# **PRO.SIS.TEL.**

Produzione Sistemi Telecomunicazioni

# PST-34VC - VF

#### Assembly instructions:

By extracting the material from the packaging, you will find some of the main tubes already preassembled, in telescopic sequence. By tilting the package, make sure that all heads of each diameter protrude from the main tube. The 35mm diameter section contains the load coil in the center, handle it with care.

# Lightly lubricate the thread of all the bolts before mounting them (stainless steel tends to nail down very easily).

The elements are assembled by inserting the bolt from the larger hole side so that the bolt cylindrical head is well recessed and rests on the internal tube as show in fig. 1.



Fully tighten the nut. Make sure that all bolt heads are on the same side.

Using the same way, extract and join all the sections, except the one with the largest diameter that should be mounted, first on the base and then proceed with the final assembly.

When the larger diameters are assembled, insert the 30m trap and end tip. The trap has two drainage holes that need to look down.



The section of tube under the trap and the tip have multiple holes which are used to make small fine tuning adjustments on the two bands. Calibrate the 30m band first and then the 40m band. By lengthening you go down in frequency, by shortening you go up.

After completing the assembly of the radiator, proceed with the assembly of the base which has a whole series of holes, which must be equipped and prepared following the photographic sequence.



Install the 8 4x25MA bolts on the X holes and the 4x16 bolt on the side hole as shown in the photo. Correct sequence for all bolts: bolt, knurled washer, normal nut, 2 flat washers and self-locking nut. Lock all the bolts by fully tightening the normal nut.

Continue the assembly fitting in the two insulators the largest 40mm lower section. Leave the bolts slightly loose so that you can easily move the tube into its final position with the bottom end protruding approximately 2cm from the insulator. Install the 4x20MA bolt on the radiator and lock it, insert a flat washer, insert the eyelet of the RF wire, another flat washer and normal nut. Lock the insulator bolts and install the RF choke. Make sure that the chocke is vertical for better rain drainage. The choke will eliminate any electrostatic charges and some noise.

DO NOT SEAL THE JOINTS, the antenna must breathe.



The care and precision of this assembly will ensure a long life for the antenna. Check that all bolts have been properly tightened and completed bolt tightening. Use the U-bolts, to install the base on the mast and install the radials. The U-shaped collars are 50mm, but they can hold up to 40mm mast pipe.

There are two rigid radials per band and must be mounted opposite each other. The assembly for convenience, can also be done after putting the antenna on the mast, once the calibration is finished, each pair must have exactly the same length.

Those for 30m have the shortest tip.

If you have chosen the version with wure radials, they require particular care in the implementation as they can also heavily influence the final operation. It may be necessary to try to find the best operating point. Always do this equally on all radials of the same band.

Finished and installed antenna.



Once assembled, the antenna must look similar to the one in the photo.

The antenna with rigid radials can be installed at any height, preferably at least 1-2m over the ground but it also works at a few tens of cm as in the photo, only the calibration becomes more critical. The version with wire radials makes the best performance if installed a few cm over the ground with the radials lying on the ground-floor.

Calibrate the radiator first and then the radials, it may be necessary to repeat the operation several times.

After completing the tuning operations, check and complete the tightening of all nuts.

Antenna is self supporting, do not use guy-wires, do not seal the joints.

#### **Specifications:**

Band: 30 and 40m Gain = 0 dBi Impedance = 50 ohms SO239 Maximum power: 2KW pes SSB, 1KW CW-RTTY-DIGI mode SWR = Less than 1: 1.5 in the middle of the band Length = 7m approximately + -20cm Weight = about 5 kg Max wind: 130Km / h Material = AI 6060 T6, SS base bracket and bolts



## SWR for each one single band.

Note: when installed the antenna may be affected by environmental influences so it may be necessary to recalibrate it in whole or in part.

Avoid as far as possible the presence of poles or other metal objects parallel to the antenna. Start calibrating from the highest band (30m) and continue with the lowest one (40m). Stretch to go down, shorten to go up in frequency.

Antenna diagram



The specifications and characteristics may undergo slight variations, without prejudice to the general specifications of the product.



### **Security Notice** Be responsible avoid possible accidents

Do not install the antenna near bare power lines or other sources of electrical power at risk of electrocution, you could be killed or seriously injured. Make sure that no one can come into contact, even accidental, with it during use

Install the antenna on adequately sized supports to support its load even in strong wind conditions.

The fall of all or part of it could hit people and / or things with unpredictable damage..



#### In this case the responsibility is to be charged exclusively to the user.

#### This manual is an integral part of the product, keep it carefully.

#### Dear Buyer,

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

The best materials available on the market were used in the construction, processed and finished with the best possible care allowed by the state of the art.

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

In case of doubts or concerns, our technical department will always be available to provide you with all the necessary support.

#### If you are satisfied tell it to others, otherwise ... tell us.

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

Best regards

#### Annamaria Fiume IK7MWR

MADE IN ITALY

WARNING! Defend the environment

Disposal of components and materials The antenna is mainly made of aluminum, in the event of decommissioning, deliver the scrap to a specialized disposal center, in compliance with the requirements of



#### Pro.Sis.Tel. di Fiume Annamaria,

C-da Cacaveccia, 236 70043 Monopoli Ba Italy

(+39) 080 887 66 07 - 0802229889 Email: prosistel@prosistel.it