

NS100 ALIGNMENT AND ADJUSTMENT METHOD

Required Test Equipment :

- Regulated DC power supply, 15V,10A
- Audio signal generator,10Hz~3kHz
- Digital multi-meter
- Deviation meter
- Frequency counter,0~500MHz high impedance
- Oscilloscope
- RF power meter, $\geq 30W$
- High frequency standard generator,>500MHz
- Distortion analyzer
- Audio level meter
- Alignment drivers, etc.
- Or a radio communication test set
Ex. HP8920

Step-1 Alignment of VCO

Channel	TP	Alignment	Specification
CH16	TP3	TX : L15	TX : 2.0V +/-0.1V
CH16	TP3	RX : L12	RX : 2.0V +/- 0.1V

Step-2 Alignment of TX Frequency

Channel	TP	Alignment	Specification
CH16	N/A	CV2	156.800MHz +/- 50Hz

Step-3 Alignment of TX Power @HI

Channel	TP	Alignment	Specification
CH16	N/A	BY PC	23W +/- 1W

* Exclusive “PC Editor Software” is used for adjustment of TX Power.
Instruction of PC EDITOR is mentioned in appendix-A.

Step-4 Alignment of TX Power @LO

Channel	TP	Alignment	Specification
CH16	N/A	BY PC	0.8W +/- 0.1W

* Exclusive “PC Editor Software” is used for adjustment of TX Power.
Instruction of PC EDITOR is mentioned in appendix-A.

Step-5 Alignment of Modulation Limiting.

Channel	TP	Alignment	Specification
CH16	N/A	BY PC	4.6KHz +/- 0.1KHz

* Exclusive “PC Editor Software” is used for adjustment of Modulation Limiting.
Instruction of PC EDITOR is mentioned in appendix-A.

Step-6 Alignment of FSK Modulation

Channel	TP	Alignment	Specification
CH70	N/A	BY PC	Y-State : 2.6KHz +/- 0.1KHz B-State : 4.2KHz +/- 10%

Step-7 Confirmation of RX sensitivity.

Channel	TP	Alignment	Specification
CH16	N/A	N/A	-5dBuV/emf

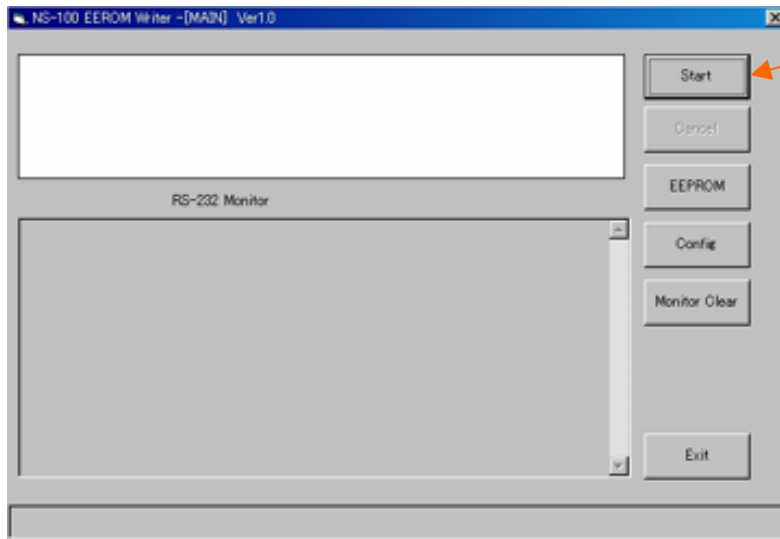
Step-8 Alignment of WX Alert Detecting.

Channel	TP	Alignment	Specification
WX 1	TP WX	VR301	2100Hz +/-10Hz

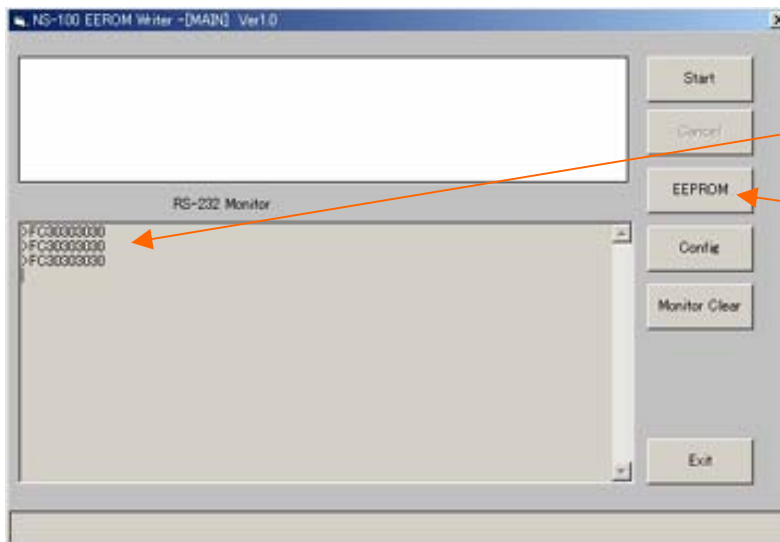
Appendix Instruction of PC Editor for NS100

1. Connect the Editor Cable to Radio.
2. Start the Editing Software in the PC.

Stat up Screen

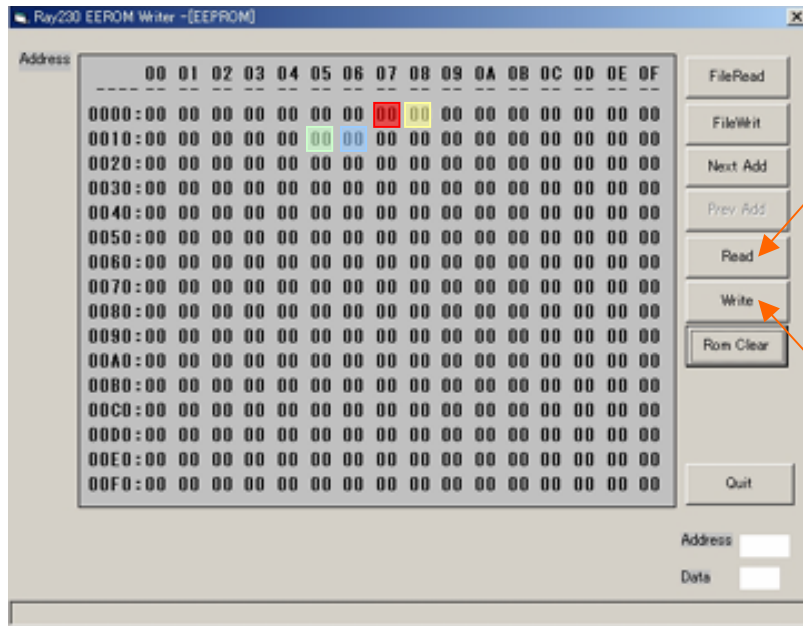


Step-1 Click "Start"



Step-2 Turn the Radio on.
Three sequences appears in a monitoring screen.

Step-3 Click "EEPROM"



Step-4 Click “Read” to upload the data to PC from Radio.

Step-5 Edit the data to align.

Address for TX Power HI : “0007” highlighted in RED.

Address for TX Power LO : “0008” highlighted in YELLOW.

Address for Mod Limiting : “0015” highlighted in GREEN.

Address for FSK Modulation : “0016” highlighted in BLUE

Step-6 Click “Write” to download the data from PC to Radio.

Step-7 Click “Quit” to return the stat up screen.

3. Disconnect the Editor Cable from Radio.

4. Confirm each item that is changed by Editor.