PRO.SIS.TEL.

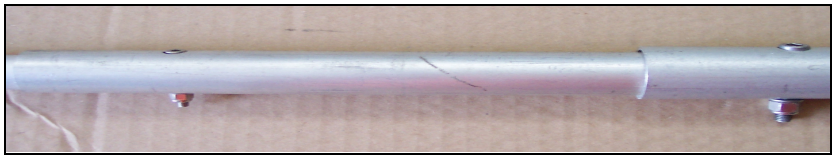
Produzione Sistemi Telecomunicazioni

Dual-band V solid dipole 30-40m (6m) – V1.0E

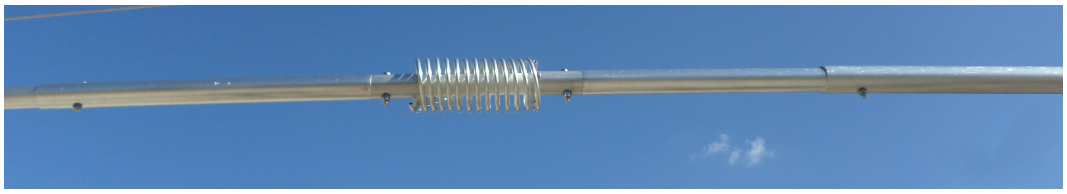
PST-34TV

Assemblyng instructions:
The antenna can be assembled in different ways:
Assemble it on two sawhorses and then carry it on the mast or pre-assemble the elements and then complete the assembly on the mast.
In both cases it is preferable to prepare before the elements and then the main plate assembly.
Extracting elements from the carton box, you will find the element tubes as pre-assembled elements, in a telescopic set. Tilt the tube set, make sure that all heads of each diameter escape from the main pipe.
Do not forget to lubricate the thread of steel bolts, if dry may stiff them.

Place the element on a plan, and begin to assembly the smaller diameter,
Align the hole of the inner tube with hole of the outer tube. The fastening of the elements takes place by inserting the bolt from the larger hole so that the cylindrical bolt head pass thoroughly and rests on the inner tube fig.2.
Some sections are multi-perforated to facilitate the adjustment, always start from the center hole, and then shorten or lengthen it if antenna is too long or too short.
Using the same technique, extract and splicing all sections and traps.
Tighten the nut. Make sure that all bolts heads are on the same side.



Insert the set of coils (30m on the inner side, 20m trap with the tip of 40m end on the outer side).



Some inner ends have more holes, they will help you in tuning antenna on your preferite band section, use the one in the middle for now.
Start the eventual calibration from the highest frequency (30m) and after the 40m tip end.
Longer antenna arm lower the resonance, shorter antenna arm increase the resonance.

Any drainage holes present on the traps, at the end of assembly should be down side.
Do not seal traps or tube joints. Antenna must breath to prevent damages due condensation.

Half dipole tapering (net of overlaps)
d45 75cm - d40 105cm - d35 104cm (with coil) - d30 125cm -
d25 140cm – d20 //T30// - d16 20cm - d12 90cm
On d25 there are 5 holes for 30m tune, step 5cm, on d12 there are 4 holes for 40m tune.

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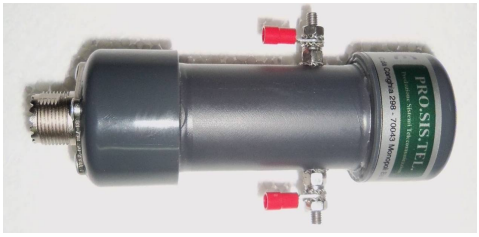
When both half-elements are ready, prepare the center plate and assemble all the parts as in the photo. The two half-dipoles lower ends must protrude from the insulator of **2.5 cm (1inch)**.
The terminals of the airpin coil, must enter on the bolts head without strain or deformation and should be secured with its own washer and nut.

Connect a 1:1 balun to the dipole center (recommended) with two wire jumpers no longer than 8-10 cm (the length affects the resonance of all bands), if you decide not to use the balun, connect terminals of the coaxial opening it as a V directly to the two bolts. Even in this case make sure that the two terminals of the coax does not exceed 10cm. If too long, the antenna will resonate slightly lower. Seal the coax with good quality sealing glues.
The balun, improves antenna operation, prevent there being return RF currents on the shield of the coaxial cable that could cause TVI phenomena or other RF interference.

When assembled the antenna must have a 'look like the one pictured.

After completing the tune-up, check the tightness of all nuts.
If the V dipole is installed above a HF yagi, it is preferable that it is installed parallel to the yagi boom and at a vertical distance of at least 1,5-2m.
If installed alone it is preferable that at least 5m from the ground / roof / floor.

(Balun and eyelet ends are optionals not included in the antenna parts)

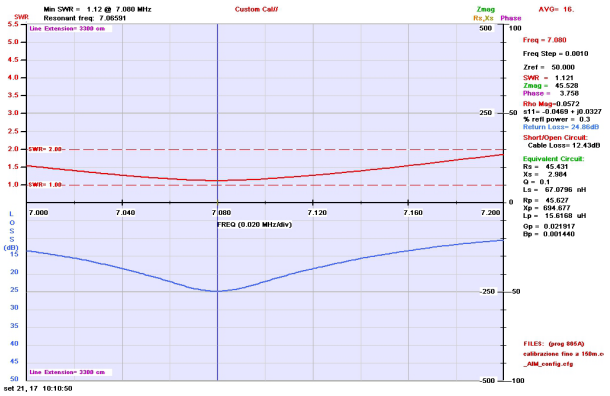


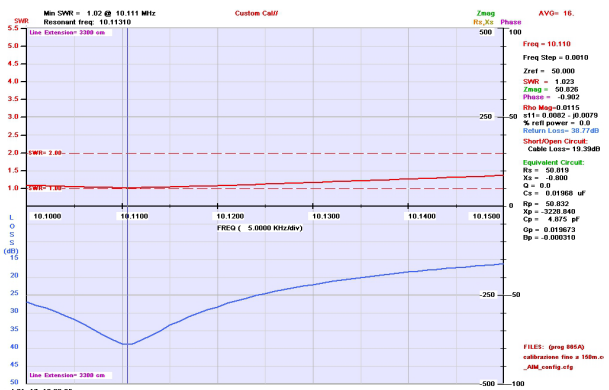
Balun or coax choke do not improve antenna performance, but reduce the RF presence on the coax shield reducing the risk of TVI or other RF noise on electronic devices.

In particular/special conditions, the antenna can also be installed as in the photo below.

Specifications:
Bands: 30-40m
Gain: 0dBd
Max power: 2Kw pep SSB, 1Kw RTTY-CW or in accordance with balun max power.
Half dipole lenght = about 6m (depend from the tunig set)
Arm lenght = about 7,2m
Rotating radius = about 5,3m
Wind area = about 0.3m2
Mast diameter = 40-50mm
Weight = about 10kg
Max wind = 130Km
Material = Alluminum 6060-T6, SS hardware.

Performance:
The antenna has sufficient bandwidth to cover the whole assigned segment on both bands maximum SWR of 2:1 to extremes or better if SWR in band center is less than 1,5:1





Performance may vary depending on the environmental conditions in which the antenna is installed. If you can, do not install it at a height of less than 5m from the roof or ground.

Kit 6m (optional)

The 6m kit must be installed as in the photo below.

For improvements and technical - production, specifications and design are subject to change, without affecting the final pourpose of the product.

WARNING!!!

Do not install this antenna near electric power lines or other sources of energy, even in the event of accidental contact, could kill or seriously hurt you.

Dear buyer,

thank you for purchasing a Pro.Sis.Tel antenna ..

Making it we have used the best materials available on the market, worked and finished with the best care possible allowed by the state of art.

Use it within the rating for which it was built and will serve you faithfully for many years.

In case of doubts or concerns, our technical department is always ready to provide all the necessary help.

If you are satisfied tell the others, otherwise ..... tell to us.

Your opinion and your suggestions will help us to improve even more our products.

Best regards

Annamaria Fiume IK7MWR

Made in Italy

WARNING! Defend the environment

Disposing components and materials

The antenna consists mainly of aluminum, in the event of disposal, conferred the scrap to a specialized disposal center, in compliance with the requirements of local law.