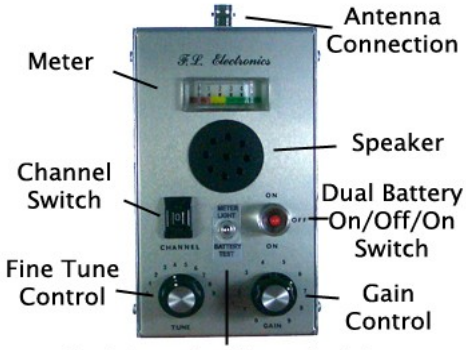
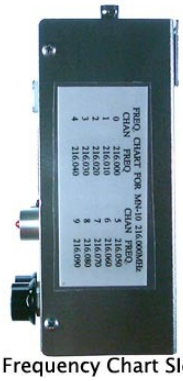
MN-10 Receiver

The F&L Electronics MN-10 Receiver is a lightweight easy to use receiver with uncompromising sensitivity and powerful performance. The moment you look at the unit you notice that it is straightforward and the face is free of excess switches and knobs. Let's take a look at the receiver:

Left Side	Front View	Right Side
 Label Side		 Frequency Chart SIde

On the left side of your receiver you will find a label with our company's information, your receiver model frequency and the serial number. On the right side you will find a frequency chart that informs you of the frequencies that your receiver covers. Notice the bottom of the receiver contains a standard sized headphones jack (not pictured above).

What is "MN-10?"

MN is a series of receivers that F&L Electronics manufacture. The number following the MN is the number of channels that the receiver covers. MN-10, for example, covers 10 channels. These Channels are 0 through 9 (not 1-10.) Each channel spans a total of 10 KHz, and all 10 channels will span a total of 100 KHz, e.g. 217.000 – 217.099 MHz.

What Do These Numbers Mean?

Transmitters transmit radio frequency pulses at certain frequencies. Say you own a transmitter (dog collar, falconry transmitter, etc.) and its frequency is 217.066 MHz. Your MN-10 receiver must cover the corresponding frequency range, e.g. 217.000 – 217.099. To pick up a transmitter at 217.066 MHz you will need to turn your receiver on and change the channel switch to 6, now you will be covering the range of 217.060 – 217.069. The fine tune will now be used to pick up the exact frequency, so turn the knob to approximately tune 6. These numbers aren't always exact but this is OK, in different weather situations transmitter and receiver frequencies can and will drift small amounts.

Tuning In the Transmitter for Maximum Range

Continuing on with the above example you should now be able to hear the transmitter pulsing on your receiver. Turn the gain, either up or down depending on where it is at, so that the needle is traveling the full distance left to right *without* pegging the needle. The meter will be far more sensitive than the audio in determining direction, so pay close attention to your meter. Now turn the tune back to the left until you are getting maximum meter deflection; this will be where the signal is the strongest. Turning down the gain allows you to not only control the volume but also the attenuator, as well. While tuning in your transmitter in the field, this allows for ease of use without worrying about what attenuator setting to use.

Long Range Tracking vs. Short Range Tracking

At shorter ranges it is crucial to track by the meter as the audio will be so loud as to not be able to effectively differentiate directions. Track by the meter as it is much more sensitive. However, there may be too much noise at longer ranges because the attenuator has been cut off at high gain. Because of this,

too much noise will be picked up for the meter to be of use. At this point it is very useful to track by audio as it will show a much larger difference. Swinging the receiver antenna 30 degrees to the left or right will probably kill the audio all together and this tells you quickly which direction the signal is coming from. Also, for long range tracking, reaching the point of the highest terrain, like a hill, can prove to be very beneficial.

Antenna Polarization

Antenna polarization is when the transmitter and receiver antennas are parallel with each other. This *does* affect signal reception and ultimately the range at which you will pickup your transmitter. Make sure to try holding your receiver antenna both vertically and horizontally to match the antenna position accordingly. At longer ranges this can affect reception drastically.

Dual Function Meter (Optional)

If you have the Dual Function Meter, (all meters appear the same except for extra electronics inside the meter,) you will have a switch on the front of your receiver between the channel switch and the power switch that is labeled "Meter Light" and "Battery Test." If you switch to the meter light position then a green backlight should appear; conversely if you switch to the battery test position it will conduct a battery test and display the result on your meter as you hold the switch in the test position. The test position is momentary and does not stay on; however, the light position remains on until it is switched off, or the receiver is shut down.

Changing the Batteries

It is very important to make sure the receiver is in the "off" position before changing the batteries!

On the back of the receiver is a swiveling compartment door, this door is where you remove and insert batteries. Two 9Volt batteries connect to battery snaps located inside this compartment. Note: please use Energizer or Duracell Batteries as we have found many generic batteries to lack the capacity to run this complex circuitry reliably and efficiently.

<u>WARNING:</u> When storing the receiver for longer than thirty days, please remove the 9-volt batteries!

Detaching the Receiver from the Antenna

In order to change the batteries, it may be necessary to remove the receiver from the antenna. To do this, follow these steps:

1) Disconnect the coax cable from the receiver by twisting and pulling off.
2) Loosen the thumbscrew at the bottom by the black pistol grip and rotate the white plastic retainer to the left.
3) Pull the receiver straight down towards the grip (you will notice two keyhole slots on the back that hold the receiver in place).