

**THREE YEAR LIMITED WARRANTY**

R.L. DRAKE COMPANY warrants to the original purchaser this product shall be free from defects in material or workmanship for three (3) years from the date of original purchase.

During the warranty period the R.L. DRAKE COMPANY or an authorized Drake service facility will provide, free of charge, both parts and labor necessary to correct defects in material and workmanship. At its option, R.L. DRAKE COMPANY may replace a defective unit.

To obtain such warranty service, the original purchaser must:

- (1) Retain invoice or original proof of purchase to establish the start of the warranty period.
  - (2) Notify the R.L. DRAKE COMPANY or the nearest authorized service facility, as soon as possible after discovery of a possible defect, of:
    - (a) the model and serial number,
    - (b) the identity of the seller and the approximate date of purchase; and
    - (c) A detailed description of the problem, including details on the electrical connection to associated equipment and the list of such equipment.
  - (3) Deliver the product to the R.L. DRAKE COMPANY or the nearest authorized service facility, or ship the same in its original container or equivalent, fully insured and shipping charges prepaid.
- Correct maintenance, repair, and use are necessary to obtain proper performance from this product. Therefore carefully read the Instruction Manual. This warranty does not apply to any defect that R.L. DRAKE COMPANY determines is due to:
- (1) Improper maintenance or repair, including the installation of parts or accessories that do not conform to the quality and specifications of the original parts.
  - (2) Misuse, abuse, neglect or improper installation.
  - (3) Accidental or intentional damage.

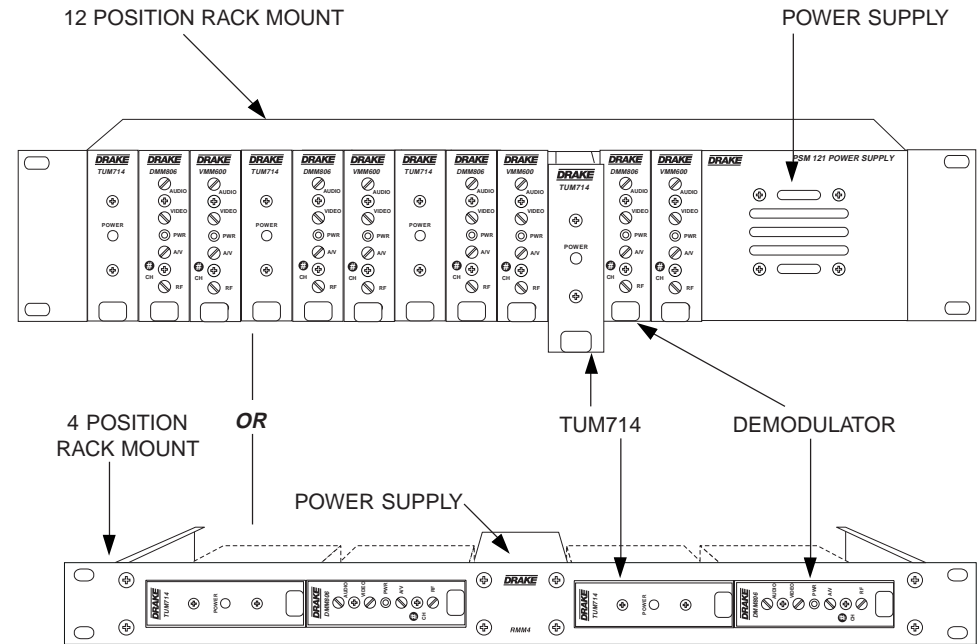
All implied warranties, if any, including warranties of merchantability and fitness for a particular purpose, terminate three (3) years from the date of the original purchase.

The foregoing constitutes R.L. DRAKE COMPANY'S entire obligation with respect to this product, and the original purchaser shall have no other remedy and no claim for incidental or consequential damages, losses or expenses. Some states do not allow limitations on how long an implied warranty lasts or do not allow the exclusions or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. This warranty shall be construed under the laws of Ohio.



**R.L. DRAKE COMPANY**  
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**TELEFAX:** +1 (937) 743-4576  
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**DESCRIPTION**

The R.L. Drake model TUM714 is a "T" channel block up-converter packaged in a one unit wide mini-rack package. This unit is compatible with the Drake 12 position and 4 position rack mounting frames for use in a 19" wide rack. There are twelve one unit wide slots, in addition to space for the power supply (in the 12 position rack unit).

The up-converter accepts inputs in the "T" channel range of 5 through 54 MHz and up-converts an input signal to an output that is 168.25 MHz higher in frequency than the input. Thus, "T" channels T7 through T14 are converted to outputs at standard EIA CATV channels 7 through 13 and channel 23.

Typically, the TUM714 will be used in conjunction with a demodulator to derive NTSC video and audio from a "T" channel signal. The maximum input signal level that can be accepted by the TUM714 without significant distortion is +30 dBmV. The TUM714 has approximately unity gain. The unit may also be used to translate digital QPSK, QAM, or USB signals as well as analog NTSC signals.



® is a registered trademark of the R.L. Drake Company

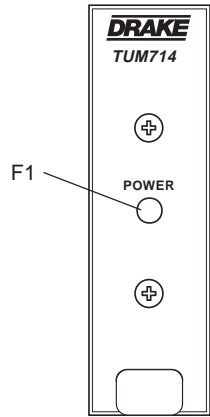


Figure 1

**F1 - POWER Indicator**

Lights when the unit is connected to the required source of DC power via the rear panel DC INPUT connector.

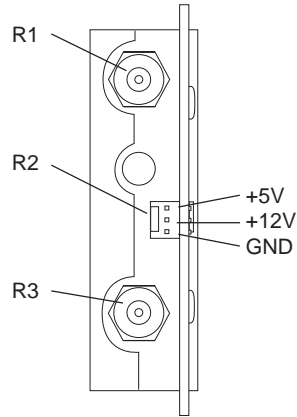


Figure 2

**R1 - RF OUTPUT Connector**

This is the RF output to a demodulator.

**R2 - DC INPUT Connector**

This 3-pin connector (Male) accepts the appropriate mating DC power cable. Observe proper orientation and wiring.

**R3 - RF INPUT Connector**

This is the RF input and accepts inputs from 5 to 54 MHz.

**INSTALLATION**

Mount the TUM714 in the 12 position rack frame. Connect a power cable from the power supply to the power connector on the TUM714. Connect the "T" channel input as indicated in Figure 3.

Connect the output from the TUM714 to the demodulator input or to other desired equipment.

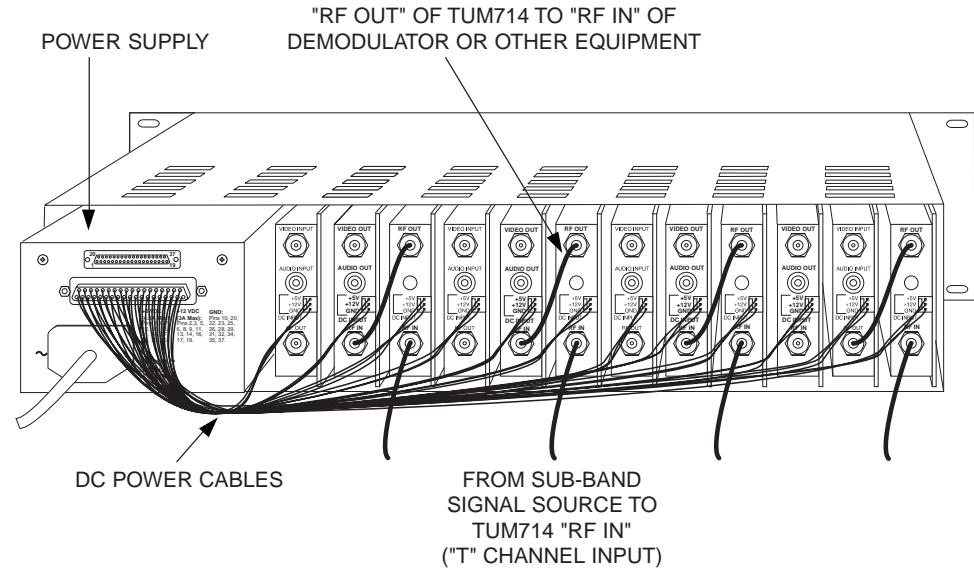


Figure 3

**SPECIFICATIONS**

- Input Frequency Range: 5 MHz to 54 MHz.
- Input Impedance: 75 Ohms, return loss >14 dB.
- Output Frequency Range: 173 MHz to 223 MHz.
- Output Impedance: 75 Ohms, return loss >14 dB.
- Gain: 0 dB, ±2 dB.
- Noise Figure: <10 dB.
- L.O. Frequency: 168.25 MHz, ±2 kHz.
- Input Level: +30 dBmV maximum for -60 dB harmonics and intermods.
- Third Order Input Intercept Point: >+60 dBmV.
- Power Requirement (from PSM121): +12 V @ 75 mA. +5 V @ 10 mA.
- Operating Temperature Range: 0° to +50° C, ambient.
- Size: 1" W x 3.5" H x 8.75" D. (2.5 cm) W x (8.9 cm) H x (22.2 cm) D.
- Weight 10.2 oz. (0.3 Kg).