Signal Data Recorder-Reproducer
RD-397(V)/U

The RD-397(V)/U is used in baseband equipment installations with CUDIXS, NAVMACS, and TACINTEL (ship and shore). The (V)3 version is used at SSIXS shore locations. This tape perforator/reader can punch tape at 63.3 characters per second and read tape at up to 300 characters per second. The equipment is self-contained; that is, complete with control logic, buffering, and power supplies.

Navy Standard Teleprinter AN/UGC-143(V)

The Navy Standard Teleprinter (NST) is the standard teleprinter terminal set for surface platforms. The NST is used for netted circuits and for broadcast, ship-to-shore, and ship-to-ship communications circuits. The various configurations of the NST provide for information preparation, editing, printing and receiving of serial data, and buffering and storage of information. An AN/UGC-143A(V) 4 NST is shown in figure 3-35.

Audio Digital Converter CV-3333/U

The Audio Digital Converter CV-3333/U is called a vocoder or voice digitizer. This unit is a solid-state, all-digital speech processor, providing speech output at a data rate of 2400 bps. It is capable of fill-duplex or half-duplex operation. It can be used to provide a single digitized voice circuit, or have its output multiplexed with other data-bit streams to provide simultaneous voice and data transmission. It is used primarily as an analog-to-digital converter in Fleet Satellite Secure Voice communications.

Switching Unit SA-1704/UG

The Switching Unit SA-1704/UG is used in baseband equipment shore installations of SSIXS, CUDIXS, and TACINTEL subsystems. It is a passive patch panel that shows the equipment configuration in use. Each subsystem unit is slightly different. In CUDIXS, the switching unit may be used to switch in equipment from the spare system; whereas in SSIXS, it is used to switch in standby equipment. The SB-4333/U Patching Switchboard is the planned replacement for this unit.

Time-Division Multiplexer TD-1150/USC

The TD-1150/USC time-division multiplexer is installed at broadcast keying stations ashore. It is used in the Fleet Satellite Broadcast subsystem and consists of two units, one online and the other in standby. It accepts up to fifteen 75-bps data channels and multiplexes this information into a single 1200-bps output data stream. A TD-1150/USC is shown in figure 3-37.

Multiplexer (DAMA) TD-1271B/U

The Multiplexer (DAMA) TD-1271B/U is used in the DAMA subsystem and provides time-division
multiplexing of several digital data sources over one satellite channel. This allows platforms equipped with the TD-1271B/U and proper RT equipment to time-share the satellite channel. Each multiplexer has four I/O ports for connecting baseband equipment and four remote request and status display units. The TD-1271 B/U interfaces with RT equipment on a 70-MHz IF. Outputs from the unit also control the frequency and synchronize the transmit and receive timing of the radio. A TD-1271B/U is shown in Figure 3-38.

This unit is currently under development, with technical and operational evaluation to take place soon. Mini-DAMA is compatible and interoperable with the TD-1271B/U and will perform or eliminate all functions of the AN/WSC-3(V)2/(V)3. A Mini-DAMA unit is shown in Figure 3-39.

Cryptographic Equipment

Several different models of cryptographic equipment are used in the FLTSATCOM system.
Check your command’s communications configuration for identification of this equipment. Specific information on this equipment is available on a need-to-know basis.

**Electrical Equipment Rack CY-7597/WSC-3, CY-7597A/WSC-3**

The CY-7597/WSC-3 (fig. 3-40) and CY-7597A/WSC-3 provide for mounting of one C-9597/WSC-1(V) antenna control, one C-10232/WSC-3, and up to four RT-1107/WSC-3s. These racks contain all the wiring required to interconnect these items. Connectors installed on the top panel provide system interface connections for baseband, teletype, frequency standard, external modem, and control-indicator equipment.

The C-9597/WSC-1(V) antenna controller provides a means of controlling the antennas in the OE-82 dual-shipboard system. The control indicator 3-34 can switch the AN/WSC-3s for LOS or SATCOM use, monitor rf output power, and provide power on/off switching.

**Electrical Equipment Cabinet CY-7971/WSC**

The CY-7971/WSC (fig. 3-41), provides for mounting one MX-10342/WSC, two SB-4124/WSCs, and two TD-1271B/U multiplexer. The cabinet contains all wiring required to interconnect these pieces of equipment. Connectors installed on the top panel provide system interface connections for baseband, teletype, frequency standard, AN/WSC-3, and control-indicator equipment.

The MX-10342/WSC provides a means to monitor and test all functions. The SB-4124/WSCs are data-

![Figure 3-40.—Electrical Equipment Rack CY-7597/WSC-3.](image1)

![Figure 3-41.—Electrical Equipment Cabinet CY-7971/WSC.](image2)
and control-patching switchboards. Since we discussed the multiplexer in depth earlier, we will not go into detail here.

**Control Monitor Group OK-481(V)2/FSC**

The Control Monitor Group OK-481(V)2/FSC is a part of the Navy uhf satellite communications system. This group provides for the interfacing of the TD-1271B/U multiplexer, the AN/WSC-5(V), and the baseband equipment used at DAMA shore installations. It provides for rapid reconfiguration and monitoring of interfaced equipment using digital, rf, and monitor patching facilities. It can accommodate up to 14 TD-1271B/U’s and can multiplex up to 56 baseband circuits. An OK-481(V)2/FSC is shown in figure 3-42.

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**Figure 3-42.—Control Monitor Group OK-481(V)2/FSC.**