

# User's Manual SD375 Dynamic Analyzer II Part Six

**Legacy Manual** 

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f. Press the following touch controls in the indicated sequence:

**FUNCTION Group** 

1. Press MENU

# **PARAMETERS** Group

- 1. Press 6
- 2. Press ENT (the asterisk on the SPECTRUM MENU should move to selection 6, B+A FUNCTION Group
- 1. Press OPER

Compare the display with Figure 4-16.

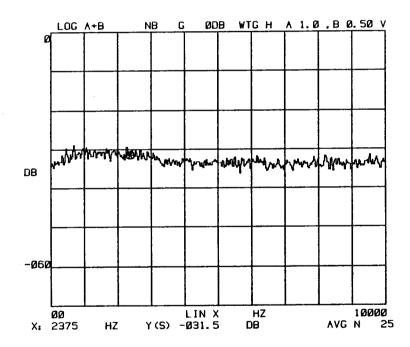


Figure 4-16. Display SPECT A + B

g. Press the following touch controls in the indicated sequence:

**FUNCTION Group** 

1. Press MENU

#### **PARAMETERS** Group

- 1. Press 13
- 2. Press ENT (the asterisk on the SPECTRUM MENU should move to selection 13, EQUALIZED RATIO)

# **FUNCTION Group**

1. Press OPER

## **CURSOR** Group

1. Press Y Units, V

#### XFER Touch Control

1. Press M1→M2

## AVERAGE (M1) Group

- 1. Press EXPO
- 2. Press START

Compare the display with Figure 4-17.

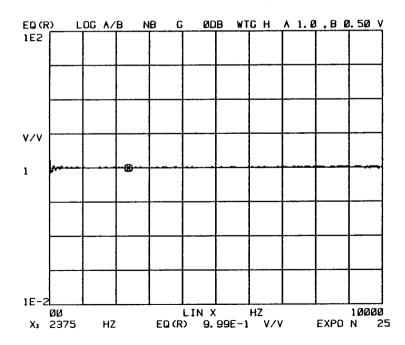


Figure 4-17. Display EQUALIZED RATIO: Y Units, V and XFER M1→M2.

#### 4.1.5.2 Transfer Function Mode

a. Press the following touch controls in the indicated sequence:

# **FUNCTION Group**

- 1. Press TF
- 2. Press MENU

# **PARAMETERS Group**

- 1. Press 1
- 2. Press ENT (the asterisk on the TRANSFER FUNCTION MENU should move to selection 1, TF & φ)

## **FUNCTION Group**

1. Press OPER

# **DISPLAY Group**

- 1. Press DUAL/SINGLE (LED Lit)
- 2. Press  $\overset{A,B}{\rightleftharpoons}$

## AVERAGE (M1) Group

- 1. Press ERASE
- 2. Press LIN
- 3. Press START

Compare the display with Figure 4-18.

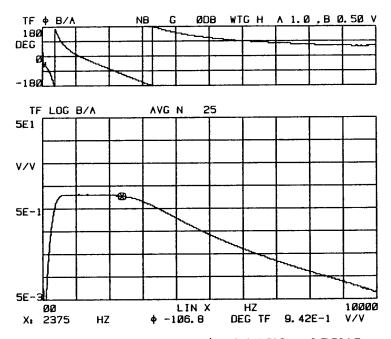


Figure 4-18. Display TF & \$\phi\$: LIN AVG and DUAL.

b. Press the following touch controls in the indicated sequence:

**DISPLAY Group** 

- 1. Press  $\overset{A,B}{\rightleftharpoons}$
- 2. Using the Y GAIN UP/DOWN touch controls, select + 10 dB Compare the display with Figure 4-19.

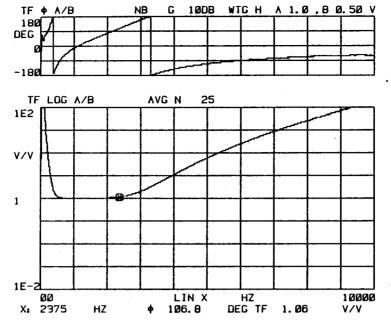


Figure 4-19. Display TF & : Y GAIN + 10 dB and Interchange A and B

c. Press the following touch controls in the indicated sequence:

# **DISPLAY Group**

1. Press UPPER/LOWER (LED Lit)

## **PARAMETERS** Group

- 1. Press  $\theta$  OFFSET
- 2. Press 48
- 3. Press ENT

Compare the display with Figure 4-20.

## **PARAMETERS** Group

1. Press  $\theta$  OFFSET (the  $\theta$  OFFSET LED will go out and the  $\theta$  OFFSET will be removed)

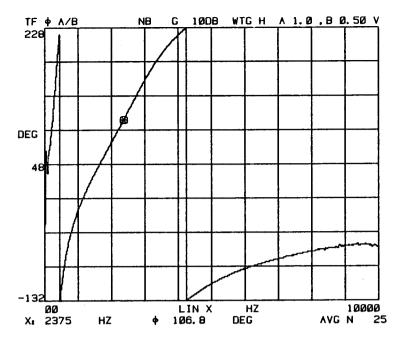


Figure 4-20. Display TF &  $\phi$ : UPPER and  $\theta$  OFFSET of 48°

d. Press the following touch controls in the indicated sequence:

**DISPLAY Group** 

- 1. Press DUAL/SINGLE (LED Lit)

**PARAMETERS** Group

- 1. Press IDENT
- 2. Press 375
- 3. Press ENT

**CURSOR** Group

1. Press ADRS

**PARAMETERS** Group

- 1. Press 55
- 2. Press ENT

**CURSOR** Group

1. Press MARK

# **PARAMETERS Group**

1. Press ENT

# **CURSOR Group**

1. Press ADRS

## **PARAMETERS Group**

- 1. Press 102
- 2. Press ENT

# **CURSOR Group**

1. Press MARK

## **PARAMETERS Group**

1. Press ENT

## **CURSOR** Group

1. Press ADRS

## **PARAMETERS** Group

- 1. Press 121
- 2. Press ENT

## **CURSOR Group**

1. Press MARK

# **PARAMETERS Group**

1. Press ENT

# **CURSOR Group**

1. Press ADRS

## **PARAMETERS** Group

- 1. Press 121
- 2. Press ENT

# **CURSOR** Group

1. Press MARK

# **PARAMETERS** Group

1. Press ENT

**CURSOR** Group

1. Press ADRS

# **PARAMETERS** Group

- 1. Press 165
- 2. Press ENT

**CURSOR** Group

1. Press MARK

# PARAMETERS Group

1. Press ENT

**CURSOR** Group

1. Press ADRS

# **PARAMETERS** Group

- 1. Press 178
- 2. Press ENT

**CURSOR** Group

1. Press MARK

# **PARAMETERS** Group

1. Press ENT

# **CURSOR** Group

1. Press ADRS

## **PARAMETERS** Group

- 1. Press 345
- 2. Press ENT

# **CURSOR** Group

1. Press MARK

# **PARAMETERS** Group

1. Press ENT

# **CURSOR** Group

1. Press MARK

# **FUNCTION Group**

1. Press LIST

Compare the display with Figure 4-21. The \$\phi\$ and TF magnitude values will vary from those listed.

1. TF & ¢

ID ØØ375

1 X.	1375	HZ	ф	-024.1	DEG TF	1.00	V/V
2 X:	2550	ΗZ	ф	-121.3	DEG TF	8.96E-1	V/V
3 X:	3Ø25	HZ	ф	200. 2	DEG TF	7. Ø4E-1	V/V
4 X:	3025	HZ	ф	200.2	DEG TF	7. Ø4E-1	٧/٧
5 X:	4125	HZ	ф	137.3	DEG TF	2.73E-1	٧/٧
6 X:	4450	HZ	ф	125.6	DEG TF	2. Ø7E-1	V/V
7 X:	8625	HZ	ф	62.6	DEG TF	1.43E-2	V/V
8							

Figure 4-21. Display TF & \( \phi \) MARK Listing and IDENT

e. Press the following touch controls in the indicated sequence:

## **FUNCTION Group**

1. Press OPER

#### **CURSOR** Group

1. Press MARK

#### **PARAMETERS** Group

- 1. Press 2
- 2. Press CLR
- 3. Press IDENT
- 4. Press 100
- 5. Press ENT

#### **CURSOR Group**

1. Press MARK

#### **FUNCTION Group**

1. Press LIST

Compare the display with Figure 4-22.

1. TF & ¢

#### ID 00100

```
٧/٧
           ΗZ
                   ф -Ø24.1
                             DEG TF 1.00
1 X: 1375
                             DEG TF 7. Ø4E-1 V/V
                   ф 200.2
2 X: 3Ø25
           ΗZ
                   $\phi$ 200.2
                             DEG TF 7.04E-1 V/V
3 X: 3Ø25
           ΗZ
                   ф 137.3
                             DEG TF 2.73E-1 V/V
4 X: 4125
           ΗZ
5 X: 445Ø
           ΗZ
                    125.6
                             DEG TF 2.07E-1 V/V
                  $ 62.6
                             DEG TF 1.43E-2 V/V
6 X: 8625
           ΗZ
7
8
```

Figure 4-22. Display TF & \( \phi \) MARK Listing and CLR

C	URSOR Group				
1.	Press MARK				
P	PARAMETERS Group				
1.	Press CLR				
F	FUNCTION Group				
1.	Press TIME				
2.	Press MENU				
P	PARAMETERS Group				
1.	Press 7				
2.	Press ENT				
F	FUNCTION Group				
1.	Press OPER				
A	AVERAGE (M1) Group				
1.	Press ERASE				
2.	Press LIN				
3.	Press START				
D	DISPLAY Group				
1.	Using the Y GAIN UP/DOWN touch controls, select 0 dB				
C	CURSOR Group				
1.	Press ADRS				
P	PARAMETERS Group				
1.	Press 539				
2.	Press ENT				
Compare the display with Figure 4-23.					

Press the following touch controls in the indicated sequence:

f.

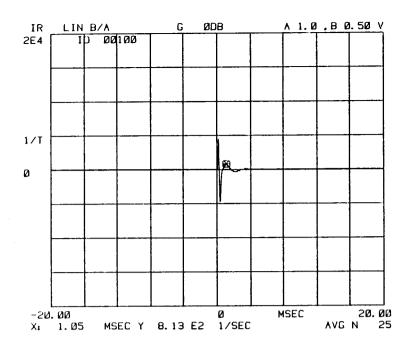


Figure 4-23. Display TIME, IMPULSE RESPONSE: Y GAIN - 0 dB and ADRS 539

g. Press the following touch controls in the indicated sequence:

**FUNCTION Group** 

- 1. Press TF
- 2. Press MENU

**PARAMETERS** Group

- 1. Press 1
- 2. Press ENT

**FUNCTION Group** 

1. Press OPER

DISPLAY Group

- 1. Press DUAL/SINGLE (LED Lit)
- 2. Using the Y GAIN UP/DOWN touch controls, select +30 dB
- 3. Press Y, LIN

## AVERAGE (M1) Group

- 1. Press ERASE
- 2. Press START

# **CURSOR** Group

1. Press ADRS

# **PARAMETERS** Group

- 1. Press 75
- 2. Press ENT

Compare the display with Figure 4-24.

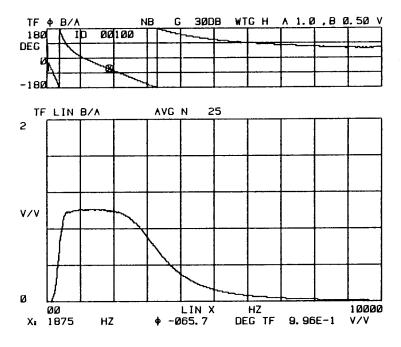


Figure 4-24. Display TF &  $\phi$ : Y LIN, Y GAIN +30 dB and ADRS 75.

h. Press the following touch controls in the indicated sequence:

# **FUNCTION Group**

1. Press MENU.

## **PARAMETERS** Group

- 1. Press 2
- 2. Press ENT

# **FUNCTION** Group

1. Press OPER

# **DISPLAY Group**

- 1. Using the Y GAIN UP/DOWN touch controls, select 0 dB
- 2. Press Y, LOG

# **CURSOR** Group

1. Press Y Units, EU

Compare the display with Figure 4-25.

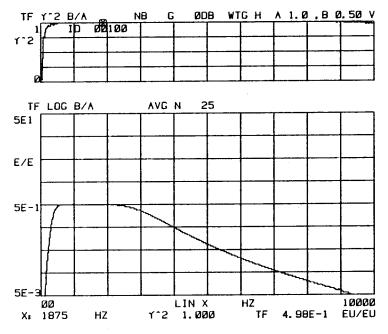


Figure 4-25. Display TF &  $\gamma$  ^ 2: Y Units EU, Y LOG and Y GAIN 0 dB.

i. Press the following touch controls in the indicated sequence:

# **FUNCTION** Group

1. Press MENU

#### **PARAMETERS** Group

- 1. Press 3
- 2. Press ENT

## **FUNCTIN** Group

1. Press OPER

## **DISPLAY Group**

Using the Y GAIN UP/DOWN touch controls, select + 30 dB
 Compare the display with Figure 4-26.

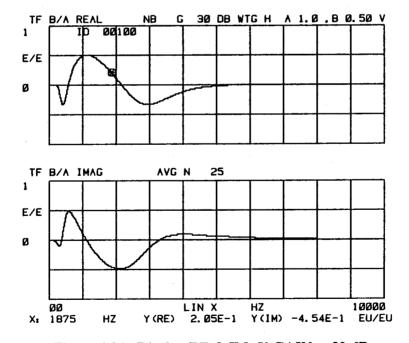


Figure 4-26. Display RE & IM: Y GAIN +30 dB.

j. Press the following touch controls in the indicated sequence:

**FUNCTION Group** 

1. Press MENU

**PARAMETERS** Group

- 1. Press 4
- 2. Press ENT

**FUNCTION Group** 

1. Press OPER

**CURSOR** Group

1. Press Y Units, V

Compare the display with Figure 4-27.

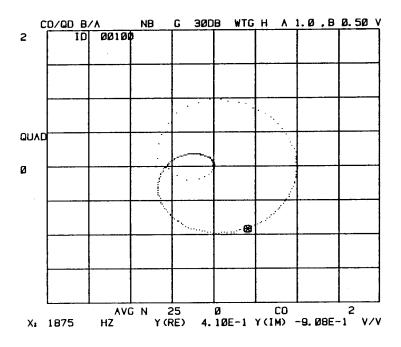


Figure 4-27. Display CO/QD: Y Units, V.

k. Press the following touch controls in the indicates sequence:

**FUNCTION Group** 

1. Press MENU

## **PARAMETERS** Group

- 1. Press 5
- 2. Press ENT

# **FUNCTION Group**

1. Press OPER

## **DISPLAY Group**

1. Press DUAL/SINGLE (LED Lit)

#### **CURSOR Group**

1. Press Y Units, dB

## **DISPLAY Group**

1. Using the Y GAIN UP/DOWN touch controls, select 0 dB

## XFER Touch Control

1. Press M1→M2

## AVERAGE (M1) Group

- 1. Press EXPO
- 2. Press START

Compare the display with Figure 4-28.

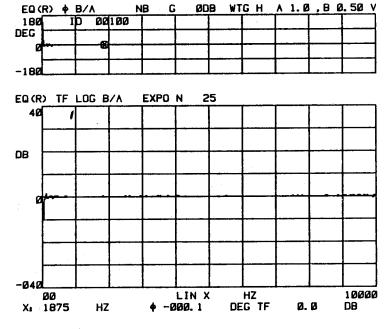


Figure 4-28. Display EQUALIZED TF & : Y Units, dB, Y GAIN 0 dB and DUAL

#### **4.1.5.3** Power Mode

a. Press the following touch controls in the indicated sequence:

**FUNCTION Group** 

- 1. Press POWER
- 2. Press MENU

**PARAMETERS** Group

- 1. Press 1
- 2. Press ENT

**FUNCTION Group** 

1. Press OPER

AVERAGE (M1) Group

1. Press STOP

Compare the display with Figure 4-29.

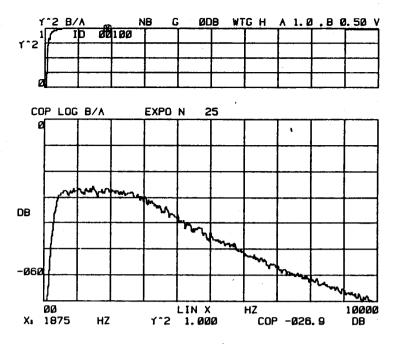


Figure 4-29. Display COP & y ^ 2: AVERAGE, STOP

b. Press the following touch controls in the indicates sequence:

**FUNCTION Group** 

1. Press MENU

**PARAMETERS** Group

- 1. Press 2
- 2. Press ENT

**FUNCTION Group** 

1. Press OPER

**CURSOR** Group

1. Press Y Units, V

Compare the display with Figure 4-30.

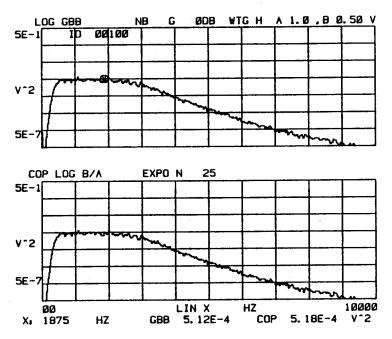


Figure 4-30. Display COP & GBB: DUAL and Y Units, V.

c. Press the following touch controls in the indicated sequence:

**FUNCTION Group** 

1. Press MENU

**PARAMETERS** Group

- 1. Press 6
- 2. Press ENT

**FUNCTION Group** 

1. Press OPER

Compare the display with Figure 4-31.

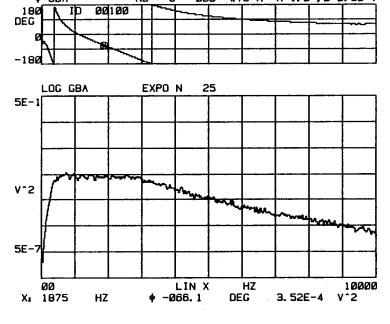


Figure 4-31. Display GBA & : DUAL

d. Press the DISPLAY group  $\stackrel{A,B}{\rightleftharpoons}$  touch control and compare the display with Figure 4-32.

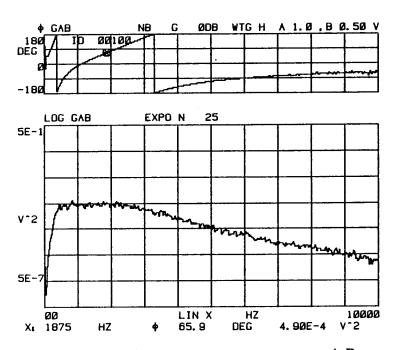


Figure 4-32. Display GAB &  $\phi$ : DUAL and  $\overset{A,B}{\rightleftharpoons}$ .

e. Press the following touch controls in the indicated sequence:

**FUNCTION Group** 

1. Press MENU

**PARAMETERS** Group

- 1. Press 7
- 2. Press ENT

**PARAMETERS** Group

1. Press OPER

**DISPLAY Group** 

- 1. Using the Y GAIN UP/DOWN touch controls, select +30 dB
- 2. Press  $\overset{A,B}{\rightleftharpoons}$

AVERAGE (M1) Group

- 1. Press ERASE
- 2. Press LIN
- 3. Press START

Compare the display with Figure 4-33.

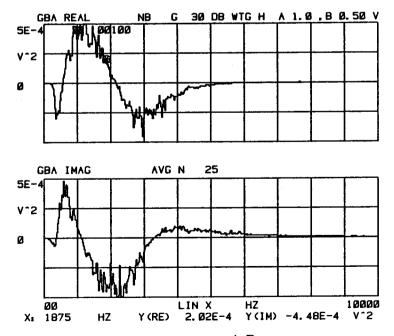


Figure 4-33. Display RE & IM GBA:  $\stackrel{A,B}{\rightleftharpoons}$  and Y GAIN +30 dB.

f. Press the following touch controls in the indicated sequence:

**FUNCTION Group** 

1. Press MENU

# **PARAMETERS** Group

- 1. Press 8
- 2. Press ENT

**FUNCTION Group** 

1. Press OPER

**CURSOR GROUP** 

1. Press EU

Compare the display with Figure 4-34.

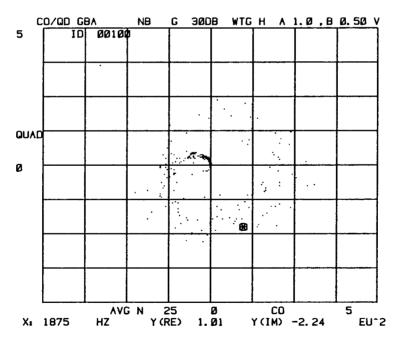


Figure 4-34. Display GBA CO/QD: Y Units EU.

## 4.1.5.4 Statistical Mode

a. Press the following touch controls in the indicated sequence:

FUNCTION Group

- 1. Press STAT
- 2. Press MENU

## **PARAMETERS** Group

- 1. Press 1
- 2. Press ENT

## **FUNCTION Group**

1. Press OPER

## DISPLAY Group

- 1. Using the Y GAIN UP/DOWN touch controls, select +20 dB
- 2. Press DUAL/SINGLE (LED Lit)

#### AVERAGE (M1) Group

- 1. Press ERASE
- 2. Press START

## **CURSOR Group**

1. Press ADRS

#### **PARAMETERS** Group

- 1. Press 200
- 2. Press ENT

Compare the display with Figure 4-35.

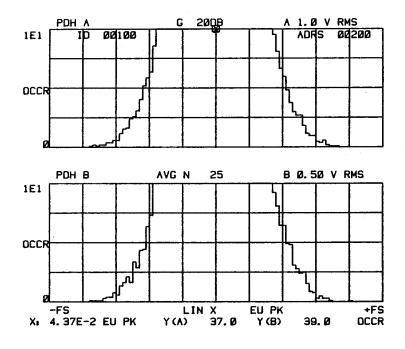


Figure 4-35. Display PDH A & B: DUAL, Y GAIN +20 dB, AVG and ADRS 200

b. Press the following touch controls in the indicated sequence:

## **DISPLAY Group**

- 1. Press UPPER/LOWER (LED lit indicating UPPER trace)
- 2. Using the Y GAIN UP/DOWN touch controls, select 0 dB.

Compare the display with Figure 4-36.

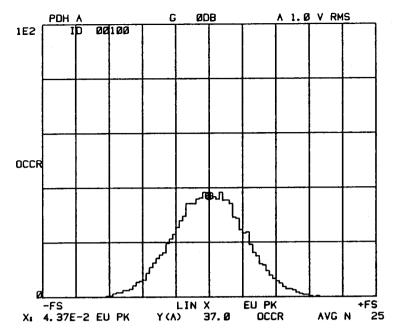


Figure 4-36. Display PDH A (UPPER Trace) and Y GAIN 0 dB

c. Press the DISPLAY group UPPER/LOWER touch control. The LED should go out indicating LOWER trace. Compare the display with Figure 4-37.

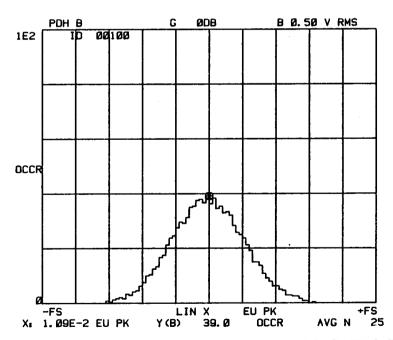


Figure 4-37. Display PDH B (LOWER Trace) and Y GAIN 0 dB.

d. Press the following touch controls in the indicated sequence:

**FUNCTION Group** 

1. Press MENU

**PARAMETERS** Group

- 1. Press 2
- 2. Press ENT

**FUNCTION Group** 

1. Press OPER

**DISPLAY Group** 

1. Press DUAL/SINGLE (LED Lit)

AVERAGE (M1) Group

- 1. Press ERASE
- 2. Press EXPO
- 3. Press START (When the LIN LED goes out, press STOP)

Compare the display with Figure 4-38.

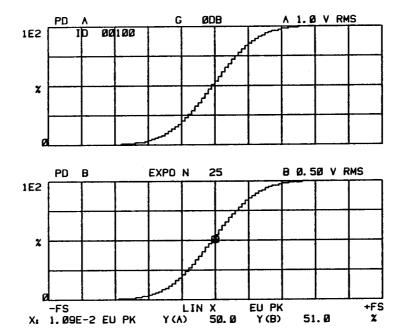


Figure 4-38. Display PD A & B: DUAL and EXPO

#### 4.1.5.5 Time Mode

- a. Disconnect the Random Noise Generator and Band Pass Filter as shown in Figure 4-9. Connect the Signal Generator, RMS Voltmeter and Frequency Counter as shown in Figure 4-15.
- b. Press the PANEL, 0, RCL sequence of touch controls on the SD375. Press the CURSOR Group ADRS touch control. On the PARAMETERS Group, press 10, then press ENT. Adjust the Signal Generator to provide a 250 Hz sine wave at a level of 1 Vrms. Adjust the signal level control on the Signal Generator for a no overload condition on either channel of the SD375.
- c. Press the following touch controls in the indicated sequence:

#### **FUNCTION Group**

- 1. Press TIME
- 2. Press MENU

#### **PARAMETERS** Group

- 1. Press 1
- 2. Press ENT

## **FUNCTION Group**

1. Press OPER

#### **CURSOR** Group

1. Press ROTATE (The MEM HOLD LED's will light)

Compare the display with Figure 4-39.

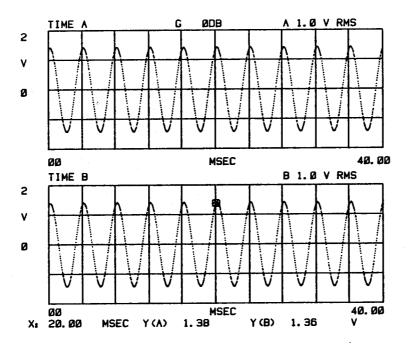


Figure 4-39. Display TIME A & B: 250 Hz, ROTATE and MEM HOLD

d. Press the following touch controls in the indicated sequence:

# **DISPLAY Group**

1. Press UPPER/LOWER (LED Lit)

## PARAMETERS Group

- 1. Press CH A
- 2. Press MV/EU
- 3. Press 10
- 4. Press ENT
- 5. Press CH B
- 6. Press MV/EU
- 7. Press 10
- 8. Press ENT

## **CURSOR Group**

1. Press Y Units, EU

2. Using the CURSOR LEFT/RIGHT touch controls, move the cursor to the peak of the sine wave and compare the X-axis value with respect to 40 MS full scale. Refer to Figure 4-40 for comparison purposes.

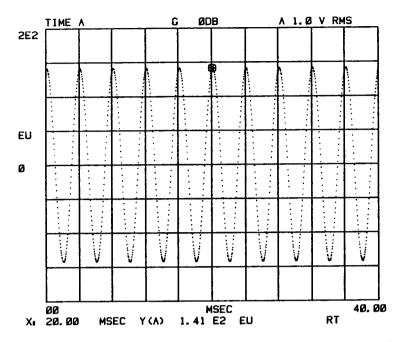


Figure 4-40. Display TIME A, UPPER, 10 MV/EU and Y Units EU.

e. Press the following touch controls in the indicated sequence:

**FUNCTION Group** 

1. Press MENU

**PARAMETERS** Group

- 1. Press 3
- 2. Press ENT

**FUNCTION** Group

1. Press OPER

**DISPLAY Group** 

1. Press DUAL/SINGLE (LED Lit)

**CURSOR Group** 

- 1. Press LOWER
- 2. Press ADRS

# PARAMETERS Group

- 1. Press 10
- 2. Press ENT

Compare the display with Figure 4-41.

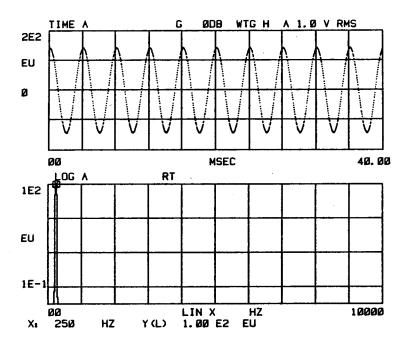


Figure 4-41. Display TIME A & SPECT A: CURSOR LOWER and ADRS 10

f. Press the following touch controls in the indicated sequence:

**DISPLAY Group** 

1. Press UPPER/LOWER (LED Lit)

**CURSOR** Group

1. Press Y Units, V

Compare the display with Figure 4-42.

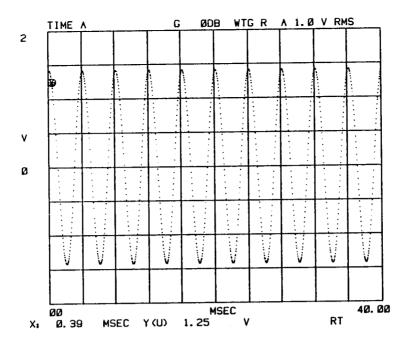


Figure 4-42. Display TIME A, UPPER and Y Units, V

g. Press the following touch controls in the indicated sequence:

**FUNCTION Group** 

1. Press MENU

**PARAMETERS** Group

- 1. Press 4
- 2. Press ENT

**FUNCTION Group** 

1. Press OPER

**DISPLAY** Group

1. Press DUAL/SINGLE (LED Lit)

**CURSOR** Group

1. Press LOWER

Compare the display with Figure 4-43.

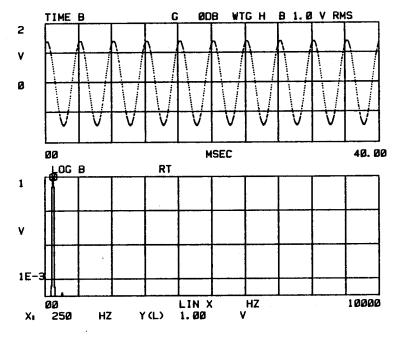


Figure 4-43. Display TIME B & SPECT B: DUAL Display

h. Press the following touch controls in the indicated sequence:

**FUNCTION Group** 

1. Press MENU

PARAMETERS Group

- 1. Press 5
- 2. Press ENT

**FUNCTION Group** 

1. Press OPER

AVERAGE (M1) Group

- 1. Press LIN
- 2. Press ERASE
- 3. Press START

When averaging is completed, press the following touch controls in the indicated sequence and compare the display with Figure 4-44:

#### **CURSOR Group**

1. Press ADRS

#### **PARAMETERS** Group

1. Press 100

#### 2. Press ENT

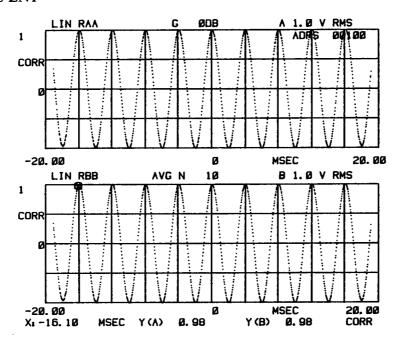


Figure 4-44. Display RAA &RBB: LIN AVERAGE and ADRS 100

i. Press the following touch controls in the indicated sequence:

#### **DISPLAY Group**

1. Press UPPER/LOWER (LED Lit)

On the Signal Generator, attenuate the Input Signal to the SD375 by 30 dB for both channels.

## AVERAGE (M1) Group

- 1. Press ERASE
- 2. Press START

When the averaging process is completed, compare the display with Figure 4-45.

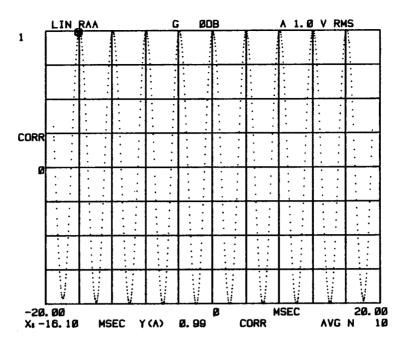


Figure 4-45. Display RAA, UPPER: Input Signal Attenuated 30 dB.

j. Press the following touch controls in the indicated sequence:

**DISPLAY** Group

1. Press UPPER/LOWER (LED goes out)

AVERAGE (M1) Group

- 1. Press ERASE
- 2. Press START

When averaging is completed, compare the display with Figure 4-46.

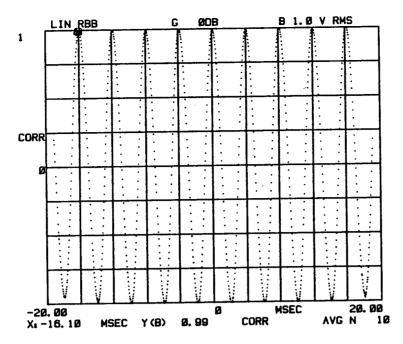


Figure 4-46. Display RBB: Input Signal Attenuated 30 dB.

k. Press the following touch controls in the indicated sequence:

**DISPLAY Group** 

1. Press DUAL/SINGLE (LED Lit)

**CURSOR** Group

1. Press ADRS

## **PARAMETERS** Group

- 1. Press 428
- 2. Press ENT

**DISPLAY** Group

1. Press LIN, X4

AVERAGE (M1) Group

- 1. Press ERASE
- 2. Press START

When averaging is completed, compare the display with Figure 4-47.

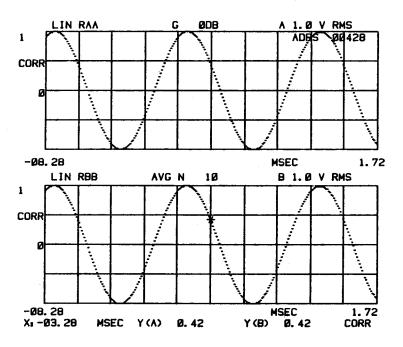


Figure 4-47. Display RAA & RBB: DUAL, ADRS 428 and LIN X4

l. Press the following touch controls in the indicated sequence:

**FUNCTION Group** 

1. Press MENU

# **PARAMETERS Group**

- 1. Press 6
- 2. Press ENT

**FUNCTION Group** 

1. Press OPER

**DISPLAY Group** 

1. Press X LIN

AVERAGE (M1) Group

- 1. Press ERASE
- 2. Press START

When averaging is completed, compare the display with Figure 4-48.

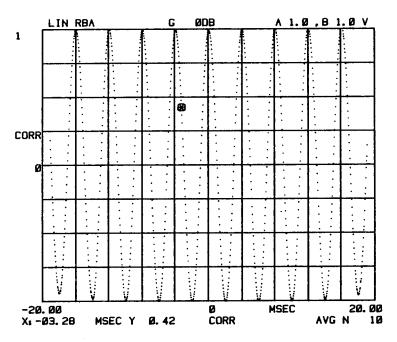


Figure 4-48. Display RBA: LIN X

### 4.1.5.6 Program 1

- a. De-energize the test equipment and disconnect it from the SD375. Connect the Random Noise Generator and the Band Pass Filter to the SD375 as shown in Figure 4-9.
- b. On the SD375, press the PANEL, 0, RCL sequence of touch controls.
- c. Using the CH A and CH B VOLTS UP/DOWN touch controls, select an input level of 1.0 Vrms for CH A and 0.5 Vrms for CH B.
- d. Adjust the Random Noise Generator for a 50 kHz pass band and 3  $\sigma$  clipping.
- e. Adjust the Band Pass Filter for 400 Hz HIGH PASS and 3 kHz for LOW PASS as described in step f of Subsection 4.1.5 (Arithmetic Function Check).
- f. Adjust the Random Noise Generator and the Band Pass Filter for a no overload condition on the SD375.

g. Press the following touch controls in the indicated sequence:

## PARAMETERS Group

- 1. Press CH A, MV/EU, 10, ENT
- 2. Press CH B, MV/EU, 20, ENT
- 3. Press AVG N, 25, ENT

## CH A & B Group

- 1. Using the FREQ UP/DOWN touch controls, select the 5 kHz frequency range.
- h. Press the following touch controls in the indicated sequence:

# **CURSOR** Group

1. Press ADRS

# PARAMETERS Group

- 1. Press 63
- 2. Press ENT
- 3. Press PRGM
- 4. Press 1

## **FUNCTION** Group

1. Press MENU

Compare the display with Figure 4-49.

#### ARTIFICIAL INTEGRATION MENU

- \* 1. NORMAL
  - 2. J UNITS
  - 3. JJ UNITS
  - 4. J MM/SEC
  - 5. II MM
  - 6. | IN/SEC
  - 7. II IN
  - 8.
  - 9. Y

#### USE PRGM 9. FOR CHAN SELECT

# Figure 4-49. Display PRGM 1: Artificial Integration Menu

i. Press the following touch controls in the indicated sequence:

## **PARAMETERS** Group

- 1. Press 2
- 2. Press ENT

#### **FUNCTION Group**

1. Press OPER

#### **DISPLAY Group**

1. Press M1

## AVERAGE (M1) Group

- 1. Press ERASE
- 2. Press START (When averaging is completed, compare the display with Figure 4-50)

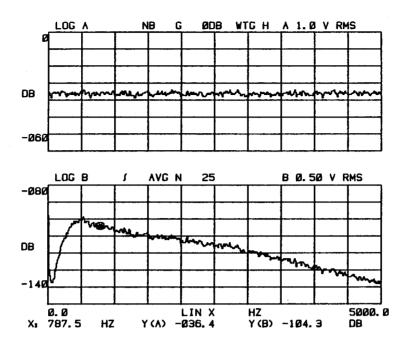


Figure 4-50. Display PRGM 1, Artificial Integration Menu Selection 2

j. Press the following touch controls in the indicated sequence:

**FUNCTION Group** 

- 1. Press TF
- 2. Press MENU

**PARAMETERS** Group

- 1. Press 1
- 2. Press ENT

**FUNCTION Group** 

1. Press OPER

**AVERAGE** Group

1. Press ERASE

# **PARAMETERS** Group

- 1. Press PRGM
- 2. Press 1

# **FUNCTION Group**

1. Press MENU

## **PARAMETERS** Group

- 1. Press 3
- 2. Press ENT

# **FUNCTION Group**

1. Press OPER

# DISPLAY Group

1. Using the Y GAIN UP/DOWN touch controls, select 0 dB

# **CURSOR** Group

1. Press Y Units, dB

# AVERAGE (M1) Group

1. Press START

Compare the display with Figure 4-51.

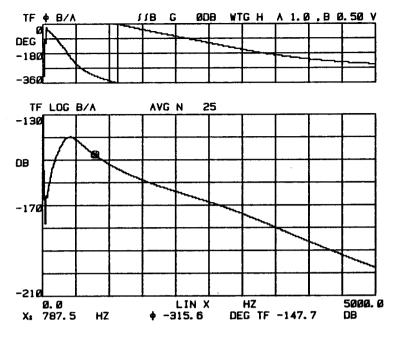


Figure 4-51. Display PRGM 1, Artificial Integration Menu Selection 3

k. Press the following touch controls in the indicated sequence:

**CURSOR** Group

- 1. Press Y Units, V
- 1. Press the following touch controls in the indicated sequence:

**FUNCTION Group** 

1. Press MENU

**PARAMETERS** Group

- 1. Press 2
- 2. Press ENT

## **FUNCTION Group**

1. Press OPER

## AVERAGE (M1) Group

1. Press ERASE

## PARAMETERS Group

- 1. Press PRGM
- 2. Press 1

## **FUNCTION Group**

1. Press MENU

# **PARAMETERS Group**

- 1. Press 5
- 2. Press ENT

#### **FUNCTION Group**

1. Press OPER

## AVERAGE (M1) Group

1. Press START

## **DISPLAY Group**

1. Using the Y GAIN UP/DOWN touch controls, select + 10 dB

Compare the display with Figure 4-52.

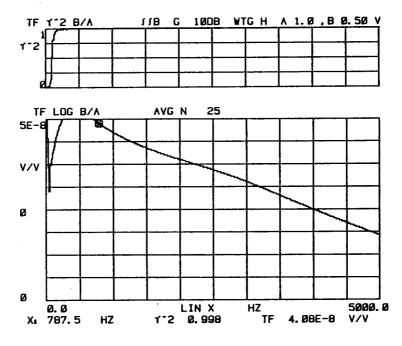


Figure 4-52. Display PRGM 1, Artificial Integration Menu Selection 5.

m. Press the following touch controls in the indicated sequence:

**FUNCTION Group** 

1. Press MENU

## **PARAMETERS** Group

- 1. Press 1
- 2. Press ENT

**FUNCTION Group** 

1. Press OPER

AVERAGE (M1) Group

- 1. Press ERASE
- 2. Press START

**CURSOR Group** 

1. Press Y Units, dB

**DISPLAY** Group

1. Using the Y GAIN UP/DOWN touch controls, select -10 dB

Compare the display with Figure 4-53.

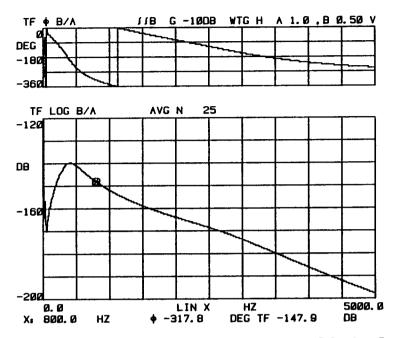


Figure 4-53. Display PRGM 1, Artificial Integration Menu Selection 5 and -10 dB.

n. Press the following touch controls in the indicated sequence:

AVERAGE (M1) Group

1. Press ERASE

**PARAMETERS** Group

- 1. Press PRGM
- 2. Press 1

**FUNCTION Group** 

1. Press MENU

**PARAMETERS** Group

- 1. Press 8
- 2. Press ENT

**FUNCTION Group** 

1. Press OPER

#### AVERAGE (M1) Group

1. Press START

## **CURSOR Group**

1. Press Y Units, V

# **DISPLAY** Group

1. Using the Y GAIN UP/DOWN touch controls, select +30 dB

Compare the display with Figure 4-54.

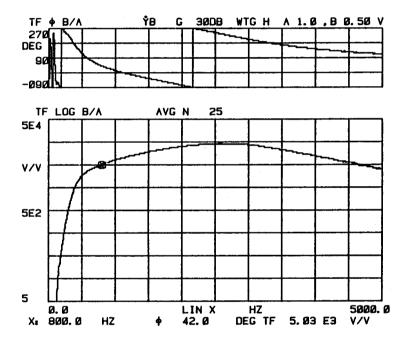


Figure 4-54. Display PRGM 1, Artificial Integration Menu Selection 8

This completes the Operational Checkout. De-energize the test equipment and the SD375. Disconnect the test equipment from the SD375.

#### 4.2 OPERATOR MAINTENANCE

#### 4.2.1 Introduction

Maintenance performed by the operator consists of cleaning, visual inspection, periodic operational checks and only limited trouble shooting.

#### 4.2.2 Cleaning

Operator cleaning procedures involve only the exterior surfaces. When the instrument is operating, use only a dry cloth or soft brush. The SD375 is equipped with a LEXAN front panel. The following guidelines should be used in selecting a proper cleaning agent.

#### WARNING

Only recommended cleaning agents should be used for cleaning the LEXAN front panel. Many commercial cleaning agents contain some form of halogenated, aromatic or ammoniated compounds. These agents will damage the LEXAN front panel and should not be used for cleaning.

The recommended cleaning agents are as follows:

Light cleaning:

Denatured alcohol or a mild solution of soap and water.

Heavy cleaning:

MS-260 cleaner for plastic, glass and metal. (Miller Stephenson Chemical Co., Inc.)

The following procedure should be performed at least once each month. If the instrument is being used in a dust-filled environment cleaning may be required each day.

#### **CAUTION**

Do not use any air source to remove dust.

- a. Turn the instrument off and disconnect the ac power cord.
- b. Using a soft brush, remove dust from the front panel and the face of the crt. Remove dust from connectors, slots, switches, and the vent fan grill on the rear panel.
- c. Using the recommended cleaning agents, wipe the front panel and the face of the crt.

#### 4.2.3 Operator Checks

Table 4-4 lists some possible malfunctions that may be corrected by interpreting the front panel indications and taking the appropriate action.

The Operational Checkout in Section IV and the Self Test in Section III can be performed to verify that the instrument is functioning properly.

Table 4-4. Operator Checks

Malfunction Symptoms	Possible Cause
No display and Power Pushbutton/Indicator is in the ON position but not lighted.	Loose power cord at wall receptacle or at rear of instrument.
	2. Fuse is blown.
	3. No power at wall receptacle.
No display. Power Pushbutton/Indicator is in the ON position and the lamp is lighted.	CRT Intensity is too low. (The front-panel DISPLAY Group Grid and Contrast controls are turned down.)
No Input Signal.	Input signal not connected or loose; press the TEST touch control to verify.