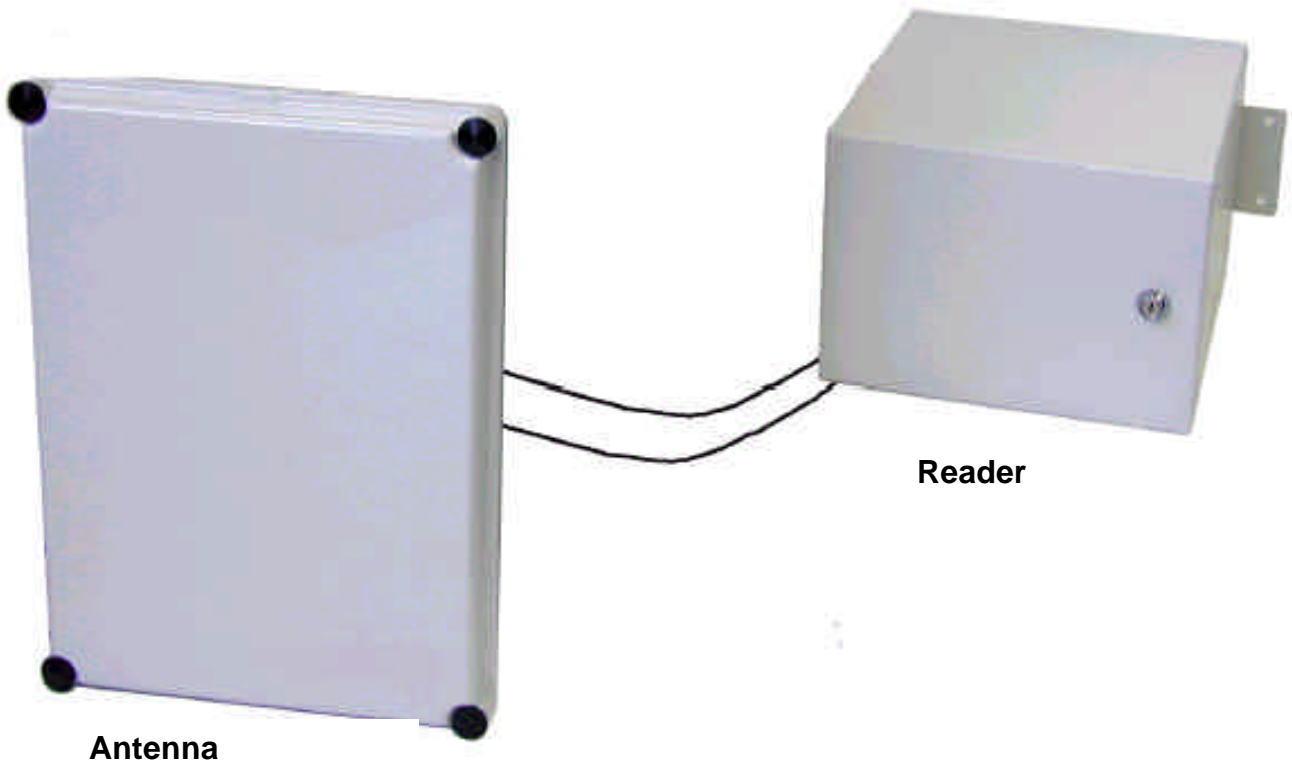


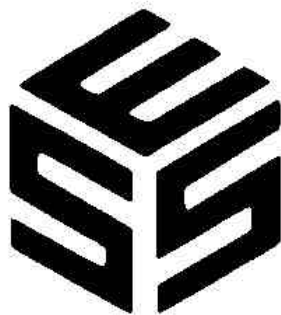
Long Range Proximity Reader

LRP- 20M



Antenna

Reader



**Select
Engineered
Systems, Inc.**

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Long Range Proximity Reader Hook-up



- 1) Find the connectors, grommets, and keys packet.
- 2) Use the key to open the door of the reader.



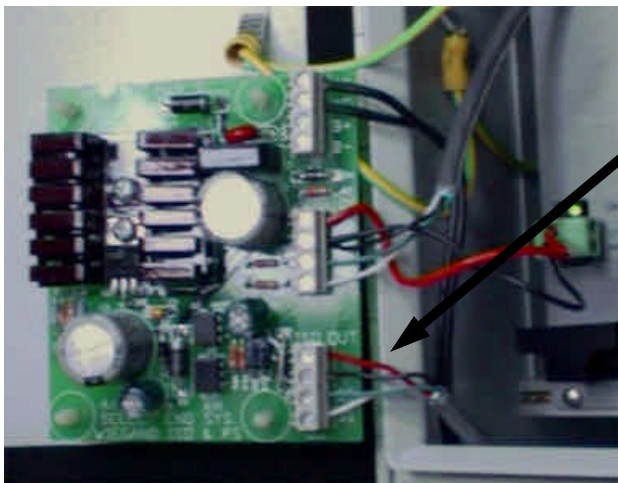
- 3) Open the lid and find the ANT IN and ANT OUT BNC fittings.



- 4) Locate the ANT IN and ANT OUT cables from the Antenna assembly.

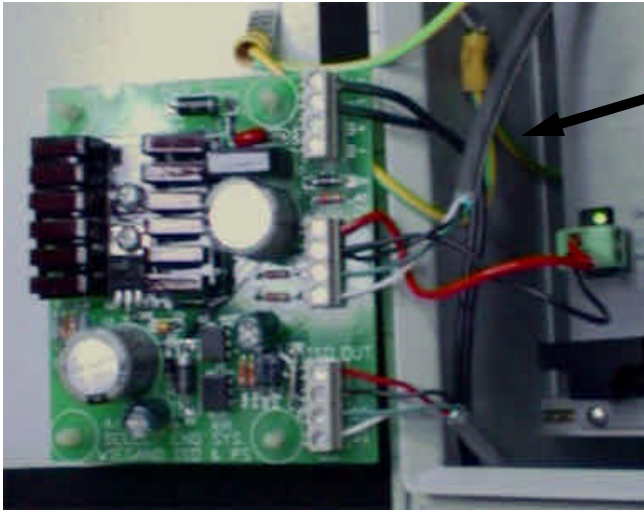


- 5) Plug in the ANT IN cable into the ANT IN connector,
- 6) Plug the ANT OUT cable into the ANT OUT connector.



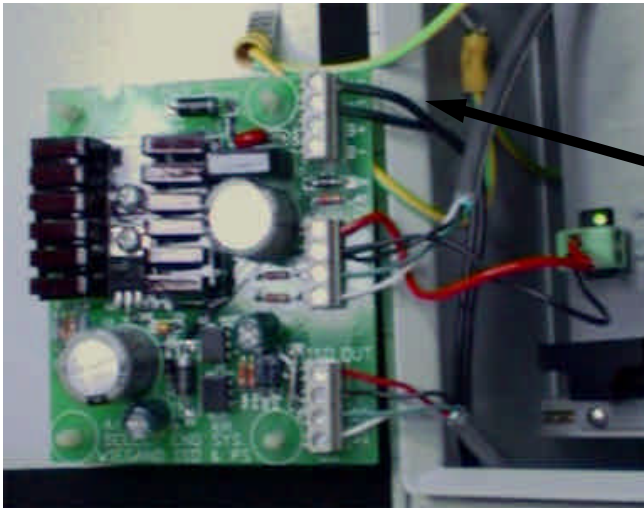
- 7) Wire the white wire (D1) from a Weigand cable (Belden 9940 or equiv) into Pin 1 of 4 pin connector J-3. (Bottom of drawing)
- 8) Wire the green wire (D0) from a Weigand cable into Pin 2 of 4 pin connector J-3. (Bottom of drawing)
- 9) Wire the black wire (-) from a Weigand cable into Pin 3 of 4 pin connector J-3. (Bottom of drawing)
- 10) Wire the red wire (+) from a Weigand cable into pin 4 of 4 pin connector J-3. (Bottom of drawing)
- 11) Install cable grommets, protect cables, and seal holes.

Power and Ground Hookup



12) Attach the green/yellow wire to a good earth ground, or a cold-water ground.

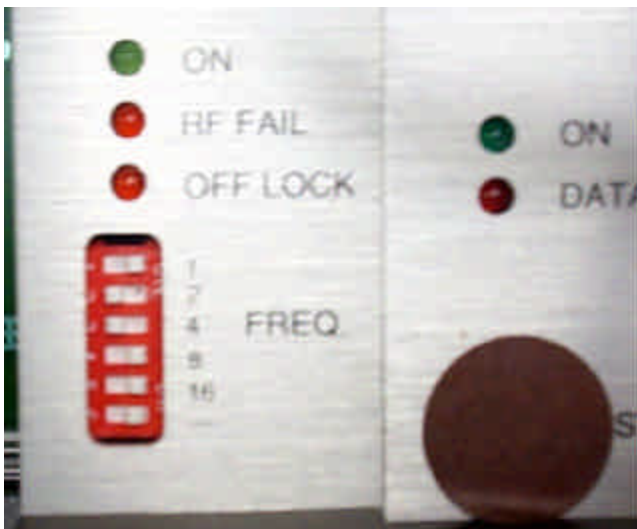
The reader **must** be connected to a good earth ground with at least # 16 ga. stranded wire. This wire **MUST** be a minimum of 16 ga. connected to a ground rod or cold water pipe. The maximum wire length is 50 feet. Surge damage protection built into the reader diminishes if you do not provide an adequate earth ground.



13) Connect the 16.5 volt AC input wires to the AC terminals on J-1 .

14) Plug the 16.5 volts AC transformer supplied, into a 110 Volts AC outlet.

Frequency Channels

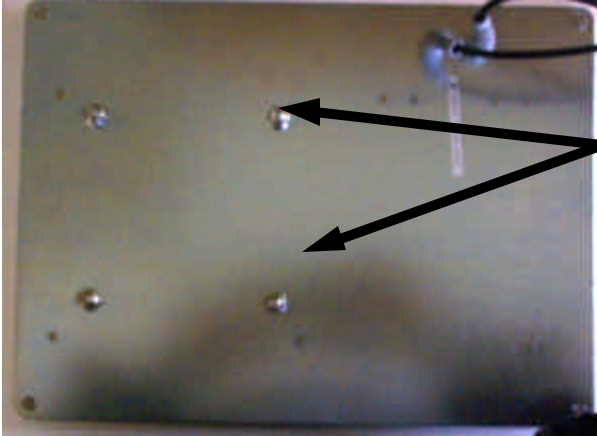


15) Up to 29 different channels may be used, by selecting the switch combinations, as shown. The available choices are from 1 to 29. 0 is reserved, as are 30 and 31.

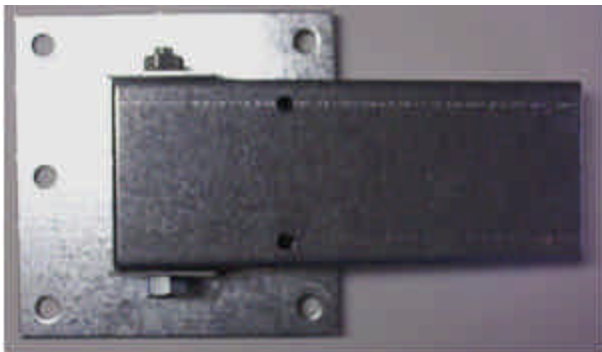
Each channel corresponds to a separate frequency band. This is useful when several readers must be positioned close together. Using different channels on each reader eliminates mutual interference. Add up the values of the numbers to the right of the switch to determine the channel number. The example shown, (2 & 4 moved to the left) adds up to channel 6.

Do **NOT** change Factory default settings, without first contacting SES.

Antenna Mounting



16) Locate the transmitter antenna and turn it over. Remove the four large nuts, but do NOT remove the four smaller nuts from the four bolts.



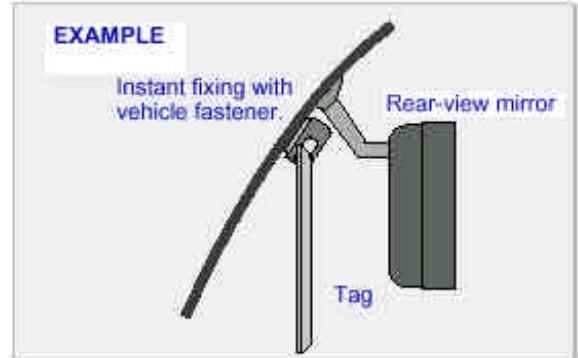
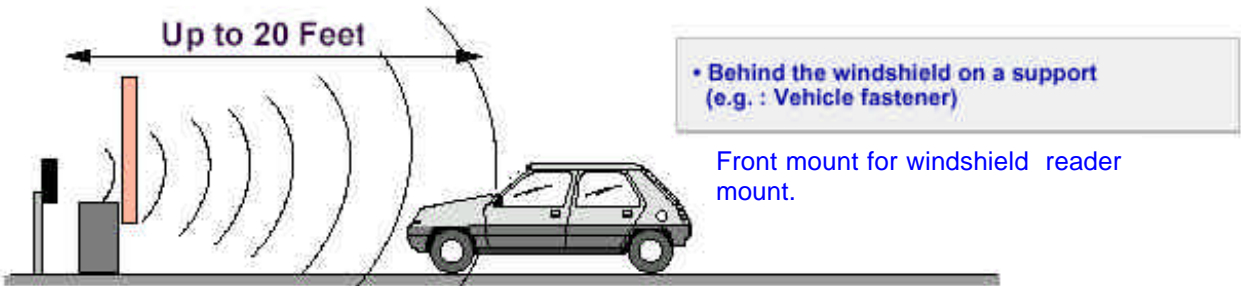
17) Attach the mounting bracket supplied to the back of the transmitter antenna, as appropriate for installation. Replace the four large (top) nuts. Tighten securely.



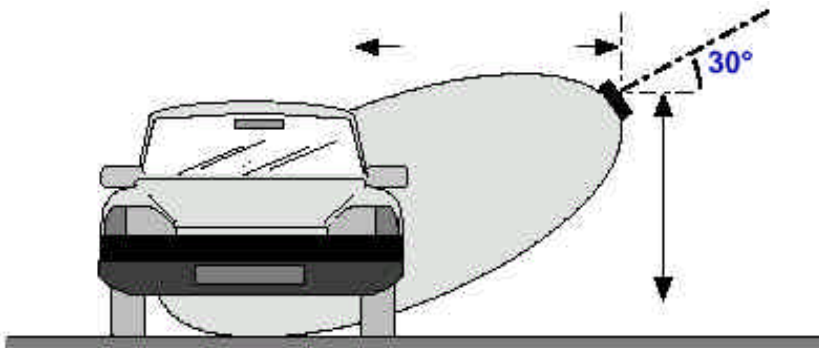
18) If mounting to a pipe, use the pipe bracket U-bolts provided. Put them through the holes on the transmitter antenna bracket provided, and clamp to a pipe.

19) If pipe mounting is not needed, then bolt bracket securely, to solid object.

Antenna and Card Mounting For Automobiles

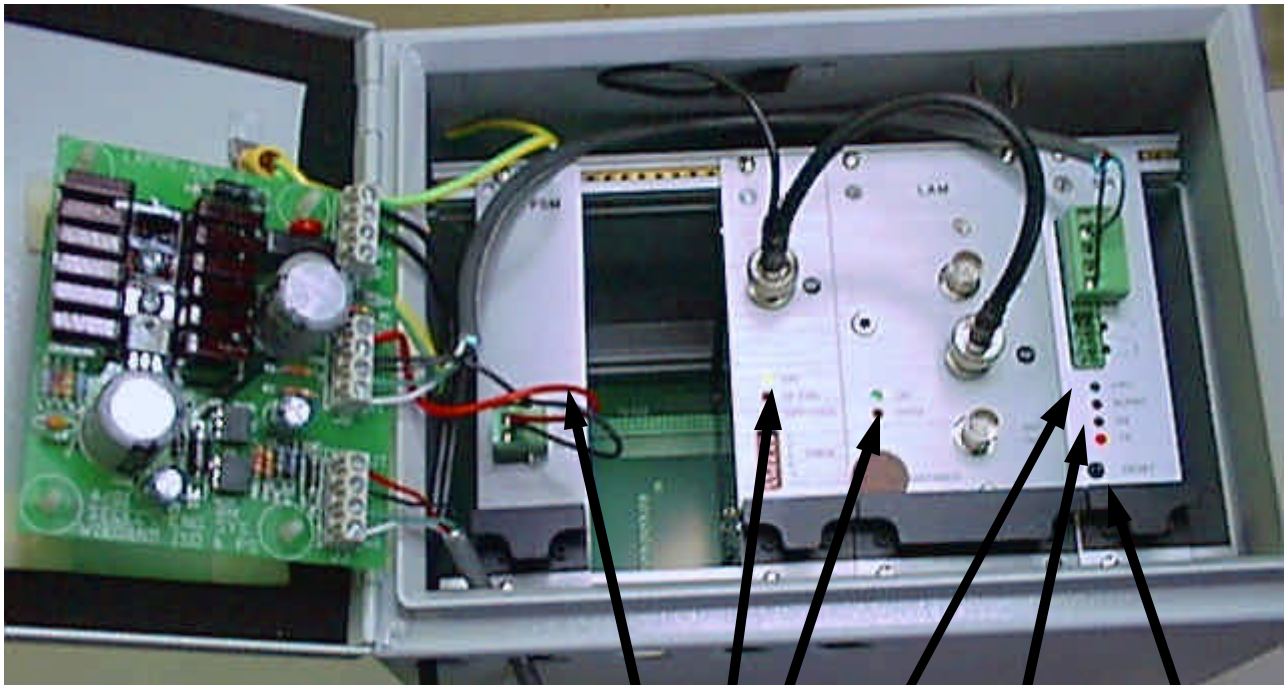


Side view of windshield.



Antenna Side mount for lateral reader mount. Read range up to approximately 10 feet.

LED Status



Green FSM LED ON
Green SHF LED ON
Green LAM LED ON
Green SPI LED Flashing

Red DATA LED
Red Burst LED

Reset

When the Reader is powered on, the LEDs listed above, will illuminate. If one should fail to illuminate, press the reset switch, as shown. If there is still a problem, contact SES support.

When a working card is in the antenna field, the Red Data and Burst LEDs will also illuminate.

“BETTER TECHNOLOGY MAKES BETTER SYSTEMS”

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