RX-2 CH RF System   Receiver Board

Overview   2-CH Receiver Boards, Terminal Block and Ribbon Cable

Type: RF Radio (315 MHz) 1-2 Channels *(FCC Part 15 Compliant Components)*.
Operating Voltage: 6-15 VDC @ 1 Amp (Wall Power Supply Adapter, 1Amp Battery Supply).
Antenna: Built On Board.
Control Output Mode: Momentary-2CH / Toggle-2CH, on-board Jumper Switch user selection set.
LED Channel Status: Ch1-2 LED's On/Off, MODE Indicator- Receiver Activity, Learn mode, Power ON.
Switched Output Application: +VDC switched output voltage at 2 Amp per channel.
                          Channels 1-2 at V Output equal to V Board Input, -VDC and Com Ground
BOARD: 2 Versions (1) wire terminal connection Outputs, (2) Ribbon connector for Ch 1-2 Outputs
2.5 x 5mm Power jack for power connection, LED Status Lights. 5VDC Regulator for CPU stable operation
and various board power supply options. Commercial Grade 3 Layer PCB, with small board footprint size.
(3" L x 1-1/2" W x 1/2" or 1" H with optional Ribbon Connectors, built in antenna, power jack)
Optional Add-On / AUX Support Boards: Quick connection to optional add-on application boards
Board Outputs: On-board wire terminal block or optional Ribbon Cable connection for direct application
connection to board channels 1-2 outputs. (no optional add-on board required)
**LEARN Mode:** On-Board button switch, auto code-binding to Transmitter, Status LED.
System Requirements: Power Supply, RF Transmitter, Application Device / Load
Optional AUX Boards: Relays, Audio Playback, DC Motor Control, Servo Control, Lighting FX, more.
SET-UP: Quick connections, on board setting for easy use and user setup operations.
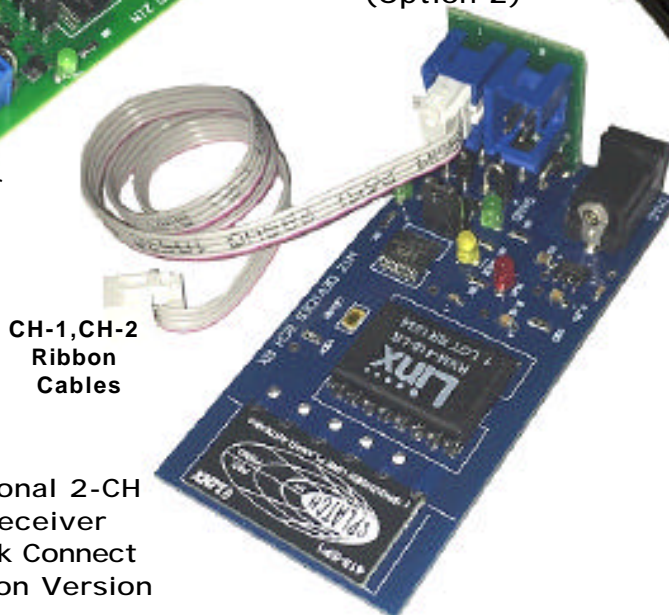
Base Components

Receiver (Option 1)

Transmitter

Keyfob Transmitter-2 Ch
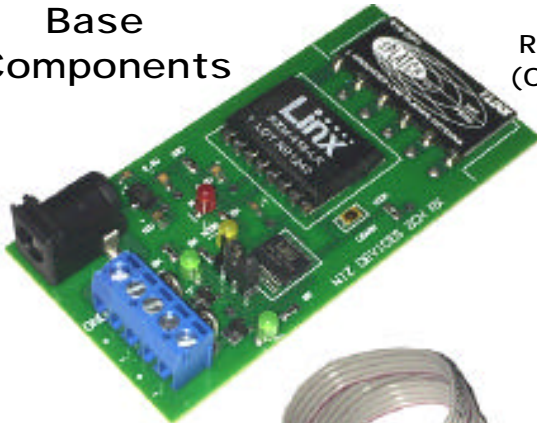
Receiver (Option 2)

2-CH Receiver Wire Terminal Version

CH-1,CH-2 Ribbon Cables

Optional / AUX Boards
(1-Ch Servo Controller)

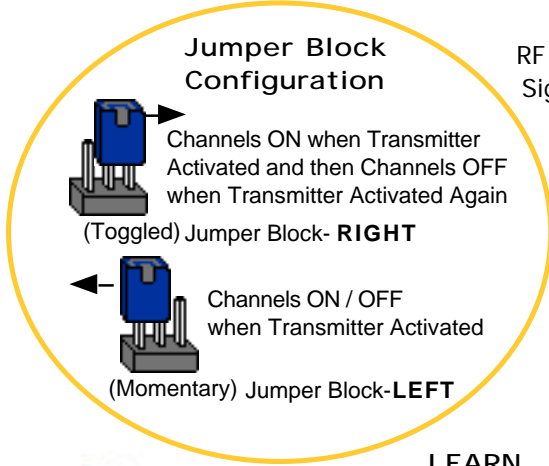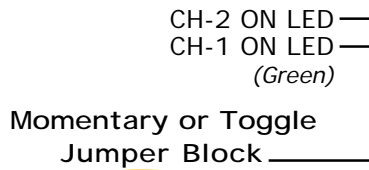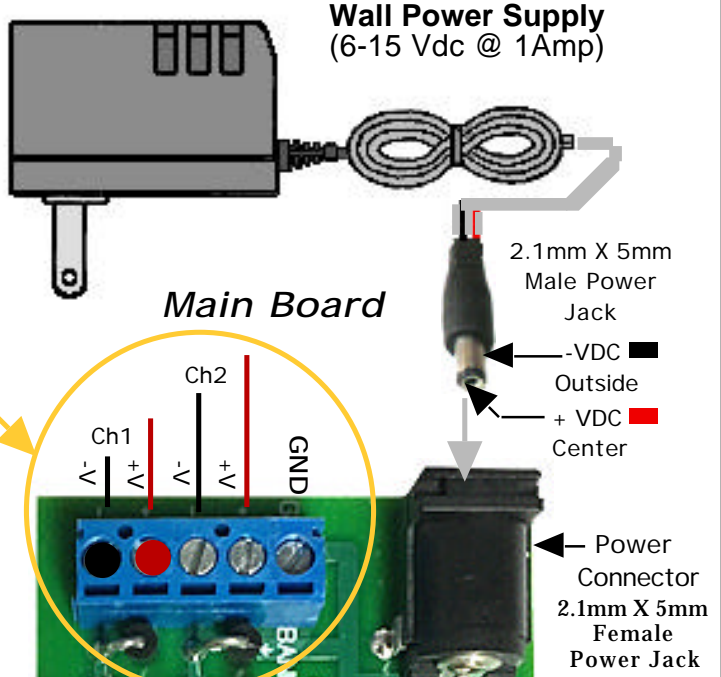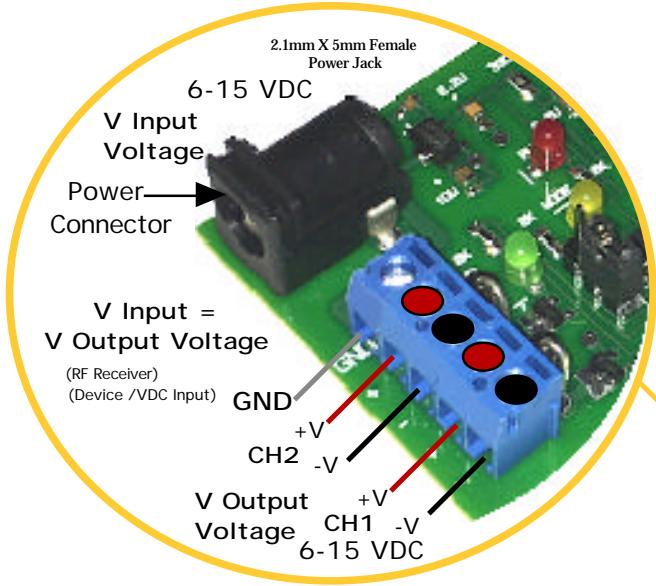Optional 2-CH Receiver Quick Connect Ribbon Version

RX-2 CH RF System — Receiver Board

Set - Up / Components

Wire Terminal Block Connector

Wall Power Supply
(6-15 Vdc @ 1Amp)

2.1mm X 5mm Female Power Jack
6-15 VDC

V Input Voltage

Power Connector

V Input = V Output Voltage

(RF Receiver)
(Device /VDC Input)

GND

+V
CH2   -V

+V
CH1   -V

V Output Voltage
6-15 VDC

2.1mm X 5mm Male Power Jack

-VDC ▮ Outside

+ VDC ▮ Center

Main Board

Ch2

Ch1

-\   +V   -\   +V   GND

Power Connector
2.1mm X 5mm Female Power Jack

CH-2 ON LED
CH-1 ON LED
(Green)

Momentary or Toggle Jumper Block

Board Power LED
(Red)

RF Receive Signal LED
(Yellow)

Jumper Block Configuration

Channels ON when Transmitter Activated and then Channels OFF when Transmitter Activated Again

(Toggled) Jumper Block- **RIGHT**

Channels ON / OFF when Transmitter Activated

(Momentary) Jumper Block-**LEFT**

CH-2

CH-1

LEARN Button
(Bind Transmitter / Receiver)

On-Board Antenna

RF Transmitter
Key Fob

2-CH Receiver Wire Terminal Block Version

WIZ DEVICES 2CH RX

LiNX
RXM-418-LR
1 LOT RR1242

SPLATCH
PAT. PEND.
416-SP1
LiNX

GROUNDED LINE PLANAR ANTENNA

Blue Point Engineering

Instruction **I**

www.BPEsolutions.com

Pointing the Way to Solutions!

RX-2 CH RF System   *Receiver Board*

Set - Up / Basic - Applications   **Wire Terminal Block Connector**

RF Transmitter
Key Fob   CH2
CH1

Wall Power Supply
(6-15 Vdc @ 1Amp)
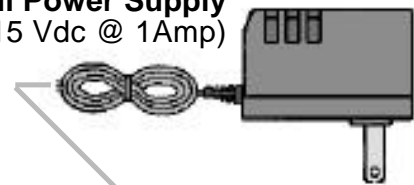
+VDC ▬
-VDC ▬   *(6-15VDC)*

Input Voltage = Output Voltage

V Input
Voltage

2.1mm X 5mm
Female
Power Jack

Ch2

Ch1

-V   +V   -V   +V   GND

V Output
Voltage
6-15 VDC

+VDC   -VDC   +VDC   -VDC
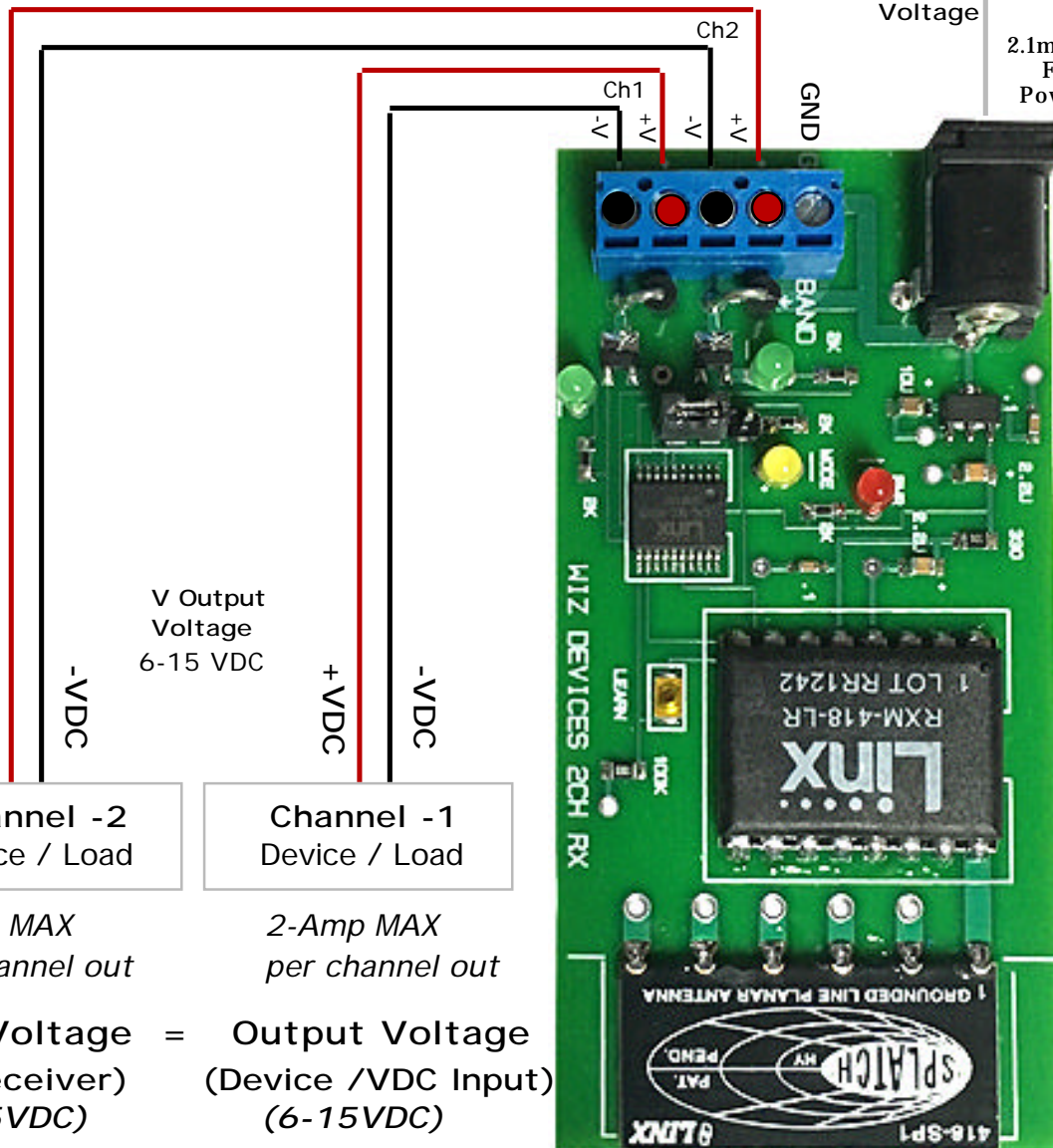
Wire Terminal Block 2-CH Board

Channel -2	Channel -1
Device / Load	Device / Load

*2-Amp MAX
per channel out*   *2-Amp MAX
per channel out*

Input Voltage = Output Voltage
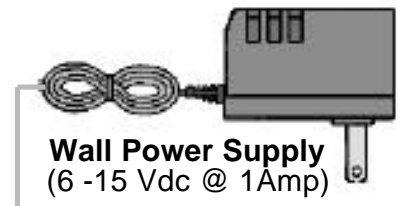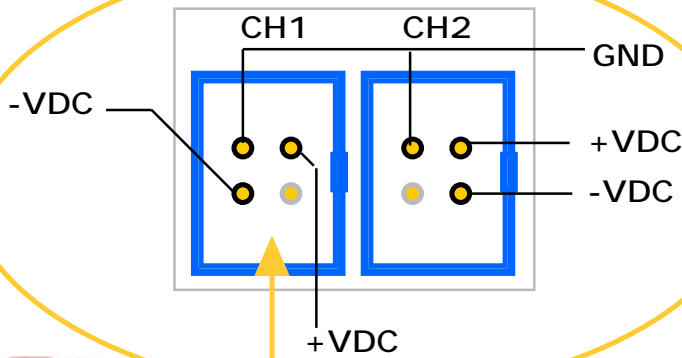(RF Receiver)   (Device /VDC Input)
(6-15VDC)   (6-15VDC)

WIZ DEVICES 2CH RX

LINX
RXM-418-LR
1 LOT RR1242

LEARN

1 GROUNDED LINE PLANAR ANTENNA

PAT. PEND.   HY   SPLATCH
LINX   416-SP1

RX 2CH Receiver Board

Blue Point Engineering
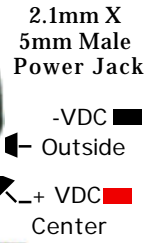
Pointing the Way to Solutions!

RX-2 CH RF System   Receiver Board

Set - Up / Components   Ribbon Cable Connector
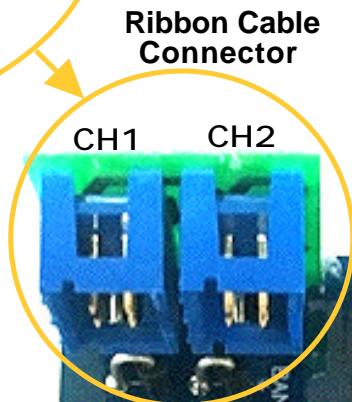
CH1   CH2

-VDC

GND

+VDC

-VDC

+VDC

Wall Power Supply
(6 -15 Vdc @ 1Amp)

2.1mm X 5mm Male Power Jack

-VDC ▬
◄ Outside
◄ + VDC ▬
Center

CH-1,CH-2 Ribbon Cables

Ribbon Cable Connector

CH1   CH2

Power Connector

2.1mm X 5mm Female Power Jack

ON LED
ON LED *(Green)*

Momentary or Toggle Jumper Block

Board Power LED *(Red)*

Jumper Block Configuration

Channels ON when Transmitter Activated and then Channels OFF when Transmitter Activated Again

(Toggled) Jumper Block- **RIGHT**

Channels ON / OFF when Transmitter Activated

(Momentary) Jumper Block-**LEFT**

RF Receive Signal LED *(Yellow)*
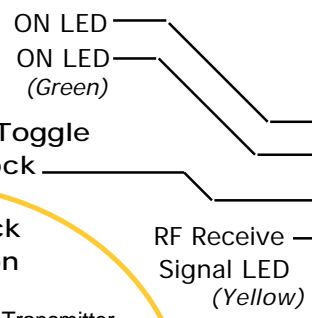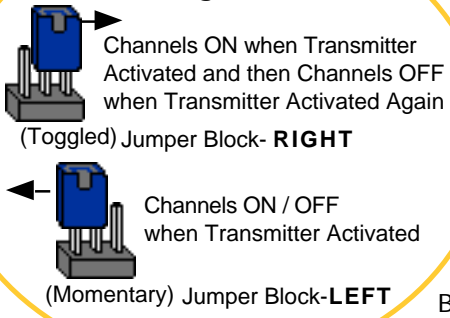
LEARN Button Bind Transmitter and Receiver

Quick Connect Ribbon 2-CH Board

CH-2

CH-1

On-Board Antenna

RF Transmitter *Key Fob*

RX 2CH Receiver Board

RX-2 CH RF System   Receiver Board

Set - Up / AUX Board Applications   Ribbon Cable Connector

Connector Tab
to Socket Notch

Tab

CH1

CH2

Notch

2.1mm X 5mm Female Power Jack

CH-1,CH-2 Ribbon Cables

CH1

To Application Boards

CH2

RX 2CH Receiver Board

CH1

CH-2

CH-1

RX 2CH Receiver Board

RF Transmitter
Key Fob

2-Amp MAX per channel out

CH1   CH2
                    GND

                    +VDC
                    -VDC

-VDC   +VDC
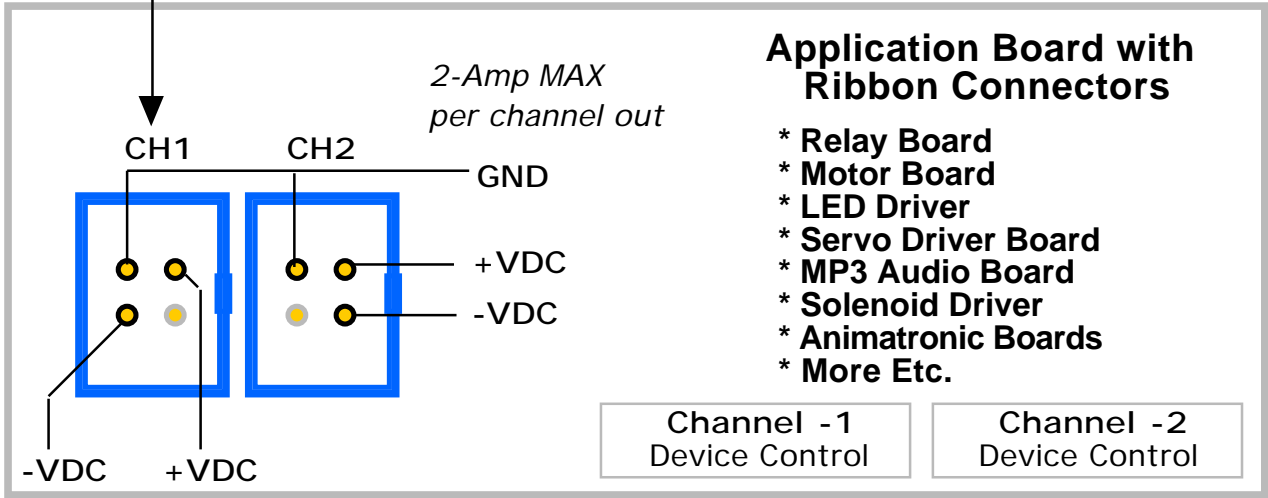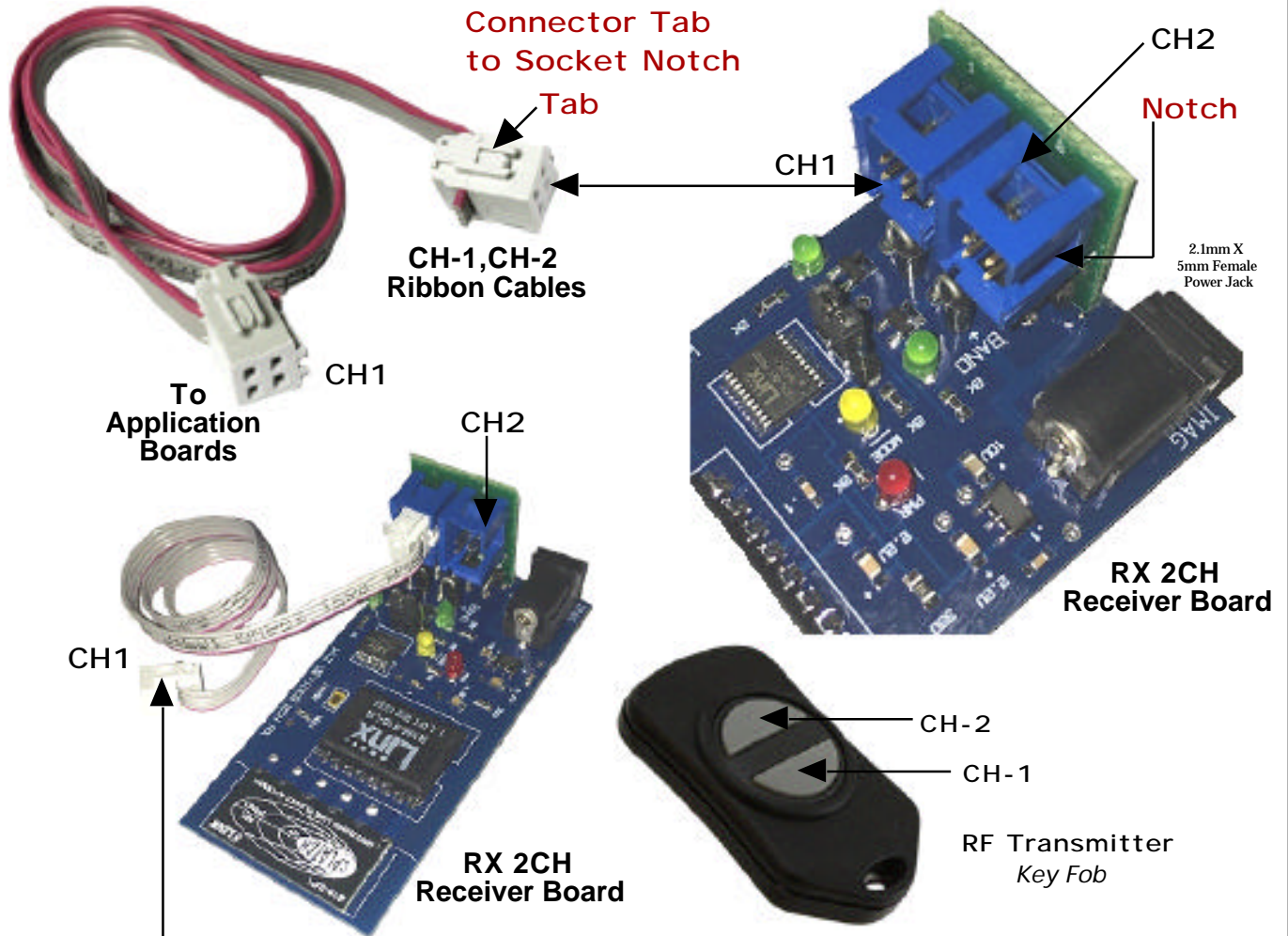
Application Board with Ribbon Connectors

* Relay Board
* Motor Board
* LED Driver
* Servo Driver Board
* MP3 Audio Board
* Solenoid Driver
* Animatronic Boards
* More Etc.

Channel -1 Device Control	Channel -2 Device Control

RX-2 CH RF System   Receiver Board

Set - Up /   AUX Board Applications

AUX Add-On Boards

CH-1

RF Transmitter
Key Fob

Optional / AUX Boards
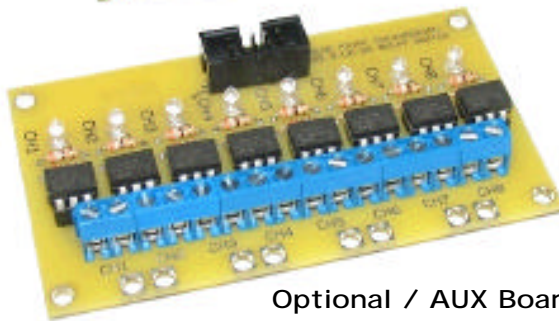Ribbon Connector   **CH-1**

Plug-IN
CH-1

Optional / AUX Board
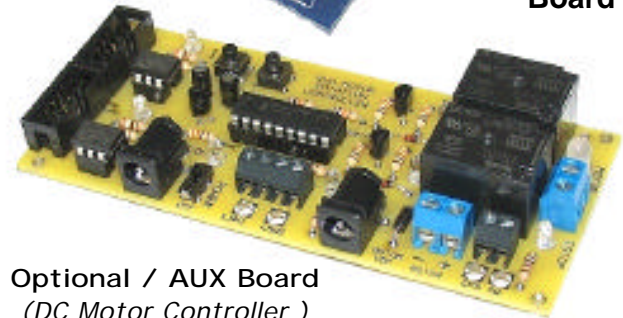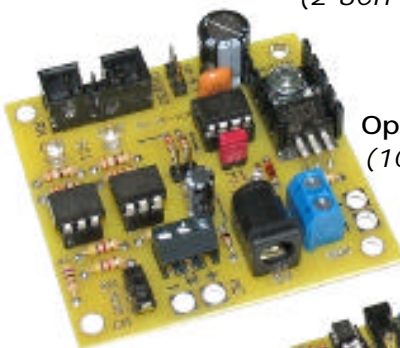*(2-8Ch Power Relays)*

CH-1
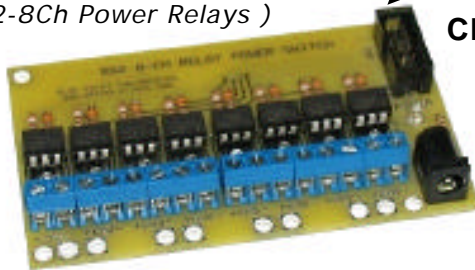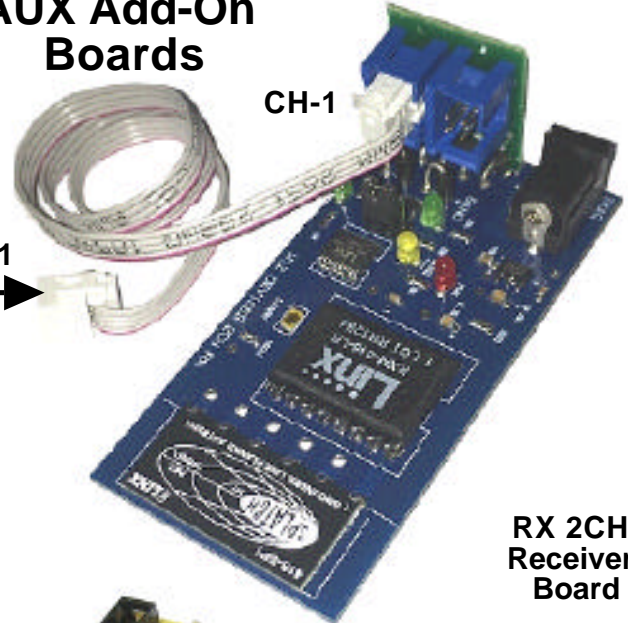
RX 2CH Receiver Board

Optional / AUX Board
(2-8CH 2 Amp Relays)

Optional / AUX Board
(DC Motor Controller)

Optional / AUX Board
(1Ch Servo Controller)

Optional / AUX Board
(1Ch 5 Amp Relay)

Optional / AUX Board
(10Ch MP3 Audio Controller)

Optional / AUX Board
(40- LED Light Effects Controller)

RX-2CH RF System   RF Handheld Module

Set - Up / Changing Address

Key Fob Handheld Transmitter

The RF Key Fob Handheld Transmitter allows the selection of one of 16,777,216 (2^{24}) unique addresses. All transmitters come ready to go with an address preset. To avoid conflict with other units or to create your own unique address or add additional RF receiver boards, you will need to change the RF handheld Transmitter and RF receiver board address.
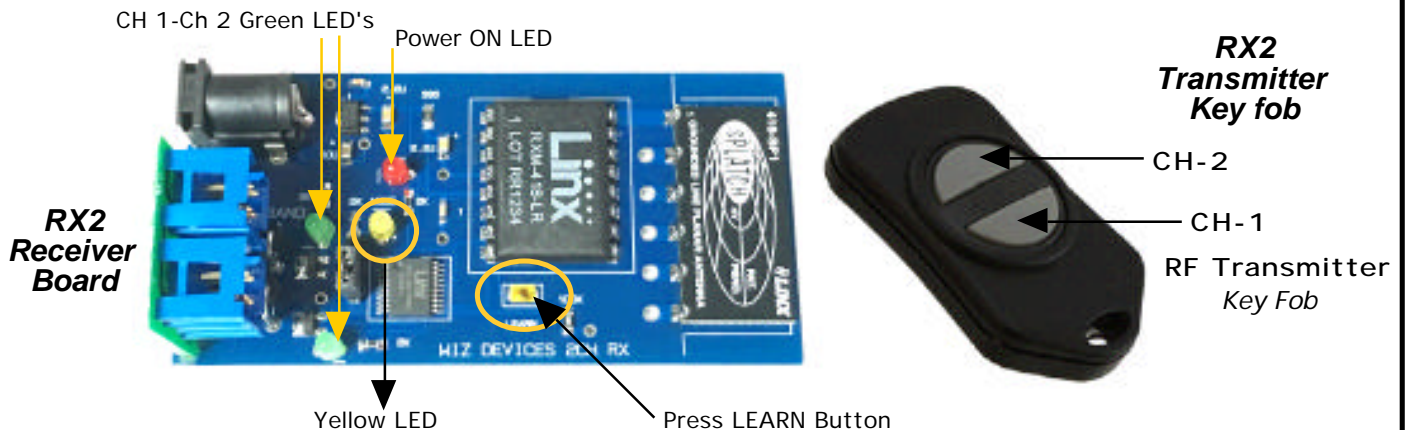
RF Key Fob Handheld Transmitter

Using a paper clip, press the ADD button down on the RF handheld Transmitter through the hole in the back of the case. The address will be randomized for as long as the button is held down. Release the button and the new randomized address will be activated. Press the buttons 1-2 on the front of RF handheld Transmitter. Press the ADD button with the paper clip again to record you actions or wait 17 seconds for it to time out. A new button address and Control Permissions are now set in the RF handheld Transmitter. The RF Receiver board will now need to learn the address before it will accept any handheld Key Fob button transmissions 1-2.

STEPS

1

Press Down Add button (Paper clip)

2

CH2
CH1

Press Control Permission Buttons 1-2

3

Press Down Add button

4

Teach RF Receiver new Address

RF Receiver Board - 2 Channel

Press the LEARN button down momentarily on the RF Receiver board. The Yellow LED will begin flashing indicating that the Receiver board is ready to learn the new handheld Transmitter addresses. Press buttons 1-2 on the front of the RF handheld Transmitter. Press the LEARN button down momentarily on the RF Receiver board again to record the actions of the handheld Transmitter buttons, or let the receiver board time out and stop automatically. The RF Receiver board is now ready to recognize the handheld Transmitter buttons and turn on the corresponding output channels 1-2 when activated by the handheld Transmitter. Test the system by pressing a button on the RF handheld Transmitter; a corresponding output on the RF Receiver board should be activated 1-2 (LED- Green ON).

CH 1-Ch 2 Green LED's

Power ON LED

RX2 Transmitter Key fob

CH-2

CH-1

RX2 Receiver Board

RF Transmitter *Key Fob*

Yellow LED

Press LEARN Button

RX-8 RF System   RF -Transmitter 315MHz

FCC Compliance, Certification

INSTRUCTION TO THE USER
FCC compliance

This device complies with Part 15 of the FCC Rules.

Operation of this device 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 equipment has been certified to comply with the limits for a Class B computing device, pursuant to FCC Rules. In order to maintain compliance with FCC regulations, shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio and TV reception. The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.

Key Fob Handheld RF Transmitter (2 CH)   315 MHz
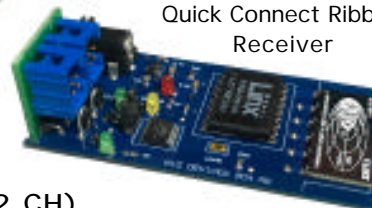
FCC ID: OJM-OTX-XXX-KFMSA
IC: 584OA-KFMS-XXXA

2-CH Handheld Key Fob

(Option 2)
Quick Connect Ribbon Receiver
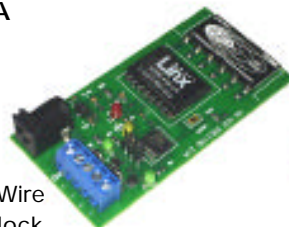
(Option 1) Wire Terminal Block Receiver

RF Receivers (2 CH)