# "DATASPEED®" PRINTER (RECEIVE-ONLY)

## ENCLOSURES AND PAPER HANDLING

### DESCRIPTION AND PRINCIPLES OF OPERATION

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## 1. GENERAL

1.01 This section provides the description and principles of operation for the cover, base, cabinet, paper unwinder, and paper winder as used in the DATASPEED printer (receive-only). It is reissued to change the title and to show changes of the cabinet frame assembly (Figure 4 and 6). These changes are indicated by bracketed arrows. This section was formerly designated 592-820-112, but this number is now cancelled. Since this issue of Section 578-500-112 is a revision of Section 592-820-112, Issue 2, it is designated Issue 3.

1.02 The cover and base enclose, protect, and provide mounting and operating facilities for a function strip and the recorder and paper transport. In addition, the cover and base reduce the noise level from the enclosed mechanisms.

1.03 The cabinet provides the mounting facilities for the cover, base, electronic modules, paper unwinder, and paper winder. The cover, base, and paper unwinder mount on the cabinet. The paper winder is located behind the paper unwinder and is stationary. The electronic modules are contained inside the cabinet.

## 2. DESCRIPTION AND OPERATION

### COVER

2.01 The cover provides the top portion of a noise reducing enclosure for the recorder and transport mechanisms. It is approximately 16-1/2 inches wide, 19-1/2 inches deep, 10 inches high, and weighs approximately 12 pounds.

2.02 The front lid of the cover has a horizontal transparent plexiglass window for viewing printed copy. The rear edge of the plexiglass window provides a paper tearing edge. Mounted to the left underside of the front lid is an actuating magnet. This magnet operates the interlocking reed switch mounted on the cover left side. When the front lid is raised, the high voltage to the set is turned off.

2.03 The rear lid incorporates a stainless steel strip mounted to the front edge. This metal strip facilitates the paper exit and is a wear strip for the rear lid. Mounted to the left underside of the rear lid is an actuating magnet. As with the front lid, when the rear lid is raised, the high voltage to the set is turned off.

2.04 Below the front lid, mounted to the cover, is a fluorescent lamp. This lamp illuminates the last printed line of copy.

2.05 Two pushbutton latches, one on either side of the cover, provide the connection between the cover and the base. To remove the cover from the base, both pushbutton latches must be held depressed while lifting the cover assembly straight up. If the cover should be removed for servicing, the high voltage to the set will be turned off by the connector mounted to the left front portion of the cover which mates with a receptacle in the base.
Figure 1 - Typical DATASPEED Printer (Receiver-Only)
2.06 An opening in the rear of the cover provides the paper entrance. The opening between the front and rear lids serves as the paper exit. The front and rear lids may be opened to facilitate paper threading and replenishing the recorder ink supply. When closing the lids, the rear lid must be closed first.

BASE

2.07 The base provides the lower portion of a noise reducing enclosure for the recorder and transport mechanisms. It is approximately 16-1/2 inches wide, 17 inches deep, 6 inches high (front panel), and weighs approximately 10-1/2 pounds.

2.08 The base serves as a receiving surface for the recorder, transport, and cover. On the inside left edge of the base is a connector which supplies power to the interlocks and copylight on the cover. It also acts as an interlock. When the cover is removed, the continuity in the interlock circuit is broken, turning off the high voltage.

2.09 The function strip (control panel) on the base incorporates six illuminated pushbutton switches which are used as controls or indicators for the set. These are:

(a) BREAK – When momentarily depressed, it turns off the reverse channel to indicate that a break in transmission is desired.

(b) TRANS START – Depressing this indicator switch starts the discrete calling generator (if equipped) which sends a discrete code sequence to start an unattended transmitter.

(c) PRINTER ON – When light is on (not operated), it indicates that the set has all necessary conditions for printing. If operated, the light will go on only if all interlocks are closed.

(d) READY – Lights when not operated indicating the set has all necessary conditions for printing and the high voltage is capable of turning on, or is on.

(e) PAPER ADVANCE – Paper will feed out as long as this pushbutton is held depressed.

(f) PAPER ALARM – When lighted, this red indicator signals a low paper supply. Depressing key causes W test character to be generated repeatedly (late design units only).
2.10 The apparatus cabinet is approximately 18 inches wide, 36-15/16 inches high, and 27 inches deep. The sliding top panel provides the mounting surface for the base and paper unwinder. To the rear of the unwinder is an optional paper winder. The top panel can be extended forward approximately 15 inches from the cabinet to facilitate paper replenishing.

2.11 Below the top sliding panel is a shelf which houses an optional 202C or D data set, or 804A data auxiliary set. When mounted, the data set is approximately 27-3/16 inches above the floor. Also mounted to this shelf is the ink heater and line feed bracket assembly for the recorder and transport.

2.12 Below the shelf is the area which houses the power supply and logic modules. To facilitate module connection or inspection, the front door, rear door, and cabinet side panels are removable.

2.13 At the top center of each door opening is an interlocking magnetic reed switch. These switches are actuated by magnets mounted to the front and rear doors. If the front or rear door is opened, the high voltage to the set is turned off.

2.14 For maintenance purposes only, an interlock override switch is provided. It is located on the cabinet frame where the front door is hinged. To gain access to the override switch, the front door must be removed.

2.15 The front door is so designed that, by reversing certain hardware, it can be hinged from either the right or left. The door latching mechanism can also be moved for either right or left operation. If the front door hinging is changed, the interlock override switch should be changed accordingly.

2.16 Located in the base of the cabinet are two exhaust fans. These fans are provided for circulating cooling air through the cabinet. They pull the air through the cabinet and exhaust it through the front grille.
Figure 4 - Cabinet Frame Assembly

INK HEATER AND LINE FEED BRACKET ASSEMBLY

FRONT DOOR TOP HINGE

MAGNETIC REED SWITCH

INTERLOCK OVERRIDE SWITCH

FRONT DOOR BOTTOM HINGE

EXHAUST FANS

DATA SET SHELF

MODULE SLIDES

FRONT GRILLE

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2.17 The paper unwinder is a self-contained unit mounted on the cabinet top sliding panel to the rear of the cover. It is intended for use as a means of supplying 8-1/2 inch wide paper in roll diameters of 4-1/2 inches to 5 inches.

2.18 The unwinder depends upon power from the transport mechanism to strip paper from the spindle. A slack arm cushions the pulling force to minimize the effect of jerking.

2.19 The paper unwinder incorporates a low paper sensing arm and a sensitive switch. When the paper roll diameter reaches 1-1/2 inches, the PAPER ALARM indicator on the function strip will light.

3. VARIABLE FEATURE

3.01 The optional paper winder mounts toward the rear of the cabinet. It is approximately 27 inches high, 7 inches deep, 14 inches wide, and weighs approximately 12 pounds.

3.02 The paper winder is capable of winding paper at speeds up to 1200 words per minute (20-3/4 inches of paper per second). It will accept paper of 8-1/2 inches in width, 5 inches in diameter, and approximately 450 feet in length.

3.03 The paper slack arm actuates both the drive circuit and the braking circuit. A cam on the pivoting end of the paper slack arm actuates a switch operating the winder motor. A rocker switch is provided at the top of the right bracket to turn the unit on and off.
Figure 6 - Cabinet Frame Assembly With Paper Winder