



19/09/2026 SuperSig Manual V1.05

CONSTRUCTION MANUAL FOR THE SUPERSIG 4

List of Parts

No.	Description
1	Boom section with fixed Hub, Choke and End Cap
1	Boom section with fixed Hub and End Cap
4	5.6m Telescopic Whips
1	Boom joiner
1	Mast plate
1	Jumper lead
2	M6 40mm bolt
2	M6 50mm bolt
4	M6 Wing Nut & Washer Set
2	M8 Mast Clamps
1	Hex Driver
1	Quick Start Guide & Whip Length Chart
1	Carry Bag with shoulder strap (Option)

Boom Assembly

1,2,3. Insert the joiner into the boom section holding the common mode choke, locate the far hole and push through one of the M6 40mm bolts. There should be one washer either side and the spring washer next to the wingnut, loosely tightening the M6 wingnut.

1



2



3



4,5. Attach the mast plate to the remaining two holes and use the M6 50mm bolts. These now can all be tightened fully using the supplied hex driver.

4



5



6



6. Place boom on mast or support of choice. For initial testing a small tripod is ideal. Tighten the clamp bolts so the boom is secure on the mast.

Mounting the Whips: Please see Tuning the Antenna (Page 4) section before completing these steps if using for the first time

Director Elements. 7,8,9 &10 Locate and screw in the brass threads at the end of the whip into the element hub mindfull of not crossing the thread. Leave a 2mm gap and insert one fork of the jumper cable. Hand tighten the whip making a tight connection (HAND TIGHTEN ONLY), repeat on the other side so it matches picture 10.

7



8



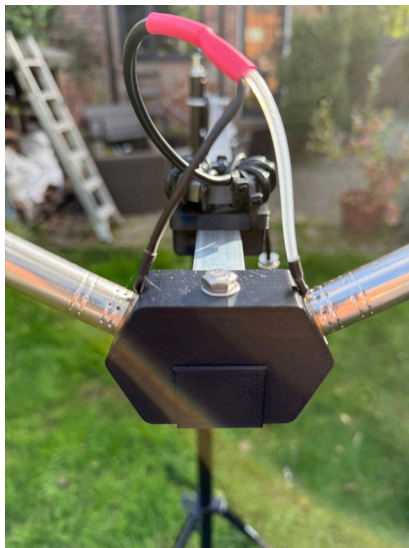
9



10



11



12



Driven Elements. 11, Repeat the above process for the driven elements. **TIP: 12,** Mark the whips chosen for the driven elements with a permanent marker on the base of each thread, making it easy to identify them.

TUNING THE ANTENNA

It is highly recommended that you adjust & mark the whips using the attached **Element Size Chart**. A permanent marker is supplied for this. Ideally, do this on a flat surface using a long tape measure. First, **choose 2 whips** to use as the **driven elements** see **picture 12** above. Lay out the tape measure and carefully extend the whip, from the tip, to the desired length making sure each section is fully extended (**13**). For example, if we are wanting to use 10m, each driven element will be 267cm long and the remaining 2 whips, the directors, between 259-253cm.

13



14



14, Initially, just add a small mark to all four whips until you have confirmed, using the next step, that the SWR is acceptable.

As mentioned, these measurements will get you started*. You will most likely have to fine tune these values for your specific location. An antenna analyser is essential for this fine tuning, a NanoVNA being the most cost effective.

Install the whips chosen for the driven elements onto the hub nearest the common mode choke and the directors onto the opposite hub. Connect the leads to the common mode choke to either side of each driven element and remember to connect the directors using the jumper cable! Check the SWR on your analyser. If the SWR dip is above the required frequency the whips are too short and will need extending. (EXAMPLE: if the measured SWR dip is 28.7MHz and you are wanting 28.5MHz, extend the whips) If the SWR dip is below the required frequency the whips are too long and will need shortening. (EXAMPLE: if the measured SWR dip is 28.1MHz and you are wanting 28.5MHz, extend the whips). You can do this incrementally depending on how far the SWR was off the required frequency. Once you are satisfied with the SWR reading mark the element with the permanent marker with markings that make sense to you. You are now ready to start making contacts - 73 and good DX! For more information www.supersig.co.ukpage/support

Element Size Chart

BAND	DRIVEN ELEMENT	DIRECTOR	SECTIONS*
20m	5.34m (210")	5.06m (199")	12 ½
17m	4.18m (164")	3.96m (156")	9 ½
15m	3.56m (140")	3.37m (132.5")	7 ½
12m	3.10m (122")	2.94m (116")	6 ¾
10m	2.67m (105")	2.53m (100")	5 ½
6m	1.47m (57")	1.39m (55")	2 ½
4m	1.01m (40")	0.96m (37.5")	1 ½

*Number of antenna sections to extend - the first section fully extended counts as 1.

Please note: All dimensions quoted act as a starting guide only.

Safety: Please be aware, when putting up antennas, of your surroundings. Please keep safe! Avoid areas where overhead cables are present and please make sure any antenna poles, tripods or mounts and suitably guyed and stable.