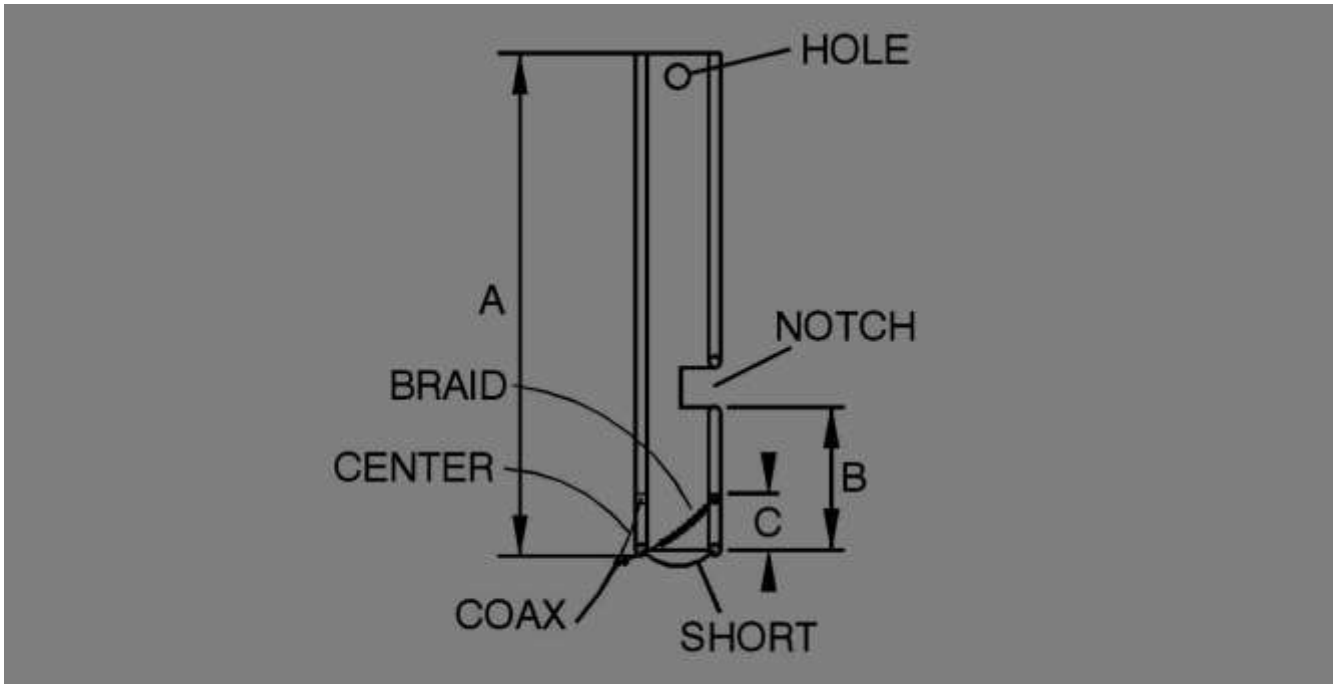


# J-POLE ANTENNA PROJECT



Note: The above diagram is NOT to scale!

1. Cut a piece of TV twin-lead 55 1/8 inches/140 cm in length (Dimension A).
2. Clean off 0.5 inch/1 cm of insulation at one end to expose the bare wires. Twist the exposed ends together and solder.
3. Measure 16 5/8 inches/42.2 cm (Dimension B) from the shorted end and remove 0.25 inch/64 mm of conductor on one side to make a notch. Cover the notch with electrical tape. Note: You now have a half-wave radiator connected to a 1/4 wave stub. Now all you have to do is connect a piece of 50 ohm coax to the 50 ohm impedance point on the stub.
4. Cut a piece of RG58 or RG174U coax about 6 feet/2m long. Put the antenna connector on one end. Open up the other end for making connection to the stub by removing 1.5 inches/ 3.5 cm of the black outer covering. Carefully separate the braid from the centre conductor. Twist the braid. Remove 0.5 inch/1 cm of the dielectric from the end to expose the centre conductor. Ensure that the centre conductor and braid will not make contact.
5. Carefully remove the insulation from the two twin-lead conductors at a point 0.25 inch/64 mm (Dimension C) from the shorted end without cutting the conductors. Solder the coax braid to the short conductor below the notch and the coax centre lead to the long conductor. Cover the joint with electrical tape.
6. Punch a small hole at the open end of the twin-lead to permit using a string to support the antenna from any convenient place.