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VNWA 2.x Replacement Procedure of 12 MHz Xtal by 36 MHz Xtal
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Introduction: A 10ppm 36 MHz Crystal is available to replace the 12 MHz Xtal (used as 3rd overtone) on the VNWA2,x Printed Circuit Board.

Caution: Some previous Electronic assembly and soldering skills are required to execute this procedure.
Do NOT carry out this procedure if you are in doubt or if you are not confident.

Tools needed: Soldering Iron - Heatgun - cross head screwdriver - maginifying glass - solder braid - small tweezers

- Inspect VNWA enclosure - note position where any washers have been used between cover and chassis for cosmetic reasons
- Remove 6 black screws and remove VNWA top Cover.
- Locate X1 12.0 MHz Crystal
- Remove Crystal X1 - This is easiest done by an experienced repair technician using a heatgun -
- Alternatively use Soldering Iron, remove excess solder using solder barid. then reflow the solder and gently lift Xtal at one end. Then heat 2nd joint and remove Xtal from the board.
- Place 36 MHz Xtal in position and solder both joints
- Connect VNWA to USB Bus and start VNWA.exe Application
- Select "Options" "Setup" and "Instrument Settings" and change Clock = 36.0000 MHz (you may perform optional DDS Calibration as described in the VNWA Helpfile)
- Next select Audio Test levels and check for normal operation
- If all is functioning fit top cover including any washers used

Note: With 36 MHz Xtal fitted about 2V pkpk should be measured using a :10 Oscilloscope probe connected to the right hand joint of X1 when faced from the front.

Good Luck

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