

RADIO TEST EQUIPMENT
MICROWAVE TEST SETS
J68392A TRANSMITTER-RECEIVER TEST SET
MAINTENANCE
KS-19978 POWER METER

1. GENERAL

1.01 This Addendum provides methods for calibration of IF and RF Power Heads associated with the KS-19978 Power Meter in the J68392A test set.

1.02 These Power Heads must be recalibrated whenever a *tft* element is replaced or there is other cause to suspect inaccuracy.

1.03 Figures 1 and 2 attached give detailed calibrating procedures for the IF and RF power heads, respectively.

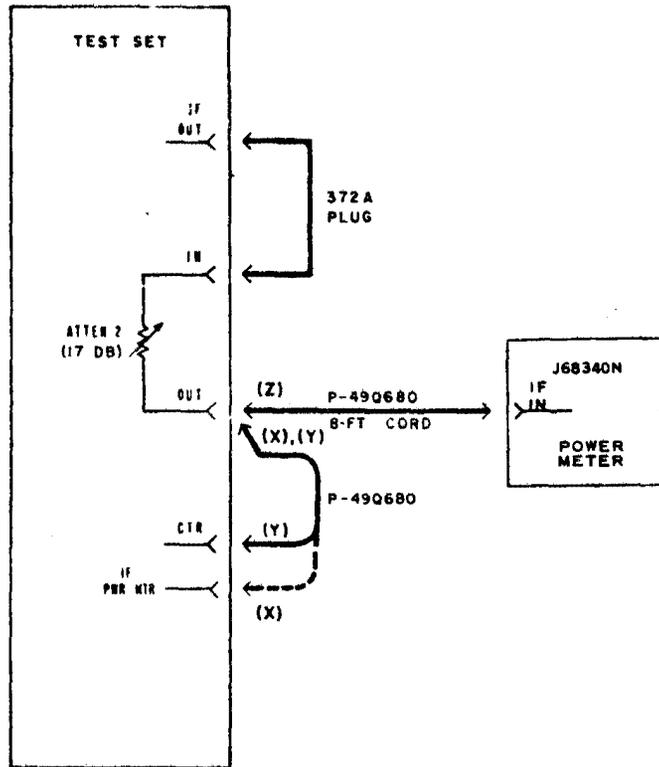


Fig. 1—IF Power Head Calibration

PREPARATION FOR TEST

1. SET ATTEN 2 AS INDICATED.
2. ESTABLISH TEST CONNECTIONS USING OPTION (X).
3. OPERATE THE CONTROLS ON THE TEST SET TO THE FOLLOWING POSITIONS.

| UNIT | CONTROL | POSITION |
|---------------|----------------------------------|----------------|
| CONTROL PANEL | CTR IF SWEEP WIDTH | EXT MAX CCW |
| POWER METER | INPUT CHANNEL POWER RANGE DBM | IF -25 |

4. ADJUST THE IF CENTER FREQ CONTROL ON THE CONTROL PANEL FOR A 70 ± 0.2 MHZ INDICATION OF THE COUNTER.
5. ON THE KS-19978 POWER METER OPERATE THE AC SWITCH TO "OFF" AND WITH A SCREWDRIVER ADJUST METER TO ZERO. OPERATE AC SWITCH TO "ON" AND ALLOW TO WARM-UP FOR 5 MINUTES.
6. CALIBRATE THE 40-N POWER METER FOR IF MEASUREMENTS.
7. CHANGE CONNECTIONS TO OPTION (Z).
8. ADJUST ATTEN 2 FOR ZERO ON THE 40-N POWER METER.
9. ON THE KS-19978 POWER METER ADJUST METER ZERO KNOB TO SET THE NEEDLE ON ZERO ADJUST MARK. SET RANGE DBM CONTROL TO "0".
10. CHANGE CONNECTIONS TO OPTION (X).
11. ADJUST CAL (R3) ON IF POWER HEAD FOR "0" INDICATION ON THE POWER METER.

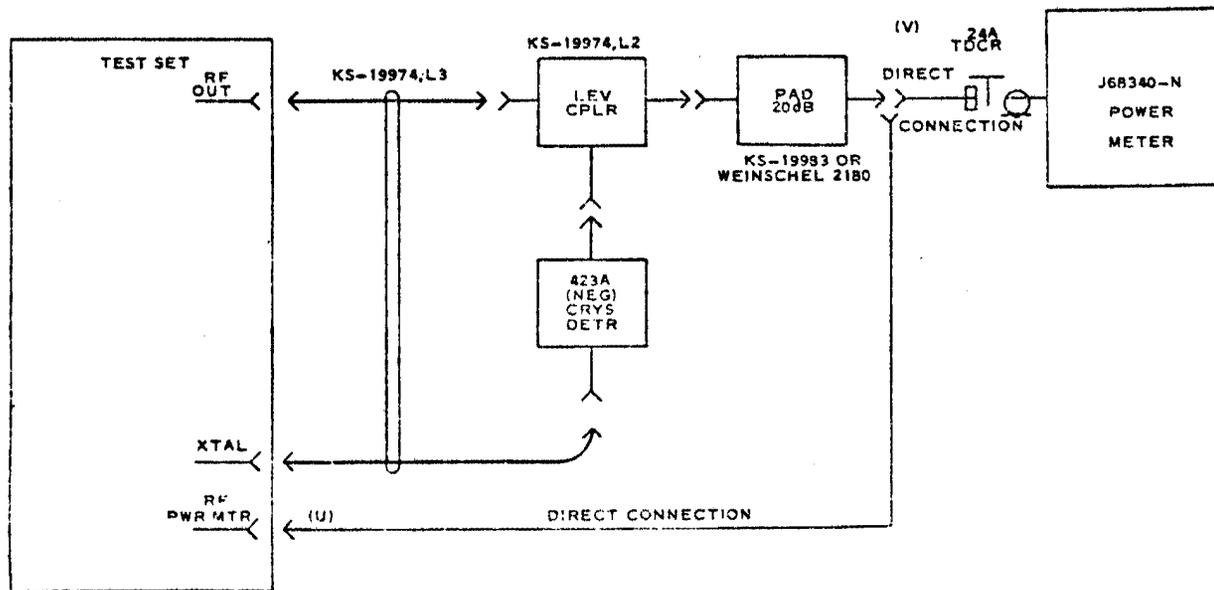


Fig. 2—RF Power Head Calibration

PREPARATION FOR TEST

1. OPERATE THE CONTROLS ON THE TEST SET TO THE FOLLOWING POSITIONS:

| UNIT | CONTROL | POSITION |
|-------------------------------------|----------------------------------|-----------|
| POWER METER | INPUT CHANNEL POWER RANGE DBM | RF -25 |
| RF SWEEP OSCILLATOR (ALFRED) | LINE SWEEP SELECTOR | RF CW |
| HEWLETT-PACKARD RF SWEEP OSCILLATOR | LINE SWEEP SELECTOR | RF CW |

2. SET THE CW CONTROL TO 3950MHZ.
3. ON THE KS-19978 POWER METER OPERATE THE AC SWITCH TO "OFF" AND WITH A SCREWDRIVER ADJUST METER TO ZERO. OPERATE AC SWITCH TO "ON" AND ALLOW TO WARM-UP FOR 5 MINUTES.
4. CALIBRATE THE 40-N POWER METER FOR RF MEASUREMENTS.
5. CONNECT (V) OPTION AND ADJUST THE RF SWEEP OSCILLATOR OUTPUT TO ZERO LEVEL AS READ ON THE 40-N POWER METER.
6. ON THE KS-19978 POWER METER ADJUST METER ZERO KNOB TO SET THE NEEDLE ON ZERO ADJUST MARK. SET RANGE DBM CONTROL TO "0"
7. CHANGE CONNECTIONS TO OPTION (U).
8. ADJUST CAL (R3) ON RF POWER HEAD FOR "0" INDICATION ON THE POWER METER.

IF POWER METER HAS RF POWER MONITOR DO THE FOLLOWING.
9. ON POWER METER UNDER TEST, SWITCH INPUT CHANNEL SELECTOR TO RF MONITOR.
10. ADJUST CAL (R3) ON RF MONITOR POWER HEAD FOR "0" INDICATION ON THE POWER METER.