



## Technical Specifications

Power Supply	Receiver: 12 to 24V DC or AC Transmitter: 2 x AA Battery
Battery Low Indication	Red high bright external LED
Max. Distance	20m
Relay Output Contact	Fail safe, N/C, N/O & COM
Relay Rating	230V 5A
Open Collector	100mA switched to ground

### Low Battery

The receiver beam constantly monitors the voltage in the transmitter beam. Before the batteries run completely flat the transmitter will send a low battery signal a few months in advance to the receiver beam. The receiver beam will begin flashing its external RED warning LED reminding the user that it is time to change the batteries. When the voltage in the transmitter beam is completely flat, the receiver external (R1:D) LED will burn solidly.

### Near Field Technology (NFT)

It is human nature to leave warning indications to the last minute, which is why the **DURAOPTICS** beams have been developed with **NFT**. If the user forgets to change the batteries in the transmitter beam the gate will not be able to close and the external **RED LED** in the receiver will burn solidly. The receiver beam circuit board is designed with a built in RF antenna. As it is not always convenient to replace the batteries, one can temporarily override the beams. Do this by holding any make of remote control against the receiver beam and press any button for 3 seconds, this will allow the user to override the beams for up to 24 hours. The **RED** and **GREEN LED** in the receiver beam will toggle for 24 hours allowing the user to use their gate. NOTE: overriding the beams is only a temporary measure and the batteries must be replaced as soon as possible to avoid the gate closing onto an object or person.

### Dual Channel Output

**DURAOPTICS** has two outputs. It has a relay output and open collector output which work independently from each other. Generally the relay output is connected to the gate motor as a safety device. It can also be used to switch lighting and can be programmed to pulse for up to 18hrs. The open collector can also be used to prevent the gate closing on a car or person but this output is not programmable and it has an instantaneous output pulse.

### Nano Watt Power Consumption Technology

**DURAOPTICS** beams are designed with the latest Nano Watt Power Consumption Devices to increase battery life for up to 8 years.

### Selectable Between 10m or 20m

**DURAOPTICS** beams have two range settings, 10m or 20m. To conserve battery power the transmitter can be set to 10m range, giving it an estimated battery life of up to 8 years on the low power setting. A jumper can be placed on the board to increase the range to 20m which will use more battery power with an estimated battery life of 4 years on the low power setting.

### Adjustable Power Setting

The transmitter has a low and high power setting. In full sun applications the jumper must be set to high power. When high power is selected this will reduce the battery life to an estimated life of 4 years (on 10m range) & 2.5 years (on 20m range). Low power setting is used when the beams are not in direct sunlight.

### Setting Transmitter Beam Power

To increase the range of the Transmitter beam, place the jumper over pins labeled **POWER**. Note: the battery life will be reduced when increasing the power.

### Intelligent Progressive Low Battery Indication

The receiver beam software constantly monitors the battery voltage in the transmitter beam. The transmitter beam will send a signal to the receiver when the batteries are low. The Red external LED on the receiver beam will flash slowly until the batteries become so low that the **RED LED** burns solidly.

### Programming Relay Output time on Receiver

The RECEIVER beam output relay can be programmed either follow\* the beam signal or to pulse\*\* from 1 S hours when the beam is broken. To program the output pulse, place the jumper over pins marked 'RELAY AD'. When the jumper is placed over the pins, the GREEN will come on for one second indicating that the relay follow the beam signal. After one second the RED LED start flashing indicating that the relay will give an output instead of following the beam signal. Each flash indicates one second increment in pulse time of the relay up to flashes, indicating 1 minute. After 1 minute, each flash indicate an additional minute of pulse time. 61 flashes 2minutes. 62 flashes are 3minutes etc.

\*Follow: when the beam is broken the relay is triggered beam restores, the relay restores.

\*\*Pulse: a programmable delay in restoring of the beam useful for the switching of lights etc.



### DURA ACCESS CONTROL EQUIPMENT

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D.A.C.E warrants the original purchaser at the point of sale that the product is in good working order & free from defect.

The warranty period is 24 months from date of manufacture. Warranty does not cover incorrect installation, incorrect wiring, lightning, flooding, power-surge, fire, insect infestation or any abnormal use of the equipment.

D.A.C.E will not be held responsible for any accident incident resulting in damage, injury or death ensuing from incorrect installation and use of DuraOptics Beams. This serves as a reminder that if the beams have been placed over the gate/s will automatically close and may cause injury, damage or death.