

Ultrabeam
AC16
Radio
Receiver



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V1.01 **AC16**

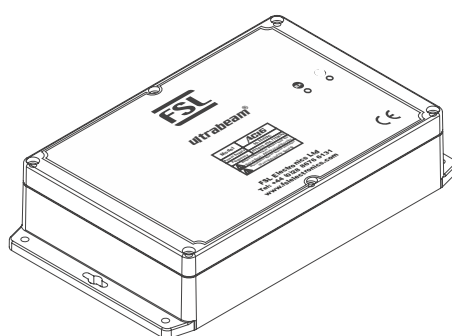
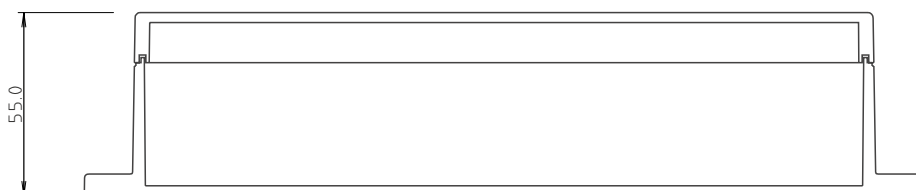
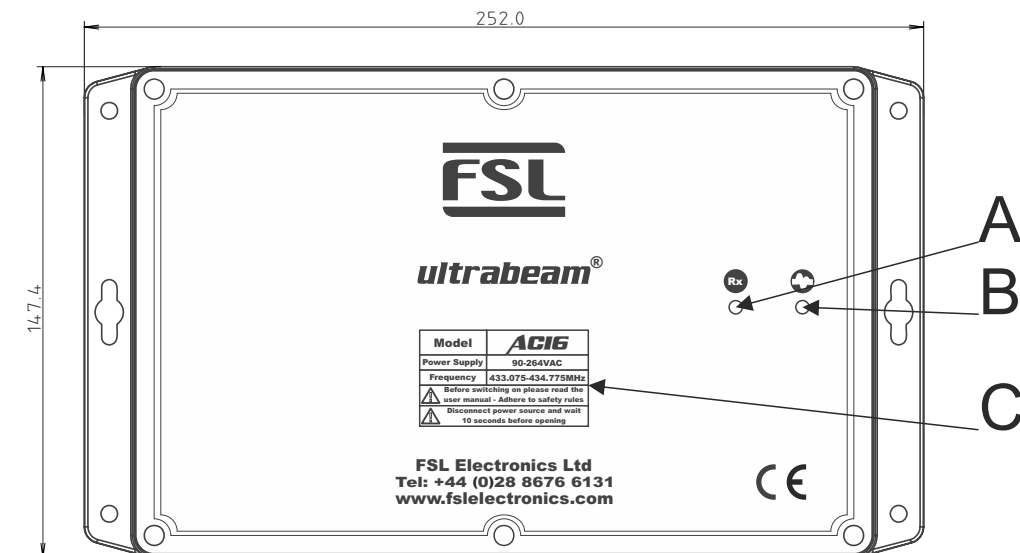


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1) Description

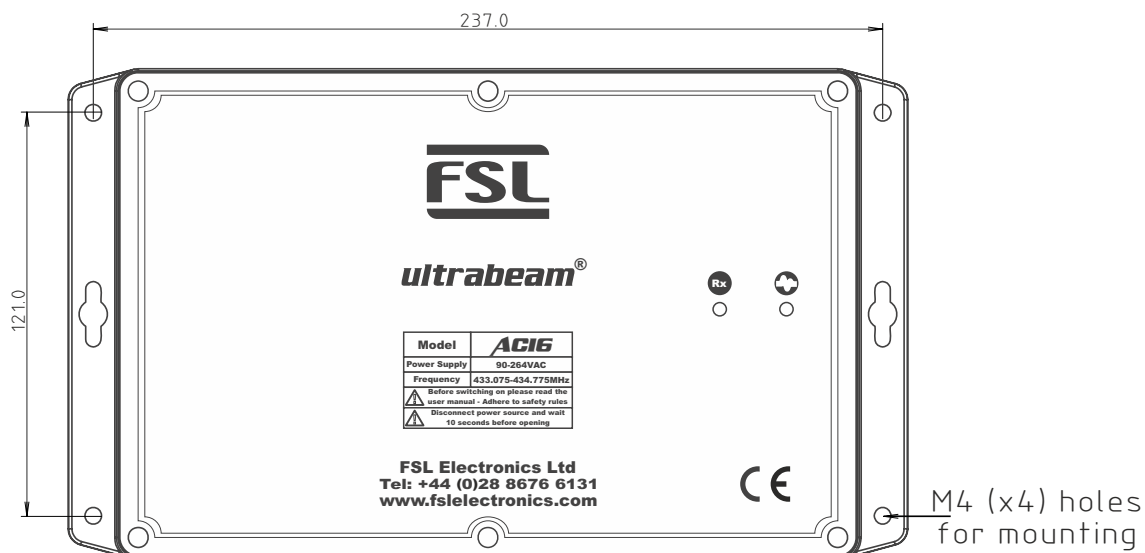
Ultrabeam AC16



A	Receive LED
B	Heartbeat LED
C	Identification

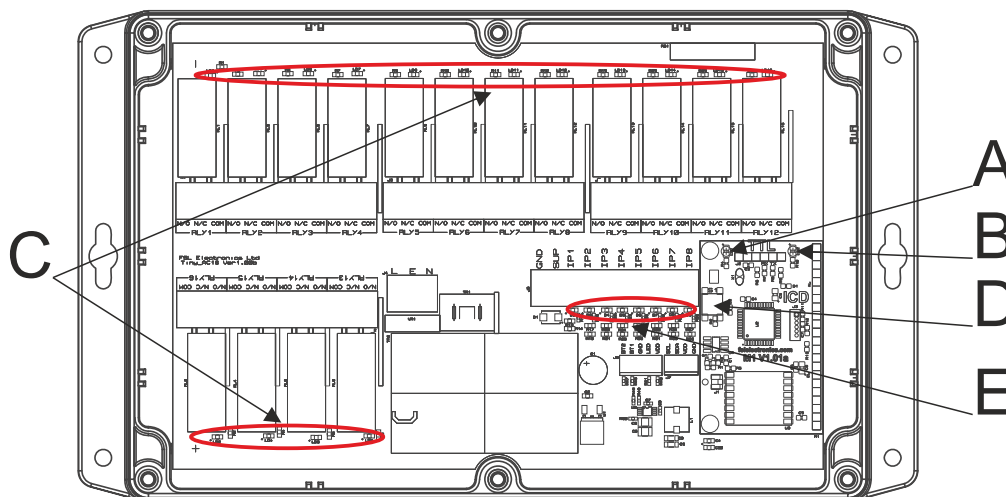
2) Technical Data

Ultrabeam AC16



Power Supply (AC)	90-264V AC
Power Supply (DC)	24V DC
Frequency	433.05-434.79MHz
Antenna	Internal or External
Colour	Dark Grey
Protection Class	IP 65
Housing Material	High Impact ABS (UL94-HB)
Dimensions	252.0 x 147.4 x 55.0 mm
Outputs	16
Rated Load	10A at 24VDC / 250VAC
Inputs	8(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	Input Active Indication LEDs

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

The Green LEDs (C)	Meaning
...is off	The input is not energised
... is steady on	The input 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

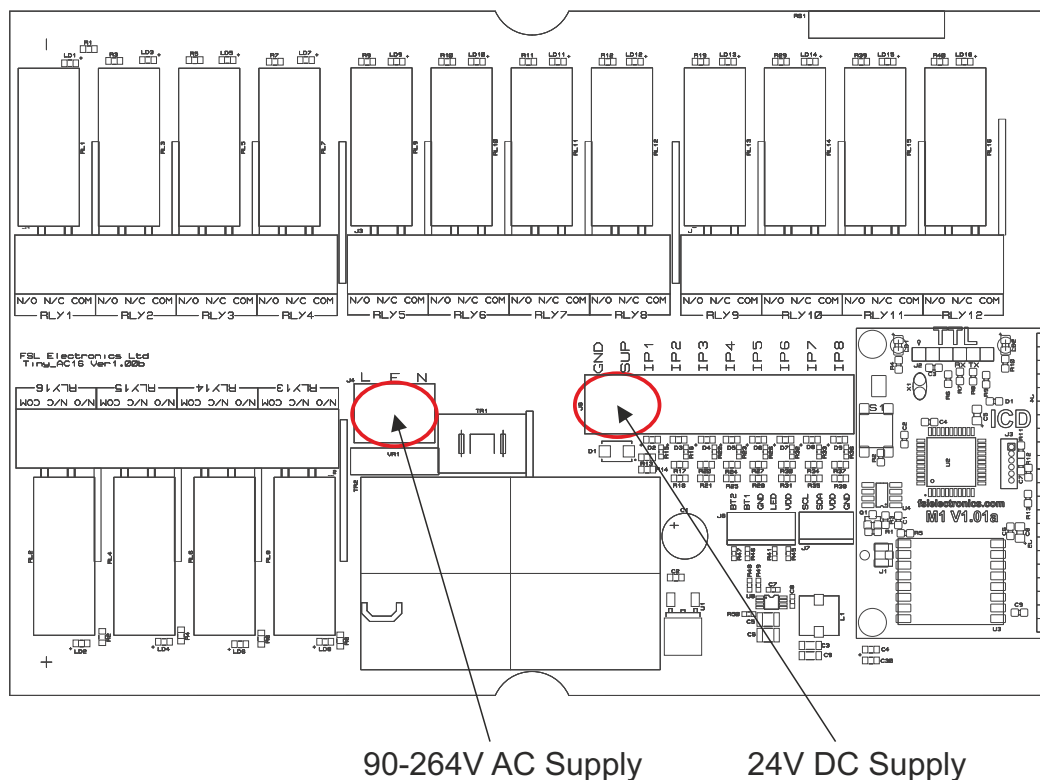
1. Press and hold the S1 on the receiver until the Red light goes solid.
2. Now release S1.
3. Now press any button on the transmitter.
4. On the receiver the Blue LED should flash indicating that the handset is now paired.
5. With the handset learned the corresponding relay will work when a button is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



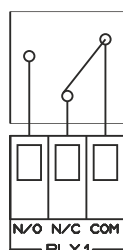
The AC supply to the receiver is via the 3 way connector.
 The pin marked L is the AC supply.
 The pin marked E is the Earth/Ground.
 The pin marked N is the Neutral.

The DC supply to the receiver is via the 10 way connector.
 The pin marked SUP is the 24 V DC supply.
 The pin marked GND is the 0 V DC return.

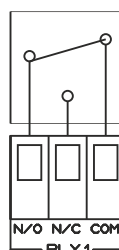
5) Connections

5.2) Output Connections

Each Relay on the AC16 receiver have 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.

