DIGITAG-LR

Introduction

The DigiTag-LR Receiver is designed to be used with the DigiTag-LR range of active transmitters from the CDV Group. Best performance from the transmitter and receiver will be gained when adhering to all the relevant instructions. The DigiTag-LR receiver will read and decode the secure coded signal from the transmitter when in the field range of the receiver, and convert this in to a format for access control units to validate. The DigiTag-LR Receiver is equipped with a low / high gain selector and a range attenuator for further detection range reduction. The exact range is dependant on environmental conditions, mounting proximity to metal objects and battery condition of the transmitter. The DigiTag-LR receiver contains an internal antenna that must not be modified as it is tuned for best performance. It must always be mounted upright and clear of metal obstacles or mountings.

DTRR1434

Digitag-LR Types

Digitag-LR Receiver **DTRR1434**
Digitag-LR Transmitter c.w button.....**DTXT1434**
Digitag-LR Transmitter **DTXT0434**

DTXT0434 **DTXT1434**

Technical Specification

Receiver

Operating frequency .....433,92 MHz
Operating voltage .....12-30 VDC
Operating current.....40 mAmps
Range15M nominal .....(conditions dependant)
Output interface1 .....Wiegand 26 Bit / Clock & Data ISO
Output interface 2 .....CDV 1 wire control protocol
Transmitter buffer.....20
Tags in field.....20
Control 1 .....high / low gain
Control 2 .....10 point attenuator
LED.....1 green and 1 red
Antenna .....Internal helical
Sensitivity.....-102dBm

Transmitter

Operating frequency .....433,92 MHz
Modulation .....FSK
E.r.p .....5 µW
Supply.....3V
Battery CR2032

Installation Procedure

The DigiTag-LR Receiver is designed to be mounted in proximity to the door or opening at a height of 1200 - 1400 mm. It is not recommended that the receiver is mounted over the door, but as a conventional access control reader would be. Always mount the receiver in the upright position. The DigiTag-LR receiver has an internal antenna that detects the DigiTag-LR range of active transmitters most efficiently at the front and the rear of the unit. Avoid mounting the reader on or near large metal surfaces as this could cause poor reading performance, erratic transmitter detection or non-linear operation. The receiver can not read active tags through metal objects and will be impeded by large dense obstacles between it and the tag, so always think line-of-site for optimal reading performance. Cable connections are by way of screw terminals on the bottom of the circuit board, and we recommend the use of screened cable such as Beldon 9535 or an equivalent.

Fixing the enclosure

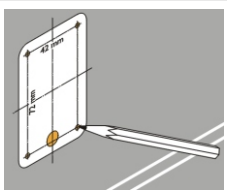


Fig. 2

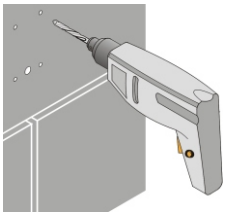


Fig. 3

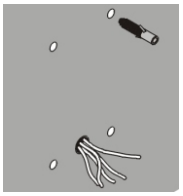


Fig. 4

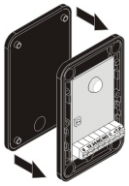


Fig. 5

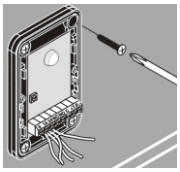


Fig. 6

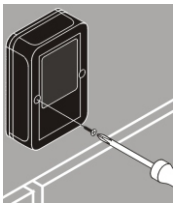
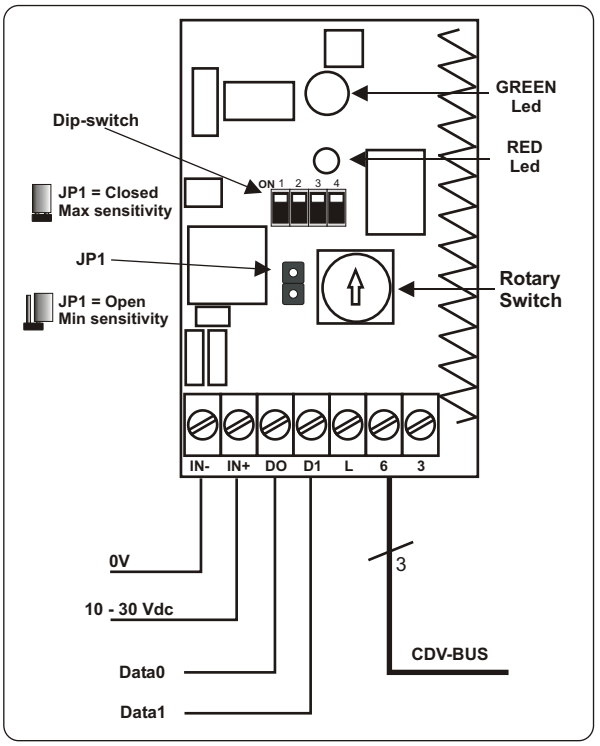


Fig. 7

1 - Mark the location of the fixing holes using the drilling template supplied with the receiver (Fig. 2);
2 - Drill the fixing holes.(Fig. 3) (Hole diam: 5mm) ;
3 - Locate the plugs (Fig. 4);
4 - Assemble the seal and the receiver (Fig. 5);
5 - Mount the receiver with the screws supplied (Fig. 6);
6 - Make the electrical connections and the adjustments required (see next paragraph);
7 - After the adjustments, fit the cover using the the screws supplied (Fig. 7).

Connection terminals

The DigiTag-LR Receiver can be connected directly to the CDV Group DG-502M access control unit or to any access control system controller that supports the Wiegand 26 Bit or Clock & Data ISO format industry standard interfaces. A maximum cable distance when using screened cable is around 30 metres to a CDV Group DG502M access control unit or 75M when using the industry standard Wiegand or Clock & Data interface option.



Terminal	DG502M	Type	description
IN -	4	Input (cable screen *)	- DC Voltage (cable screen*)
IN +	12	Input	+ DC, 12-30Volts
D0	n/c	Output	Wiegand 0 or Clock (Strobe)
D1	n/c	Output	Wiegand 1 or Data
L	n/c	Input	Green LED control, active low
6	6	Input / Output	CDV 1-wire control interface
3	3	Input	Green LED, active high

** Cable screen should not be connected to any terminals inside the DigiTag-LR receiver but enter the case where it must be trimmed short and insulated.*

LED Indicators

The DigiTag-LR receiver has 2 LED lights. The red is always on and indicates that power is applied to the device and it is ready to read and decode transmitters. The high efficiency bright green flashes briefly when a transmitter's transmission is detected in the field. The green LED remains on if the connected access control system validates the transmitted code. Whilst the green LED is illuminated the receiver will not read and decode any more transmitter transmissions.

Range Adjustment

The maximum range of the receiver is dependant on environmental conditions, transmitter orientation and transmitter battery life but should be approximately 15M in high gain mode and the attenuator control set to position '0'. A small 2 pin jumper is present and if disconnected selects low gain mode. Additional the attenuator control can be rotated to give further range reductions. The lowest range setting would therefore be with the attenuator set to '9' and the low gain mode selected on the 2 pin jumper.

DIP Switch Settings

The DigiTag-LR receiver has options to select output interface type and various logical settings.

Switch	ON	OFF
1	Clock & Data interface	Wiegand 26 Bit interface
2	Manual tag transmissions only	Manual or automatic tag transmissions
3	Tag only read twice	Tag always read
4	Pull up resistors connected	Outputs open collector

Switch 1 : Selects the industry standard interface device type. It is recommended that this switch remains off and utilise the Wiegand 26 Bit standard when connecting to third party access controls or to the CDV Group brands Link.net & Centaur.

Switch 2 : When off allows both automatic and manual pressed transmissions to be read and decoded but when set to on, will only read and decode manual user pressed transmissions.

Switch 3 : When set to off enables the tag to be read and decoded repeatedly whilst in the receivers detection field.
When on, the tag is read and decoded only twice before ignoring it until it is removed from the receiver's detection field for at least 10 seconds.

Switch 4 : When on, connects two 4K7 pull-up resistors to the outputs D0 and D1 to 5Volts. This switch should be normally on but in some cases third party access control units require open-collector style outputs and in this case switch 4 should be off.

A CDV Group product

Guarantee

The guarantee period of this product is 24 months, beginning from the manufacturing date. During this period, if the product does not work correctly, due to a defective component, it will be repaired or substituted at the discretion of the producer. The guarantee does not cover the plastic container integrity. After-sale service is supplied at the manufacturer factory.

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