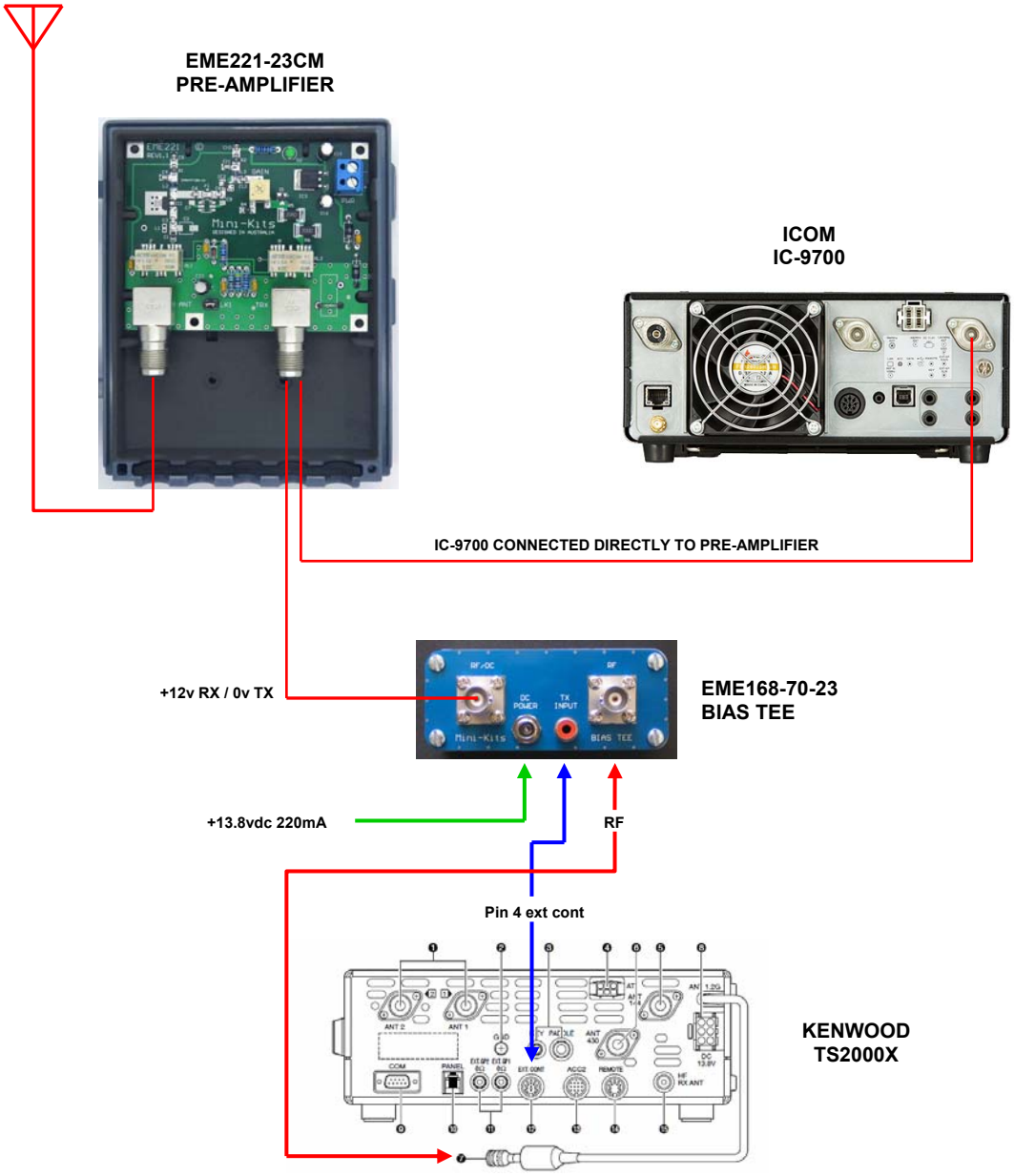
Transceivers including the ICOM IC-1275, IC-910, IC-9100, and IC-9700, all have a pre amp switch with delay sequencing built in, so they are all able to directly power a pre-amplifier through the antennas coaxial cable connection so require no external bias tee.

The application below shows how the EME221-23CM band masthead Pre-amplifier can be used with the Kenwood TS2000X, and is similar for many other transceivers..

Transceivers including the TS2000X do not have the ability to feed power out of the antenna socket to power a masthead pre-amplifier, so a suitable low loss bias tee is required. The EME168-70-23 bias tee was designed for low RF loss, and can be easily connected to the TS2000X EXT CONT Pin 4 on the rear of the transceiver for control of the bias tee. This output has an open collector transistor that is only able to sink very low current, so some caution is required to not destroy the transistor. The PTT1 connection on the bias tee board when grounded disconnects the power to the pre-amplifier via the coaxial cable, so this should be connected to the RCA connector when using it with the TS2000X. The RF sensing circuit on the EME221-23CM board should be used as protection when external high power RF amplifiers and a sequencer is not used.

For a 70cm pre-amplifier application, use Pin 1 on the EXT CONT connector of the TS2000X, and for 2M pre-amplifiers Pin 6 is used.