

GIGALINK CONCEPT

This article will help you understand Elsema's new range of GIGALINK™ series, remote controls.

The GIGALINK™ remote controller uses advanced Remote Control technology available in the world today by enabling just about all remote control applications to be operated with a single set of remote controls. No need to stock numerous brands or models, just the GIGALINK™ controllers.

The GIGALINK™ transmitters and receivers use a micro-controller to store encrypted 32-bit digital code. This code replaces the traditional 12-way dip switch, which gives the user 4096 possible code combinations, while the GIGALINK™ code gives the user more than four billion code combinations and several special features.

Please note that when a receiver card is installed for the first time the two CC pin has to be shorted momentarily (with power connected). **Care should be taken when a receiver is replaced, and if there are transmitters already programmed, then they will have to be reprogrammed.** The two programming procedures are given in the next page.

The random 32-bit code can be easily changed anytime by shorting the two CC pins (on power up) on the receiver card.

GIGALINK™ transmitters are all factory set with zeros in the 32-bit digital code.

The idea of the GIGALINK™ is to program the transmitter with the encrypted 32-bit digital code, which is stored in the receiver's memory. Use the GIGALINK™ cable to connect the transmitter to the receiver for programming the 32-bit encrypted digital code. The GIGALINK™ cable comes with any purchase of a GIGALINK™ receiver.



When the units are connected they can be programmed in the following ways;

Normal Programming

1) Single code programming is used for programming one channel at a time to the transmitter. This is achieved when one button on the transmitter is pressed during the programming procedure. Single programming can be used in applications involving simple on/off functions.

Single code programming steps:

Step 1: Connect power to the GIGALINK™ receiver. **Make sure all switches on the mode dipswitch are off.**

Step 2: Momentarily short the two CC pins on the receiver board. (This sets all the channels to a random code. If there are transmitters previously programmed, they will have to be re-programmed when CC pins are shorted.)

Step 3: Connect the transmitter to the receiver by inserting the GIGALINK™ cable into the transmitter and receiver 2.5-mm socket. (This will activate the programming mode and is indicated by the red light (LED) on the transmitter that must remain “on”)

Step 4: Activate one of the selected channels on the transmitter for approximately one second, LED should blink twice to confirm code programming and then switch “off”.

Step 5: Disconnect GIGALINK™ cable.

Repeat steps 3 to 5 to program another transmitter channel.

2) Channelised code programming is used to program all channels from a multi channel receiver to the multi channel transmitter. This is achieved when any two buttons on the transmitter is pressed during the programming procedure. Channelised coding system can be either used as simple on/off functions or for several channels to operate simultaneously such as dual or multi action controls for example crane transmission control.

Channelised code programming steps:

Step 1: Connect power to the GIGALINK™ receiver. **Make sure all switches on the mode dipswitch are off.**

Step 2: Momentarily short the two CC pins on the receiver board. (This sets all the channels to a random code. If there are transmitters previously programmed, they will have to be re-programmed when CC pins are shorted.)

Step 3: Connect the multi channel transmitter to the multi channel receiver by inserting the GIGALINK™ cable into the transmitter and receiver 2.5-mm socket. (This will activate the programming mode and is indicated by the red light (LED), on the transmitter that must remain “on”)

Step 4: Press any two channels simultaneously on the multi channel transmitter for one second, LED should blink twice to confirm code programming and then switch “off”.

Step 5: Disconnect GIGALINK™ cable.

Repeat steps 3 to 5 to program another multi channel transmitter.

All GIGALINK™ receivers have their own unique code in the micro-controller. During programming this unique code is sent to the GIGALINK™ transmitter. This allows the user to program unlimited number of transmitters to activate one receiver only.

More details on the programming procedures can be found in the GIGALINK™ receiver-programming leaflet.

Special Programming Feature for GIGALINK™

Forward Programming

GIGALINK™ receivers have an additional programming feature, known as forward programming. This forward programming allows the programmer to program the transmitter code into the GIGALINK™ receivers. Thus enabling GIGALINK™ transmitters to activate unlimited number of receivers simultaneously.

Forward Programming Steps:

- Connect power to the receiver and transmitter.
- Place a jumper across the CC pins of the receiver.
- Connect the transmitter and receiver using the coding cable.
- Press the transmitter button for 2 seconds.
- Remove the coding cable.
- Remove the jumper from the CC pin.

The receiver is now programmed with the transmitter's code. Repeat the above steps to program another receiver.