Technote # 119

Rev. 2/2/2022

The Amplifier Keying Line and SWR Protection

Rev.1

BRIEF:

The WN-2 and WN-2d Wattmeter models have an SWR protection relay that is energized when the SWR has exceeded a user-determined level. This is typically SWR = 3:1. This is done to protect the amplifier from the excess power dissipation due to high SWR.

DETAILS:

The Normally-closed contacts of the Wavenode SWR protection relay need to be inserted in-line with the amplifier keying line. This is done on the white 3-pin connector on the wattmeter rear panel.

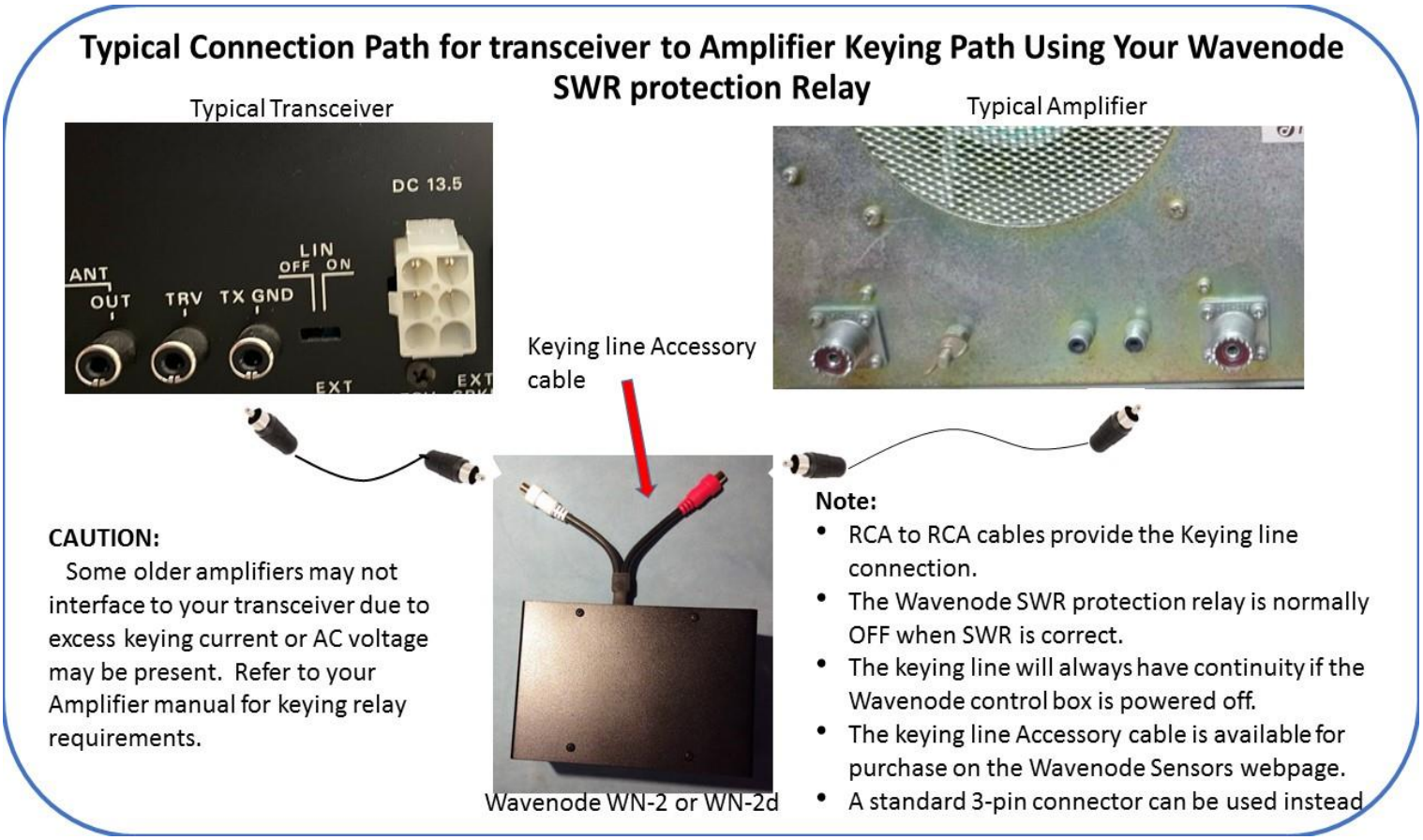


Figure #1

The figure above shows the Wavenode keying accessory cable, but you can make your own keying cable with a simple 3-pin connector to interface to the 3-pin connector on the rear panel of your Model WN-2 or WN-2d. Pins 1 and 3 should be used since these are the normally-closed relay contacts on J2 connector. This is shown in the below figure #2

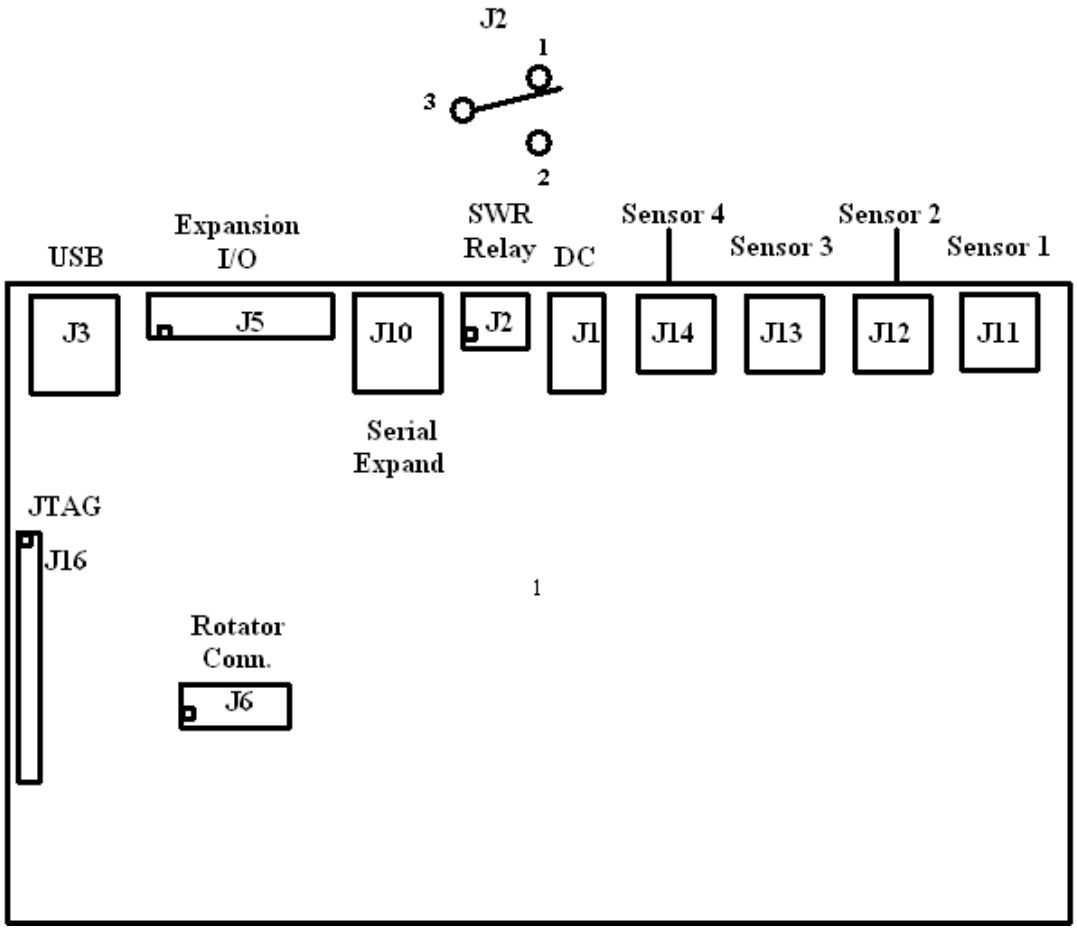
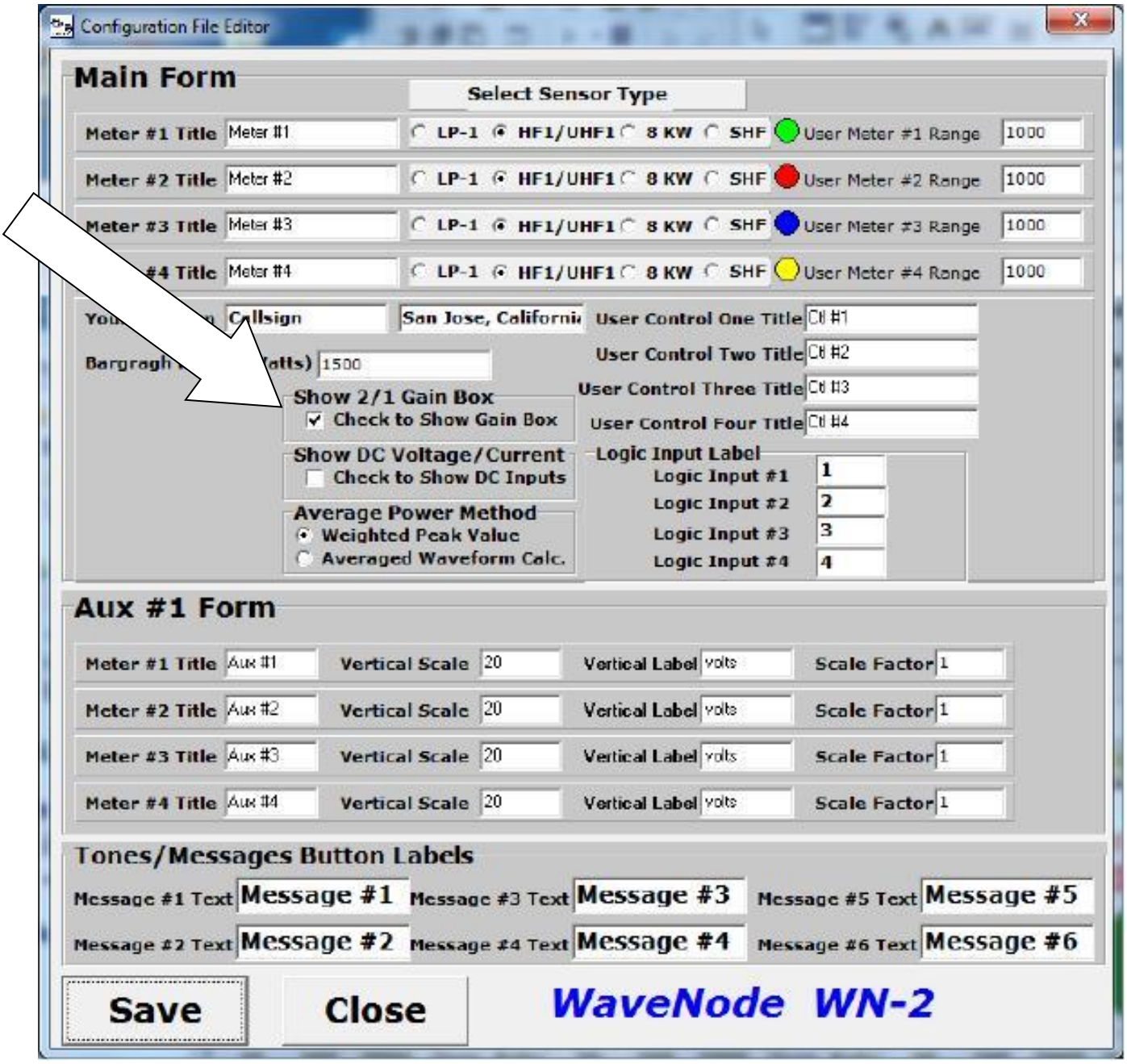


Figure #2

The two outer pins on the connector are pins #1 and 3. Wire these to the center conductor of the keying cable and wire the two shields together. The Wavenode keying cable accessory does not connect the shield ground to the Wavenode enclosure ground. This prevents DC currents of external equipment to find a path through the wattmeter case.


Configuration File Editor
Main Form
Select Sensor Type
Meter #1 Title
Meter #1
LP-1
HF1/UHF1
8 KW
SHF
User Meter #1 Range
1000
Meter #2 Title
Meter #2
User Meter #2 Range
1000
Meter #3 Title
Meter #3
User Meter #3 Range
1000
#4 Title
Meter #4
User Meter #4 Range
1000
Callsign
San Jose, Californi
User Control One Title
Ctl #1
User Control Two Title
Ctl #2
User Control Three Title
Ctl #3
User Control Four Title
Ctl #4
1500
Show 2/1 Gain Box
Check to Show Gain Box
Show DC Voltage/Current
Check to Show DC Inputs
Average Power Method
Weighted Peak Value
Averaged Waveform Calc.
Logic Input Label
Logic Input #1
1
Logic Input #2
2
Logic Input #3
3
Logic Input #4
4
Aux #1 Form
Meter #1 Title
Aux #1
Vertical Scale
20
Vertical Label
volts
Scale Factor
1
Meter #2 Title
Aux #2
Meter #3 Title
Aux #3
Meter #4 Title
Aux #4
Tones/Messages Button Labels
Message #1 Text
Message #1
Message #3 Text
Message #3
Message #5 Text
Message #5
Message #2 Text
Message #2
Message #4 Text
Message #4
Message #6 Text
Message #6
Save
Close
WaveNode WN-2