System Parts:
(1) Dynamic RF LED Parent Controller/Receiver (required) . . . . . P/N: L-RGBCCT1-PREC
(1) Dynamic RF LED Child Controller/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.

Installation Instructions
FREEDiM Wireless Dynamic Controls
For RGB & CCT LEDs • 12VDC 60W & 24VDC 96W

Parent Controller/Receiver & Child Controller/Receiver Specifications:	Remote Control Specifications:
Power/Voltage: . . . 60W max (12V), or 96W max (24V)	Operating Voltage: . . . . (2) AAA batteries (not included)
Output: . . . 5A (12V), or 4A (24V)	Radio Frequency: . . . 916.5 MHz
	RF Remote Distance: 66 ft. (20 m)

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 Controller/Receivers and Child Controller/Receivers can handle both 12VDC 60W and 24VDC 96W.

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

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

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

The wireless **Remote Control** (optional) must be positioned within **66' (20 m)** of Parent Controller/Receiver and Child Controller/Receivers. Remote(s) must be paired to Parent before Child is paired with Parent.

(Note: outside interference may affect the signal between Remote Control and Parent Controller/Receiver or Child Controller/Receiver. See 'Signal Interference' on page 2.)

CAUTION: One Power Supply can power several Parent Controller/Receivers and/or Child Controller/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/Receiver and up to 10 Child Controller/Receivers per zone independently.

NOTE: You can use a hardwire dimmable Power Supply on the system, but the Parent Controller/Receiver 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/Receiver & Child Controller/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/Receiver *(see page 2)*.

12V SYSTEM:

1. Mount Parent Controller/Receiver & Child Controller/Receiver(s) with screws (provided).

2. Connect 12VDC Power Supply to 12V Mounting Block *(see Fig. 1)*.

3. Plug input cord of Parent Controller/Receiver or Child Controller/Receiver into Mounting Block.

4. Remove cover on output side of Parent Controller/Receiver or Child Controller/ Receiver, then ...

   For RGB wiring - Wire the RGB Adaptor Cord (pigtail) with (4) color-coded wires to Parent Controller/Receiver's or Child Controller/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/Receiver's or Child Controller/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/Receiver and Child Controller/Receiver(s) with screws (provided).

2. In cases where multiple controllers are connected to a single power supply, an optional 24VDC 5-Output Barrel Splice is required to connect to the 24VDC Power Supply *(see Fig. 2)*.

3. Connect either the 24VDC Power supply or 5-Output Barrel Splice to Barrel-to-Amp Adaptor Cord (adaptor cord included with each Parent Controller/Receiver or Child Controller/Receiver).

4. Connect Barrel-to-AMP Adaptor Cord to input cord of Parent Controller/Receiver or Child Controller/Receiver.
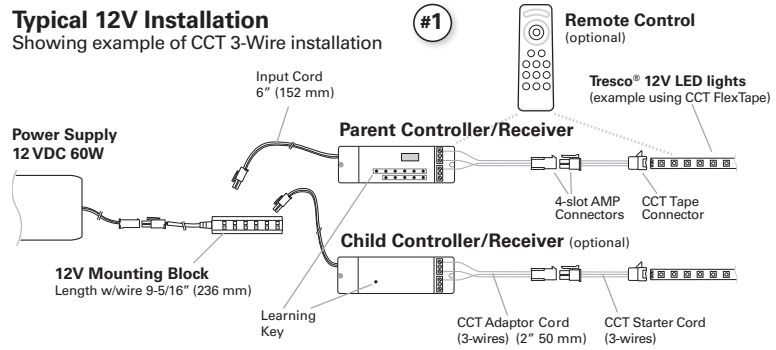
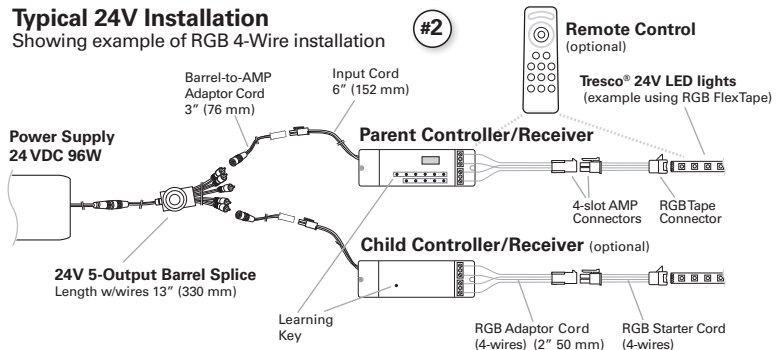5. To complete, follow *12V SYSTEM's* **Steps 4, 5 & 6** above.

Typical 12V Installation
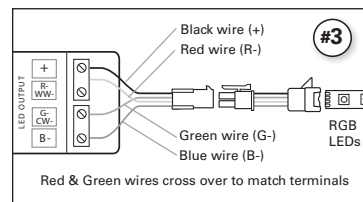Showing example of CCT 3-Wire installation

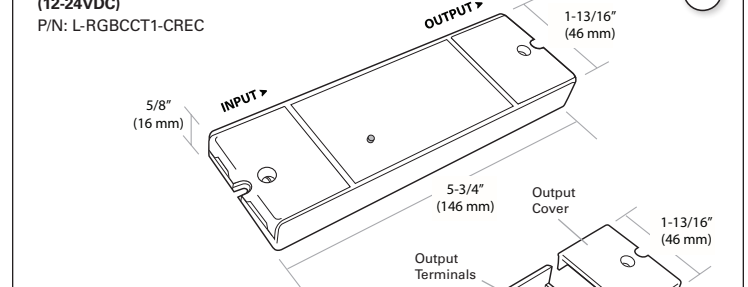### Typical 24V Installation
Showing example of RGB 4-Wire installation

RGB 4-wire example:

Red & Green wires cross over to match terminals

CCT 3-wire example:
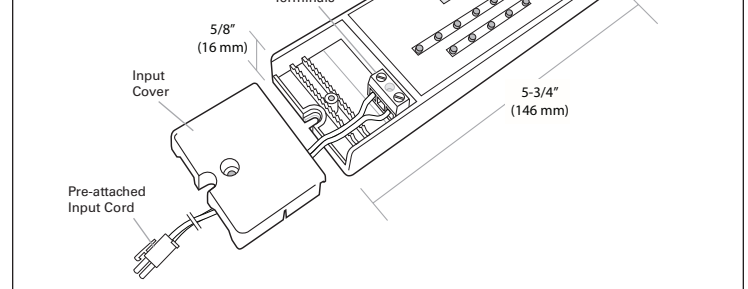

Yellow & White wires cross over to match terminals
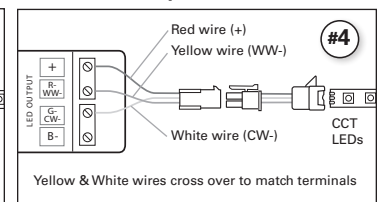
RF LED Child Controller/Receiver (12-24VDC)
P/N: L-RGBCCT1-CREC

RF LED Parent Controller/Receiver (12-24VDC)
P/N: L-RGBCCT1-PREC

Accessories: (sold separately) Extension and Link Cords, additional Parent Controller/Receivers, Child Controller/Receivers, Remote Controls, 12V Mounting Blocks, 24V 5-Output Barrel Splices.

Programming Instructions:

NOTE: All Wireless Remotes must be programmed to the Parent Controller/Receiver before ANY Child units are paired to the Parent.

1. Power on the light system. Short press (< 1s) the 'Learning Key' on the Parent Controller/Receiver (see Fig. 6), then within 10 seconds, press the power button on the Deco Wall Remote or the Hand-Held Remote, depending on which is being used. The lights connected to the Parent Controller/Receiver should flash, indicating they are paired up and programmed properly. Test the connection by adjusting the light color, brightness and on/off function. If all functions perform as expected, move on to the next step.

1a. If using multiple remotes, follow the above process for the 2nd remote after the first has been paired. Refer to the instruction sheet included with the remote control for specific pairing or controls explanation.

2. If pairing a Parent Controller/Receiver to one or more Child units, short press (< 1s) the 'Learning Key' on the Child Controller/Receiver, then within 10 seconds, press the 'Learning Key' on the Parent Controller/Receiver. The lights connected to the Child Controller/Receiver should flash, indicating they are paired up and programmed properly.

3. Press the Power button on the remote paired in step one, lights connected to the Parent Controller/Receiver should flash indicating full pairing with Child and Parent units. Use remote to adjust lights to make sure all connected lights respond together.

   If multiple Child units are being paired, repeat Steps 2 and 3 for each additional Child Controller/Receiver.

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

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

To Deprogram:

• To deprogram the Parent Controller/Receiver hold down the 'Learning Key' until connected lights blink.

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

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

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

RGB and CCT (Color-tuning) modes:

The Parent Controller/Receiver 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/Receiver 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/Receiver 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/Receiver 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/Receiver 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/Receiver.

Pre-programmed Parent Controller/Receivers:

• Parent Controller/Receivers 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.

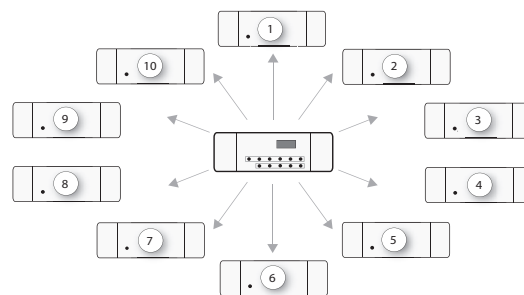
#6

RF LED Parent Controller/Receiver

Learning Key Digital Screen

RF LED Child Controller/Receiver

Learning Key
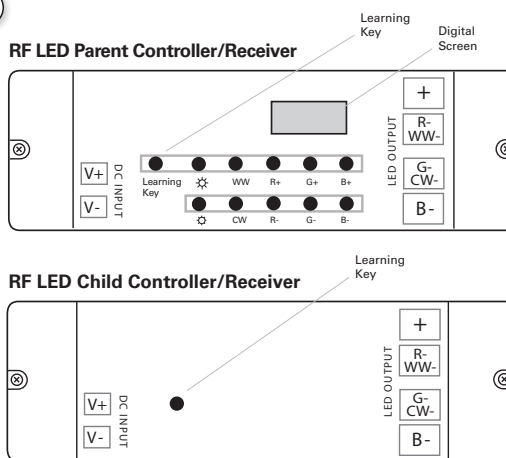
Dynamic RF LED Remote Control
(optional)

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

Each Parent Controller/Receiver can control up to 10 Child Controller/Receivers

#7

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/Receiver and Child Controller/Receiver.

• Do NOT dim the Power Supply or Parent Controller/Receiver won't function properly.

• Parent Controller/Receiver and Child Controller/Receiver output 12VDC 60W 5A max or 24VDC 96W 4A max.

• The Parent Controller/Receiver and Child Controller/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/Receiver or Child Controller/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/Receiver or Child Controller/Receiver in 6" (150 mm) increments. This typically allows the system to function properly.

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

tresco lighting

I-RGBCCT1-0523

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Tresco® Parent Controller/Receiver & Child Controller/Receiver Certifications:

FC CE **RoHS** COMPLIANT