

UNIVERSAL STATION CONVERTER CABINETS

GENERAL DESCRIPTION AND PRINCIPLES OF OPERATION

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1. GENERAL		LOWER ENCLOSURE (See Figure 2)
1.01 This section contains information pertaining to the cabinets used for housing station converter sets. The section is reissued to include coverage of the audible low tape alarm. Arrows in the margins indicate changes or additions.		2.03 The enclosure below the horizontal shelf provides mounting facilities for up to six electronic modules. The modules slide onto individual mounting trays supported by steel cross members. A lock is provided on each module to secure it in its mounting location. Each module slides forward on its mounting tray for inspection, minor repair, or testing purposes. A safety latch at the right rear corner of the module prevents it from being accidentally pulled off its tray.
1.02 The cabinets are similar in structure and appearance, and may be divided into two groups: Those designed to house Tape-to-Tape Station Converter Sets, and those designed to house Signal-To-Tape Station Converter Sets. Two cabinets exist in each group.		2.04 The lower enclosure also provides access to the chad container and the electrical service strip. The electrical service strip is located in the rear of the cabinet. The chad container serves to collect the bits of paper punched out of the tape by the tape punch
1.03 The photographs used in this section are of preproduction models and may differ slightly from actual production models.		
1.04 The tape winder mechanism and center universal reel are available as optional equipment for the signal-to-tape and tape-to-tape station converter cabinets.		

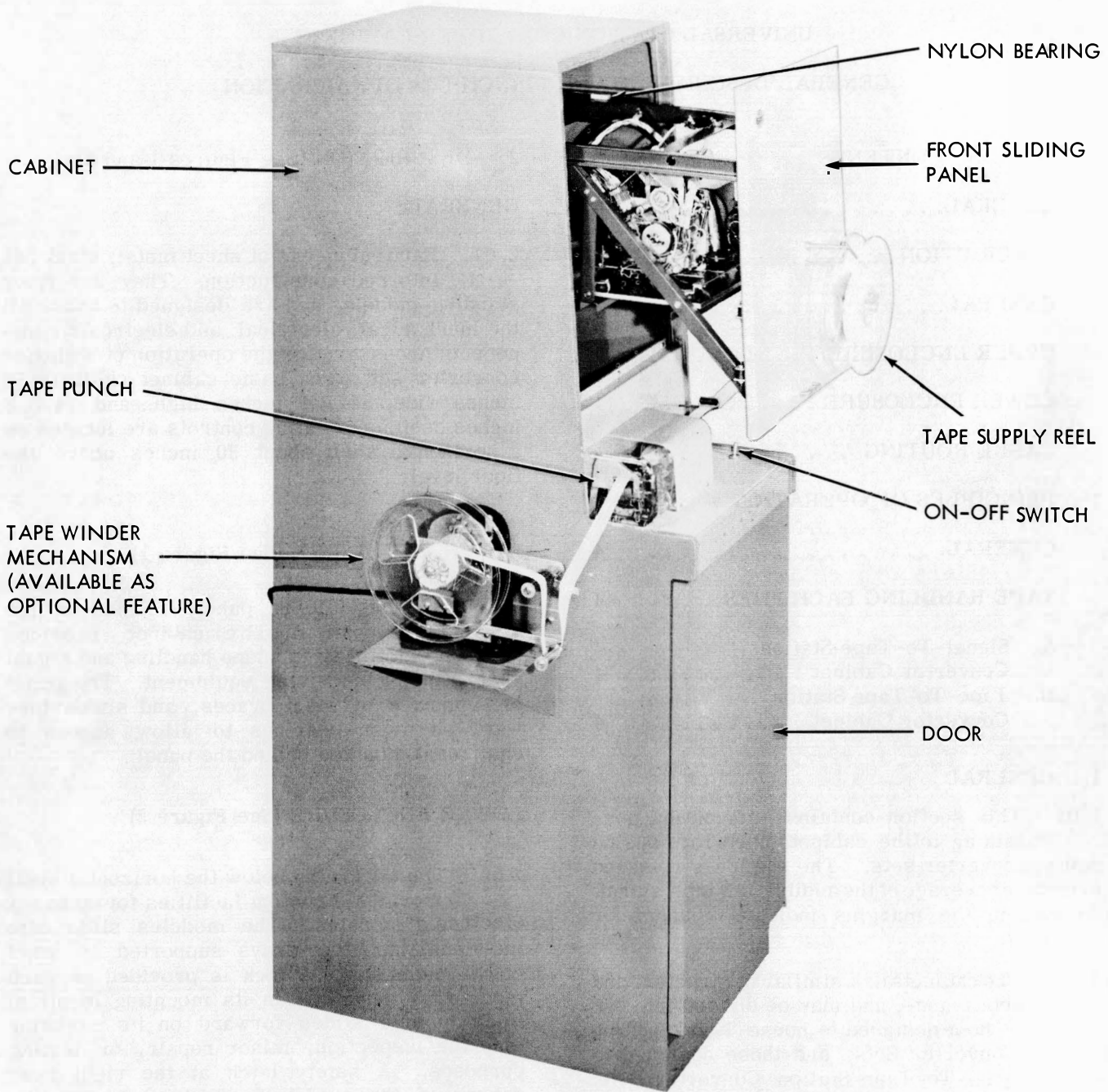


Figure 1 - Signal-To-Tape Station Converter Cabinet With Components Mounted

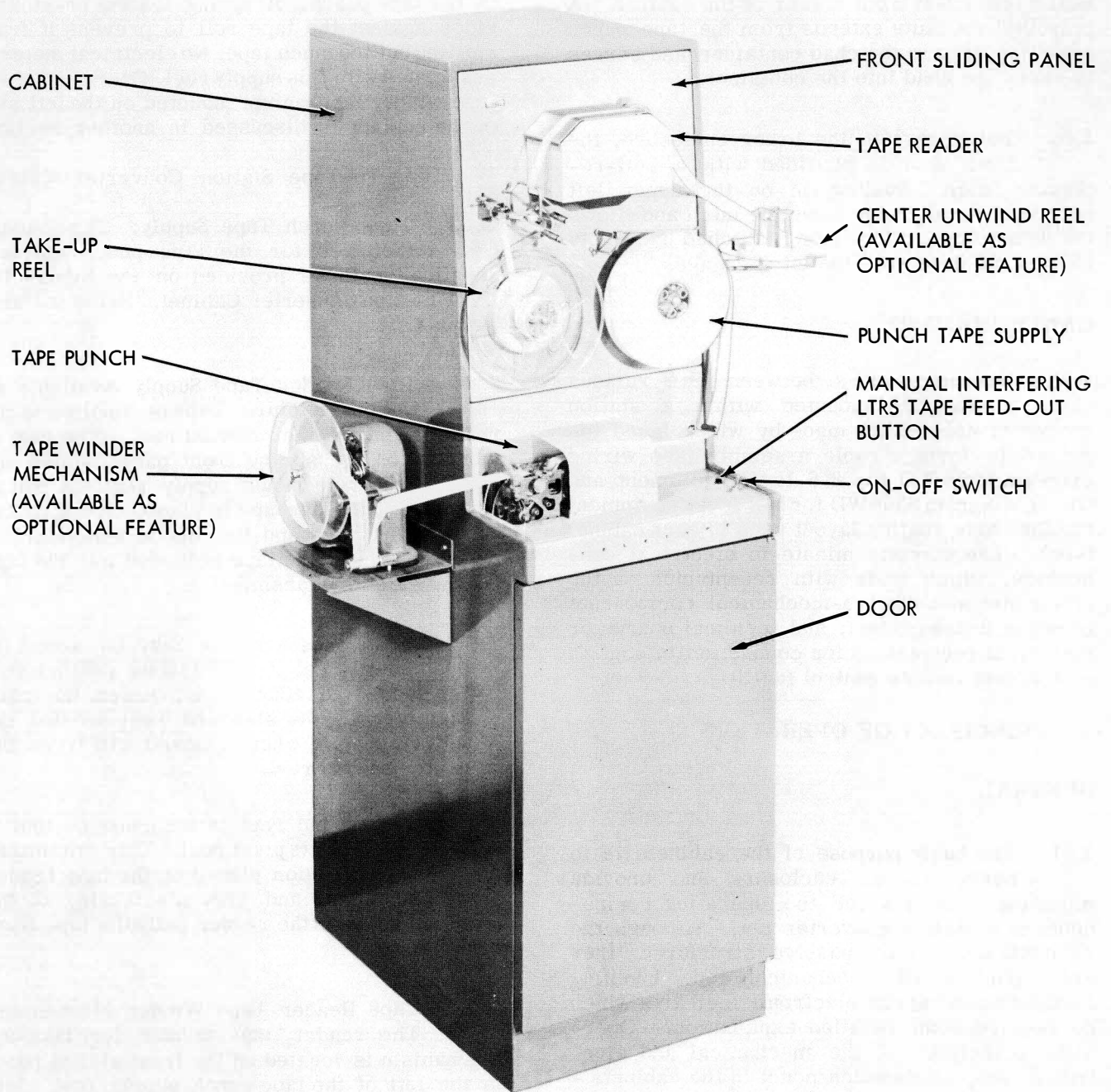


Figure 2 - Tape-To-Tape Station Converter Cabinet With Components Mounted

unit mounted in the cabinet. The container is made of polyethylene, and sits on a metal tray in the lower left front corner of the cabinet. A polyethylene chute extends from the tape punch mounting area to the chad container and serves to carry the chad into the container.

2.05 For access to the lower enclosure, the front door is provided with a self-releasing latch. Pushing in on the upper left corner of the door releases the latch and allows the door to open. The door is latched by simply closing the door until the latch engages.

#### CABLE ROUTING

2.06 Interconnections between the various components mounted within a station converter cabinet are made by wires laced together to form a cable assembly (see wiring diagram 6098 WD for 8-5 level equipment and wiring diagram 6366 WD for 5-8 level equipment for the cable routing layout used in each cabinet type). The wires terminate in electrical connectors, which mate with receptacles on the electronic and electro-mechanical components mounted in the cabinet, and terminal boards or electrical receptacles for connection of signal, power, and remote control facilities.

### 3. PRINCIPLES OF OPERATION

#### GENERAL

3.01 The basic purpose of the cabinets is to serve as an enclosure and provide mounting facilities for the operating components of a station converter set. Although the cabinets are mainly passive structures, they are equipped with mechanical tape handling facilities and certain electronic facilities which do require some detailed explanation. Operating principles of the mechanical and electronic components which mount in the cabinets - and are not discussed in this section - are discussed in the appropriate sections.

#### TAPE HANDLING FACILITIES

##### A. Signal-To-Tape Station Converter Cabinet

3.02 Tape Punch Tape Supply: A tape supply reel for the tape punch unit is provided on this cabinet. The reel is located on the front sliding panel above and to the right of the tape punch. Tape is fed down from the right of the

reel to a tape guide roller and then left to the tape punch. Tape is pulled from the supply reel by the tape punch. A spring loaded brake arm rides against the tape roll to prevent it from spilling out too much tape. No electrical motor is associated with this supply reel. Operation of the tape winder mechanism mounted on the left side of the cabinet is discussed in another section.

##### B. Tape-To-Tape Station Converter Cabinet

3.03 Tape Punch Tape Supply: Tape supply facilities for the tape punch unit are identical to those provided on the Signal-To-Tape Station Converter Cabinet. Refer to Paragraph 3.02.

3.04 Tape Reader Tape Supply Available as Optional Feature: Tape is supplied to the reader from a center unwind reel. The reel is mounted on the sliding front panel behind and right of the tape punch supply reel. A roll of perforated message tape is placed on the center unwind reel hub, and the inside end (start of message end) of the tape is loaded into the tape reader gate for transmission.

Note: The message tape may be wound on a standard reel if a TP146698 reel adapter is used; the adapter increases the core diameter of the standard reel so that the message tape, when removed will fit on the center unwind reel.

The center unwind reel is designed so that it rotates freely on its pivot post. This minimizes the amount of tension placed on the tape reader feed mechanism, and prevents tearing of the tape feed holes as the reader pulls the tape from the supply roll.

##### 3.05 Tape Reader Tape Winder Mechanism:

The reader tape winder (or take-up) mechanism is located on the front sliding panel to the left of the tape punch supply reel. Initially, the message tape is manually routed through the winder mechanism. After this manual operation, the tape is automatically wound on the take-up reel as the reader senses the message tape. An electric motor, mounted behind the sliding front panel, drives the take-up reel. Operation of the motor is controlled via a mercury switch operated by the tape sensing arm. The position of the tape sensing arm determines whether the mercury switch contacts are open or closed; therefore, whether the motor is off or on.

3.06 Audible Low Tape Alarm: The audible low tape alarm provides a buzzer and a light to indicate a low tape condition on the converter sets. In the normal position (low tape contacts are in the unoperated position), the low tape alarm circuit is complete and there is no response from either the lamp or the buzzer. When the low tape contacts are operated, 24 v ac

is supplied to the low tape lamp and buzzer. The buzzer may be turned off by operating the low tape switch, but the lamp remains lighted. When a new roll of tape is inserted, the low tape contacts transfer to their normal position causing the buzzer to sound and the lamp to be turned off. The buzzer can be turned off again by operating the low tape switch.

