

## SECTION III. OPERATION

### 2.3.1 INTRODUCTION

System maintenance control is performed from the operator interface device (OID), where the user can monitor self-test results, initiate diagnostic tests, review and update the maintenance logs, configure the system, and control power to sensors at remote data collection packages (DCP's). In addition to the OID displays, various units within the acquisition control unit (ACU) contain controls and indicators that can be used during system maintenance. This section describes these ACU controls/indicators. Refer to Chapter 1 for system related operating procedures and a complete description of all maintenance display pages.

### 2.3.2 CONTROLS AND INDICATORS

**2.3.2.1 Operator Interface Device (OID).** The OID is a standard cathode ray tube (CRT) terminal. The keyboard (Figure 2.3.1) is divided into four functional areas: the main keypad, editing keypad, auxiliary keypad, and function keypad. The editing keypad contains the arrow, REMOVE, and edit keys. The arrow keys are used to move the cursor to the different fields on the display. The REMOVE key is used to delete the character under the cursor. The edit keys are used to move the cursor to a specific point on the page when editing log entries. The auxiliary keypad is used to access the maintenance/observer displays. The keypad on the OID display overlays the auxiliary keypad area such that key 7 represents the function in the upper left corner of the OID keypad and key 3 represents the function in the lower right corner of the OID keypad. The function keypad contains the HELP key, which is used to access the system help feature. Help can also be accessed by pressing the 0 key on the auxiliary keypad. Function keys F12 and F20 control the system's audio alarm. Pressing F12/F20 disables the alarms until the user signs off the system. Pressing F12/ F20 again enables the alarm. The audio alarm can be disabled for the current alarm by pressing the F11 or F19 key. Additional information on the OID and its use is provided in the ASOS Software User's Manual.

**2.3.2.2 Printer.** The model KX-P1180, KX-P2180, or KX-P3123 printer controls and indicators are described in the corresponding Printer Operation Manual. Paragraph 2.5.7 provides the procedures for setting up the model KX-P1180, KX-P2180, and KX-P3123 printers.

**2.3.2.3 Controller Video Display (CVD).** The CVD (Figure 2.3.2) contains a brightness control and a contrast/reset control. The brightness control is used to adjust the overall intensity of the video display. Turning the contrast/reset control adjusts the contrast between the light and dark areas on the screen. Pressing the contrast/reset control resets the CVD.

**2.3.2.4 Observer Notification Device (OND).** The OND is an alarm light. When the ASOS generates an observer alert message, the light blinks on and off for a maximum of 5 minutes.

**2.3.2.5 Card Rack Assembly.** Of the nine types of boards (maximum) in the card rack assembly, five contain controls/indicators. These boards are illustrated on figure 2.3.3 and each control/indicator is described in table 2.3.1.

**2.3.2.6 Modem AC Power Rack.** The modem ac power rack contains up to 10 telephone modems (models 2440, V.3225, V.3400) and up to two DDS/MR64 or D19.2 line drivers. The modem rack also contains an ac power supply module that provides power to all modems and line drivers installed in the rack. The modems, the line drivers, and the power supply module are illustrated on figure 2.3.4 and controls and indicators are described in table 2.3.2.

11:18:06 07/04/96 1618Z

ANYTOWN AIRPORT

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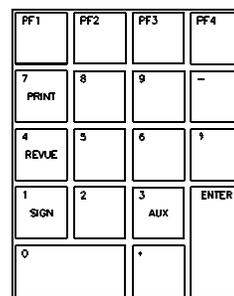
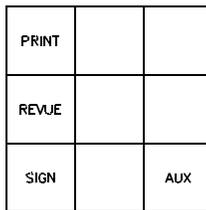
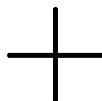
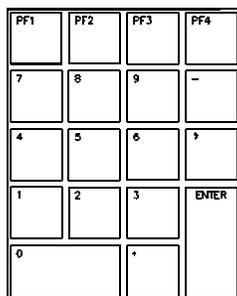
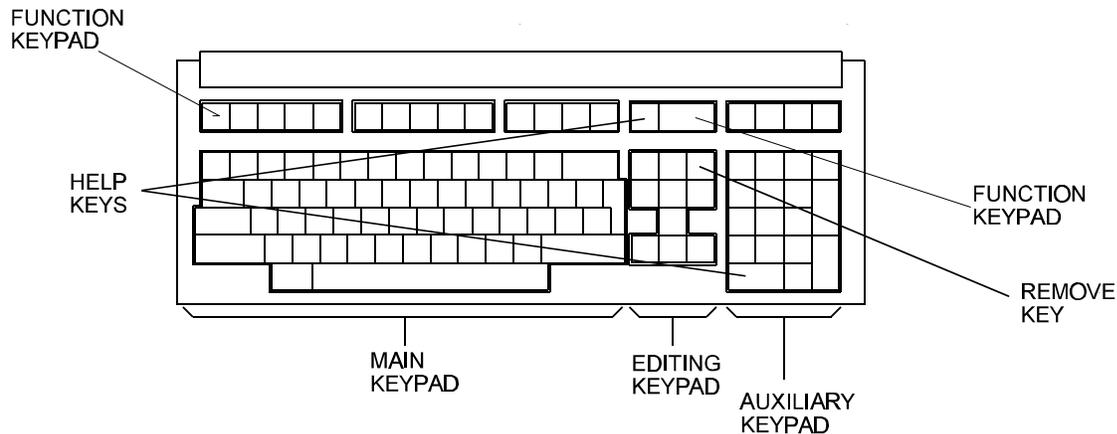
SKY          = OVC100

VISIBILITY  = 1 3/4SM          TEMP/DEWPT   = 12.2 /7.8   C  54 /46   F
RVR         = R17L/3800FT      WIND DIR/SPD = 180/10
PRESENT WX  = RA               ALTIMETER     = 29.90

REMARKS     = RMK  P0019

METAR KANY 041558Z AUTO 18010KT 1 3/4SM R17L/3800 RA OVC100 12/08 A2990
    
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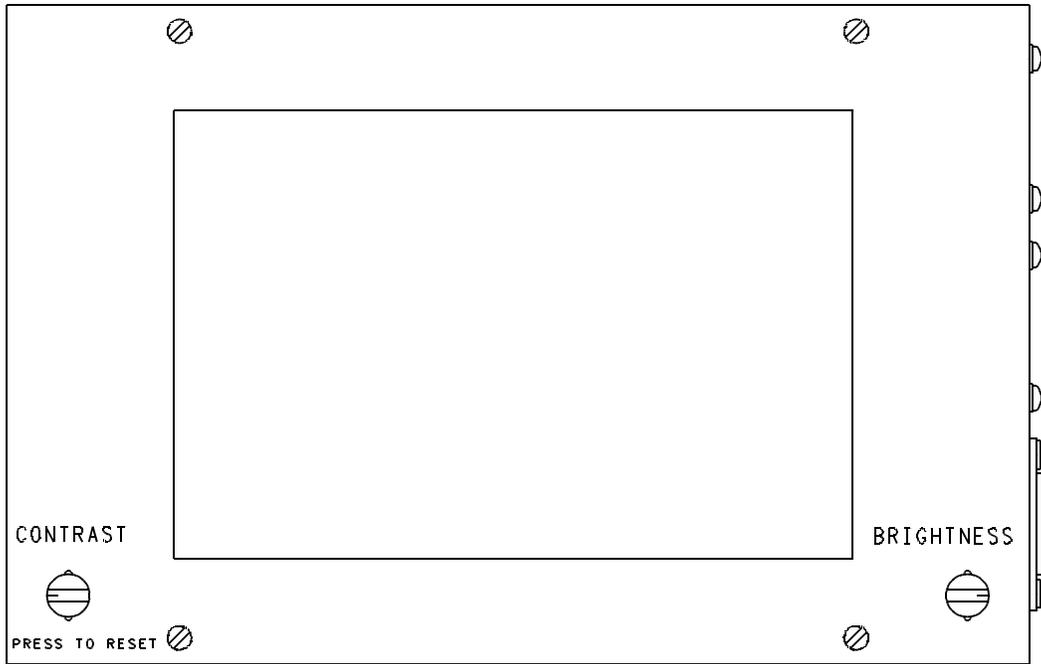
PRINT		
REVUE		
SIGN		AUX



AUXILIARY KEYPAD

9601301

Figure 2.3.1. Keyboard



170DA 1

Figure 2.3.2. Controller Video Display (CVD)

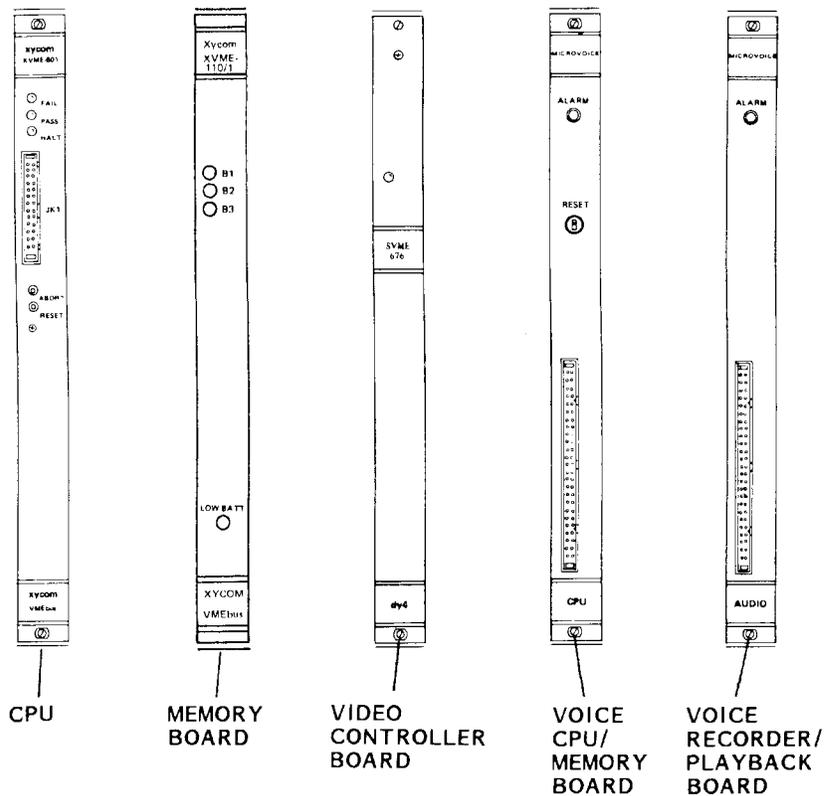
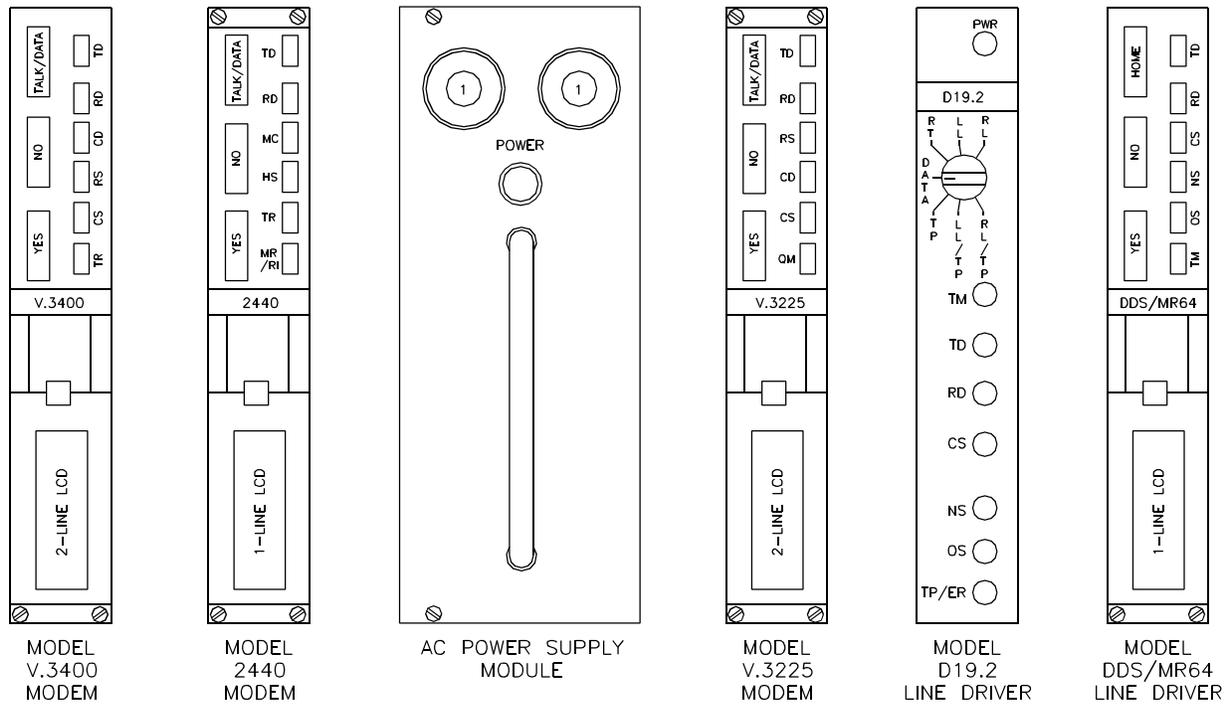


Figure 2.3.3. Card Rack Assembly Controls and Indicators

Table 2.3.1. Card Rack Assembly Controls and Indicators

Control/Indicator	Type	Description
<b>NOTE</b>		
The controls and indicators contained on the VME cards are not the primary troubleshooting indicators. The technician should refer to the maintenance pages first and use the VME card indicators only for secondary reference.		
<b>CPU</b>		
FAIL	Light emitting diode (LED)	When illuminated, indicates that the CPU has failed its internal self-test. When the CPU self-test is in process, the FAIL and PASS indicators flash.
PASS	LED	When illuminated, indicates that the CPU has passed its internal self-test. When the CPU self-test is in process, the FAIL and PASS indicators illuminate.
HALT	LED	When illuminated, indicates that the CPU has entered the halt state (nonprocessing state).
ABORT	Pushbutton switch	When pressed, halts program execution without resetting the CPU. This switch is for developmental use only. It should not be used in the field. If it is pressed, press the RESET switch.
RESET	Pushbutton switch	When pressed, resets the CPU and the VMEbus. Resetting the CPU does not affect the contents of the dynamic random access memory (DRAM).
<b>Memory Board</b>		
B1	LED	When illuminated, indicates that the bank 1 memory module is being addressed.
B2	LED	When illuminated, indicates that the bank 2 memory module is being addressed.
B3	LED	When illuminated, indicates that the bank 3 memory module is being addressed.
LOW BATT	LED	When illuminated, indicates that backup battery on board is low and memory board must be replaced (may also illuminate if J22 jumper is not installed).
<b>Video Controller Board</b>		
SVME 676	LED	Software programmable. Not used during normal operation. The initialization routine turns this indicator off to conserve energy.
<b>Voice CPU/Memory Board</b>		
ALARM	LED	When illuminated, indicates that the watchdog timer on the voice CPU/memory board detected a CPU hardware or software failure.
RESET	Pushbutton switch	When pressed, resets the CPU and does not reset the VME system. No messages are broadcast until a play message string command is successfully received.
<b>Voice Recorder/Playback Board</b>		
ALARM	LED	When illuminated, indicates that no audio output has occurred for 30 to 60 seconds.



960234

Figure 2.3.4. Modem AC Power Rack Controls and Indicators

Table 2.3.2. Modem AC Power Rack Controls and Indicators

Control/Indicator	Type	Description
<b>NOTE</b>		
The controls and indicators contained on the modems and line drivers are not the primary troubleshooting indicators. The technician should refer to the maintenance pages first and use the modem indicators only for secondary reference.		
<b>2440 Modem</b>		
TD	LED	Transmit data. When illuminated, indicates that data are being transmitted from ACU computer to the respective voice frequency (VF) line.
RD	LED	Receive data. When illuminated, indicates that data are being received on-line and are being transferred to ACU computer.
MC	LED	Modem check. When illuminated, indicates that modem is off-line, in talk mode, errors detected during diagnostics, or data are being retransmitted.
HS	LED	High-speed. When illuminated, indicates that modem is operating at maximum configured speed, which is 2400 bps. When extinguished, indicates that modem is operating at medium speed (1200 bps). When flashing, indicates that modem is operating in low speed (0 to 300 bps).
TR	LED	Terminal ready. When illuminated, indicates that ACU computer is on-line and ready for data transfers.
MR/RI	LED	Modem ready. When illuminated, indicates that modem is operational and is connected to the telephone line. When flashing, indicates that modem is receiving a ring signal.

Table 2.3.2. Modem AC Power Rack Controls and Indicators -CONT

Control/Indicator	Type	Description
TALK/DATA	Pushbutton switch	Talk/data mode select. Used in conjunction with 1-LINE LCD to allow manual phone calls for either data or voice communication. Not used for ASOS.
YES	Pushbutton switch	Used in conjunction with 1-LINE LCD to answer modem configuration questions. Not used for ACU rack-mounted modems.
NO	Pushbutton switch	Used in conjunction with 1-LINE LCD to answer modem configuration questions. Not used for ACU rack-mounted modems.
1-LINE LCD	Liquid crystal display	Displays menu of options available for manual modem configuration and test. Because ACU rack-mounted modems are configured and tested automatically by ACU computer, LCD is not used.
<b>AC Power Supply Module</b>		
Circuit breakers	Pushbuttons or rocker switches	Left and right circuit breakers provide overcurrent protection for left and right sides of modem rack, respectively.
POWER	Indicator	When illuminated, indicates that ac power supply module is on.
<b>V.3325 Modem</b>		
TD	LED	Transmit data. When illuminated, indicates that data are being transmitted from ACU computer to the respective VF line.
RD	LED	Receive data. When illuminated, indicates that data are being received on-line and are being transferred to ACU computer.
RS	LED	Request to send. When illuminated, indicates that ACU computer (via a serial I/O board) has issued a request to send signal to the modem on pin 4 of the RS-232 interface. This occurs when the serial I/O board is ready to send data to the modem.
CD	LED	Carrier detect. When illuminated, indicates that modem has connected with another modem on-line.
CS	LED	Clear to send. When illuminated, indicates that modem has given a clear to send signal on pin 5 of the RS-232 interface. This indicates that modem is ready to receive data from ACU computer (via a serial I/O board).
QM	LED	Quality monitor. When illuminated, indicates low quality of modem communications signals.
TALK/DATA	Pushbutton switch	Talk/data mode select. Used in conjunction with 2-LINE LCD to allow manual phone calls for either data or voice communication. Not used for ASOS.
YES	Pushbutton switch	Used in conjunction with 2-LINE LCD to answer modem configuration questions. Not used for ASOS.
NO	Pushbutton switch	Used in conjunction with 2-LINE LCD to answer modem configuration questions. Not used for ASOS.
2-LINE LCD	Liquid crystal display	Displays menu of options available for manual modem configuration and test. Because modems are configured and tested automatically by ACU computer, LCD is not used for ASOS.
<b>V.3400 Modem</b>		
TD	LED	Transmit data. When illuminated, indicates that data are being transmitted from ACU computer to the respective VF line.
RD	LED	Receive data. When illuminated, indicates that data are being received on-line and are being transferred to ACU computer.
RS	LED	Request to send. When illuminated, indicates that ACU computer (via a serial I/O board) has issued a request to send signal to the modem on pin 4 of the RS-232 interface. This occurs when the serial I/O board is ready to send data to the modem.

Table 2.3.2. Modem AC Power Rack Controls and Indicators -CONT

Control/Indicator	Type	Description
CD	LED	Carrier detect. When illuminated, indicates that modem has connected with another modem on-line.
CS	LED	Clear to send. When illuminated, indicates that modem has given a clear to send signal on pin 5 of the RS-232 interface. This indicates that modem is ready to receive data from ACU computer (via a serial I/O board).
TR	LED	Terminal Ready indicator. Illuminates when DTE asserts Data Terminal Ready.
TALK/DATA	Pushbutton switch	Talk/Data mode select. Used in conjunction with 2-LINE LCD to allow manual phone calls for either data or voice communication. Not used for ASOS.
YES	Pushbutton switch	Used in conjunction with 2-LINE LCD to answer modem configuration questions. Not used for ASOS.
NO	Pushbutton switch	Used in conjunction with 2-LINE LCD to answer modem configuration questions. Not used for ASOS.
2-LINE LCD	Liquid crystal display	Displays menu of options available for manual modem configuration and test. Because modems are configured and tested automatically by ACU computer, LCD is not used for ASOS.
<b>D19.2 Line Driver</b>		
PWR	LED	Power indicator. When illuminated, indicates that power is applied to line driver.
Mode switch	Seven-position rotary switch	Selects line driver mode of operation. In the ASOS, this switch is kept in the DATA position. The LL/TP and RL/TP are used for manually testing the line drivers. The line driver modes are listed below for reference purposes. DATA- Normal operation RT- Remote terminal loopback LL- Local line loopback RL- Remote terminal loopback TP- Test pattern LL/TP- Local line with test pattern RL/TP- Remote loopback with test pattern
TM	LED	Test mode. Illuminates or blinks when line driver is placed in the test mode by the ACU computer.
TD	LED	Transmit data. When illuminated, indicates that data are being transmitted from ACU computer to DCP over dedicated lines.
RD	LED	Receive data. When illuminated, indicates that data are being received from DCP over dedicated lines and are being transferred to ACU computer.
CS	LED	Clear to send. When illuminated, indicates that line driver has given a clear to send signal on pin 5 of the RS-232 interface. This indicates that line driver is ready to receive data from ACU computer (via a serial I/O board).
NS	LED	No signal. When illuminated, indicates that no signal is present on ACU/DCP dedicated line.
OS	LED	Out of service. When illuminated, indicates that line driver has received an out of service code from the corresponding line driver in the DCP.
TP/ER	LED	Test pattern/error. When line driver is placed in test mode, indicator illuminates to indicate that an error has been received.
<b>DDS/MR64 Line Driver</b>		
TD	LED	Transmit data. When illuminated, indicates that data are being transmitted from ACU computer to DCP over dedicated lines.
RD	LED	Receive data. When illuminated, indicates that data are being received from DCP over dedicated lines and are being transferred to ACU computer.

Table 2.3.2. Modem AC Power Rack Controls and Indicators -CONT

Control/Indicator	Type	Description
CS	LED	Clear to send. When illuminated, indicates that line driver has given a clear to send signal on pin 5 of the RS-232 interface. This indicates that line driver is ready to receive data from ACU computer (via a serial I/O board)
NS	LED	No signal. When illuminated, indicates that no signal is present on ACU/DCP dedicated line.
OS	LED	Out of service. When illuminated, indicates that line driver has received an out of service code from the corresponding line driver in the DCP.
TM	LED	Test Mode. When illuminated, indicates that the DDS/MR64 is in Test mode.
HOME	Pushbutton switch	Data mode or Set mode select. Used in conjunction with 1-LINE LCD when in Set mode for manual modem configuration.
YES	Pushbutton switch	Used in conjunction with 1-LINE LCD to answer modem configuration questions.
NO	Pushbutton switch	Used in conjunction with 1-LINE LCD to answer modem configuration questions.
1-LINE LCD	Liquid crystal display	Displays menu of options available for manual modem configuration and test.

2.3.2.7 **Power Supply Assembly.** The power supply assembly (Figure 2.3.5) monitors ac input power to the ACU and supplies normal/emergency output power to all equipment in the ACU cabinet including peripherals within 100 feet of the ACU. The controls and indicators for the SOLA uninterruptible power supply (UPS) contained in power supply 62828-40124-10 are illustrated on figure 2.3.5 and described in table 2.3.3. Power supply 62828-40265-10 can contain either Deltek UPS 62828-90338-10 (figure 2.3.6 and table 2.3.4) or Deltek UPS 62828-90338-20 (figure 2.3.7 and table 2.3.5).

2.3.2.8 **DC Power Supply Enclosure.** Each of the two +5V and  $\pm 12$ V power supplies has a power (I/O) switch and a power on indicator lamp. The on/off switches are normally kept in the on position, and the power supplies are turned on and off via the UPS.

2.3.2.9 **Codex Modem.** The Codex 3600 Series modem is Government-furnished equipment (GFE) that interfaces with the Federal Aviation Administration (FAA) ADAS via the Data Multiplexer Network. Refer to Chapter 13.

2.3.2.10 **RF Modems.** RF data modems provide communications between the ACU and DCP cabinets. Only the Johnson Data rf modem (62828-40506-X) has controls and indicators as shown on figure 2.3.8 and described in table 2.3.6.

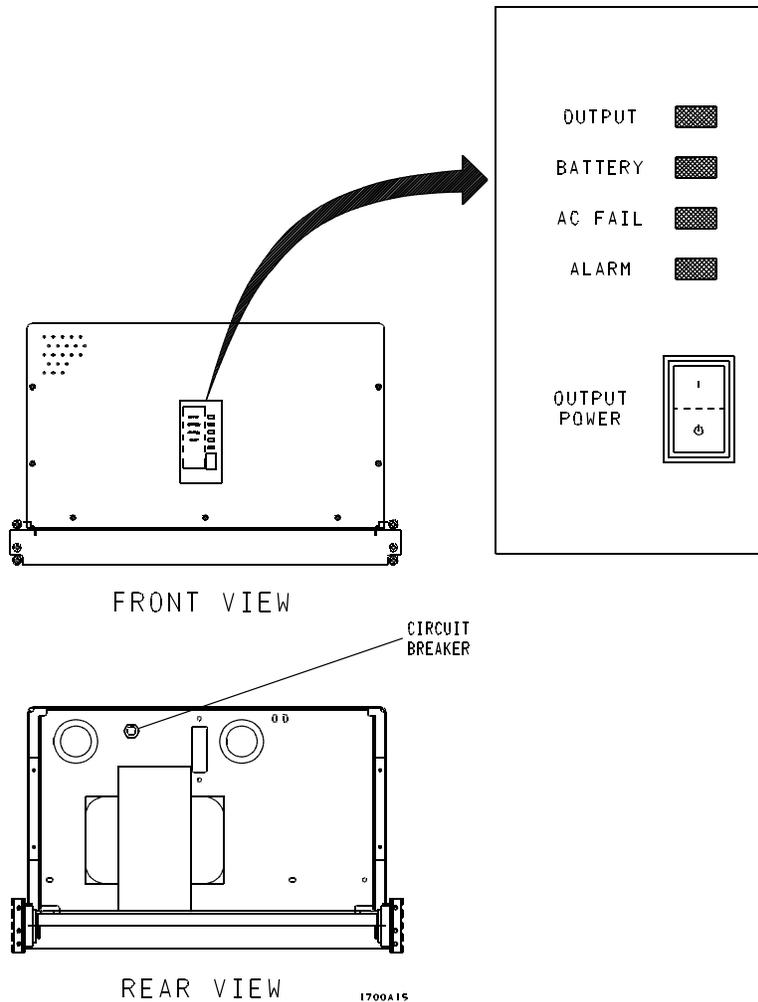
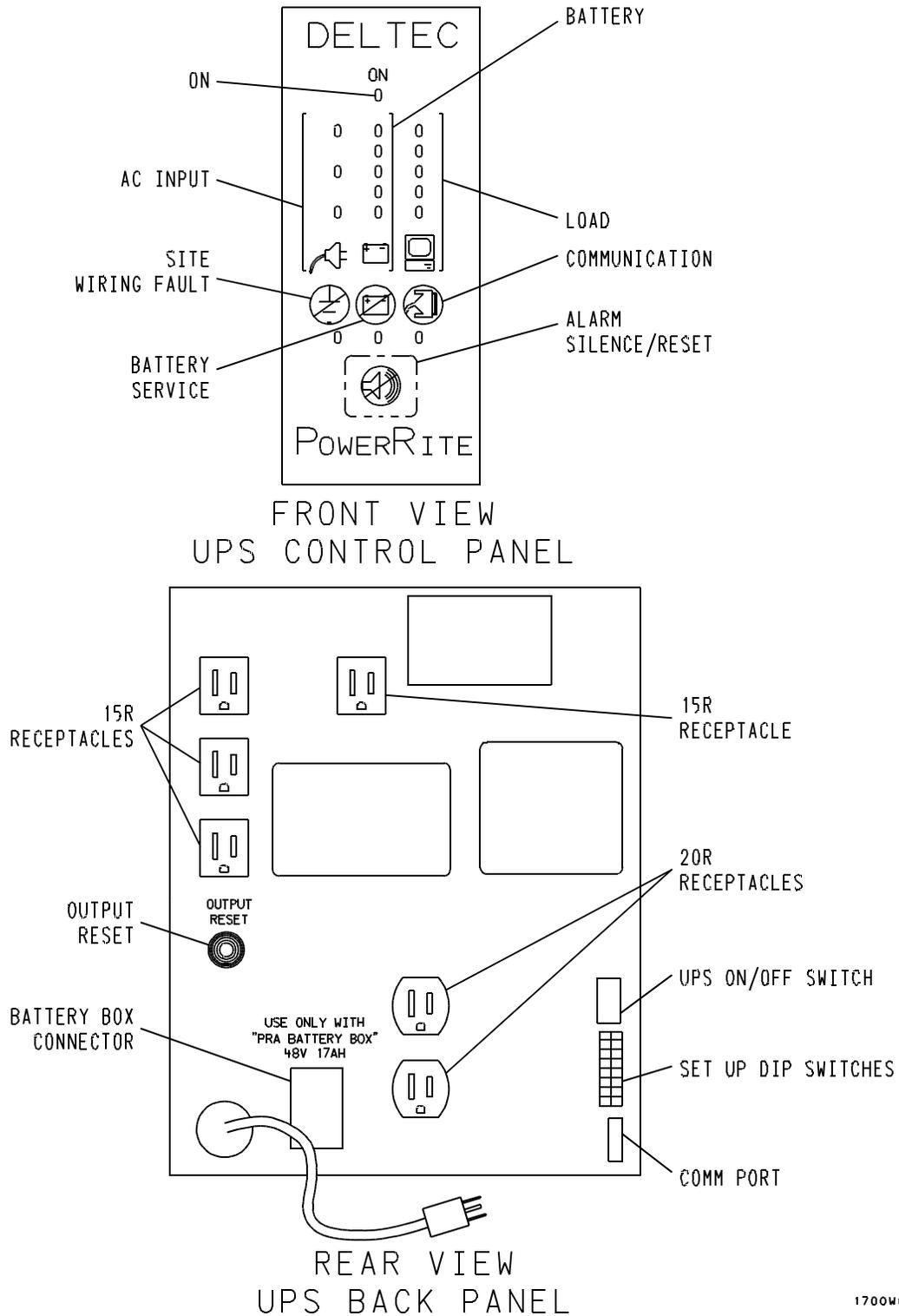


Figure 2.3.5. Power Supply Assembly 62828-40124-10 Controls and Indicators

Table 2.3.3. Power Supply Assembly 62828-40124-10 Controls and Indicators

Control/Indicator	Type	Description
OUTPUT POWER	Rocker switch	When set to on (1), turns UPS on and applies ac power to ACU cabinet and peripherals.
OUTPUT	LED	When illuminated, indicates that UPS is on and that ac power is being supplied to ACU loads.
BATTERY	LED	When illuminated, indicates that ACU backup batteries in Battery Box 1A8 are fully charged. When blinking, indicates that batteries are low and UPS is recharging them.
AC FAIL	LED	When illuminated, indicates that ACU primary power source has failed and that UPS is supplying backup ac power to ACU loads. The UPS beeps every 10 seconds while backup power is being used.
ALARM	LED	When illuminated, indicates that UPS has overheated, backup battery is dead (less than 40 vdc), backup battery is overvoltage (greater than 78 vdc), or there is some other problem with UPS components.
Circuit breaker	Pushbutton switch	Provides overload protection for the UPS and its loads. Pushbutton switch pops out when circuit breaker trips; press in to reset the breaker.



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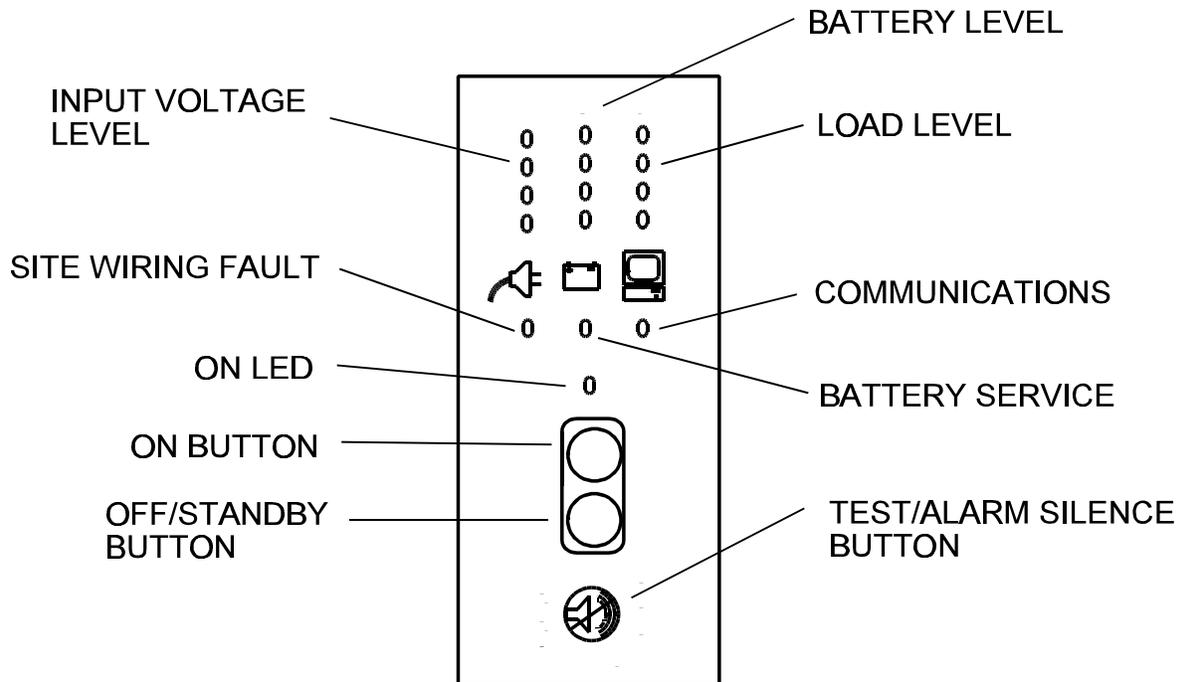
Figure 2.3.6. Power Supply Assembly 62828-40265-10 with Deltek UPS 62828-90338-10 Controls and Indicators

**Table 2.3.4. Power Supply Assembly 62828-40265-10 with Deltek UPS 62828-90338-10  
Controls and Indicators**

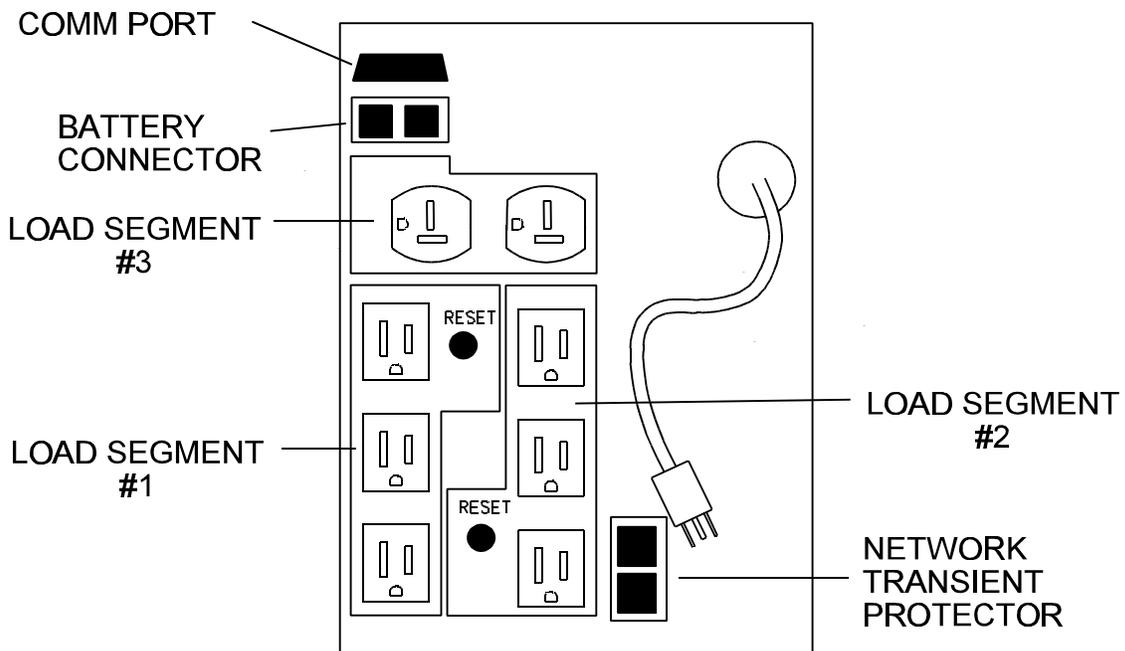
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Control/ Indicator	Type	Description		
ON	LED	When illuminated, indicates that output voltage is available.		
AC INPUT	LEDs (three)	When top LED is illuminated, indicates that line is too high (overvoltage condition) and that UPS is in battery operation. When middle LED is illuminated, indicates that the line is OK. When bottom LED is illuminated, indicates that line is too low (undervoltage condition) and that the UPS is in battery operation.		
SITE WIRING FAULT	LED	When illuminated, indicates that there is either no existing ground wire connection or that the line and neutral wires are reversed in the line receptacle.		
BATTERY	LED's (four green, one red)	When illuminated, indicate the condition of the battery charge.		
BATTERY SERVICE	LED	When illuminated, indicates when a potential battery failure is detected. If reset is pushed, continues to flash until service is performed.		
ALARM SILENCE/ RESET	Pushbutton	The alarm sounds at any new alarm condition. If the problem is resolved or if ALARM SILENCE/RESET is pushed, the buzzer sounds.		
LOAD	LED's (five)	When the top LED is illuminated, indicates when the load current or wattage exceeds full load. The bottom four (green) LED's show either the load current or load wattage (whichever is higher) in increments of approximately one-fourth of full rating.		
COMMUNICATION	LED	Turns on after the UPS receives a command code from a computer to establish communication. Flashes during data transfer via the COMM PORT.		
UPS ON/OFF SWITCH	Rocker switch	When set to on (1), turns on UPS and applies ac power to ACU cabinet and peripherals.		
SETUP DIP SWITCHES	DIP switches	Switches 1, 2, 3, 4, 5, 7, and 8 are user-defined switches. OFF is default position.		
		Switch	Function	Default Position
		1	Line Voltage Select	OFF
		2	Line Voltage Select	OFF
		3	Site Warning Alarm	OFF
		4	Back Alarm	OFF
		5	Low/Auto Shutdown	OFF
		6	Not Used	OFF
		7	ASOS Protocol	OFF - Firmware vsn 2.1 & up ON - Firmware below vsn 2.1
8	Frequency Select	OFF		
COMM PORT	Connector	Allows the UPS to report status to the ACU.		
BATTERY BOX CONNECTOR	Connector	Allows external batteries to be connected to the UPS.		
OUTPUT RESET	Pushbutton	Provides overload protection for the UPS and its loads. Pops out when circuit breaker trips; pressed in to reset the breaker.		
5-15R	Receptacles (four)	Used to provide power to additional equipment.		
5-20R	Receptacles (two)	Used to provide power to additional equipment.		

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**FRONT VIEW  
UPS CONTROL PANEL**



**REAR VIEW  
UPS BACK PANEL**

Figure 2.3.7. Power Supply Assembly 62828-40265-10 with Deltek UPS 62828-90338-20 Controls and Indicators



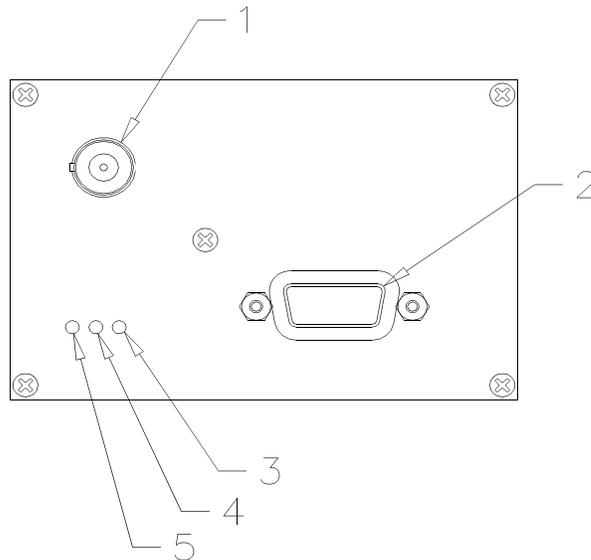


Figure 2.3.8. Johnson Data RF Modem Controls and Indicators

Table 2.3.6. Johnson Data RF Modem Controls and Indicators

Index	Control/ Indicator	Description
1	SMA Connector	RF output (requires SMAM-to-BNCF adapter)
2	HDB-15 Connector	High density 15 pin female power/communications connector (requires adapter cable 62828-42110-10)
3	RX LED (Yellow)	Illuminates when receiving data
4	TX LED (Red)	Illuminates when transmitting data
5	PWR LED (Green) (Flashing)	Illuminates when power is applied Illuminates when setup mode is active

2.3.3 OPERATIONAL PROCEDURES

The primary operational procedures associated with the ACU and peripherals are the application and removal of power. Also, the technician may occasionally have to enter the site ID and AOMC phone number, and refresh the OID screen. The following paragraphs describe each of these procedures.

2.3.3.1 **ACU Power Up and Power Down Procedures.** Tables 2.3.7 and 2.3.8 provide the procedures to apply and remove power from the ACU and its peripherals.

Table 2.3.7. ACU and Peripherals Power Up Procedures

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Step	Procedure
1	At OID, set power switch located on monitor base to ON position. The power-on indicator located in the left front of the CRT illuminates.
2	If ACU has a UPS, ensure that UPS POWER switch is set to off (0) position.
3	At ACU DC Power Supply Enclosure 1A5, ensure that ON/OFF switches on power supplies PS1 and PS2 are set to ON (1) position.
4	Set facility power circuit breaker for ACU to on position. If Class I ACU, power is applied to ACU cabinet components when facility power is applied.
5	If ACU has a UPS, set UPS POWER switch to on (1) position. Power is applied to components in Class II ACU cabinet.
6	With power applied to OID and ACU and after a brief warmup delay, OID displays the 1-minute display. If the display is not being updated, press the HELP key twice to refresh the screen. The data fields may contain the letter M, indicating that the sensor(s) are not reporting measurement data. If the message NEED SID AND AOMC PHONE message is displayed at the top of the screen, the system has lost its memory and requires a download of site specific data from the AOMC. In this case, perform the following procedures: <ul style="list-style-type: none"> <li>a. Sign on system as a technician.</li> <li>b. Call up the REVUE SITE CONFIG EXTERN display on the OID and enter the phone number of the AOMC in the AOMC PHONE NUMBER field.</li> <li>c. Call up the REVUE SITE PHYS display on the OID and enter the three to five-character SID code for the ASOS site in the STATION IDENTIFIER field. The system then calls the AOMC and receives a download of site specific data. After the download is complete, the system automatically initializes to the proper configuration and begins normal operation.</li> </ul>
7	Ensure that any other peripheral devices (VDU's, CVD's, printer, etc) associated with the ACU are turned on.

Table 2.3.8. ACU and Peripherals Power Down Procedures

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Step	Procedure
1	Turn printer off by setting power switch, located on right side of printer, to off position.
2	Turn off OID by setting power switch on monitor base to OFF position.
3	If ACU has a UPS, set UPS POWER switch to OFF position.
4	Set facility power circuit breaker for ACU to OFF position.
5	Turn off any other peripheral devices (VDU's, CVD's, etc) associated with the ACU.

2.3.3.2 **Providing Site ID and AOMC Phone Number.** If the ACU loses its site specific data, it requests a download of site specific data from the AOMC. If the ACU has also lost its site ID (SID) code and the AOMC phone number, it displays the prompt NEED SID AND AOMC PHONE on the top line of the OID. In this case, the technician must enter the site ID and the AOMC phone number at the OID so that the ACU can call the AOMC and request the download. Table 2.3.9 provides procedures to enter the SID code and the AOMC phone number. After the download is complete, the system automatically initializes to the proper configuration and begins normal operation.

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2.3.3.3 **Refresh OID.** In the event that power is removed from the ACU cabinet, the OID retains the last display on its screen. If, after power returns to the ACU, the OID screen is not updated, the screen must be refreshed by pressing the HELP key twice. This reestablishes ACU/OID communication and allows the system to function normally.

2.3.4 USING LAPTOP COMPUTER AS PRIMARY OID

Some sites may not have a primary OID connected directly to the PRIMARY OID connector (J22) of ACU I/O Panel Assembly 1A9. This may be because another local OID serves as primary (e.g., tower OID) or because a particular site has no local OID at all. In either case, the technician may connect the laptop computer to the PRIMARY OID connector (as described in table 2.3.10) to perform all technician-related tasks. SIO port 3-4 must be properly configured for a primary OID on the ACU serial communications page before the system will be able to communicate with the laptop computer. If not, the technician must access the ACU serial communications page from another OID (a remote OID as described in paragraph 1.3.14 if no other is available) and set up port 3-4 as follows:

FUNCTION: OID (any available, 1-8)  
 STATUS: ENABLED  
 BAUD RATE: 9600  
 PARITY SELECT: NONE  
 BITS/CHAR: 8  
 STOP BITS: 1  
 HANDSHAKE: NONE  
 CONNECTION: HARDWIRED

Table 2.3.9. SID and AOMC Phone Number Entry

Step	Procedure
1	To determine if system requires download of site specific data from AOMC, verify that message NEED SID AND AOMC PHONE is displayed at top of OID screen.
2	Sign on system as a technician.
3	Call up the REVUE SITE CONFIG EXTERN display on the OID and enter the phone number of the AOMC in the AOMC PHONE NUMBER field.
4	Call up the REVUE SITE PHYS display on the OID and enter the three to five-character SID code for the ASOS site in the STATION IDENTIFIER field. The system then calls the AOMC and receives a download of site specific data. After the download is complete, the system automatically initializes to the proper configuration and begins normal operation.

Table 2.3.10. Connecting Laptop Computer as Primary OID

Step	Procedure
<b>NOTE</b>	
SIO port 3-4 (corresponds to PRIMARY OID connector J22 on I/O Panel Assembly 1A9) must be configured as a hardwired OID port on ACU serial communications page before laptop computer can be recognized as an OID. Paragraph 2.3.4 provides setup parameters.	
<b>INITIALIZATION</b>	
Tools required: Laptop computer with PROCOMM Plus installed Laptop interface (Y-shaped) cable DB-9 to DB-25 adapter	

Table 2.3.10. Connecting Laptop Computer as Primary OID -CONT

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Step	Procedure
1	Connect RS-232 (COM1) port of laptop computer to PRIMARY OID connector J22 on I/O Panel Assembly 1A9 using the following support items:  (1) Laptop interface (Y-shaped) cable (2) One DB-9 to DB-25 adapter
2	Turn on laptop computer and initialize to PROCOMM Plus program. When program initializes, press any key to enter terminal mode (blank) screen.
3	On laptop computer, set CAPS LOCK to ON.
4	Using ALT-S command (setup facility), set up the following TERMINAL OPTIONS:  (1) Terminal emulation: VT220 (2) Duplex: FULL (3) Soft flow control (XON/XOFF): OFF (4) Hard flow control (CTS/RTS): OFF (5) Line wrap: OFF (6) Screen scroll: OFF (7) CR translation: CR (8) BS translation: NON-DESTRUCTIVE (9) Break length (milliseconds): 350 (10) Enquiry: OFF (11) EGA/VGA true underline: OFF (12) Terminal width: 80 (13) ANSI 7 or 8 bit commands: 8 BIT
5	Return (exit) to terminal mode (blank) screen.
6	Using ALT-P command (line/port option), set CURRENT SETTINGS as follows:  (1) Baud rate: 9600 (2) Parity: NONE (3) Data bits: 8 (4) Stop bits: 1 (5) Port: COM1
7	Return (exit) to terminal mode (blank) screen.
8	ACU begins communication and 1-minute display is displayed on laptop screen. Laptop computer now functions as an OID. If display is not correct, set NUM LOCK key to ON and press 0 (help) twice to refresh screen.
9	Sign on and operate OID in usual manner. Ensure that NUM LOCK is set to ON when using number keys with function keypad on screen and that NUM LOCK is set to OFF when entering alphanumeric characters (e.g., initials and password during sign-on).
<b>SIGNOFF</b>	
1	From 1-minute display, sign off in usual manner. Ensure that NUM LOCK is set to ON when using SIGN key on display and that NUM LOCK is set to OFF when entering initials for signoff.
<b>DISCONNECTING LAPTOP PRIMARY OID</b>	
1	Sign off OID as described above.
2	Using ALT-X (exit) command, exit Procomm Plus.
3	Turn off laptop computer.
4	Disconnect cables and adapter between laptop computer and I/O Panel Assembly 1A9.