

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Keysight / Agilent 8923B* at our website: ***Click HERE***

MEASUREMENT Keys

The front panel Measurement Keys provide access to the DECT measurements. The three keys around them, (CALL SETUP), (TESTS) and (PREV) are also outlined in this section.

Hardkey	Function
(FREQ)[1]	This key accesses the Frequency Measurement screen. This allows measurement of Frequency Accuracy, Deviation, Drift and Timing Jitter.
(PWR)[1]	This key accesses the Power Measurement screen. This allows measurement of the NTP and Power Vs Time.
(AUDIO)[1,2]	This key accesses the Audio measurements screen. Voltmeter and oscilloscope functions are available for further analysis of audio signals.
(BER)[1]	This key accesses the Bit Error Rate/Word Error Ratio measurements. The External Source Control screen can be accessed from this screen.
(CALL SETUP)	This key accesses the CALL SETUP screen. This screen allows control of bearer settings and call connection.
(HELP)[2]	This key accesses the Help screen.
(TESTS)	This key accesses the Tests screen.
(MSG)	This key accesses the message screen showing current and previous error messages.
(PREV)	This key toggles between the current screen and the previous screen used.
(PRINT)[2,3]	This key is used to copy the current screen to the HP-IB or the RS-232 connected printer.

1 The (HOLD) key can be used to capture unstable readings; by selecting (SHIFT) then (BER).

2 Press (SHIFT) then (CALL SETUP), (PWR), (TESTS) or (PREV) to access the relevant screen.

3 The HP 8923B must be configured as the controller to take screen dumps via HP-IB.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

INSTRUMENT STATE Keys

The instrument state keys allow you to control the state and the configuration of the HP 8923B.

KEY	DESCRIPTION
(PRESET)	This key presets the instrument to the power on state.
(SAVE)[1]	This key saves the instrument state to internal memory or a PCMCIA card.
(RECALL)	This key recalls the saved instrument state.
(CONFIG)[2]	This key allows the configuration of the instrument to be changed.
(LOCAL)	This key disables remote operation returning control to the front panel.

1 (SAVE) is accessed by pressing (SHIFT) (RECALL)

2 (CONFIG) is accessed by pressing (SHIFT) (LOCAL).

Using Save and Recall

The (SAVE) and (RECALL) functions allow you to store different instrument configurations in internal registers, RAM cards, or external devices.

Note

Any disks, cards or RAM need to be initialized before any information can be stored on them. The HP 8923B has internal programs **DISKINI** and **RAM_MNG** to do this. For details, see Chapter 8, "Tests Subsystem".

Configuring The HP 8923B For Save/Recall

1. Press (SHIFT), (LOCAL) (Config) to access the CONFIG screen.
2. Select the `Save/Recall` field on the CONFIG screen.
3. Use the knob to select the storage medium.
4. Press the knob or (ENTER).

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Saving An Instrument Setup

1. Set up the configuration you require.
2. Press (SHIFT), (RECALL) (Save).
3. Using the cursor control knob, enter a name from the `Save` menu at the bottom right of the screen (Maximum 9 characters). Each character is entered separately. No spaces can be entered.
4. Select `Done` from the menu when you have completed the name.

Note Connecting and configuring an external drive is detailed in Chapter 2, "Preparing Your HP 8923B For Use". Saving to an external disk may take a few seconds.

Recalling An Instrument Setup

1. Press (RECALL).
2. Use the knob to select the desired configuration to be recalled from the `Recall` menu at the bottom right of the screen.

Removing An Individual Saved Register

1. Press (RECALL).
2. Use the knob to position the cursor in front of the register to be removed from the `Recall` menu at the bottom right of the screen. The register name and percentage of SAVE memory occupied by that register are indicated at the very top of the screen.
3. Press (ON/OFF). A prompt appears, asking if you want to delete the SAVE register.
4. Press (YES).

Clearing All Saved Registers

1. Press (RECALL).
2. Use the knob to position the cursor in front of the `Clr All` entry in the `Recall` menu at the bottom right of the screen.
3. Press the knob or (ENTER). A prompt appears at the top of the screen to verify that you want to clear all registers.
4. Press (YES).

Memory Considerations

The non-volatile RAM used with SAVE/RECALL internal registers is also used to create RAM Disk(s) and run IBASIC programs. By saving a large number of instrument configurations, the amount of RAM, available to run programs, is reduced. If more RAM is needed while running a program, clear one or more SAVE/RECALL registers to free RAM space.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

DATA Keys

Data keys are used to enter numerical data, units, ±, and turn fields off or on. The DATA keys are as follows:

KEY	FUNCTION
[0] to [9], [A] to [F][1] [.] [+/-]	Changing and entering numerical data.
[ENTER]	To select a field or screen. Enter number when a unit-of- measure is not specified or required.
[ON/OFF]	Enables and disables measurements. Switches numeric fields off and on.
[YES] and [NO]	Confirms selected operations before they are executed.
[EEX]	Enter values in scientific format.
[%Δ]	Displays the value as a percentage.[2]
[ppm]	Displays the value as parts-per-million.[2]

1 A to F are accessible using the [SHIFT] key.
2 Used mainly with BER measurements.

The remaining keys in this section are used to enter and change the unit-of-measure for measurement or field entries. The unit is automatically selected according to field type.

Amplitude Parameter Keys	Frequency Parameter Keys	Time Parameter Keys
[dB]	[GHz]	[T][1]
[dBm]	[MHz]	[s]
[V]	[kHz]	[ms]
[mV]	[Hz]	[µs]
[µV]		
[dBµV]		
[W]		

1 Bit Period

Selecting any of the data keys after the numerical data enters that particular data into the highlighted field.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Entering Data With DATA Keys

Work through this example of changing the HP-IB address to 24 then 7.

1. Press (SHIFT) (LOCAL)
   The Configuration screen is displayed.
2. Move to the HP-IB field by rotating the cursor clockwise.
3. Press (ENTER) to select the field.
4. The default value is 14.
5. Press (2) (4) to change value to 24.
6. Press (ENTER) to input new data.
7. The value is now 24.
8. Press (ENTER) to select the field.
9. Press (7) to change value to 7.
10. Press (ENTER) to input new data.
11. The value is now 7.

Now use this procedure to change the address back to the default of 14.

Changing Units-of-Measure

1. Move to field using the knob.
2. Press the DATA Key with the appropriate unit that you wish to select.
3. The field changes to the new units.

Switching Fields Off

1. Move to a measurement units field using the knob.
2. Press (ON/OFF) key.
3. The field will display OFF.
4. Pressing (ON/OFF) key switches the field on again.

CURSOR CONTROL Knob

A main feature of the front panel is the **CURSOR CONTROL Knob**. Rotating the knob moves the cursor around the fields on the screen. (1)

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Pressing once selects the field. (2)
Pressing the knob again enters the data displayed in the field.

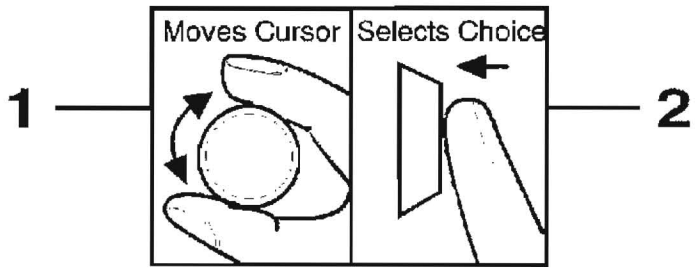


Figure 2-2. Using the Cursor Control Knob

If you are unsure of how to operate the knob, work through this example by changing the HP-IB address to 24 then 7.

1. Press (SHIFT) (LOCAL).
   The Configuration screen is displayed.
2. Move to the HP-IB field by rotating the cursor clockwise.
3. Push knob to select the field.
4. The default value is 14.
5. Rotate knob clockwise to increase value to 24.
6. Push knob to enter data.
7. The value is now 24.
8. Push knob to select the field.
9. Rotate knob counter-clockwise to decrease value to 7.
10. Push knob to enter new data.
11. The value is now 7.

Now use this procedure to change the address back to the default of 14.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

DATA FUNCTION Keys

DATA FUNCTION keys allow you to set increments and decrements by a factor of 10 or by a number of your choice. They also allow references and averages to be set for the selected field.

KEY	FUNCTION
INCR ÷10	Decrements the increment value of the selected numeric field by a factor of 10.
INCR ×10	Increments the increment value of the selected numeric field by a factor of 10.
INCR SET	Used to display or set the increment value.
⇧	Increments the field value by the amount set by INCR SET.
⇩	Decrements the field value by the amount set by INCR SET.
REF SET	Used to set or display reference value.
AVG	Used to set the number of averages of a measurement.

Incrementing And Decrementing Numeric Values

- Select the field to Increment/Decrement.
- Press INCR SET.
- The default increment is displayed.
- Press INCR ×10 to multiply the current increment/decrement value by a factor of 10.
- Press INCR ÷10 to divide the current increment/decrement value by a factor of 10.
- Enter a value and unit-of-measure from the data keys for a manual increment/decrement.
- Press ENTER or push the knob to set the new value.
- Use the knob or ⇧, ⇩ to increment/decrement the field by the new value.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Referencing measurements

Referencing a measurement allows the displayed value to be shown with respect to a reference value. The displayed value is the deviation of the measurement from the reference.

To reference a measurement:

- Select the field to reference.
- Press (SHIFT) (INCR ÷10) (REF SET).
- Enter the required value as a reference.
- Enter the data with the knob or (ENTER).

The abbreviation, `Ref`, appears under the measurement.

Pressing (SHIFT) (INCR ÷10) then (ON/OFF) switches the reference off.

Averaging measurements

Averaging a measurement increases the stability of the displayed value. The default number of averages is 10. This can be increased to a maximum of 999, or decreased to a minimum of 1.
The display is updated after every measurement to give a running average. Every time a new measurement is taken the average is calculated using the previous values and the new value.

To set averaging:

- Select the field to average.
- Press (SHIFT) (INCR ×10) (AVG).
- Enter the number of averages with the data keys.
- Enter the data with the knob or (ENTER).

The abbreviation, `Avg`, appears under the measurement.

Pressing (SHIFT) (INCR ×10) then (ON/OFF) switches the averaging off.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Softkeys

There are five front panel keys which are situated at the right hand side of the screen. The position of the softkey labels generated on the screen coincide with the position of these keys. Pressing the relevant key will perform the function shown on the display at the right of the screen. Each key is not named but has text above each:

- G1
- G2
- G3
- ASSIGN
- RELEASE

This text relates to the **GLOBAL** Keys, which are described below.

Global Keys

Global Keys are keys that give you the ability to assign fields to keys G1, G2 or G3. This means that the assigned field can be accessed from any screen without having to change to the screen the field appears on.

Note

Some fields cannot be assigned to Global keys.
The following screens do not allow global keys to be assigned, or allow fields to be displayed from other screens:

- TESTS
- HELP
- MSG

To Assign and Release Global Keys

Assigning Global Keys

- Use the knob to position the cursor at the field of you want to assign.
- Press (SHIFT)
- Select `ASSIGN`
- Press (SHIFT)
- Select one of the Global keys, `G1` through `G3`.

The assigned field can now be accessed from any allowable screen. To do this:

- Press (SHIFT)
- Select the Global key, `G1`, `G2` or `G3` that you assigned.

The assigned field appears at the top of the screen and you can change the value in the field while on the screen.

Releasing Global Keys

- Press (SHIFT)
- Select `Release`
- Press (SHIFT)
- Select one of the Global keys, `G1` through `G3`.

The Global Key you released can now be assigned a new field.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

2.2 FIELD DESCRIPTIONS

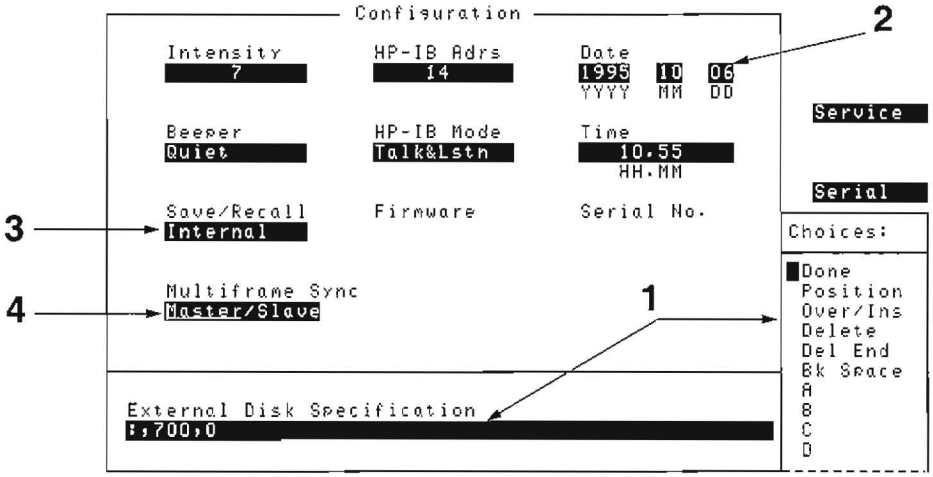


Figure 2-3. Example Screen

1. Alphanumeric - this field type allows entry of names or titles. To enter a name or title, position the cursor next to a character on the generated list, then push the knob to select it. Repeat process until the name or title is complete. Then select Done.

2. Numeric Entry - this field type allows entry of numeric values. To enter a numeric value, position the cursor next to the field and change the value in one of two ways:

   ■Key in the value using the DATA keys.
   ■Use the knob or ⇧, ⇩ to increment or decrement the value.

3. Menu - this field type allows selection from a list of choices. The list of choices appears on the right of the screen in the same place as the generated list in the Alphanumeric entry. To make a selection, position the cursor next to the field and use the knob or ⇧, ⇩ to choose your selection.

4. Underlined Entry - this field type allows selection between the two labels in the field separated by a slash (4). To make a selection, position the cursor next to the field and push the knob or press ENTER. The underlined choice is activated.

This chapter contains reference information on each of the HP 8923B screens and fields. The values given in the fields are the instrument's preset values. These can be altered.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

2.3 SCREENS AND SOFTKEYS

Audio Screen (Front Panel accessed)

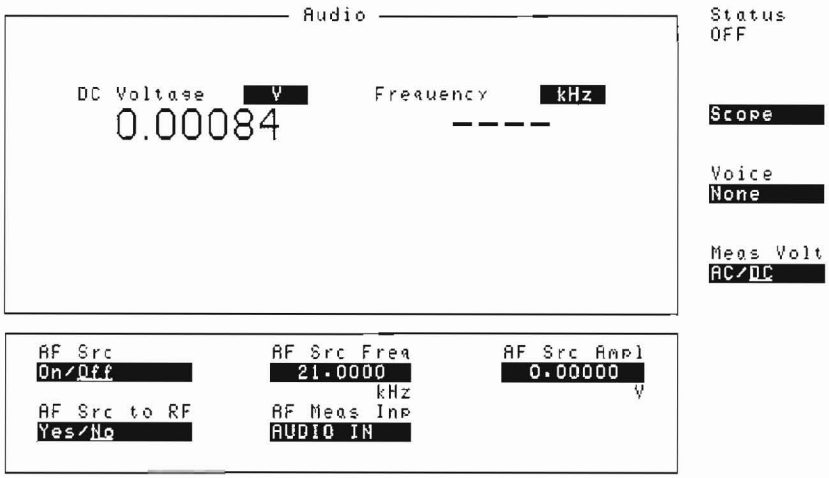


Figure 2-4. Audio Screen (DC Measurements)

This screen provides access to audio analyzer measurements and audio source controls.

Softkey Descriptions

`Scope` — Switches to the oscilloscope screen.

`Voice None` — Allows you to select where to send the received voice signal from the RF carrier. The choices are;

- None
  The EUT is instructed by a MAC layer test message to loopback the data it receives in the B-field.
- Rear Panel
  B-field data is routed to the rear panel through a CODEC for connection to a handset.
- Echo
  The HP 8923B returns the B-field data it receives from the EUT.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

`Meas Volt AC/DC` — Toggles between an audio measurement of the a.c. component or d.c. component of the chosen signal.

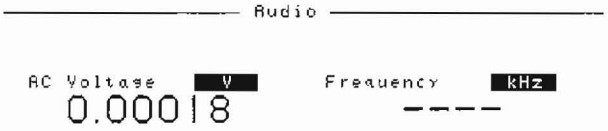


Figure 2-5. Audio Screen (AC Measurements)

Audio

Audio measurements can be made on a signal supplied to the **Audio In** connector on the front panel or, from the internal CODEC which takes the audio signal from the RF carrier.

Note

The `Meas Volt AC/DC` field must be set to `AC` to enable a.c. measurements to be made and set to `DC` to enable d.c. measurements to be made.

`AC Voltage` — This field displays the peak a.c. component of the audio signal.

`DC Voltage` — This field displays the d.c. component of the audio signal.

`Frequency` — This field displays the frequency of the audio signal.

Audio Source

`AF Src` — A toggle field, which switches the audio source on or off.

`AF Src Freq` — Allows you to set the frequency of the internal audio source. The frequency can be varied between 20 Hz and 21 kHz.

`AF Src Ampl` — Allows you to set the amplitude of the internal audio source. The amplitude can be varied between 0 V and 2 $V_{pk\text{-}pk}$.

`AF Src to RF` — This field connects the Audio Source output to the internal CODEC. The choices are;

- Yes
  The signal is modulated onto the RF carrier, through the HP 8923B internal CODEC, and to the **Audio Out** connector on the front panel.
- No
  The signal is only supplied to **Audio Out**.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Audio Analyzer

`AF Meas Inp`

This field to toggles the Audio Analyzer input between the front panel **Audio In** connector and the internal CODEC. The choices are;

- AUDIO IN
  The signal is measured at **Audio In**.
- Rx Audio
  The signal is measured at the internal CODEC output, from the RF carrier.

Menu Map

The full menu map is shown here.

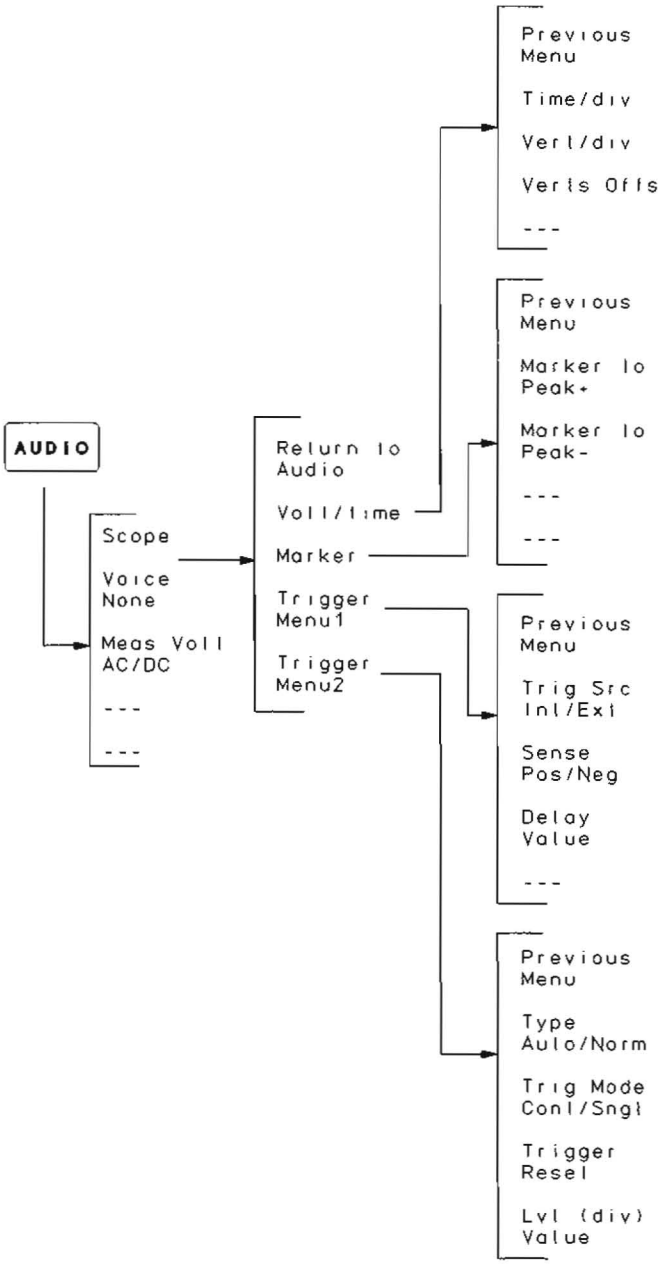


Figure 2-6. Audio Measure Menu Map

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Bit Error Ratio Screen (Front Panel accessed)

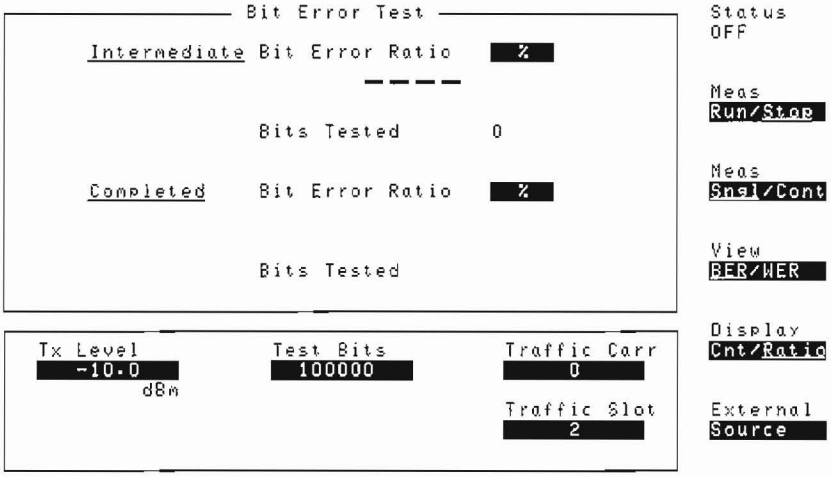


Figure 2-7. Bit Error Ratio Screen

This key allows access to the BER measurements. On this screen, a reading is updated while the HP 8923B tests the allotted number of bits to test. This is the `Intermediate Bit Error Ratio`.

When the HP 8923B has completed the measurement, the intermediate reading is transferred to the `Completed Bit Error Ratio` measurement. Another intermediate measurement is started if continuous measuring has been chosen.

Bit Error Test

`Intermediate Bit Error Ratio` — This area displays the intermediate BER result.

`Completed Bit Error Ratio` — This area displays the completed BER result.

`Tx Level` — Allows you to test the sensitivity/BER of the EUT by reducing the amplitude of the signal provided by the HP 8923B.

`Test Bits` — Allows you to set the number of bits used in the BER test. The default is 100,000 bits.

`Traffic Carr` — Allows you to set the carrier for the traffic bearer. The carrier is an integer from 0-9.

`Traffic Slot` — Allows you to set the timeslot for the traffic bearer. The timeslot is an integer from 0-11.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Softkey Descriptions

The softkey menu map for BER is shown in Figure 2-8.

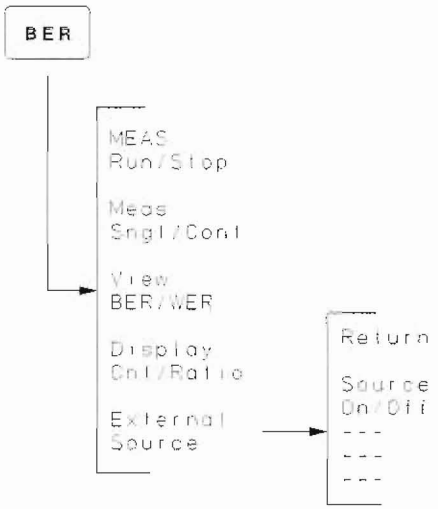


Figure 2-8. BER Measurement Menu Map

Softkey	Description	Front Panel Access
Meas Run/Stop	Allows the measurement to be started or stopped.	BER
Meas Sngl/Cont	Allows single or continuous measurement control.	BER
View BER/WER	Allows choice of bit errors or word errors to be displayed.	BER
Display Cnt/Ratio	Allows the measurement to be displayed as an absolute error count or as a ratio.	BER
External Source	Switches to the External Source Control Screen.	BER

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Call Setup Screen (Front Panel accessed)

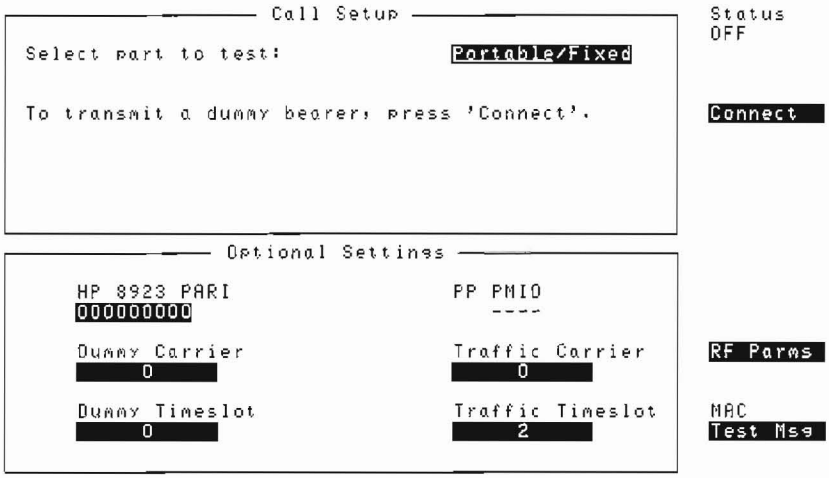


Figure 2-9. CALL SETUP Screen, PP as EUT

The CALL SETUP screen allows the HP 8923B settings to be configured before establishing a communication link.

Call Setup

- `Select Part to Test`
  Allows selection of EUT to test. The choice is Portable or Fixed.

Instructions of what to do during a call setup are also displayed in the top section of the screen.

Optional Settings

The bottom half of the screen contains optional information.

Portable Part as EUT

- `HP 8923 PARI`
  When testing a Portable Part the HP 8923B is emulating an Fixed Part. This field allows you to enter the PARI of the Fixed Part associated with the Portable Part.
  This is an eight or nine character hexadecimal number.

- `PP PMID`
  This field shows the MAC layer identity of the Portable Part being tested.
  The field is blank until the PP is synchronised to the HP 8923B's dummy bearer.
  When established it displays a string of five hexadecimal numbers.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

- Dummy Carrier and Dummy Timeslot
  These two fields specify the carrier and timeslot of the dummy bearer transmitted by the HP 8923B.
  The carrier is an integer number from 0-9.
  The timeslot is an integer 0-11.

- Traffic Carrier and Traffic Timeslot
  These two fields specify the carrier and timeslot of the traffic bearer transmitted by the HP 8923B.
  The carrier is an integer number from 0-9.
  The timeslot is an integer 0-11.

Fixed Part as EUT

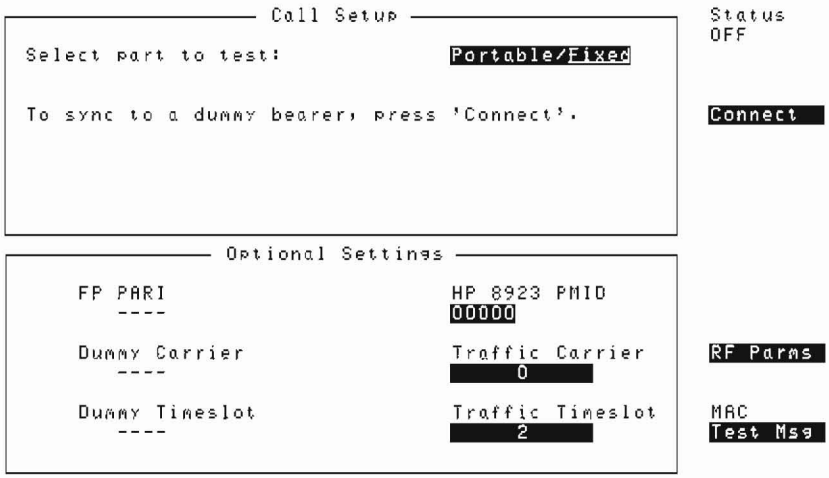


Figure 2-10. CALL SETUP Screen, FP as EUT

- FP PARI
  This field shows the MAC layer identity of the Fixed Part being tested.
  The field is blank until a call is established.
  When established it displays a string of eight or nine hexadecimal numbers, depending on the class of part being tested.

- HP 8923 PMID
  When testing a Fixed Part the HP 8923B is emulating a Portable Part. This field allows the PMID of a Portable Part, which has permission to communicate with the Fixed Part, to be entered.
  This is a five character hexadecimal number.

- Dummy Carrier and Dummy Timeslot
  These two fields display the carrier and timeslot of the dummy bearer from the FP.
  These two fields are blank until the HP 8923B is synchronized to the FP's dummy bearer.
  When established two integer numbers are displayed, corresponding to the carrier and timeslot.
  The carrier will be an integer number from 0-9.
  The timeslot will be an integer number from 0-11.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

- Traffic Carrier and Traffic Timeslot
  These two fields specify the carrier and timeslot of the traffic channel which the HP 8923B willl communicate on.
  The carrier is an integer number from 0-9.
  The timeslot is an integer number from 0-11.

If you are testing a Fixed Part the dummy bearer cannot be configured. The HP 8923B emulates a Portable Part, which locks onto a dummy bearer from the Fixed Part under test.

Softkey Descriptions

The complete softkey menu map is shown in Figure 2-11.

Softkey	Description	Front Panel Access
Connect	The HP 8923B either attempts to lock onto a dummy bearer or transmits a dummy bearer depending on the EUT you are testing (FP or PP). The status is Idle or Lock.	CALL SETUP
RF Parms	Switches to the RF parameters screen.	CALL SETUP
MAC Test Msg	Switches to the Proprietary Test Message screen.	CALL SETUP
Traffic Connect	The HP 8923B or the PP initiates a bearer on the traffic channel and timeslot you have chosen.	CALL SETUP Connect
Release Traffic	During the CONNECTED status, the traffic bearer is released by this softkey.	CALL SETUP Connect Traffic Connect
Release Dummy	During the IDLE or LOCK status, the dummy bearer is released by this softkey.	CALL SETUP Connect Traffic Connect Release Traffic

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

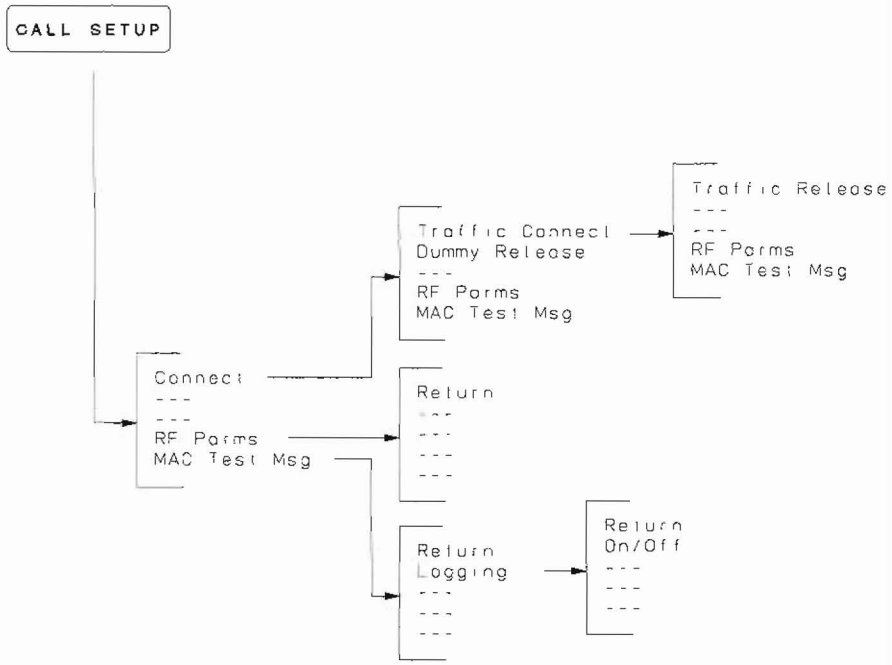


Figure 2-11. CALL SETUP Softkey Menu Map

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Configuration Screen (Front Panel accessed)

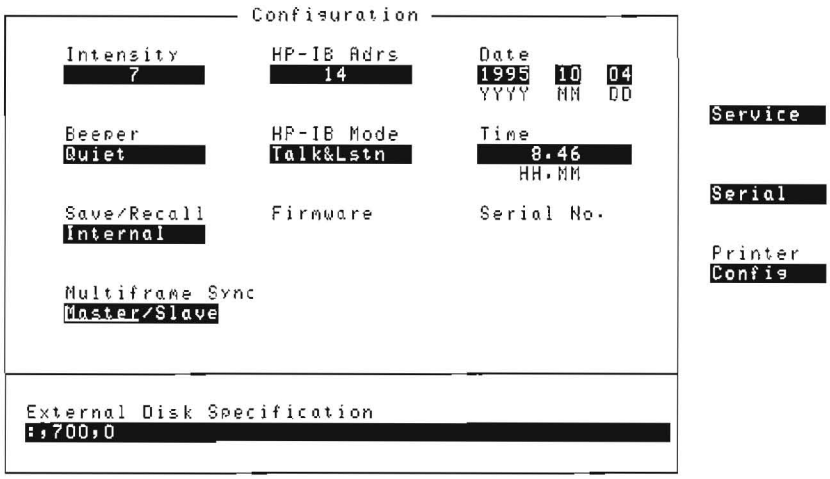


Figure 2-12. CONFIG Screen

The config screen provides access to the configuration controls of the HP 8923B. The menu map for the softkeys is shown in Figure 2-13.

Configuration

`Intensity`

Allows the intensity of the screen to be set. The scale is 1 (dim) to 8 (bright). Default is 7.

`HP-IB Adrs`

Allows the HP-IB address of the HP 8923B to be changed. The range is 0-30, with 14 as default.

`Date`

Allows the present date to be entered in the format;

- YYYY
  The full year number is entered, for example 1995.
- MM
  The full month number is entered.
- DD
  The full day number is entered.

`Beeper`

Allows the volume of the beeper to be set. The choices are:

- Quiet. (Default)
- Loud.
- Off.

`HP-IB Mode`

Allows the HP-IB mode to be set to `Talk & Listen` or `Control`. When set to `Talk & Listen`, the HP 8923B is available for control by an external controller on

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

	the HP-IB. When set to `Control` , the HP 8923B acts as controller for any other instruments connected to the HP-IB.

Note The HP 8923B must be set to `Control` to allow printing to an HPIB printer.

`Time`	Allows you to enter the time in the format HH.MM.
`Save/Recall`	Allows you to choose the device for saving and recalling instrument states. The choices are: ■ Internal - To normal save/recall registers. ■ Card - To a card plugged into the front panel. ■ RAM - To an internal RAM disk. ■ Disk - To an external disk.
`Firmware`	Displays the current firmware revision.
`Serial No.`	Displays the serial number of the instrument.
`Multiframe Sync`	This signal is used to synchronize the multiframe structure of several HP 8923Bs together for testing PPs over the air. There are two modes: ■ Master Lets the HP 8923B generate this synchronization signal. ■ Slave Lets the HP 8923B synchronize to this signal. More HP 8923Bs can be connected in a chain to the slave's output.
`External Disk Specification`	Allows you to set the HP-IB address and type of external disk drive for save and recall purposes. The format is: ■ :,7xx,y 7xx is the HP-IB address of the external disk. xx is an integer from 00-30. The y sets the unit of the external disk drive to be used. If y= 0, then the unit marked 0 on your disk drive is to be used. If y= 1, then the unit marked 1 on your disk drive is to be used.

Note For single-sided disk drives, set y to 0.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Softkey Descriptions

The softkeys on the configuration screen are described below.

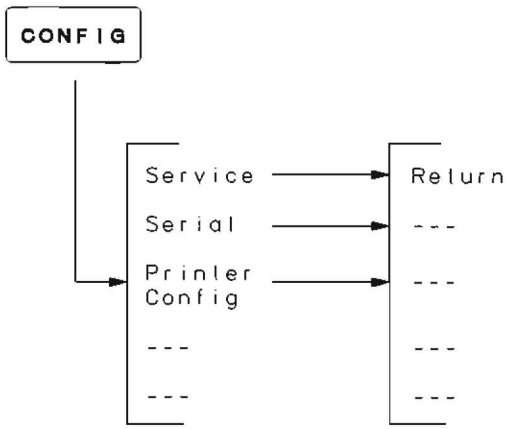


Figure 2-13. CONFIG Menu Map

Softkey	Description	Front Panel Access
Service	Switches to the Service screen.	(SHIFT) (LOCAL) (CONFIG)
Serial	Switches to the Serial screen.	(SHIFT) (LOCAL) (CONFIG)
Printer Config	Switches to the Printer Config screen.	(SHIFT) (LOCAL) (CONFIG)
Return	Returns to Config screen.	(SHIFT) (LOCAL) (CONFIG) Serial (SHIFT) (LOCAL) (CONFIG) Service (SHIFT) (LOCAL) (CONFIG) Printer Config

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

External Source Control Screen (softkey accessed)

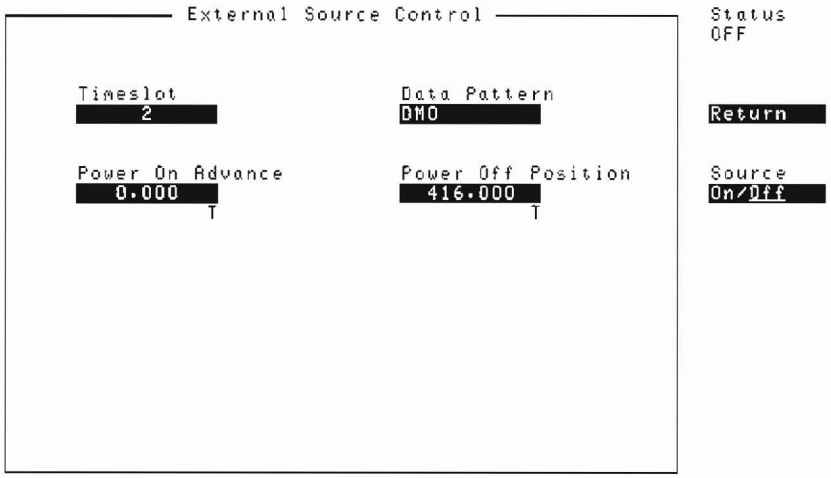


Figure 2-14. External Source Control Screen

This screen allows you to supply a data signal and a trigger signal to an external source. These signals can be used with an external signal generator to provide a second DECT source.

`Timeslot`

Select the timeslot that the external trigger (**TX2 EN Out**) is synchronized to.
The choice is an integer from 0 to 23.

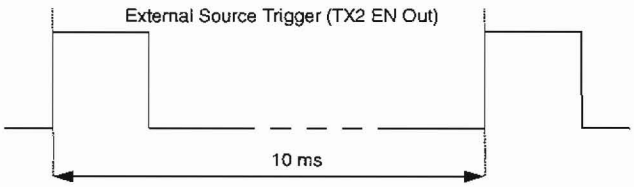


Figure 2-15. External Source Trigger (TX2 EN Out)

`Data Pattern`

Select the data pattern that is sent to the **TX2 Data Out** connector on the rear panel.

The choices are;

- DM0
- DM1
- DM2
- FACC
- FDEV2_FS

`Power On Advance`

To allow for the different switching characteristics of signal generators it is possible to adjust the timing of the trigger signal with respect to the internal timing of the HP 8923B. The external trigger can be activated before the internal signal by up to 31 bit periods.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

`Power Off Position` The falling edge of the external trigger can also be adjusted up to 31 bit periods from the internal signal.

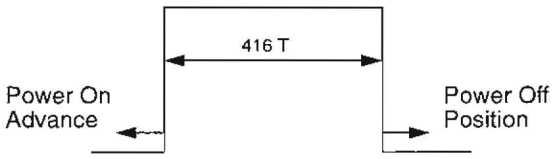


Figure 2-16. Power On/Off Position

Softkey Descriptions

Softkey	Description	Front Panel Access
`Return`	Returns to the previous screen.	(BER) `External Source`
`Source On/Off`	Switches the external source trigger (**TX2 En Out**), on the rear panel, on or off.	(BER) `External Source`

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Frequency Drift Screen (softkey accessed)

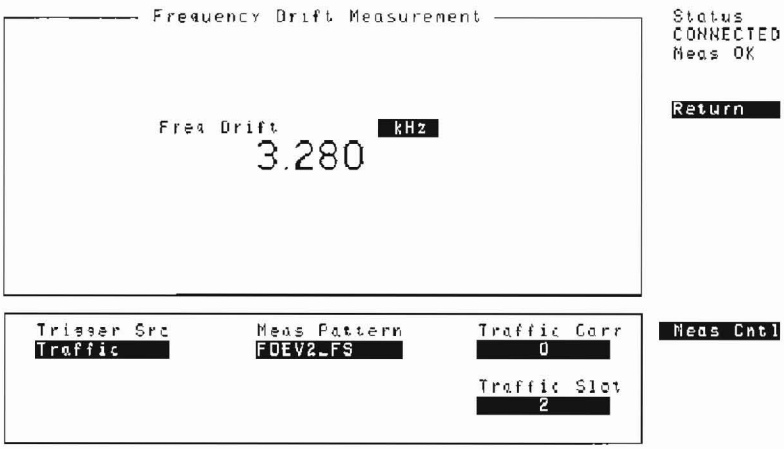


Figure 2-17. Frequency Drift Screen

This screen displays the drift of the frequency across the burst. The lower section displays the measurement control parameters.

Note

For a frequency drift measurement, the `Meas Pattern` should be set to `FDEV2_FS`.

Frequency Drift Measurement

`Freq Drift` — Displays the frequency drift across the burst.

Softkey Descriptions

Softkey	Description	Front Panel Access
`Return`	Returns to the previous screen.	(PWR)
`Meas Cntl`	Accesses the measurement control screen.	(FREQ) `Frequency Drift`

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Frequency Measurement Screen (Front Panel accessed)

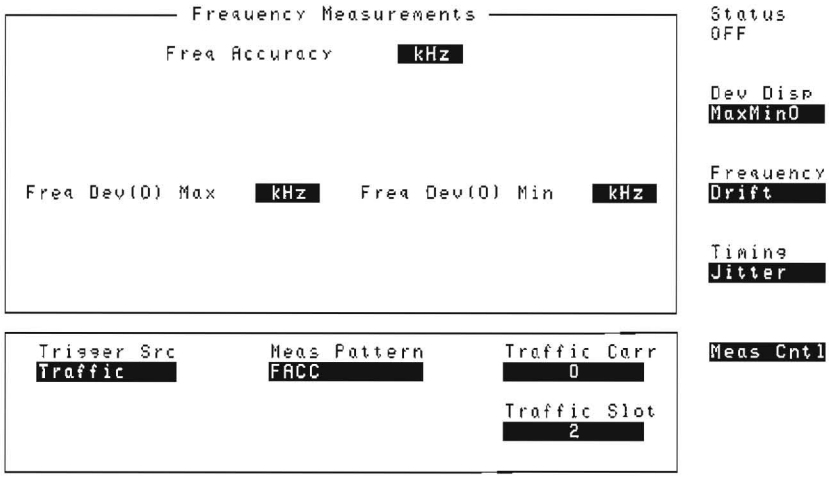


Figure 2-18. Frequency Measurement Screen

This screen displays the Center Frequency Accuracy and Frequency Deviation of the RF signal. Measurement control parameters are displayed in the lower section of the screen.

Frequency Measurements

`Frequency Accuracy` Displays the center frequency accuracy of the signal applied to **RF In/Out**.

`Freq Dev(0) Max` Displays the maximum frequency deviation of the zeroes from the center frequency of the signal applied to **RF In/Out**.

`Freq Dev(0) Min` Displays the minimum frequency deviation of the zeroes from the center frequency of the signal applied to **RF In/Out**.

The measurement control parameters are explained in the `Meas Cntl` section of this chapter.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Softkey Descriptions

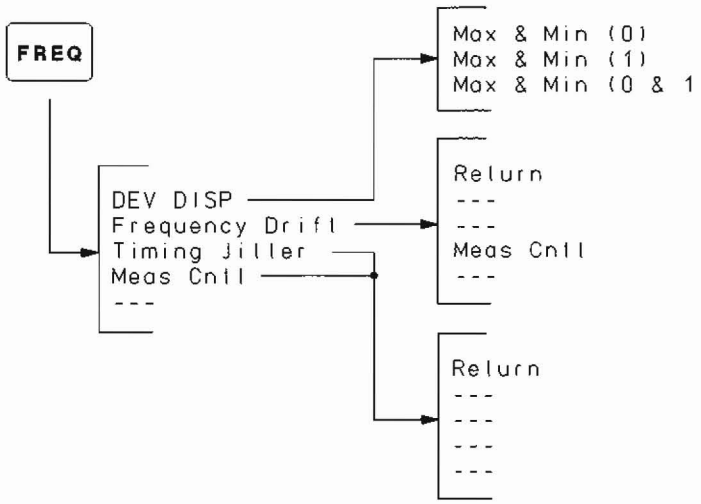


Figure 2-19. Frequency Measurement Menu Map

Softkey	Description	Front Panel Access
Dev Disp Max & Min 0	Displays the maximum and minimum frequency deviation of a logic zero.	FREQ
Dev Disp Max & Min 1	Displays the maximum and minimum frequency deviation of a logic one.	FREQ
Dev Disp Average 0 & 1	Displays the average frequency deviation of a one and the average frequency deviation of a zero.	FREQ
Frequency Drift	Switches to the frequency drift screen.	FREQ
Timing Jitter	Switches to the Jitter measurement screen.	
Meas Cntl	Switches to the measurement control screen.	FREQ

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Help Screens (Front Panel accessed)

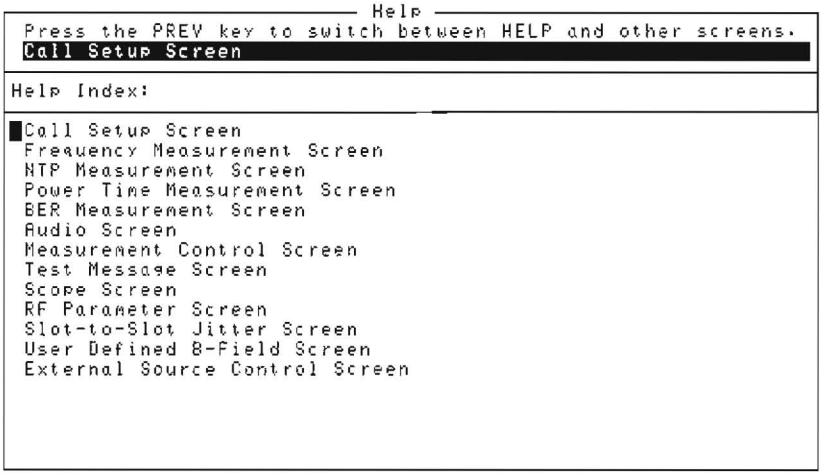


Figure 2-20. HELP Index Screen

Help information is available for a number of instrument screens. The information is accessed by selecting (HELP). If no help information is available for the current screen, a message will be displayed on the prompt line. If information is available, help information for the current screen will be displayed and by selecting the prompt line, the help index is accessed. This is an index for all available help topics. To return to the previous screen, select the (PREV) key.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Jitter Measurement Screen (softkey accessed)

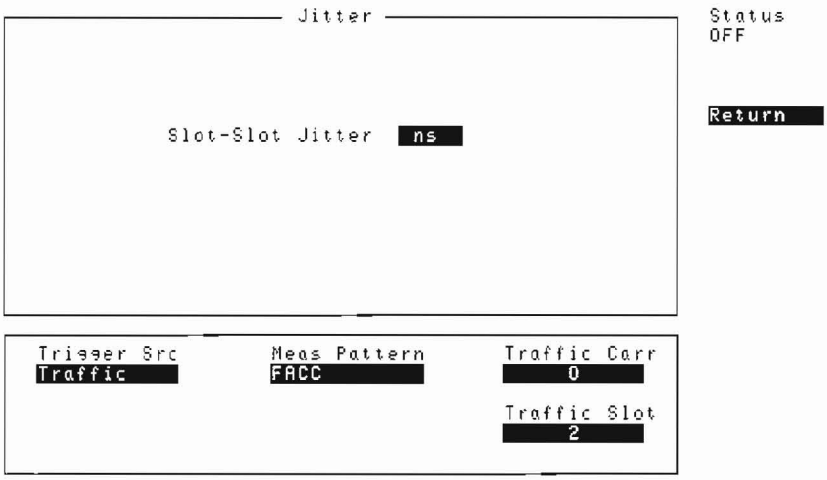


Figure 2-21. Jitter Screen

This screen displays the slot to slot timing jitter between consecutive timeslots in nanoseconds.

The jitter is measured as the difference between the expected and measured values of time between consecutive timeslots. The expected value is 10ms.

Softkey	Description	Front Panel Access
Return	Returns to the previous screen.	(FREQ), Timing Jitter

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Logging Screen (softkey accessed)

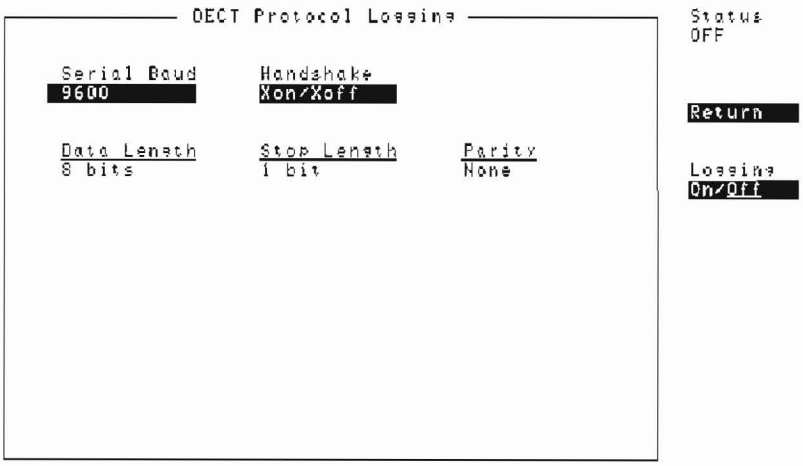


Figure 2-22. DECT Protocol Logging Screen

This screen allows you to configure the communication through the protocol logging port. This port presents a summarized log of the protocol messages used during the communication with the EUT. It is accessed from the MAC `Test Msg` screen.

DECT Protocol Logging

`Serial Baud` — Allows the selection of the baud rate of the port. The choices are:

- 19200
- 9600 (Default)
- 1200
- 300

`Handshake` — Used when transferring data from the serial port. The choices are:

- `Xon/Xoff`
  Enables the Xon/Xoff function.
- `None`
  Disables the Xon/Xoff function.

Softkey Descriptions

The softkeys on this screen are shown in Figure 2-11.

Softkey	Description	Front Panel Access
`Return`	Returns to the MAC `Test Msg` screen.	CALL SETUP MAC `Test Msg`
`Logging On/Off`	Enables/Disables the Logging.	CALL SETUP MAC `Test Msg`

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

MAC Test Message Screen (softkey accessed)

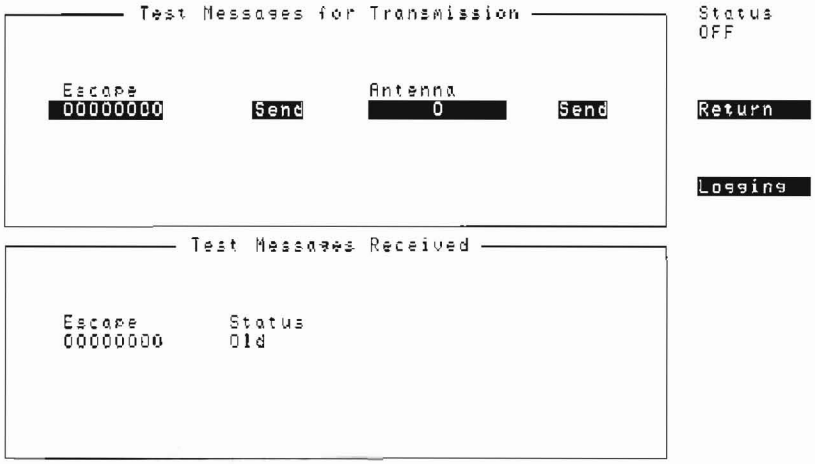


Figure 2-23. MAC Test Message Screen

The MAC Test Message screen provides access to the controls which transmit and receive MAC Layer test messages. It also displays any received Escape Test Message and the current status of the Escape Test Message.

Test Messages for Transmission

`Escape` — Allows you to enter an eight character hexadecimal number to be transmitted in the Escape test message. For details on test messages see appendix "MAC Layer Test Messages".

`Antenna` — Allows you to enter the antenna number which is used in the Defeat_Antenna_Diversity test message. The value is variable from 0 to 7 inclusive. For details on test messages see appendix "MAC Layer Test Messages".

`Send` — The send command to the right of the `Escape` field initiates transmission of the Escape test message, using the data in the `Escape` field.

The send command to the right of the Antenna field initiates transmission of the Defeat_Antenna_Diversity test message, using the data in the `Antenna` field.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Test Messages Received

`Escape` — If the HP 8923B receives an Escape test message from the EUT, the data is shown in this field.

`Status` — When an Escape test message is received, this status changes from OLD to NEW. When using an external controller or I-BASIC program, the Escape Data can be read. The field then changes to OLD.

Softkey Descriptions

The softkeys on this screen are shown in Figure 2-11.

Softkey	Description	Front Panel Access
`Return`	Returns to the (CALL SETUP) screen.	(CALL SETUP) MAC `Test Msg Logging`
`Logging`	Switches to the DECT protocol Logging screen.	(CALL SETUP) MAC `Test Msg Logging`

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Measurement Control Screen (softkey accessed)

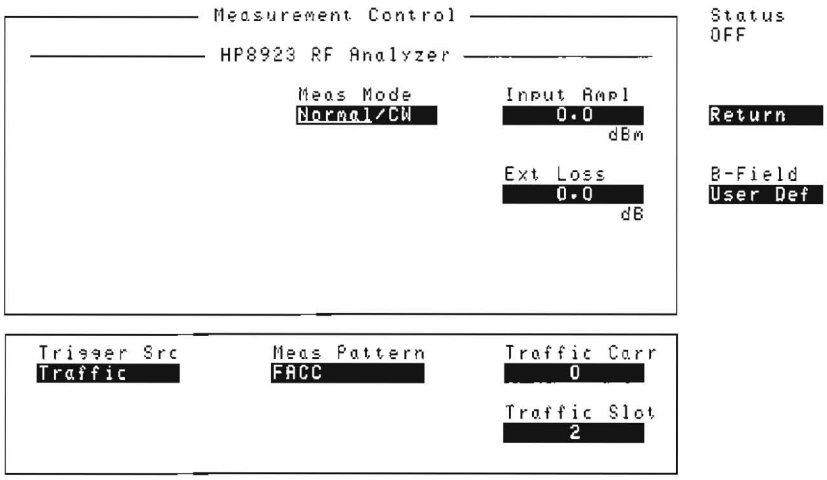


Figure 2-24. Measurement Control Screen

This screen allows you to configure the measurement parameters of the internal analyzer.

HP 8923 RF Analyzer

`Meas Mode`

Allows the choice of:

- **Normal**
  The HP 8923B expects to measure a bursted RF signal.
- **CW**
  The HP 8923B expects to measure a continuously modulated RF signal.

`Input Ampl`

The expected amplitude of the received signal is set in this field. It has to be within 6 dB of the RF signal level presented at the **RF In/Out** connector.

`Ext Loss`

Allows compensation for the loss between the output of the EUT and the **RF In/Out** connector of the HP 8923B. The compensation is applied to the settings for input level, output level and measurement values.

`Trigger Src`

A menu field with the choices for the trigger source for the HP 8923B. The choices are:

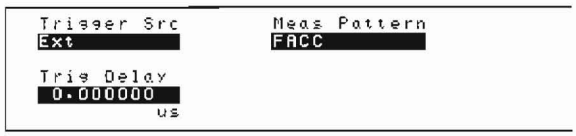
- `Traffic`
  The HP 8923B triggers from bit p0 of the sync word in the traffic bearer.
- `Dummy`
  The HP 8923B triggers from bit p0 of the sync word in the dummy bearer.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

- `RF Rise`
  The HP 8923B triggers from the rising edge of the signal presented to the **RF In/Out** connector.

Note The HP 8923B assumes that a bursted RF signal is present.

- `Ext`
  The HP 8923B triggers from an external trigger source. This trigger source must have a TTL level. When `Ext` is chosen for the `Trigger Src`, an extra field, `Trig Delay`, appears.



  This enables you to set a trigger delay of up to 10 ms.

- `Immediate`
  Always available but used when the HP 8923B is in CW measurement mode. The HP 8923B generates its own internal trigger. The other trigger sources are used when an RF signal, presented to the **RF In/Out** connector, is pulsed.

Note When the Trigger source is `RF Rise`, `Ext` or `Immediate`, extra fields appear. These are shown in, Figure 2-26, on page 5-38.

`Meas Pattern` Allows choice of the data pattern transmitted in the B-field. The data patterns available are:

- DM0
  A continuous data pattern of all zeroes.
- DM1
  A continuous data pattern of all ones.
- DM2
  A PRBS conforming to CCITT O.153 standard with 512 bits. This is the default `Meas Pattern` for BER/WER measurements. This is not shown on Figure 2-25.
- FACC
  A repeating pattern of 11110000.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

- FDEV1_FS
  Complex data pattern of;

  a. 128 10101010's

  b. 64 11111111's

  c. 64 00000000's

  d. 64 10101010's
- FDEV2_FS
  Alternate pattern of 10101010.
- USER_DEF
  The data pattern created by the user in the User Defined B-Field Screen, see "User Defined B-Field Screen (Softkey Accessed)", on page 5-54.

Note To select the correct measurement patterns for the relevant measurements, see Table 2-2, on page 4-3 or Table 2-2, on page 4-5 of Chapter 4, "Making Measurements".

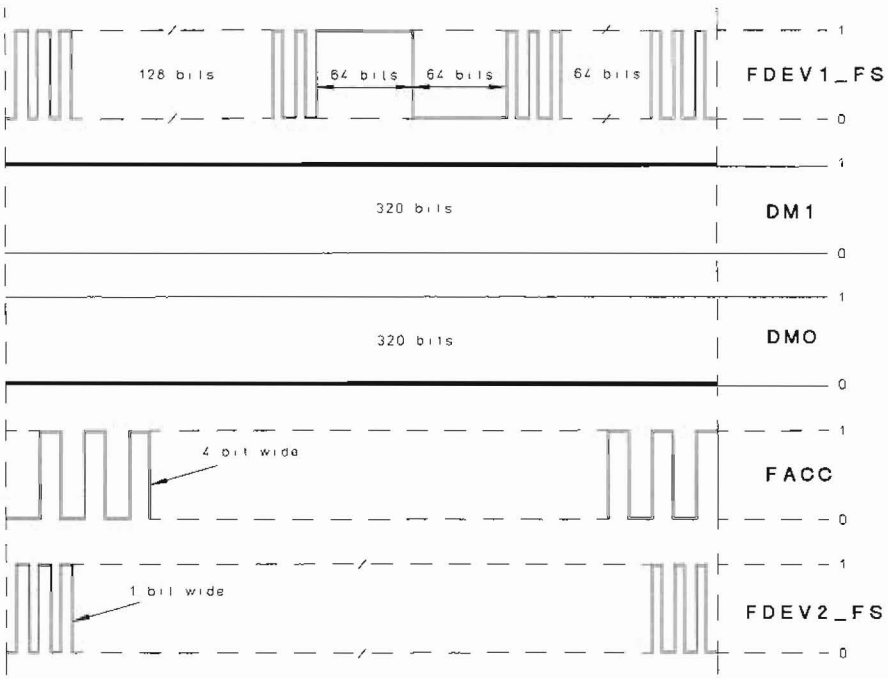


Figure 2-25. Data Patterns Generated By The HP 8923B

`Traffic Carr` Allows you to set the carrier for the traffic bearer. The carrier is an integer from 0-9.

`Traffic Slot` Allows you to set the timeslot for the traffic bearer. The timeslot is an integer from 0-11.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Trigger Source set to RF Rise, Ext or Immediate

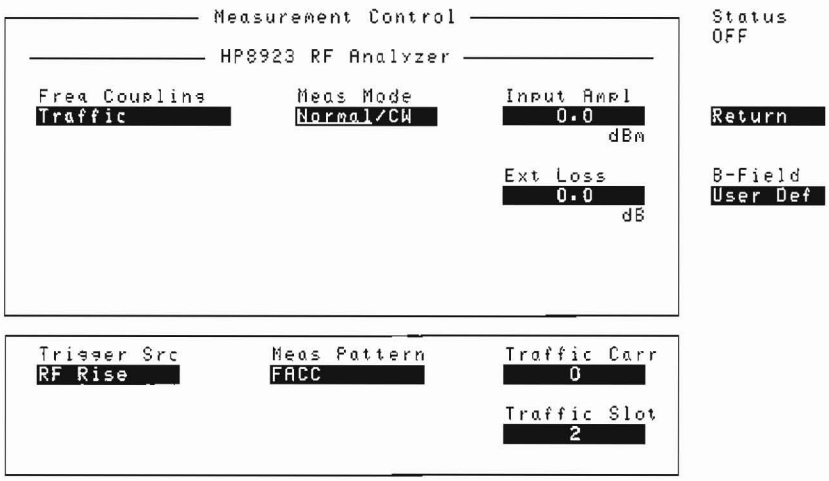


Figure 2-26. Measurement Control Screen With Frequency Coupling Field

`Freq Coupling` A menu field which sets the frequency of the HP 8923B analyzer. The choices are:

- `Traffic`
  The analyzer's frequency is set to the traffic channel frequency.
- `Dummy`
  The analyzer's frequency is set to the dummy carrier frequency.
- `Manual`
  The analyzer's frequency is set to a carrier or frequency of your choice. Each DECT carrier has a number and frequency in the allotted band of frequencies 1880 - 1900 MHz.

If you choose Manual, extra fields are revealed. They are shown on Figure 2-27.

Note The `Frequency Coupling` field appears on the `RF Parms` screen when the trigger source is RF Rise, Ext or Immediate.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Frequency Coupling Set To Manual, Dummy or Traffic

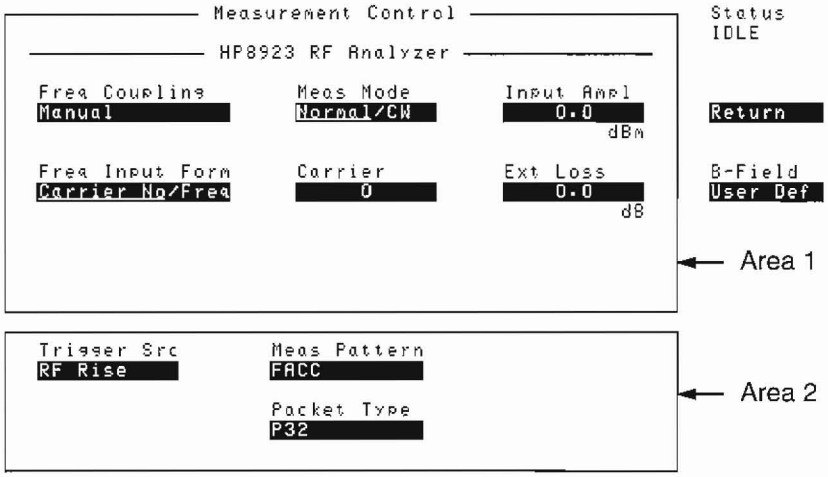


Figure 2-27. Measurement Control Screen With Frequency Coupling Field Set To Manual

The fields on the measurement control screen change according to the method of `Frequency Coupling` chosen.

Note

The fields, in area one, appear on the RF Parms screen.
The fields, in area two, appear on the Frequency and Power measurements screens.

Frequency Coupling set to Manual

The following fields appear;

`Frequency Input Form`

An underlined choice field. Choices are `Carrier No.` and `Frequency`. Depending on which input is underlined, the adjacent fields are affected as follows:
If `Carrier No.` is selected, the adjacent field allows you to enter an integer from 0-9;



If `Frequency` is selected, the adjacent field allows you to enter a frequency in the range 1880-1900 MHz;

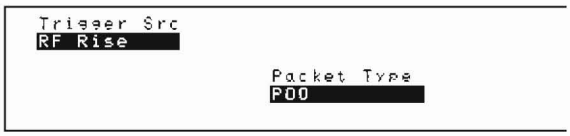


Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Packet Type

A menu field, with a choice of P00 or P32.

- P00
  The analyzer expects to measure a P00 packet, for example, a dummy bearer. Since the P00 packet contains no B-Field the option of setting the Meas Pattern is not available.



- P32
  The analyzer expects to measure a P32 packet, for example a traffic bearer.

Frequency Coupling set to Dummy

The following fields, in area two of Figure 2-27, will appear;



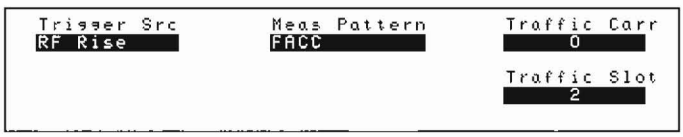
Since there is no B-Field in the Dummy Bearer the option of setting the Meas pattern is removed.

Dummy Carr — Allows you to set the carrier for the dummy bearer. The carrier is an integer from 0-9.

Dummy Slot — Allows you to set the timeslot for the dummy bearer. The timeslot is an integer from 0-11.

Frequency Coupling set to Traffic

The following fields, in area two of Figure 2-27, will appear;



These fields are described on page 36 and page 37.

Softkey Descriptions

There is only one softkey displayed on the Meas Cntl screen.

Softkey	Description	Front Panel Access
Return	Returns to the previous screen.	FREQ Meas Cntl PWR Meas Cntl PWR Pwr-Time Meas Cntl
B-Field User Def	Switches to the User Defined B-Field screen.	

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Message Screen (Front Panel accessed)

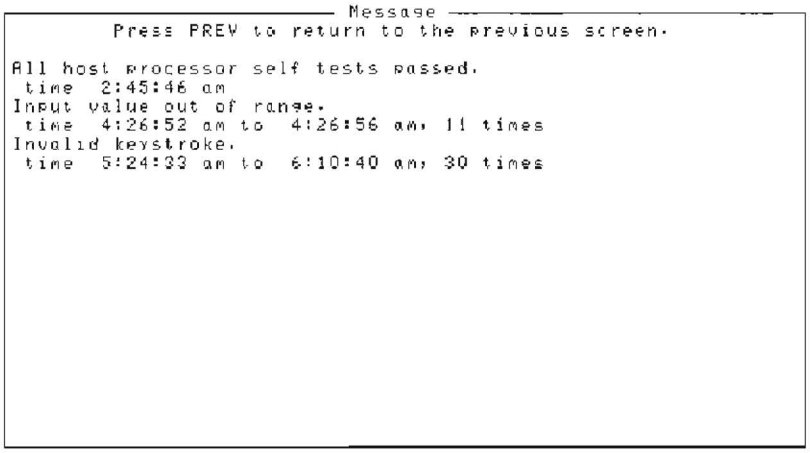


Figure 2-28. MSG Screen

There are no fields displayed on this screen. It shows any messages or errors which have occurred since the unit was powered up.
When the screen is full only the most recent messages are displayed.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Oscilloscope Screen (softkey accessed)

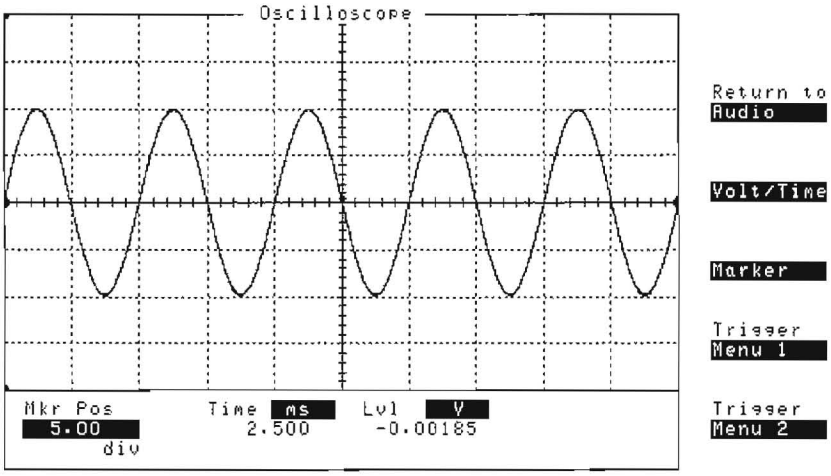


Figure 2-29. Example of Audio Signal on screen

On this screen there are three main controls beneath the grid:

`Mkr Pos`	Horizontal position of the marker.
`Time`	Shows the time position of the marker relative to the left of screen (0 ms).
`Lvl`	Shows the amplitude level of the marker.

`Time` and `Lvl` readings are those of the current marker position. Using the softkeys on the right hand side of the screen, you can alter the scale of the screen, set triggers and offsets, set voltage offsets and return to the main audio screen.

Softkey Descriptions

`Return To Audio`	Switches to the audio screen.
`Volt/Time`	Allows you to choose from a list of choices for the horizontal and vertical axes scaling on the oscilloscope.

`Time/div`

This softkey allows you to choose from a list of choices for the timebase on the oscilloscope.

`Vert/div`

This softkey allows you to choose from a list of choices for the vertical scale on the oscilloscope.

`Vert/Offs`

This softkey allows you to choose a vertical offset for the trace.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Marker	Accesses marker position softkeys.
	Marker to Peak+
	Sets marker to positive peak of the on screen trace.
	Marker to Peak-
	Sets marker to negative peak of the on screen trace.
Trigger Menu 1	Accesses trigger features.
	Trig Src Int/Ext
	Allows you to toggle between Internal and External trigger sources.
	Sense Pos/Neg
	Changes the sense of the trigger from positive to negative edge and vice-versa.
	Delay Value
	Allows you to enter a delay value for the trigger (in milliseconds).
Trigger Menu 2	Accesses trigger features.
	Type Auto/Normal
	Selects automatic or normal triggering.
	Trig Mode Cont/Sngl
	Selects single or continuous triggering.
	Trigger Reset
	Resets the trigger, allowing a new measurement to be made. Most useful when in single triggering mode.
	Lvl (div) Value
	Allows you to set the trigger level in divisions.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Power Screen (Front Panel accessed)

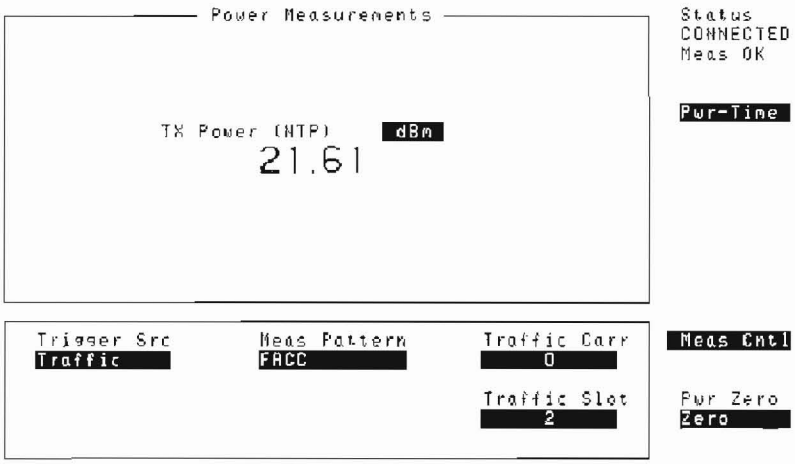


Figure 2-30. Power Measurement Screen

The Power screen displays the Normal Transmitted Power (NTP) of the RF signal. Measurement control parameters are displayed in the lower section of the screen.

Power Measurements

`Tx Power (NTP)` This displays the NTP reading of the signal applied to the RF In/Out.

Softkey Descriptions

Softkey	Description	Front Panel Access
`Pwr-Time`	Accesses the power vs time screen.	PWR
`Meas Cntl`	Accesses the measurement control screen.	PWR
`Power Zero Zero`	Zeroes the power reading when no RF Input is present.	PWR

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Power-Time Screens (softkey accessed)

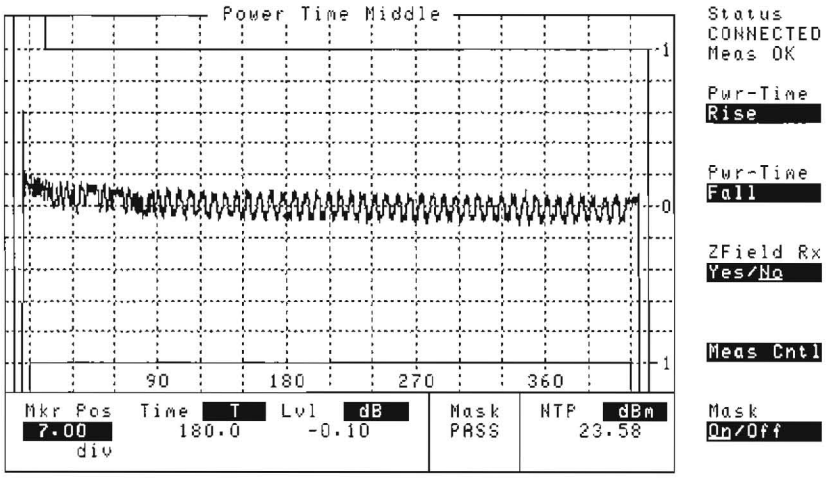


Figure 2-31. Power Time Middle Screen

This screen graphically displays the middle section of the received RF pulse from the EUT.

`Mkr Pos` — The field displays the position of the marker on the screen. The range of the marker positions is from `0.4` to `16` divisions.

`Time` — This displays the time position of the marker in bit periods (T). The scale is displayed across the bottom of the screen.

`Lvl` — This displays the level at the marker relative to the NTP reading. The field is displayed in dB.

`NTP` — This is the same NTP reading as on the (PWR) screen. The field is displayed in dBm.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Power-Time Rise Screen (softkey accessed)

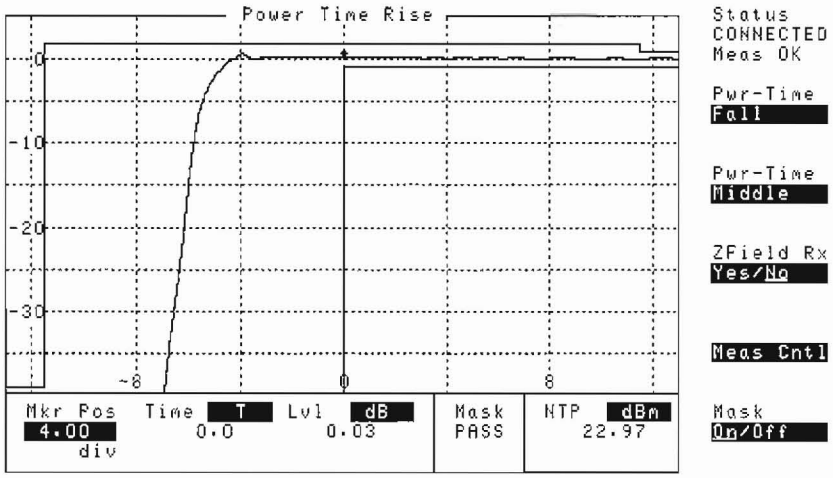


Figure 2-32. Power Time Rise Screen

This screen graphically displays the rising edge of the received RF pulse from the EUT. The range of the marker positions is 0.8 to 7.2 divisions. All other fields are as described for Power Time Middle Screen.

Power-Time Fall Screen (softkey accessed)

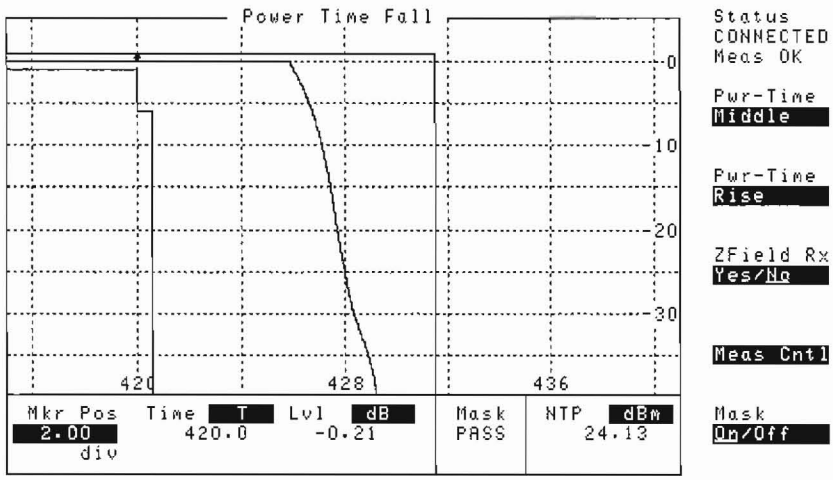


Figure 2-33. Power Time Fall Screen

This screen graphically displays the falling edge of the received RF pulse from the EUT. The range of the marker positions is 0.8 to 7.2 divisions. All other fields are as described for Power Time Middle Screen.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Softkey Descriptions

The softkey descriptions for the Power Time screens are detailed below.

Softkey	Description	Front Panel Access
Pwr-Time Rise	Displays the rising edge of the RF burst.	PWR Pwr-Time
Pwr-Time Fall	Displays the falling edge of the RF burst.	PWR Pwr-Time
Pwr-Time Middle	Displays the middle of the RF burst.	PWR Pwr-Time
Z-field Rx Yes/No	Adapts the length of the template to allow for z-field transmissions.	PWR Pwr-Time
Meas Cntl	Accesses the measurement control screen.	PWR PWR Pwr-Time
Mask Off/On	Enables/Disables the Measurement Mask.	PWR Pwr-Time

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Printer Config Screen (softkey accessed)

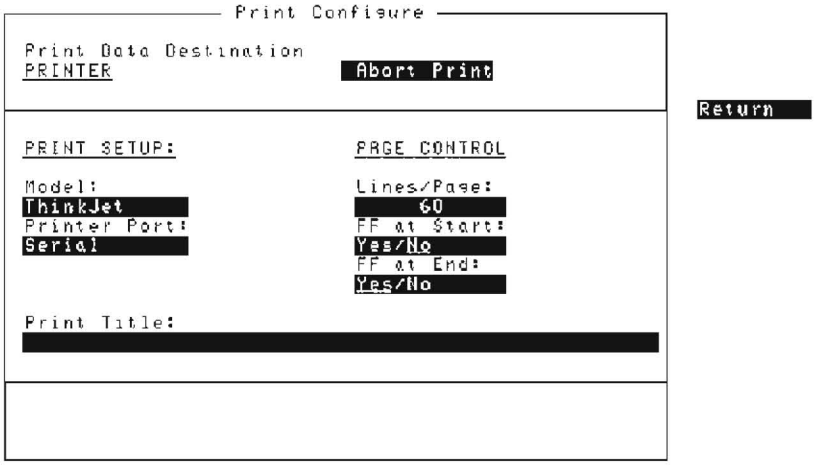


Figure 2-34. Printer Config Screen

This screen allows you to configure the HP 8923B for printing. It is accessed from the (SHIFT), (LOCAL) (CONFIG) screen.

Print Configure

`Print Data Destination` — Selecting the `Abort Print` will abort the current print operation.

`Model:` — Specifies the printer to be used. You can choose from the following:

- HP Printers
  - Thinkjet
  - Quietjet
  - Paintjet
  - Deskjet
  - Laserjet
- Epson Printers
  - FX-80
  - LQ-850

`Printer Port` — Allows you to choose the serial or HP-IB port for printing. If HP-IB, then you need to enter the address of the printer.

`Lines per page` — Allows you to specify the number of lines per page.

`FF at start` — Allows you to specify a form feed at the start of printing.

`FF at End` — Allows you to specify a form feed at the end of printing.

`Print Title` — Allows you to enter a title which appears at the top of the print.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

RF Parms Screen (softkey accessed)

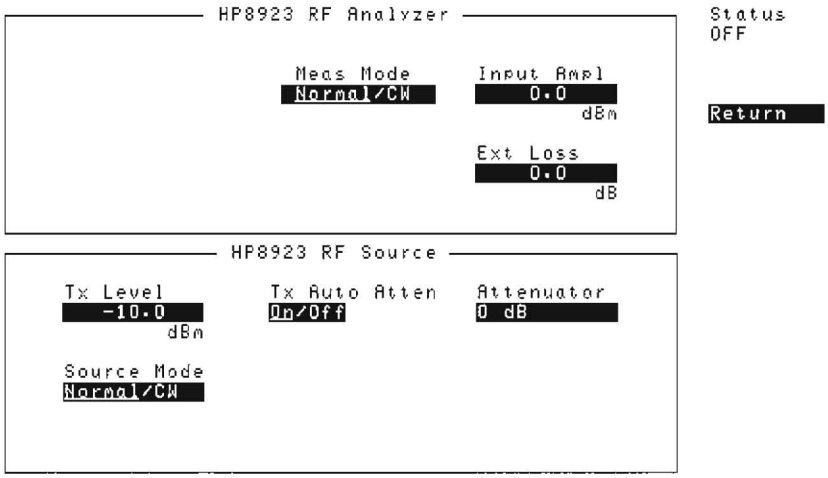


Figure 2-35. RF Parameters Screen

The internal RF source and analyzer parameters are configured from this screen.

HP 8923 RF Analyzer

`Meas Mode` Allows the choice of:

- **Normal**
  The HP 8923B will measure a pulsed RF signal.
- **CW**
  The HP 8923B will measure a continuously modulated RF signal.

`Input Ampl` The expected amplitude of the received signal from the EUT is set in this field. It has to be set within 6 dB of the amplitude presented at the **RF In/Out** port for valid measurements to be made.

`Ext Loss` Allows compensation for the loss between the output of the EUT and the **RF In/Out** connector of the HP 8923B. The compensation is applied to the settings for input level, output level and measurement values.

Note When setting the RF Analyzer parameter, set the `Ext Loss` field before setting the `Input Ampl` field. Changing the `Ext Loss` field causes the `Input Ampl` field to change automatically.

Note When the trigger source is not set to `Traffic` or `Dummy`, other fields will appear on this screen. For details, see "Measurement Control Screen (softkey accessed)", on page 5-35.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

`Tx Level`

Allows you to set the amplitude of the generated RF signal from the HP 8923B.

`Tx Auto Atten`

This is an underlined entry field which allows control of the internal attenuator setting.

- **On**
  The attenuator setting automatically changes when the `Tx Level` changes.
- **Off**
  You have manual control of the attenuator setting.

`Attenuator`

A menu field allowing you manual control of the attenuator setting, ranging from 0 to 100 dB of attenuation, in steps of 10 dB.

`Source Mode`

An underlined entry field which gives you a choice of mode for the generated RF signal.

- **Normal**
  RF signal is pulsed.
- **CW**
  A continuously modulated RF signal.

If **CW** is selected, then extra fields are revealed. These are shown in Figure 2-36.

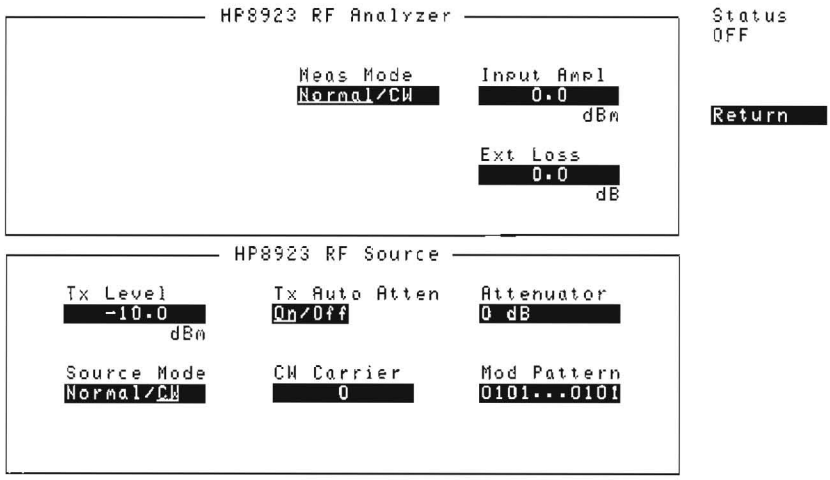


Figure 2-36. RF Parms Screen With Fields Revealed

The additional fields are:

- `CW Carrier`
  This is the carrier chosen for the CW source. It is an integer number from 0-9.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

- Mod Pattern
  This is the data pattern modulated onto the CW Carrier.

The choices are:

- 0000...0000
- 1111...1111
- 0101...0101
- 00001111...00001111
- DM2 (PRBS)

Note CW is not permitted as a source when you want a communication link to be established.

Softkey Descriptions

Softkey	Description	Front Panel Access
Return	Returns to the CALL SETUP screen.	CALL SETUP RF Parms

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Serial Screen (softkey accessed)

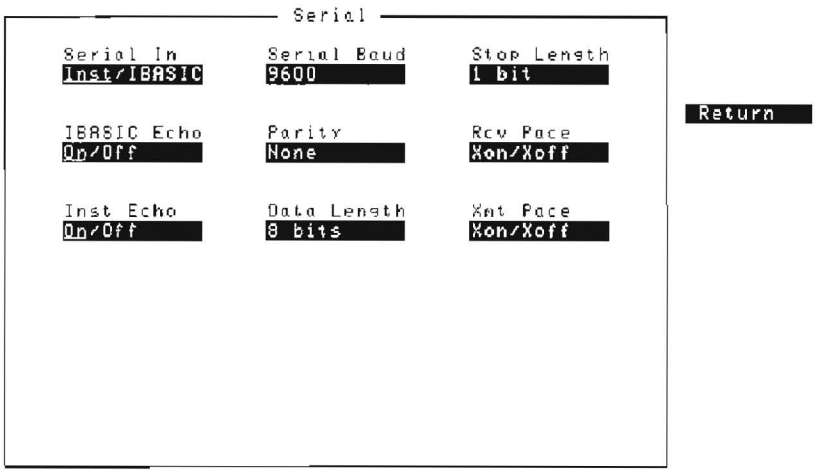


Figure 2-37. SERIAL Screen

This screen allows you to configure the IBASIC/PRINT serial port on the rear panel for data transfer. It is accessed from the (SHIFT), (LOCAL) (CONFIG) screen.

Serial

`Serial In`

This field selects the serial port input:

- `Inst` configures the serial port for connection of an external terminal.
- `IBASIC` allows the IBASIC controller to read the serial port.

`Serial Baud`

Allows selection of the baud rate of the IBASIC port. The choices are:

- 19200
- 9600 (Default)
- 4800
- 2400
- 1200
- 600
- 300
- 150

`Stop Length`

Sets the number of stop bits for serial port data transfer. The choices are 1 or 2 bits.

`IBASIC Echo`

This field enables/disables screen and error messages echoing from IBASIC.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP