System Parts:
(1) Dynamic RF LED Parent Controller (required) . . . . . P/N: L-RGBCCT1-PREC
(1) Dynamic RF LED Child Receiver (optional) . . . . P/N: L-RGBCCT1-CREC
(1) Dynamic RF LED Remote Control (optional) . . . . . . P/N: L-RGBCCT-RMT
(1) Power Supply, Class 2, 12VDC 60W max (or) 24VDC 96W max
Tresco® low voltage 12V or 24V LED RGB or CCT light(s) with Starter Cord

Also see Accessories below.

Parent Controller & Child Receiver Specifications:	Remote Control Specifications:
Power/Voltage: . . . 60W max (12V), or 96W max (24V)	Operating Voltage: . . . . (2) AAA batteries (included)
Output: . . . 5A (12V), or 4A (24V)	Radio Frequency: . . . 916.5 MHz
	RF Remote Distance: 66 ft. (20m)

Read All Instructions Before Installing System.

Before beginning installation, be sure power is turned OFF to light system.

The **FREEDiM Wireless Dynamic Controls** provide color and brightness controls for RGB or CCT (white color-tunable) lighting on Tresco® low voltage LED RGB and CCT lights.

Tresco® Dynamic Parent Controllers and Child Receivers can handle both 12VDC 60W and 24VDC 96W.

Use (1) Parent Controller for the first run of lights (i.e. the "parent run").

Use (1) Child Receiver for each additional run of lights (i.e. the "child run").

The Parent Controller can control up to **10** Child Receivers *(see page 2, and Fig. 7).*

The wireless **Remote Control** (optional) must be positioned within **66 ft. (20m)** of Parent Controller and Child Receivers. *(Note: outside interference may affect the signal between Remote Control and Parent Controller or Child Receiver. See 'Signal Interference' on page 2.)*

CAUTION: One Power Supply can power several Parent Controllers and/or Child Receivers as long as you do NOT exceed the wattage rating of the Power Supply including the run of lights.

The Remote Control can operate 1 Parent Controller and up to 10 Child Receivers per zone independently.

NOTE: You can use a hardwire dimmable Power Supply on the system, but the Parent Controller can NOT be dimmed or it will not function properly.

NOTE: You can use Tresco LinkD extension cords (with AMP® connectors) to add length to the input side of the wiring.

Installing Parent Controller & Child Receiver:

Roughly lay out the lighting system before installation to verify final positioning of all components. See separate instruction sheets on how to install Power Supplies and Tresco® low voltage LED RGB and CCT lights.

IMPORTANT: You need to first select between a RGB or CCT light system with the appropriate LED lights and 3- or 4-wire cords. Then after installation you must select between RGB or CCT modes in the Parent Controller *(see page 2).*

12V SYSTEM:

1. Mount Parent Controller and Child Receiver(s) with screws (provided).
2. Connect 12VDC Power Supply to 12V Mounting Block *(see Fig. 1).*
3. Plug input cord of Parent Controller or Child Receiver into Mounting Block.
4. Remove cover on output side of Parent Controller or Child Receiver, then ...

   For RGB wiring - Wire the RGB Adaptor Cord (pigtail) with (4) color-coded wires to Parent Controller's or Child Receiver's output terminals as follows: black wire to "**+**" terminal, then red, green and blue wires to matching "R-", "G-" and "B-" terminals *(see Figs. 3 & 5).*

   For CCT wiring - Wire the CCT Adaptor Cord (pigtail) with (3) color-coded wires to Parent Controller's or Child Receiver's output terminals as follows: red wire to "**+**" terminal, white wire to "CW-" terminal, and yellow wire to "WW-" terminal *(see Figs. 4 & 5).*

   Note: you may need to twist wires to hook up to the correct terminals.

5. Connect Starter Cord to Tresco® LED Lights.
6. Check all connections and turn on power to Power Supply.

24V SYSTEM:

1. Mount Parent Controller and Child Receiver(s) with screws (provided).
2. Connect 24VDC Power Supply to 24V 5-Output Barrel Splice *(see Fig. 2).*
3. Connect 5-Output Barrel Splice to Barrel-to-AMP Adaptor Cord (adaptor cord included with each Parent Controller or Child Receiver).
4. Connect Barrel-to-AMP Adaptor Cord to input cord of Parent Controller or Child Receiver.
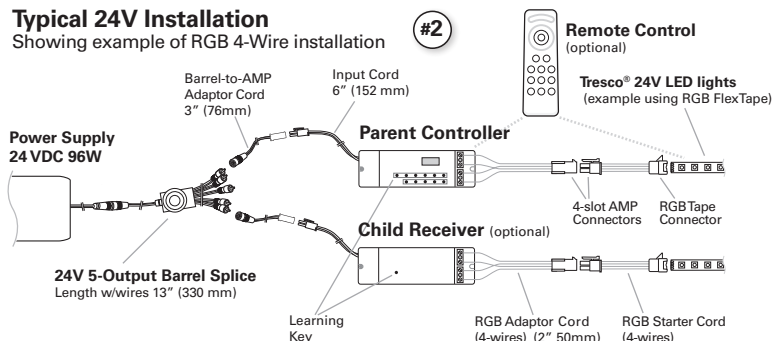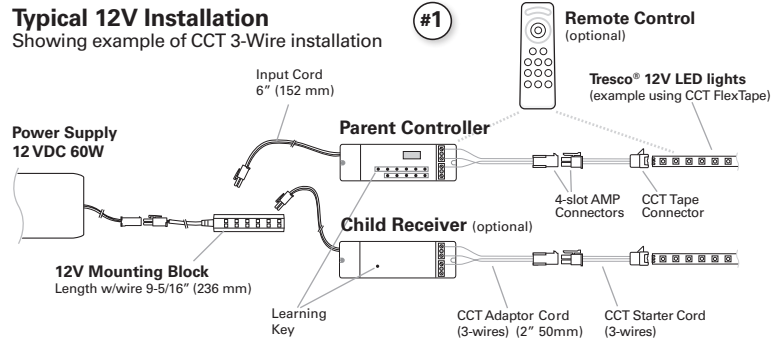5. To complete, follow *12V SYSTEM's* **Steps 4, 5 & 6** above.

See page 2 for Programming and Safety Instructions.

Accessories: (sold separately) Extension and Link Cords, additional Parent Controllers, Child Receivers, Remote Controls, 12V Mounting Blocks, 24V 5-Output Barrel Splices.
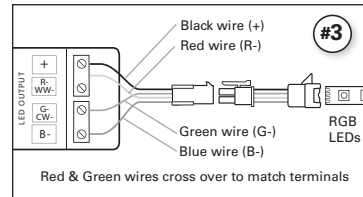
Typical 12V Installation
Showing example of CCT 3-Wire installation

Typical 24V Installation
Showing example of RGB 4-Wire installation

RGB 4-wire example:

Black wire (+)
Red wire (R-)
Green wire (G-)
Blue wire (B-)
RGB LEDs

Red & Green wires cross over to match terminals

CCT 3-wire example:

Red wire (+)
Yellow wire (WW-)
White wire (CW-)
CCT LEDs

Yellow & White wires cross over to match terminals

RF LED Child Receiver (12-24VDC)
P/N: L-RGBCCT1-CREC
INPUT ►
OUTPUT ►
46 mm 1-13/16 in.
16 mm 5/8 in.
146 mm 5-3/4 in.
Output Cover
Output Terminals

RF LED Parent Controller (12-24VDC)
P/N: L-RGBCCT1-PREC
Input Terminals
Input Cover
16 mm 5/8 in.
146 mm 5-3/4 in.
46 mm 1-13/16 in.
Pre-attached Input Cord
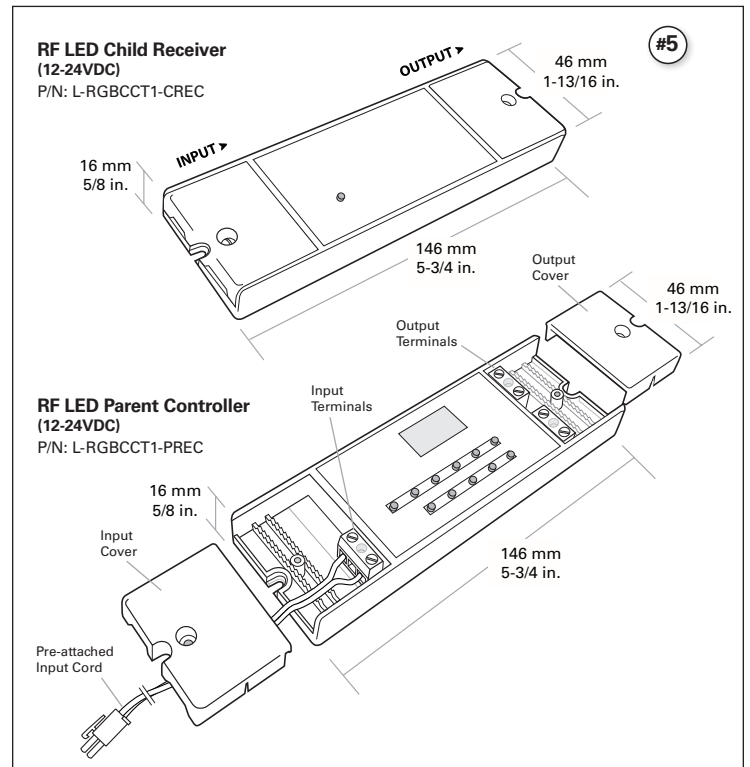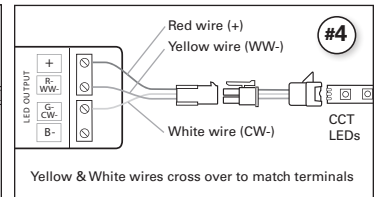
Programming Instructions:

1. Power on the light system. Short press the 'Learning Key' on the **Child Receiver**, then immediately short press the 'Learning Key' on the **Parent Controller** *(Fig. 6)*. The connected LED lights should flash, indicating they are paired up and programmed properly.

Once paired, the Parent Controller will synchronize all configuration information to the Child Receiver automatically.

2. If the Parent Controller controls more than one Child Receiver, repeat steps above pairing the Parent Controller to additional Child Receivers.

3. See separate **Remote Control** instruction sheet to program.

NOTE: A single Parent Controller can control up to **10** Child Receivers. *(Fig. 7)*

NOTE: A Remote Control can control up to **2 zones** independently. Each zone can operate **1** Parent Controller and up to **10** Child Receivers.

To Deprogram:

- To deprogram the Parent Controller hold down the 'Learning Key' for 3 seconds until the connected LED lights flash twice.

  The only reason to deprogram the Parent Controller is to erase the Remote Control from the system.

- On the Child Receiver, hold down the 'Learning Key' for 3 seconds until the connected LED lights flash twice. The Child Receiver is now reset and is no longer paired with the Parent Controller.

  If you deprogram the Parent Controller and not the Child Receiver, the Child Receiver will stay with the last light setting constantly on.

RGB and CCT (Color-tuning) modes:

The Parent Controller can only operate RGB or CCT lighting fixtures. It cannot control a mixture of fixtures in the same system.

- You MUST select between RGB or CCT modes in the Parent Controller before making any lighting adjustments. Short press the "☼" and "☼" buttons at the same time to select a mode. (Note: the display may show "Mono" mode as a third option, but do not select this mode.)

- The Parent Controller can adjust the lights for warm or cool white, and RGB – providing a wide range of light options.

  For RGB, short press the Parent Controller buttons to adjust the lights in increments of 1 (from 0 to 255). For CCT, short press in increments of 15K (from 2700 to 6500K).

 Or continue to hold down the buttons for faster adjustments.

  Due to various tolerance levels of the CCT of any given light fixture the values displayed are not absolute. They will follow the same tolerance range as the light fixture being used. For example, a 6500K light fixture with a tolerance of +/- 200K will give a tolerance of the digital readout of +/- 200K.

- You can also control light intensity (dim levels) from 100% to 5%.

- The digital screen on the Parent Controller displays the current mode and settings. *(Fig. 6)*

- The **Remote Control** also has full-function to change light values for RGB and color-tuning. To check the current settings, view the digital screen on the Parent Controller.

Pre-programmed Parent Controllers:

- Parent Controllers are pre-loaded with ten different programs to quickly change lighting specifications when needed. These ten programs include: **RGB** sequences, flashing, fade-in/fade-out, etc.

- The ten pre-loaded programs are only accessible through the Remote Control.

- See separate Remote Control instruction sheet for a listing of the ten programs and how to access.
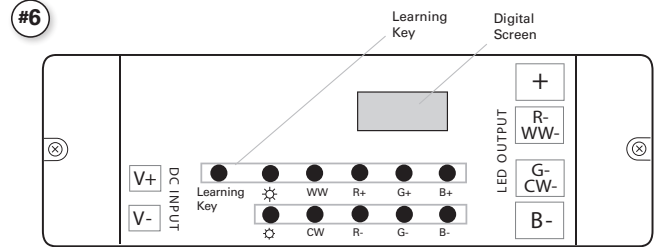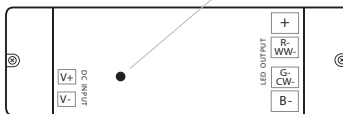

RF LED Parent Controller
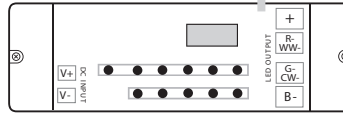
RF LED Child Receiver

Dynamic RF LED Remote Control *(optional)*

P/N: L-RGBCCT-RMT
(see separate instruction sheet)

IMPORTANT SAFETY INSTRUCTIONS

CAUTION: To reduce the risk of fire, electric shock, or injury to persons:

- Use only in dry locations. Not for use where exposed to the weather.
- Route and secure cords so they will not be pinched or damaged.
- Use only insulated staples or plastic ties to secure all loose cords.
- Replace the batteries on the Remote Control with (2) AAA batteries only (non-rechargeable).
- Use Class 2 or LPS, 12VDC or 24VDC Power Supply to power Parent Controller and Child Receiver.
- Do NOT dim the Power Supply (or Parent Controller won't function properly).
- Parent Controller and Child Receiver output 12VDC 60W 5A max or 24VDC 96W 4A max.
- The Parent Controller and Child Receiver are not intended for recessed installation in ceilings or soffits.
- A licensed electrician should be consulted for wiring through ceilings, soffits, or walls.
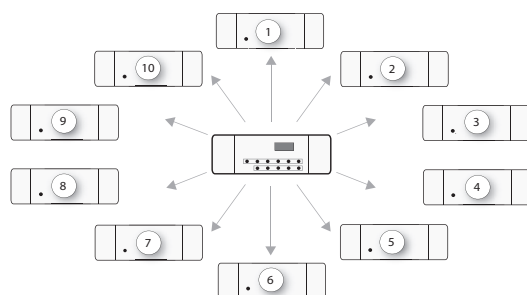- All wiring must follow NEC regulations.

Signal Interference:

Outside interference may affect the signal between the Remote Control and Parent Controller or Child Receiver. Typical items that might cause interference include: metal pots and pans, leaded glass, aluminum framed doors, etc. If experiencing interference, try repositioning the Parent Controller or Child Receiver in 6" (15cm) increments. This typically allows the system to function properly.

Save these instructions for future reference.
For technical assistance, call 1-800-227-1171

Each Parent Controller can control up to 10 Child Receivers

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