

SECTION V SERVICE AND ALIGNMENT

5.1 INTRODUCTION

This section provides the service and alignment information that will aid the service representative in isolating and correcting equipment malfunctions.

The correction procedures for specific equipment faults are outlined to the extent of identifying the major assembly that has malfunctioned.

5.2 MAINTENANCE PROCEDURE

Two levels of maintenance are contained in this document, preventive maintenance which is outlined in table 5-1, and corrective maintenance procedures that are based on the receiver performance test.

Each level of maintenance is presented in flow-chart format that when followed, will provide a step-by-step fault isolation sequence such that only a correctly operating receiver will allow the service representative to "END" the maintenance sequence.

5.3 PREVENTIVE MAINTENANCE

Preventive maintenance includes correct installation and connection, periodic inspection, cleaning, and the operation/verification of the receiver performance test.

The model R-1250 receiver is a solid-state electronic instrument that requires a minimum of periodic maintenance unless abusive conditions exist such as improper handling and operation, or environmental extremes.

5.3.1 PERIODIC MAINTENANCE

The procedures shown in table 5-1 are the periodic maintenance checks that should be followed at the specific intervals shown to help insure that the receiver remains operational.

**TABLE 5-1
PREVENTIVE MAINTENANCE**

<u>TASK</u>	<u>INTERVAL</u>	<u>DESCRIPTION</u>
Inspect Cables	4 Months	Check for frayed cables and wires. Check that wires and coax cables are not crimped between structural members. Inspect connectors.
Inspect Circuit Cards	12 Months	Look for discoloration of resistor and capacitor coding bands or loss of coating that would indicate abnormal operation such as extreme heat conditions.
Clean Connectors	12 Months	Dissolve and wipe away any grease deposits on card connectors and front and rear panel connections. Use a cotton swab dipped in Freon TF or alcohol. Do not burnish card edge connectors.
Clean Chassis	12 Months	Wipe all dust and grease from the interior and exterior chassis parts. Remove dirt and other deposits with a vacuum or compressed air.
Execute Performance Test and Adjust as required	12 Months	Perform thorough calibration of receiver to insure specified performance is maintained.

5.3.2. PERFORMANCE TEST

The performance test sequence requires the utilization of specific items of test equipment, as listed in table 5-2, connected to the receiver as shown in figure 5-1.

The test sequence consists of applying either a CW signal or a modulated input signal to the receiver and monitoring the output while activating each appropriate front panel function to determine proper operation.

Connect the test equipment and set the controls as outlined in the following paragraphs. If a receiver function is inoperable or out of tolerance, locate the malfunction from the list of table 5-3 which will direct the operator or service representative to the applicable fault isolation procedure.

- a. Connect a signal generator to the desired receiver input connector.
- b. Set the signal generator for a frequency within the range of the desired band, at an output level of -20dBm.
- c. Set the signal generator to the type of modulation desired, CW, AM, or FM. For AM signals use a modulation frequency of 1000 Hz adjusted to modulate at a 30% amplitude. For FM use a 1000 Hz modulation frequency.
- d. Connect a spectrum analyzer to the desired monitor point depending on the type of input signal selected. For audio output signals, connect an audio monitor to the appropriate output jack.
- e. Verify that the receiver functions are operational based on the frequency range and modulation mode selected. For instructions regarding receiver operation, refer to Section III of this document.
- f. A complete performance test consist of providing input signals within the frequency range of each band (1 through 7), using each type of carrier (CW or modulated), and checking each control, selector, or indicator associated with the applicable signal.

(THIS PAGE INTENTIONALLY LEFT BLANK)

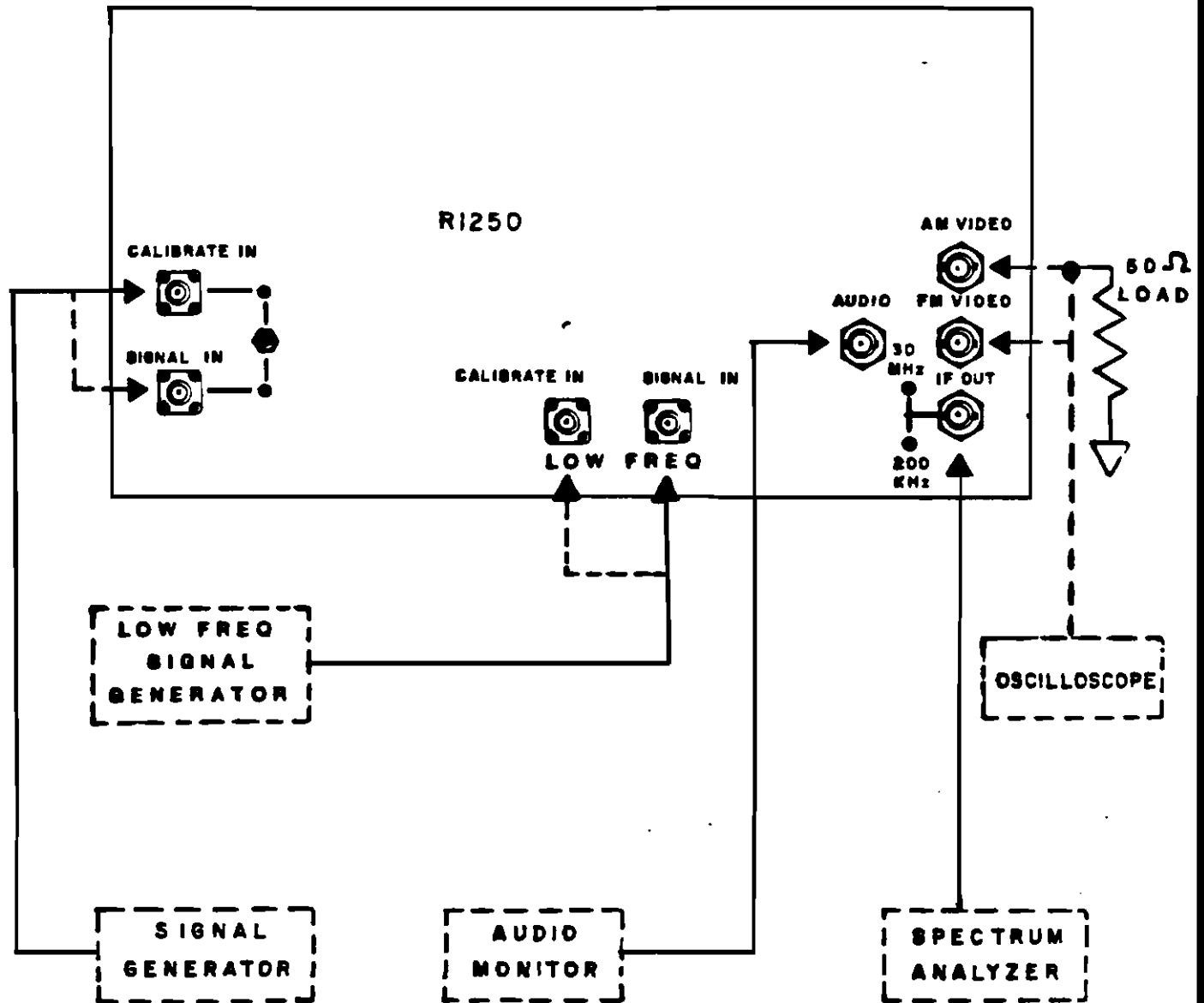


FIGURE 5-1 TEST EQUIPMENT CONNECTION

(THIS PAGE INTENTIONALLY LEFT BLANK)

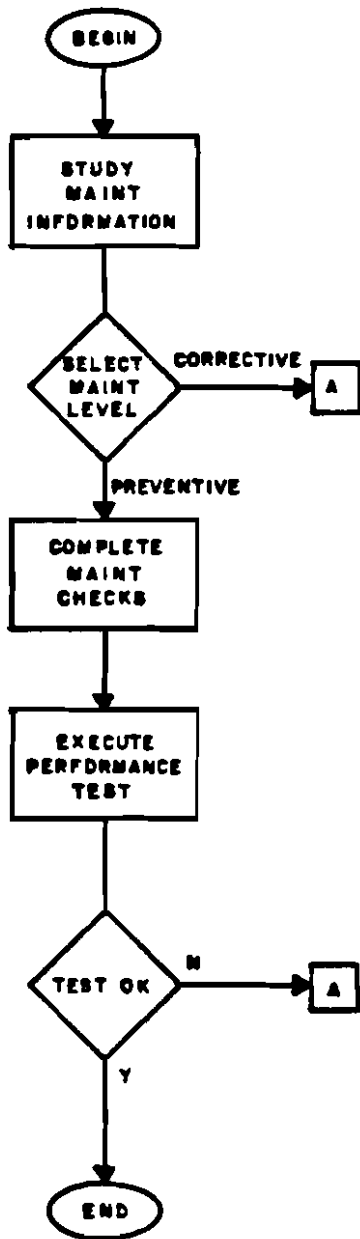
**TABLE 5-2
TEST EQUIPMENT**

<u>NOMENCLATURE</u>	<u>SPECIFICATIONS</u>	<u>MODEL NUMBER</u>
Signal Generator	100 Hz to 1 GHz AM,FM,CW	Systron Donner Model 1702
RMS Voltmeter	1mV to 3 V.F.S. 20KHz to 600 MHz	Hewlett Packard Model 3406
Spectrum analyzer	10 KHz to 1.8 GHz	Tektronix Model 7013/7L13
Oscilloscope	200 MHz Bandwidth	Tektronix Model 475
Frequency Counter	DC to 2.5 GHz	Hewlett Packard Model 5248L/5254C
Microwave Power Meter	10 μ W to 10 MW F.S.	Hewlett Packard Model 432 B
Digital Multimeter	0-1000 VDC, 0-1A 0-500 VAC,0-1A 0-10 Megohm	Hewlett Packard Model 3465A

**TABLE 5-3
MALFUNCTION LOCATION**

INPUT SIGNAL SELECTOR OR INDICATOR 5-7,5-8,5-9
AM/FM SELECTOR OR INDICATOR 5-12, 5-13
AGC SELECTOR OR FUNCTION 5-10,5-11,5-12,5-13,DIGITAL
RF GAIN ADJUST OR INDICATOR 5-7,5-12,5-13,DIGITAL
ATTEN SELECTOR OR INDICATOR 5-7, 5-10, 5-11, 5-12, 5-13, DIGITAL
BW SELECTOR OR INDICATOR 5-10, 5-11, DIGITAL
FREQ SELECTOR, TUNING OR INDICATOR 5-7, 5-10, 5-11, 5-14, DIGITAL
AUDIO LEVEL ADJUST 5-12, 5-13
AUDIO OUTPUT 5-12, 5-13
AM VIDEO OUTPUT 5-12, 5-13
FM VIDEO OUTPUT 5-12, 5-13
30 MHz IF OUT OR INDICATOR 5-10, DIGITAL
200 KHz IF OUT OR INDICATOR 5-11, DIGITAL
BFO SELECTOR OR FUNCTION 5-12, 5-13
LOG/LIN SELECT 5-10, 5-11, 5-12, 5-13
PREDETECTION SELECT, ADJUST OR INDICATOR 5-10, 5-11, 5-12,5-13,DIGITAL
AM PULSE STRETCH/SLIDE BACK ADJUST 5-12, 5-13
REMOTE INDICATOR OR FUNCTION DIGITAL

**TABLE 5-4
MAINTENANCE SELECTION**



The operator or service representative should read the maintenance information and become familiar with the equipment.

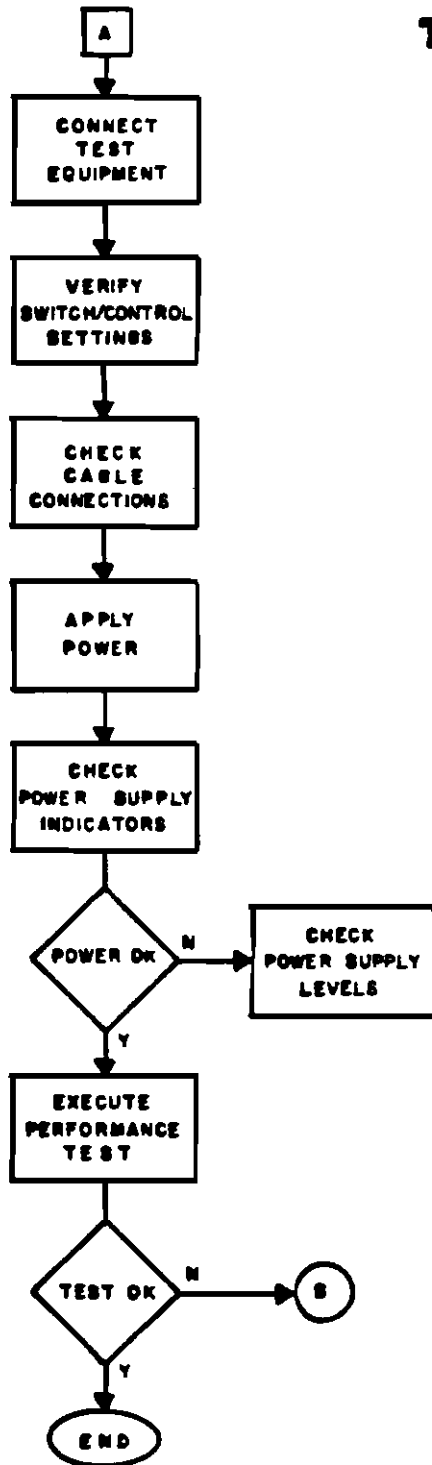
Select the level of maintenance that is to be performed.

Clean and/or check the applicable items listed in paragraph 5.3.2.

Initiate a complete performance test and list any malfunctions indicated.

If a normal performance test has been completed, the instrument is ready for use.

**TABLE 5-5
TEST SEQUENCE**



Ensure that test equipment is calibrated and in proper working condition.

Ensure that the controls on both the instrument to be tested and the test equipment, are set for the type of measurement to be performed.

Check for proper coaxial cable connections and test equipment interconnection.

Verify that the line voltage applied to the instrument is rated for the specified input.

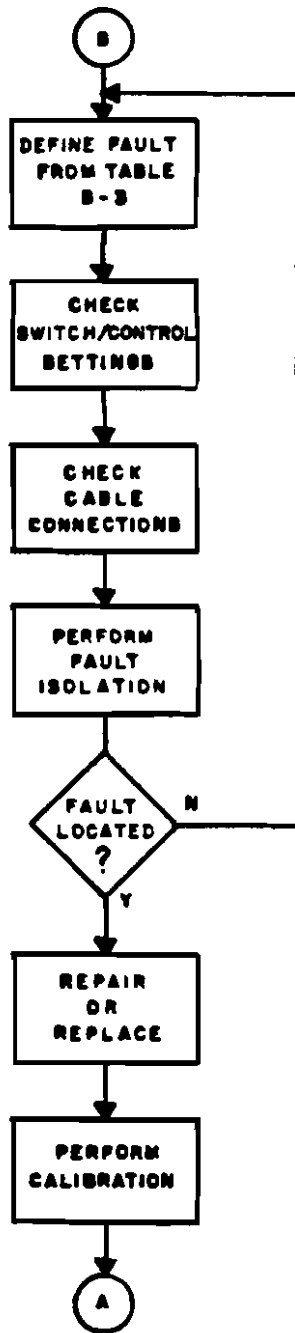
Power supply indicators on the rear panel of the instrument indicate output only, not correct voltage levels.

Refer to the power supply adjustment parameters listed in paragraph 5.5.9.

Initiate a complete performance test and list any malfunctions indicated.

If a normal performance test has been completed, the instrument is ready for use.

**TABLE 5-6
FAULT LOCATION, GENERAL**



Malfunctions should be compared with the associated functions listed in table 5-3.

Ensure that the instrument and test equipment switches and controls are properly set.

Check for proper coaxial cable connections and test equipment interconnection.

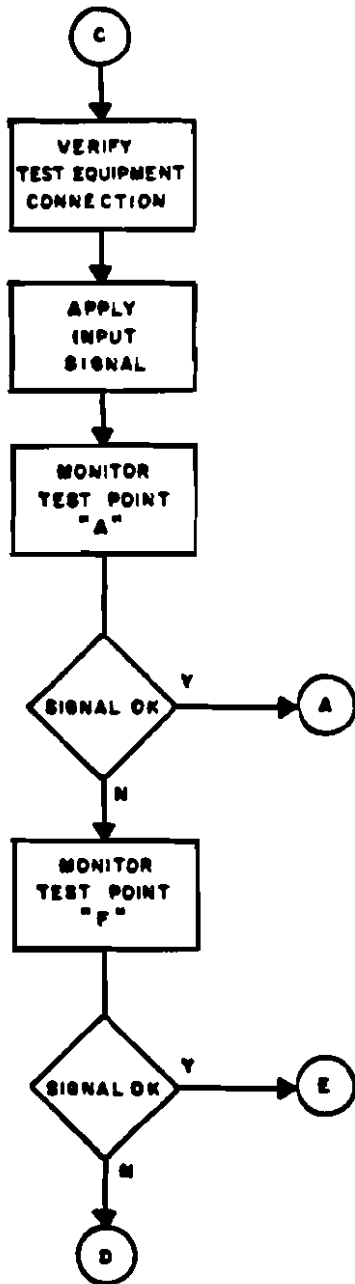
Initiate the isolation sequence indicated by the applicable flow chart selected from table 5-3.

If the malfunction was not located by the sequence of the first flow chart, redefine the fault area.

When the malfunction is located, initiate a repair or replacement sequence.

Complete calibration requires sophisticated test equipment. When a subassembly has been replaced, refer to the field service adjustments.

**TABLE 5-7
FAULT ISOLATION
RF SECTION**



Ensure that properly operating test equipment is correctly connected and applicable to the test sequence.

Apply a CW signal of 530 MHz at a level of -20 dBm.

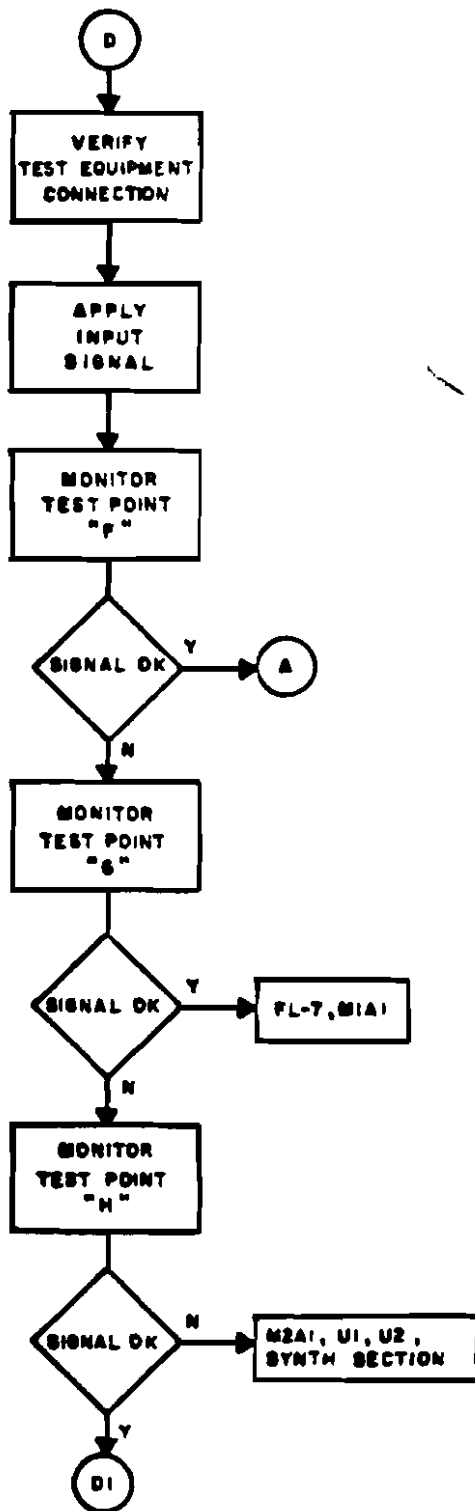
Refer to figure 5-2 for location of test points. Verify a signal of 30 MHz at approx. -9dBm.

A normal signal indicates that the malfunction is related to external cable connections or test equipment operation.

Refer to figure 5-2 for location of test points. Verify a signal 1470 MHz at approx. -8 dBm.

A normal signal indicates that the malfunction may be related to the M2 assembly. An abnormal signal indicates a problem related to the M1 assembly.

**TABLE 5-8
FAULT ISOLATION
M1 ASSEMBLY**



Ensure that properly operating test equipment is correctly connected and applicable to the test sequence.

Apply a CW signal of 530 MHz at a level of -20 dBm.

Refer to figure 5-2 for location of test points. Verify a signal of 1470 MHz at approx. -8dBm.

A normal signal indicates that the malfunction is related to external cable connections or test equipment operation.

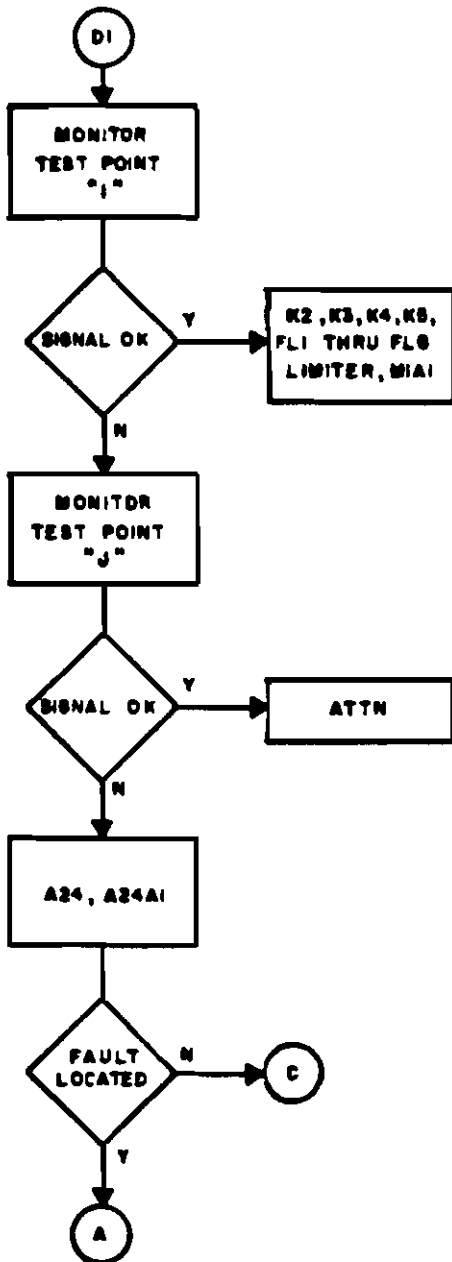
Activate K5 by applying +28 VDC at J122-17 and verify a signal of 1470 MHz at approx. -16.5 dBm.

Isolate the cause of the malfunction and repair or replace.

Verify a signal of 2000 MHz at approx. +7 dBm.

Isolate the cause of the malfunction and repair or replace.

**TABLE 5-8 (CONT)
FAULT ISOLATION
M1 ASSEMBLY**



Verify a signal of 530 MHz at approx. -21 dBM.

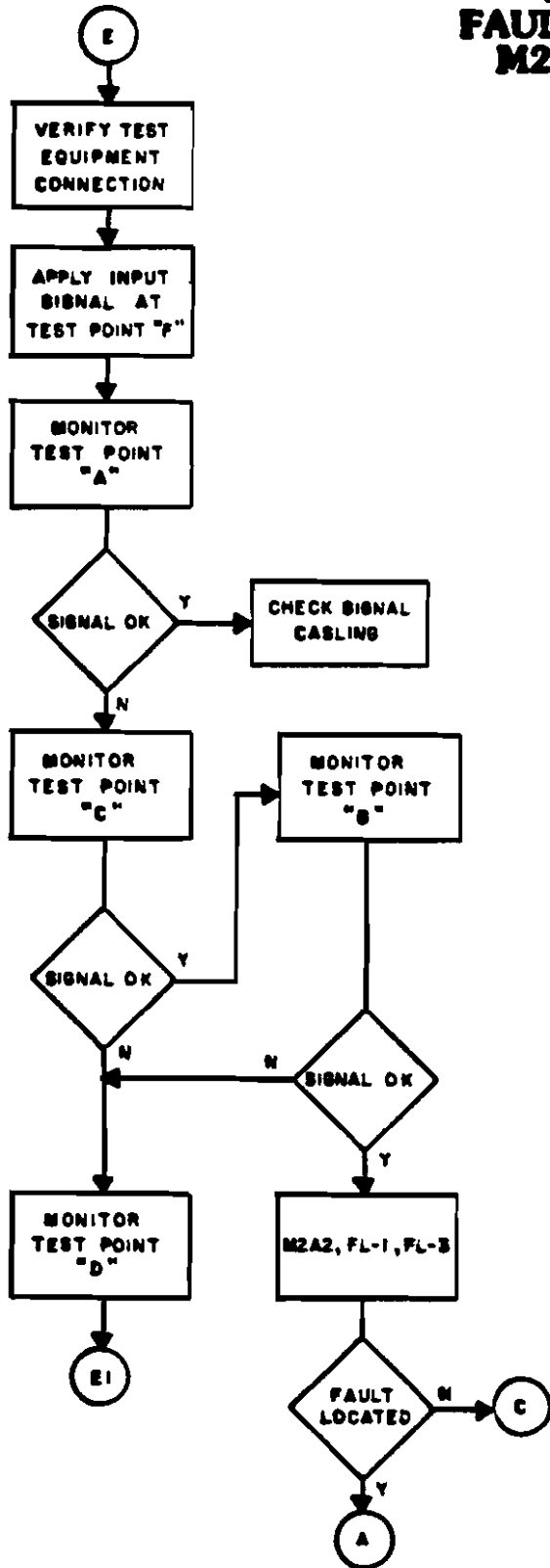
Isolate the cause of the malfunction and repair or replace.

Verify a signal of 530 MHz at approx. -20 dBM.

Isolate the cause of the malfunction and repair or replace.

If the fault has been located, and repairs completed, you are directed to the beginning of the test sequence to verify normal operation.

**TABLE 5-9
FAULT ISOLATION
M2 ASSEMBLY**



Apply a CW signal of 1470 MHz at a level of -8 dBM.

Refer to figure 5-2 for location of test points. Verify a signal of 30 MHz at approx. -9 dBM.

Verify proper cable connections and cable loss factors for interconnecting coax lines within the RF section.

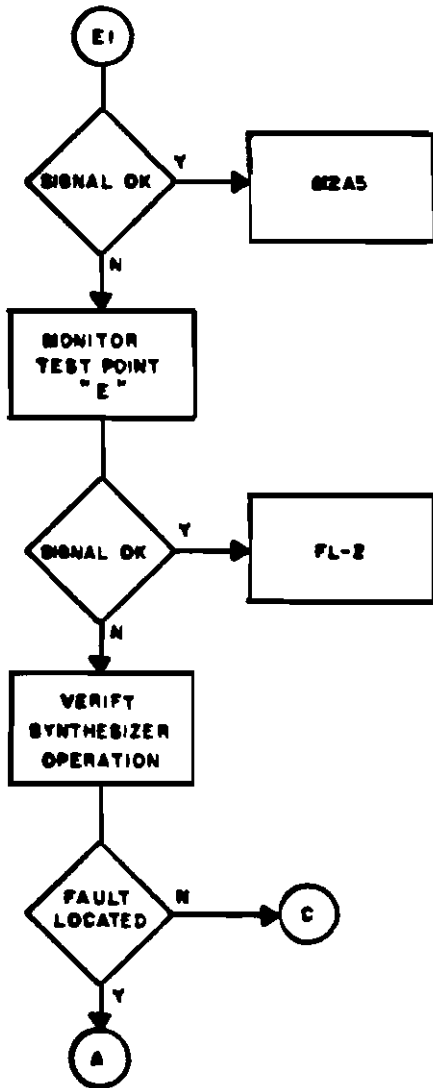
Verify a signal of 2000 MHz at approx. +10 dBM.

Refer to figure 5-2 for location of test points. Verify a signal of 500 MHz at approx. +12 dBM.

Verify a signal of 125 MHz at approx. +5 dBM.

Isolate the cause of the malfunction and repair or replace.

**TABLE 5-9 (CONT)
FAULT ISOLATION
M2 ASSEMBLY**



Isolate the cause of the malfunction and repair or replace.

Refer to figure 5-2 for location of test points. Verify a signal of 125 MHz at approx. +7dBm.

Isolate the cause of the malfunction and repair or replace.

Refer to the fault isolation sequence for the synthesizer section and ensure that the applicable signal is OK.

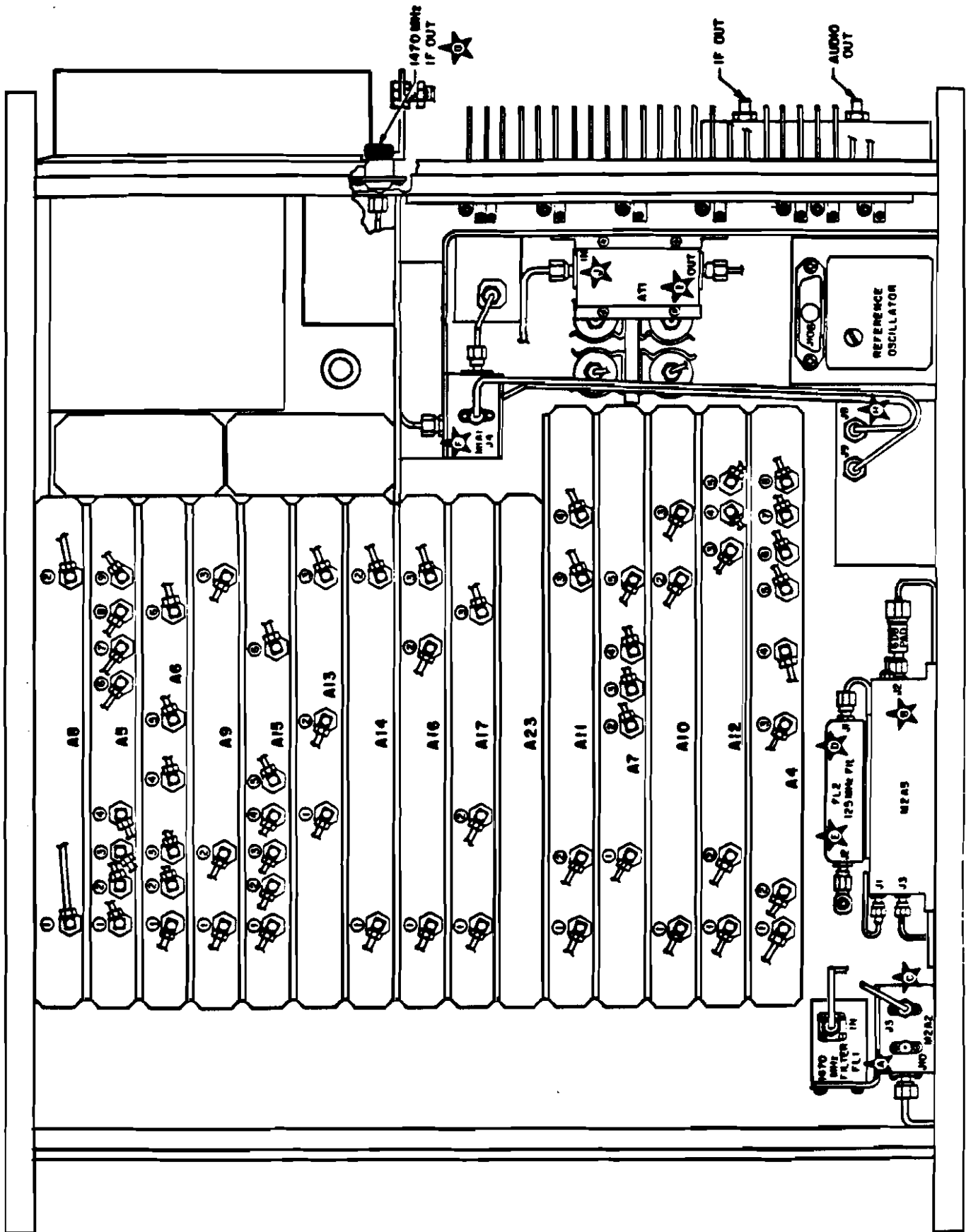
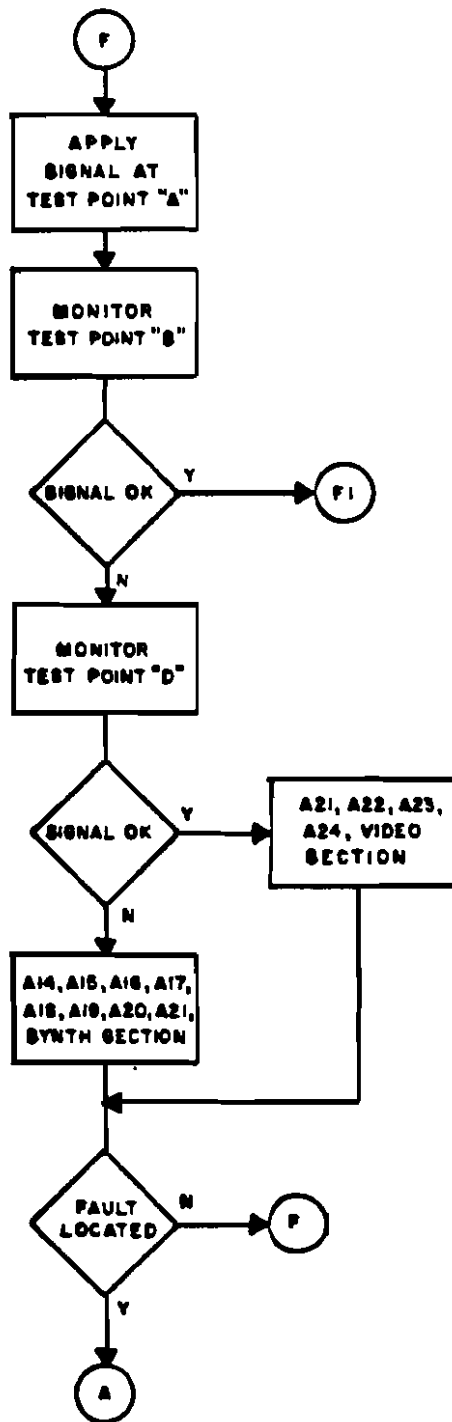


FIGURE 5-2 RF SECTION TEST POINT LOCATIONS

(THIS PAGE INTENTIONALLY LEFT BLANK)

**TABLE 5-10
FAULT ISOLATION
30 MHZ IF ASSEMBLY**



Apply a 30 MHz, CW signal of 0 dBm at the input to A19A14J1.

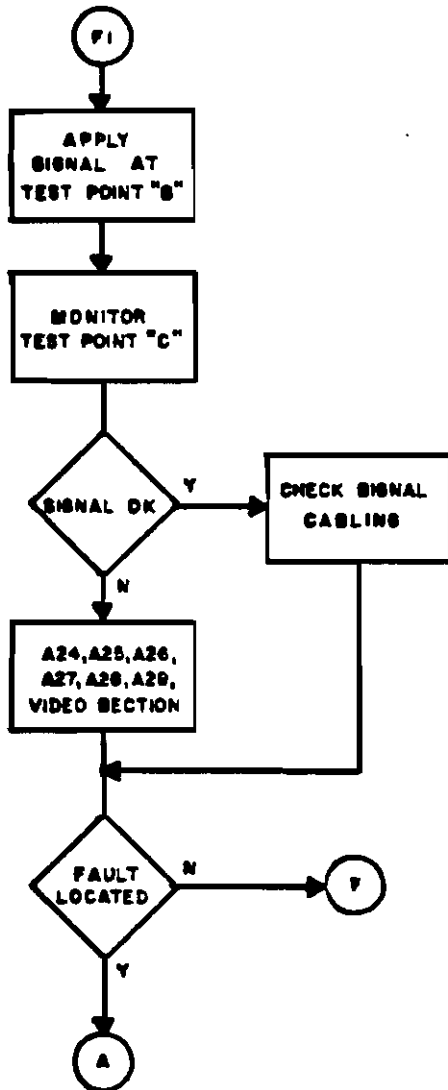
Monitor the output at A19A24J10 which is the logarithmic output to the video section.

The accumulative gain of each stage may be approximated from the values shown in figure 4-4.

Test point "D" is the video out, on the rear panel of the instrument..

Isolate the cause of the malfunction and repair or replace.

**TABLE 5-10 (CONT)
FAULT ISOLATION
30 MHZ IF ASSEMBLY**



Apply a 30 MHz signal at 0 dBm at A19A24J17.

Test point "C" is the output of the IF stage, A19A29J12. Verify a 30 MHz signal.

Verify proper cable connections and cable loss factors for interconnecting coax lines within the IF section.

Isolate the cause of the malfunction and repair or replace.

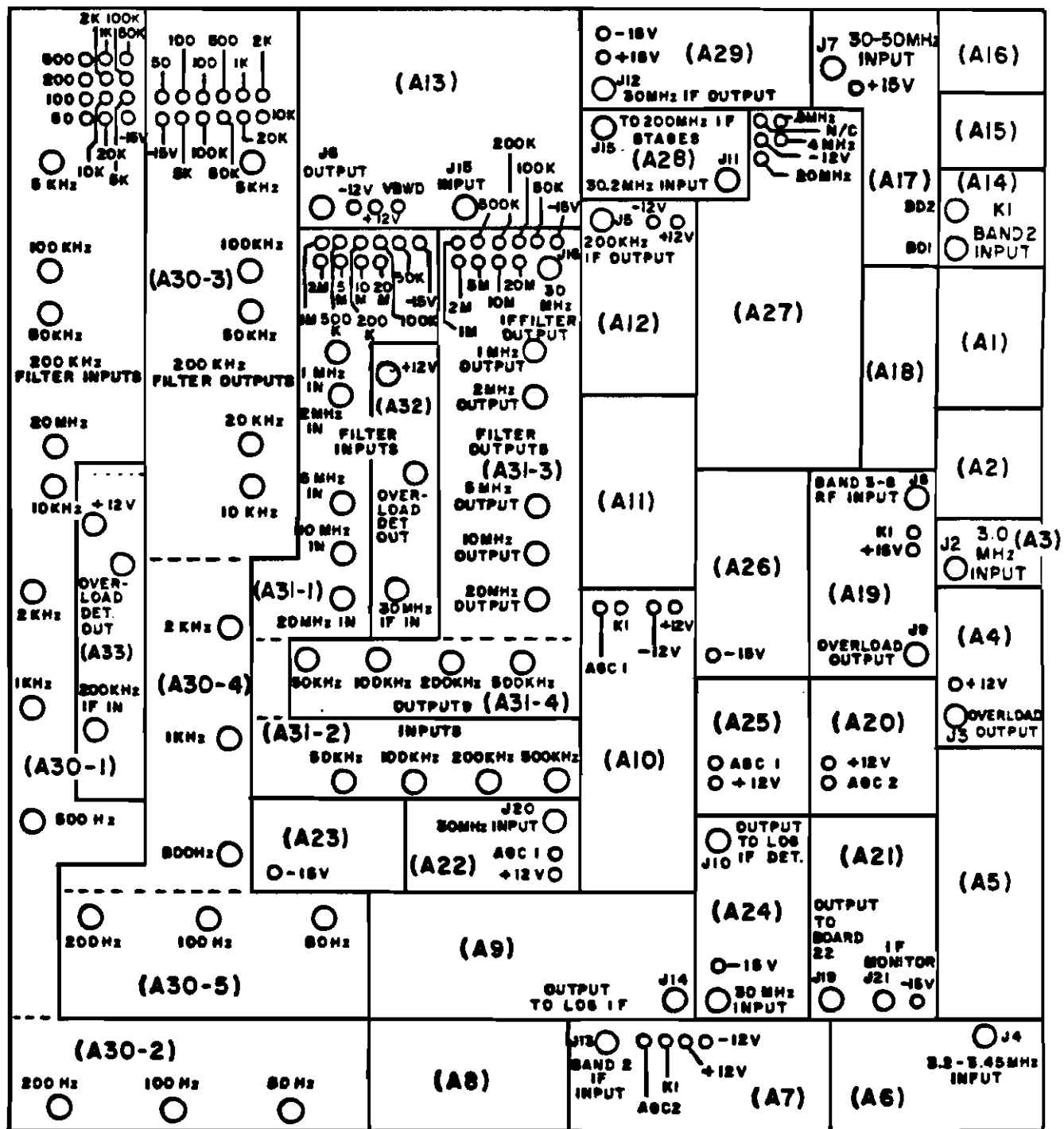
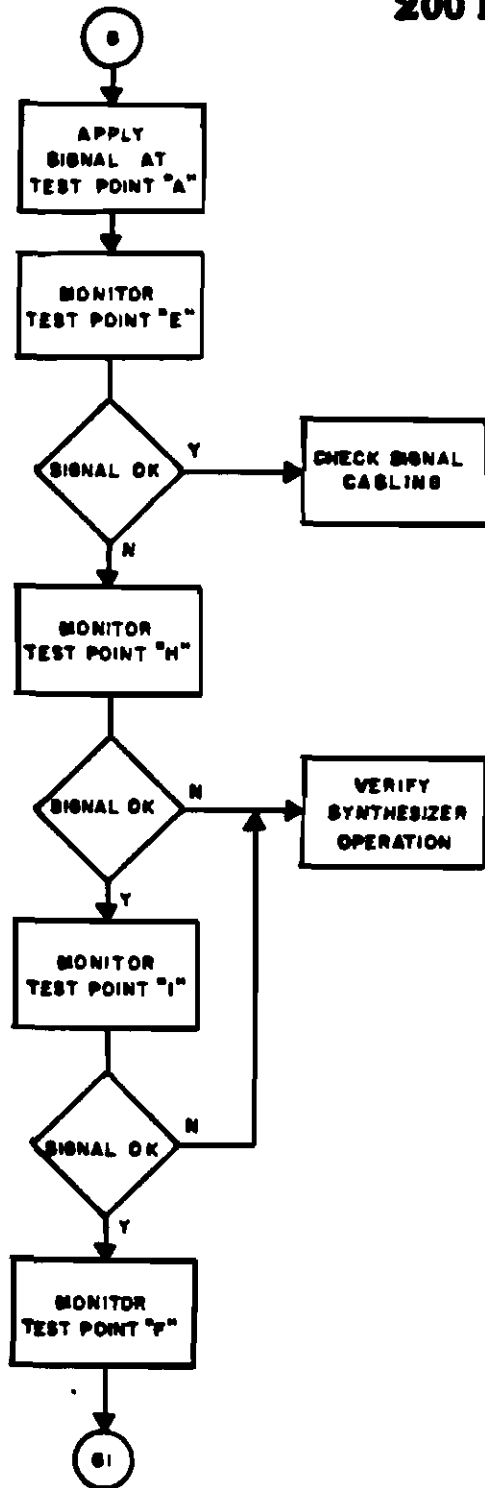


FIGURE 5-3 IF CHASSIS TERMINAL LOCATIONS

**TABLE 5-11
FAULT ISOLATION
200 KHZ IF ASSEMBLY**



Apply a 200 KHz, CW signal of 0 dBm at the input A19A1.

Test point "E" is the output of the IF stage, A19A12J5. Verify a 200 KHz signal.

Verify proper cable connections and cable loss factors for interconnecting coax lines within the IF section.

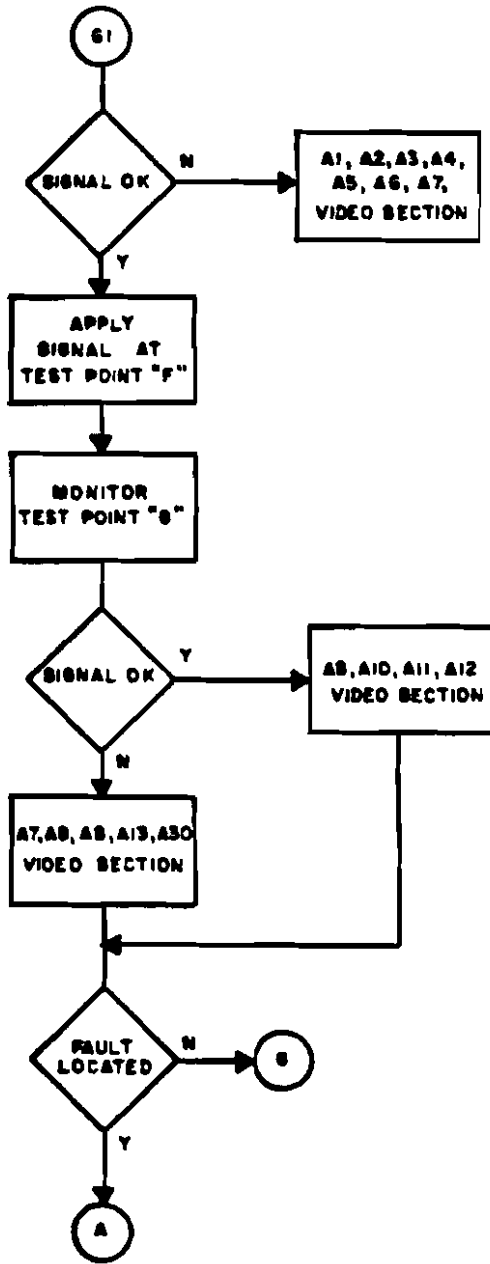
Test point "H" is a local oscillator input to a mixer stage. Verify that signal is present and correct.

Improper signals at TP "H" or TP "I" indicate a malfunction in the synthesizer. Refer to the appropriate fault isolation sequence.

Test point "I" is a local oscillator input to a mixer stage. Verify that signal is present and correct.

Test point "F" is the junction between the output of A19A7 and the input to A19A8. Verify a 200 KHz signal.

**TABLE 5-11 (CONT)
 FAULT ISOLATION
 200 KHZ IF ASSEMBLY**



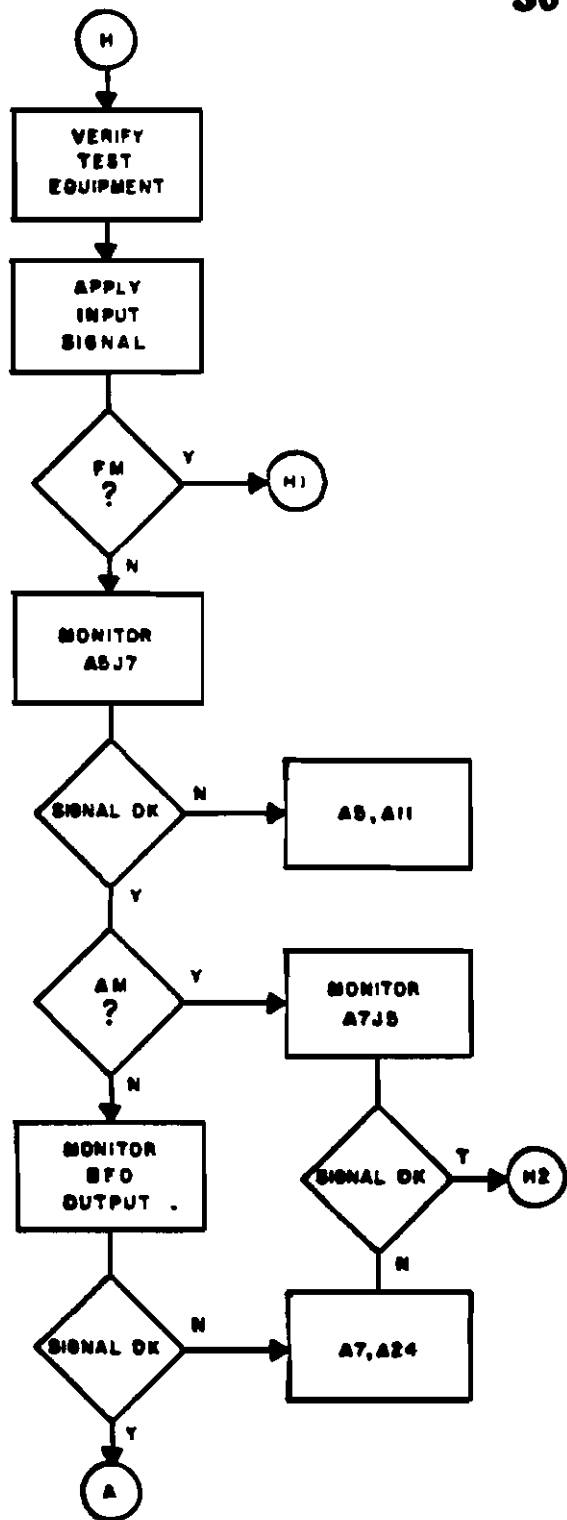
Isolate the cause of the malfunction and repair or replace.

Apply a 200 KHz signal at 0 dBm to the input of A19A8.

Test point "G" is the log output to the video section. Monitor A19A13J6 for a 200 KHz signal.

Isolate the cause of the malfunction and repair or replace.

**TABLE 5-12
FAULT ISOLATION
30 MHZ VIDEO**



Apply a 30 MHz signal, CW or modulated, similar to the signal used when the malfunction was noted.

If the input signal is frequency modulated, refer to starting point H1.

Refer to figure 5-4 for location of monitor points.

Isolate the cause of malfunction and repair or replace.

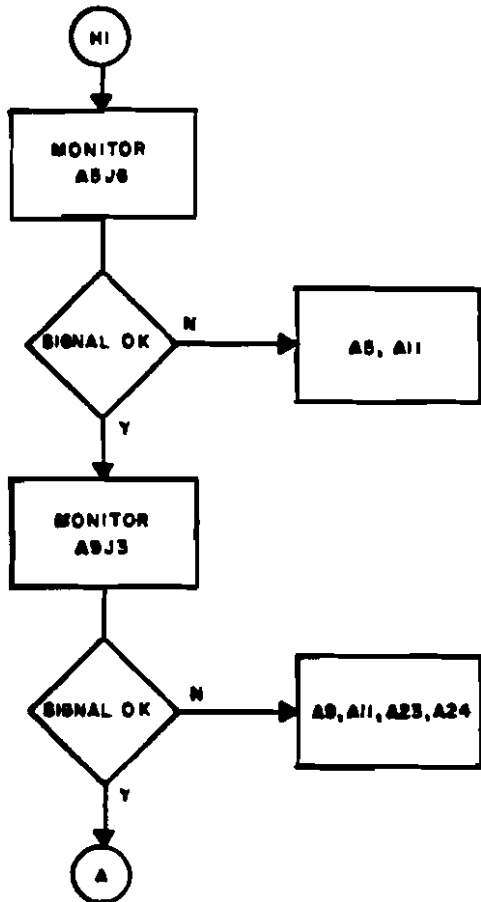
Refer to figure 5-4 for location of monitor points.

If the input signal is amplitude modulated refer to the starting point H2.

Refer to the A7 card schematic for the location of the BFO output monitor point.

Isolate the cause of malfunction and repair or replace.

**TABLE 5-12 (CONT)
 FAULT ISOLATION
 30 MHZ VIDEO**



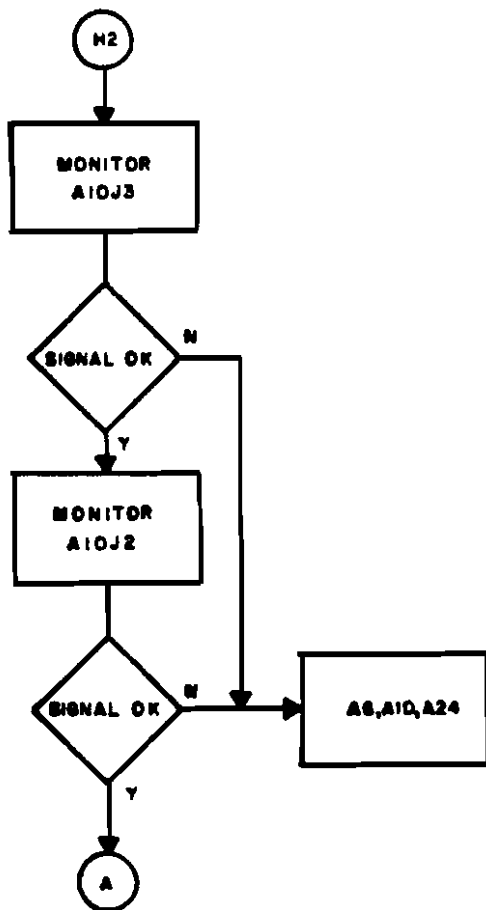
Refer to figure 5-4 for location of monitor points.

Isolate the malfunction and repair or replace.

Refer to figure 5-4 for location of monitor points.

Isolate the malfunction and repair or replace.

**TABLE 5-12 (CONT)
FAULT ISOLATION
30 MHZ VIDEO**

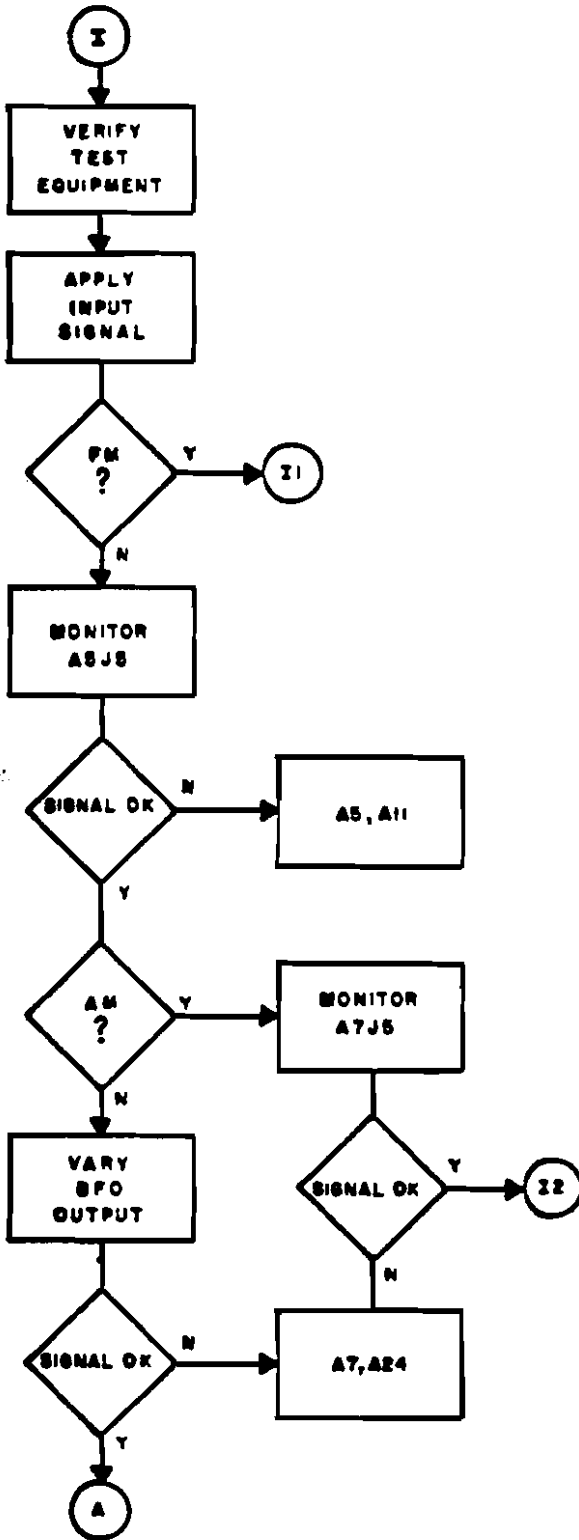


Refer to figure 5-4 for location of monitor points.

Refer to figure 5-4 for location of monitor points.

Isolate the malfunction and repair or replace.

**TABLE 5-13
FAULT ISOLATION
200 KHZ VIDEO**



Apply a 200 KHz signal, CW or modulated, similar to the signal used when the malfunction was noted.

If the input signal is frequency modulated refer to starting point I1.

Refer to figure 5-4 for location of monitor point.

Isolate the cause of malfunction and repair or replace.

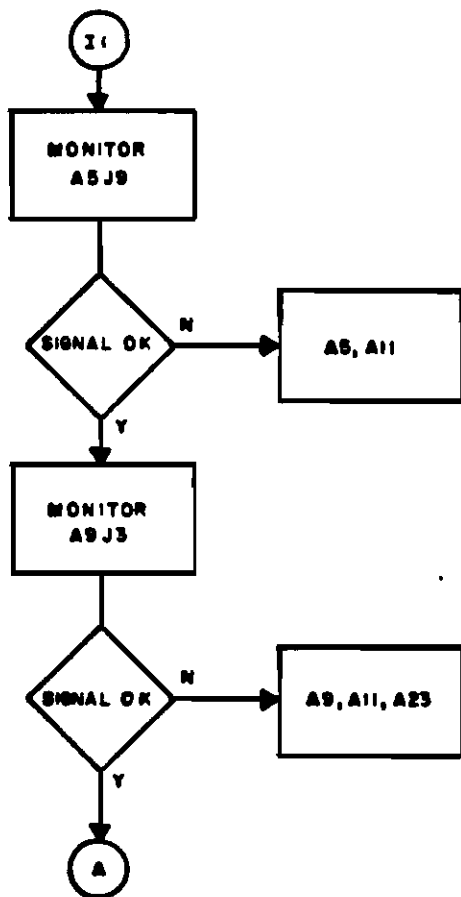
Refer to figure 5-4 for location of monitor points.

If the input signal is amplitude modulated refer to starting point I2.

Vary the oscillator output to obtain a beat frequency or refer to the schematic of the A7 card for an output monitor point.

Isolate the malfunction and repair or replace.

**TABLE 5-13 (CONT)
 FAULT ISOLATION
 200 KHZ VIDEO**



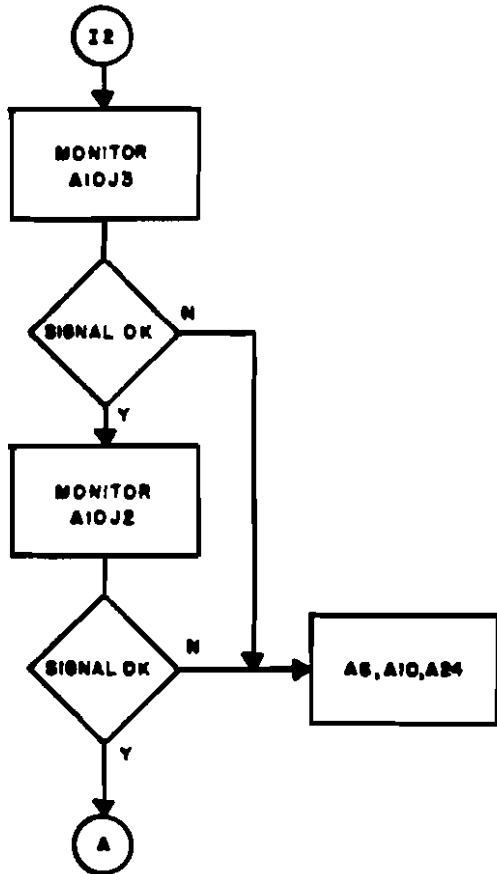
Refer to figure 5-4 for location of monitor points.

Isolate the malfunction and repair or replace.

Refer to figure 5-4 for location of monitor points.

Isolate the malfunction and repair or replace.

**TABLE 5-13 (CONT)
FAULT ISOLATION
200 KHZ VIDEO**



Refer to figure 5-4 for location of monitor points.

Isolate the malfunction and repair or replace.

(THIS PAGE INTENTIONALLY LEFT BLANK)

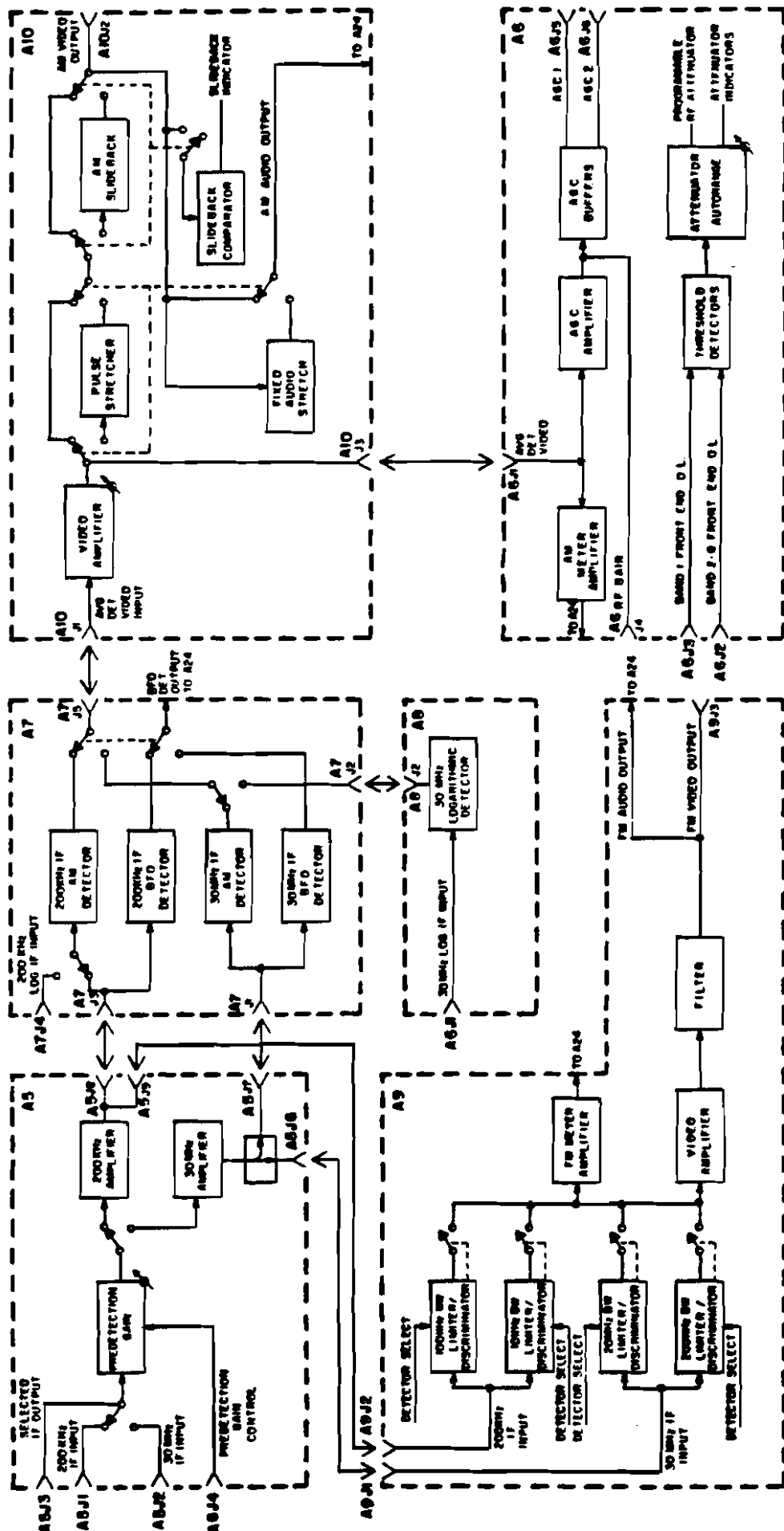
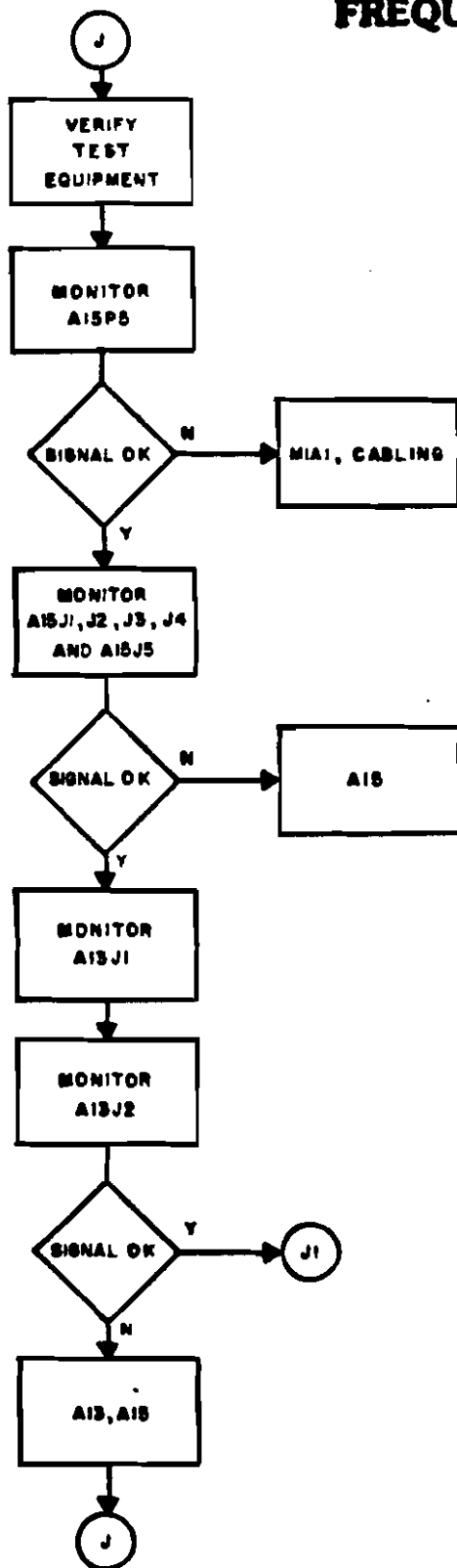


FIGURE 5-4 VIDEO SECTION MONITOR POINTS

(THIS PAGE INTENTIONALLY LEFT BLANK)

**TABLE 5-14
FAULT ISOLATION
FREQUENCY SYNTHESIS**



Verify a 1 MHz signal at the input connector.

Isolate the malfunction and repair or replace.

Verify a 1 MHz signal at each output listed.

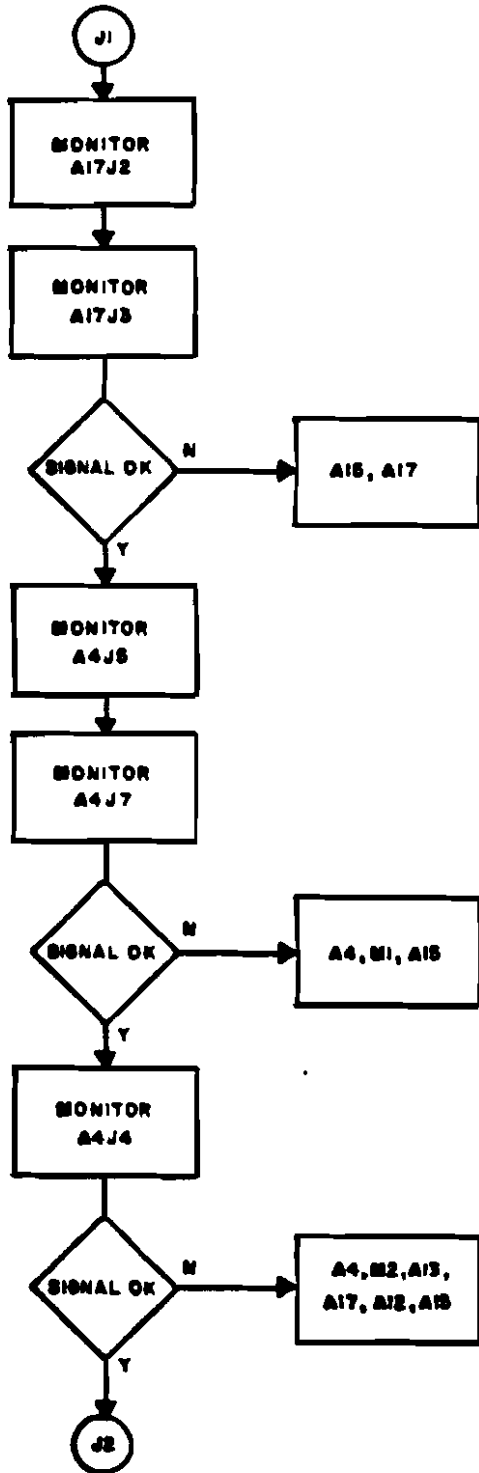
Repair or replace the A15 card assembly.

Verify a 125 MHz signal at the output connector.

Verify a 32 MHz signal at the output connector.

Isolate the malfunction and repair or replace.

**TABLE 5-14 (CONT)
FAULT ISOLATION
FREQUENCY SYNTHESIS**



Verify a 94 MHz signal at the output connector.

Verify a 30.2 MHz signal at the output connector.

Isolate the malfunction and repair or replace.

Verify a 1 MHz signal at the output connector.

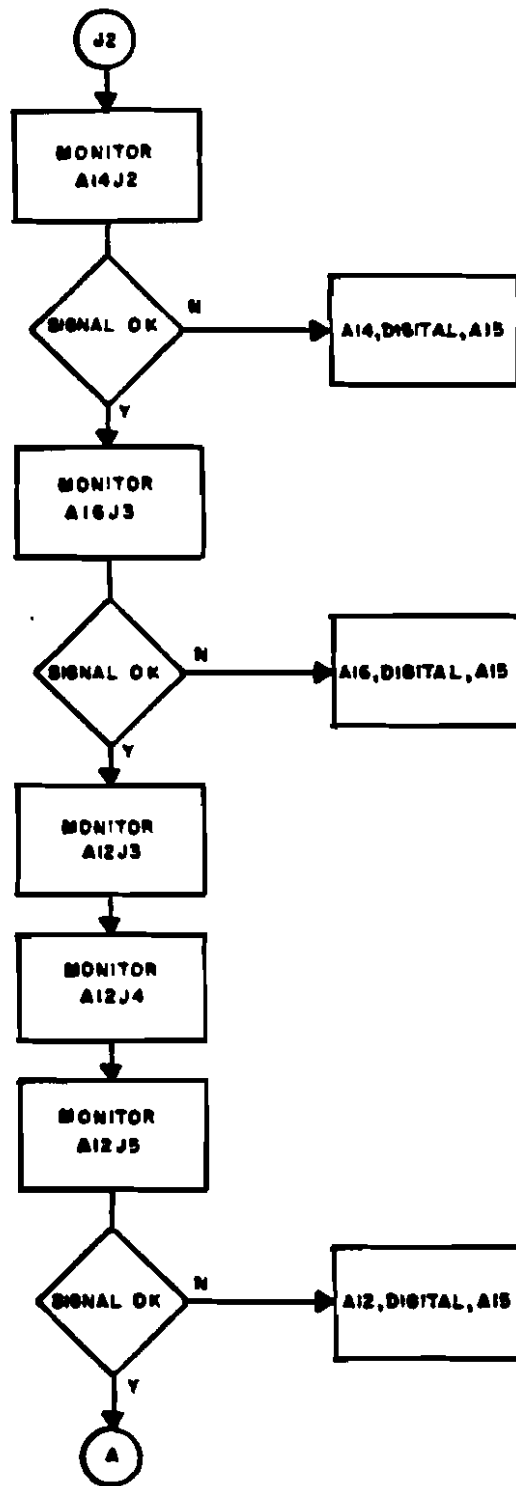
Verify a 3 MHz signal at the output connector.

Isolate the malfunction and repair or replace.

Verify a DC voltage that increases or decreases to its end limit when the coax at A4J3 is removed.

Isolate the malfunction and repair or replace.

**TABLE 5-14 (CONT)
FAULT ISOLATION
FREQUENCY SYNTHESIS**



Verify an output frequency that varies from 1 to 2 MHz in 100 Hz steps as the tuning knob is rotated.

Isolate the malfunction and repair or replace.

Verify an output frequency that varies from 1 to 2 MHz in 1 Hz steps as the tuning knob is rotated.

Isolate the malfunction and repair or replace.

Verify an output frequency that varies from 32.8 to 42.6 MHz as the tuning knob is rotated.

Verify an output frequency that varies from 30.25 to 50.0 MHz as the tuning knob is rotated.

Verify an output frequency that varies from 3.2 to 3.45 MHz as the tuning knob is rotated.

Isolate the malfunction and repair or replace.

(THIS PAGE INTENTIONALLY LEFT BLANK)

5.4 DISASSEMBLY

*****CAUTION*****

Use care to prevent damage to wires, cables and components. Make sure that SMB connectors are pulled straight out from the mating connector. Use the connector extractor if at all possible. Do not bend rigid copper coaxial cables more than necessary to disconnect them, especially near the connector.

Top and Bottom Covers and SMB Connectors - The receiver may be disassembled with ordinary hand tools. Removing the top cover allows access to the plug-in assemblies in the card cage.

*****NOTE*****

It is important to prevent damage to the connectors. Use the SMB Connector Extractor supplied in the maintenance accessory kit to disengage the connectors on the top of the card cage.

The extractor should also be used where possible on similar connectors throughout the receiver whether used with rigid or flexible coaxial cable.

Inside the bottom cover are individual covers that allow access to subassemblies of the IF chassis, A19 section.

Rear Panel

To remove the rear panel perform the following steps. Directions are as viewed from the rear.

1. Disconnect power cord.
2. Remove top cover.
3. Release 4 slide-catches and remove plug-in module.

4. Remove 8 screws - 4 retaining each of the control connectors located at the bottom left corner of the panel. The hardware is captive behind the panel.
5. Remove 4 screws nearest the bottom edge of the panel.
6. Remove 2 screws adjacent to the left side handle.
7. Remove 2 screws adjacent to the right side handle.
8. Pull straight out on the panel until the connector located next to the plug-in module connector is disconnected from the mainframe.
9. Reassembly may be accomplished by performing steps 1 through 8 in the reverse order.

***** CAUTION *****

Use care to ensure that the connector is mating properly with the mainframe connector. Do not force it. If the connectors have become misaligned it may be necessary to use hand pressure on the U-channel to help align the connectors when reinstalling the rear panel.

Left Side Panel

Remove all screws from the panel.

Right Side Panel

Perform the following steps:

1. Disconnect power cord.
2. Remove top cover.
3. Disconnect the 2 screw on coaxial connectors located on the bracket at the rear or the side panel, and the J-10 connector toward the front panel.
4. Remove only the 8 screws located around the periphery of the side panel plus the 2 screws located nearest the rear edge of the panel. All other screws are securing components to the side panel.
5. There is sufficient service loop in the remaining cables to allow the side panel to lie flat beside the receiver for servicing. If it is desired to completely disconnect the side panel, the remaining connectors may be located by visual inspection.

6. To reinstall the panel, perform steps 2 through 5 in the reverse order.

Front Panel

To remove the front panel perform the following steps. Directions are as viewed from the front.

1. Disconnect power cord.
2. Remove top cover.
3. Disconnect the in-line connectors in the rigid coax located immediately behind the POWER switch at the top, left corner of the panel.

*****NOTE*****

Use 2 wrenches of the proper size to avoid damaging the coax.

4. Remove 4 screws nearest the bottom edge of the panel.
5. Release the catches and disconnect the 4 rectangular shaped connectors located across the front of the card cage.
6. Using the SMB Connector Extractor, disconnect the entire bundle of coaxial cables interconnecting the front panel with the top of the card cage. This is the bundle coming up behind the AM SLIDEBACK control.
7. Remove 2 screws adjacent to left side handle.
8. Remove 2 screws adjacent to right side handle.
9. Remove the SMB connector to the left side of the front panel board.
10. Slide the front panel forward until it is free of the receiver.
11. To reinstall the front panel perform steps 2 through 9 in the reverse order.

5.5 FIELD SERVICE ADJUSTMENTS

5.5.1 GENERAL

The following are adjustments that may be required when a previously adjusted spare assembly is installed in the receiver. No special test fixture or equipments are required other than those described.

Unless otherwise directed for particular adjustments, the replacement card should be temporarily installed using the extender card, rods, and cables supplied with the receiver.

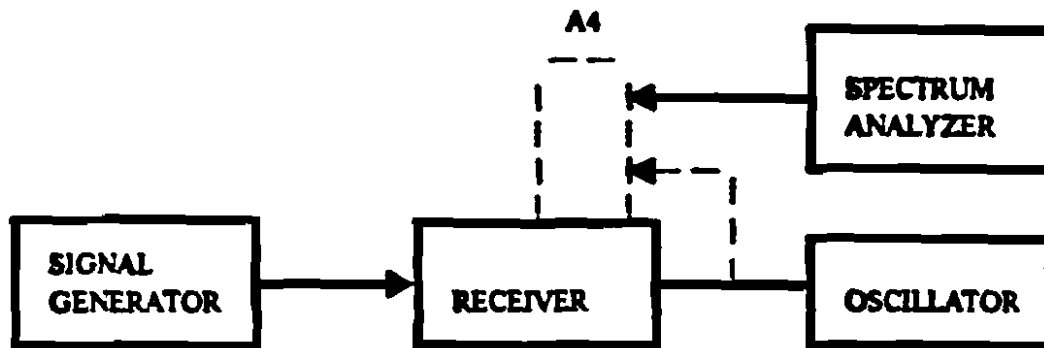
The procedures make use of a regular signal processed normally through the receiver. The 50 KHz position of the BANDWIDTH selector is used to route the signal through the 30 MHz IF circuits and the 20 KHz position is used for the 200 KHz IF. Unless otherwise specified, the receiver is tuned to 10 MHz.

***** CAUTION *****

Turn off the receiver when removing or installing any assemblies.

5.5.2 A4 MICROWAVE OSCILLATOR PLL CONTROL

Setup:



Procedure:

A. Power Supply

1. Install the A4 board on the extender card.
2. Monitor the output voltage at J8.
3. Adjust R100 for $+15\text{ VDC} \pm .1$.
4. Monitor the voltage across capacitor C58.
5. Adjust R95 for $-15\text{ VDC} \pm .1$.

B. Frequency Multiplier

1. Connect the signal generator to J6.
2. Set the signal generator for 1 MHz, cw, at 0 dBm.
3. Connect the oscilloscope to J7.
4. Adjust L3 and L4 for 3 MHz output level of 2 volts.

C. Shaping Amp

- 1. Preset R75 and R51 to the full cw position.**
- 2. Preset R50 to the full ccw position.**
- 3. Preset R84 to a mid range position.**
- 4. Remove component U6 from the socket.**
- 5. Connect a variable DC source (0-12V) to the junction of C37 and R43.**
- 6. Monitor the voltage level at J4.**
- 7. Set the DC source to 11.0 volts.**
- 8. Adjust R75 for 48.5 volts at J4.**
- 9. Set the DC source to 0 volts.**
- 10. Adjust R84 for 1.5 volts at J4.**
- 11. Set the DC source to 11.0 volts.**
- 12. Readjust R75 for 48.5 volts at J4.**

D. Clamps

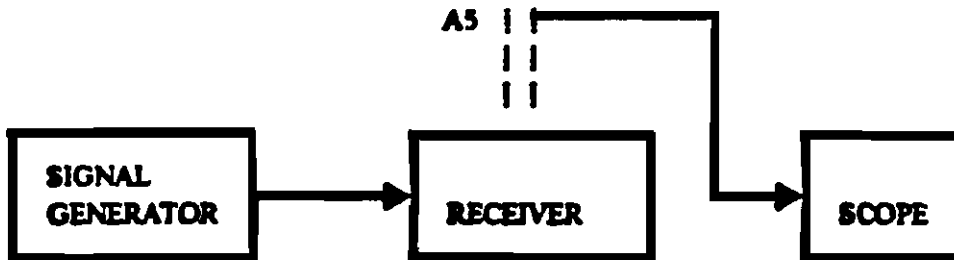
- 1. Reconnect tuning input at J4 to microwave bracket #2.**
- 2. Monitor the prescaler output with scope (J3 cable).**
- 3. Set the DC source to 12.0 volts.**
- 4. Adjust R50 for a prescaler output frequency of 10.9 MHz.**
- 5. Set the DC source to 0 volts.**
- 6. Adjust R51 for 0.35 MHz.**
- 7. Apply a cw signal at J2 of 32 MHz at -6 dBm.**
- 8. Apply a cw signal at J1 between 32.8 and 42.6 MHz at 0 dBm.**

E. Phase Lock

- 1. Connect the prescaler output to J3.**
- 2. Replace component U6.**
- 3. Monitor the prescaler output.**
- 4. Verify that the J1 signal varies between 32.8 MHz and 42.6 MHz and that the prescaler output simultaneously varies between .8 MHz and 10.6 MHz.**
- 5. Readjust the upper clamp to 11 MHz and adjust the lower clamp to the maximum value that is consistent with stability at .8 MHz and throughout the range.**

5.5.3 A5 - PREDETECTION GAIN CONTROL

Setup:



Preset Controls: INPUT FREQUENCY .25 to 20 MHz, BANDWIDTH 50 KHz.

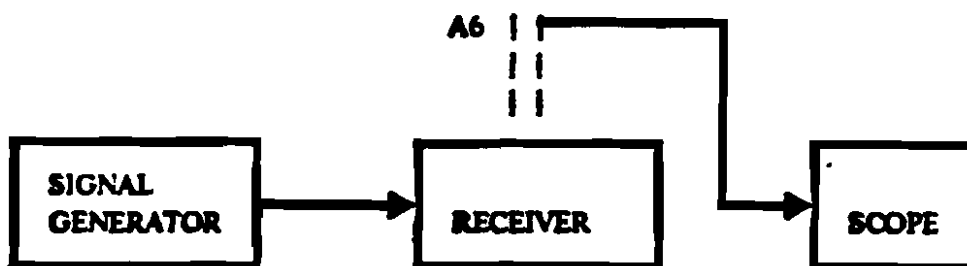
Procedure:

A. A5R93 200 KHz predetection amplifier gain.

1. Apply a 10 MHz signal, 30% amplitude modulated with 1000 Hz, to the SIGNAL IN connector.
2. Monitor A5J7 with the oscilloscope and adjust the signal level, RF GAIN and PREDETECTION GAIN for a level of 0.5 V pk-pk.
3. Set receiver BANDWIDTH to 20 KHz.
4. Monitor A5J9 with oscilloscope and adjust A5R93 for a level of 0.5 pk-pk.
5. Remove extenders and install assembly in receiver.

5.5.4 A6-AGC RF OVERLOAD - AUTORANGING

Setup:



Preset Controls: INPUT FREQUENCY 0 to .25 MHz, AGC-OFF, FR GAIN fully CW.

Procedure:

A. A6R14 - Band 1 front end overload threshold.

1. Tune receiver to 100 KHz.
2. Apply a 100 KHz signal, 30% amplitude modulated with 1000 Hz, to the SIGNAL IN connector. Adjust signal generator output level to -25 dBm.
3. Adjust A6R14 to make the OVERLOAD indicator just flicker.

B. A6R8 - Band 1 Attenuator autoranging low-level threshold.

1. Proceed as in A1 and 2 except reduce generator output to -38 dBm.
2. Connect oscilloscope to A6U5 pin 10.
3. Adjust A6R8 to make the signal seen on the oscilloscope go high (about +3.5 V dc) on modulation peaks.
4. Check attenuator autoranging by increasing the modulation level to 100% and slowly increasing the generator output level to +20 dBm.

C. A6R10 - Bands 2 through 8 front end overload threshold.

1. Tune receiver to 60 MHz.
2. Apply a 60 MHz signal, 30% amplitude modulated with 1000 Hz, to the SIGNAL IN connector. Adjust signal generator output level to -14 dBm.
3. Adjust A6R10 to make the OVERLOAD indicator just flicker,

D. A6R6 - Bands 2 through 8 attenuator autoranging lowlevel threshold.

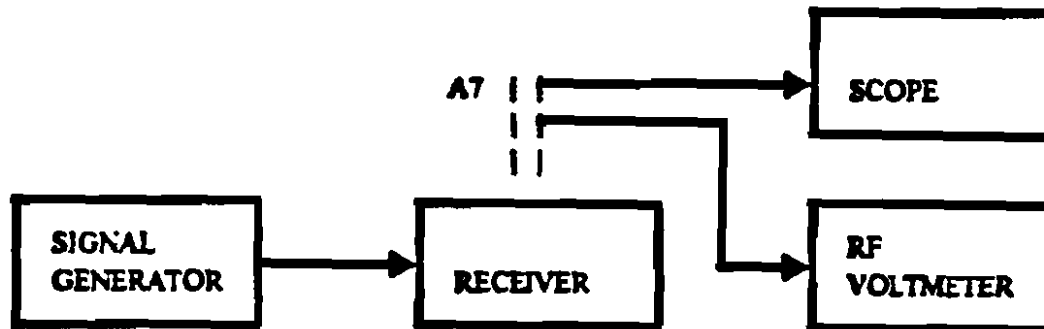
1. Proceed as in C1 and 2 except reduce generator output to -29 dBm.
2. Connect oscilloscope to A6U5 pin 10.
3. Adjust A6R6 to make the signal seen on the oscilloscope go high (about +3.5 Vdc) on modulation peaks.
4. Check attenuator autoranging by increasing the modulation level to 100% and slowly increasing the generator output level to +20 dBm.

E.A6R68 - AM meter offset

1. Remove input signal and reduce RF GAIN to MIN.
2. Position METER switch to AM.
3. Adjust A6R68 to make the meter reading correspond to mechanical zero (meter reading with POWER OFF).

5.5.5 A7 - A-M and BFO DETECTORS

Setup:



Preset Controls: INPUT FREQUENCY .25 to 20MHz

Procedure:

A. A7R25 200 KHz and 30 MHz detector balance

1. Set BANDWIDTH to 50 KHz. (30 MHz detector)
2. Apply a 450 MHz signal, -95dBm level to the SIGNAL IN connector.
3. Monitor A7/5 with the oscilloscope adjust signal generator level for 1 volt peak output
4. Position the BANDWIDTH selector to 20 KHz (200KHz detector) and again note the level as in step 3. If the levels seen in steps 3 and 4 are unequal adjust A7R25 to equalize them while switching between the 20 and 50 KHz bandwidth positions. Note: A7R25 changes the 200KHz detector only

B. A7R85 30MHz BFO Frequency Adjust

1. Set the signal generator to a frequency of 30MHz -95dBm level.
2. Tune receiver to 30MHz, 50KHz bandwidth.
3. Monitor AM VIDEO out on scope.

4. Set AM-FM-BFO switch to BFO.
5. Adjust A7R85 (available at top of A7 assembly for a zero beat on the scope).

*****NOTE*****

R6, R25, and R51 interact. Procedures A, B and C may have to be repeated until both the audio and dc levels are equalized. If this condition cannot be achieved, see procedure C.

C. A7T51 - 200 KHz A-M detector dc offset.

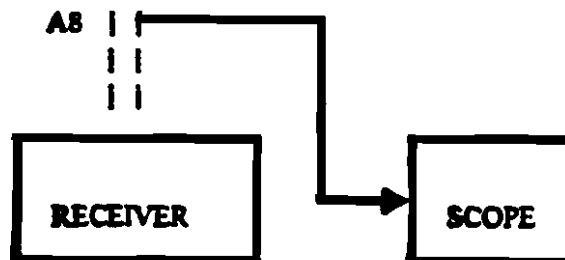
1. This adjustment is not required unless indicated by B.3. If necessary, repeat procedures A and B, except adjust A7R51 instead of R6.

D. A7R32 - 30 MHz BFO gain and A7R76 - 200 KHz BFO gain.

1. Set receiver bandwidth to 50 KHz and perform procedure A. 1,2, and 3 above, except turn off signal modulation.
2. Monitor A7P1 pin R or 14 with the oscilloscope. Observe the audio beat not on the oscilloscope and adjust A7R32 for maximum output.
3. Change receiver bandwidth to 20 KHz and adjust A7R76 for maximum output level of the audio beat note.
4. While alternating between bandwidth settings of 20 and 50 KHz, readjust either R32 or R76 to make the higher output equal to the lower obtained in steps 2 and 3 above.
5. Remove extenders and install assembly in receiver.

5.5.6 A8 - 30MHZ LOG IF DETECTOR

Setup:



Preset Controls: INPUT FREQUENCY .25 to 20 MHz, BANDWIDTH, 50 KHz, AM VIDEO -LINEAR, RF GAIN- fully counter-clockwise.

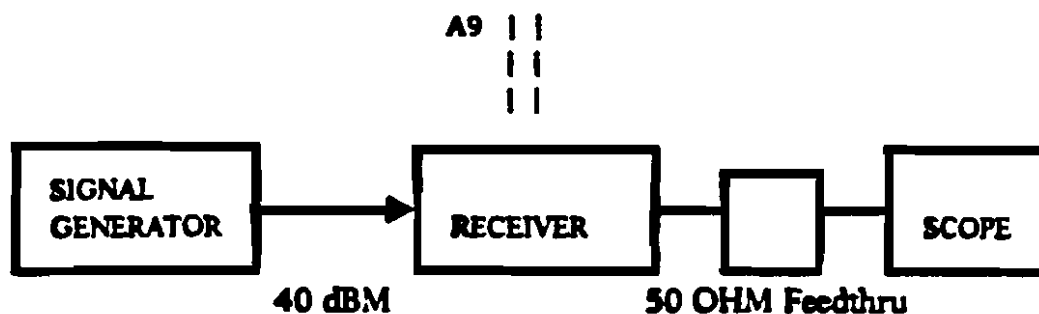
Procedure:

A. A8R69 - DC offset.

1. Monitor the signal at the AM VIDEO connector with the oscilloscope. The dc level of the video signal should be zero. If not, see the adjustment procedure for A10.
2. Position the AM VIDEO switch to LOG. Adjust A8R69, if necessary, to zero the dc level of the signal seen on the oscilloscope.
3. Remove extenders and install assembly in receiver.

5.5.7 A9 FM DETECTORS, AUDIO and VIDEO AMPL

Setup:



Preset Controls: INPUT FREQUENCY 20 to 200 MHz, AGC- SLOW , METER-FM.

Procedure:

I. 20 MHz discriminator

A. A9L1 - Center frequency.

1. Set the BANDWIDTH selector to the 20 MHz position.
2. Apply a 100 MHz signal, frequency modulated with 1000 Hz, at a signal level of -40 dBm to the SIGNAL IN connector.
3. Monitor the FM VIDEO connector on the front panel with the oscilloscope.

*****NOTE*****

Use a 50 ohm feedthrough termination or a TEE and a 50 ohm load between the VIDEO connector and the oscilloscope.

4. Adjust A9L1 slightly for maximum 1000 Hz indication on the oscilloscope.

B. A9R26 - FM meter offset.

1. Under the same conditions as in A above, except remove modulation from input signal, adjust A9R26 for a center scale reading on the TUNING meter.

C. A9R30 - FM meter gain.

1. While alternating the signal generator output frequency between 95 MHz and 105 MHz, adjust A9R30 for a meter reading of about 1/6 and 5/6 full scale respectively.

*****NOTE*****

The adjustments of procedures I. A, B, and C interact and may have to be repeated until the desired readings are obtained.

II. 200 KHz Discriminator

A. A9L2- Center Frequency

1. Set the BANDWIDTH selector to the .2 MHz position.
2. Continue complete procedure as in I.A except adjust A9L2.

*****NOTE*****

Adjust L2 very cautiously as this is a difficult adjustment.

B. A9R33 - FM meter offset.

1. Turn off generator modulation and adjust A9R33 for a center scale reading on the TUNING meter.

C. A9R39 - FM meter gain.

1. While alternating the signal generator output frequency between 99.950 and 100.050 MHz, adjust A9R39 for a meter reading of about 1/6 and 5/6 full scale.

*****NOTE*****

The adjustments of procedures II A,B and C interact and may have to be repeated until the desired readings are obtained.

III. 100 KHz Discriminator

A. A9L3- Center frequency.

1. Set the BANDWIDTH selector to the 20 KHz position.
2. Continue complete procedure as in I. A, except adjust A9L3.

B. A9R41- FM meter offset.

1. Turn off generator modulation and adjust A9R41 for a center scale reading on the Tuning meter.

C. A9R46 - FM meter gain.

1. While alternating the signal generator output frequency between 99.975 and 100.025 MHz, adjust A9R46 for a meter reading of about 1/6 and 5/6 full scale.

*****NOTE*****

The adjustments of procedures III. A,B and C interact and may have to be repeated until the desired readings are obtained.

IV. 10 KHz Discriminator

A. A9L4 - Center Frequency

1. Set the BANDWIDTH selector to the 10 KHz position.
2. Continue complete procedure as in I.A, except adjust A9L4.

B. A9R47- FM meter offset.

1. Turn off generator modulation and adjust A9R47 for a center scale reading of the Tuning meter.

C. A9R52 -FM meter gain.

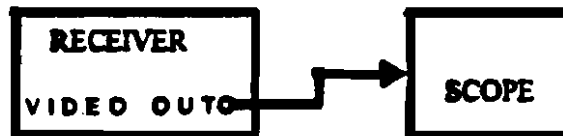
1. While alternating the signal generator output frequency between 99.995 and 100.005 MHz, adjust A9R52 for a meter reading of about 1/6 and 5/6 full scale.

*****NOTE*****

The adjustments of procedures IV. A,B and C interact and may have to be repeated until the desired readings are obtained.

5.5.8 A10 A-M VIDEO-SLIDEBACK PULSE-AUDIO STRETCH

Setup:



Preset Control: INPUT FREQUENCY .25 to 20 MHz, BANDWIDTH 50 MHz, AM VIDEO - LINEAR, RF GAIN-fully counterclockwise, PREDETECTION GAIN-0.

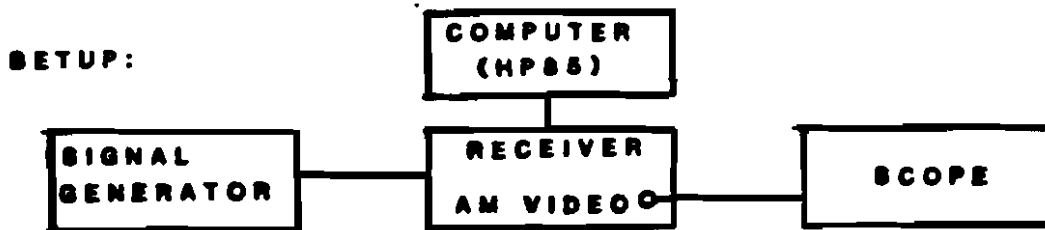
Procedure:

A. A10R18- Video dc offset.

1. Monitor the signal at the AM VIDEO connector with the oscilloscope.
2. Adjust A10R18, if necessary, to zero the dc level of the signal seen on the oscilloscope.

(A10R18 is available from top of A10 essembly; extender not required)

5.5.9 A11 Logic and Switching Control



Procedure:

A. A11R23 End-to-End Gain Adjust

1. Monitor signal at AM VIDEO connector on scope.
2. Set the signal generator to 100MHz, -95dBm level.
3. Tune receiver to 100MHz, 200KHz BW, attenuator 0, predetect gain 0.
4. Adjust R23 (available from top of A11 assembly) for 1 volt out on scope.

B. A11R25 MDC GAIN Compensation

NOTE: This is a DSI System adjustment and is not required for standalone operation.

1. Ensure that end-to-end gain is correct as in the procedure.

Step A. Monitor signal at AM VIDEO connector on scope.

2. Connect computer to receiver IEEE port.
3. Put receiver in quasi remote mode (command M14).
4. Set signal generator to 100MHz, -82dBm level.
5. Tune receiver to 100MHz, set RF attenuator to 0, select 200KHz bandwidth.
6. Adjust A11R25 (available from top of A11 assembly) for 1 volt peak video signal.

5.6 HARNESSES AND INTERCONNECTION

Figure 5-6 shows the card cage coax connector locations. Table 5-15 lists the coax harness connections to the cards, and shows where the various signals are routed.

Table 5-16 through 5-26 are lists showing the wiring (not coax) between the receivers modules and connectors.

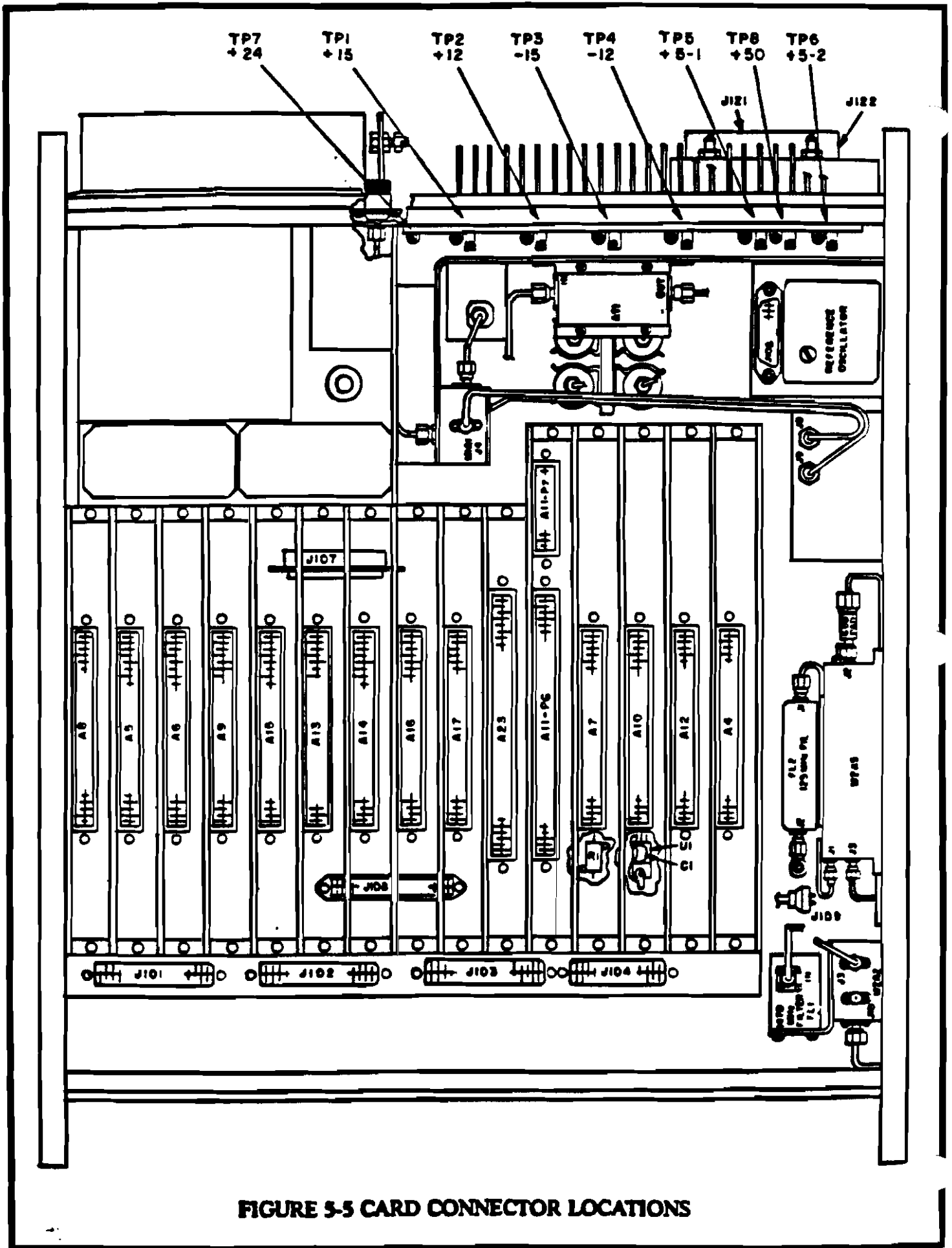


FIGURE 5-5 CARD CONNECTOR LOCATIONS

(THIS PAGE INTENTIONALLY LEFT BLANK)

NOTE:
 1. ① DENOTES J REFERENCE NUMBER

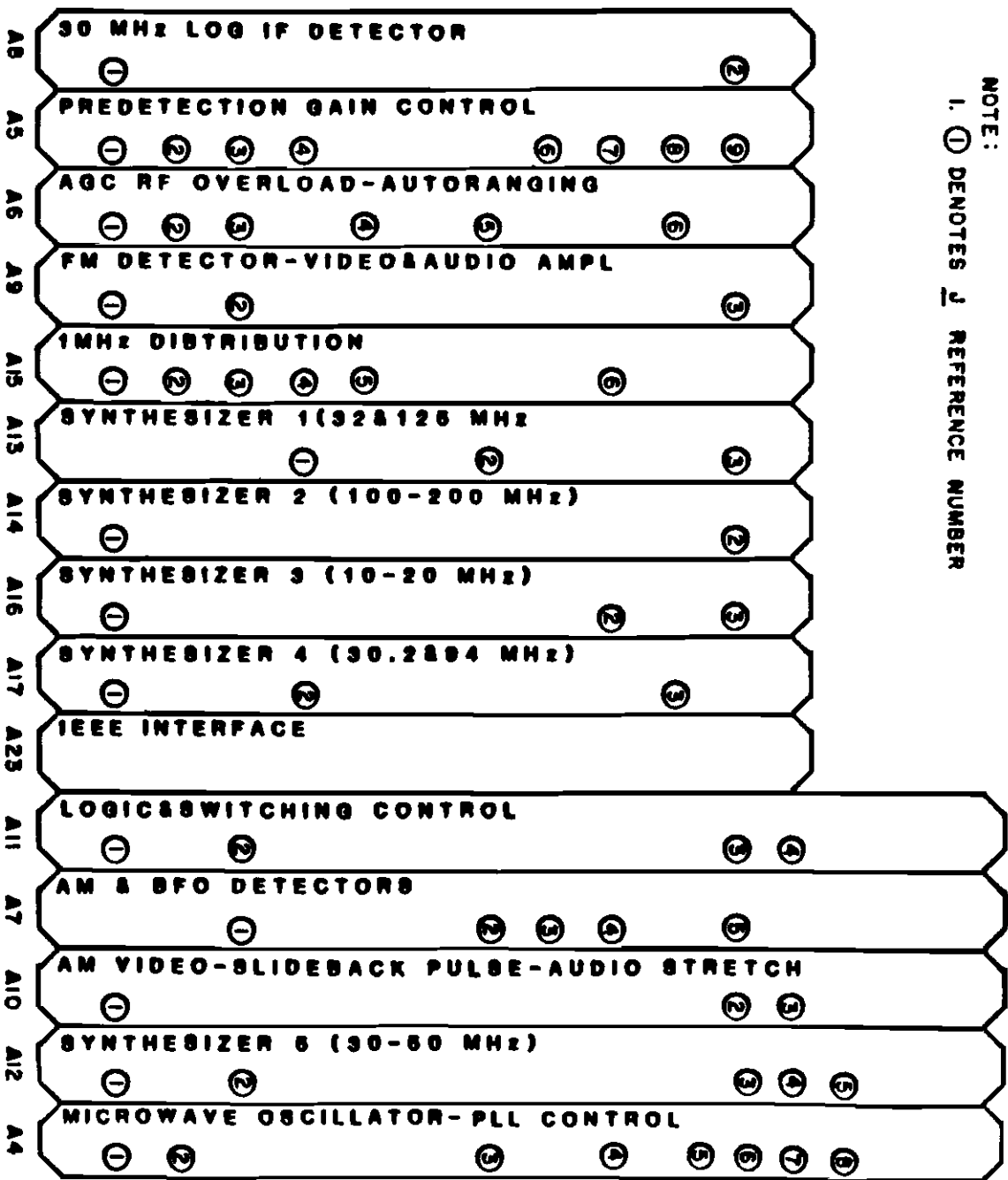


FIGURE 5-6 CARD CAGE COAX CONNECTIONS

(THIS PAGE INTENTIONALLY LEFT BLANK)

**CARD CAGE COAXIAL CONNECTOR LIST
TABLE 5-15**

Assembly	Connector	Signal	Connects To
A4	1	32.8 to 42.6 MHz	A12J3
	2	32 MHz	A13J2
	3	.8 to 10.6 MHz	uWave Bkt #2
	4	VCO Tune	uWave Bkt #2
	5	1MHz out	A11J4
	6	1MHz Input	uWave Bkt #1
	7	3MHz	A19J2
	8	+15V	uWave Bkt #2
A5	1	200 KHz IF	A19J5
	2	30 MHz IF	A19J12
	3	IF Out	A24J7
	4	IF gain	A24
	6	30 MHz Pred IF	A9J1
	7	30 MHz Pred IF	A7J1
	8	200 KHz Pred IF	A9J2
	9	200 KHz Pred IF	A7J3
	A6	1	AGC Sig
2		30 MHz IF Overload	A19J9
3		200 KHz IF overload	A19J3
4		RF gain	A11J3
5		AGC 1	A19
6		AGC 2	A19
A7	1	30 MHz Pred IF	A5J7
	2	30 MHz Log Video	A8J2
	3	200 KHz Pred IF	A5J9
	4	200 KHz log IF	A19J6
	5	Ave Det Output	A10J1
A8	1	30 MHz IF	A19J10
	2	30 MHz Log Video	A7J2
A9	1	30 MHz Pred IF	A5J6
	2	200 KHz Pred IF	A5J8
	3	FM Video Output	A24J5
A10	1	Ave Detected Video Input	A7J5
	2	Video Output	A24J3
	3	AGC Signal	A6J1
A11	1	1MHz	A24A1J3
	2	RF Gain, Man	A24
	3	RF Gain	A6J4
	4	1MHz	A4J5
A12	1	1MHz	A15J1
	2	1-2 MHz	A16J2
	3	32.8-42.6 MHz	A4J1
	4	30.25-50.0MHz	A19J7
	5	3.2 -3.45 MHz	A19J4

CARD CAGE COAXIAL LIST (CONT)

Assembly	Connector	Signal	Connects To
A13	J1	125 MHz	uWave Bkt #2
	J2	32 MHz	A4J2
	J3	1 MHz	A15J5
A14	J1	1 MHz	A15J4
	J2	1-2 MHz	A16J3
A15	J1	1 MHz	A12J1
	J2	1 MHz	A17J1
	J3	1 MHz	A16J1
	J4	1 MHz	A14J1
	J5	1 MHz	A13J3
	J6	1 MHz	uWave Bkt #1
A16	J1	1MHz	A15J3
	J2	1-2 MHz	A12J2
	J3	1-2 MHz	A14J2
A17	J1	1 MHz	A15J2
	J2	94 MHz	uWave Bkt #2
	J3	30.2 MHz	A19J11

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
+15V	RED	24	AB	B/2	A12	B
+15V	RED	24	AB	B/2	A5	B/2
+15V	RED	24	A5	B/2	A6	22
+15V	RED	24	A6	22	A9	B/2
+15V	RED	24	A9	B/2	A15	B/2
+15V	RED	24	A15	B/2	TB101	6
+15V	RED	24	A15	B/2	A13	B/2
+15V	RED	24	A13	B/2	A14	B/2
+15V	RED	24	A14	B/2	A16	B/2
+15V	RED	24	A16	B/2	A17	B/2
+15V	RED	24	A17	B/2	A11P7	B7/A7
+15V	RED	24	A11P7	B7/A7	A7	B/2
+15V	RED	24	A7	B/2	A10	B/2
+15V	RED	24	A10	B/2	A12	B
-15V	VIO	24	AB	C/3	A5	C/3
-15V	VIO	24	A5	C/3	A6	21
-15V	VIO	24	A6	21	A9	C/3
-15V	VIO	24	A9	C/3	A15	C/3
-15V	VIO	24	A15	C/3	TB101	7
-15V	VIO	24	A15	C/3	A13	C/3
-15V	VIO	24	A13	C/3	A14	C/3
-15V	VIO	24	A14	C/3	A16	C/3
-15V	VIO	24	A16	C/3	A17	C/3
-15V	VIO	24	A17	C/3	A7	C/3
-15V	VIO	24	A7	C/3	A10	C/3
-15V	VIO	24	A10	C/3	A12	C/3
-15V	VIO	24	A12	C/3	A11P7	B4/A4
+12V	RED	24	A5	D/4	A9	D/4
+12V	RED	24	A9	D/4	A15	D/4
+12V	RED	24	A15	D/4	TB101	4
+12V	RED	24	A15	D/4	A17	D/4
+12V	RED	24	A17	D/4	A7	D/4
+12V	RED	24	A7	D/4	A10	D/4
SYNTH. 5V	GRN	24	A12	U/17	U1	3
REG. IN	RED	24	U1	1	R1	2
+12V	RED	24	A10	4	R1	1
-12V	VIO	24	A5	E/5	A9	E/5
-12V	VIO	24	A9	E/5	A15	E/5
-12V	VIO	24	A15	E/5	TB101	5
-12V	VIO	24	A15	E/5	A17	E/5
-12V	VIO	24	A17	E/5	A7	E/5
-12V	VIO	24	A7	E/5	A10	E/5
ANALOG+5V	GRN	18	A5	F/6	A6	Y
ANALOG+5V	GRN	18	A6	Y	A9	F/6
ANALOG+5V	GRN	18	A9	F/6	A15	F/6
ANALOG+5V	GRN	18	A15	F/6	TB101	3
ANALOG+5V	GRN	18	A15	F/6	A13	F/6
ANALOG+5V	GRN	18	A13	F/6	A14	E/5
ANALOG+5V	GRN	18	A14	E/5	A16	E/5
ANALOG+5V	GRN	18	A16	E/5	A17	F/6

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
ANALOG+5V	GRN	18	A17	F/6	A7	F/6
ANALOG+5V	GRN	18	A7	F/6	A10	F/6
ANALOG+5V	GRN	18	A10	F/6	A4	F/6
ANALOG+5V	GRN	18	A4	F/6	A12	F/6
DIGITAL+5V	GRN	20	A23	A1/B1	TB101	1
DIGITAL+5V	BUSS	24	A23	A1/B1	A23	B1/B2
DIGITAL+5V	BUSS	24	A23	B2	A23	A2
DIGITAL+5V	BUSS	24	A23	A2	A23	A1
DIGITAL+5V	GRN	20	A11F7	A6/B6	TB101	1
DIGITAL+5V	GRN	24	A23	B2	J103	25
DIGITAL+5V	GRN	24	J103	25	J103	50
DIGITAL+5V	GRN	24	J103	50	J104	C
+50V	ORN	24	A4	H/7	TB101	8
-24V	VID	24	A4	K/9	TB101	9
+24V	RED	24	A4	J/8	TB101	2
DIGITAL+5V	GREEN	24	J103	25	A23	B2
DIGITAL+5V	GREEN	24	J103	50	A23	A2
DIGITAL+5V	GRN	18	J104	C	TB101	1
+12V	RED	18	J104	F	TB101	4
+24V	RED	18	J104	M	TB101	2
+24V	RED	24	F106	7	J102	7
+12V	RED	24	F106	23	TB101	4
+15V	RED	24	F106	24	TB101	6
+15V	RED	18	J107	A	TB101	6
+12V	RED	18	J107	C	TB101	4
-15V	VID	18	J107	E	TB101	7
-12V	VID	18	J107	H	TB101	5
+50V	ORN	24	J107	K	TB101	8
DIGITAL+5V	GRN	18	J107	L	TB101	1
ANALOG+5V	GRN	18	J107	N	TB101	3
+24V	RED	24	J107	R	TB101	2
-24V	VID	24	J107	S	TB101	9
+12V	RED	24	J108	21	TB101	4
-12V	VID	24	J108	22	TB101	5
+15V	RED	24	J108	23	TB101	6
-15V	VID	24	J108	24	TB101	7
ANALOG+5V	GRN	24	J109	A	TB101	3
+15V	RED	24	J109	D	TB101	6

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
GND	BLK	24	U1	2		
GND	BLACK	22	A11P6	LUG	A11P6	A1/B
GND	BUSS	24	A23	48	A23	A49
GND	BUSS	24	A23	A49	A23	A50
GND	BUSS	24	A23	B48	A23	B49
GND	BUSS	24	A23	B49	A23	B50
GND	BUSS	24	A23	B50	A23	A50
GND	BLACK	22	A23	LUG	A23	A50
GND	BLACK	22	A11P7	LUG	A11P7	A15/B15
GND	BLK	22	A23	A48	J103	26
GND	BLACK	22	J103	1	A23	B48
GND	BLACK	22	J103	26	A23	A48
GND	BLK	18	J104	A	J104	LUG
GND	BLK	26	F106	1	A17	LUG
GND	BLK	26	F106	21	A17	LUG
GND	BLK	18	J107	X	TR101	LUG
GND	BLK	22	J108	49	J108	LUG
GND	BLK	22	J108	50	J108	LUG
GND	BLK	24	J109	B	TB101	LUG
GND	BLK	26	J121	18	A23	LUG
GND	BLK	26	J121	19	A23	LUG
GND	BLK	26	J121	20	A23	LUG
GND	BLK	26	J121	21	A23	LUG
GND	BLK	26	J121	22	A23	LUG
GND	BLK	26	J121	23	A23	LUG
GND	BLK	22	J122	19		GND

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
WBACL	W/V	26	A4	C/3	J102	30
WBACL	WHT	26	A4	C/3	F106	19
WBACL	W/R	26	A4	C/3	J122	17
LSTAT	WHT	26	A4	E/5	A11F6	B9
ANALDG+5V	GRN	18	A4	F/6	A10	F/6
ANALDG+5V	GRN	18	A4	F/6	A12	F/6
+50V	ORN	24	A4	H/7	TB101	8
+24V	RED	24	A4	J/8	TB101	2
-24V	VIO	24	A4	K/9	TB101	9

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
+15V	RED	24	A5	B/2	A8	B/2
+15V	RED	24	A5	B/2	A6	22
-15V	VIO	24	A5	C/3	A8	C/3
-15V	VIO	24	A5	C/3	A6	21
+12V	RED	24	A5	D/4	A9	D/4
-12V	VIO	24	A5	E/5	A9	E/5
ANALOG+5V	GRN	18	A5	F/6	A6	Y
30MHZIF	W/V	26	A5	V/18	A11F6	B36
30MHZIF	WHT	26	A5	V/18	A11P6	B36
PD30	W/V	26	A5	W/19	A11F7	B9
PD 20	W/V	26	A5	X/20	A11P7	A9
PD 10	W/V	26	A5	Y/21	A11P7	BB
PD 0	W/V	26	A5	Z/22	A11P7	AB

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
100dBLED*	YELLOW	26	A6	1	J101	30
80dBLED*	YELLOW	26	A6	2	J101	32
60dBLED*	YELLOW	26	A6	3	J101	34
40dBLED*	YELLOW	26	A6	4	J101	36
20dBLED*	YELLOW	26	A6	5	J101	38
0dBLED*	YELLOW	26	A6	6	J101	42
20dB	WHT	26	A6	7	P106	3
20DB	WHT	26	A6	7	J108	35
40dB	WHT	26	A6	8	P106	5
40dB	WHT	26	A6	8	J108	37
AGCS*	WHT	26	A6	10	A11F6	A43
RFOL	WHT	26	A6	11	A11F6	A40
MAE	WHT	26	A6	12	A11F6	B21
MAC	WHT	26	A6	13	A11F6	A22
R*/L	WHT	26	A6	14	A11F6	B12
R*/L	WHT	26	A6	14	A23	B14
R*/L	WHT	26	A6	14	J103	3
ATSW30*	W/V	26	A6	16	J102	38
ATSW10*	W/V	26	A6	17	J102	36
ATSW80*	W/V	26	A6	18	J102	43
ATSW60*	W/V	26	A6	19	J102	41
ATSW40*	W/V	26	A6	20	J102	39
-15V	VIO	24	A6	21	A5	C/3
-15V	VIO	24	A6	21	A9	C/3
+15V	RED	24	A6	22	A5	B/2
+15V	RED	24	A6	22	A9	B/2
90dBLED*	YELLOW	26	A6	B	J101	31
70dBLED*	YELLOW	26	A6	C	J101	33
50dBLED*	YELLOW	26	A6	D	J101	35
30dBLED	YELLOW	26	A6	E	J101	37
10dBLED	YELLOW	26	A6	F	J101	39
10dB	WHT	26	A6	H	P106	2
-10dB	WHT	26	A6	H	J108	34
30dB	WHT	26	A6	J	P106	4
30dB	WHT	26	A6	J	J108	36
AM MET	W/V	26	A6	K	J104	D
AGCF*	WHT	26	A6	L	A11F6	B43
DETOL	WHT	26	A6	M	A11F6	A42
MAA	WHT	26	A6	P	A11F6	A21
MAD	WHT	26	A6	R	A11F6	B22
SAUTO*	W/V	26	A6	S	J102	46
SAUTO*	W/V	26	A6	S	A11F6	A38
SAUTO*	W/V	26	A6	S	A11F6	A38
ATSW100*	W/V	26	A6	T	J102	45
ATSW20*	W/V	26	A6	U	J102	37
ATSW90*	W/V	26	A6	V	J102	44
ATSW70*	W/V	26	A6	W	J102	42
ATSW50*	W/V	26	A6	X	J102	40
ANALOG+5V	BRN	18	A6	Y	A5	F/6

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
ANALOG+5V	GRN	18	A6	Y	A9	F/6

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN.
LOG*	WHT	26	A7	10	A11P6	A12
+15V	RED	24	A7	B/2	A11F7	B7/A7
+15V	RED	24	A7	B/2	A10	B/2
-15V	VID	24	A7	C/3	A17	C/3
-15V	VID	24	A7	C/3	A10	C/3
+12V	RED	24	A7	D/4	A17	D/4
+12V	RED	24	A7	D/4	A10	D/4
-12V	VID	24	A7	E/5	A17	E/5
-12V	VID	24	A7	E/5	A10	E/5
ANALOG+5V	GRN	18	A7	F/6	A17	F/6
ANALOG+5V	GRN	18	A7	F/6	A10	F/6
30MHZIF	WHT	26	A7	H/7	A11P6	B36
BFO TUNE	COAX		A7	J/8	J104	X
BFO AUDIO	COAX		A7	R/14	J104	U

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
+15V	RED	24	AB	B/2	A12	B
+15V	RED	24	AB	B/2	A5	B/2
-15V	VID	24	AB	C/3	A5	C/3

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
FM MET	W/V	26	A9	7	J104	E
+15V	RED	24	A9	B/2	A6	22
+15V	RED	24	A9	B/2	A15	B/2
-15V	VIO	24	A9	C/3	A6	21
-15V	VIO	24	A9	C/3	A15	C/3
+12V	RED	24	A9	D/4	A5	D/4
+12V	RED	24	A9	D/4	A15	D/4
-12V	VIO	24	A9	E/5	A5	E/5
-12V	VIO	24	A9	E/5	A15	E/5
ANALOG+5V	GRN	18	A9	F/6	A6	Y
ANALOG+5V	GRN	18	A9	F/6	A15	F/6
FM AUDIO	CDAX		A9	J/8	J104	S
FM10K	W/V	26	A9	W/19	A11F7	B14
FM100K	W/V	26	A9	X/20	A11F7	B13
FM200K	W/V	26	A9	Y/21	A11F7	B12
FM20M	W/V	26	A9	Z/22	A11F7	B11

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
+12V	RED	24	A10	4	R1	1
PULSESTRCH	W/V	26	A10	8	J102	48
SLIDEBACK	W/V	26	A10	9	J102	49
SIDEBCKVOL	W/V	26	A10	14	J102	50
SLBACK	WHT	26	A10	15	A11P6	A27
VBWD	W/V	26	A10	19	J108	31
VBWD	W/V	26	A10	19	A11P7	A13
+15V	RED	24	A10	B/2	A7	B/2
+15V	RED	24	A10	B/2	A12	B
-15V	VIO	24	A10	C/3	A7	C/3
-15V	VIO	24	A10	C/3	A12	C/3
+12V	RED	24	A10	D/4	A7	D/4
-12V	VIO	24	A10	E/5	A7	E/5
ANALOG+5V	GRN	18	A10	F/6	A7	F/6
ANALOG+5V	GRN	18	A10	F/6	A4	F/6
PULSESTRCH	COAX		A10	H/7	J104	N
AM AUDIO	COAX		A10	L/10	J104	T
VBWC	W/V	26	A10	X/20	A11P7	A12
VBWB	W/V	26	A10	Y/21	A11P7	A11
VBNA/NF4M	W/V	26	A10	Z/22	A11P7	A10

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
+15V	RED	24	A12	B	AB	B/2
+15V	RED	24	A12	B	A10	B/2
-15V	VIO	24	A12	C/3	A10	C/3
-15V	VIO	24	A12	C/3	A11F7	B4/A4
BD1*	WHT	26	A12	D/4	A11F6	A1B
CSE	WHT	26	A12	E/5	A13	D/4
ANALOG+5V	GRN	18	A12	F/6	A4	F/6
SYN1	WHT	26	A12	J/8	A11F6	A4
MIX1	WHT	26	A12	K/9	A11F6	A5
N37	WHT	26	A12	L/10	J103	43
N36	WHT	26	A12	M/11	J103	42
N35	WHT	26	A12	N/12	J103	41
N34	WHT	26	A12	P/13	J103	40
N32	WHT	26	A12	R/14	J103	39
N31	WHT	26	A12	S/15	J103	38
N30	WHT	26	A12	T/16	J103	37
SYNTH.5V	GRN	24	A12	U/17	U1	3

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
+15V	RED	24	A13	B/2	A15	B/2
+15V	RED	24	A13	B/2	A14	B/2
-15V	VIO	24	A13	C/3	A15	C/3
-15V	VIO	24	A13	C/3	A14	C/3
CSE	WHT	26	A13	D/4	J103	48
CSE	WHT	26	A13	D/4	A12	E/5
ANALDG+5V	GRN	18	A13	F/6	A15	F/6
ANALDG+5V	GRN	18	A13	F/6	A14	E/5
94MHZPWR	WHT	26	A13	H/7	A17	J/8
94MHZPWR	WHT	26	A13	H/7	A11F6	A34

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
ODEF0D	WHT	26	A14	7	J103	14
ODEF0C	WHT	26	A14	8	J103	13
ODEF0E	WHT	26	A14	9	J103	12
ODEF0A	WHT	26	A14	10	J103	11
ODEF1D	WHT	26	A14	11	J103	18
ODEF1C	WHT	26	A14	12	J103	17
ODEF1E	WHT	26	A14	13	J103	16
ODEF1A	WHT	26	A14	14	J103	15
ODEF2D	WHT	26	A14	15	J103	22
ODEF2C	WHT	26	A14	16	J103	21
ODEF2E	WHT	26	A14	17	J103	20
ODEF2A	WHT	26	A14	18	J103	19
ODEF3D	WHT	26	A14	19	J103	28
ODEF3C	WHT	26	A14	20	J103	27
ODEF3E	WHT	26	A14	21	J103	24
ODEF3A	WHT	26	A14	22	J103	23
+15V	RED	24	A14	B/2	A13	B/2
+15V	RED	24	A14	B/2	A16	B/2
-15V	VIO	24	A14	C/3	A13	C/3
-15V	VIO	24	A14	C/3	A16	C/3
ANALOG+5V	GRN	18	A14	E/5	A13	F/6
ANALOG+5V	GRN	18	A14	E/5	A16	E/5
SYN3	WHT	26	A14	Y	A11P6	B8

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
+15V	RED	24	A15	B/2	A9	B/2
+15V	RED	24	A15	B/2	TB101	6
+15V	RED	24	A15	B/2	A13	B/2
-15V	VIO	24	A15	C/3	A9	C/3
-15V	VIO	24	A15	C/3	TB101	7
-15V	VIO	24	A15	C/3	A13	C/3
+12V	RED	24	A15	D/4	A9	D/4
+12V	RED	24	A15	D/4	TB101	4
+12V	RED	24	A15	D/4	A17	D/4
-12V	VIO	24	A15	E/5	A9	E/5
-12V	VIO	24	A15	E/5	TB101	5
-12V	VIO	24	A15	E/5	A17	E/5
ANALOG+5V	GRN	18	A15	F/6	A9	F/6
ANALOG+5V	GRN	18	A15	F/6	TB101	3
ANALOG+5V	GRN	18	A15	F/6	A13	F/6

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
N20	WHT	26	A16	8	J103	29
N21	WHT	26	A16	9	J103	30
N22	WHT	26	A16	10	J103	31
N23	WHT	26	A16	11	J103	32
N24	WHT	26	A16	12	J103	33
N25	WHT	26	A16	13	J103	34
N26	WHT	26	A16	14	J103	35
N27	WHT	26	A16	15	J103	36
+15V	RED	24	A16	B/2	A14	B/2
+15V	RED	24	A16	B/2	A17	B/2
-15V	VIO	24	A16	C/3	A14	C/3
-15V	VIO	24	A16	C/3	A17	C/3
ANALOG+5V	GRN	18	A16	E/5	A14	E/5
ANALOG+5V	GRN	18	A16	E/5	A17	F/6
SYN2	WHT	26	A16	H/7	A11F6	B4
MIX2	WHT	26	A16	T/16	A11F6	B5

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
+15V	RED	24	A17	B/2	A16	B/2
+15V	RED	24	A17	B/2	A11P7	B7/A7
-15V	VIO	24	A17	C/3	A16	C/3
-15V	VIO	24	A17	C/3	A7	C/3
+12V	RED	24	A17	D/4	A15	D/4
+12V	RED	24	A17	D/4	A7	D/4
-12V	VIO	24	A17	E/5	A15	E/5
-12V	VIO	24	A17	E/5	A7	E/5
ANALOG+5V	GRN	18	A17	F/6	A16	E/5
ANALOG+5V	GRN	18	A17	F/6	A7	F/6
DWN. CONV.	WHT	26	A17	H/7	A11P6	A39
DWN. CONV.	WHT	26	A17	H/7	J10B	26
94MHZPWR	WHT	26	A17	J/B	A13	H/7
94MHZPWR	WHT	26	A17	J/B	A11P6	A34
GND	BLK	26	A17	LUG	P106	1
GND	BLK	26	A17	LUG	P106	21

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
DIGITAL+5V	BUSS	24	A23	A1	A23	A2
DIGITAL+5V	GRN	20	A23	A1/B1	TB101	1
DIGITAL+5V	BUSS	24	A23	A2	A23	B2
DIGITAL+5V	GREEN	24	A23	A2	J103	50
ADDR0	WHT	26	A23	A21	A11P6	A6
ADDR1	WHT	26	A23	A22	A11P6	B6
ADDR2	WHT	26	A23	A23	A11P6	A7
ADDR3	WHT	26	A23	A24	A11P6	B7
EOI	WHT	26	A23	A40	J121	5
ATN	WHT	26	A23	A41	J121	11
SRQ	WHT	26	A23	A42	J121	10
NRFF	WHT	26	A23	A43	J121	7
NDAC	WHT	26	A23	A44	J121	8
DAV	WHT	26	A23	A45	J121	6
REN	WHT	26	A23	A46	J121	17
IFC	WHT	26	A23	A47	J121	9
GND	BLK	22	A23	A48	J103	26
GND	BUSS	24	A23	A49	A23	48
GND	BUSS	24	A23	A50	A23	A49
GND	BUSS	24	A23	A50	A23	B50
GND	BLACK	22	A23	A50	A23	LUG
DIGITAL+5V	BUSS	24	A23	B1/B2	A23	A1/B1
PDR*	WHT	26	A23	B10	J103	9
PDR*	WHT	26	A23	B10	A11P6	A41
ACCEPTED*	WHT	26	A23	B11	J103	8
DTAVL*	WHT	26	A23	B12	J103	2
DTAVL*	WHT	26	A23	B12	A11P6	A9
COMFCLR*	WHT	26	A23	B13	J103	10
COMCLR*	WHT	26	A23	B13	A11P6	B41
R*/L	WHT	26	A23	B14	A6	14
DATA0*	WHT	26	A23	B16	A11P6	A10
DATA1*	WHT	26	A23	B17	A11P6	B10
DATA2*	WHT	26	A23	B18	A11P6	A11
DATA3*	WHT	26	A23	B19	A11P6	B11
DIGITAL+5V	GREEN	24	A23	B2	J103	25
DATA0	WHT	26	A23	B21	J103	4
DATA1	WHT	26	A23	B22	J103	5
DATA2	WHT	26	A23	B23	J103	6
DATA3	WHT	26	A23	B24	J103	7
DI01	WHT	26	A23	B40	J121	1
DI02	WHT	26	A23	B41	J121	2
DI03	WHT	26	A23	B42	J121	3
DI04	WHT	26	A23	B43	J121	4
DI05	WHT	26	A23	B44	J121	13

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
DI06	WHT	26	A23	B45	J121	14
DI07	WHT	26	A23	B46	J121	15
DI08	WHT	26	A23	B47	J121	16
GND	BLACK	22	A23	B48	J103	1
GND	BUSS	24	A23	B49	A23	B48
GND	BUSS	24	A23	B50	A23	B49
GND	BLK	26	A23	LUG	J121	18
GND	BLK	26	A23	LUG	J121	19
GND	BLK	26	A23	LUG	J121	20
GND	BLK	26	A23	LUG	J121	21
GND	BLK	26	A23	LUG	J121	22
GND	BLK	26	A23	LUG	J121	23
LOGICGND	BLK	22	A23	LUG	J121	24

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
DIGITAL+5V	GRN	20	TB101	1	A23	A1/B1
DIGITAL+5V	GRN	20	TB101	1	A11P7	A6/B6
DIGITAL+5V	GRN	18	TB101	1	J104	C
DIGITAL+5V	GRN	18	TB101	1	J107	L
+24V	RED	24	TB101	2	A4	J/B
+24V	RED	18	TB101	2	J104	M
+24V	RED	24	TB101	2	J107	R
ANALOG+5V	GRN	18	TB101	3	A15	F/6
ANALOG+5V	GRN	18	TB101	3	J107	N
ANALOG+5V	GRN	24	TB101	3	J109	A
+12V	RED	24	TB101	4	A15	D/4
+12V	RED	18	TB101	4	J104	F
+12V	RED	24	TB101	4	F106	23
+12V	RED	18	TB101	4	J107	C
+12V	RED	24	TB101	4	J108	21
-12V	VIO	24	TB101	5	A15	E/5
-12	VIO	24	TB101	5	F106	22
-12V	VIO	18	TB101	5	J107	H
-12V	VIO	24	TB101	5	J108	22
+15V	RED	24	TB101	6	A15	B/2
+15V	RED	24	TB101	6	F106	24
+15V	RED	18	TB101	6	J107	A
+15V	RED	24	TB101	6	J108	23
+15V	RED	24	TB101	6	J109	D
-15V	VIO	24	TB101	7	A15	C/3
-15V	VIO	18	TB101	7	J107	E
-15V	VIO	24	TB101	7	J108	24
+50V	DRN	24	TB101	8	A4	H/7
+50V	DRN	24	TB101	8	J107	K
-24V	VIO	24	TB101	9	A4	K/9
-24V	VIO	24	TB101	9	J107	S
BND	BLK	18	TB101	LUG	J107	X
GND	BLK	24	TB101	LUG	J109	B

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
BW500LED*	YELLOW	26	J101	1	A11P6	B29
BW200LED*	YELLOW	26	J101	2	A11P6	A29
DETOLED*	YELLOW	26	J101	3	A11P6	B42
BW100LED*	YELLOW	26	J101	4	A11P6	B28
PDOLED*	YELLOW	26	J101	5	A11P6	A13
BW50LED*	YELLOW	26	J101	6	A11P6	A28
PD10LED*	YELLOW	26	J101	7	A11P6	B13
BW20LED*	YELLOW	26	J101	8	A11P6	A32
PD20LED*	YELLOW	26	J101	9	A11P6	A41
BW10LED*	YELLOW	26	J101	10	A11P6	B31
PD30LED*	YELLOW	26	J101	11	A11P6	B14
BW5LED*	YELLOW	26	J101	12	A11P6	A31
30MHZLED*	YELLOW	26	J101	13	A11P6	B37
BW2LED*	YELLOW	26	J101	14	A11P6	B30
200MHZLED*	YELLOW	26	J101	15	A11P6	A37
BW1LED*	YELLOW	26	J101	16	A11P6	A30
KHZLED*	YELLOW	26	J101	18	A11P6	A16
KHZLED*	YELLOW	26	J101	19	A11P6	B16
			J101	20		
			J101	21		
			J101	22		
			J101	23		
			J101	24		
			J101	25		
			J101	26		
			J101	27		
SLIDEBACKL	YELLOW	26	J101	28	A11P6	B26
			J101	29		
100dBLED*	YELLOW	26	J101	30	A6	1
90dBLED*	YELLOW	26	J101	31	A6	B
80dBLED*	YELLOW	26	J101	32	A6	2
70dBLED*	YELLOW	26	J101	33	A6	C
60dBLED*	YELLOW	26	J101	34	A6	3
50dBLED*	YELLOW	26	J101	35	A6	D
40dBLED*	YELLOW	26	J101	36	A6	4
30dBLED	YELLOW	26	J101	37	A6	E
20dBLED*	YELLOW	26	J101	38	A6	5
10dBLED	YELLOW	26	J101	39	A6	F
RFOLED*	YELLOW	26	J101	40	A11P6	B40
			J101	41		
0dBLED*	YELLOW	26	J101	42	A6	6
AUTOLED*	YELLOW	26	J101	43	A11P6	B39
MHZLED*	YELLOW	26	J101	44	A11P6	A17
			J101	45		
			J101	46		
			J101	47		
			J101	48		
			J101	49		
			J101	50		

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
BWSW0	W/V	26	J102	1	A11P6	A24
BWSW1	W/V	26	J102	2	A11P6	B24
BWSW2	W/V	26	J102	3	A11P6	A25
BWSW3	W/V	26	J102	4	A11P6	B25
BWSW4	W/V	26	J102	5	A11P6	A26
+24	W/V		J102	6	J108	38
+24	WHT	26	J102	6	J108	38
+24	RED	24	J102	7	P106	7
BLIN*	W/V	26	J102	8	A11P6	B27
			J102	9		
RB3	W/V	26	J102	10	P106	8
RB4	W/V	26	J102	11	P106	10
RB5	C/V	26	J102	12	P106	12
RB5	W/V	26	J102	12	P106	12
RB6	W/V	26	J102	13	P106	14
RB7	W/V	26	J102	14	P106	16
RB8	W/V	26	J102	15	P106	18
EB8	W/V	26	J102	15	P106	18
CALRLY	W/V	26	J102	16	J108	25
BD1EN	W/V	26	J102	16	J108	25
DB3/BEN*	W/V	26	J102	17	J108	27
BD3/BEN*	W/V	26	J102	17	J108	27
BD1/2EN*	W/V	26	J102	18	P106	6
PDSWA	W/V	26	J102	19	A11P6	A33
PDSWB	W/V	26	J102	20	A11P6	B33
			J102	21		
			J102	22		
SAGCS*	W/V	26	J102	23	A11P6	A35
SAGCF*	W/V	26	J102	24	A11P6	B35
			J102	25		
			J102	26		
			J102	27		
			J102	28		
			J102	29		
WBACL	W/V	26	J102	30	A4	C/3
WBACL	W/V	26	J102	30	A4	C/3
PRE01	WHT	26	J102	31	J122	4
PRE02	WHT	26	J102	32	J122	5
PRE03	WHT	26	J102	33	J122	6
PRE04	WHT	26	J102	34	J122	7

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
			J102	35		
ATSW10*	W/V	26	J102	36	A6	17
ATSW20*	W/V	26	J102	37	A6	U
ATSW30*	W/V	26	J102	38	A6	16
ATSW40*	W/V	26	J102	39	A6	20
ATSW50*	W/V	26	J102	40	A6	X
ATSW60*	W/V	26	J102	41	A6	19
ATSW70*	W/V	26	J102	42	A6	W
ATSW80*	W/V	26	J102	43	A6	18
ATSW90*	W/V	26	J102	44	A6	V
ATSW100*	W/V	26	J102	45	A6	T
SAUTO*	W/V	26	J102	46	A6	S
			J102	47		
PULSESTRCH	W/V	26	J102	48	A10	8/J
SLIDEBACK	W/V	26	J102	49	A10	9/K
SIDEBCKVOL	W/V	26	J102	50	A10	14/R

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
GND	BLACK	22	J103	1	A23	B4B
DTAVL*	WHT	26	J103	2	A23	B12
DTAVL*	WHT	26	J103	2	A11F6	A9
R*/L	WHT	26	J103	3	A6	14
DATA0	WHT	26	J103	4	A23	B21
DATA1	WHT	26	J103	5	A23	B22
DATA2	WHT	26	J103	6	A23	B23
DATA3	WHT	26	J103	7	A23	B24
ACCEPTED*	WHT	26	J103	8	A23	B11
PDR*	WHT	26	J103	9	A23	B10
COMPCLR*	WHT	26	J103	10	A23	B13
COMCLR*	WHT	26	J103	10	A11F6	B41
ODBF0A	WHT	26	J103	11	A14	10
ODBF0B	WHT	26	J103	12	A14	9
ODBF0C	WHT	26	J103	13	A14	8
ODBF0D	WHT	26	J103	14	A14	7
ODBF1A	WHT	26	J103	15	A14	14
ODBF1B	WHT	26	J103	16	A14	13
ODBF1C	WHT	26	J103	17	A14	12
ODBF1D	WHT	26	J103	18	A14	11
ODBF2A	WHT	26	J103	19	A14	18
ODBF2B	WHT	26	J103	20	A14	17
ODBF2C	WHT	26	J103	21	A14	16
ODBF2D	WHT	26	J103	22	A14	15
ODBF3A	WHT	26	J103	23	A14	22
ODBF3B	WHT	26	J103	24	A14	21
DIGITAL+5V	GREEN	24	J103	25	A23	B2
GND	BLACK	22	J103	26	A23	A4B
ODBF3C	WHT	26	J103	27	A14	20
ODBF3D	WHT	26	J103	28	A14	19
N20	WHT	26	J103	29	A16	8
N21	WHT	26	J103	30	A16	9
N22	WHT	26	J103	31	A16	10
N23	WHT	26	J103	32	A16	11
N24	WHT	26	J103	33	A16	12
N25	WHT	26	J103	34	A16	13
N26	WHT	26	J103	35	A16	14
N27	WHT	26	J103	36	A16	15
N30	WHT	26	J103	37	A12	T/16
N31	WHT	26	J103	38	A12	B/15
N32	WHT	26	J103	39	A12	R/14
N34	WHT	26	J103	40	A12	P/13
N35	WHT	26	J103	41	A12	N/12
N36	WHT	26	J103	42	A12	M/11
N37	WHT	26	J103	43	A12	L/10
			J103	44		

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
BD1*	WHT	26	J103	45	A11P6	A1B
BD2	WHT	26	J103	46	A11P6	B1B
CSA	WHT	26	J103	47	J122	1B
CSB	WHT	26	J103	48	A13	D/4
NSLF*	WHT	26	J103	49	A11P6	A20
DIGITAL+5V	GRN	24	J103	50	J103	25
DIGITAL+5V	GRN	24	J103	50	J104	C
DIGITAL+5V	GREEN	24	J103	50	A23	A2

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
			J104	B		
DIGITAL+5V	GRN	24	J104	C	J103	50
DIGITAL+5V	GRN	18	J104	C	TB101	1
AM MET	W/V	26	J104	D	A6	K
FM MET	W/V	26	J104	E	A9	7/H
+12V	RED	18	J104	F	TB101	4
AC	GRAY	18	J104	H	J107	W
AC	GRAY	18	J104	J	J107	V
AC	GRAY	18	J104	K	J107	U
AC	GRAY	18	J104	L	J107	T
GND	BLK	18	J104	LUG	J104	A
+24V	RED	18	J104	M	TB101	2
PULSESTRCH	COAX		J104	N	A10	H/7
			J104	P		
AUDIO	COAX		J104	R		BACK
FM AUDIO	COAX		J104	S	A9	J/8
AM AUDIO	COAX		J104	T	A10	L/10
BFD AUDIO	COAX		J104	U	A7	R/14
			J104	V		
			J104	W		
BFD TUNE	COAX		J104	X	A7	J/8

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
GND	BLK	26	F106	1	A17	LUG
10dB	WHT	26	F106	2	A6	H
20dB	WHT	26	F106	3	A6	7
30dB	WHT	26	F106	4	A6	J
40dB	WHT	26	F106	5	A6	B
BD1/2EN*	W/V	26	F106	6	J102	10
+24	RED	24	F106	7	J102	7
RB3	W/V	26	F106	8	J102	10
RB4	W/V	26	F106	9	J102	11
RB5	C/V	26	F106	11	J102	12
RB5	W/V	26	F106	12	J102	12
RB6	W/V	26	F106	13	J102	13
RB7	W/V	26	F106	14	J102	14
RBB	W/V	26	F106	15	J102	15
EBB	W/V	26	F106	16	J102	15
WBACL	WHT	26	F106	17	A4	C/3
GND	BLK	26	F106	18	A17	LUG
-12	VID	24	F106	19	TB101	5
+12V	RED	24	F106	20	TB101	4
+15V	RED	24	F106	21	TB101	6

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
+15V	RED	18	J107	A	TB101	6
			J107	B		
+12V	RED	18	J107	C	TB101	4
			J107	D		
-15V	VID	18	J107	E	TB101	7
			J107	F		
-12V	VID	18	J107	H	TB101	5
			J107	J		
+50V	DRN	24	J107	K	TB101	8
DIGITAL+5V	GRN	18	J107	L	TB101	1
			J107	M		
ANALOG+5V	GRN	18	J107	N	TB101	3
			J107	P		
+24V	RED	24	J107	R	TB101	2
-24V	VID	24	J107	S	TB101	9
AC	GRAY	18	J107	T	J104	L
AC	GRAY	18	J107	U	J104	K
AC	GRAY	18	J107	V	J104	J
AC	GRAY	18	J107	W	J104	H
GND	BLK	18	J107	X	TB101	LUG
			J107	Y		

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
BW1	W/V	26	J10B	1	A11F6	A44
BW2	W/V	26	J10B	2	A11F6	B44
BW3	W/V	26	J10B	3	A11F6	A45
BW4	W/V	26	J10B	4	A11F6	B45
BW5	W/V	26	J10B	5	A11F6	A46
BW6	W/V	26	J10B	6	A11F6	B46
BW7	W/V	26	J10B	7	A11F6	A47
BW8	W/V	26	J10B	8	A11F6	B47
BW9	W/V	26	J10B	9	A11F6	A48
BW10K	W/V	26	J10B	10	A11F6	B48
BW10M	W/V	26	J10B	11	A11F6	A49
BW11K	W/V	26	J10B	12	A11F6	B49
BW11M	W/V	26	J10B	13	A11F6	A50
BW12	W/V	26	J10B	14	A11F6	B50
BW13	W/V	26	J10B	15	A11F7	A1
BW14	W/V	26	J10B	16	A11F7	B1
BW15	W/V	26	J10B	17	A11F7	A2
BW16	W/V	26	J10B	18	A11F7	B2
BW17	W/V	26	J10B	19	A11F7	A3
BW18	W/V	26	J10B	20	A11F7	B3
+12V	RED	24	J10B	21	TB101	4
-12V	VID	24	J10B	22	TB101	5
+15V	RED	24	J10B	23	TB101	6
-15V	VID	24	J10B	24	TB101	7
CALRLY	W/V	26	J10B	25	J102	16
BD1EN	W/V	26	J10B	25	J102	16
DWN. CONV.	WHT	26	J10B	26	A11P6	A39
DWN. CONV.	WHT	26	J10B	26	A17	H/7
DB3/BEN*	W/V	26	J10B	27	J102	17
NF20M	WHT	26	J10B	28	A11P7	A14
VBWA/NF4M	W/V	26	J10B	29	A11P7	A10
NF. BM	W	26	J10B	30	A11P7	B10
VBWD	W/V	26	J10B	31	A10	19/W
VBWD	W	26	J10B	31	A11P7	A13
30MOL	WHT	26	J10B	32	J122	8
200KOL	WHT	26	J10B	33	J122	9
-10dB	WHT	26	J10B	34	A6	H
20dB	WHT	26	J10B	35	A6	7
30dB	WHT	26	J10B	36	A6	J
40dB	WHT	26	J10B	37	A6	8
+24	W/V	26	J10B	38	J102	6
+24	WHT	26	J10B	38	J102	6
			J10B	39		
			J10B	40		

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
			J108	41		
			J108	42		
			J108	43		
			J108	44		
			J108	45		
			J108	46		
			J108	47		
			J108	48		
GND	BLK	22	J108	LUG	J108	49
GND	BLK	22	J108	LUG	J108	50

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
DI01	WHT	26	J121	1	A23	B40
DI02	WHT	26	J121	2	A23	B41
DI03	WHT	26	J121	3	A23	B42
DI04	WHT	26	J121	4	A23	B43
EOI	WHT	26	J121	5	A23	A40
DAV	WHT	26	J121	6	A23	A45
NRFP	WHT	26	J121	7	A23	A43
NDAC	WHT	26	J121	8	A23	A44
IFC	WHT	26	J121	9	A23	A47
SRD	WHT	26	J121	10	A23	A42
ATN	WHT	26	J121	11	A23	A41
DI05	WHT	26	J121	13	A23	B44
DI06	WHT	26	J121	14	A23	B45
DI07	WHT	26	J121	15	A23	B46
DI08	WHT	26	J121	16	A23	B47
REN	WHT	26	J121	17	A23	A46
GND	BLK	26	J121	18	A23	LUG
GND	BLK	26	J121	19	A23	LUG
GND	BLK	26	J121	20	A23	LUG
GND	BLK	26	J121	21	A23	LUG
GND	BLK	26	J121	22	A23	LUG
GND	BLK	26	J121	23	A23	LUG
LOGICGND	BLK	22	J121	24	A23	LUG
SHIELDGND	BLK	22	J121	LUG	J121	12

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
DETOL*	W/R	26	J122	1	A11F6	B3B
RFOL*	W/R	26	J122	2	A11F6	A36
LSTAT	W/R	26	J122	3	A11F6	AB
PRE01	WHT	26	J122	4	J102	31
PRE02	WHT	26	J122	5	J102	32
PRE03	WHT	26	J122	6	J102	33
PRE04	WHT	26	J122	7	J102	34
30MDL	WHT	26	J122	8	J10B	32
200KDL	WHT	26	J122	9	J10B	33
			J122	10		
			J122	11		
			J122	12		
			J122	13		
			J122	14		
			J122	15		
			J122	16		
WBACL	W/R	26	J122	17	A4	C/3
CSA	WHT	26	J122	18	J103	47
GND	BLK	22	J122	19		GND
			J122	20		
			J122	21		
			J122	22		
			J122	23		
			J122	24		
			J122	25		
			J122	26		
			J122	27		
			J122	28		
			J122	29		
			J122	30		
			J122	31		
			J122	32		
			J122	33		
			J122	34		
			J122	35		
			J122	36		
			J122	37		
			J122	38		
			J122	39		
			J122	40		
			J122	41		
			J122	42		
			J122	43		

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
			J122	44		
			J122	45		
			J122	46		
			J122	47		
			J122	48		

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
GND	BLACK	22	A11P6	A1/B	A11P6	LUG
DATA0*	WHT	26	A11P6	A10	A23	B16
DATA2*	WHT	26	A11P6	A11	A23	B18
LOG*	WHT	26	A11P6	A12	A7	10
PDOLED*	YELLOW	26	A11P6	A13	J101	5
KHZLED*	YELLOW	26	A11P6	A16	J101	18
MHZLED*	YELLOW	26	A11P6	A17	J101	44
BD1*	WHT	26	A11P6	A18	A12	D/4
BD1*	WHT	26	A11P6	A18	J103	45
BD1*	WHT	26	A11P6	A18	A12	D/4
WSLF*	WHT	26	A11P6	A20	J103	49
MAA	WHT	26	A11P6	A21	A6	P
MAC	WHT	26	A11P6	A22	A6	13
BWSW0	W/V	26	A11P6	A24	J102	1
BWSW2	W/V	26	A11P6	A25	J102	3
BWSW4	W/V	26	A11P6	A26	J102	5
SLBACK	WHT	26	A11P6	A27	A10	15
BW50LED*	YELLOW	26	A11P6	A28	J101	6
BW200LED*	YELLOW	26	A11P6	A29	J101	2
BW1LED*	YELLOW	26	A11P6	A30	J101	16
BW5LED*	YELLOW	26	A11P6	A31	J101	12
BW20LED*	YELLOW	26	A11P6	A32	J101	8
PDSWA	W/V	26	A11P6	A33	J102	19
94MHZPWR	WHT	26	A11P6	A34	A17	J/B
94MHZPWR	WHT	26	A11P6	A34	A13	H/7
SAGCS*	W/V	26	A11P6	A35	J102	23
RFOL*	W/R	26	A11P6	A36	J122	2
200MHZLED*	YELLOW	26	A11P6	A37	J101	15
SAUTO*	W/V	26	A11P6	A38	A6	5
DWN. CONV.	WHT	26	A11P6	A39	J108	26
DWN. CONV.	WHT	26	A11P6	A39	A17	H/7
SYN1	WHT	26	A11P6	A4	A12	J/B
RFOL	WHT	26	A11P6	A40	A6	11
PD20LED*	YELLOW	26	A11P6	A41	J101	9
POR*	WHT	26	A11P6	A41	A23	B10
DETDL	WHT	26	A11P6	A42	A6	M
AGCS*	WHT	26	A11P6	A43	A6	10
BW1	W/V	26	A11P6	A44	J108	1
BW3	W/V	26	A11P6	A45	J108	3
BW5	W/V	26	A11P6	A46	J108	5
BW7	W/V	26	A11P6	A47	J108	7
BW9	W/V	26	A11P6	A48	J108	9
BW10M	W/V	26	A11P6	A49	J108	11
MIX1	WHT	26	A11P6	A5	A12	K/9
BW11M	W/V	26	A11P6	A50	J108	13

R-1250 WIRE LIST

SIGNAL NAME	WIRE COLOR	WIRE GAUGE	FROM CONN	FROM PIN	TO CONN	TO PIN
ADDR0	WHT	26	A11P6	A6	A23	A21
ADDR2	WHT	26	A11P6	A7	A23	A23
LSTAT	W/R	26	A11P6	AB	J122	3
DTAVL*	WHT	26	A11P6	A9	J103	2
DTAVL*	WHT	26	A11P6	A9	A23	B12
DATA1*	WHT	26	A11P6	B10	A23	B17
DATA3*	WHT	26	A11P6	B11	A23	B19
R*/L	WHT	26	A11P6	B12	A6	14
PD10LED*	YELLOW	26	A11P6	B13	J101	7
PD30LED*	YELLOW	26	A11P6	B14	J101	11
KHZLED*	YELLOW	26	A11P6	B16	J101	19
BD2	WHT	26	A11P6	B18	J103	46
MAB	WHT	26	A11P6	B21	A6	12
MAD	WHT	26	A11P6	B22	A6	R
BWSW1	W/V	26	A11P6	B24	J102	2
BWSW3	W/V	26	A11P6	B25	J102	4
SLIDEBACKL	YELLOW	26	A11P6	B26	J101	28
SLIN*	W/V	26	A11P6	B27	J102	8
BW10LED*	YELLOW	26	A11P6	B28	J101	4
BW50LED*	YELLOW	26	A11P6	B29	J101	1
BW2LED*	YELLOW	26	A11P6	B30	J101	14
BW10LED*	YELLOW	26	A11P6	B31	J101	10
PDSWB	W/V	26	A11P6	B33	J102	20
SAGCF*	W/V	26	A11P6	B35	J102	24
30MHZIF	W/V	26	A11P6	B36	A5	V/18
30MHZIF	WHT	26	A11P6	B36	A7	H/7
30MHZIF	WHT	26	A11P6	B36	A5	V/18
30MHZLED*	YELLOW	26	A11P6	B37	J101	13
DETDL*	W/R	26	A11P6	B38	J122	1
AUTDLED*	YELLOW	26	A11P6	B39	J101	43
SYN2	WHT	26	A11P6	B4	A16	H/7
RFOLED*	YELLOW	26	A11P6	B40	J101	40
COMCLR*	WHT	26	A11P6	B41	J103	10
COMCLR*	WHT	26	A11P6	B41	A23	B13
DETOLED*	YELLOW	26	A11P6	B42	J101	3
AGCF*	WHT	26	A11P6	B43	A6	L
BW2	W/V	26	A11P6	B44	J108	2
BW4	W/V	26	A11P6	B45	J108	4
BW6	W/V	26	A11P6	B46	J108	6
BW8	W/V	26	A11P6	B47	J108	8
BW10K	W/V	26	A11P6	B48	J108	10
BW11K	W/V	26	A11P6	B49	J108	12
MIX2	WHT	26	A11P6	B5	A16	T/16
BW12	W/V	26	A11P6	B50	J108	14
ADDR1	WHT	26	A11P6	B6	A23	A22
ADDR3	WHT	26	A11P6	B7	A23	A24
SYN3	WHT	26	A11P6	B8	A14	Y
LSTAT	WHT	26	A11P6	B9	A4	E/5

