

SECTION III. OPERATION

13.3.1 INTRODUCTION

The Codex 3600 Series modem is configured and operated through the front panel of the device (figure 13.3.1) or remotely from another 3600 modem. In the ADAS environment, the modem at the ASOS site is controlled by a 3600 modem at the ADAS network control center. The front panel of the remote 3600 modem at the network control center becomes the logical front panel of the ASOS site modem being controlled. Network control can be overridden; the procedure for overriding network control to enable local configuration of the front panel is described in Section V. The device is software-controlled through a hierarchical menu accessed by pressing the appropriate control keys on the front panel.

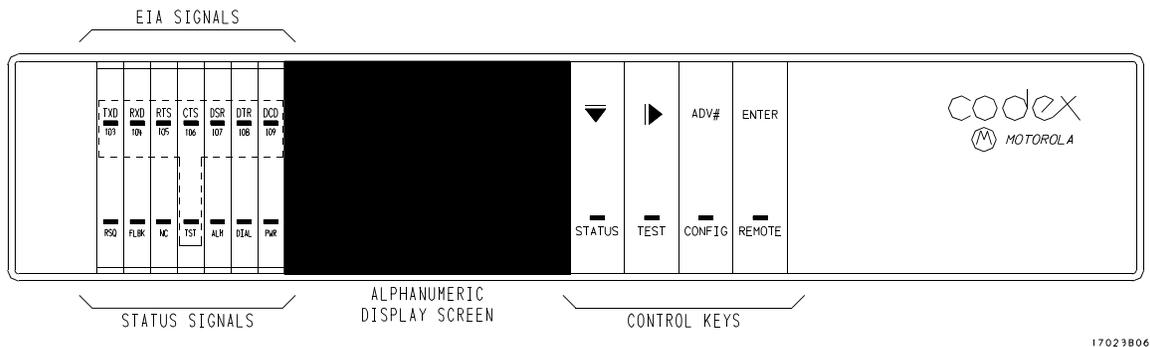


Figure 13.3.1. Codex 3600 Series Modem Controls and Indicators

13.3.2 CONTROLS AND INDICATORS

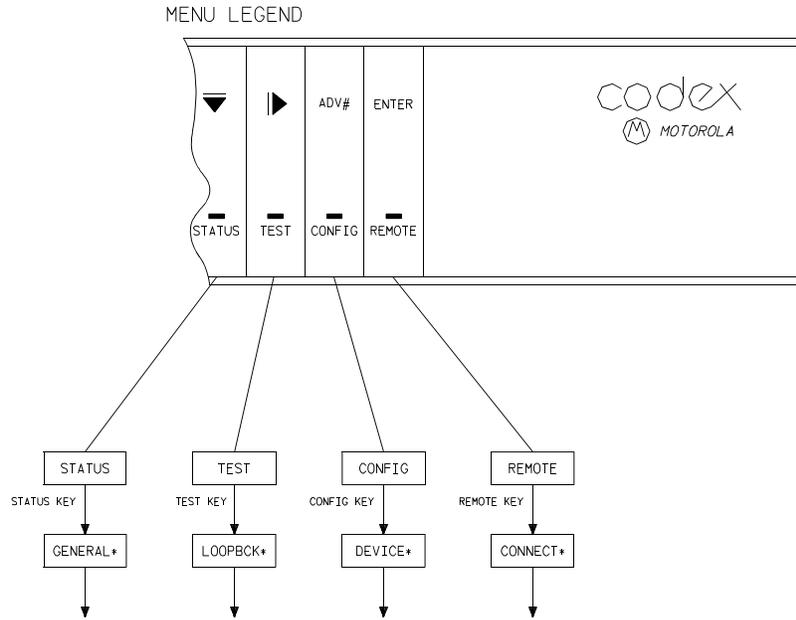
Table 13.3.1 identifies the controls and indicators on the front panel of the Codex 3600 Series modem. The eight control keys, which enable the operator to configure, test, and review the operational status of the 3600 modem, are divided into two groups: menu keys and movement keys. Menu keys enable the operator to access the software menus (STATUS, TEST, CONFIG, and REMOTE), and the movement keys enable the operator to move across parameters within menus and make selections. The light emitting diodes (LED's) on the front panel display conditions relating to data transmission, power, network control, and alarm conditions. Modem responses to the repeated pressing of the menu keys are displayed on the 8-character display screen located on the front panel. Figure 13.3.2 illustrates the top level software menu hierarchy of the Codex 3600 Series modem for each of the main menu categories (i.e., STATUS, TEST, CONFIG, and REMOTE).

Table 13.3.1. Codex 3600 Series Modem Controls and Indicators

Control/ Indicator	Description	Normal Condition
LED's		
TXD (green)	Transmit data	Illuminates when transmitting data.
RXD (green)	Receive data	Illuminates when receiving data.
RTS (green)	Request to send	Illuminates when DTE connected to selected port is requesting to send data to the 3600 modem.
CTS (green)	Clear to send	Illuminates when 3600 modem indicates that it is ready to receive data.
DSR (green)	Data set ready	Illuminates when DTE attached to the 3600 modem is active but not in a data interruptive mode.

Table 13.3.1. Codex 3600 Series Modem Controls and Indicators - CONT

Control/Indicator	Description	Normal Condition
DSR (green)	Data set ready	Illuminates when DTE attached to the 3600 modem is active but not in a data interruptive mode.
DTR (green)	Data terminal ready	Illuminates when the DTE attached to the 3600 modem is connected and ready to send or receive data.
DCD (green)	Data carrier detect	Illuminates when device is receiving an acceptable signal from the remote device.
TST (red)	Test	Illuminates when 3600 modem is in test mode.
Status Indicators		
RSQ (green)	Receive signal quality	Indicates that the 3600 modem is detecting a good signal quality. Flashing LED indicates marginal signal quality.
FLBK (yellow)	Fallback	Indicates that the 3600 modem is operating at a rate lower than that configured at the MAX RTE parameter.
NC (green)	Network control	Indicates that the 3600 modem is under the control of a network management system or a remote front panel (LED remains ON). Flashes when a message is received from a remote source.
ALM (red)	Alarm	Indicates device failure.
DIAL (red)	Restoral operation	Indicates that the 3600 modem is operating over a restoral connection. Flashes when 3600 modem is dialing.
PWR (green)	Power	Indicates that the power supply is operational and that 3600 modem is receiving ac power.
Software Menu Keys		
STATUS	STATUS menu access	Used to access the STATUS menu.
TEST	TEST menu access	Used to access the TEST menu.
CONFIG	CONFIGURATION menu	Used to access the CONFIG menu.
REMOTE	REMOTE menu access	Used to access the REMOTE menu.
Movement Keys		
	Used to move through the different selections of the selected menu area or through a series of lead parameters.	
	Used to move through a series of parameters within a category.	
ADV#	Used to increment digits for numeric entry. This key advances the flashing digit in the numerical display.	
ENTER	Used to store a selection or numerical entry in nonvolatile memory. The selection blinks after it is entered correctly.	
Alphanumeric Display Screen		
LED	Used with the control keys to display various menu selections, error messages, and system responses during testing and troubleshooting. When not being used, the alphanumeric display displays the specified transmission speed of the 3600 modem.	

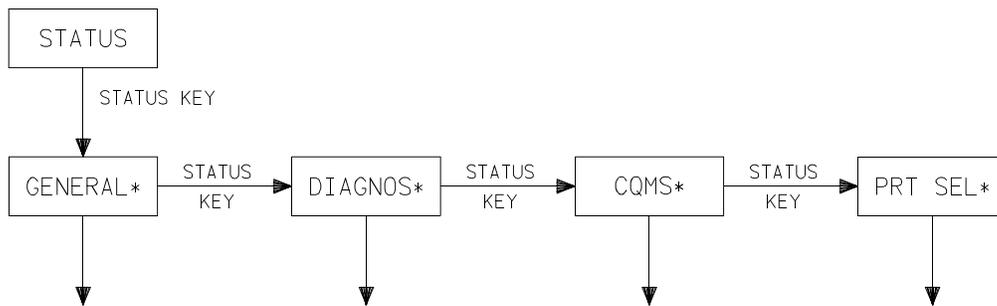


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Figure 13.3.2. Top Level Software Menu

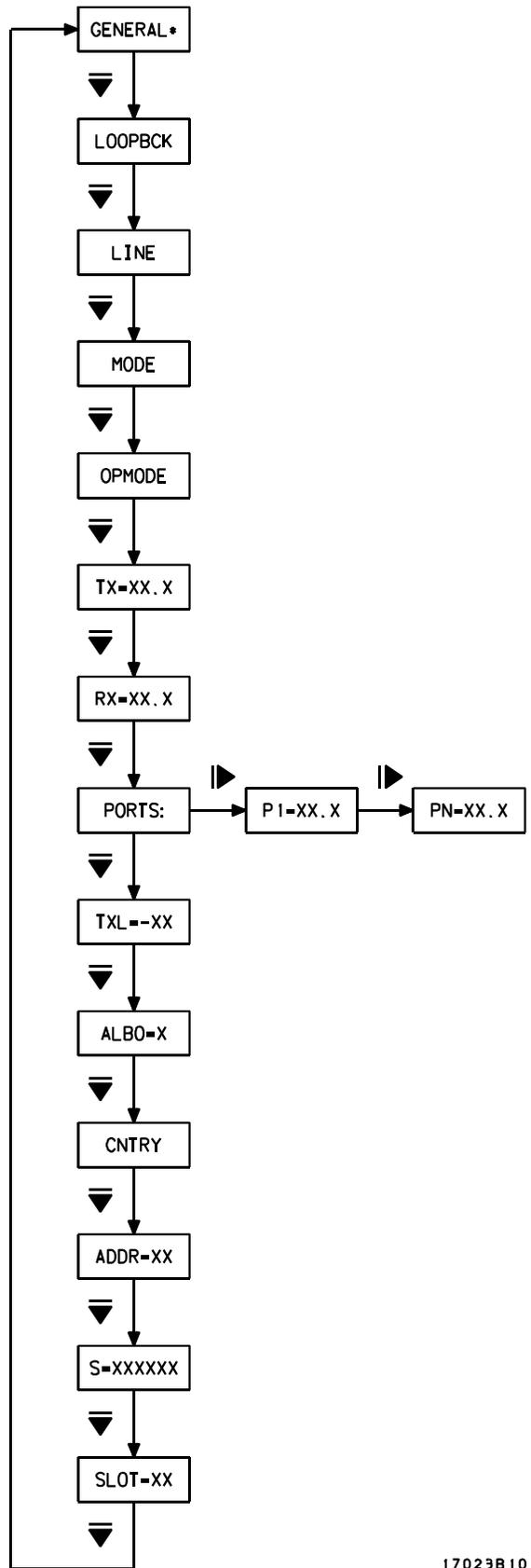
13.3.2.1 **STATUS Menu.** Pressing the STATUS key (figure 13.3.3) enables the operator to access the STATUS menu and examine the menu categories. The categories that are accessed and the figures illustrating the parameters that can be displayed within those categories are identified as follows:

Category	Figure No.
GENERAL*	13.3.4
DIAGNOS*	13.3.5
CQMS*	13.3.6
PRT SEL*	13.3.7



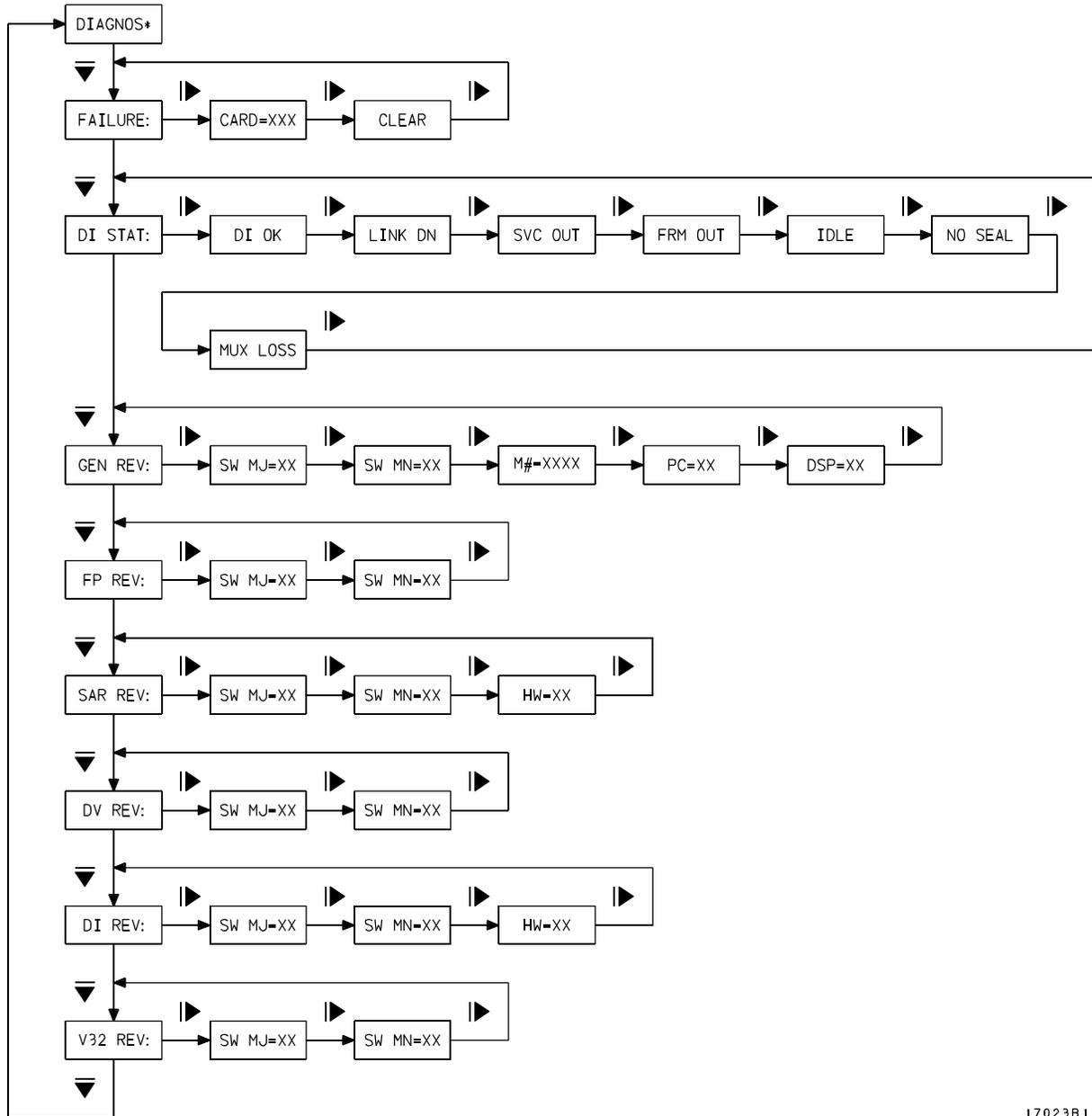
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Figure 13.3.3. STATUS Menu - Top Level



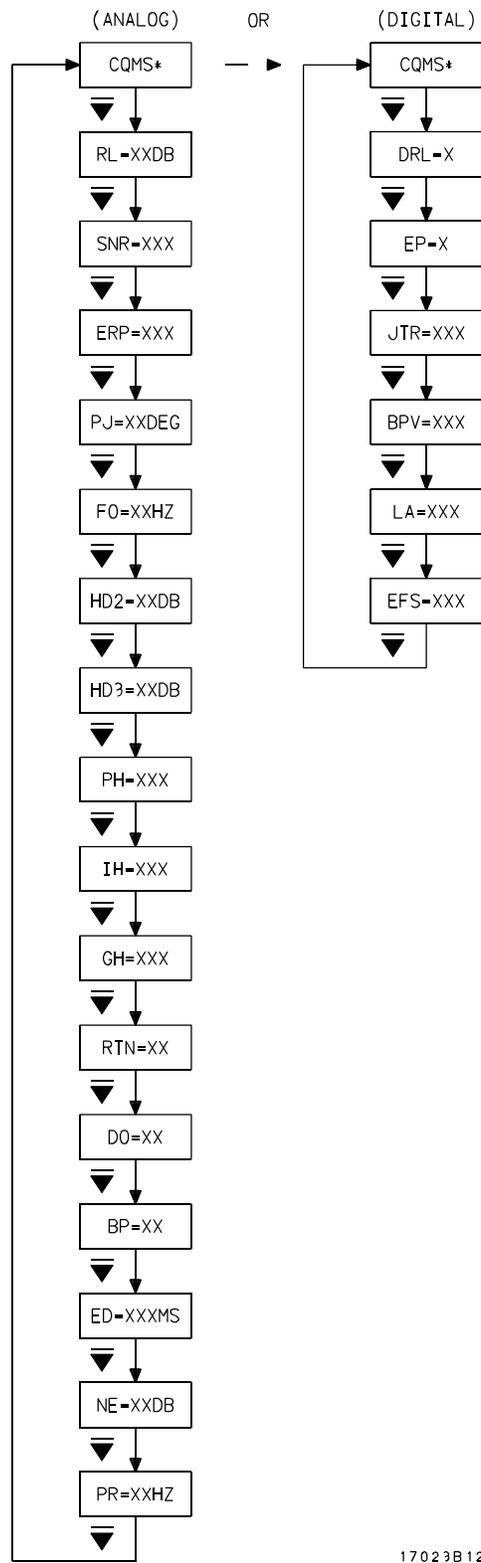
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Figure 13.3.4. STATUS Menu - GENERAL* Category



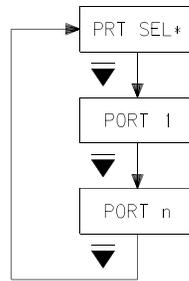
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Figure 13.3.5. STATUS Menu - DIAGNOS* Category



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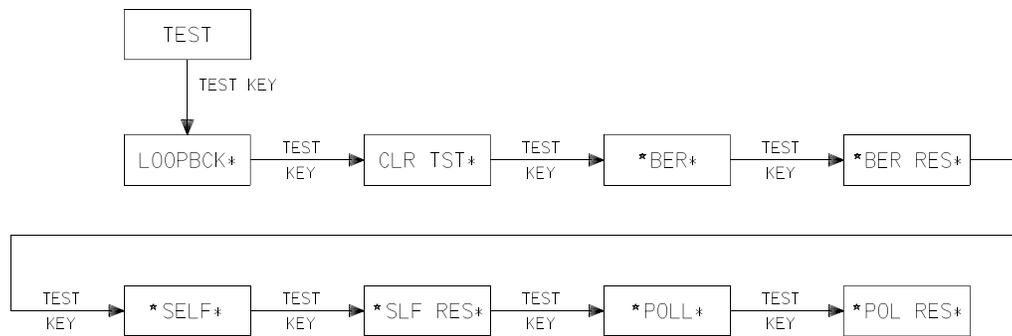
Figure 13.3.6. STATUS Menu - CQMS* Category



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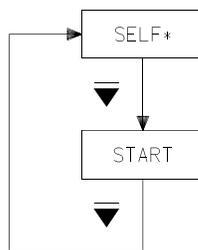
Figure 13.3.7. STATUS Menu - PRT SEL* Category

13.3.2.2 **TEST Menu.** Pressing the TEST key (figure 13.3.8) enables the operator to access the TEST menu and examine the menu categories. The only test category that the ASOS site technician needs to access is the SELF* category, the parameters of which are illustrated on figure 13.3.9.



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Figure 13.3.8. TEST Menu - Top Level

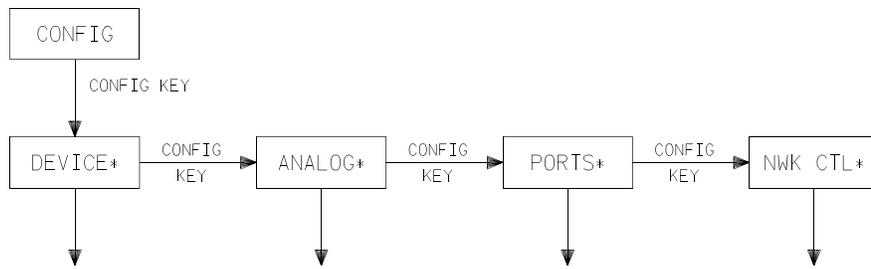


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Figure 13.3.9. TEST Menu - SELF* Category

13.3.2.3 **CONFIG Menu.** Pressing the CONFIG key (figure 13.3.10) enables the operator to access the CONFIG menu and examine the menu categories. The categories that are accessed and the figures illustrating the parameters that can be displayed within those categories are identified as follows:

Category	Figure No.
DEVICE*	13.3.11
ANALOG*	13.3.12
PORTS*	13.3.13
NWK CTL*	13.3.14



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Figure 13.3.10. CONFIG Menu - Top Level

13.3.2.4 **REMOTE Menu.** The REMOTE menu is used by the ASOS site technician only to disable and enable remote control when configuring or testing the modem locally. Pressing the REMOTE key (figure 13.3.15) enables the operator to access the REMOTE menu and examine the menu categories. The categories that are accessed and the figures illustrating the parameters that can be displayed within those categories are identified as follows:

<u>Category</u>	<u>Figure No.</u>
MISC*	13.3.16

13.3.3 TURN-ON PROCEDURES

The Codex 3600 Series modem receives ac power from acquisition control unit (ACU) input. Modem power is ON when both the ACU power is ON and the modem power switch is ON.

13.3.4 TURNOFF PROCEDURES

The Codex 3600 Series modem ac power is OFF when the ACU AC power is OFF regardless of the position of the modem power switch. The modem is turned OFF separately by setting the power switch on the rear of the modem to OFF (position 1).

13.3.5 NORMAL OPERATION

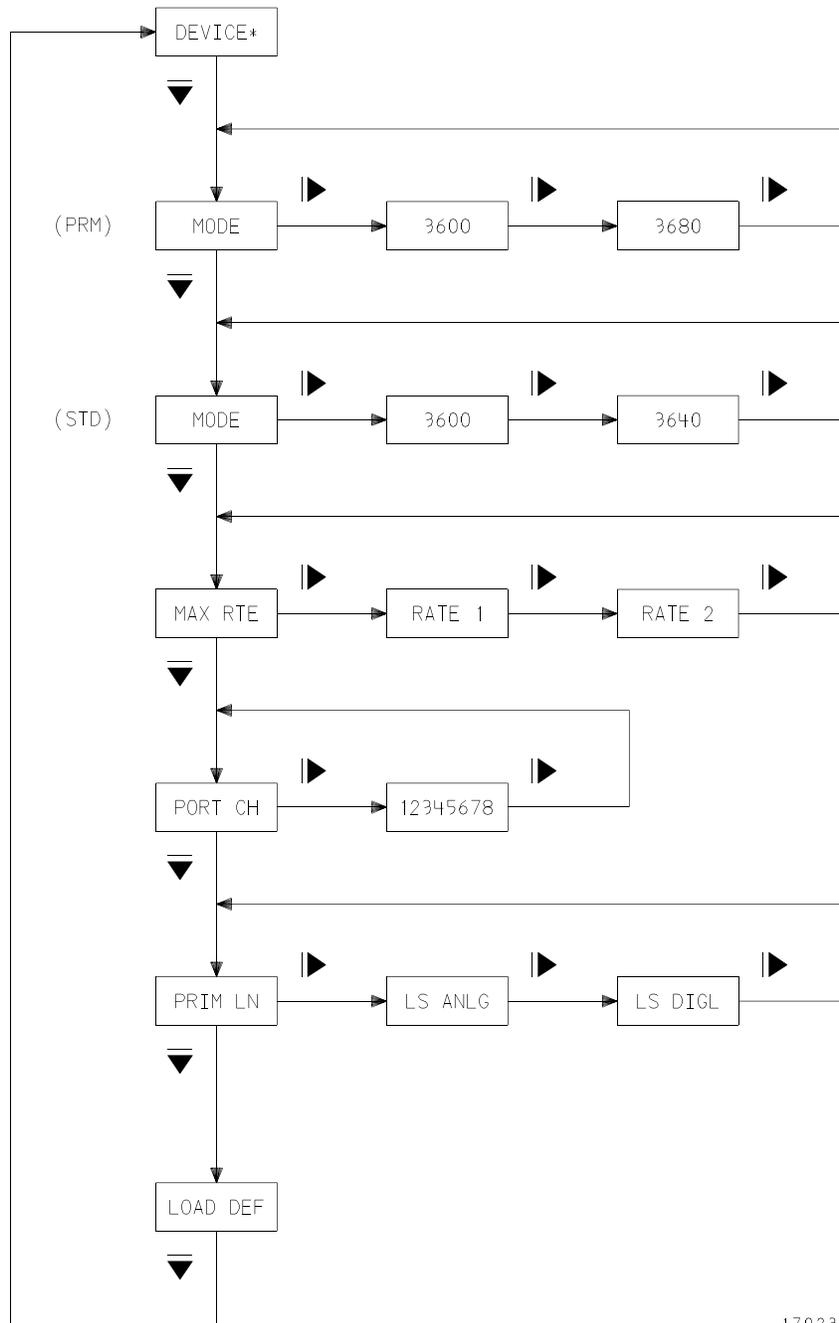
The Codex 3600 Series modem is self-operating. A front dress cover is installed over the modem front panel concealing the display screen, all control keys, and all LED's with the exception of the ALM, DIAL, and PWR LED's. The modem is normally under network control.

13.3.6 MONITORING AND VERIFYING CODEX 3600 SERIES MODEM AT OPERATOR INTERFACE DEVICE

The only indication of a possible malfunction of the modem provided at the operator interface device (OID) is a MODEM HAS LOST POLL FROM ADAS message sent to the SYSLOG. The ASOS central processing unit (CPU) does not check any self-test status on the modem. The operator can only verify the pass/fail status of the SIO board to which the modem is assigned by using the OID, accessing the maintenance page for the SIO boards, and ensuring that no F or C flags are set (SIO/port is assigned as ADAS for the Codex 3600 Series modem).

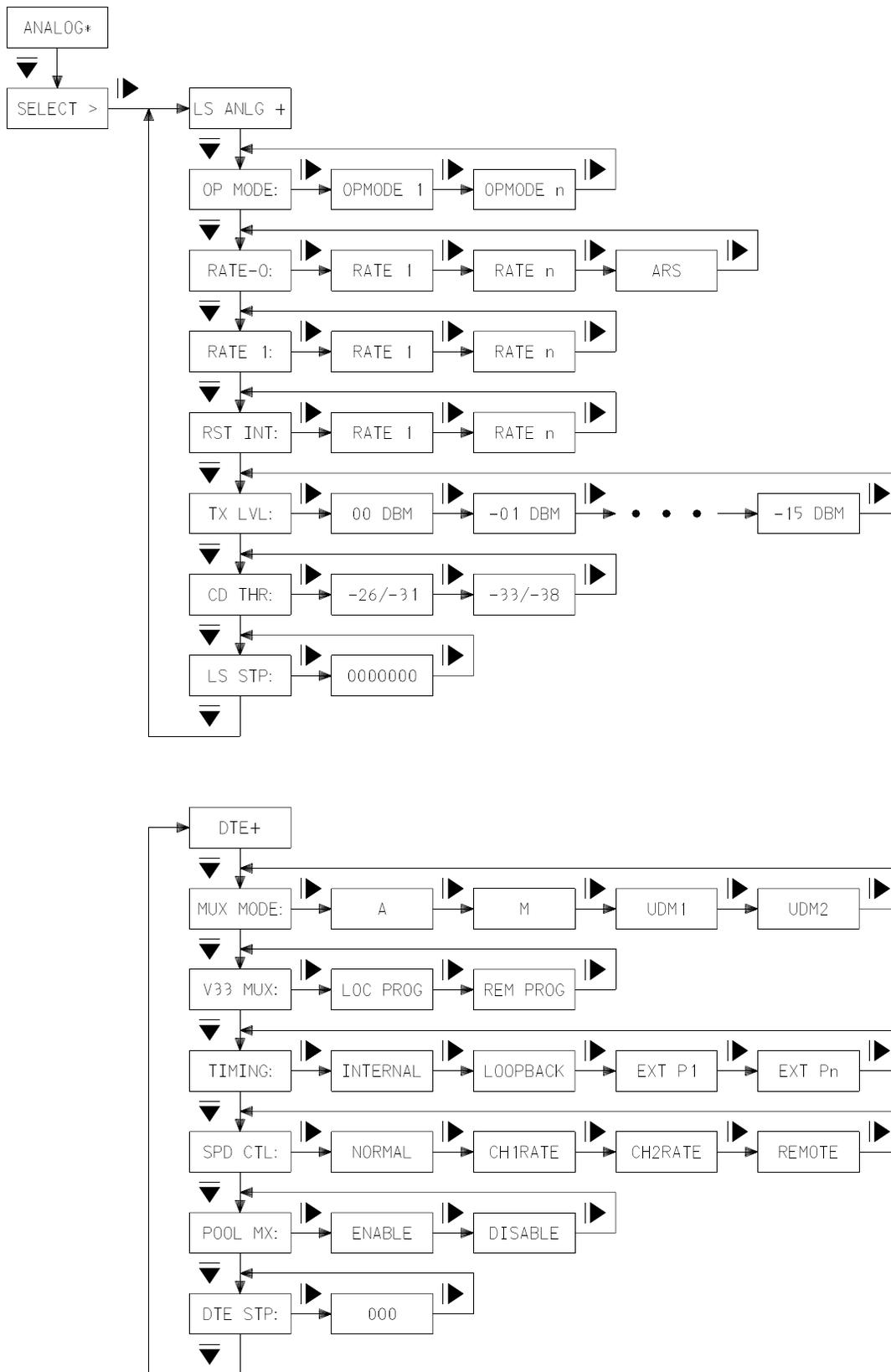
13.3.7 MONITORING AND VERIFYING CODEX 3600 SERIES MODEM BY VISUAL INSPECTION

The operation of the Codex 3600 Series modem can also be monitored by observing that the DCD LED on the front panel is illuminated, the ALM LED is extinguished, and the PWR indicator is illuminated. The NC LED on the front panel will also be lit on the modem currently being addressed.



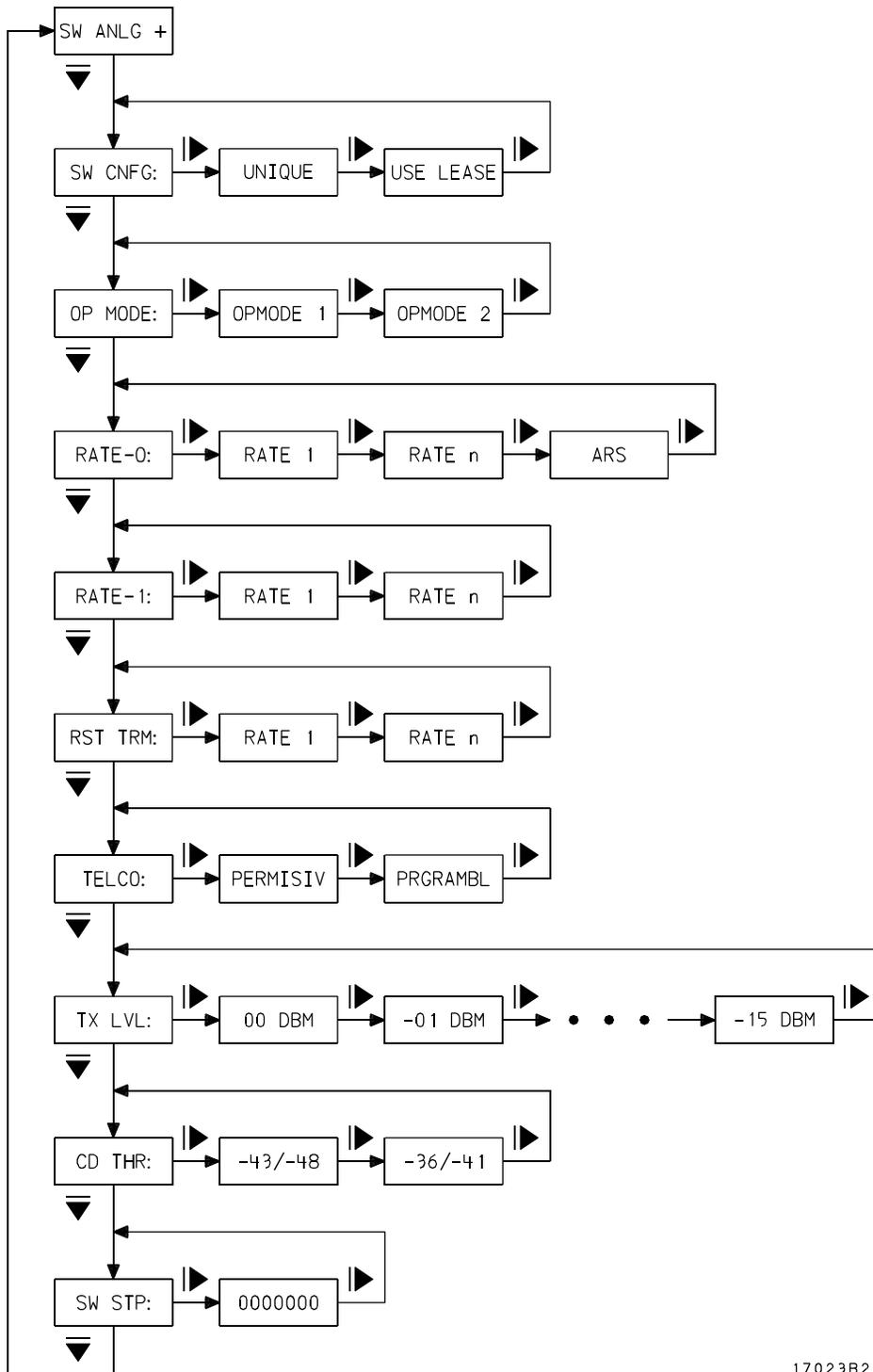
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Figure 13.3.11. CONFIG Menu - DEVICE* Category



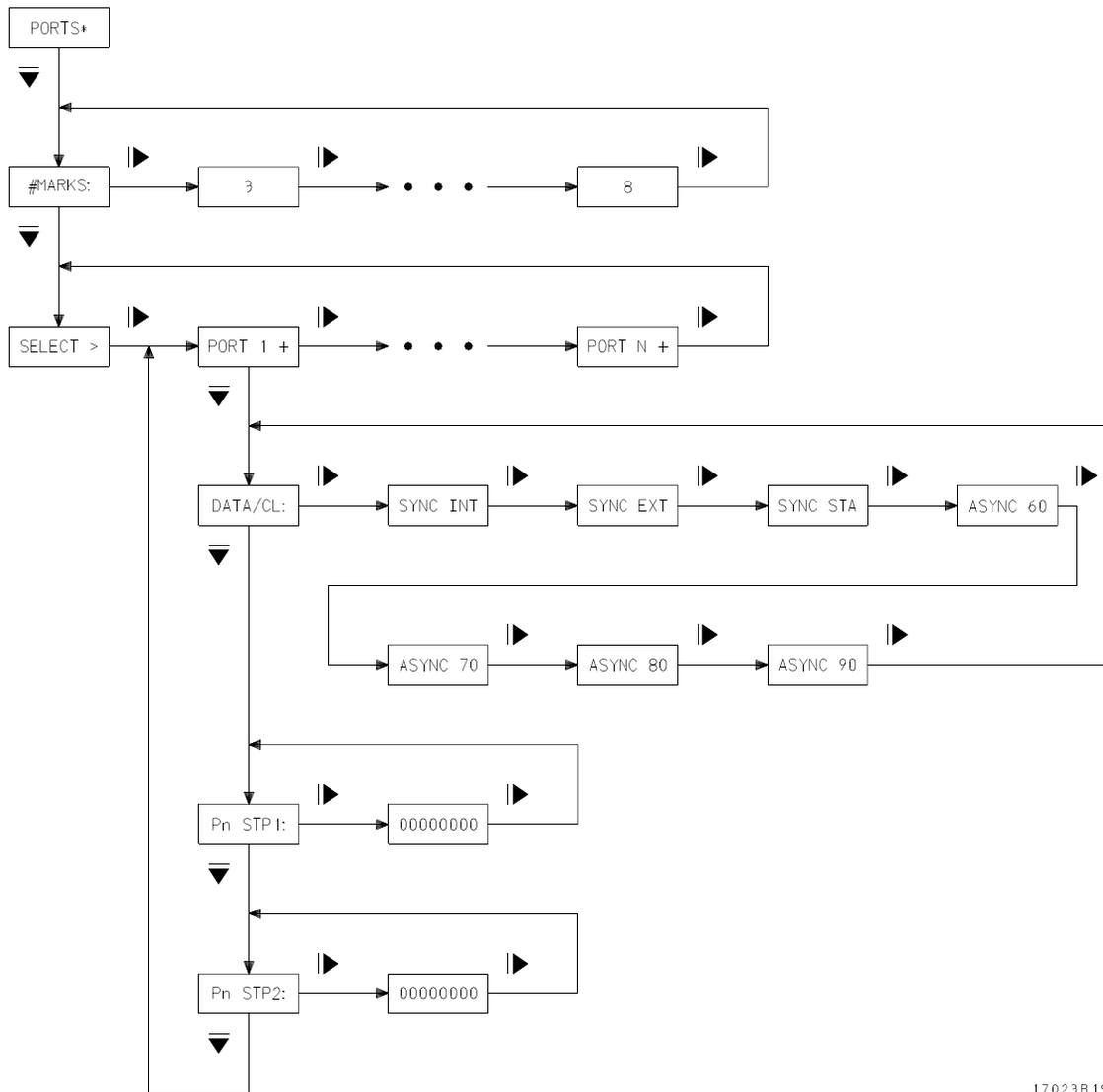
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Figure 13.3.12. CONFIG Menu - ANALOG* Category (Sheet 1 of 2)



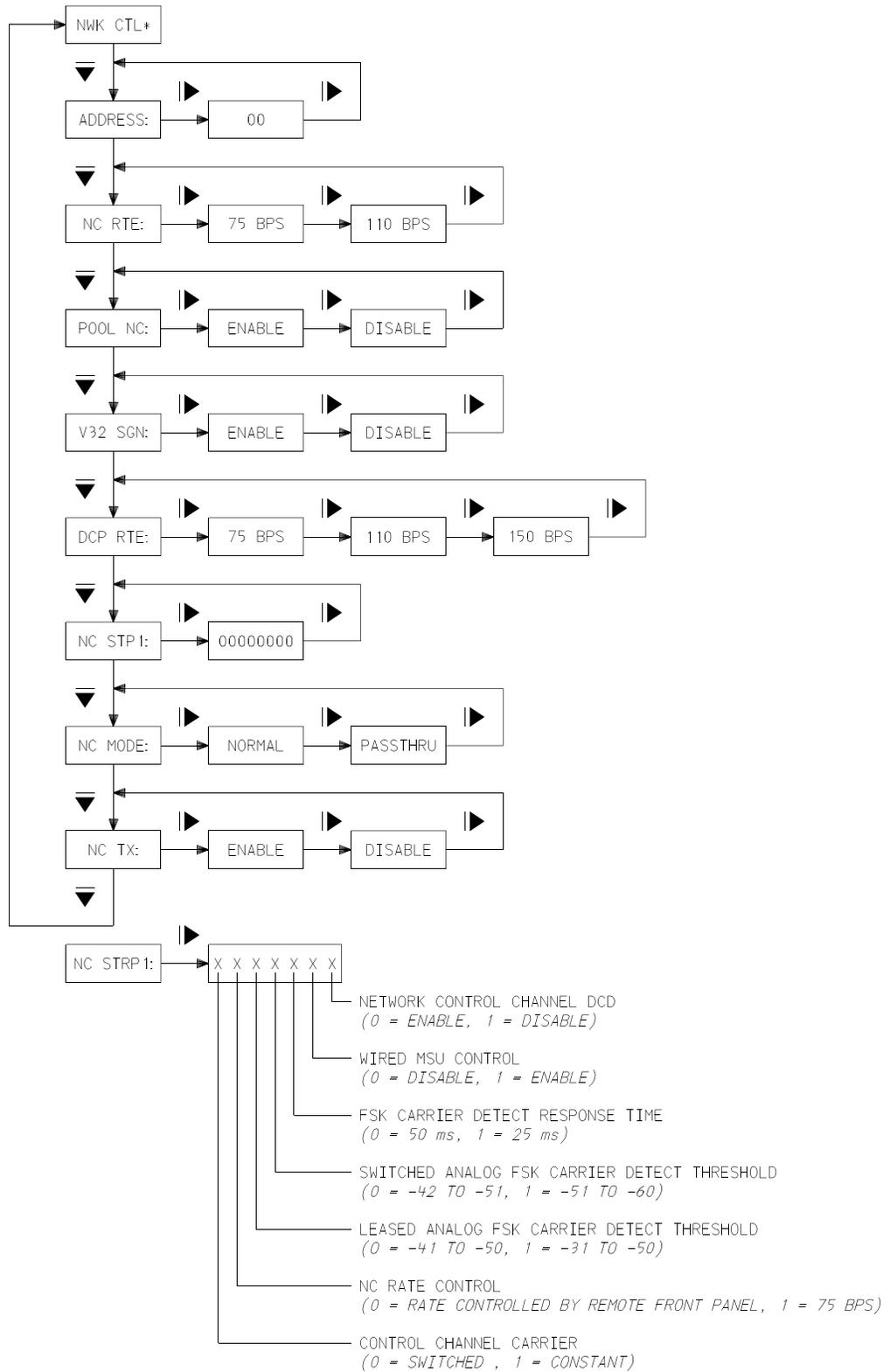
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Figure 13.3.12. CONFIG Menu - ANALOG* Category (Sheet 2)



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Figure 13.3.13. CONFIG Menu - PORTS* Category



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Figure 13.3.14. CONFIG Menu - NWK CTL* Category

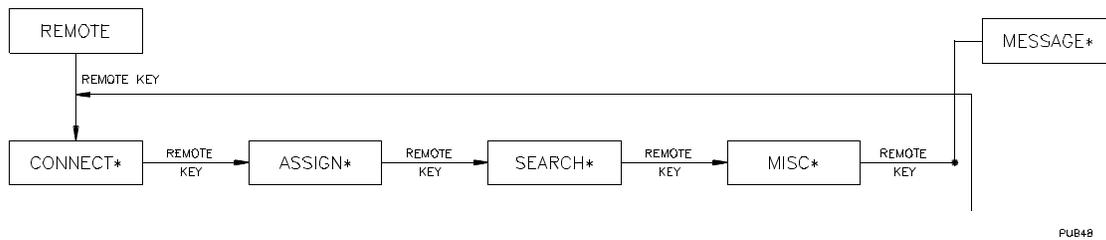


Figure 13.3.15. REMOTE Menu - Top Level

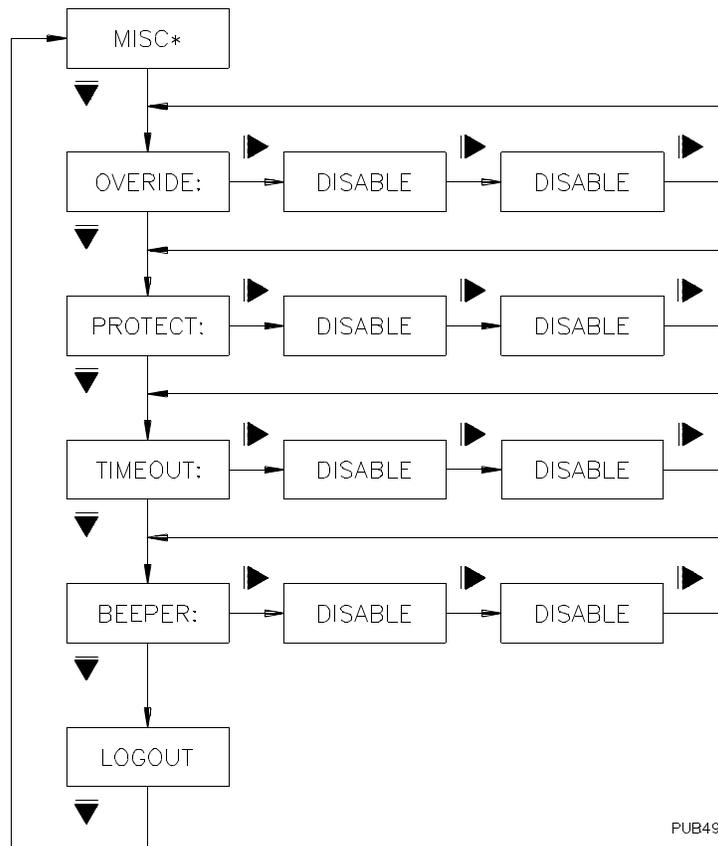


Figure 13.3.16. REMOTE Menu - MISC* Category