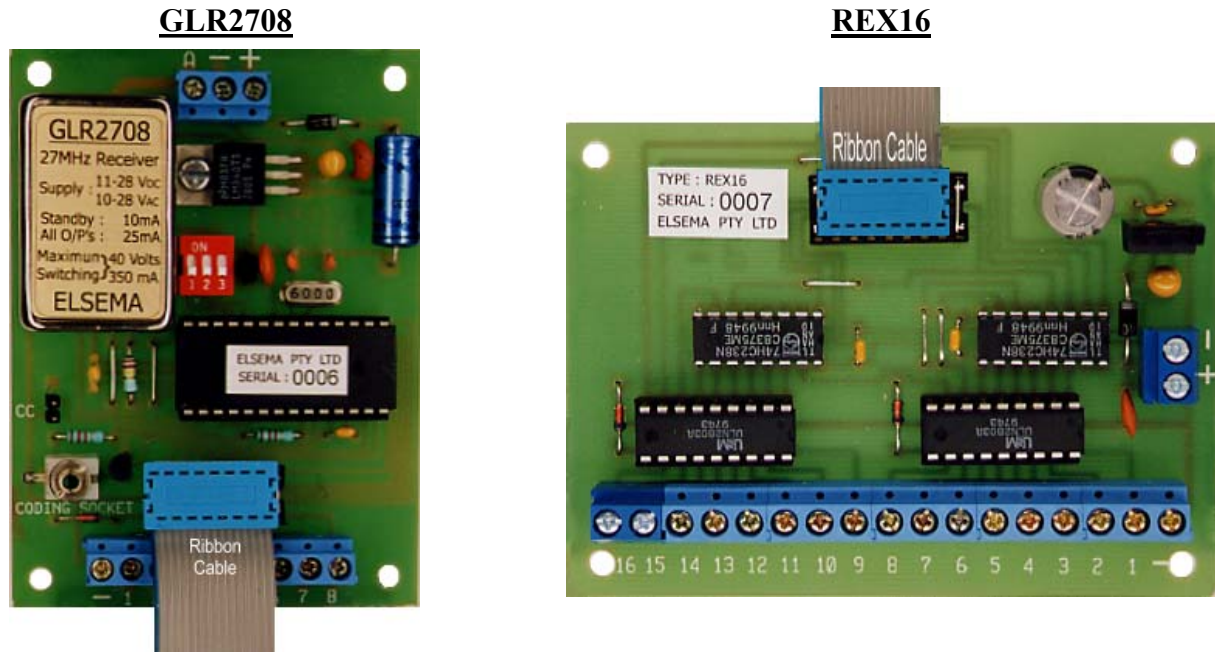


GLR2708/REX16 27MHz Sixteen Channel Combo Receiver

The GIGALINK™, GLR2708/REX16 is the most advanced Remote Control technology available in the world today. GIGALINK™ is an invention that has revolutionised the entire Remote Control technology including Elsema's earlier version of FMT- ... and FMR- ... series. The GLR2708/REX16 state-of-the-art invention brings a new dimension in the world of Remote Control technology in domestic, commercial and industrial applications.



The GLR2708 is connected to the REX16 using Elsema's 25 cm 16W-ribbon cable

The innovative microcontroller technology replaces the traditional dip switch coding which eliminates any possible code grabbing. Special features such as over four billion code combinations and ability to program any number of transmitters to a receiver adds up to the most advanced and secure Remote Control available.

The GLR2708/REX16 microcontroller has a built-in channelised code programming system. Channelised code programming programs all the channels, from the sixteen channel receiver, to the sixteen channel transmitter. That is, channel one on the transmitter activates channel one on the receiver and alternatively. To channelise code program a sixteen channel transmitter read the GLR2708/REX16 receiver setup instructions.

Mode setting

Each output has momentary setting.

AC/DC Supply and Antenna

AC/DC power supply and antenna is connected to the 3-way terminal block. Do not connect the supply to the 2.5-mm coding socket since connection may damage the microcontroller.

Channels

The sixteen channels are solid state outputs using the 2 X ULN2803 Integrated Circuit. This IC is inserted to a socket that enables the user to easily change the output stage in case of a damaged output. The ULN2803 IC is available from Elsema. Simultaneous reception of multi-channels is not possible with this receiver.

Dual Crystal Control

The GLR2708/REX16 is crystal controlled using dual conversion. Dual conversion is where the received frequency is mixed twice, using a crystal at both mixing stages. This results in less interference, enabling the receiver to operate in noisy industrial applications, improving operating performance, which allows the receiver to pass EMC and stringent radio regulations around the world.

Unique Code System

The microcontroller EEPROM allows large volume users to have a unique code. This enables Elsema to offer everyone “your own” radio control.

Case

The GLR2708/REX16 is supplied without a case. This allows the receiver to be integrated according to your needs.

TECHNICAL DATA ON 27MHz GLR2708/REX16

SUPPLY VOLTAGE :	10.0 to 28 V AC/DC. Absolute maximum DC 40 Volts. Can use Elsema 12-volt AC power pack (12PP). Supply lines should be less than 3 metres long to comply with radio frequency authorities.
CURRENT CONSUMPTION :	11mA standby, 15mA if one output is "On"
RECEIVER TYPE :	Dual Conversion Superheterodyne
RECEIVING FREQUENCY :	27.195 MHz (Other frequencies available on 27.045, 27.145 and 27.455 MHz. The 27.455 frequency is not available for Australia).
TYPE OF CRYSTALS USED :	10.245 MHz, Fundamental, 20pf, 30ppm. 16.495 MHz, Fundamental, 20pf, 30ppm.
OPERATING TEMPERATURE RANGE :	-5 to +50°C.
1 ST IF FREQUENCY :	10.7 MHz
2 ND IF FREQUENCY :	455 KHz
SELECTIVITY :	-6 dB at + - 5 KHz -20 dB at +- 6KHz
IMAGE REJECTION :	At 26.285MHz better than -60dB
SENSITIVITY :	1µV (for output to turn "ON").
TYPE OF DEMODULATION :	Narrow-band-width Frequency Modulation (FM).
OCCUPIED BAND WIDTH :	Less than + - 5.0 KHz
DECODING SYSTEM :	Microcontroller based 96-bit word.
CODE COMBINATION :	4,294,967,296
OUTPUTS :	Open collector output sinks 400mA. Outputs can hold 50 Volts in "Off" state. Simultaneous reception of multi-channels is not possible with this receiver.
OUTPUT MODE :	Momentary. During normal operation 3-way dip switch should be off.
<u>CONNECTIONS</u>	
SUPPLY AND ANTENNA :	3-way screw type terminal block
SIXTEEN OUTPUTS :	17-way screw type terminal block (16 open collectors plus Ground).
ANTENNA :	50 ohms, 27 MHz CB-Antenna or piece of approximately 1 metre of wire.

DIMENSIONS

GLR2708 : 96 X 70 X 15 mm
REX16 : 96 X 70 X 22 mm

MOUNTING HOLE SIZE

GLR2708 and REX16 : 3.97 mm or 5/32"

MOUNTING HOLE SPACING

GLR2708 and REX16 : Length 85 mm (4.72"), Width 60 mm (2.36")

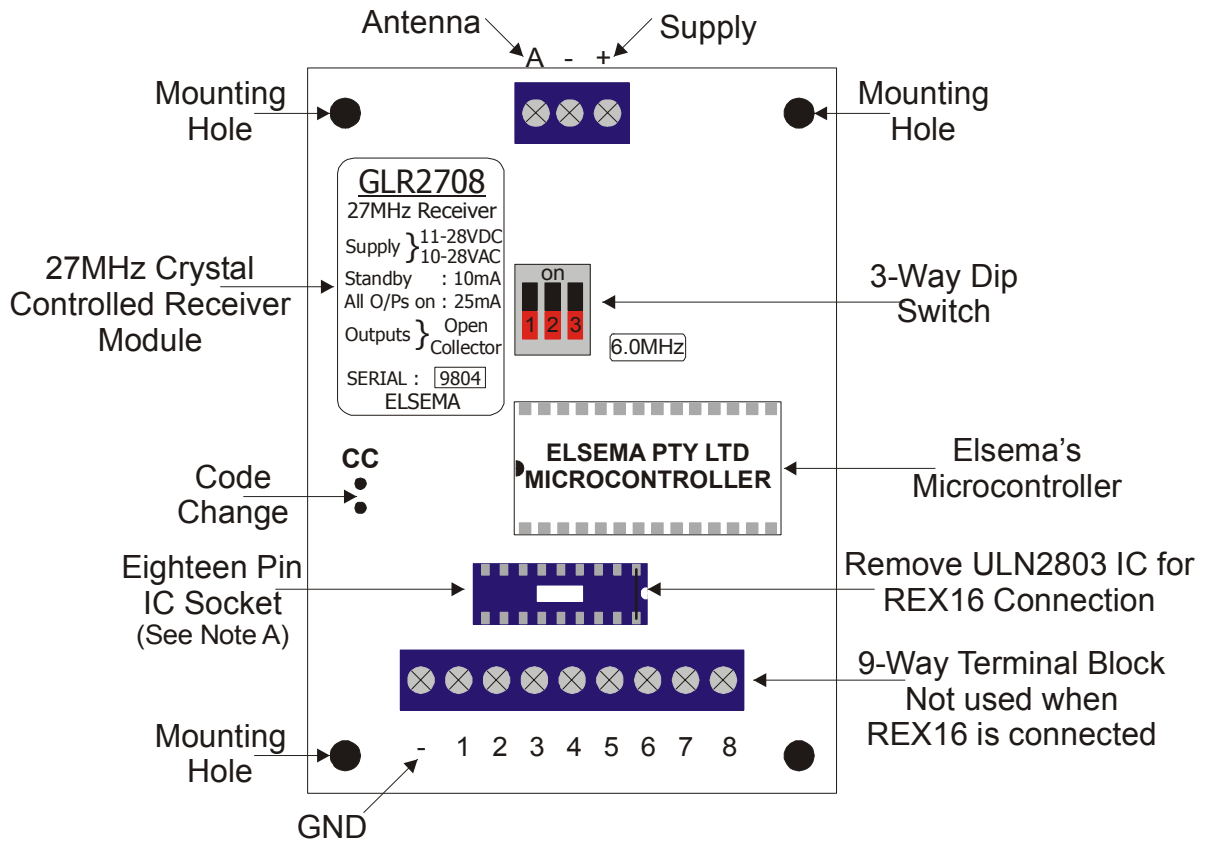
WEIGHT

GLR2708 : 63 grams
REX16 : 52 grams

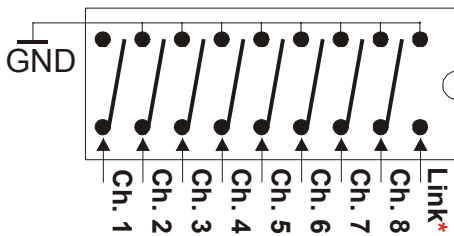
USEABLE TRANSMITTERS : GLT2708NC/TEX16

USEABLE OPERATING RANGE : Up to 350 metres with proper 50 ohms, 27 MHz CB-Antenna . Up to 200 metres with 1 metre long antenna wire. Antenna wire should be extended and away from metal. Ranges assume line-of-sight operation.

GLR2708/REX16 CONNECTION DIAGRAM

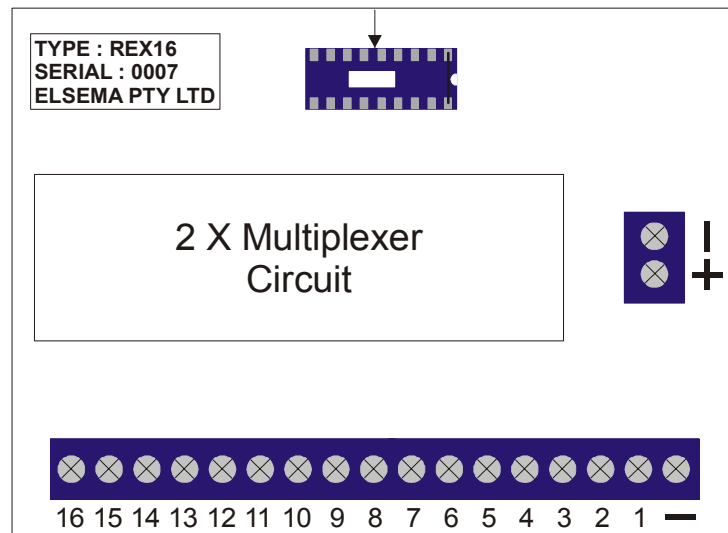


Note A
Internal IC Socket Connection



***Do not remove link**

Eighteen Pin IC Socket
(See Note A)



**Sixteen Open Collector Outputs
Connection via screw type terminal block**

Remove the ULN2803 from the GLR2708 and connect Elsema's 16W-ribbon cable. Channel one on the GLR2708 needs to be connected to channel one on the REX16. See note A in above diagram.

GLR2708/REX16 APPLICATION NOTES

Care should be taken with the solid-state outputs that they are protected from inductive loads. This is done by connecting diodes across your inductive load or using Elsema's line filter, LF24.

Inductive loads such as relays must be clamped with a diode across the relay coil. If this is not done the spikes generated by the relay will lock-up the receiver. When a lock-up occurs you will need to remove the power and re-connected it.

Only one channel can be received. Simultaneous reception of multi-channels is not possible with this receiver.

