

# *INSTRUCTION SHEET*

(Bias-T)

## *CAUTION*

*Make all coax connections first before applying power to the Injector. This will prevent the DC voltage on the coax center conductor, from accidentally coming in contact with ground.*

The Tactical Radio Gear, (Bias-T) system, permits the insertion & extraction of a DC voltage, up to 1.5A @ 36v amps on coax. Inserting the control voltage on the coax cable, eliminates the requirement for external wires for powering and controlling remote devices, such as Mast Head pre-amps, Band Pass filters, remote antenna switching, ET AL.

The design has been optimized to cover 1.8MHz to 54MHz frequency range, with the lowest possible loss. The Injector incorporates both *fuse protection and reverse polarity*, to safeguard the system. For frequencies above 54MHz use our VHF Bias-T product.

The Bias-T (*Injector*) unit will reside indoors, for inserting DC on the coax feed-line; while the (*Extractor*) is placed at the remote device/Mast Head, where the DC voltage is extracted.

The unit must be protected against weather, e.g. Wrapped in Saran wrap®, a plastic bag and/or sprayed with a protective clear enamel/lacquer coating. Many products are available for this application. ACE Hardware!

The coax connections will need to have proactive measures: DXE-33PLUS - Scotch® Super 33+. Highly conformable super stretchy tape for all weather applications. This tape provides flexibility and easy handling for all around performance. It also combines PVC backing with excellent electrical insulating properties to provide primary electrical insulation for splices up to 600V and protective jacketing.

## *(Bias-T) SPECIFICATIONS*

Frequency Range: 1.8 MHz – 54MHz

SWR: <1.01:1 across the full frequency range

RF Power Handling: >1KW @ 30MHz

DC voltage limit: 36 V DC.

DC current capability: 1.5A.

DC Interface: (Injector) 2.1 mm jack

DC Interface: (Extractor) Feed thru Capacitor or 2.1mm jack.

RF Interfaces: SO-239 connectors (RF, RF+DC) Optional 'N' connectors available.

Dimensions: H1.0" x W1.0" x L2.0" Length does not include the RF connectors.

A high quality extruded aluminum case with N-type connectors are used in the design for both the Injector and Extractor. A DC 2.1mm power cable for the Injector and extractor is provided.

