SENTRY

INFRA-RED BEAM PAIR IRB/W01

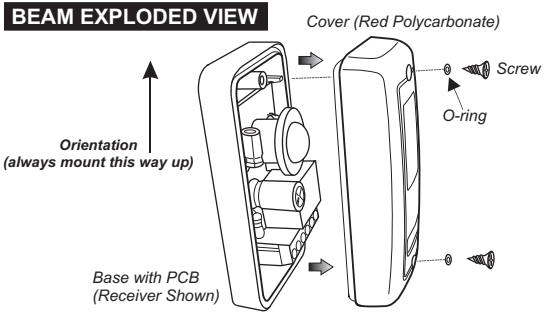
The SENTRY INFRA-RED BEAM is a transmitter-receiver pair that provides an invisible infra-red beam for automation applications such as sliding and swing gates, as well as garage doors and security applications such as perimeter beams either outdoors or indoors. The product features temperature compensation for the most demanding outdoor applications.

Various lenses for specific applications are available. The units are also protected against electromagnetic interference.

SPECIFICATIONS:

Power Source: 12 - 24V AC/DC
Maximum Range: 15 metres
Displacement at max range: 1 square metre
Wavelength: 840nm
Modulation Frequency: 800Hz
Relay Contact: Potential Free 1 AMP C/O
Physical Size: 90 x 45 x 29mm
Housing: Impact resistant polycarbonate.

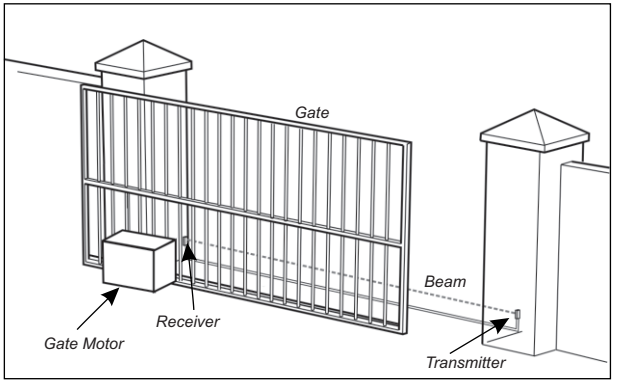
BEAM EXPLODED VIEW



INSTALLATION TIPS

- The product contains rubber seals, always ensure the o-ring as shown is reinstalled in the holes before tightening the screws. Also ensure the rubber sits firmly in the groove of the base.
- Any hole made in the base, for purposes of cable entry, MUST be **sealed with silicone rubber** otherwise moisture will enter the product and lead to malfunction and/or failure.
- Mount the IR beams with the **lenses facing upwards**, facing each other on opposite sides of the gate, door or perimiter to be protected.

INSTALLATION



The above drawing shows a standard application of the SENTRY INFRA-RED beam, in use as a safety beam for a sliding gate. The transmitter and receiver pair are mounted a distance above the ground (typically 30cm) and in such a manner that they are facing each other and are aligned i.e. the beam travels in a straight line. To aid alignment, the receiver has an LED on the board, which will illuminate if the transmitter's signal is received.

For installation

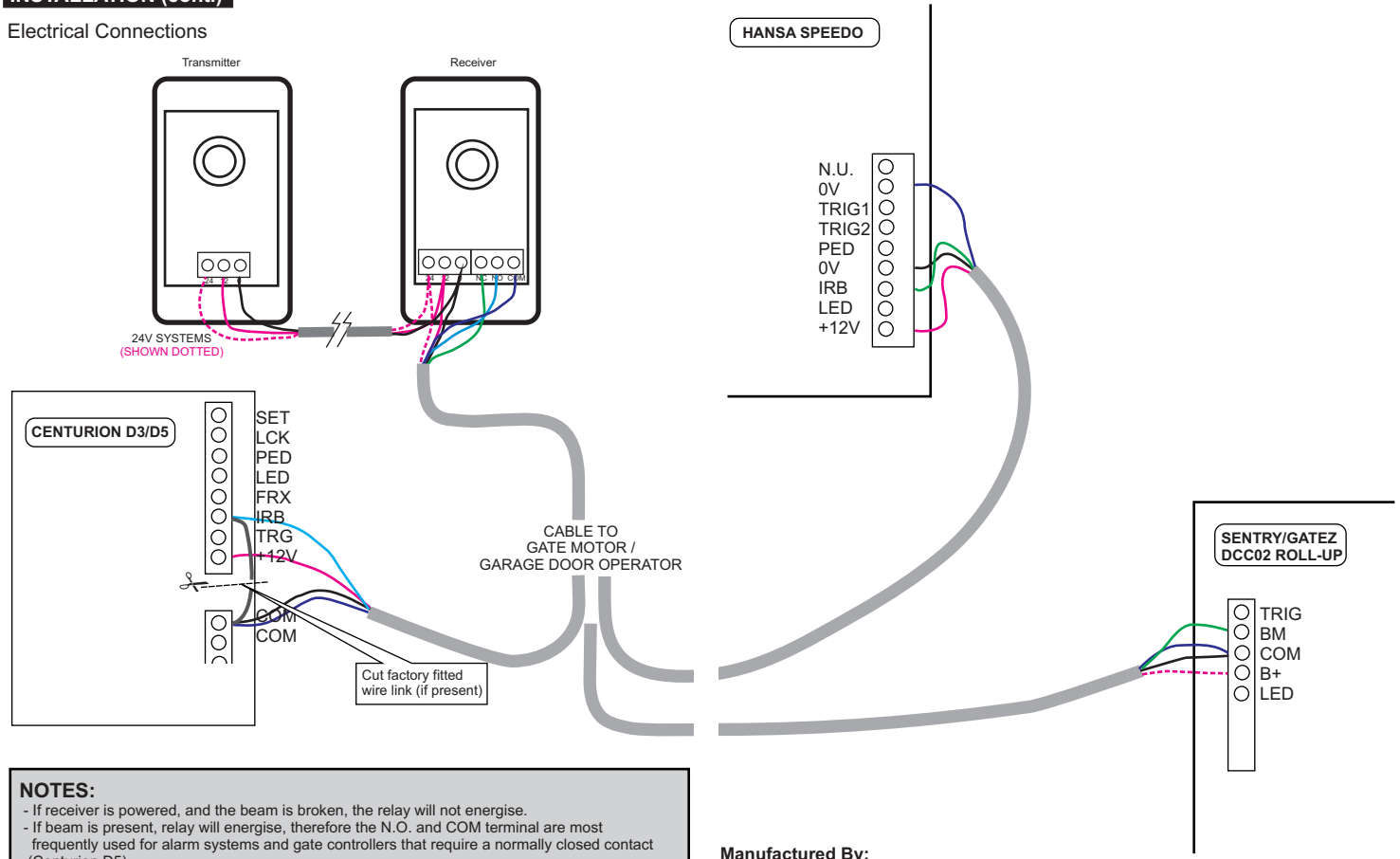
As shown in the above drawing, a cable needs to be installed from the gate motor, to the desired location of the beam receiver, and then, from the beam receiver to the transmitter. This is the recommended configuration but is not absolute. The transmitter's cable is typically installed in conduit beneath the driveway. The transmitter should be mounted first, at a suitable height, which should be measured to aid in alignment.

To align the beams

Apply power to the entire system. With the transmitter powered and mounted on the wall, align the receiver to the same height as the transmitter, then move it around until the LED turns on. Repeat this process to find the spot where the beam performs best and is not affected by sunlight. Mark off the position and then mount the receiver on the wall in the normal manner.

INSTALLATION (cont.)

Electrical Connections



NOTES:

- If receiver is powered, and the beam is broken, the relay will not energise.
- If beam is present, relay will energise, therefore the N.O. and COM terminal are most frequently used for alarm systems and gate controllers that require a normally closed contact (Centurion D5)
- Other products, such as E.T. Systems and SENTRY products, use a normally-open circuit, therefore use the COM and N.C. terminals for these systems.

Manufactured By:
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IDA™ International Door Association

Ref: manual_sentry_irb.cdr