

Installing the new driven element assembly in a DSEDPM144-5LVA, DSEFO144-6RS or an older FO12-144

In the last quarter of 2019, we re-designed the driven element for the DSEDPM144-5LVA and the DSEFO144-6RS. The new design is almost an exact copy of the now almost 40-year-old K1FO 144-12 yagi. The new driven element offers a more robust design for better survivability and better SWR bandwidth.

To begin, you'll need a few hand tools.

A hand drill or drill press (preferred)

A 1/2" drill bit or a "Unibit" which does work better – these are available at Lowes or Home Depot or on Amazon. If you don't have a drill bit or have access to one, let us know and we can assist.

A 3/8" drill bit or a Unibit

Either a #18 or a 9/64ths drill bit

A #2 Phillips screw driver

An 11/32 (green handle from most manufacturers) nut driver.

Marking pencil or "Sharpie"

1. First remove the entire driven element from your antenna until all that's left is the two 5/16" holes in the boom where the driven element was.
2. Drill out the two 5/16" holes using the 1/2" drill bit or Unibit. This is best done in a drill press but you can do it with a hand drill if you have a vise or a strong friend to hold the boom so it doesn't move around.
3. After the holes are drilled out, make sure the new 1/2" aluminum driven element passes through the boom. If not, if you have a round file you can ream the hole to get a good fit. You can also pass the drill bit through again to smooth it out.
4. This is the only tedious part – mark a spot on the top and bottom of the boom as close to the exact center and in line with the driven element. Using the #18 or 9/64ths bit, drill a hole through the boom at each mark. If you have a drill press you can drill through both sides at once, with a hand drill I recommend drilling from each side.
5. Now enlarge the hole on whichever side you consider the bottom to 3/8" using the 3/8" drill bit or the Unibit.
6. Deburr the holes using sandpaper if necessary.

Refer to the assembly manual in our 2m section for you specific antenna but the procedure is the same for all, the only difference is the length of the tee arms for different model antennas.