

Icom IC-718 Tuner Accessory

This article is about using a tuner accessory device with the Icom iC-718 transceiver.

The circuit was obtained elsewhere; here are my observations on making and installing the tuner accessory to be used with the 718.

The tuner accessory plugs into the rear panel socket of the 718 transceiver, Tuner Control Socket (Tuner), this socket is used to take the Icom AH-4 automatic antenna tuner.

To use the tuner accessory with the 718, the operator has to go into the menu and turn on the automatic tuner setting. (see Page 2) Setting up the Icom menu for the tuner accessory.

When tuner accessory is installed, push (press) the button and the transceiver output changes to a steady carrier at say 10 watts to allow the ATU to be adjusted, release the button and the transceiver returns to the previous mode and power.

I use a manual antenna tuning unit (ATU) to match my doublet antenna. When changing bands the ATU has to be adjusted to match the antenna impedance to the 718.

On a quiet part of the band I want to use, adjust my ATU to the antenna tuner settings for the band, select mode as cw, reduce the output power to 5-10 watts, press (in my case) the cw keyer tune button to transmit a steady low power (5-10 watts) carrier, adjust (fine-tune) the ATU tuning controls for minimum reflected swr, stop transmitting, increase the transceiver power to the operating level and if using SSB switch back to that mode.

When using the tuner accessory, I leave the mode and power settings at those I usually use and select the band, adjust the ATU tuner to settings for the band being used, press the tuner accessory push button and fine-tune the ATU tuning controls for minimum reflected swr, release the tuner push button, the mode and power have returned to their previous settings.

For Icom transceivers there are a few different tuner devices to choose from, I looked for a tuner circuit which had an external push button, uses components that I could find locally and the tuner circuit mentioned being used with the IC-718

After the tuner accessory has been installed, pressing the tuner button will automatically:

Switch your rig to cw mode.

Change the power output to 10 watts.

Transmit a cw carrier while tuning.

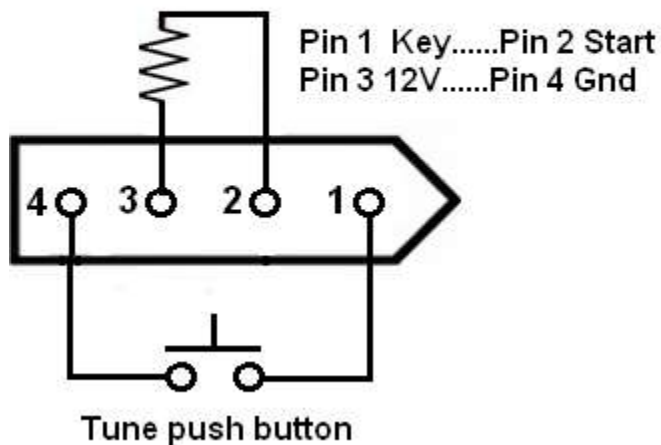
Push button switched off (released), the 718 returns to the previous mode and power settings

Switch On = 10 watts cw carrier and Switch Off = previous power / mode

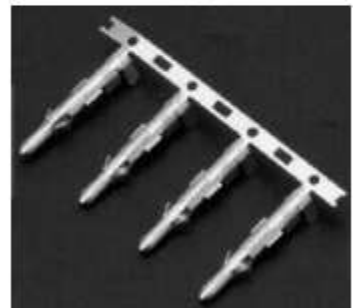
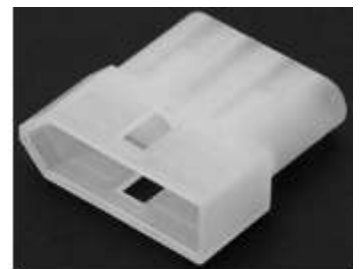
The tuner accessory circuit uses 1 Molex plug, 1 resistor and 1 push button: The circuit mentions using between 10kΩ to 20kΩ ohm 1/4 watt resistor, I had a 15kΩ 1/4 watt resistor available so used that value.



10k ohm to 20k ohm 1/4 watt resistor



Tuner Control Socket
(rear of the 718)



Molex Plug



Momentary push button
switch (normally open)

Test 1: With a dummy load connected, I put the IC-718 on the 20 meter band, mode cw, the IC-718 RF power set to 70, with cw keyer tune button pressed down, the IC-718 relative RF output power indication showed 50, released the keyer button. Switched Off the transceiver.

Setting up the Icom menu for the tuner accessory:

Switch On the IC-718 by pressing both the power and set buttons at the same time, (Icom IC-718 Manual Initial set mode operation page 41), using the Memory Channel (Band) up and down switches (page 3) stopping at Tuner Type (Page 46) rotate the main dial to 4 (The optional AH-4 antenna tuner is connected). Switch Off the IC-718.

Test 2 : With the dummy load connected, inserted the tuner accessory into the tuner control socket and switched on the 718, for this test the 718 on the 20 meter band, the mode selected to USB and the RF power set to 70.

Pressed the tuner accessory push button, the Icom relative RF power indication showed 12.

This power reduction was confirmed by the power meter in the ATU.

Upon releasing the tuner accessory push button, the transceiver returned to its previous USB mode and RF power setting of 70.

The tuner accessory can now be used. Press down tuner time? as a guide a max 10-15 secs

After first switching on the transceiver, the tune indicator (Icom 718 manual page 5) is not shown, press the tuner accessory button and the flashing tune indicator appears and keeps on flashing until the tuner accessory button is released and will remain visible until the IC-718 is switched Off.

No responsibly can be taken for any errors contained in this article and the use of this information is at your own risk. 73 de John (age 80) GM4DKO / 4F3EW – 8 July 2022