

Ultrabeam DC4 Radio Receiver



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V1.01

DC4

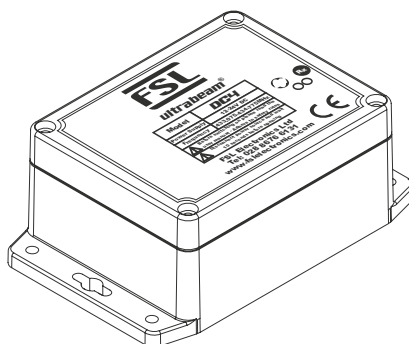
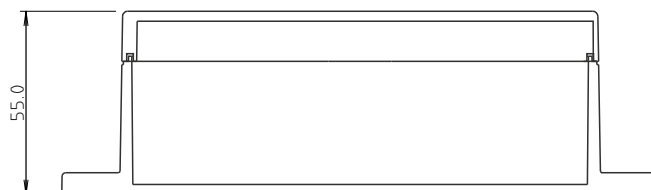
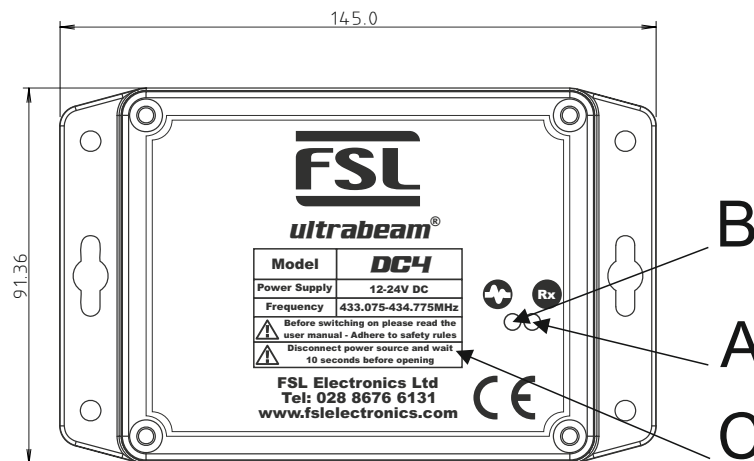


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1) Description

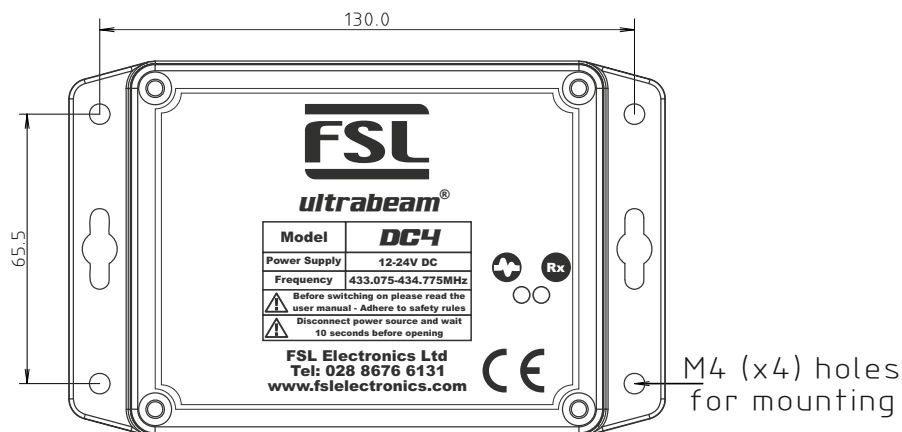
Ultrabeam DC4



A	Receive LED
B	Heartbeat LED
C	Identification

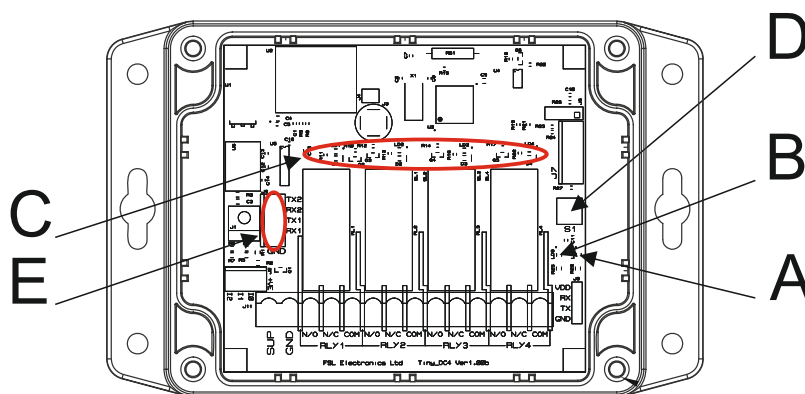
2) Technical Data

Ultrabeam DC4



Power Supply	12 - 28VDC
Frequency	433.05-434.79MHz
Antenna	Internal or External
Colour	Dark Grey
Protection Class	IP 65
Housing Material	High Impact ABS (UL94-HB)
Dimensions	145.0 x 91.36 x 55.0 mm
Outputs	4
Rated Load	10A at 24VDC / 250VAC
Additional Outputs	RS232 @ 57.6k baud
Inputs	3(No Operation in default Firmware)
Rated Voltage	12-24VDC

3) Light Signals



A	Receive LED
B	Heartbeat LED
C	Output Active Indication LEDs
D	Learn Switch (S1)
E	RS232 Connection

The Blue LED (A)	Meaning
...is off	No data is being received from the transmitter
... blinks fast	The receiver is receiving data from the transmitter

The Red LED (B)	Meaning
...is off	The receiver is not switched on
... blinks slow	The receiver is operating as normal

The Amber LEDs (C)	Meaning
...is off	The relay is not energised
... is steady on	The relay is energised

4) General Operating instructions

4.1) How the receiver operates

The transmitter should be stored in an assigned location when not being used.

To place the unit in operation, proceed as follows:

1. Ensure that the operator is in a position so they have a clear view of the movements and actions of the controlled machine.
2. Press any of the control buttons to wake the transmitter from sleep and to transmit the desired operation.
*The Green LED on the transmitter indicates that the transmitter is now awake.
The Red LED indicated that the unit is now transmitting.*
3. If the operation is momentary the operation will remain active until the button is released. If the operation is toggling the operation will change state. if the operation is latching then the operation will change state.
4. When the operator releases the control button the red LED will switch off and after 1 minute the Green LED will switch off again and the transmitter will go back to sleep.

4.2) Handset Learn Procedure

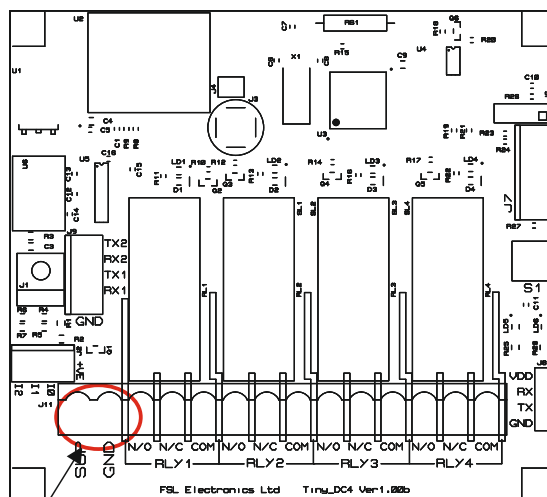
1. Press and hold the S1 on the receiver until the Red light goes solid.
2. Now release S1.
3. Now press any button on the transmitter.
4. On the receiver the Blue LED should flash indicating that the handset is now paired.
5. With the handset learned the corresponding relay will work when a button is pressed.

4.3) Handset Erase Procedure

1. Remove power from the receiver
2. Press and hold S1 on the receiver
3. Apply power to the receiver
4. The Red and Blue LED's will be on solid
5. Keep holding S1 until the Red and Blue LED's turn off
6. Release S1 Red and Blue LED's will now flash alternatively to indicate erase done.

5) Connections

5.1) Power Connection



12-24V DC Supply

The supply to the receiver is via the 14 way connector.

The pin marked SUP is the 12-24 V DC supply.

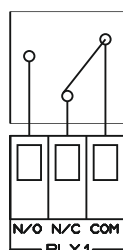
The pin marked GND is the 0 V DC return.

RELAY NO	BUTTON	CONFIGURATION	FUNCTION
1	START	N/O	MOMENTARY
2	STOP	N/O	MOMENTARY
3	ALL STOP	N/O	MOMENTARY
4	N/A	N/A	N/A

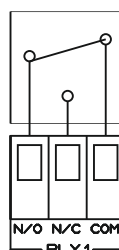
5) Connections

5.2) Output Connections

Each Relay on the receiver has a Common (COM), Normally Open (N/O) & Normally Closed Connection (N/C). These connections are isolated from the other relays on the board.



Relay connection when relay is not energised



Relay connection when relay is energised

5.3) Example Connections

Below is a simple example showing possible ways to connect a load to the relay contacts.

