

Register your product

In order to provide you with prompt warranty service and technical support please register your product on line at www.varad.com/register. Be sure to have your product serial number ready. This can be found on the bottom of the digital controller.

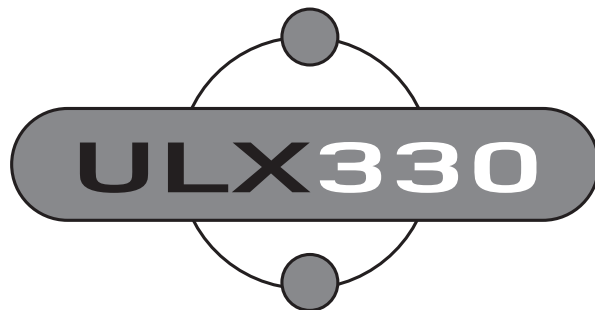
Send us your photos

We would love to have pictures of your install on our street gallery. Go to www.varad.com/street-gallery.html for more information.

Warranty

VARAD's product warranty covers against breakage due to defects in materials or workmanship for one year from the date of purchase. Warranty is only valid with proof of purchase from an Authorized VARAD Dealer. VARAD's warranty program does not cover cosmetic damage, and damage due to acts of God, accident, misuse, abuse or negligence to the product. Repair or replacement as provided under this warranty is the exclusive remedy of the consumer. VARAD shall not be liable for any incidental or consequential damage for breach of any express or implied warranty on this product. Except to the extent provided by this warranty or prohibited by applicable law, there are no implied nor expressed warranties or merchantability or fitness for a particular purpose of this product.

WWW.VARAD.COM



**COLOR CHANGING
LED UNDERCAR
LIGHTING SYSTEM**

Installation Manual

General

Thank you for purchasing the ULX330 color changing LED undercar lighting system from VARAD. To ensure proper use, please read this manual prior to installation.

The ULX330 demonstrates the innovation and technical abilities of the engineering team at VARAD. Our latest kit combines superior functionality with sleek product styling to put your ride at the forefront of the tuner scene. With 4 low profile LED lightbars, digital control module and a sleek wired hand-held controller, you can generate a mind blowing 16.7 million colors. With our patented system configuration, optimum color bleed is achieved using our latest high flux 180 degree LED's. These new high flux LED's allow us to use fewer LED's than those found in typical applications to provide a more uniform and superior color blend. If you demand the latest in lighting technology, VARAD will take you there - Enjoy!

Features

- 16.7 million colors.
- 4 Scanning, 1 Strobing and 1 Breathing pattern.
- Auto Color changing pattern and 9 preset selectable colors.
- Selectable Music Reactor frequencies (40hz, 80hz, 120hz).
- Network of multiple systems.
- Auxiliary input lighting - alarm system or courtesy light.
- Compact digital controller for ease of installation.
- Wired remote control with LED's that indicate color and pattern.
- Wireless infra red remote control
- Connectors on all LED lightbars for quick install.
- Patented Low profile tubes (0.5" x 0.7").
- Waterproof polycarbonate LED lightbars.

Trouble Shooting

System does not turn "ON"

Check to see that the ribbon cable from the remote controller is fully inserted into the controller.

Check "Ignition Wire", make sure it is getting constant 12 volts positive when engine is "ON".

Check fuse. If fuse looks bent or blown replace with a 5amp fast acting glass fuse.

Make sure that ribbon cable from remote control is not pinched or damaged.

LED lightbar does not work.

Check to see that cable between LED lightbar and controller is not damaged.

Plug into another port to verify that it is the LED lightbar.

A Section of my LED lightbar is not working

Plug LED lightbar into another port to verify that it is the LED lightbar.

Check to see that all the wires on the LED lightbar connector are fully inserted into the header.

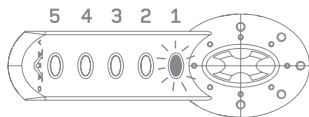
For technical support:

Check website www.varad.com

or email questions to: techsupport@varad.com

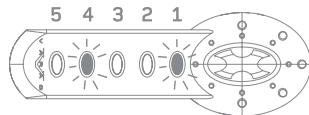
Networking Multiple Systems

Step 3: Release button, LED no.1 will remain "ON".



Step 4: Push button momentarily and LED no.4 will turn "ON".

Network mode is now "Active" and controller will be the master.



Push button momentarily to toggle LED no. 4 "off" to deactivate network mode.

Step 5: To exit "options" set up mode - Turn ignition "ON" then "OFF"

All "Slave" systems on the network will replicate the "Master" system in the following way:

Mode 1: System color.

All networked controllers will change to the master system color.

Mode 2: Patterns/Strobing/Breathing

All networked controllers will have an initial delay in synchronizing to the master controller.

Mode 3: Music Reactor.

All networked units will react in sync with the master controller.

Precautions

To prevent fire or shock hazard, do not expose the digital controller to rain or moisture.

To avoid electrical shock, do not open the digital controller. Refer servicing to a factory authorized dealer.

Replace the fuse only with the type provided in the fuse holder. Failure to do so can cause malfunction.

Quick Start

Refer to page 10

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Technical Specifications

Colors: **16.7 million**

Patterns: 4 Scanning, 1 Strobe, 1 breathing

Auto Color Change, 9 preset colors

Music Reactor Frequencies: 40hz, 80hz, 120hz

Network ready for multiple systems

Auxiliary input for trigger with +12v

Digital controller:

Height - 0.8"

Width - 4.0"

Length - 3.75"

Current draw - 40 ma to 2.7 amps depending on mode, color or pattern

Remote Control:

Height: 0.4"

Width: 1.25"

Length: 3.5"

LED LightBar:

Long LED LightBar length is 48.5" +/- 0.5"

Short LED LightBar length is 25" +/- 0.5"

Wires:

Long Light bars have 12' of cable

Short Light bars have 18' of cable

Electrical specifications:

LED's:

Red - TS ALINGAP, 70ma, 180 degree

Blue - INGAN, 50ma, 180 degree

Green - INGAN, 50ma, 180 degree

Networking Multiple Systems

Each ULX330C controller features a built in "network ready" feature. This feature allows multiple systems to be installed at the same time on large vehicles such as SUV's, Limousines, Semi's, RV's and Marine applications. To activate this feature simply connect the white wire of all digital controllers together during installation and set up the master as shown below.

installation notes!

Only one wired remote control needed. The digital controller with the wired remote controller will be designated "Master".

Only the "Master" unit requires hook up of the music input wire (Blue wire). Master unit will maintain "Master" status if power is interrupted.

All controllers must have ground wire, positive wire, ignition wire, network wire and auxiliary wire connected at the same location. This will ensure best network communication.

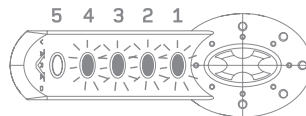
All controllers must have their own fuse. Do not use one fuse for all systems!

Setting up the "Master" controller. Entering "Options" set up mode.

Step 1: Turn ignition "OFF"

Step 2: Push and hold button, turn ignition "ON".

LED's no.1, 2, 3 & 4 will turn on.



• Continued on next page

Mode Features

Mode 1 • Color Selection

Mode 1 allows you to select the system color. To set system color push the button momentarily and the digital controller will start color changing cycle and LED 1 will flash to indicate color is changing. Each time you push the button momentarily the system will stop or start the color changing. Stopping at any particular color will define your system color and LED 1 will stop flashing. The system color will be used for certain patterns in mode 2 and mode 3. For instance, if you stop at purple then all scanning or strobe patterns will be purple. When you return to mode 1 the system will return to the color selected last time. The system color will be indicated on LED no.5.

Mode 2 • Scanning/Strobing/Preset colors

When in mode 2 you can select the following with each momentary push of the button. The system will remember the pattern next time you return to this mode.

- 4 Scanning patterns
- 1 Strobe pattern
- 1 Breathing pattern
- Auto color changing pattern
- 9 selectable preset colors

Mode 3 • Music Reactor

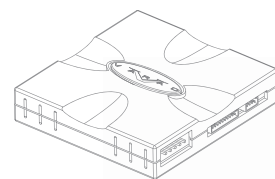
When in mode 3 you can select the following with each momentary push of the button.

- 40hz (LED no.3 will flash 2 times to confirm)
- 80hz (LED no.3 will flash 3 times to confirm)
- 120hz (LED no.3 will flash 4 times to confirm)

Parts list

1. ULX330C - Digital controller.
2. ULX300RC - Wired remote control.
3. RC100 infra red wireless remote
4. Two 48.5" LED lightbars.
5. Two 25" LED lightbars.
6. Power harness.
7. Self tapping screws, 12pcs.
8. Tie straps, 12pcs.
9. Mounting clamps, 12pcs.
10. Installation manual.

ULX330C - Digital controller

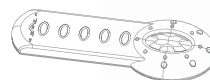


Items not show to scale

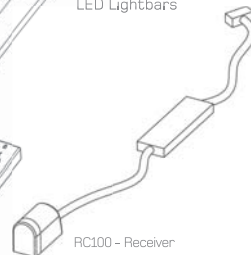


Mounting clamp

ULX300RC - Remote control



LED Lightbars

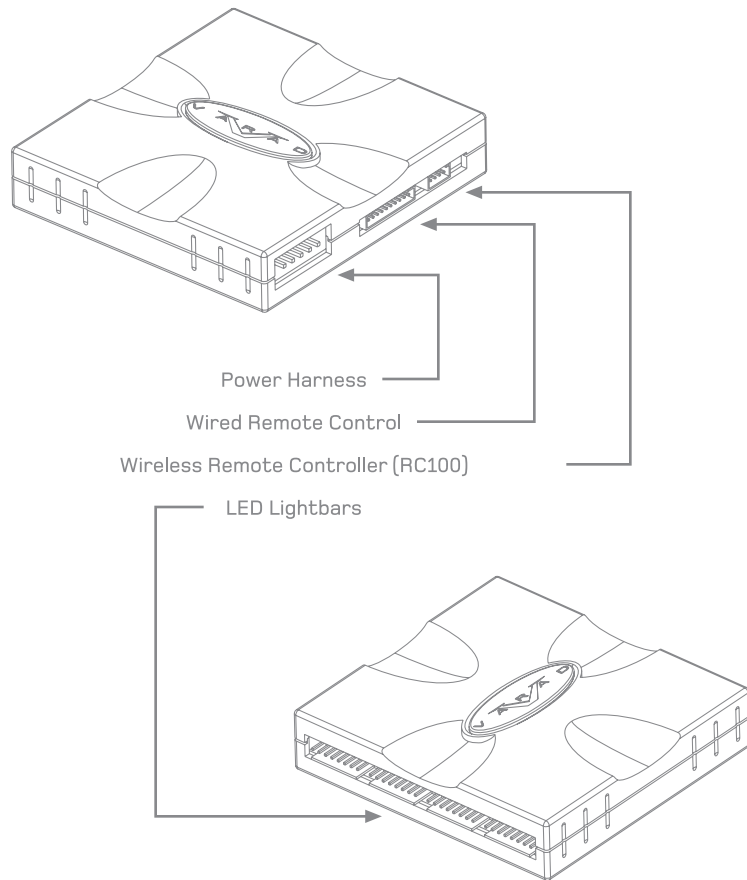


RC100 - Receiver



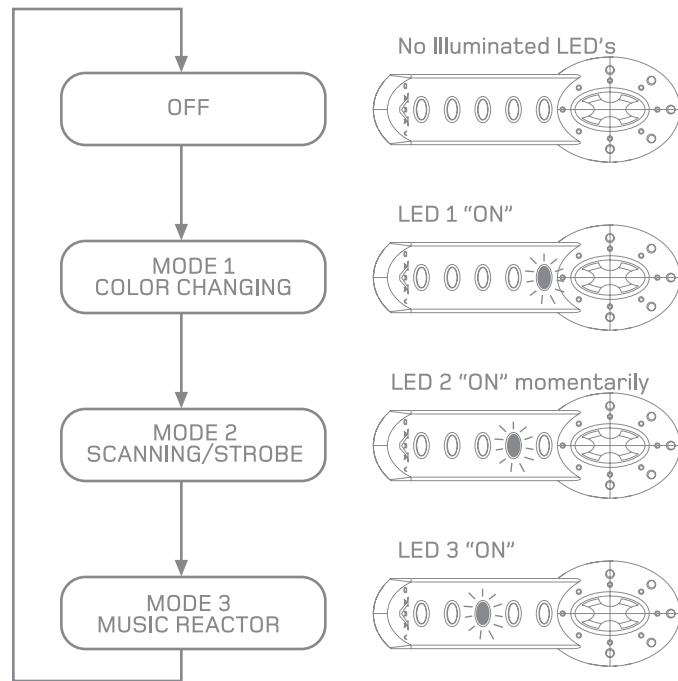
RC100 - Transmitter

ULX330C Digital Controller Description



Mode Operation flow chart

"Push and Hold"
to change modes
Release button when mode
LED is illuminated



Operation of ULX330 Continued

There are three modes of operation:

Mode 1 - Color Selection

Mode 2 - Scanning patterns/Strobe/Breath/Preset colors

Mode 3 - Music Reactor

Refer to "Mode Features" on page 13 for details on features for each mode.

Turning system "OFF"

To turn the system "off" quickly, push and hold button until all lights on the remote control turn "off". This will take a few seconds only.

Hi resolution, 16.7 million color mode

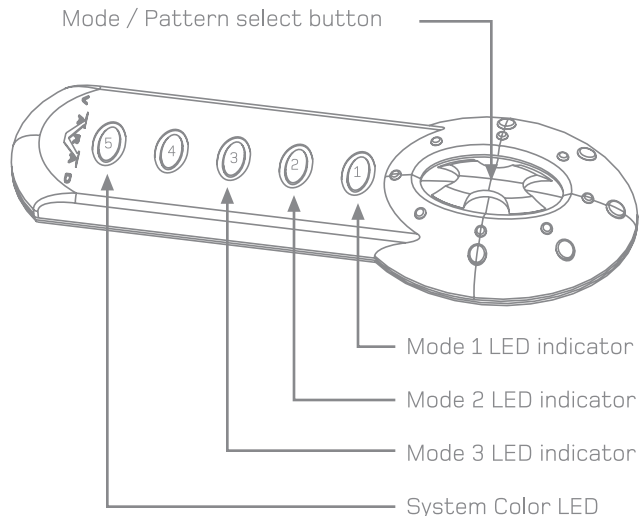
- please refer to www.varad.com/techsupport for instructions on entering this mode. To be used only for generating a very specific color.

Auxiliary lighting

When connected to an alarm system or interior light source:

System will activate red leds each time a +12v trigger is applied to the orange auxiliary input wire. This function only operates when the ignition is "off". The auxiliary color is red.

ULX300RC Remote Control Description



The remote control also indicates the scanning pattern with each of the 4 LED's. The color of the Scanning pattern is shown with the system color LED.

When in mode "2"

LED 1 will be active to indicate Scanning pattern 1

LED 2 will be active to indicate Scanning pattern 2

LED 3 will be active to indicate Scanning pattern 3

LED 4 will be active to indicate Scanning pattern 4

All LED's will be active to indicate Strobing or Breathing patterns

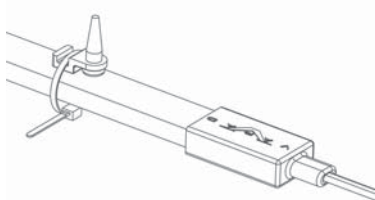
Required tools

- Wire stripper
- Wire cutter
- Assorted drill bits
- Cordless drill
- Screwdriver

Installation of LED lightbars

Visually inspect underneath your vehicle to determine a suitable location for mounting each LED lightbar. Hold the LED lightbar up in the prospective mounting location to verify that it will not interfere with existing parts under the vehicle. For the 48.5" lightbars it is important that the wire leads face the same direction (front or rear) to ensure symmetry of the Scanning patterns. When you have found a suitable location, begin to install the mounting clamps. There are 4 clamps for each side lightbar and 2 for each front and rear lightbar. Space each clamp approximately 1 foot between each other. It is important to install all mounting clamps in a straight line. It helps to use a reference point on the chassis such as the pinch weld seam, etc. Mark each drilling point and pre-drill each hole with a 1/8" drill bit. Install all clamps facing the same direction. Now hold the lightbar up and install a tie strap through the clamp at each mounting point. Trim excess tie strap material. Repeat the process for each lightbar.

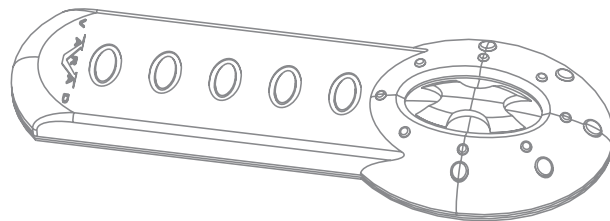
Screw clamp to body and then tie strap around light bar



Operation of ULX330

The ULX330 is operated with a single button remote control. All features can be controlled by two types of button operations:

- "Push and Hold" (greater than 1 second) to change modes.
- "Push and release" (momentary) to change features in selected mode.

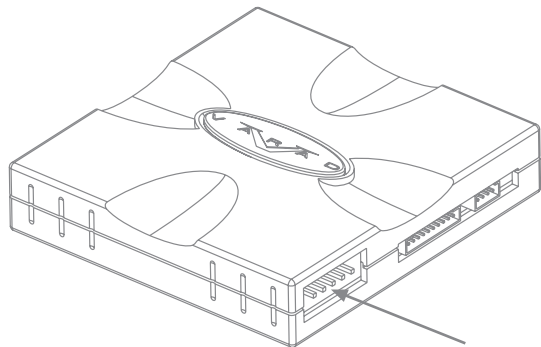


For example:




To turn system "ON"

Push and hold button until Mode 1 LED is active. The system will power up and go into Mode 1 (Color Selection). The default color is blue. Push button momentarily and system will begin to change colors slowly. When the desired color is found push button once more to stop. Each momentary push of the button will start and stop the color changing. Refer to "Mode Operation Flow Chart" for more details.

Wiring Schematic Continued



Connect wiring harness as indicated below:

- Red wire - Battery Positive 
- Black wire - Negative (ground) 
- Yellow wire - Ignition (+12v when ignition is "ON")
- White wire - Network (See "Networking pg 14")
- Blue wire - Positive speaker terminal 
- Orange wire - Positive +12v trigger from Alarm system or courtesy light

When all controllers and LED lightbars are installed you can proceed to plug all connectors into the ULX330C controller. Proceed to the "Operation of ULX330" section.

Installation of Controllers

Install the Digital Controller inside the vehicle. Find a location that will allow all the wires to the LED lightbars to connect without binding. The location should be 36" from where you decide to install the wired remote control. The wired remote control should be installed in a location within reach of the driver.

Installation of RC100

Find a suitable location on the dashboard to mount the RC100 receiver. Mount using the provided mounting tape. It must be visible to the transmitter in order to function properly. The receiver must then be plugged into the appropriate connector on the lighting system controller. Once plugged in you are ready to use.

Using the RC100

There are two buttons on the RC100 Infra red transmitter

"Mode" - on, off and change modes

"▶" - Pattern change

The transmitter has an approximate range of 10 feet.
Replacement battery - CR2025 lithium type

Wiring Schematic

