

VINNANT-ANTENA FOR FM BROADCAST  
TYPE FETRC87-108 N OR SO239 CONNECTOR



**TO BE USED FOR:  
LOW VHF BAND 87-108 MHZ**

# **FM BROADCASTING**

ANTENNA IS TUNABLE BY SLIDING MAIN ELEMENT  
AND  
FINE TUNING BY REPOSITIONING COIL TAP

**TYPE :FETRC87-108**

ANTENNA is using N OR SO 239 CONNECTOR

Technical parameters:

Lenght 230cm antenna with holder @ 87MHZ

Width 150cm

Gain 2.9Dbd

Weight 2kg

pole diameter up to 55mm,MIN 25MM

connector N female OR SO239

swr 1.2:1 or better at CENTER FRQ

usable from 87-108 Mhz

**BANDWIDTH 2 MHZ OF SWR 1.5 OR BETTER**

Antenna impedance 50 Ohm

**POWER HANDLING 800W 100%DUTY**

**POWER HANDLING 1000W 50% DUTY**

radome material:NATURAL AL

INSULATOR MATERIAL:TEFLON

# MANUAL FOR THE ANTENNA:

ANTENNA IS SENT IN A FEW PIECES AND NEEDS TO BE RECONSTRUCTED PRIOR TO THE USE.

IT IS DONE SOLELY FOR THE PURPOSE OF THE SHIPPING AND REDUCING SHIPPING COST GREATLY.

## **PLEASE UNPACK FROM FOIL AND LOCATE THE ANTENNA PARTS:**

- MAIN ANTENNA WITH HOLDER
- MIDDLE ELEMENT EQUIPED WITH HOSE CLAMP WITH TOP ELEMENT SLIDED INSIDE  
OR SEPARATE MIDDLE AND TOP ELEMENTS
- 4 RADIALS WITH LONG TREAD
- 4 M8 SPRING WASHERS IN A SMALL BAG /NOT PRESENT IN SOME MODELS/  
-TUNING ALLEN KEY SIZE 2,5 /NOT PRESENT IN SOME MODELS/

## **STEP 1:**

RECONSTRUCT THE ANTENNA RADIATOR.SLIDE TOP THINNEST ELEMENT WITH SCALE MARKED INTO THE MIDDLE PART IF NOT DONE ALREADY .  
SLIDE THE RECONSTRUCTED MIDDLE AND TOP ELEMENT INTO THE ANTENNA ,THE ELEMENT WILL GO INSIDE ONLY 9CM ,TIGHT THE HOSE CLAMP ON THE MAIN BODY OF THE ANTENNA TIGHT AS TUNING WILL BE DONE BY TOP ELEMENT ONLY AND COIL TAP IF REQUIRED.KNOWING YOUR FREQUENCY,PLEASE ALLING THE TOP ELEMENT WITH MIDDLE ELEMENT ACCORDING THE SCALE PRESENT ON TOP PART OF THE ANTENNA.THE SCALE ON THE ANTENNA IS APPROXIMATE,HOWEVER IT IS SUFFICIENT FOR TUNING IN MOST CASES.

## **STEP 2:**

INSTALL THE ANTENNA WITH RECONSTRUCED RADIATOR ONTO THE MAST.YOU MIGHT USE THE SELF AMALGAMATING TAPE TO SECURE THE RADIATOR JOINTS BUT THAT IS NOT MUST, IF YOU CHOOSE TO NOT TO.ANTENNA IS DESIGNED TO DRAIN WATER AWAY TROUGHT THE HOLE IN THE INSULATOR.

INSTALL THE RADIALS WITH SPRING WASHER /IF PRESENT/BETWEEN THE RADIAL COLUMN AND THREAD.MAKE SURE THAT NUT ON THE RADIAL IS NOT IN THE WAY OF SCREWING,BY GETTING THE NUT ON THE VERY END OF THE RADIAL THREAD.PLACE THE RADIAL INTO THE TREAD COLUMN,HAND TIGHT ONLY,THEN COUNTER LOCK THE SCREW ABOUT ½ TURN MAX AGAINS COLUMN BY USING SPANNER NO.13,

## **STEP3:**

CONNECT THE CONNECTOR TO THE ANTENNA.IN CASE OF N CONNECTOR THAT IS SELF SEALING ,YOU DONT NEED TO TAKE EXTRA STEPS TO ENSURE THE MOISTRURE TO STAY AWAY FROM JOINT.HOWEVER,IN CASE OF SO239 SEALING WITH SILICONE ONCE FIRMLY IN PLACE IS RECOMMENDED.THE SELF AMALAGAMATING TAPE MAY HELP TOO BUT USUALY THE GIVEN SPACE BETWEEN THE ANTENNA BODY AND

CONNECTOR PREVENT IT FROM PROPERLY SEALING. SIMPLY GET SILICONE ON THE FINGER, WIPE IT AROUND THE CONNECTOR JOINT REPEATEDLY UNTIL THE JOINT IS ALL SECURED.

**FINE TUNING OF THE COIL TAP:**

NORMALLY ANTENNA IS PREPARED. IF HOWEVER, TUNING HAS NOT REVEALED THE PERFECT SWR YOU MAY FINE TUNE THE COIL TAP AND ESPECIALLY IF THE CENTER FREQUENCY SWR HOLDS SWR IN RANGE OF 1.2-1.3. RETAPPING THE COIL, SWR 1.1—1.0 CAN BE ACHIEVED.

LOOKING AT THE ANTENNA COIL, THE MIDDLE OF IT, RETAP THE COIL IN SMALL STEPS FROM DEFAULT POSITION/PLEASE REMEMBER THAT OR BETTER YET MARK WITH MARKER/

USE ENCLOSED ALLEN KEY 2.5 /IF PRESENT/FOR TUNING PURPOSES, FINE TUNE UNTIL THE SWR REACHED DESIRED VALUE, MOVE 5MM AT EACH TIME AND FIND THE WAY/LEFT OR RIGHT/THAT WORKS FOR YOU. THE LENGTH OF OVERALL RADIATOR MAY BE ALTERED SO FIND THE RIGHT BALANCE.



