

M104 MODULE CHECK OUT

Set TEST selector to M104 position 1. Scope vertical sensitivity to 20MV/DIV - 0V to top scope graticule line.

Plug in M104 to be tested (M107 socket must be empty).

Check sweep sampler leveler: Adjust level control R 2 through its entire range and observe scope pattern. It should adjust from less than 10MV to 120 +20MV.

Check meter circuit: Set VERNIER maximum clockwise and adjust meter cal R 20 to produce an OUTPUT meter reading of exactly +3dBm. Set VERNIER maximum counter clockwise. Meter pointer must be superimposed over some portion of ~~dot~~ dot.

Black
Check A.M. Circuit: Set VERNIER to read -4dBm on OUTPUT meter. Turn TEST selector to 2 and 3. Meter must read 2d in both positions. Turn TEST selector to 4 and 5. Meter must read -10dBm in both positions.

Check Output Leveler: Set TEST selector to 6, VERNIER fully clockwise. Adjust level MAX R 3/107 to produce a scope pattern amplitude of 120MV (this is actually an RF output of +13dBm - 1.2VDC but a built in divide^{xy}10 converts it to 20 MV to eliminate the need to change the scope vertical sensitivity).

Set the TEST selector to 7, VERNIER fully counter clockwise. Adjust the LEVEL MIN R 33 to produce a scope pattern with an amplitude of ~~40~~ 40MV (the 40MV represents an RF output of -7dBm, 20dB below +13 dBm, the divide^{xy}10 pad is removed in position 7 of the TEST selector).

Repeat the above two steps until both the 120MV and ⁷⁶40MV readings are obtained.

Next check the adjustments range of the LEVEL MIN and MAX controls. Set the TEST selector to 6, VERNIER clockwise and check the adjustment range of the LEVEL MAX R 31 control. It should vary from 80 to 150 +20MV. Reset to 120MV. Set the TEST selector to 7, VERNIER counter clockwise and check the adjustment range of the LEVEL MIN control. It should vary from less than 10MV to 150MV +20MV. Reset to ~~40~~ 40MV.

ST

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Check Unlevel Indicator: Set TEST selector to 8, rotate VERNIER clockwise until unlevel light luminants. The scope pattern should have an amplitude of 120 MV +10MV (this is actually a leveler output of +10 +1 volt). A built in polarity inverter and pad eliminates the need to change the scope vertical gain and position controls.

Set the TEST selector to 9, rotate VERNIER counter clockwise until UNLEVEL indicator luminants. The scope pattern should have an amplitude of 120MV +20MV (this is a leveler output of -1.2V, a built in divide ^{BY} 10 pad eliminates the need to change the scope vertical ~~circuits.~~ *SENSITIVITY*)

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Check B+ and B- Current: Set TEST selector to "I" and read current.

+18 V	_____	+	_____	MA
-18 V	_____	+	_____	MA