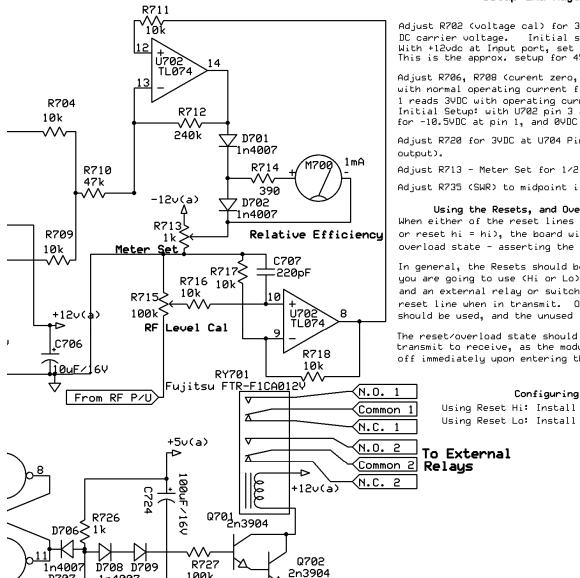
## Efficiency Meter Board



Setup and Adjustments

Adjust R702 (voltage cal) for 3 YDC at U702 pin 7 with DC carrier voltage. Initial setup as follows: With +12vdc at Input port, set R702 for .8YDC at U702 Pin 7. This is the approx. setup for 45V Carrier (45V = 3V)

Adjust R706, R708 (curent zero, current gain) such that, with normal operating current flowing from modulator, U702 pin 1 reads 3YDC with operating current and 0YDC with no current. Initial Setup: with U702 pin 3 at ground (0Y), set R706 & R708 for -10.5YDC at pin 1, and 0YDC when pin 3 is not at ground.

Adjust R720 for 3YDC at U704 Pin 11 in standby (no modulator

Adjust R713 - Meter Set for 1/2 scale, xmtr in standby Adjust R735 (SWR) to midpoint if SWR is not used.

Using the Resets, and Overload Hi and Lo outputs When either of the reset lines are asserted (reset low = low or reset hi = hi), the board will reset and also enter the overload state - asserting the Overload Lo and Hi outputs.

In general, the Resets should be configured so the reset line you are going to use (Hi or Lo) is asserted (board in reset), and an external relay or switch is then used to un-assert the reset line when in transmit. Only one reset line should be used, and the unused line should be de-asserted.

The reset/overload state should be used when going from transmit to receive, as the modulator output will be turned off immediately upon entering the reset/overload state.

## Configuring the Resets

Using Reset Hi: Install R736, R739 - low (0Y) to xmit Using Reset Lo: Install R737, R738 - high (+5) to xmit

100k D707 1n4007 Overload Lo. +5v(a)R728 Outputs - Use only ONE, not both 10k Q703 2n3906 D711 D712 Overload Hi. 1n4007 ŚR729 1 k

Important: Observe polarity of small signal transistors Q701, 702, Q703, Q704, Q705, etc. Tab is emitter, (E-B-C). Some transistors may not line up with the board hole pattern or device layout. Transistor may need to be installed "backwards". Make sure the transistors are installed properly !!!

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Detect - Board

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