyhole mounting slot (approx 1/2" [1.5 cm] below the desired location of the top edge of the power supply.)

3) If mounting to a solid surface such as wood, siding, etc;

      A) Drill 1/8" diameter pilot holes at position marked in Step 2.

      B) Drive mounting screw into hole until approximately 3/8" [1 cm] of thread remains.

   If mounting to drywall or masonry:

      A) Drill 1/4" diameter holes at positions marked in Step 2.

      B) Push plastic anchors into holes and tap until flush.

      C) Drive mounting screw into plastic anchors until approximately 3/8" [1 cm] of thread remains.

4) Slip tapered keyhole mounting slot over head of top screw and allow power supply to slide down and snug against the surface.   Adjust screw as necessary to ensure screw head is properly seated.

5) With power supply in place, mark locations for lower mounting screws. If mounting to a post or narrow surface, use bottom center mounting hole; for a sturdier install when mounting on a structure or wider surface, use two outer mounting holes and leave center hole open.

6) Drill pilot holes or install bottom anchors as in step 3.

7) Replace power supply on top mounting screw and install bottom screws securely.

8) Plug power supply cord into standard 115/120 volt receptacle. **NOTE:** The power supply cord <u>must</u> be plugged into a weather tight receptacle equipped with a Ground Fault Circuit Interrupter (GFCI).

9) Remove protective cover from LCD screen and keypad.

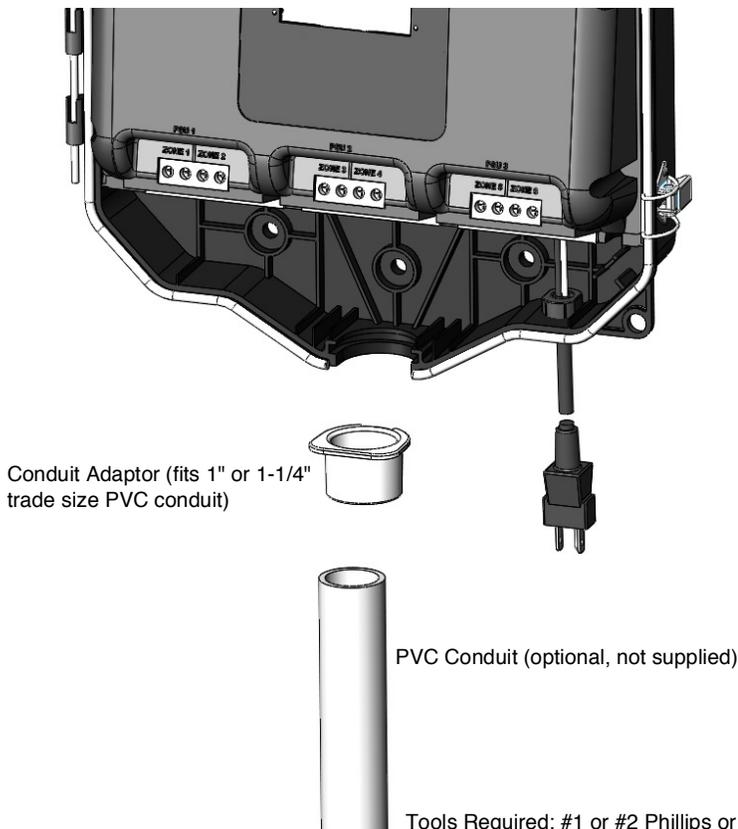## Connecting fixtures to the Kichler Design Pro LED Controller

The value of the multi-zone feature of the Design Pro LED Controller lies in the ability to individually control defined areas of the landscape lighting design. The system design should take this feature into consideration. Lighting at pre-defined areas (zones) should be connected to a trunk line or lines that will then be powered by the PSU Zones. Trunk lines that control individual zones are then connected to one of the PSU Zone terminal blocks.

Each PSU (Power Supply Unit) has a pair of zones (PSU1 is zones 1 and 2, PSU2 is zones 3 and 4, and PSU3 is zones 5 and 6) and each PSU is capable of 100W (6.7 amps at 15VDC). Any pair of zones can be loaded to a maximum of 100W regardless of how the 100W is split. For example: Zone 1 can have 80W and Zone 2 can have 20W.
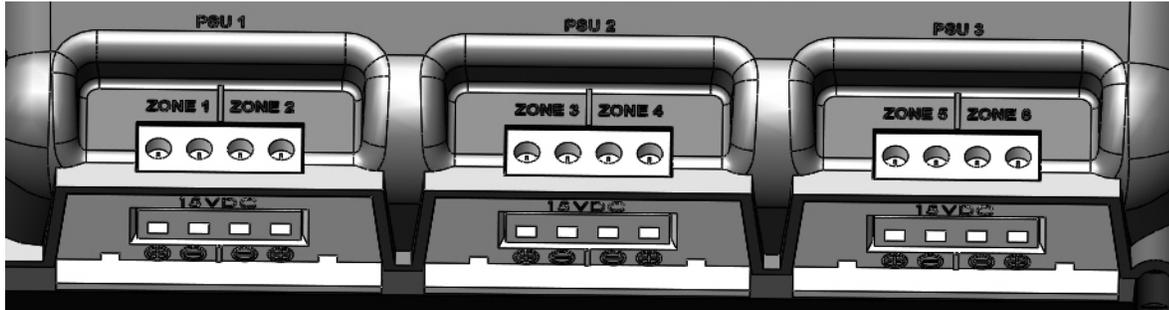
Each zone is also capable of having multiple wire runs provided the 100 Watt per PSU limit is not exceeded. Use wattage value (not VA) provided for each fixture to calculate the load on the Controller. There are no minimum load or polarity requirements for loading the Controller.

1) Once the fixture locations/zones have been determined, the trunk-line cable should be routed to the fixtures and connected according to the instructions provided with the fixtures. Use wattage value (not VA) provided for each fixture to calculate the load on the Controller. There are no minimum load requirements for any zone or PSU.

2.) At the Kichler Design Pro LED Controller, route the cable(s) through the conduit adaptor.   Note: For a more professional install, the secondary trunk lines can be routed through an 18" length of 1" or 1-1/4" trade size PVC conduit (not provided) prior to routing through the conduit connector.

Conduit Adaptor (fits 1" or 1-1/4"
trade size PVC conduit)

PVC Conduit (optional, not supplied)

Tools Required: #1 or #2 Phillips or 1/4" flat head screwdriver

3) Split the 18/2, 16/2, 14/2, 12/2, 10/2 or 8/2 trunk-line cable approximately 3", and strip 3/8" [10mm] insulation off each wire.   On the bottom of the terminal block push one bare wire into the hole marked "+" of the appropriate zone.

4) Tighten the corresponding screw on terminal block face until wire is secure. Push remaining bare wire of the same run into the "-" hole on bottom of terminal block and tighten terminal screw. Screw terminals should be tightened to 12.5 lb-in [1.4 N-m].

5) Repeat steps for all runs and all zones.

6) Plug power supply cord into standard 115/120 volt receptacle. **NOTE:** The power supply cord <u>must</u> be plugged into a weather tight receptacle equipped with a Ground Fault Circuit Interrupter (GFCI).

Manually operating the Kichler Design Pro LED Controller

The Kichler Design Pro LED Controller can be operated manually to turn on or off any or all zones, such as when necessary for installation or maintenance of a lighting system. The wattage loading on a newly installed Controller can be reviewed to assure the layout and fixtures are installed correctly without any shorts or overloads.

1) To manually operate the Controller:

1. Press: *Home>Control>Enter.* The display will show the Zone Summary screen indicating the current draw (Amps), load (Watts) and the On/Off status of the zones available for the model of controller. Press: *Enter* again.
2. To turn Controller Zones on: select *All Zones* (or select individual zones 1-6 depending on Controller model)*>All Zones On>Enter.*
3. To turn Controller Zones off: select *All Zones* (or select individual zones 1-6 depending on Controller model)*>All Zones Off>Enter.*
4. Press: *Home>Control>Enter* and confirm information on Zone Summary status screen.

This function will temporarily override any active schedules operating the Controller or zones of the Controller. At the next schedule, the Controller will resume following the active schedules for operation of the controller.

START HERE TO BEGIN PROGRAMMING YOUR UNIT

Quick Start Set-up for Kichler Design Pro LED Controller

Using the following Quick Start Set-up, the wattage loading on newly installed Controller can be reviewed to assure the layout and fixtures are installed correctly without any shorts or overloads.

The Kichler Design Pro LED Controller can also be easily set to activate a pre-programmed set of schedules that will turn all zones of the lighting system on at sunset and off at sunrise every day. The installer needs only to set the date, time and geographical location (State/Province and nearest city) to enable the preset programs.

1) **Quick start** guide to set language, geographical location, date and time:

1. The initial factory setting is English; to change Controller to French or Spanish press: *Home> Initial Setup>Set Language*
2. Use arrow navigation buttons to scroll up and down to select English, Français or Espanol. Then press *Enter.* NOTE: The Controller will briefly turn off the display while the language library is rebuilt and then restart at the "Kichler" welcome screen. This may take up to 30 seconds or more.
3. Press: *Home> Initial Setup>Set Location*
4. Use arrow navigation buttons to scroll up and down to select United States or Canada. Then press *Enter.*
5. Use arrow navigation buttons to scroll up and down to select State or Province. Then press *Enter.*
6. Select closest city. There will be four (4) cities to select from according to the State or Province selected in the previous step. Choose the one that is geographically closest.   Then press *Enter.* Note: If the selected State or Provence has multiple time-zones, the user will be prompted to select the correct time-zone as well. Selecting some states that have multiple time zones as well as all Canadian provinces will prompt additional screens to confirm the time zone and or the use of Daylight Savings Time.
7. Press: *Home> Initial Setup>Set Date*
8. Use arrow navigation buttons to scroll left and right to select and highlight day, month and year; Use up and down navigation buttons to adjust values. Press: *Enter* to continue.
9. Press: *Home> Initial Setup>Set Time*
10. Use arrow navigation buttons to scroll left and right to select and highlight hours, minutes and AM/PM; Use arrow navigation buttons to scroll up and down to adjust values. Press: *Enter* to continue.
11. **Important!** Press: *Home>System Settings>Save Settings.* This will save the most recent settings of the Controller.

At this point the Kichler Design Pro LED Controller will automatically operate all zones, turning all zones on at sunset and off at sunrise every day of the week.

Editing and Enabling custom Kichler Design Pro LED Controller - Schedules

IMPORTANT: A SCHEDULE IS AN ON COMMAND OR AN OFF COMMAND. PLEASE NOTE YOU NEED AT LEAST TWO ENABLED SCHEDULES (SCHEDULE-ON) AND (SCHEDULE-OFF) TO OPERATE YOUR SYSTEM.

The Kichler Design Pro LED Controller can be programmed with scheduled events which can trigger (either turn on or turn off) any or all Zones at any time on any or all days of the week. Those events can also be set to occur at a specific time of day or to the adjusted sunrise or sunset occurrence for the selected geographical location.
The Kichler Design Pro LED Controller has twelve (12) unique schedules. Schedules 1- 4 are preset from the factory to create a typical lighting on/off schedule. Enabling factory Schedules 1 and 2 will turn all zones on at sunset every day and turn them off again at sunrise. Enabling factory schedules 1, 2, 3 and 4 will turn all zones on at sunset, off at midnight, on again at 5:00AM and off again at sunrise. All twelve Schedules, including the factory programmed Schedules 1- 4, can be edited and customized to maximize the desired lighting effects or scenes for the property. Any Schedule (1-12) can be set to turn on or off any or all zones on any or all days of the week at any specified time, including sunrise or sunset.

1) To review the Schedule Summary:
    1. Press: *Home>Schedule>Sched Summary*
    2. Schedule 1 Summary will be displayed, showing the action (Turn on or Turn off), the time (including Sunrise or Sunset), the Zones affected, and the selected days of the week for the action. The Summary will also indicate whether the Schedule is enabled or inactive. The box will be checked if it is enabled and unchecked if inactive.
    3. Use up and down navigation buttons to scroll through Schedules 1-12.

2) To enable a Schedule:
    1. Press: *Home>Schedule>Enable Schedule*
    2. Use up and down navigation buttons to scroll through Schedules 1-12. When the schedule to be enabled or inactivated is highlighted, press the *Enter* button to toggle the check box.
    3. Repeat previous step for any Schedules to be enabled or inactivated.
    4. To exit the Enable Schedule menu press: *Home* or the left arrow navigation button or use the down navigation button to scroll to "Go Back" and press *Enter.*
    5. **Important!** Press: *Home>System Settings>Save Settings.* This will save the most recently modified settings of the Controller.

3) To Edit a Schedule:
    1. Press: *Home>Schedule>Edit Schedule*
    2. Use up and down navigation buttons to scroll through Schedules 1-12. When the schedule to be edited is highlighted, press *Enter*.
    3. "Edit Schedule **" (01 to 12) will be displayed at the top of the screen.
    4. Use up and down navigation buttons to scroll to the schedule option (zone, on/off state, days, time) to be edited. When the desired option is highlighted, press *Enter*.
    5. To Edit the desired zones, use the up and down navigation buttons to highlight a selected Zone 1-6 (1-4 for 200W and 1-2 for 100W). When the Zone to be included or excluded from the Schedule is highlighted, press the *Enter* button to toggle the check box. Highlighting the "Select All" and pushing the *Enter* button will check or uncheck all Zones. Note: the check-box next to the "Select All" will not display a check mark even when all the Zones have been selected.
    6. To Edit the on/off state, use the up and down navigation buttons to toggle between "Turn On" and "Turn Off", then press *Enter*.
    7. To Edit the days of the week, use the up and down navigation buttons to highlight a selected Day. When the Day of the Week to be included or excluded from the Schedule is highlighted, press the *Enter* button to toggle the check box. Highlighting the "Select All" and pushing the *Enter* button will check or uncheck All Days (Monday through Sunday). Note: the check-box next to the "Select All" will not display a check mark even when all the Days have been selected.
    8. *To Edit the Time, use the up and down navigation buttons to highlight a "Set Time", "Sunrise" or "Sunset". When "Sunrise" or "Sunset" is selected, the scheduled event will adjust daily according to the daylight hours for the geographical location that was previously programmed. When "Set Time" is selected, a specific time can be set for every occurrence of the schedule. Use arrow navigation buttons to scroll left and right to select and highlight hours, minutes and AM/PM; Use arrow navigation buttons to scroll up and down to adjust values. Press Enter to save.*
    9. **Important!** Press: *Home>System>System Settings>Save Settings.* This will save the most recently modified settings of the Controller.

Kichler Design Pro LED Controller - System settings

The Kichler Design Pro LED Controller has features that can be adjusted by the installer or user to better suit the application or installation. The Controller also has features that monitor and protect the Controller and the lighting system in the event of a problem or incorrect installation. Instructions on the operation and settings for these Features are explained in the following section.

1) To adjust the contrast of the LCD display:
    1. Press: *Home>System>Contrast.* Then press *Enter.*
    2. Use arrow navigation buttons to scroll left and right to select the contrast bar that displays the contrast preference. Then press *Enter.*
    3. **Important!** Press: *Home>System Settings>Save Settings.* This will save the most recently modified settings of the Controller.

2) To reset the Controller to factory presets.
    1. Press: *Home>System>Factory Reset.* Then press *Enter.*
    2. At the acknowledgement screen, use up and down arrow navigation buttons to confirm. Then press *Enter.* This feature will remove all previously modified settings including schedules, locations, Z-Wave networks, contrast, etc and reset them to the factory settings. Only the date and time will not be reset. Any settings previously saved using the *Home>System Settings>Save Settings* command will not be deleted and can be recalled at this time.

3) To review any recent system output faults or errors:
    1. Press: *Home>System>Display Faults.* Then press *Enter.*
    2. Any recent zone output faults (overload or short circuits) recorded by the Controller will be displayed. A fault message will identify the fault type and the zone or zones affected. Only the 6 most recent faults will be displayed. Any faults identified by the Controller will result in the affected zone or zones being powered off regardless of schedules or commands to turn on. The manual controls for the affected zone(s) will also be disabled. The problem causing the short or overload must be corrected before the fault warning can be removed or reset.

4) To reset system output faults or errors:
    1. Check all wiring and fixtures to remove any faults on the system identified on the Display Faults screen. (see #3 above)
    2. Press: *Home>System>Reset Faults.* Then press *Enter.*
    3. Manually restart the zone(s) where the fault occurred. (See instructions for manually operation of the Controller.)
    4. If the fault condition on the system was correctly repaired, the system will operate normally. If the condition causing the fault was not corrected, the fault warning will be displayed again and the affected zone(s) will again power down.

5) To save and recall system settings on the Controller:
    1. All customized settings such as schedules, locations, screen contrast settings; etc should be saved to memory in the event power is lost to the unit. (Date and time are always saved using the Controller's internal clock and battery backup.)
    2. To save, press: *Home> System>System Settings>Save Settings.* Then press *Enter.* This will save the most recently modified settings of the Controller.
    3. Any setting or schedule changes made after the last Save command will continue to be active until power is removed from the Controller. If power is removed, the Controller will revert to the saved settings in memory once it is repowered. If no settings have been saved to memory, it will start with the factory default settings.
    4. To recall, press: *Home> System>System Settings>Recall Settings.* Then press *Enter.* This will recall the most recently saved settings, including schedules, geographical locations, initial settings, etc.

6) To configure a Controller as the primary control unit on the network:
    1. This function would be used when there are multiple Controllers on a property that are in the same Z-Wave network. In some cases it may be preferred, due to location or ease of access, to redefine which Controller is the Master and which is (are) controlled.
    2. On the current Master Controller, press: *Home> System>Config Master.* Press: *Enter.* Within 1 minute, on the controller to be reassigned as the new Master, press: *Home> System>Config Master.* Press: *Enter.*
    3. Both controllers will display the "Process Complete" message once the swap function has successfully processed.
    4. **Important!** For each Controller, press: *Home>System Settings>Save Settings* to save the most recently modified settings of the Controller.

7) To update the Controller's firmware via over-the-air updating capabilities (OTA): Should the software in the Controller become corrupted or in the event a newer software version is available, the Controller can be reprogrammed using its Z-Wave radio and a "USB Update Dongle" (p/n 16087 available in future release) available from your local distributor or the Kichler Technical Support Team at 888-659-8809.

1. To update, press: *Home> System>OTA Update.* Then press *Enter.* Note and record the Z-Wave ID # assigned to the device.
2. On the update software App., select the *update node* option and run the process.
3. This process can take several minutes to complete. Do not remove power from either device during this time.
4. When the update is complete, the display will flash and the Controller will restart to the Kichler logo screen.

8) To review the programmed Sunrise and Sunset times for the current date:

1. Press: *Home> System>Sunrise/Sunset.* Then press *Enter.* The display will show the time that any Sunrise or Sunset programmed schedules will be triggered. This will be determined by the date and geographical location that the Controller is currently set to.

9) To review the information about the current software version installed on the Controller:

1. Press: *Home> System>About.* Then press *Enter.* The display will show information about the Controller software including the current revision. The software version should be noted and provided to the Kichler Technical Support Team when calling for assistance programming or trouble-shooting the Controller.

Kichler Design Pro LED Controller – Network settings and programming

The Kichler Design Pro LED Controller has features that allow RF (radio frequency) communication with other Controllers and accessories using Z-Wave communication protocol. The Kichler Design Pro LED Controller is compatible with a selection of Kichler accessories as well as other Z-wave devices. A Z-Wave network can contain up to 255 devices. Instructions on the operation and settings for these Features are explained in the following section. The instructions provided here should be used in conjunction with any instructions provided with the accessory or device.

1) To create or expand a Z-Wave Network by Adding another Controller:

1. When a network of two or more Controllers is created, the first Controller (the one doing the adding) will become the Master and all other Controllers (the ones being added) will become Subservient Controllers. A maximum of 4 total controllers (One master and up to 3 subservient) can be on one network. Certain features such as time, date, and geographical location will be controlled by the Master Controller and therefore are disabled on the Subservient Controller(s) once the network is created. For larger properties where more than 4 Controllers would be required, multiple Z-Wave networks can be established.
2. On the Controller intended to be the Master press: *Home>Network>Add Device.* Then press *Enter.*
3. On the Controller intended to be the subservient press: *Home>Network>Join Network.* Then press *Enter.*
4. Both Controllers will display a message saying "Executing…" and then "Process complete". The Master Controller will also display the Z-Wave device ID of the newly added Controller.
5. Repeat steps 2-4 for any additional Controllers to be added to the Network.
6. For future network features, it is important to note and record the order in which Controllers and other devices are added to the network.

2) To create or expand a network by adding a device such as a remote, motion sensor, range extender or other Z-Wave device (for Kichler Design Pro Remote, Kichler Design Pro Range Extender and Kichler Design Pro Motion Sensor (future release) refer to the "Adding Kichler Accessories to the Z-Wave Network" section on page 11 for additional programming capabilities):

1. On the Controller press: *Home>Network>Add Device.* Then press *Enter.*
2. The Controller will display a message saying "Executing…"
3. Within 30 seconds of completing step 1, follow the instructions for the device to initiate the "Join" command. (Some devices may call this the "Learn" or "Discover" or simply "Z-Wave button")
4. If the device was successfully added, the Controller will display a message saying "Process complete" along with the Z-Wave device ID.
5. If the device was not successfully added, the Controller will display a message saying "Fault Occurred".
6. Repeat steps 1-5 for any additional devices to be added to the Network, noting and recording the order in which the devices are added to the network. Device ID's can be recorded on the Zone Location label on the inside cover.

3) To remove a Controller from a Z-Wave network:

1. On the Master Controller press: *Home>Network>Remove Device.* Then press *Enter.*
2. On the Controller to be removed press: *Home>Network>Leave Network.* Then press *Enter.*
3. The Controllers will display a message saying "Executing…" and then "Process complete" and the Controller will no longer be associated with the Z-Wave network.

4) To remove another device from a Z-Wave Network:
1. Press: *Home>Network>Remove Device.* Then press *Enter.*
2. The Controller will display a message saying "Executing…"
3. Within 30 seconds of completing step 1, follow the instructions for the device to initiate the "Z-Wave" command or "Remove".
4. If the device was successfully removed, the Controller will display a message saying "Process complete".
5. Repeat steps 1-4 for any additional devices to be removed from the Network.

5) To Emit Device Info: This function is used when using a Z-Wave device to pair another Z-Wave device with a Controller. *(For example using a remote to associate a motion sensor with a Kichler Controller.)* (Note: Not all Z-Wave devices are capable of correctly interpreting this command.)
1. Press the "Associate" Z-Wave button on the device that will be used to pair the other two devices*. .*
2. Press: *Home>Network>Emit Device Info.* Then press *Enter.*
3. Then press the Z-Wave button on the sensor device that will be giving the command to the Controller
4. The Controller will display a message saying "Executing…" and then "Process complete"

6) To Reset the Z-Wave network on a Controller: (Note: When this function is run, the Controller will be removed from the Z-Wave Network, but the network will remain intact. Other devices will continue to try to communicate with the missing Controller. See step 9. below.)
1. Press: *Home>Network>Reset Z-Wave.* Then press *Enter.*
2. The Controller will display a message saying "Executing…" and then "Process complete"

7) To review all of the Kichler Design Pro LED Controllers on a network:
1. From the Master Controller press: *Home>Network>DC Network.* Then press *Enter.*
2. The Controller will display a list of Design Pro LED Controllers on the network with their specific Z-Wave Device ID stated. (Z-Wave Device (Node) ID's are assigned based on the order in which the devices are added to the network.)
3. Press *Enter* to return to the previous menu.

8) For ease of installation of multiple Controllers on a property, one Controller can transmit the *Initial Setup data* to multiple Controllers in the network:
1. Set the Time, Date and Location for the Master Controller following the instructions for Quick Start Set-up on page 7.
2. Add additional Controllers on the property by following the instructions *To create or expand a Z-Wave Network by Adding another Controller* on the previous page.
3. Press: *Home>Network>Sync Settings.* Then press *Enter.*
4. The Master Controller will transmit it's Time, Date and Geographical location to any subservient Controllers on the Z-Wave network and repeat this two times every day to ensure that all Controllers remain synchronized.

9) In the event that a Z-Wave device becomes damaged, destroyed, has the Z-Wave reset or is physically removed from the range of the network, it may be necessary to remove that Z-Wave Device ID from the Network. This will prevent response delays that can be caused by the network trying to communicate with non-existent devices:
1. Press: *Home>Network>Remv Bad Device.* Then press *Enter.*
2. Use the up and down navigation buttons to highlight the selected Device ID to be removed. Then press *Enter.*
3. The Device ID will no longer be recognized in the Z-Wave Network.
4. If the device is still present in the Z-Wave Network, a fault is displayed. Go to" "To remove another device from a Z-Wave Network" on the previous page.

10) To review the Device ID's for all of the devices in a Z-Wave Network, including other Controllers, remotes, motion sensors, etc:
1. Press: *Home>Network>Z-Wave Network.* Then press *Enter.*
2. The Controller will display "Executing…" then return a list of Device ID's.
3. Use the up and down navigation buttons to scroll through the Device ID's.
4. Press *Enter* to return to the previous menu.

11) To review the Device ID's for all of the 120V Relay devices in a Z-Wave Network:
1. Press: *Home>Network>Relay Network.* Then press *Enter.*
2. The Controller will display "Executing…" then return a list of Relays (1-4) and their associated Z-Wave Device ID's.
3. Press *Enter* to return to the previous menu.

Kichler Design Pro LED Controller – Adding Kichler Accessories to the Z-Wave Network

Other Z-Wave enabled accessory devices can be added to the Z-Wave network that was created with the Kichler Design Pro LED Controller. Using the Kichler Design Pro Remote, Kichler Design Pro Range Extender and Kichler Design Pro Motion Sensor (future release) can further enhance the lighting effects on a property. Following are instruction on setting up these devices to further tailor the lighting controls. The instructions provided here should be used in conjunction with any instructions provided with the accessory or device.

1) To expand a network by adding a Kichler Design Pro Range Extender:
1. Plug the Range Extender into an interior 120V outlet.
2. On the Controller press: *Home>Network>Add Device.* Then press *Enter.*
3. The Controller will display a message saying "Executing…"
4. Within 30 seconds of completing step 2, press the "Z-Wave button" on the Range Extender
5. If the device was successfully added, the Controller will display a message saying "Process complete" along with the Z-Wave device ID.
6. If the device was not successfully added, the Controller will display a message saying "Fault Occurred".

2) To expand a network by adding a Kichler Design Pro Remote:
1. Be sure the battery of the Remote is sufficiently charged. Follow the charging instructions included with the Remote.
2. Add the device to the Network using the steps to create or expand a network by adding a device described in the topic "Network settings and programming" on page 10.   Note and record the Z-Wave ID # assigned to the Remote.
3. On the Controller press: *Home>Network>Accessories*. Then press *Enter.*
4. Select: *Config Remote*. Then press *Enter.*
5. Choose: *Select Remote*. Then press *Enter.*
6. The Controller will display a message saying "Executing…"
7. The display screen will show the number of Z-Wave devices currently available in the Z-Wave Network.
8. Use the up and down navigation buttons to scroll through the Device ID's until the Device ID assigned to the Remote is highlighted. Then press *Enter.*
9. Use the up and down navigation buttons to select a button number to be programmed. Then press *Enter*. Each of the four buttons on the Kichler Design Pro Remote can be assigned to a different scene, using any zone combinations for any of the Controllers on the Z-Wave Network.
10. Select the Controllers (DC's) that contain the Zones to be assigned to the button. (The specific Zones for each Controller will be assigned in the next step.) Then select *Continue.* Choosing the *"Select All"* option will assign all Zones of all Controllers to the button press.
11. Select the Zone or Zones on the first Controller (Controller1 Zones) to be assigned to the button. (The Controllers # are numbered in the order in which they were added to the Z-Wave Network with Controller1 being the Master Controller and Controller2, Controller 3 and Controller 4 being the Subservient Controllers.) Use the up and down navigation buttons and the Enter button to select any Zones to be included. Then press *Continue*.
12. Repeat Step 11 for each subsequent Controller; each Controller will list only the Zones available for that specific model Controller (i.e. a 200W Controller will show only four available Zones. Then select *"Next Menu"*. Once the last Controller has its Zones assigned, selecting *"Continue"* will return to the *Config Remote* screen
13. Be sure the Remote is "awake" by pressing and holding the remote button marked *"Learn"*. Once the blue light turns off, release the *"Learn"* button. Within 1 minute of waking the Remote, Select the *"Transmit Info"* on the Controller and press *"Enter".*
14. The Controller will display a message saying "Executing…" and then "Process complete"

3) To expand a network by adding a Kichler Design Pro Motion Sensor (future release): (The Motion Sensor can be programmed to turn on different Zones on multiple controllers (up to 4); however there cannot be multiple Motion Sensors on any one Controller):
1. Be sure the batteries of the Motion Sensor are properly installed and fully charged. Follow the battery instructions included with the Motion Sensor.
2. Add the device to the Network using the steps described to create or expand a network by adding a device in the topic "Network settings and programming" on page 10. Note and record the Z-Wave ID # assigned to the Sensor.
3. On the Controller to be activated by the Motion Sensor, press: *Home>Network>Accessories*. Then press *Enter*.
4. Select: *Config Motion*. Then press *Enter.*
5. Choose: *Select Motion*. Then press *Enter.*
6. The Controller will display a message saying "Executing…"
7. The display screen will show the number of Z-Wave devices currently available in the Z-Wave Network.
8. Use the up and down navigation buttons to scroll through the Device ID's until the Device ID assigned to the Motion Sensor is highlighted. Then press *Enter.*
9. Select the Zone or Zones on the Controller to be assigned to the Motion Sensor. Use the up and down navigation buttons and the Enter button to select any Zones to be included. Then press *Continue*.
10. Be sure the Motion Sensor is "awake" by pressing and holding the Z-Wave button marked. Within 1 minute of waking the Motion Sensor, Select the *"Transmit Info"* on the Controller and press *"Enter".*

11. Additional Controllers/Zones may be added to the Motion Sensor by repeating steps 3-10 at each Controller.
12. **Important!** Press: *Home>System Settings>Save Settings.* This will save the most recently modified settings of the Controller.

4) This section describes how to expand a network by adding 120V Relays to the schedule(s) managed by the Kichler Design Pro LED Controller. (Contact Kichler Technical Support Team at 888-659-8809 for a list of recommended products) Notes: 1. The Relay can be linked to only the Master Controller. 2. The Controller can manage a maximum of four (4) relay devices. 3. The relays can be set to follow the schedules of Zone 1 or 2 or both.

1. Add the device to the Network using the steps described to create or expand a network by adding a device in the topic "Network settings and programming" on page 10. Note and record the Z-Wave ID # assigned to the relay.
2. On the Master Controller press: *Home>Network>Accessories.* Then press *Enter.*
3. Select: *Config Relay*. Then press *"Enter".*
4. Choose: *Select Relay*. Then press *"Enter".*
5. The display screen will show the "Select Relay Zone" screen. Choose the Zone for the relay device to follow by checking or un-checking the box. Select: *Continue* and press *"Enter".* Note: Relays can be added to only one Zone at a time.
6. The display screen will show the "Select Relay " screen. Select all or choose any relay device(s) by checking or un-checking the box. Select: *Continue* and press *"Enter".*
7. Repeat steps 2 through 6 to link selected relays with the second Zone if desired.
8. To review the Relay schedule summary press: *Home>Network>Accessories>Config Relay.* Then press *Enter.* Select: *Zone Summary*. Then press *"Enter".* Use the up and down navigation buttons to toggle between the Zones 01 and 02 to review the Relay Devices assigned to the zones. The Relays with check boxes filled will now operate on the same schedule as the Zone Schedule.
9. **Important!** Press: *Home>System Settings>Save Settings.* This will save the most recently modified settings of the Controller.

NOTES/Troubleshooting:

1. The Controller has a built-in circuitry to protect the Power Units from rapid on/off cycling that could damage the Controller or the fixtures attached to the Controller. There is a 10 second delay once a zone or zones are turned off before they will power on again. Any commands to turn on within the 10 second delay, whether from the control panel, a remote or another device will be "recorded" by the Controller, but not sent to the Power Unit zones until the 10 seconds have elapsed.
2. When installing a run of fixtures onto a zone, it is recommended that the trunk-line is attached to the terminal block prior to powering the zone. DO NOT attempt to hot-connect large loads to the Controller while it is powered as this will cause the Power Unit to shut down. If this happens, power to the Controller will need to be recycled by unplugging the unit.
3. When using the "Select All" feature: If all items (zones, days, schedules, etc.) are already selected, then they will all be un-selected with button push. If one or more is already selected, then they all will be selected with button push; second button push will un-select all.
4. The Controller has overload and short circuit protection.
   • If a Controller has a short on both Zones of a given PSU the user should:
      a) Clear the faults on the controller.
      b) Remove the trunk-line from the second zone and activate the first zone to determine if there is indeed a short on this zone.
      c) Re-connect the second Zone and remove the trunk-line from the first zone. Activate the second zone to determine if there is indeed a short on this zone.
   • If a Zone or Zones are active for a given PSU, but the fixtures are not being powered, it is possible that either an overload condition or short-circuit condition is present on the controller and the PSU's internal breaker has been tripped. The Controller's power should be recycled by unplugging the unit, then see step 4a for procedure for determine fault condition.
   • When connecting fixtures to the Controller, all Zones should be OFF. The Controller may misinterpret "hot plugging" of fixtures as an overload or short-circuit condition. See previous for troubling shooting a fault condition.
   • The overload fault condition is determined by the Controller measurements. The final layout should not exceed the 100Watt limit. The information on the Zone Summary Screen as well as the trip point for the overload condition may slightly exceed 100Watts due to variations of current readings from one PSU to another, fluctuation in the current readings due to noise, and tolerance in the wattages of any fixture (LED or Incandescence). To ensure overload fault condition is not triggered for a given supply, 95 Watts should be used as the maximum load target when designing the system.
5. Fault Display Screen
   • When determining an Overload Fault Condition, the Controller sums both Zones and will shut down the higher of the two and display the wattage of this Zone.
   • If both Zones create an overload fault condition, then the total wattage of both zones is displayed to the user.

6. For the Motion Sensor
   - After the motion sensor is set-up, settings must be saved at the Controller. If this is not done, if the controller looses power the motion sensor will trigger an all-on event and not multi-channel event.
   - The motion sensor is able to control a maximum of 5 unique Z-Wave devices. Although any Z-Wave products being controlled by the Motion sensor will be part of the Kichler DC Controller's network, the Controller will not recognize the fact that the motion sensor is managing them. The DC Controller does not keep track of the Motion Sensor's tasks other than commands directed to the DC Controllers on the network. The motion sensor's memory can be erased by any DC controller.
   - The motion sensor is not able to override a manual control command from either the remote and/or the zone control on the unit.
   - The motion sensor can activate a zone for a given controller only from sunset through sunrise (dark) as determined by the programmed settings. If the motion sensor is not operating properly, validate the set time and sunrise/sunset or geo location of the controller.
   - The motion sensor has to be setup by each DC Controller individually, unlike the remote which allows the Master to configure multiple DC controllers at one time.
   - The motion sensor has a 5 minute delay to transmit an OFF signal after it does not see any motion. This time cannot be adjusted.
   - User must remember the order devices were added in order to select the motion sensor. The Master controller is the only device that keeps track of secondary DC controller device IDs. This information can help in the process of determined the node/device ID of the motion sensor.
   - More than one Motion Sensor can be placed on a Z-Wave network, but only one Motion Sensor can be setup to manage a DC Controller. In other words, a Controller cannot have multiple Motion Sensors instructing it, but a Motion Sensor can manage multiple DC Controllers in a network and multiple Motion Sensors on a network can each run a their own DC controller.
   - To wake up the Motion Sensor, press the "Z-Wave" button. The motion sensor will stay awake for a minute or so to allow the Controller to transmit a given set of commands.
7. For the Remote
   - Any DC Controllers can set the actions for the remote buttons. If a single button press is intended to command multiple DC Controllers, then the Master Controller must be used to setup the remote.
   - Once a remote's button press actions have been setup on the system, a single quick button press (and release) turns ON the desired zones and a long button press (and release) turns OFF the desired zones.
   - User must remember the order of adding devices, in order to select the remote. The Master controller is the only device that keeps track of secondary DC controller device IDs. This information can help in the process of determined the node/device ID of the remote.
   - To wake up the remote, press and hold down the "learn" button. Once the Blue light goes out, release the button and the remote will stay awake for one minute to allow the Controller to transmit the commands.
8. When changing the language, the Controller will briefly turn off the display while the language library is rebuilt and then restart at the "Kichler" welcome screen. This may take up to 30 seconds or more.

Specifications:
    15DC100 (CP300336)
        Input: 108-132VAC, 50/60hz, 1.0 Amp Max
        Output: 15VDC ± 0.5VDC, 6.7 Amp Max
    15DC200 (CP300335)
        Input: 108-132VAC, 50/60hz, 2.0 Amp Max
        Output: 2X 15VDC ± 0.5VDC, 6.7 Amp Max
    15DC300 (CP300334)
        Input: 108-132VAC, 50/60hz, 3.0 Amp Max
        Output: 3X 15VDC ± 0.5VDC, 6.7 Amp Max

This product may not be used outside of North America.

Compliance and FCC Notice:

MODELS: 15DC300, 15DC200 and 15DC100

FCC ID: YNE-CP300334
IC: 9434A-CP300334

FCC NOTICE (for USA):

THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO
OPERATE THE EQUIPMENT.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and

2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.

• Increase the separation between the equipment and receiver.

• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

• Consult the dealer or an experienced radio/TV technician for help.

This device complies with Industry Canada license –exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

CONFORMS TO ANSI/UL STD. 1838
CERTIFIED TO CSA STDS C22.2 NO. 250.0 & NO. 250.7

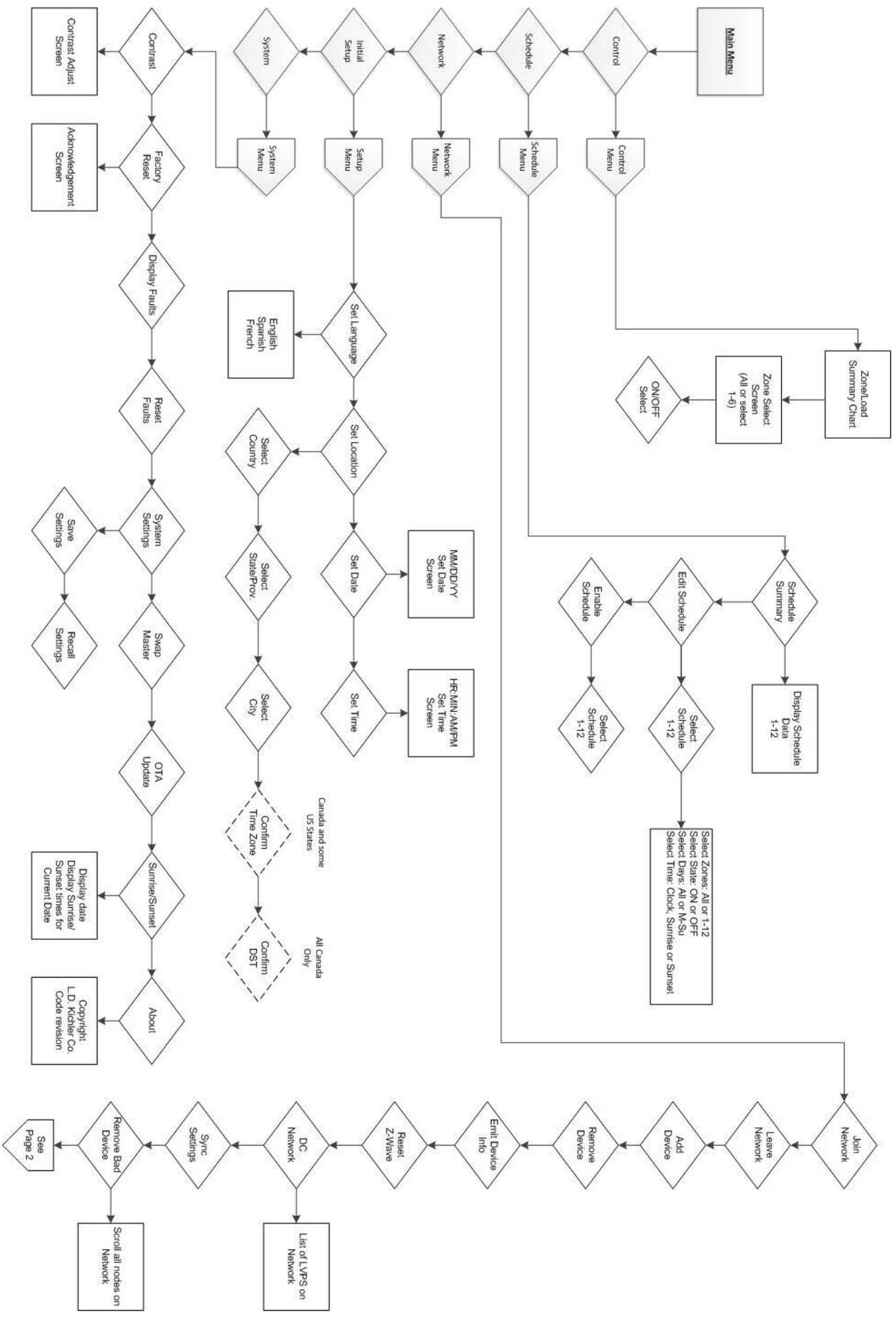
This product can be included and operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers and/or other applications. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.
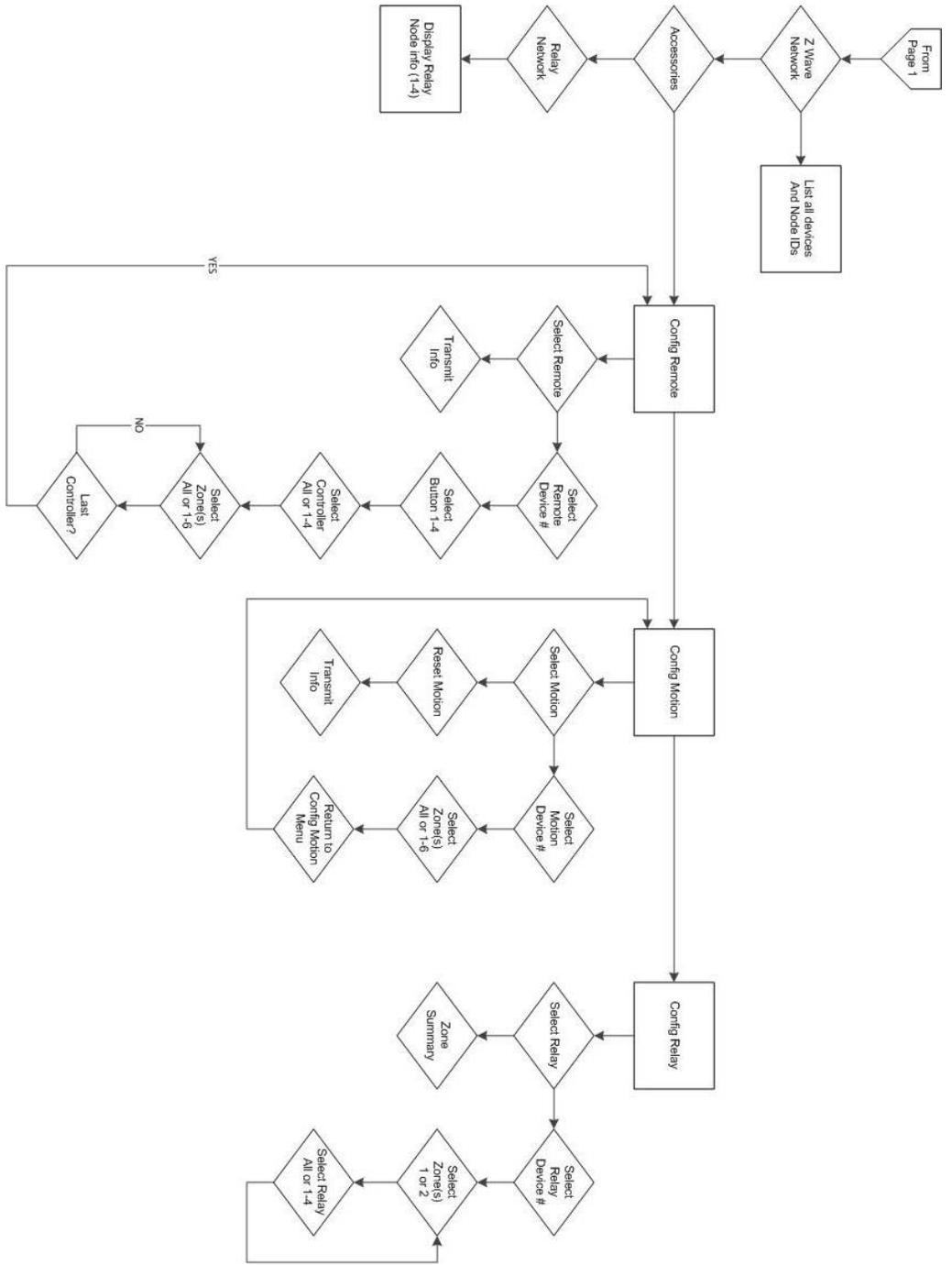

Warranty

For warranty information please visit: http://www.landscapelighting.com/portal/warranty_page

Menu Tree – Flow Diagram

Main Menu

Control → Control Menu → Zone/Load Summary Chart → Zone Select Screen (All or select 1-6) → ON/OFF Select

Schedule → Schedule Menu → Schedule Summary → Display Schedule Data 1-12
Edit Schedule → Select Schedule 1-12 → Select Zones: All or 1-12 / Select State: ON or OFF / Select Days: All or M-Su / Select Time: Clock, Sunrise or Sunset
Enable Schedule → Select Schedule 1-12

Network → Network Menu → Join Network → Leave Network → Add Device → Remove Device → Emit Device Info → Reset Z-Wave → DC Network → List of LVPS on Network → Sync Settings → Remove Bad Device → Scroll all nodes on Network → See Page 2

Initial Setup → Setup Menu → Set Language (English, Spanish, French) → Set Location → Select Country → Select State/Prov. → Select City → Confirm Time Zone (Canada and some US States) → Confirm DST (All Canada Only)
Set Location → Set Date → MM/DD/YY Set Date Screen
Set Date → Set Time → HR:MIN:AM/PM Set Time Screen

System → System Menu → Contrast → Contrast Adjust Screen
Contrast → Factory Reset → Acknowledgement Screen
Factory Reset → Display Faults → Reset Faults → System Settings → Save Settings → Recall Settings
System Settings → Swap Master → OTA Update → Sunrise/Sunset → Display date Display Sunrise/Sunset times for Current Date
Sunrise/Sunset → About → Copyright, L.D. Kichler Co., Code revision