The application below shows how the EME220-6M band masthead Pre-amplifier can be used with the Kenwood TS2000, and is similar for many other transceivers. Due to the high noise floor on the 6m band, a Pre-amplifier may make little or no difference when used on modern Transceivers that have the 6m band. Many modern Transceivers already have a second pre-amplifier that can be switched on, and have a noise figure well under the typical noise floor measured on the band. Unless you are in a low noise rural location, have the Pre-amplifier mounted at the Antenna to overcome coaxial cable losses, then it is doubtful that you would achieve any receive performance increase that would be worth the effort.

The TS2000 does not have the ability to feed DC power out of the antenna socket to power a masthead pre-amplifier, so either a suitable low loss bias tee, or some way of directly connecting to the preamplifier board is required. The simplest way is to connect Pin 2 on the 13 pin DIN connector to the junction of R6 and R9 on the preamplifier board. The output on Pin 2 of the TS2000 has an open collector transistor that is only able to sink very low current, so some caution is required to not destroy the transistor. Connecting it this way will require twin shielded cable to be connected between the Transceiver and the preamplifier board to power and switch it. Alternatively if you want to power and switch the preamplifier via the coaxial cable, then the EME168-6-2 bias tee can be used. The PTT1 connection on the bias tee board when grounded by Pin 2 on the TS2000, 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 TS2000. The RF sensing circuit on the EME220-6M board should always be used as extra protection in case the PTT connection from the Transceiver is unconnected.

