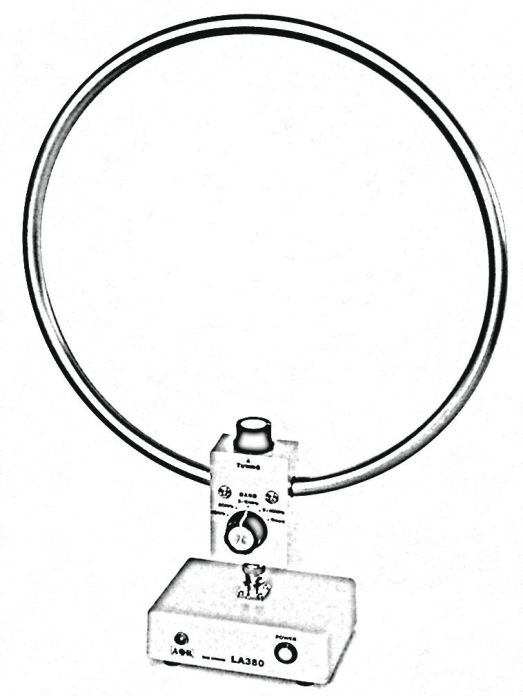
HI-Q active loop aerial

LA380

Instruction Manual



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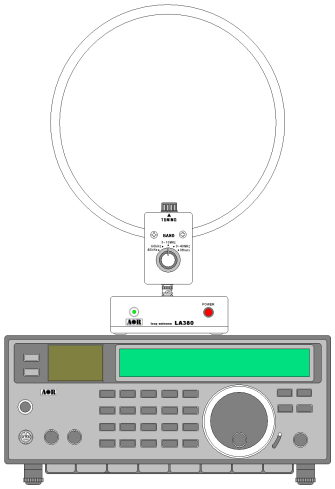


The **LA380** is a compact active (30cm diameter) loop aerial specifically designed to provide good reception when away from the main monitoring location or when large external aerials are not practical. Compact, but achieving high performance, featuring an internal high-gain amplifier (20dB for 10kHz-250MHz) and excellent overall strong signal handling (high IP3 +10dBm).

LA380 vs. its predecessor LA350

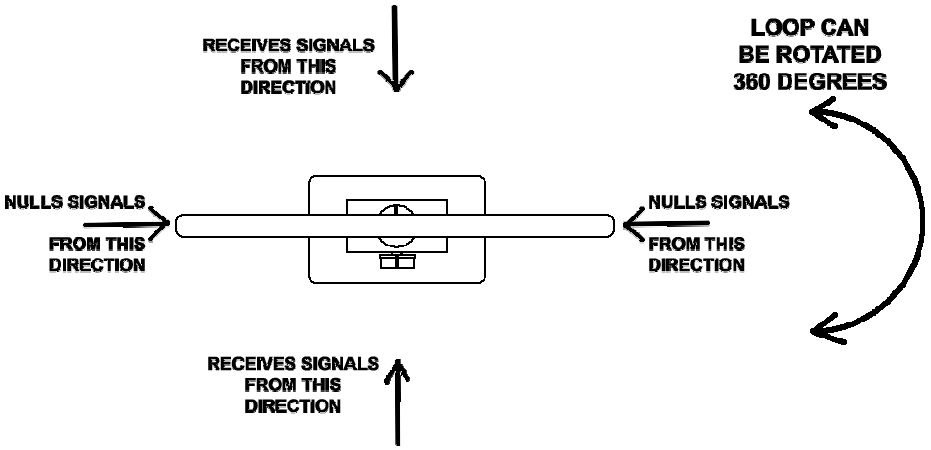
With similar performances, the LA380 has following advantages:

-Wider frequency coverage (10kHz-500MHz), LA350 covering only 200kHz-30MHz.

-Full frequency coverage (10kHz-500MHz) with one single receiving element! LA350 needed 4 switchable elements.

Directionality / reception pattern properties

(view from top of the loop)



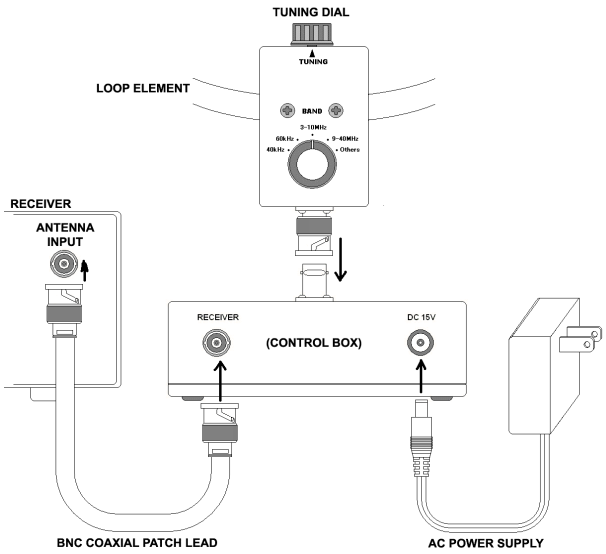
A rotating loop antenna is very directional. The loop will allow signals on opposite sides to be received, while off the sides of the loop the signal will decrease or be nulled out.

For example the nulling feature will allow you to remove a station on a frequency and pick up another (transmitting from a different direction) on the same frequency. Of course the directional characteristics when listening to distant sky-wave signals will not be as pronounced as local ground-wave propagation.

Thanks to its directionality, it is also ideal for minimizing the effects of unwanted interfering local terrestrial signal and noise.

The loop element features a 5 positions band switch and a High-Q poly-variable capacitor to tune and peak the wanted frequency, while achieving maximum rejection of unwanted out of band signals ? valuable additional selectivity for your receiver f s fr on-end stages.

Using the LA380 active loop aerial



1) Connect the power supply to the rear panel DC input socket, the LA380 requires 12V DC at 50mA (9-15V DC). A 9V regulator is built into the LA380 control unit. To minimize noise, keep the power supply as far away from the LA380 as practical. To minimize electrical interference from the power supply, for the receiving range between 10kHz and 1.6MHz, you may wish to consider use of a (non supplied) low noise regulated power supply.

2) Connect the supplied BNC-BNC coaxial lead between the LA380 and your receiver f s aeri al i nput. If your r ecei ver i sfitt ed wit h a connect or ot her t han BNC, an appropriate adaptor must be used.

3) Insert the receiving loop element into the top panel BNC socket of the LA380 cabinet.

4) Push the red front panel power switch, the green LED will illuminate to confirm that power is connected to the control unit.

5) Switch on the receiver and tune to the desired frequency. Select the correct frequency range with the band switch on the loop element. There are 5 positions to choose from:

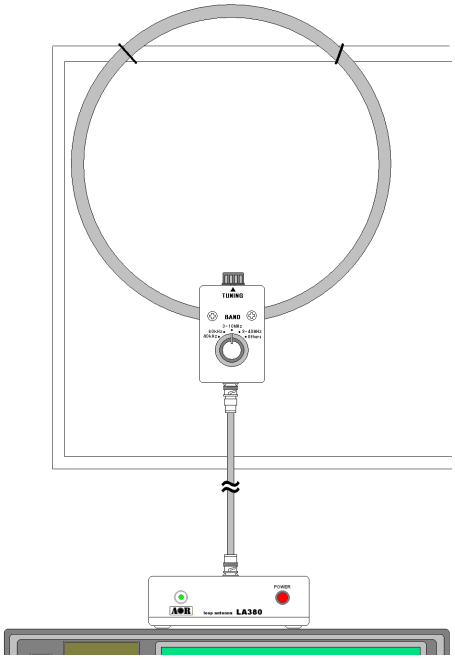
Frequency	**Comments**
40 kHz	Specifically for Japan time signal
60 kHz	Specifically for US, UK & Japan time signal.
3-10 MHz	Shortwave bands 100 to 30 Meters.
9-40 MHz	Shortwave bands 33 to 7 Meters.
Others	60 kHz to 3 MHz 40 MHz to 500 MHz.

6) Rotate the tuning dial on the loop element (clockwise and anticlockwise) until the receiver's signal strength meter (S-meter) deflects to maximum and the incoming signal sounds clearest. If your receiver does not have an S-meter, simply adjust for maximum received signal. Rotate the loop element until the signal is strongest and any interfering signal is nulled.

It is advisable to locate the LA380 close to a window in order to achieve the best possible reception.

In case your listening station is too far way from a window, you have the possibility to use a (non-supplied) BNC-BNC coaxial patch lead between the control box and the loop.

The lead shouldn't be longer than 5m.



LA380 Specifications:	
Frequency range	10kHz-500MHz
Impedance	50 Ohm
Connector	BNC
Weight	Approx.500g without accessories
Cable	1m RG58A/U (BNC plugs)
Power	External DC 12V (9-15V), approx. 50mA.
Supplied acc.	LA380 Control box with loop AC power supply BNC-BNC Coaxial patch lead

Specifications subject to change without notice or obligation.

Precautions

The LA380 is NOT intended for transmit purposes.

The LA380 is intended for indoor use only, do not use it outdoors.

We are not responsible for any damages to the antenna or your radio equipment due to improper use.

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