

# HL1009FA

## Single Colour, RGB or RGBW RF Receiver

SUPPLY VOLTAGE	12-36V
MAX OUTPUT CURRENT	5A/CH x 4CH
MAX OUTPUT POWER AT 24V	480W (120W Per Channel)
AMBIENT TEMP	-20.. +50°C
DIMENSIONS	L172 x W46 x H22mm



RF Receiver for use with RF Remote/Wall controls.



### AVAILABLE IN

DESCRIPTION	CODE
RF RECEIVER (1-4 CHANNEL 12-36V DC)	HL1009FA
IP67 RF RECEIVER (1-4 CHANNEL 12-36V DC)	HL1009FAWP

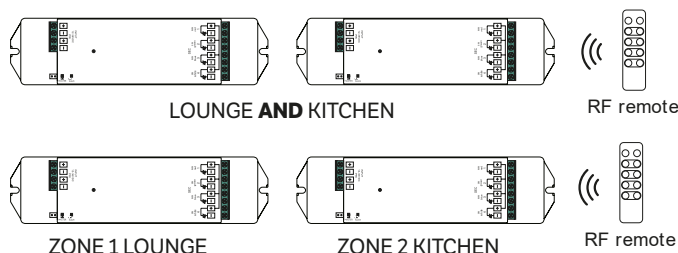
### COMPATIBLE WITH

DESCRIPTION	CODE
REPEATERS / AMPLIFIERS	HL3001 & HL3002
RF WALL MOUNT CONTROLS	HL2820
RF REMOTE CONTROLS	HL2819
RF WIRELESS TABLE TOP CONTROLS	HL2836
RF DIMMER WIRELESS MINI BUTTONS	HL2807 & HL2833

### INSTALLATION NOTES

**IMPORTANT:** With Multicolour LED lighting do not assume cable colour correlates to colour output. Take care to ensure all channels are wired accurately, if the V+ feed is wired incorrectly it will cause immediate failure.

Receivers can be paired to the same remote to control multiple zones at the same time **OR** paired to the same remote control independently.



### OPERATION NOTES

#### PAIRING HL1009 RF RECEIVER WITH RF REMOTE CONTROL/S

1. Wire HL1009 receiver correctly, power on.
2. Turn on chosen RF Remote (sold separately, see compatibility chart above)
3. Short press "Learning Key" button on HL1009 Receiver, if assigning the circuit to a zone then immediately press a zone number on RF Control (if available) then touch the colour wheel or slider bar on the RF Control. If you are not assigning the circuit to a zone short press learning key and touch the colour wheel or slider bar.
4. LED Lights will Blink to indicate they are successfully paired to your RF remote of choice.
5. HL1009 Receiver can be paired with up to 8 individual remote controls and/or wall controls

#### RESETTING HL1009 RF RECEIVER & RF REMOTE CONTROL/S

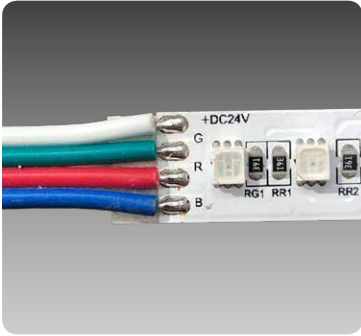
1. Long press "Learning Key" button on HL1009 Receiver until LEDs blink on and off. This will reset the connection and cause the RF Receiver to "forget" all previous settings.

#### TROUBLESHOOTING

- Q. LED colours look very faded and dull on my RGBW Four Colour LED Tape?
- A. Turn off White channel. White Channel is operating at the same time as the 3 colour channels. Turn off fourth "White" Channel using "W" button on wall or remote control.
- Q. When I adjust the colours on my remote it does not match the colours being produced from my RGB LED?
- A. Channels wired incorrectly, double check all channels are wired correctly. e.g. Red into Red, Blue into Blue etc
- Q. Some of the colours are not working on my RGB tape?
- A. Check Polarity of connections, e.g. V+ = Positive, Red = Negative, Green = Negative, Blue = Negative

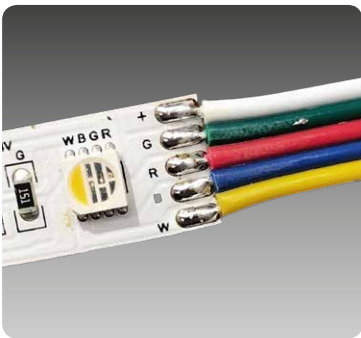


## TERMINATION



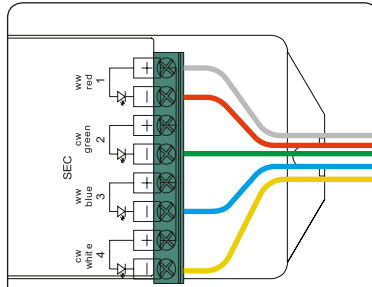
### RGB HD Feed cable

White = 24V DC (+)  
Green Cable = Green (-)  
Red Cable = Red (-)  
Blue Cable = Blue (-)



### RGB+ Feed cable

White = 24V DC (+)  
Green Cable = Green (-)  
Red Cable = Red (-)  
Blue Cable = Blue (-)  
Yellow Cable = White (-)



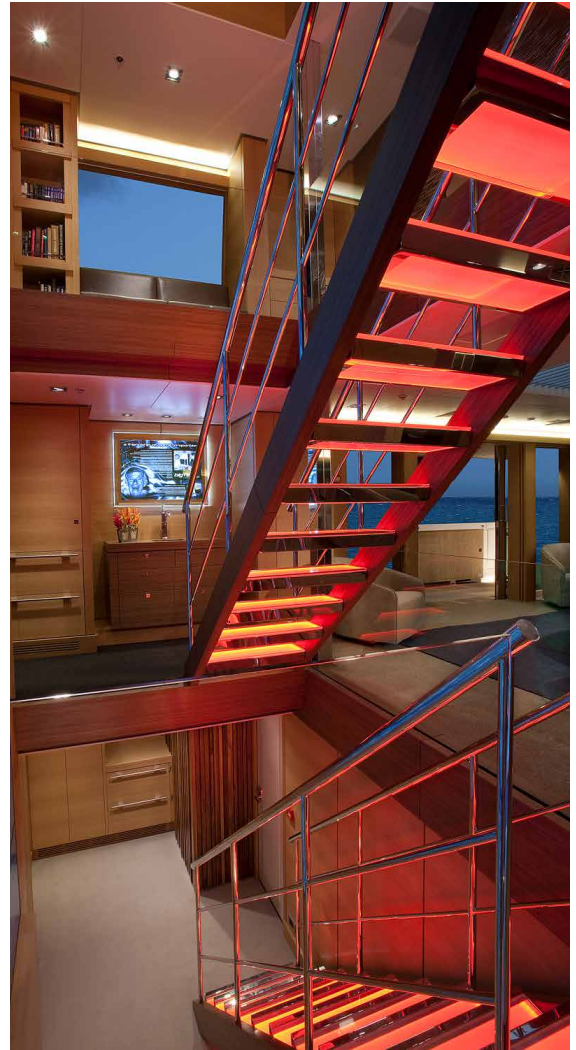
### Feed Cables

For multi colour lighting; colour feeds are wired into the negative terminals.

Only the labeled 24V feed (V+) is wired into the positive terminal on "1/WW/RED" Channel (See grey wire in diagram above) Incorrect termination on secondary side can cause permanent damage to tape and HL1009 Receiver.

*Example above shows RGBW (4 Channel). Wire colours are used for illustration purposes only.*

**Wire colour does not always correlate to light colour. Check tape solder point for symbol.**

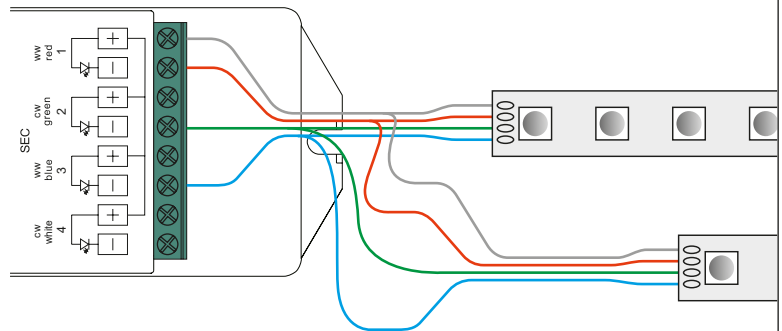


### Multiple Lengths / Luminaires

Multiple tape lengths or luminaires can be wired in **parallel** into HL1009 Secondary.

### MAX TOTAL OUTPUT 480W @ 24V

*If using 12V lighting, max output is halved.*



## MAX RUNS / RANGE

### Maximum recommended run length <25m

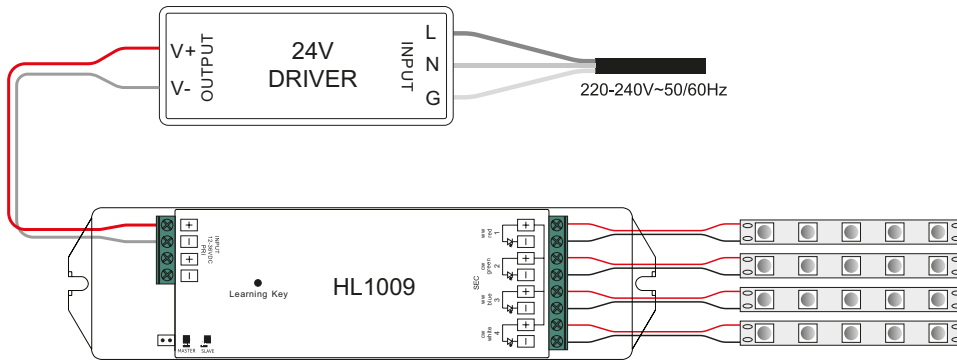
For best results we recommend you do not run secondary feeds longer than 25m from the HL1009 to a repeater / amplifier or lighting circuit. After 25m the PWM signal starts to weaken.

### Maximum recommended range <25m

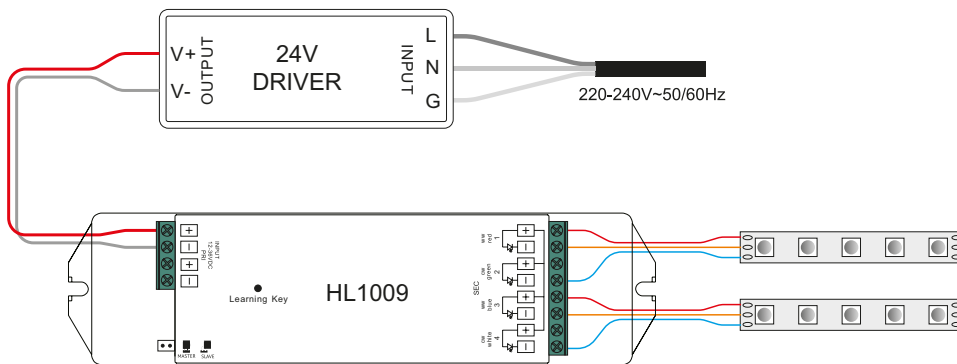
The HL1009 receiver should be located within 25m of the RF remote control or wall control. In masonry homes the range is significantly reduced and testing is required to determine appropriate controller / receiver range.

## WIRING CONFIGURATIONS 1/2/3 & 4 Channels

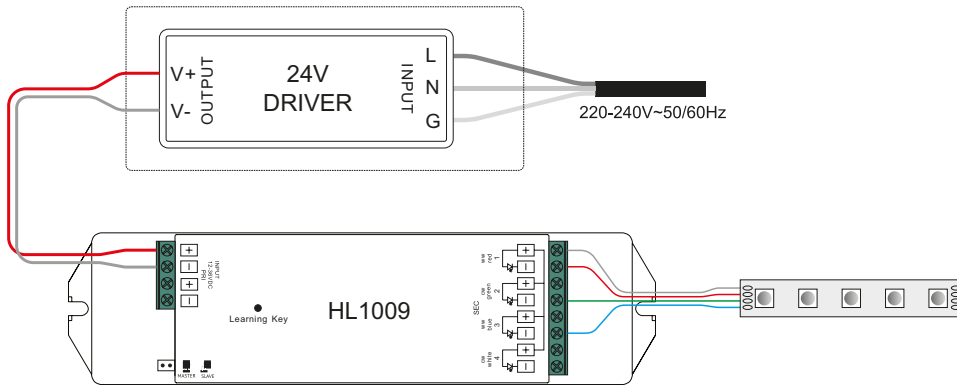
Single Channel e.g. Standard Single Colour LED Tape



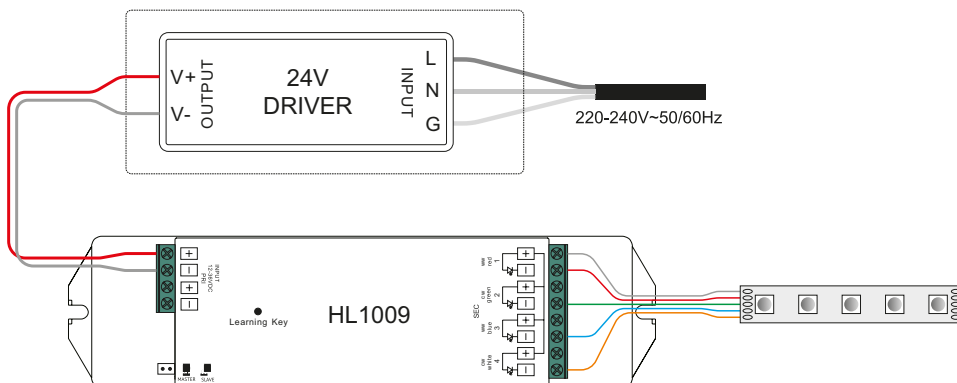
Two Channel e.g. Adjustable Colour Temperature LED Tape



Three Channel e.g. RGB Colour LED Tape



Four Channel e.g. RGB+W Colour LED Tape



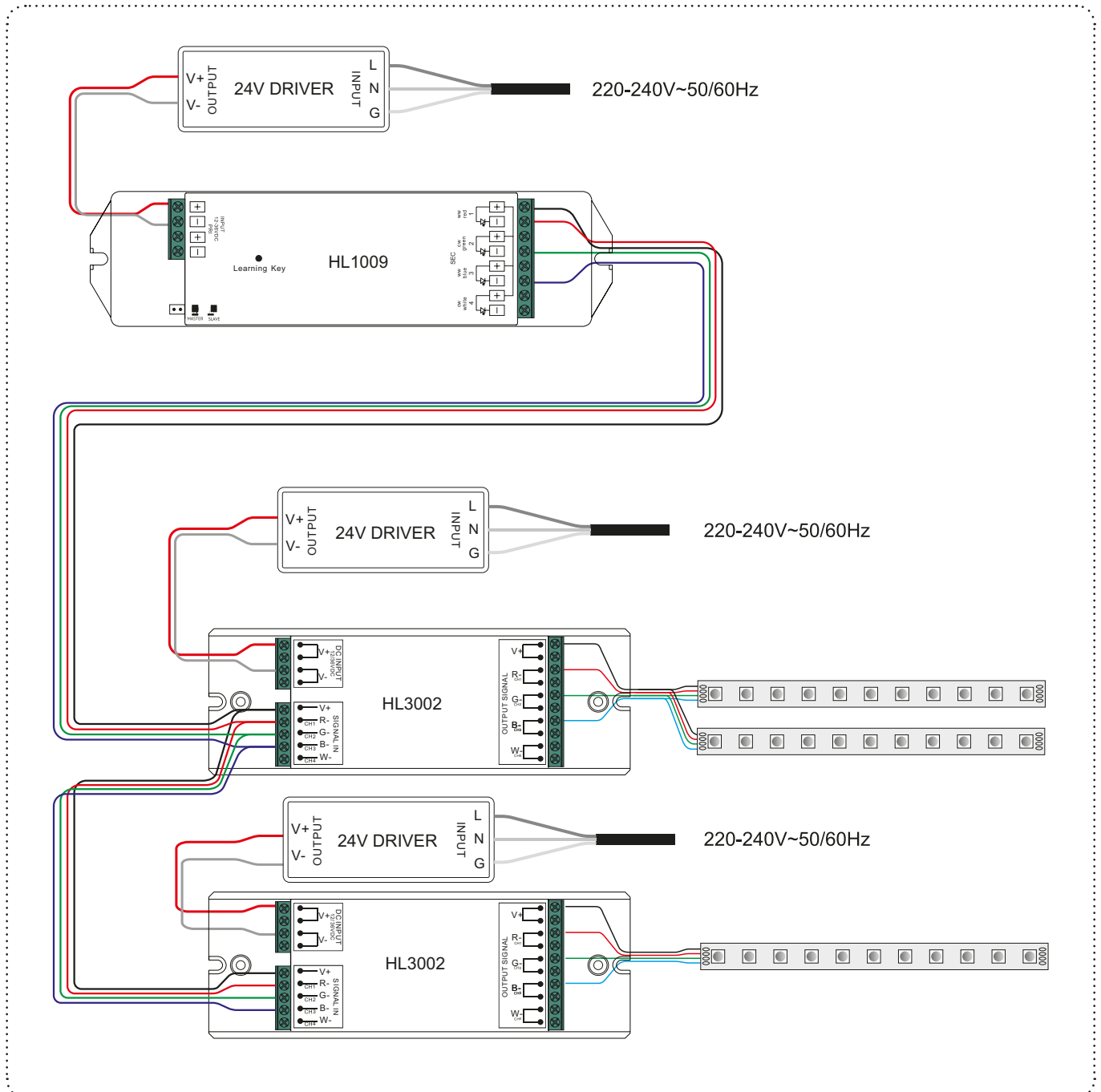
## COMMON CIRCUIT SCENARIOS

### SCENARIO 1: Installation requires two high wattage circuits of LED Tape controlled as a pair by one remote or wall control.

**SOLUTION 1:** If the total wattage of the LED tape exceeds our largest Driver wattage then you will need to use repeaters. Connect one HL1009 receiver to two HL3002 power repeaters. PWM Signal is sent to primary side of each receiver via the HL1009 receiver. Repeaters can be extended indefinitely. Pair/Sync remote control or wall control to HL1009.

Note: When using HL1009 in conjunction with repeaters/amplifiers only a small 24V 40W Driver is needed to power the HL1009 receiver to send PWM signal to repeaters. LED tape is powered by 24V Drivers on each repeater/amplifier, not driver powering the HL1009 receiver.

(Diagram shows RGB Tape)



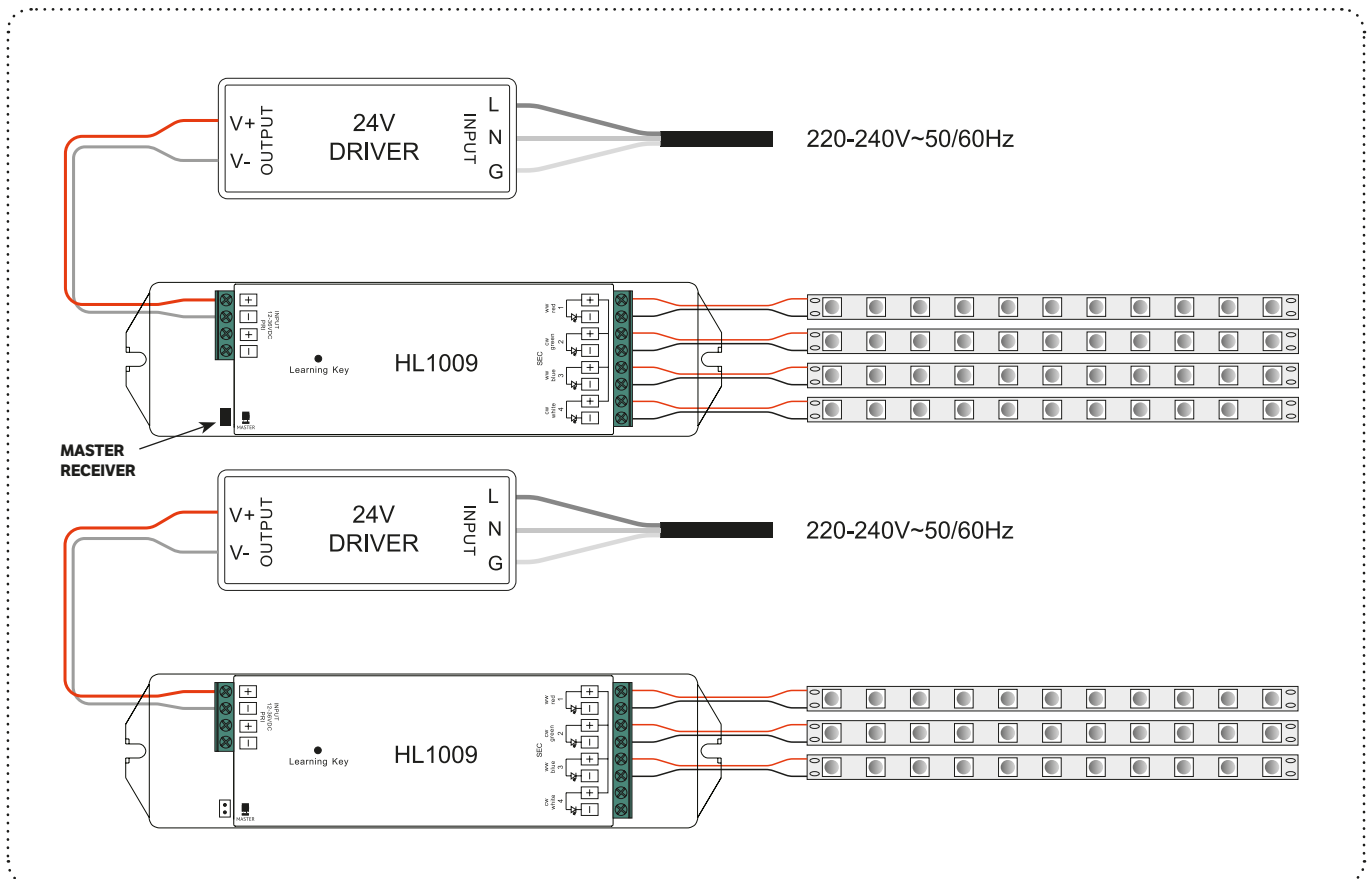
**SCENARIO 2: Installation requires multiple "zones" of differing wattage LED Tape to be controlled independently but only using one remote or wall control.**

**SOLUTION 2:** Configure HL1009 receivers independently, if one of the zones has multiple HL1009 receivers, set one HL1009 receiver as a "master" (see zone 1 in diagram below). By setting one receiver as the master you will ensure the output / lighting effects are synchronized between the multiple receivers in a single zone when paired to a controller.

During the initial set up pair each receiver to the desired "Zone" on the remote control. For example in Zone 1 you would pair both HL1009 receivers to the "1" button on the controller and therefore control both the receivers at the same time. For zone 2 you would pair the receiver to the number "2" button on the controller. This way to can control multiple areas using only one controller.

(Diagram shows Single Colour Tape)

**ZONE 1 (e.g. Kitchen and Dining Room)**



**ZONE 2 (e.g. Bedroom)**

