

# T1con Operation manual

## Overview

This is the interface to connect between “Elecraft Antenna Tuner T1” and “ICOM IC-705” for easy operation of turning

## Connection

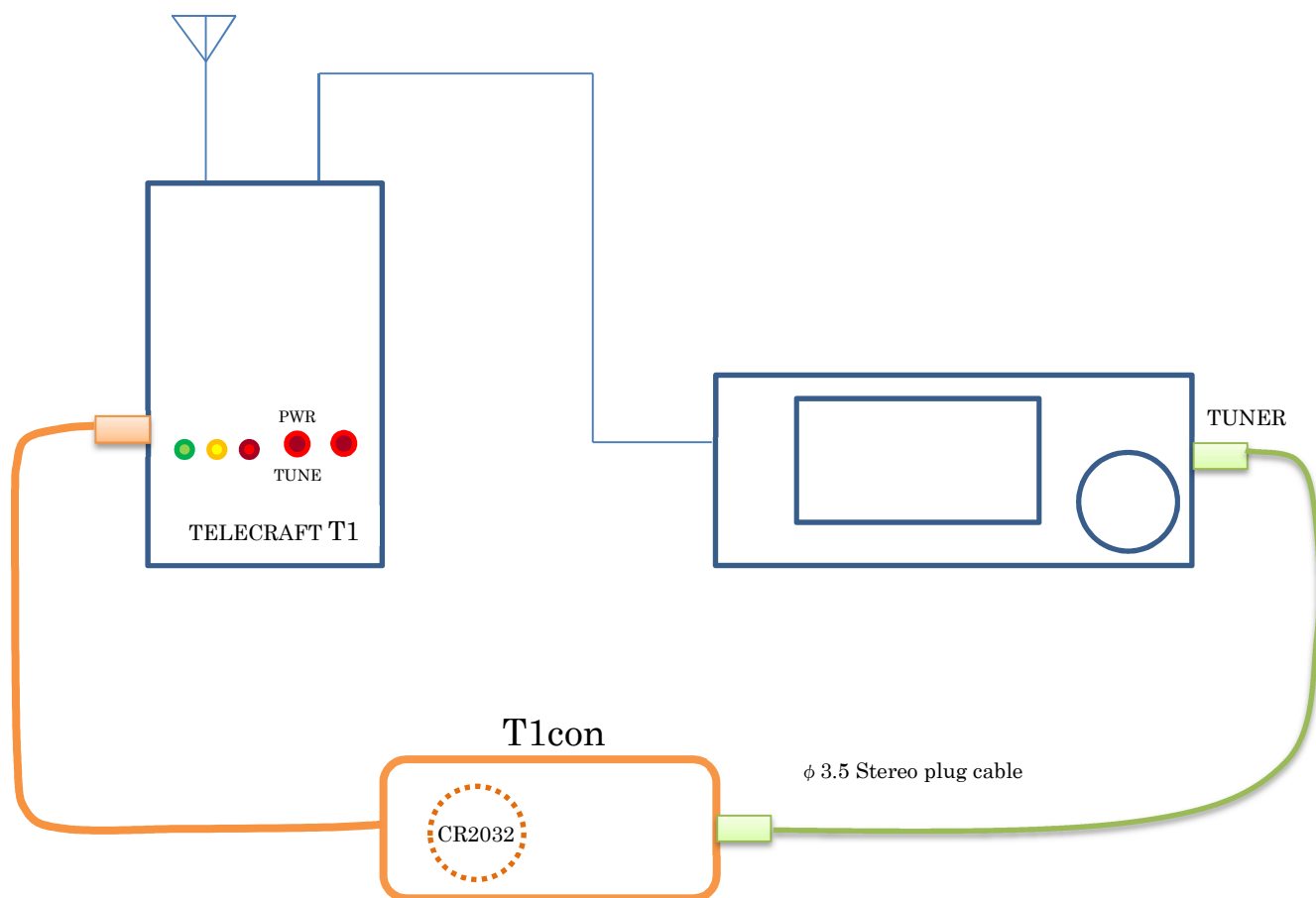


Fig 1. T1con Connection diagram

## Connection procedure

1. Insert CR2032 battery. Make sure to put the positive and negative ends of the batteries in appropriate direction.
2. Confirm IC-705 power is OFF. Then connect cables as Fig 1. (Warning: Never connect cables while IC-705 power ON)
3. Connect Antenna and other cables.
4. Confirm all cables connected properly, the IC-705 power ON.

## Operation procedure

- Operate from IC-705  
Refer ANTENNA TUNER OPERATION in IC-705 BASIC manual.
- Operate from T1  
Push TUNE button approx. 1sec. Once Green LED turns ON, release the button.

IC-705 starts to transmit tone signal, and T1 starts to TUNE in both cases. Once T1 complete turning cycle, IC-705 stops to transmit tone signal automatically.

## Termination procedure

1. [IMPORTANT] At first turn off IC-705 power switch.  
Current consumption of T1con will down to 3 micro amperes.  
T1 indicator may blink as below.
  - (1) When T1com interface battery voltage is less than 2.6V:  
Yellow LED will blink several times.
  - (2) When T1com interface battery voltage is higher than 2.6V:  
It depends on T1con's mode.
    - Battery voltage notification mode: Green LED will blink
    - No battery voltage notification mode: LED blinks.This mode can be switch by the method
2. Disconnect T1con and T1, IC-705. Once all cable is disconnected, current consumption of T1con will down to nearly equal 0.
3. Disconnect the antenna or other cables.

## Battery voltage notification mode

It can be changed that Battery voltage notification mode by below procedures. There are 2 methods to change it.

- Disconnect T1con battery once, then insert it again.  
(Disconnect to T1 and IC-705 with this method.)
- Push and hold TUNE button of T1 for more than 15 sec.  
(Connect to T1 and IC-705 as Fig 1. and IC-705 switch is ON)

### Responding to unexpected transmission

In case the connection to T1 or IC-705 incomplete, or any other reason, IC-705 cannot return from TUNE mode and continue transmission.

In that case, please turn off IC-705 immediately.

### Disclaimer of liability

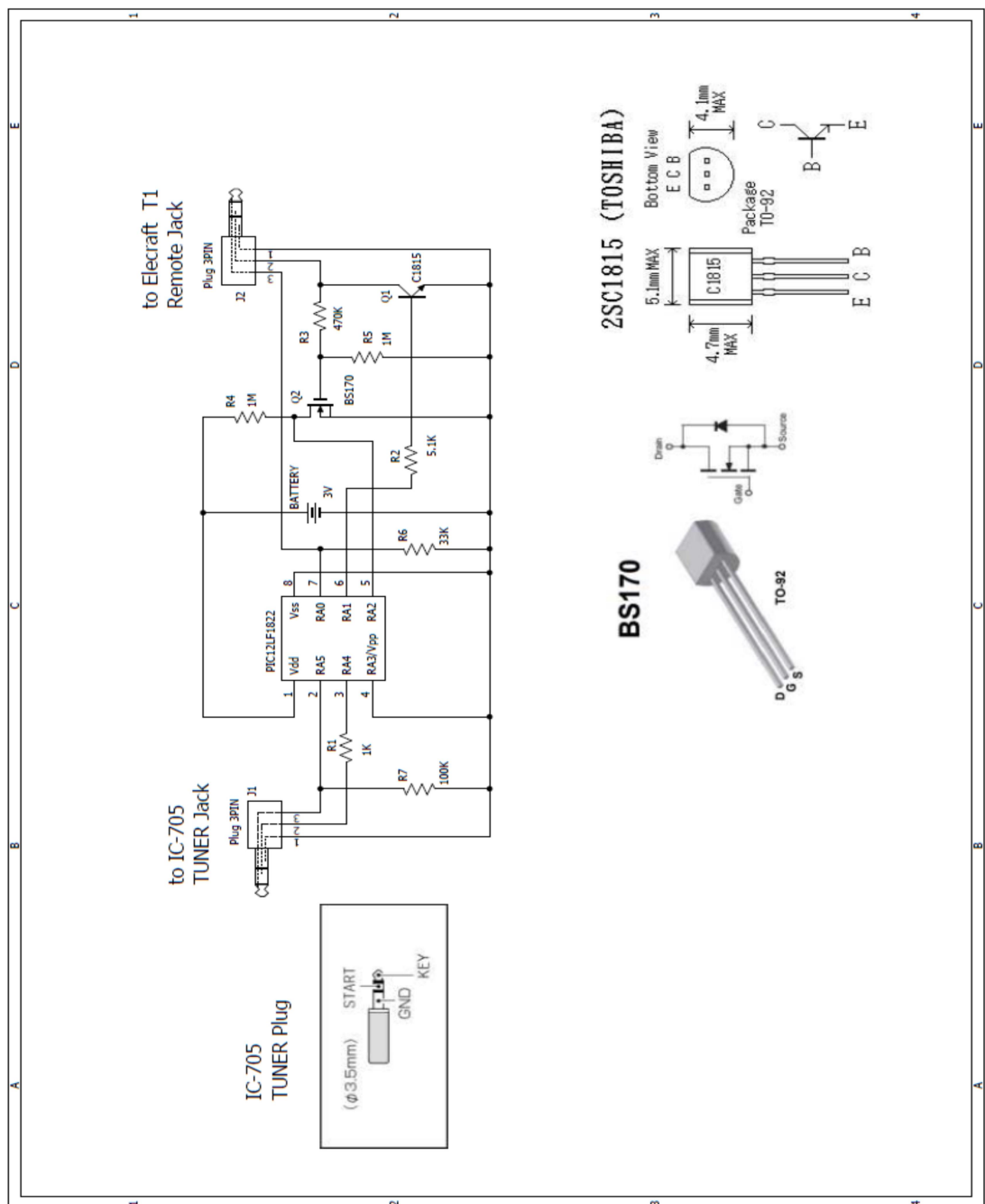
This interface has been tested in multiple situations, but has not been tested in all environments, situations, and combinations, so you may experience abnormal situation.

We cannot compensate for any loss caused by it, so please use it at your own risk.

### Thanks

Stephen Emert (KD4LYO). Without you, I cannot make it.  
I truly appreciate for your help.

# Circuit Diagram



Please refer to the following Blog for the PIC program.

<https://amateur-radio.cocolog-nifty.com/blog/>

Fin.