subject: DATASPEED® 2101AB RO Printer

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to: Chief Engineers (copies included for General Plant Managers)
Engineering and Plant Data Specialists

from: Engineering Director - Transmission Services

synopsis: Introduces the new 2101AB DATASPEED RO Printer.

* * *

A new 2101AB DATASPEED RO Printer is now available. This new terminal is functionally similar to the original 2101AA terminal. The new terminal is an improved, repackaged 2101AA terminal with the addition of new features and set arrangements. The new features are:

- Ability to print 128 characters, instead of the original 64.
- Up-low ASCII arrangement capability of printing 93 characters.
- An ASCII arrangement which prints the graphic "zero" with a slash through the center.
- An ASCII arrangement with graphic substitution for use in weather communication.

In addition, maintainability, reliability, documentation and operator features have been substantially improved.

The attached memorandum provides documentation for interchangeability of units, assemblies, and circuit cards, a maintenance parts and apparatus list for initial installation, and ordering, price and availability information.

E

N. A. Adams

for Engineering Director

MJR:STE

Attachments
Memoranda A, B, C, D and E

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THE 2101AB DATA TERMINAL

1. GENERAL INFORMATION

Memorandum A describes only the main differences between the 2101AA and 2101AB, Data Terminals, therefore, to fully understand the 2101AB unit both the BSP 578-500 Layer and this memorandum are required.

1.1 Product Line

The 2101AB DATASPEED, INKTRONIC RO, is functionally similar to the INKTRONIC 2101AA. Basically, the 2101AB is an improved, repackaged 2101AA with the addition of a few more features and set arrangements. The large circuit cards and assemblies which formerly composed the DAG and the DAD modules now insert directly into the set. The 2101AB is capable of printing 128 characters instead of 64. The up-low ASCII arrangement prints 93 characters. Maintainability, reliability, documentation and operator features have been substantially improved in the new 2101AB Unit. Chart 1 of this memorandum lists the BSP sections which describe the 2101AA unit and those sections which describe the 2101AB unit.

1.2 Service and Station Arrangements

The service and station arrangements are essentially the same as the 2101AA Unit. Refer to BSP Section 578-500-101, for additional information on the 2101AB station arrangements.

1.3 The Terminal (See Figure 1)

The terminal operation of the 2101AB is quite similar to the 2101AA with the exception that the printing matrix has been increased to 8 x 14 which permits printing of fractions and lower case letters (see Figures 11 and 12). This enlarged matrix provides the ability to print the complete ASCII character set with the exception of the underscore (__) character. Previously and currently on units not equipped for both upper and lower case printing, on receipt of the code for lower case alphas, the upper case equivalent would be printed.

2. TERMINAL DESCRIPTION

2.1 The Modular Assemblies (See Figures 2-5)

The 2101AB Terminal is no longer made entirely of discrete module assemblies as shown in Figures 2 to 5. Notice that only two large modules remain, the Power Supply Module (DAPS) and the Interface Module (DAIF). The sub-assemblies of the Character Generator Module (DAG) and the Printer Drive Module (DAD) are inserted directly into the set. This new modular packaging arrangement provides more room for future expansion, is more easily manufactured and offers some electrical interconnection advantages.

2.1.1 The Recorder Unit, DAR (See Figure 6)

The DAR2 version AB differs from the DAR2 version AA in the following areas which field experience indicates are desirable.

1. A dipstick has been added to more easily determine the amount of ink in the DAR.
2. A label has been added to warn against using solvents other than the approved electrode cleaner.
3. The voltage range of the vertical deflection electrodes has been extended to accommodate the larger printing matrix required to print both upper and lower case characters.

Vertical Deflection Electrodes	+1050V to +1800V (Printing) + 800V (lower) +1900V (upper) (Jet Down)

4. An access lid which permits cleaning the electrodes without removing the paper, the DARC cover and the DAR cover has been added. (See Figure 7 - Later version AA recorders also include this lid.)

2.1.2 The Paper Transport Unit, DAT (See Figures 7-10)

The 2101AB set uses a DAT3 instead of the DAT2. The new DAT3 has a redesigned torque control and line feed mechanism. This consists of a new induction motor coupled with a hysteresis clutch. The new line feed motor's torque is not voltage controlled which eliminates the need of a voltage regulator card. This motor also powers the paper tensioner which eliminates the need of a separate motor drive as used on the DAT2. It has fewer lubrication points (10 vs. 58), fewer adjustment points and is more easily disassembled for servicing.

2.1.3 The Enclosures DAC, DAB, DARC and Panels (See Figures 2-5)

The enclosures used in the 2101AB offer the same features as those indicated for the 2101AA except the lower front door can no longer be arranged to open from either side. It is designed to open from right to left and is easily detached for servicing. A rack has been included on the inside of the door to store a can of electrode cleaner for ready access by an operator or maintenance personnel.

In addition, a DAC3 replaces the DAC2 to accommodate the repackaging of the electronics (see 2.1.5 and 2.1.6). This is shown in Figure 4. The card connectors and card guiding hardware are part of the DAC3. The switch and fuses used to control the input power to the set are much more accessible in their new location between the Power Supply Module and the Interface Module. Also this same area houses a new convenience outlet which is capable of supplying up to 2 amperes to any external device while the set is functioning.

The cabinet contains an auto reset thermal cut out device to sense excessive temperature rise due to failure of the ventilating fans. It is wired in series with the A.C. input inorder to provide complete set shut down.

As a maintenance aid, a circuit card extender with associated hardware is provided for trouble shooting the large circuit boards. The use of the card extender permits voltage measurements to be made on circuit boards which are not readily accessible in a full operating terminal. Refer to Figure 4 which shows a circuit board in an extended position and supported by the card extender support rods.

2.1.4 Interface Unit, DAIF

The DAIF is basically unchanged but does now include the capability of generating a pre-programmed test character. This test character will be printed when the Paper Alarm button is depressed and will continue to be printed until the button is released.

2.1.5 Printer Logic

The subassemblies which comprised the DAD and DAG modules in the 2101AA set are inserted directly into the 2101AB set. Figures 2 and 3 show this new packaging scheme. Additional cards and assemblies were added to permit printing lower case characters, the Teletypesetter code, modified 8 level code for News Service, slash through zero and weather symbols.

Input Logic Card, Y Driver Card, Control Cards - The Input Logic Card accepts the parallel character data from the DAIF, detects the required control characters on the control card and pulses the memory (Core Plane) with X and Y-Drivers. It contains 16 X-Drivers and 4 pairs of Y-Drivers. This provides it with the facilities to drive one Core Plane Assembly (up to 64 sheets). Using the ASCII code, the X-Drivers are numbered (0-15) using bits 1 through 4. The Y-Driver pairs use bits 5 through 7. To print lower case characters, additional Y-Drivers are required to select the lower case character shape information and the Core Plane must be extended to provide the additional character shape information. These are packaged in the new Y-Driver card and second Core Plane Assembly as shown in Figure 4. A strap option on the Input Logic Card permits printing of an upper case character on receipt of the lower case character (ASCII code). This is used on upper case only sets. Unless otherwise specified the individual control cards provide the following features:

ASCII Card:

Carriage Return on the Carriage Return Character
on the Line Feed Character
on the Form Feed Character
on the Vertical Tab Character (Line Feed Coding also Required)

Line Feed on the Line Feed Character
on the Form Feed Character
on the Vertical Tab Character

Baudot Card:

Letters Shift on the Space Character

Each of the above can be individually removed by adding or omitting strap options on the control card.

Core Plane Assembly - This assembly is the Read Only Memory which stores the character dot pattern. It contains two circuit cards, 112 transformer cores and up to 64 character sheets. The X and Y-Driver combination pulses one character sheet 32 times at a 250 us repetition rate. Each character is formed using 31 or less dots. Figures 11A-11F show the characters printed for each character code in each code set.

Output Logic Card - This card accepts the digital dot location information from the Core Plane and presents it to the Tracing Drive Card. It also houses the counter which selects the column to be printed and provides the partially decoded information to the Spacing Drive Card. It determines which of the 32 dot intervals is to be read and provides the timing and logic required to perform the selection using Z-Drivers. Each dot location is defined by 7 bits (4 vertical and 3 horizontal) to determine its location in the 8 x 14 matrix. This card also provides the line feed note when the paper advance button is operated. Three notes are available 15, 31, and 62 lines per second and unless otherwise specified the 15 lines per second note is provided.

Tracing Drive Card - This card receives the digital dot location information from the Output Logic Card and converts it into the analog voltage level required by the DAR to print the dot. This is described in BSP Section 578-500-111. Two new circuits were added, one is the overvoltage circuit which previously was in the DAPS and a +2 vertical level shift which is required on up-low sets to move the upper case characters up two positions to allow room for the descenders on some lower case characters (See Figure 12).

Spacing Drive Card - This card contains the gating and relays used to "turn on" the nozzles which will be printing. See BSP Section 578-500-111 for description.

2.1.6 The Power Supply Unit, DAPS (See Figure 2)

The power supply unit (DAPS) transforms and rectifies the input AC voltage to supply all of the DC power for the set except the static electrode voltages. The DAPS also provides fusing of the AC power for the copy-light and ink heater. The power supply for the 2101AA was called the DAPS5 and the new power supply is called the DAPS8. The DAPS8 has the same input and output voltages as the DAPS5 which are listed in BSP Section 578-500-111. The main differences between the two supplies is the DAPS8 does not sense overvoltage conditions (it's done on the Tracing Drive Card), the high voltage supply is switched at the input of the high voltage transformer rather than at the +550V DC, +3900V DC and 167V AC voltage levels and the +6V DC is regulated more precisely. If a DAPS5 must be replaced by a DAPS8, a new Tracing Drive Card must also be inserted. Refer to paragraph 6 for detailed information on backward interchangeability.

2.1.7 Paper Handling, DAPW and TP 330020

Refer to BSP Section 578-500-112 and 578-500-115 for information on paper handling of the 2101AA and 2101AB, respectively.

2.2 Controls and Accessories

2.2.1 Station Adapters

See BSP Section 578-500-100 and 578-500-101 for information on station adapters for the 2101AA and 2101AB respectively.

2.2.2 Operator Controls

The operator controls are essentially the same as on the 2101AA set except that the Paper Alarm Lamp in position 6 now also indicates a paper jam condition and the Paper Alarm Button may be used to generate a test character. (See BSP Section 578-500-111.)

2.2.3 Accessories

Refer to BSP Section 578-500-111 and 578-500-114 for information on the Discrete Calling Generator for the 2101AA and 2101AB respectively.

2.2.4 Service Assembly

The ink heater and line feed assembly is basically the same as described in BSP Section 578-500-111, however, the line feed driver circuit card has been changed. The old card used on the "AA" set is 303930 while the "AB" part number is 303950. The new card is an improvement containing an amplifier with no storage element in order to reduce the circuit sensitivity to external electrical noise. The storage element is now located on the Output Logic Card (322158).

2.2.5 Cable Assemblies

The set cabling has been completely re-designed to accommodate the new packaging of the electronics but it performs the same basic functions as indicated for the 2101AA set. Refer to Figure 5 for view of the various cable assembly terminations.

3.0 OPERATION

See BSP Section 578-500-100 and BSP 578-500-101 for operation of the 2101AA and 2101AB respectively.

4.0 PHYSICAL, ELECTRICAL AND MAINTENANCE CHARACTERISTICS

4.1 Physical Characteristics

The INKTRONIC Printer is an upright, free standing terminal as shown in Figures 21, 22, 23 and 24. The printers physical size and characteristics are as follows:

Height	-	55 inches (to top of paper winder)
Width	-	18 inches
Depth (front to back)	-	42 inches (with printer slid forward or front access door open)
Weight	-	Approximately 300 pounds

4.2 Electrical and Environmental Characteristics

The INKTRONIC Printer is designed to operate under the following conditions:

A.	Power	115V AC ±10%, 60 Hertz ±1/2 Hertz, 8 amps (min.) 12 foot cord, 3 wire, 16 Ga. provided
B.	Temperature	Storage -40°F to 150°F Operating 40°F to 110°F
C.	Humidity	Storage and Operating 10% to 95% R.H.
D.	Altitude	6500 ft. (maximum)

4.3 Maintenance

Preventive maintenance is recommended every six months, or 100 rolls of paper, whichever occurs first.

5. TECHNICAL INFORMATION

Technical Reference - Receive Only DATASPEED Printer Station Arrangements System Interface Specification PUB 41709.

WDP 0256 - Wiring Diagram Package - 2101AB Data Terminal Set.

5.1 Documentation

Memorandum D provides a list of the BSP sections which describe the 2101AB DATASPEED RO Printer.

6. INTERCHANGEABILITY

6.1 Backward Interchangeability (placing AB parts into an AA set)

Equipment	SATERN "AA" Number	TIA "AB" Number	Remarks
Tracing Drive Card	322146	322157	Directly Interchangeable
Spacing Drive Card	322145	322145	Directly Interchangeable
Output Logic Card	322150	322158	Directly Interchangeable with change in strapping option
Line Feed Driver Card	303930	303950	Directly Interchangeable, however, the 322158 Output logic card must be used
Input Logic Card with	322152 (ASCII) includes 322151	322154 (ASCII) and 322156	Directly Interchangeable as sets
Control Card	322153 (BAUDOT) includes 322151	322155 (BAUDOT) and 322156	
Cabinet Assembly	DAC2/AAB	DAC3/AAB	Not Interchangeable
Cover Assembly	DARC2	DARC2	No Change
Station Mod. Kit	325190	325190	No Change
Station Mod. Kit	325191	325191	No Change
Station Mod. Kit	325192	325192	No Change
Station Mod. Kit	325195	325195	No Change
Base Assembly	DAB3	DAB3	Interchangeable; however, new ballast transformer does not require a starter switch. Wiring must conform to 8275WD (Refer to 8482WD and TCN1423).
Paper Transport	DAT2/AAB	DAT3/AAD	Directly Interchangeable
Key Control	325700	325700	Directly Interchangeable
Paper Unwinder	330020	330020	Directly Interchangeable
Paper Winder	DAPW2	DAPW2	Directly Interchangeable

6.1 Backward Interchangeability (placing AB parts into an AA set) - Continued

Equipment	"AA" Number	"AB" Number	Remarks
Data Simulator (DATS1)	331170	331170	Directly Interchangeable
Tool Kit	330048	330048	Directly Interchangeable
Recorder Unit	DAR2/AAB (Version AA)	DAR2/AAB (Version AB)	Interchangeable; however, mounting hardware must be changed (Refer to 9040WD).
Data Set Panel (804)	331110	331110	Directly Interchangeable
Data Set Panel (202C)	331140	331140	Directly Interchangeable
Data Set Panel (Blank)	331160	331160	Directly Interchangeable
Multivoltage Power Supply	DAPS5	DAPS8	Interchangeable when: (1) The 322157 Tracing Drive Card is used. (2) The wiring changes indicated in 1045SD note 202 are made. (3) Information for using DAPS8 power supply in AA version included with unit.
Service Assembly	325801	325801	AA version requires a 303930 L.F. Driver Card
Interface Modules	DAIF1/AAB through AAG DAIF2/AAB through AAC	DAIF1/AAB through AAG DAIF2/AAB through AAC	Refer to 902WD for module hardware installation instructions
Ship and Register	322130	322130	Directly Interchangeable

6.2 Forward Interchangeability (Placing AA parts into an AB set)

Equipment	"AA" Number	"AB" Number	Remarks
Spacing Drive Card	322145	322145	Interchangeable, however, two keying slots must be added and one "through the board connection" must be removed per TCN 1455

6.2 Forward Interchangeability (Placing AA parts into an AB set) - Continued

Equipment	"AA" Number	"AB" Number	Remarks
Cabinet Assembly	DAC2/AAB	DAC3/AAB	Not Interchangeable
Base Assembly	DAB3	DAB3	Not Interchangeable
Paper Winder	DAPW2	DAPW2	Replace 331060 Bracket. New Style Bracket has provisions for fuse mtg., up not down as in "AA"
Paper Unwinder	330020	330020	Must conform to TCN 1408
Cover Assembly	DARC2	DARC2	No Change
Key Control	325700	325700	Wiring must conform to 8287WD per Notes 11, 12 and 13. Described in TCN1461.
Shift Register	322130	322130	Interchangeable, lower two keying slots must be added.
Data Simulator (DATS1)	331170	331170 - Cannot use "AA" Mtg. Hdw. for Storage	Refer to TCN 1421 for mtg. parts changes
Interface Modules	DAIF1/AAB through AAG DAIF2/AAB through AAC	Same except requires new mtg. hardware	Refer to TCN 1420 and 9029WD for part numbers and detailed instructions
Station Mod. Kit	325190	325190	No Change
Station Mod. Kit	325191	325191	No Change
Station Mod. Kit	325192	325192	No Change
Station Mod. Kit	325195	325195	No Change
Service Assembly	325801	325801 - Except requires a new L.F. Driver Card	Replace 303930 Card with 303950 L.F. Driver Card
Recorder Unit	DAR2/AAB Version "AA"	DAR2/AAB Version "AB"	No up low capabilities, also mounting hardware must be changed (Refer to 9040WD)

6.2 Forward Interchangeability (Placing AA parts into an AB set) - Continued

Equipment	"AA" Number	"AB" Number	Remarks
Data Set Panel (804)	331110	331110 - Except Version AA does not have data set shipment hold down feature	Directly interchangeable except for data set hold down feature added to AB
Data Set Panel (202C)	331140	331140 - Except Version AA does not have data set shipment hold down feature	Directly interchangeable except for data set hold down feature added to AB
Data Set Panel (Blank)	331160	331160	Directly interchangeable except AA cannot be used to house a 202D Data Set in the Cabinet

7.0 PRODUCT IMPROVEMENTS DURING AA

Later production units of the 2101AA data terminal contained features intended for the 2101AB product line; however, for purposes of improved reliability these features were incorporated in late production models. A chart is included to highlight these changes with reference to the Associated Field Document (T.C.N.). It should be noted that some forward interchangeability as outlined in Paragraph 6.2 is qualified by reference to the T.C.N.'s listed below:

DAT2 - PAPER TRANSPORT UNIT

TCN 1388 Subject: Paper Tensioner "O" Rings requiring frequent replacement.

Change: Replaced paper tensioner mechanism with a new improved design (*325270 S.O.P.)

TCN 1418 Subject: Infrequent paper jams caused by coasting of the pre-paper puller roller after motor power is removed.

Change: Improved design of the paper puller brake circuit (*331100 S.O.P.)

TCN 1407 and TCN 1408 Subject: Occasional false paper jams.

Change:
(A) Redesigned paper jam card to operate on time out only.
(B) Provided paper out switch to replace the paper jam counter.
(C) Added a mechanical interlock to the DAT and added mechanical brake to the 330020 paper unwinder to make the paper handling more reliable. (*331340 S.O.P.)

TCN 1409 Subject: 330190 Platen power supply: A percentage of these power supplies have a shorter predicted life than that normally expected of this type of component.

Change: Improved packaging of the product.

DAIF - INTERFACE

TCN 1417 Subject: Inconvenience in cleaning the electrode area and CA pulse.

Change: Provided a test character generator feature initiated by the paper alarm key and increase the width of the CA pulse. Lint on electrode assemblies may be then cleared by using the 334510 Electrode cleaner. Success is checked by operating the above switch. (*325280 S.O.P.)

DAD - PRINTER DRIVE

TCN 1414 Subject: 322145 Spacing Drive Card

325413 Relay: A percentage of relays have a shorter predicted life than normally expected of this type of component. (Contacts welding closed or a broken weld at the lead

DAD - PRINTER DRIVE (Continued)

Change: (1) New relay provided
(2) Coated circuit board

TCN 1416 Subject: A percentage of the 326809 operational amplifiers on the 322146 Tracing Drive Card have a shorter life than normally expected of this type of component. (Transients exhibited by some tubes can be fed back to the controlling OP Amps).

Change: Additional protection given to OP Amps including modifying the circuit from cathode to grid control of the H.V. tubes.

DAPW2 - PAPER WINDER

TCN 1389 Subject: (A) Tendency of paper spool to oscillate under certain conditions.
(B) Prevent spool sprocket loosening.
(C) Prevent motor sprocket loosening.

Change: (A) Provided detented back up mech. (*331350 S.O.P.) and readjust belts & switch per T.C.N.
(B) Used thicker lock nut (*151416 Nut 6-40 Hex.)
(C) Used longer threaded screw (*153817 Screw 4-40 x 3/8 Hex)

DAR - RECORDER

TCN 1418 Subject: Slow ink jet start up time.

Change: Provided higher temp. thermostat.

TCN 1419 Subject: Passage of lint through the filter ink pump.

Change: (A) Provided two stage filter (B) Aux. Mask
(C) Special Cleaning (D) Triac

TCN 1413 Subject: Lint build up (under certain conditions) on electrodes resulting in partial loss of characters.

Change: Provided access lid for quick electrode maintenance with the 334510 Electrode Cleaner.

DAPS5 - POWER SUPPLY

TCN 1364 Subject: 325027, 028 H.V. Capacitors. A percentage of H.V. capacitors have a shorter predicted life than that normally expected of this type of component.

Change: Change capacitors.

DAPS5 - POWER SUPPLY (Continued)

TCN 1406 Subject: Four wires in the 325737 Cable Assembly have insulation with a potentially shorter life than that normally expected of this type of cable.

Change: (A) Changed wire on 325737 Cable to teflon insulated.
(B) For field use: Released aux. cable Part No. 325761 to add to existing cable.

TCN 1424 Subject: Stand off lugs turning in assembly.

Change: Changed design of stand-offs on Circuit Board.

TCN 1415 Subject: (A) Eliminate 30 sec. time-out after interlock closure.
(B) Require presence of +6 VDC before high voltage turn on.
(C) Bring +6 VDC within specification limits.

Change: Redesigned the 325623 Low Voltage Circuit Board.

DAG - CHARACTER GENERATOR

TCN 1411 Subject: (1) LTRS to Figs. Shift or Vice Versa due to electrical noise pulses (322153).
(2) Interconnection problem between the 322151 Input Logic card and its 322153 or 322152 Control Card.

Change: Added capacitors to the 322153 Control Card. The control cards are hard wired to the 322151 card to eliminate the interconnection problem (Must be ordered as a set see TCN 1411).

TCN 1410 Subject: Breaking of copper conductors in handling core plane assemblies:

325740 (ASCII)
325760 (Comm.)
325770 (Weather)

Change: Redesigned memory sheets by laminating an insulating material on to the tab area.

* All asterisked items are part of the 325360 Modification Kit.

8.0 MAINTENANCE PARTS

A list of maintenance parts for an initial provisioning is contained in Chart 2. Based on previous experience this selection of parts can be considered the minimum initial provisioning quantity for a maintenance parts stock and will support up to twenty RO sets from some central provisioning point. This one package will support up to twenty sets because Teletype Corporation will provide a repaired part from its Product Exchange Bank within one week of receipt of order for any of the indicated items. The Teletype Corporation will also provide an emergency out of service shipment of any part on the list within 24 hours of receipt of order. This should cover the field provisioning point during the one week interval following each usage. It is expected that the average yearly cost of parts to service each set in the field is $250.

CHART I

DOCUMENTATION

Equipment	Contents	BSP Section "AA" Version	BSP Section "AB" Version
DATASPEED Printer Receive Only Station	General Description and Operation	578-500-100	578-500-101
Recorder and Paper Transport for DATA-SPEED Printer Terminals	Description and Principles of Operation	578-500-110	578-500-113
Electronic Circuits for DATASPEED Printer Terminals	Description and Principles of Operation	578-500-111	578-500-114
DATASPEED Printer Enclosures and Paper Handling	Description and Principles of Operation	578-500-112	578-500-115
DATASPEED Printer Receive Only Station	Installation	578-500-200	578-500-201
DATASPEED Printer Receive Only Station	Check Out and Trouble Shooting	578-500-300	578-500-301
Recorder and Paper Transport for DATA-SPEED Printer Terminals	Adjustments and Lubrication	578-500-700	578-500-704
Enclosures and Paper Handling for DATA-SPEED Printer Receive Only Station	Adjustments and Lubrication	578-500-701	578-500-705
DATASPEED Printer Receive Only Station	Removal and Replacement of Components	578-500-702	Not Available
Recorder and Paper Transport	Disassembly and Reassembly	578-500-703	Not Available
Recorder (DAR) and Paper Transport (DAT)	Parts	578-500-800	578-500-803
Cover Base (DAB), Cover (DARC), Cabinet (DAC) and Paper Handling	Parts	578-500-801	578-500-804
Modules and Electronic Components	Parts	578-500-802	578-500-805

CHART 2

Maintenance Parts and Apparatus List for 2101AB DATASPEED RO Printers

Part No.	Qty.	Note	Description
TP102617	1		Fluorescent Lamp
TP117176	5		Fuse 0.5A SL-BL
TP120139	5		Fuse 1.0A
TP120167	5		Fuse 3.2A SL-BL
TP124999	1		Sensitive Switch
TP126295	5		Fuse 5.0A
TP126296	5		Fuse 0.5A
TP139200	5		Fuse 0.125A SL-BL
TP139820	5		Fuse 2.5A SL-BL
TP142159	2		Lamp 6V
TP143306	5		Fuse 1.0A SL-BL
TP150537	6		Ball Bearing
TP151418	5		Fuse 10A
TP154290	1		"O" Ring
TP171644	5		Fuse 1.5A
TP171658	5		Fuse 3.0A
TP182611	5		Fuse 3/8A SL-BL
TP198092	1		Fan
TP199549	5		Lamp 48V
TP300469	2		Tube
TP301019	2		Magnet Coil
TP301021	2		Magnet Core
TP303950	1	5	Line Feed Driver Circuit Card
TP310529	2		Belt
TP322145	1	5	Spacing Drive Circuit Card
TP322156	1	5	Memory Input Logic Circuit Card
TP322157	1	5	Tracing Drive Circuit Card
TP322158	1	5	Memory Output Logic Circuit Card
TP322192	1	5	Test Character Generator Circuit Card
TP330013	1		Switch Assembly
TP330080	1		Spiral Spring
TP330152	1	5	Paper Jam Alarm Circuit Card
TP330190	1		High Voltage Power Supply
TP330206	2		Belt - 120 Teeth
TP330295	2		Belt - 75 Teeth
TP330349	1		Motor
TP330354	1		Roller Assembly
TP330355	2		Belt - 30 Teeth
TP330369	1		Switch
TP330374	2		Teflon Washer
TP331074	1		Motor
TP331197	1	5	Motor Control Circuit Card
TP331200	1	5	P.W. Motor Control Card
TP331249	2		Belt - 70 Teeth
TP331259	1		Motor
TP331355	1		Spring Band
TP331399	1	5	High Voltage Cover Assembly
TP331420	1		Ballast Assembly
TP337663	1		Tank Lid Assembly
DAR2/AAB	1	5	Recorder
DAPS8	1	5	Power Supply

Optional Maintenance Items

The following parts are not common to every application of the DATASPEED RO Printer. (Refer to Notes 1 through 5 for specific information.)

Part No.	Qty.	Note	Description
TP303934	1	4, 5	Type 5 Relay Circuit Card
TP322130	1	1, 5	Shift Register Circuit Card
TP322132	1	1, 5	Data Set Control Card
TP322134	1	1, 5	Parallel Station Control Card
TP322154	1	2, 5	ASCII Control Circuit Card
TP322155	1	2, 5	Baudot Control Circuit Card
TP322180	1	1, 5	Rec'r/Dist'r Control Card (1050 Baud)
TP322181	1	1, 5	Rec'r/Dist'r Control Card (1200 Baud)
TP322182	1	1, 5	Rec'r/Dist'r Control Card (890 Baud)
TP322183	1	1, 5	Rec'r/Dist'r Control Card (840 Baud)
TP322184	1	1, 5	Rec'r/Dist'r Control Card (600 Baud)
TP322186	1	1, 5	Rec'r/Dist'r Control Card (300 Baud)
TP322188	1	3, 5	"Y" Driver Circuit Card
TP322189	1	2, 5	Teletypewriter Control Card
TP322190	1	2, 5	Modified ASCII Control Card
TP325300	1	2, 5	Teletypesetter Core Plane (Upper Case)
TP325310	1	2, 5	Baudot Fractions Core Plane (Upper Case)
TP325320	1	2, 5	Modified ASCII Core Plane for News Service (Upper Case)
TP325330	1	2, 5	Teletypesetter Core Plane (Lower Case)
TP325390	1	2, 5	Modified ASCII Core Plane for News Service (Lower Case)
TP325400	1	2, 5	ASCII Core Plane (Lower Case)
TP325420	1	2, 5	ASCII Core Plane (Upper Case with zero printed Ø)
TP325470	1	2, 5	Modified ASCII Core Plane for Weather (Upper Case)
TP325740	1	2, 5	ASCII Core Plane (Upper Case)
TP325760	1	2, 5	Baudot Comm. Core Plane (Upper Case)
TP325770	1	2, 5	Baudot Weather Core Plane (Upper Case)

NOTES:

1. Select appropriate circuit card or cards for serial or parallel operation. Serial operation requires data set control, shift register and Rec'r/Dist'r control cards.
2. Select proper combination of control circuit card and core plane assembly.
3. Required for Up-Low Option.
4. Required when DATASPEED RO Printer is adjunct to DATASPEED Type 5 tape equipment.
5. Available from Teletype's Product Exchange Bank as a repaired part.

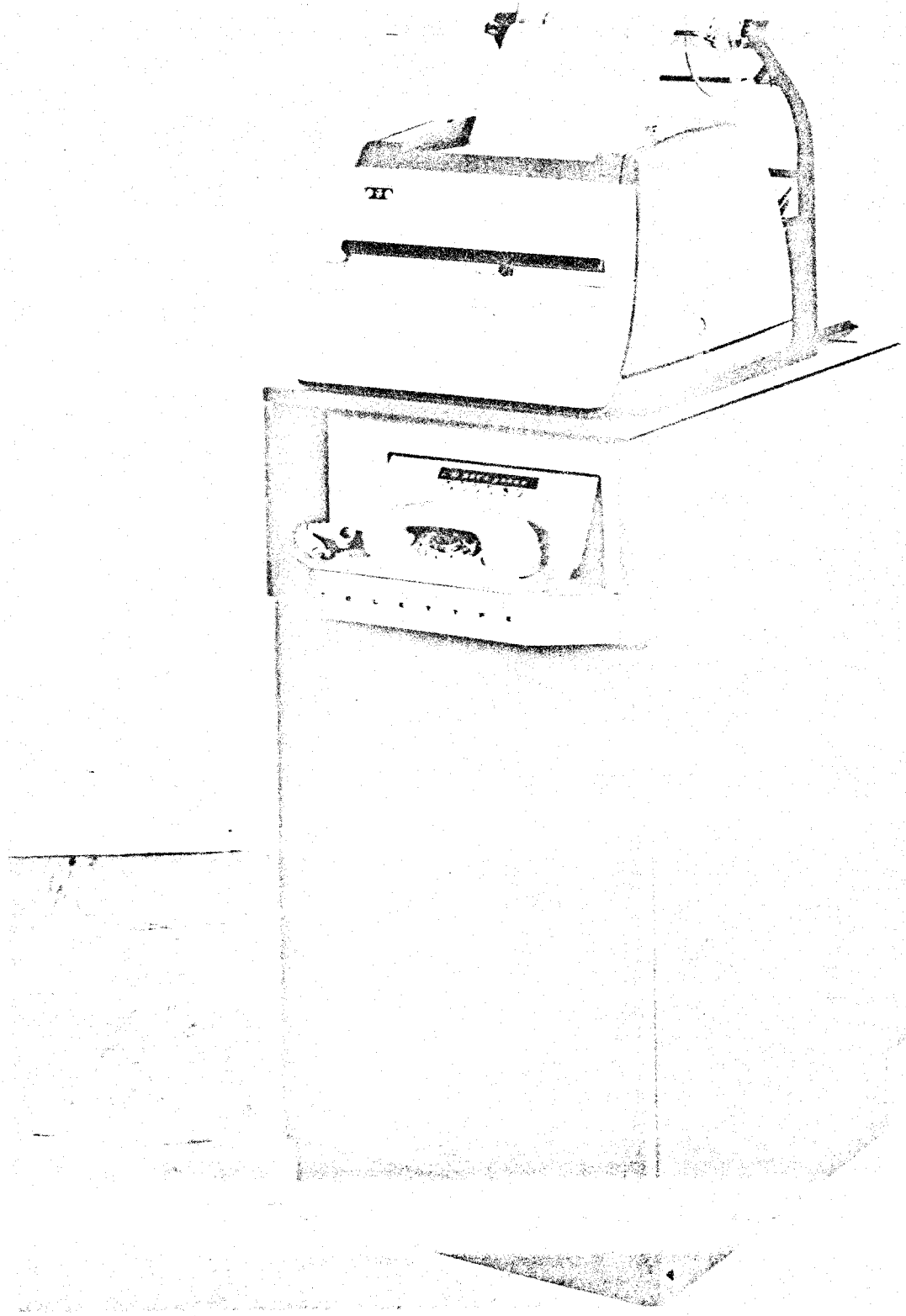


FIGURE 1

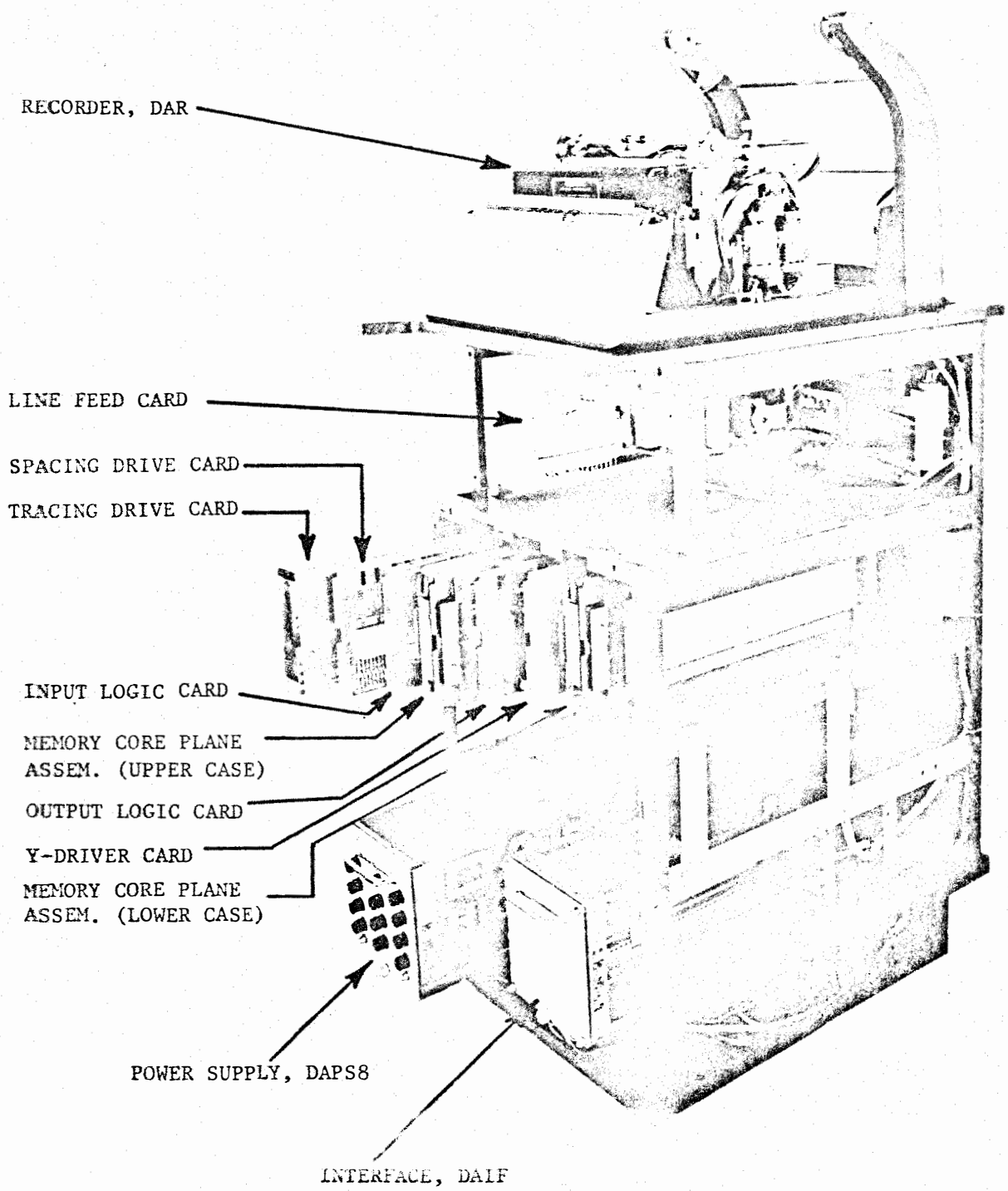

RECORDER, DAR
LINE FEED CARD
SPACING DRIVE CARD
TRACING DRIVE CARD
INPUT LOGIC CARD
MEMORY CORE PLANE ASSEM. (UPPER CASE)
OUTPUT LOGIC CARD
Y-DRIVER CARD
MEMORY CORE PLANE ASSEM. (LOWER CASE)
POWER SUPPLY, DAPS8
INTERFACE, DAIF

FIGURE 2

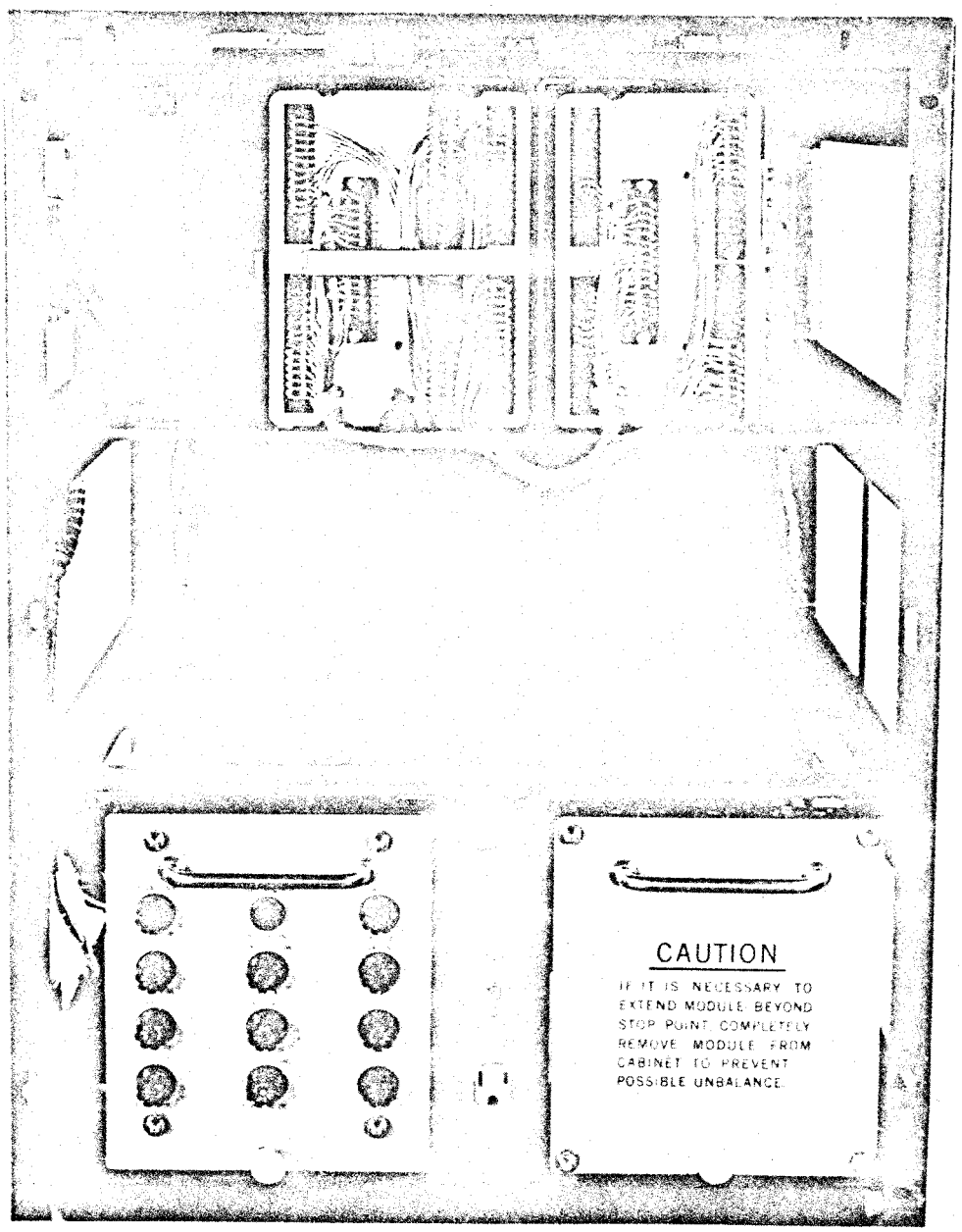
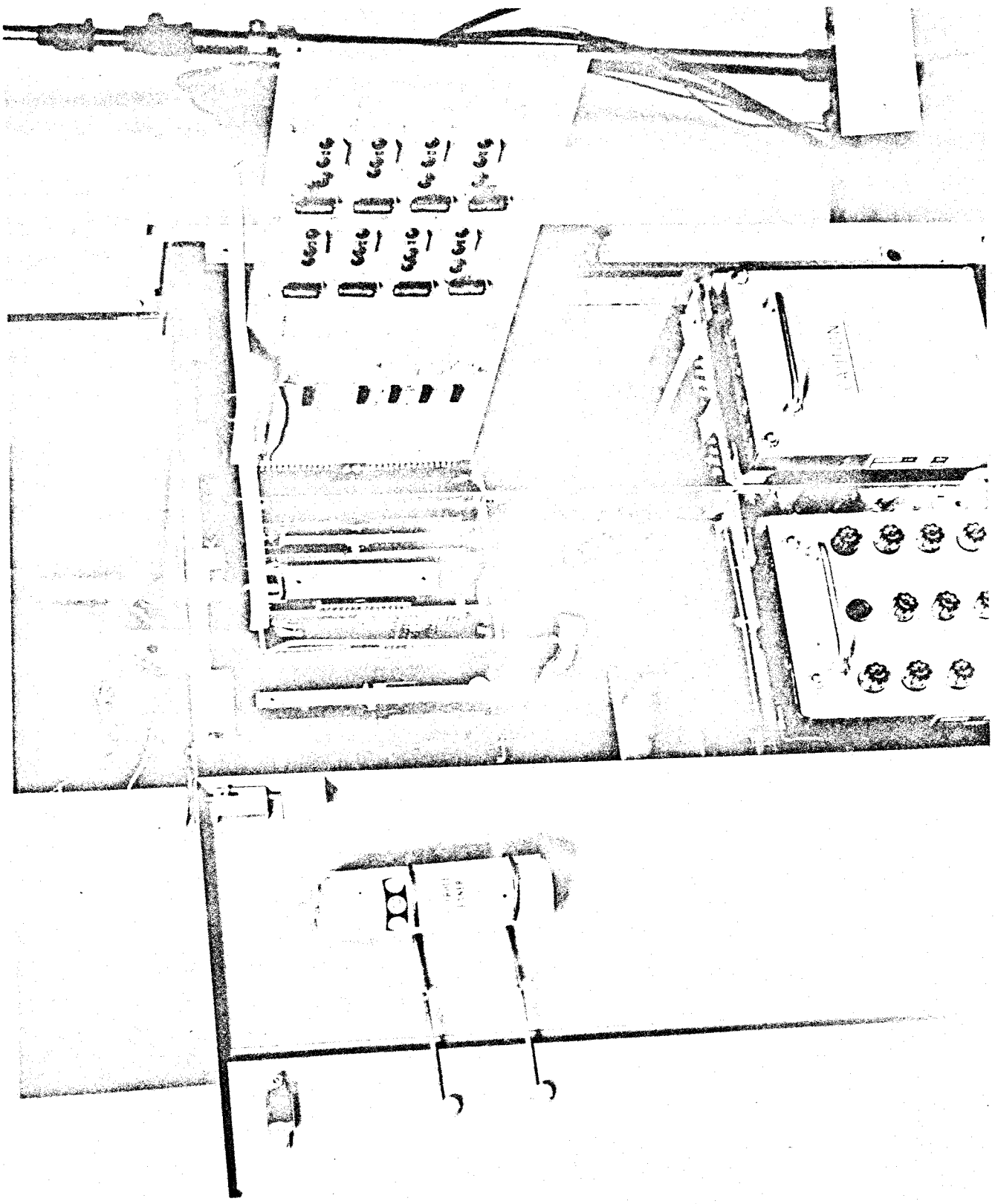

CAUTION
IF IT IS NECESSARY TO EXTEND MODULE BEYOND STOP POINT, COMPLETELY REMOVE MODULE FROM CABINET TO PREVENT POSSIBLE UNBALANCE.

FIGURE 3



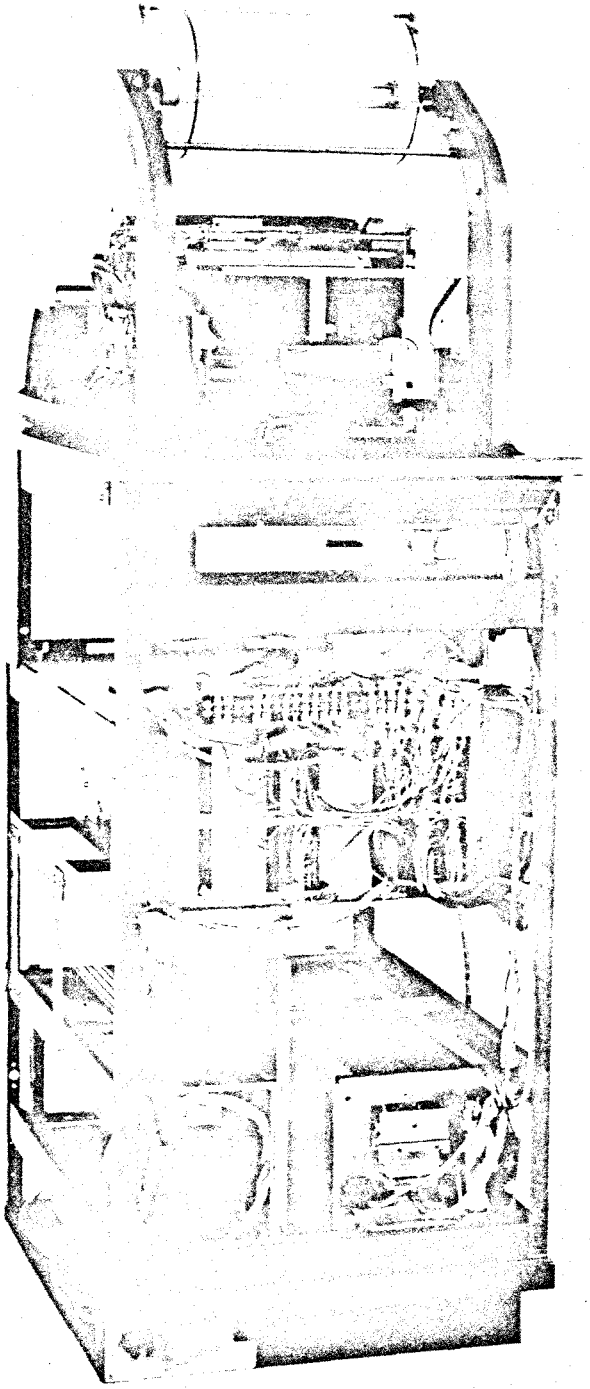


FIGURE 5

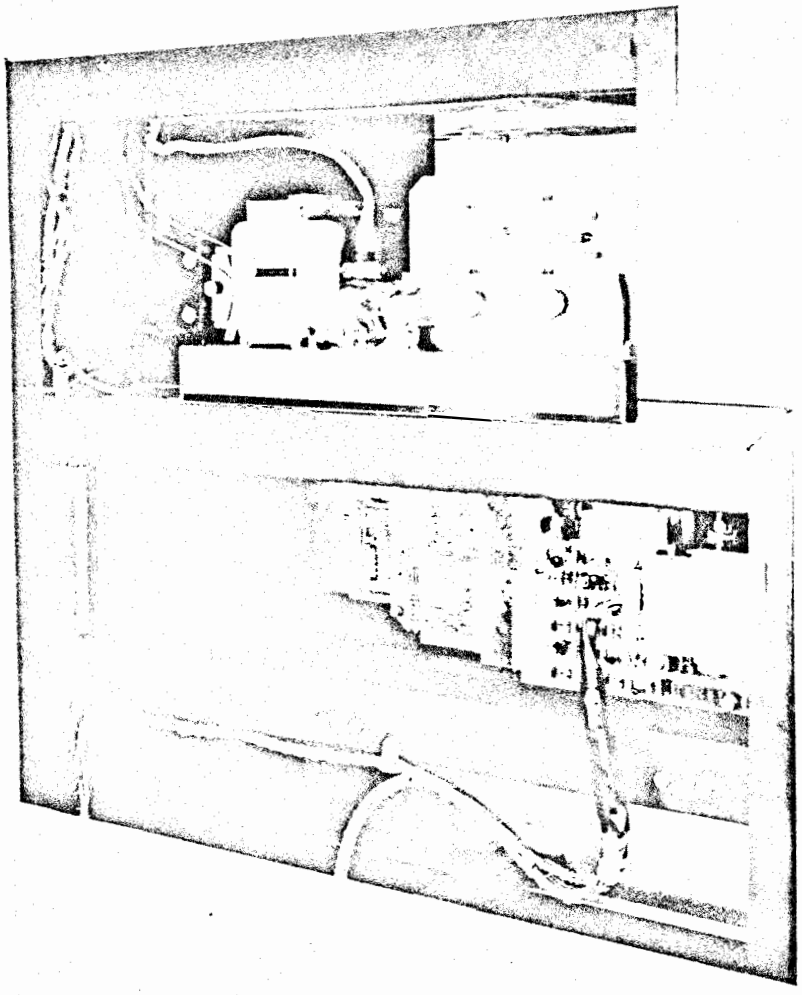


FIGURE 6

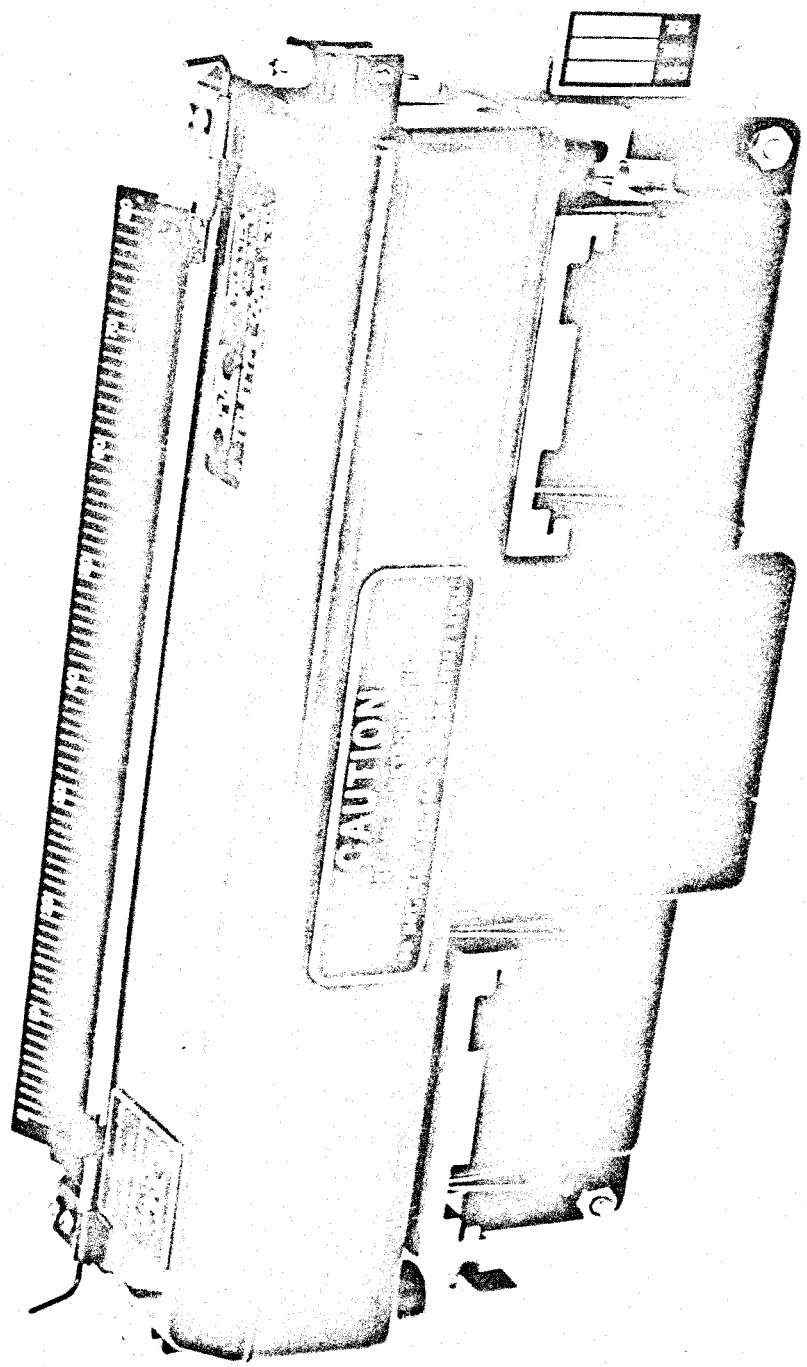


FIGURE 7A

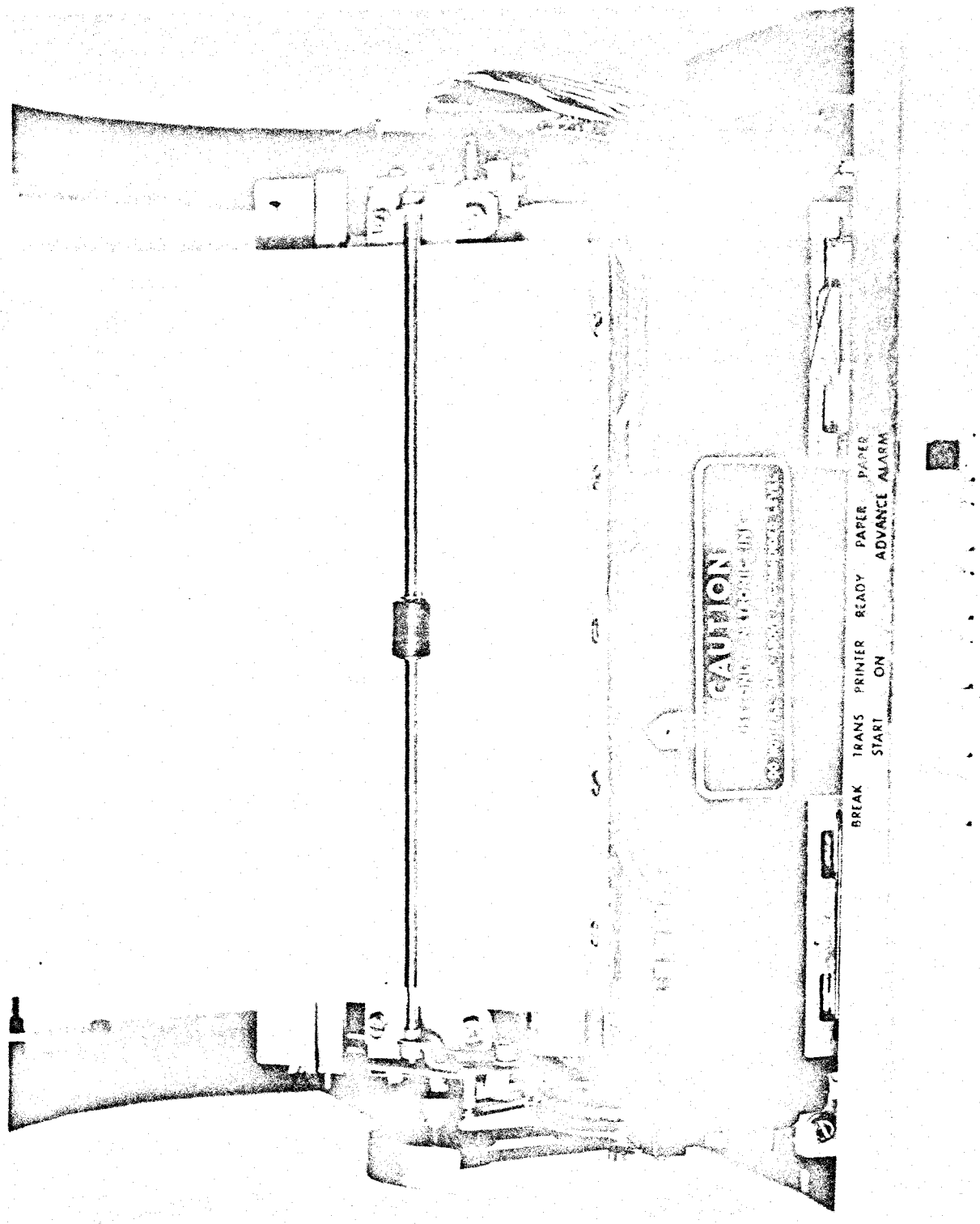

CAUTION
BREAK
TRANS START
PRINTER ON
READY
PAPER ADVANCE
PAPER ALARM

FIGURE 7B

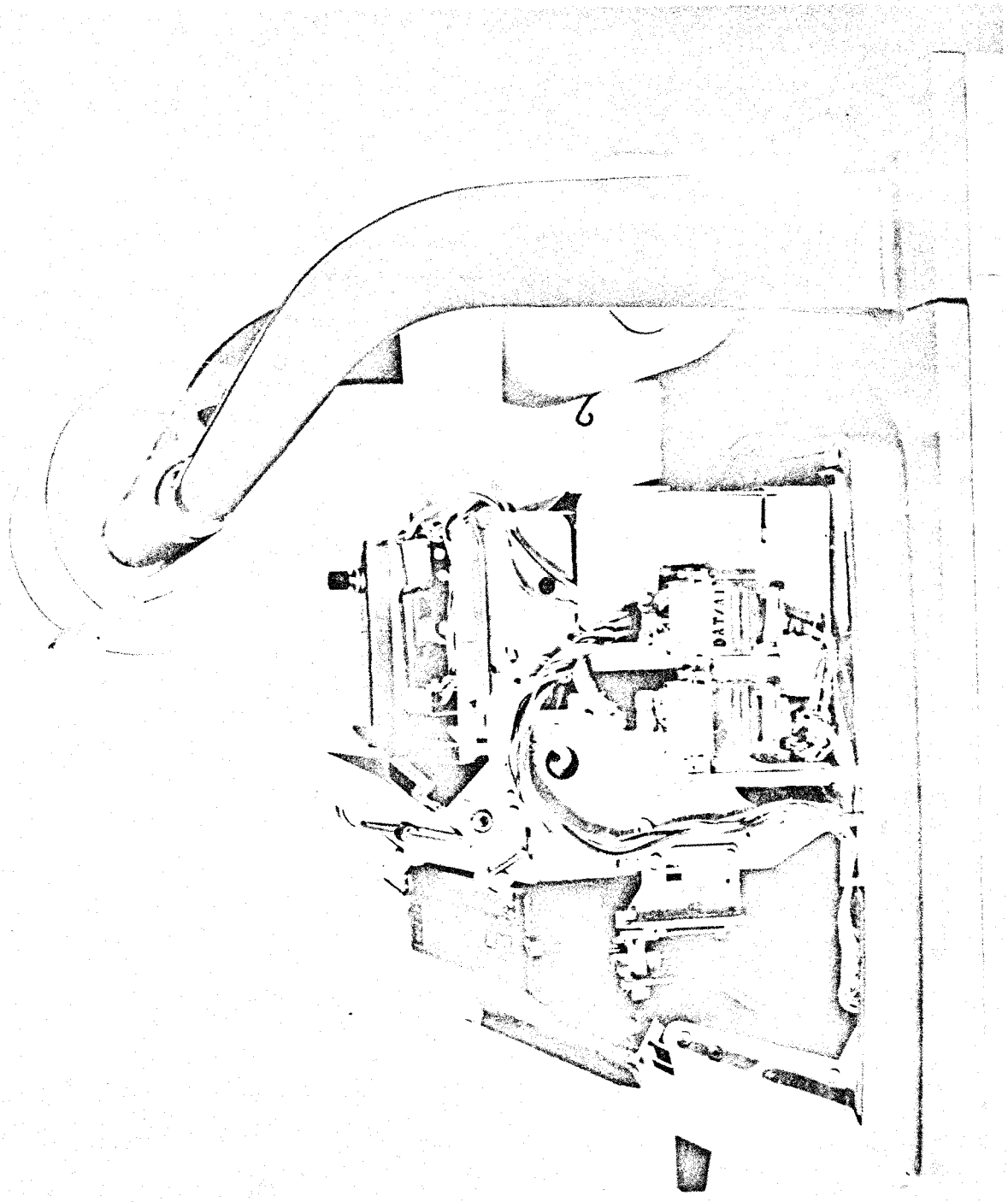


FIGURE 8

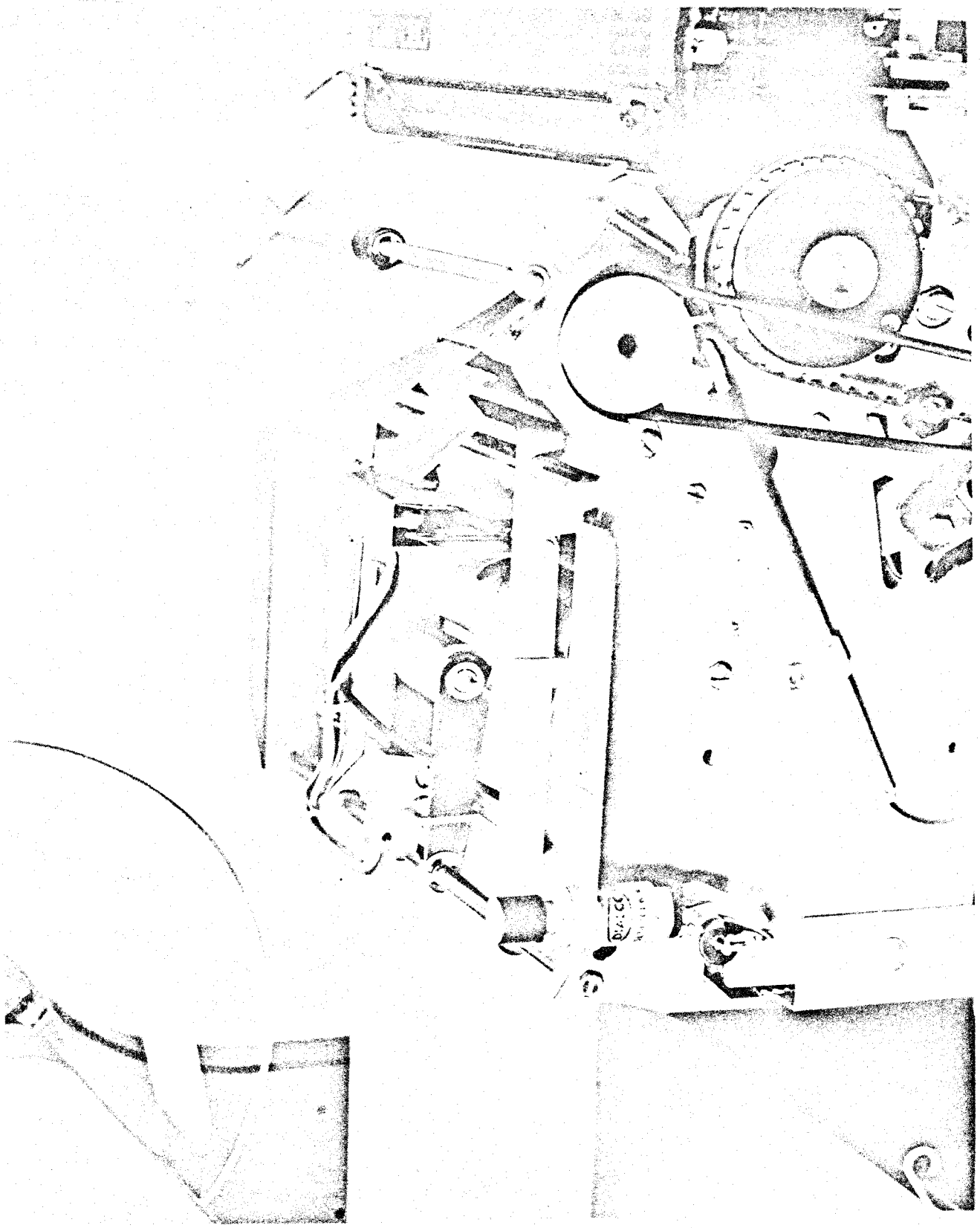


FIGURE 9

FIGURE 10

ASC II CODE CHART

INFORMATION LEVELS				7	0	0	0	0	1	1	1	1
				6	0	0	1	1	0	0	1	1
				5	0	1	0	1	0	1	0	1
4	3	2	1	DRIVER Y / X	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7
0	0	0	0	X0	* NUL	* DLE	SPACE	0	@	P	`	p
0	0	0	1	X1	* SOH	* DC1	!	1	A	Q	a	q
0	0	1	0	X2	* STX	* DC2	"	2	B	R	b	r
0	0	1	1	X3	* ETX	* DC3	#/£	3	C	S	c	s
0	1	0	0	X4	* EOT	* DC4	$	4	D	T	d	t
0	1	0	1	X5	* ENQ	* NAK	%	5	E	U	e	u
0	1	1	0	X6	* ACK	* SYN	&	6	F	V	f	v
0	1	1	1	X7	* BEL	* ETB	'	7	G	W	g	w
1	0	0	0	X8	* BS	* CAN	(	8	H	X	h	x
1	0	0	1	X9	HT	* EM	)	9	I	Y	i	y
1	0	1	0	X10	* LF	* SUB	*	:	J	Z	j	z
1	0	1	1	X11	* VT	* ESC	+	;	K	[	k	{
1	1	0	0	X12	* FF	* FS	,	<	L	\	l	¦
1	1	0	1	X13	* CR	* GS	—	=	M	]	m	}
1	1	1	0	X14	* SO	* RS	.	>	N	^	n	~
1	1	1	1	X15	* SI	* US	/	?	O		o	* DEL
							CORE PLANE ASSEMBLY 325740				CORE PLANE ASSEMBLY 325400	

* Denotes non-print, non-space codes

1 Indicates "Mark"

0 Indicates "Space"

FIGURE IIA

MODIFIED ASC II
(GRAPHIC SUBSTITUTION FOR NEWS-SERVICES)

INFORMATION LEVELS				7	0	0	0	0	1	1	1	1
				6	0	0	1	1	0	0	1	1
				5	0	1	0	1	0	1	0	1
4	3	2	1	DRIVER Y / X	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7
0	0	0	0	X0	* NUL	* DLE	SPACE	0	@	P	•	p
0	0	0	1	X1	* SOH	* DC1	!	1	A	Q	a	q
0	0	1	0	X2	* STX	* DC2	"	2	B	R	b	r
0	0	1	1	X3	* ETX	* DC3	#	3	C	S	c	s
0	1	0	0	X4	* EOT	* DC4	$	4	D	T	d	t
0	1	0	1	X5	* ENQ	* NAK	%	5	E	U	e	u
0	1	1	0	X6	* ACK	* SYN	&	6	F	V	f	v
0	1	1	1	X7	* BEL	* ETB	'	7	G	W	g	w
1	0	0	0	X8	* BS	* CAN	(	8	H	X	h	x
1	0	0	1	X9	* HT	* EM	)	9	I	Y	i	y
1	0	1	0	X10	* LF	* SUB	*	:	J	Z	j	z
1	0	1	1	X11	* VT	* ESC	+	;	K	✓	k	7/8
1	1	0	0	X12	* FF	* FS	,	1/2	L	☆	l	5/8
1	1	0	1	X13	* CR	* GS	—	3/4	M	♃	m	3/8
1	1	1	0	X14	* SO	* RS	.	1/4	N	—	n	1/8
1	1	1	1	X15	* SI	* US	/	?	O	=	o	* DEL

CORE PLANE ASSEMBLY 325320

CORE PLANE ASSEMBLY 325390

* Denotes non-print, non-space Codes

1 Indicates "Mark"

0 Indicates "Space"

FIGURE 11B

TELETYPESETTER CODE
(GRAPHIC SUBSTITUTION FOR NEWS SERVICE)

INFORMATION BITS					UNSHIFT				SHIFT			
				0	0	0	1	1	0	0	1	1
				5	0	1	0	1	0	1	0	1
4	3	2	1	DRIVER Y / X	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7
0	0	0	0	X0	* TAPE FEED	t	THIN SPACE	5	* TAPE FEED	T	THIN SPACE	5/8
0	0	0	1	X1	e	z	3	)	E	Z	3/8	(
0	0	1	0	X2	ELEVATE	l	* LOWER MAGAZINE	VERT. RULE	ELEVATE	L	* LOWER MAGAZINE	EM SPACE
0	0	1	1	X3	a	w	$	2	A	W	!	1/4
0	1	0	0	X4	SPACE BAND	h	ADD THIN SPACE	EM LEADER	SPACE BAND	H	ADD THIN SPACE	EM LEADER
0	1	0	1	X5	s	y	EM SPACE	6	S	Y	EM SPACE	3/4
0	1	1	0	X6	i	p	8	0	I	P	—	?
0	1	1	1	X7	u	q	7	EN LEADER	U	Q	7/8	EN LEADER
1	0	0	0	X8	* CARRIAGE RETURN	o	,	9	* CARRIAGE RETURN	O	,	&
1	0	0	1	X9	d	b	—	* UPPER RAIL	D	B	+	* UPPER RAIL
1	0	1	0	X10	r	g	4	;	R	G	1/2	:
1	0	1	1	X11	j	* SHIFT	* BELL	* LOWER RAIL	J	* SHIFT	* BELL	* LOWER RAIL
1	1	0	0	X12	n	m	,	.	N	M	,	.
1	1	0	1	X13	f	x	* QUAD LEFT	1	F	X	* QUAD LEFT	1/8
1	1	1	0	X14	c	v	EN SPACE	* QUAD CNTR	C	V	EN SPACE	* QUAD CNTR
1	1	1	1	X15	k	* UNSHIFT	* UPPER MAGAZINE	* RUB OUT	K	* UNSHIFT	* UPPER MAGAZINE	* RUB OUT

CORE PLANE ASSEMBLY 325300

CORE PLANE ASSEMBLY 325330

The data terminal will respond as indicated receipt of the following:

Code	Response
Thin Space	Space one character
Space Band	Space one character
Add-Thin Space	Space one character
In Upper Rail	
EM Leader	Space one character
EN Leader	Space one character
EN Space	Print.
EM Space	Print..
Vert Rule	Print..

CODE	RESPONSE
In Lower Rail	
EM Leader	Print..
EN Leader	Print.
EN Space	Space one character
EM Space	Space one character
Vent rule	Space one character

FIGURE 110

BAUDOT CODES CHART

INFORMATION LEVELS					LETTERS SHIFT		FIGURES SHIFT					
							COMMUNICATIONS CODE		WEATHER CODE		FRACTIONS CODE	
				5	0	1	0	1	0	1	0	1
4	3	2	1	DRIVERS (X / Y)	Y4	Y5	Y2	Y3	Y2	Y3	Y2	Y3
0	0	0	0	X0	BLANK	T	BLANK	5	—	5	BLANK	5
0	0	0	1	X1	E	Z	3	"	3	+	3	"
0	0	1	0	X2	* LINE FEED	L	* LINE FEED	)	* LINE FEED	↖	* LINE FEED	3/4
0	0	1	1	X3	A	W	—	2	↑	2	—	2
0	1	0	0	X4	SPACE	H	SPACE	#	SPACE	↓	SPACE	
0	1	0	1	X5	S	Y		6		6		6
0	1	1	0	X6	I	P	8	0	8	ø	8	0
0	1	1	1	X7	U	Q	7	1	7	1	7	1
1	0	0	0	X8	* CARR. RETURN	O	* CARR. RETURN	9	* CARR. RETURN	9	* CARR. RETURN	9
1	0	0	1	X9	D	B	$	?	↗	⊕	$	5/8
1	0	1	0	X10	R	G	4	&	4	↘	4	&
1	0	1	1	X11	J	* FIGS. SHIFT	'	* FIGS. SHIFT	↙	* FIGS. SHIFT	'	* FIGS. SHIFT
1	1	0	0	X12	N	M	,	.	⦶	.	7/8	.
1	1	0	1	X13	F	X	!	/	→	/	1/4	/
1	1	1	0	X14	C	V	:	;	○	⦶	1/8	3/8
1	1	1	1	X15	K	* LTRS. SHIFT	(	* LTRS. SHIFT	←	* LTRS. SHIFT	1/2	* LTRS. SHIFT

CORE PLANE ASSEMBLY 325760

CORE PLANE ASSEMBLY 325770

CORE PLANE ASSEMBLY 325310

* Denotes non-print, non-space codes

1 Indicates "Mark"

0 Indicates "Space"

FIGURE 11D

ASC II CODE CHART
(WITH ZERO PRINTED Ø)

INFORMATION LEVELS				7	0	0	0	0	1	1	1	1
				6	0	0	1	1	0	0	1	1
				5	0	1	0	1	0	1	0	1
4	3	2	1	X DRIVER Y	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7
0	0	0	0	X0	* NUL	* DLE	SPACE	Ø	@	P	`	p
0	0	0	1	X1	* SOH	* DC1	!	1	A	Q	a	q
0	0	1	0	X2	* STX	* DC2	"	2	B	R	b	r
0	0	1	1	X3	* ETX	* DC3	#	3	C	S	c	s
0	1	0	0	X4	* EOT	* DC4	$	4	D	T	d	t
0	1	0	1	X5	* ENQ	* NAK	%	5	E	U	e	u
0	1	1	0	X6	* ACK	* SYN	&	6	F	V	f	v
0	1	1	1	X7	* BEL	* ETB	'	7	G	W	g	w
1	0	0	0	X8	* BS	* CAN	(	8	H	X	h	x
1	0	0	1	X9	HT	* EM	)	9	I	Y	i	y
1	0	1	0	X10	* LF	* SUB	*	:	J	Z	j	z
1	0	1	1	X11	* VT	* ESC	+	;	K	[	k	{
1	1	0	0	X12	* FF	* FS	,	<	L	\	l	¦
1	1	0	1	X13	* CR	* GS	—	=	M	]	m	}
1	1	1	0	X14	* SO	* RS	.	>	N	^	n	~
1	1	1	1	X15	* SI	* US	/	?	O		o	* DEL

CODE PLANE ASSEMBLY 828420 — CODE PLANE ASSEMBLY 828400

* Denotes non-print, non-space codes

1 Indicates "Mark"

0 Indicates "Space"

FIGURE 11E

MODIFIED ASCII CODE CHART
(GRAPHIC SUBSTITUTION FOR WEATHER SERVICE)

INFORMATION LEVELS				7	0	0	0	0	1	1	1	1
				6	0	0	1	1	0	0	1	1
				5	0	1	0	1	0	1	0	1
4	3	2	1	DRIVER X \ Y	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7
0	0	0	0	X0	* NUL	* DLE	SPACE	0	@	P	\	p
0	0	0	1	X1	* SOH	* DC1	→	1	A	Q	a	q
0	0	1	0	X2	* STX	* DC2	"	2	B	R	b	r
0	0	1	1	X3	* ETX	* DC3	↔	3	C	S	c	s
0	1	0	0	X4	* EOT	* DC4	$	4	D	T	d	t
0	1	0	1	X5	* ENQ	* NAK	%	5	E	U	e	u
0	1	1	0	X6	* ACK	* SYN	↖	6	F	V	f	v
0	1	1	1	X7	* BEL	* ETB	↗	7	G	W	g	w
1	0	0	0	X8	* BS	* CAN	(	8	H	X	h	x
1	0	0	1	X9	HT	* EM	)	9	I	Y	i	y
1	0	1	0	X10	* LF	* SUB	*	:	J	Z	j	z
1	0	1	1	X11	* VT	* ESC	+	;	K	[	k	{
1	1	0	0	X12	* FF	* FS	,	<	L	\	l	:
1	1	0	1	X13	* CR	* GS	—	=	M	]	m	}
1	1	1	0	X14	* SO	* RS	.	>	N	^	n	~
1	1	1	1	X15	* SI	* US	/	?	O		o	* DEL
							CODE PLANE ASSEMBLY 326470				CODE PLANE ASSEMBLY 326400	

* Denotes non-print, non-space codes

1 Indicates "Mark"

0 Indicates "Space"

FIGURE 11F

ILLUSTRATION OF CHARACTER DEFLECTION

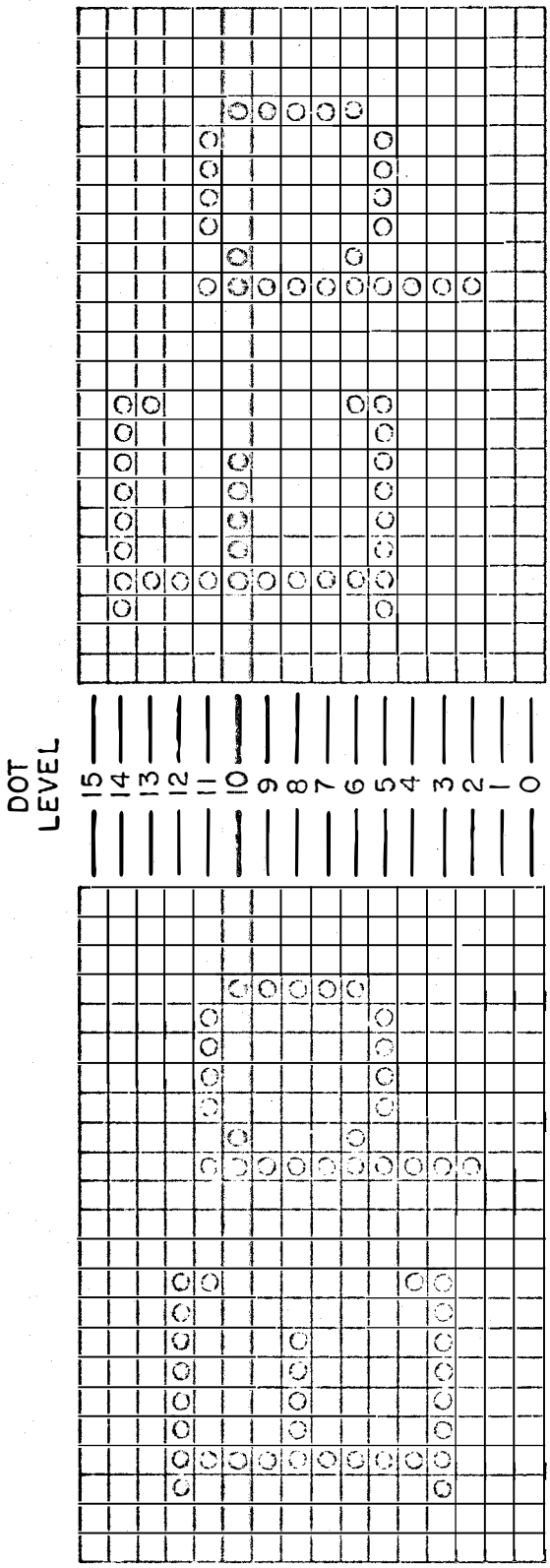


FIGURE 12

```
         1         2         3         4         5         6         7         8
12345678901234567890123456789012345678901234567890123456789012345678901234567890

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz
' " # $ % & ' ( ) * + - / : ; ? @
```

This is an example of printing from a Teletype INKTRONIC terminal equipped with the upper-lower case option. The character set contains 93 printing graphics.

In a second, one hundred and twenty characters jet to the page.

No fill characters or buffer storage are required.
That means you can print long lines.....
or short lines...
with no loss of effective printing speed.

No special paper is required, and various combinations of speed, code, interface and features are available to fit your application.

Best of all, Teletype INKTRONIC terminals offer unmatched economy in systems where volumes of data must be transmitted!

FIGURE 13

1. GENERAL

1.1 This memorandum provides descriptions and detailed ordering information for DATASPEED Printer Stations.

1.2 This memorandum is divided in three parts: Part 1 lists the available DATASPEED Printer Station Arrangements, Part 2 lists the features of the DATASPEED Printer USOC's specified in Part 1 and Part 3 contains coded variations and optional items which can be used with the station arrangements specified in Part 1.

PART 1

2. DATASPEED RO PRINTER STATION ARRANGEMENTS

2.1 The DATASPEED RO Printer can be utilized on DATA-PHONE, Private Line and Alternate DATA-PHONE/Private Line Services.

2.2 The DATASPEED RO Printer USOC's and their respective descriptions for the services described in Paragraph 2.1 are as follows:

USOC QHWCA	DATASPEED RO Printer capable of receiving at 750 wpm and equipped with an 8-level upper case font. For required material, see Attachment 1.
USOC QHWCB	Same as QHWCA except equipped with a 5-level communications font. For required material, see Attachment 1.
USOC QHWCC	Same as QHWCA except equipped with a 5-level weather font. For required material, see Attachment 1.
USOC QHWCD	Same as QHWCA except equipped with an 8-level weather font. For required material, see Attachment 1.
USOC QHWCE	Same as QHWCA except equipped with a modified (slash through zero Ø) 8-level upper case font. For required material, see Attachment 1.
USOC QHXBA	DATASPEED RO Printer capable of receiving at 1050 wpm and equipped with an 8-level upper case font. For required material, see Attachment 2.
USOC QHXBB	Same as QHXBA except equipped with a 5-level communications font. For required material, see Attachment 2.
USOC QHXBC	Same as QHXBA except equipped with a 5-level weather font. For required material, see Attachment 2.

USOC QHXBD	Same as QHXBA except equipped with an 8-level weather font. For required material, see Attachment 2.
USOC QHXBE	Same as QHXBA except equipped with a modified (slash through zero Ø) 8-level upper case font. For required material, see Attachment 2.
USOC QHXDC	DATASPEED RO Printer capable of receiving at 857 wpm and equipped with a 5-level weather font. For required material, see Attachment 3.
USOC QHYAA	DATASPEED RO Printer capable of receiving at 1200 wpm and equipped with an 8-level upper case font. For required material, see Attachment 4.
USOC QHYAB	Same as QHYAA except equipped with a 5-level communications font. For required material, see Attachment 4.
USOC QHYAC	Same as QHYAA except equipped with a 5-level weather font. For required material, see Attachment 4.
USOC QHYAD	Same as QHYAA except equipped with an 8-level weather font. For required material, see Attachment 4.
USOC QHYAE	Same as QHYAA except equipped with a modified (slash through zero Ø) 8-level upper case font. For required material, see Attachment 4.
USOC QHVCF	DATASPEED RO Printer capable of receiving at 750 wpm and equipped with an 8-level up/low font. For required material, see Attachment 5.
USOC QHVCG	Same as QHVCF except equipped with an 8-level up/low weather font. For required material, see Attachment 5.
USOC QHVCH	Same as QHVCF except equipped with a modified (slash through zero Ø) 8-level up/low font. For required material, see Attachment 5.
USOC QHVCJ	Same as QHVCF except equipped with a modified (news service) 8-level up/low font. For required material, see Attachment 5.
USOC QHTBF	DATASPEED RO Printer capable of receiving at 1050 wpm and equipped with an 8-level up/low font. For required material, see Attachment 6.

USOC QHTBG	Same as QHTBF except equipped with an 8-level up/low weather font. For required material, see Attachment 6.
USOC QHTBH	Same as QHTBF except equipped with a modified (slash through zero Ø) 8-level up/low font. For required material, see Attachment 6.
USOC QHTBJ	Same as QHTBF except equipped with a modified (news service) 8-level up/low font. For required material, see Attachment 6.
USOC QHSAF	DATASPEED RO Printer capable of receiving at 1200 wpm and equipped with an 8-level up/low font. For required material, see Attachment 7.
USOC QHSAG	Same as QHSAF except equipped with an 8-level up/low weather font. For required material, see Attachment 7.
USOC QHSAH	Same as QHSAF except equipped with a modified (slash through zero Ø) 8-level up/low font. For required material, see Attachment 7.
USOC QHSAJ	Same as QHSAF except equipped with a modified (news service) 8-level up/low font. For required material, see Attachment 7.
USOC QHUCK	DATASPEED RO Printer capable of receiving at 750 wpm and equipped with a 6-level teletypesetter font. For required material, see Attachment 8.
USOC QHNBK	Same as QHUCK except equipped for 1050 wpm operation. For required material, see Attachment 8.
USOC QHMAK	Same as QHUCK except equipped for 1200 wpm operation. For required material, see Attachment 8.

2.3 The data set USOC's and their respective descriptions which can be used with the 750 wpm DATASPEED RO Printers are as follows:

USOC DF3++	402D Type Data Set E/W Reverse Channel which can be associated with an 804A Type Data Auxiliary Set. For required material, see Attachment 9.
USOC DYA++	402D Type Data Set Without Reverse Channel which can be associated with an 804A Data Auxiliary Set. For required material, see Attachment 9.

2.4 The data set USOC's and their respective descriptions which can be used with the 857, 1050 and 1200 wpm DATASPEED RO Printers are as follows:

USOC DRA++	202C Type Data Set Without Reverse Channel and E/W a Rotary Dial. For required material, see Attachment 10.
USOC DRC++	202C Type Data Set Without Reverse Channel and E/W a TOUCH-TONE Dial. For required material, see Attachment 10.
USOC DRE++	202D Type Data Set Without Reverse Channel which can be associated with an 804A Type Data Auxiliary Set. For required material, see Attachment 10 and note below.
USOC DRF++	202C Type Data Set With Reverse Channel and E/W a Rotary Dial. For required material, see Attachment 10.
USOC DRL++	202C Type Data Set With Reverse Channel and E/W a TOUCH-TONE Dial. For required material, see Attachment 10.
USOC DRM++	202D Type Data Set With Reverse Channel which can be associated with an 804A Type Data Auxiliary Set. For required material, see Attachment 10. and Note below.

Note: The 202D Type Data Set and the 804A type data auxiliary set cannot be mounted inside the DATASPEED Printer cabinet. It is recommended, therefore, that a 202C Type Data Set be used when a telephone set is required.

PART 2

3. DATASPEED PRINTER FEATURES AND CHARACTERISTICS

3.1 Following are the features and characteristics which are available in the DATASPEED RO Printer USOC's specified in Paragraph 2.2:

Non Impact Page Printer
8-1/2" Wide, 5" Diameter Roll Teletypewriter Paper
Paper Winder
Stand up styling
Copylight
Interchangeable Type Font
80 Character Line
Six lines to the inch
Pushbutton test character

PART 3

4. CODED VARIATIONS AND OPTIONAL ITEMS

4.1 The coded variations and optional items which can be associated with the DATASPEED Printers are listed below. The USOC's are shown as they will appear in the Bell System Teletypewriter Station Engineering Arrangements (BSTSEA) Book 1. Section D.

Code	Description and Material Required
Q1H(X) (X)	750 wpm DATASPEED RO Printer Connected to DATASPEED Tape Equipment (5, 6 or 8 level). Furnish the following: 1 - TP325195 Modification Kit (X) (X) Insert appropriate two character suffix to show equipment association. TS - Adjunct to Tape Sender TR - Adjunct to Tape Receiver SR - Adjunct to Tape Sender/Receiver
QH1	DATASPEED RO Printer Discrete Calling Generator Furnish the following: 1 - TP325200 Discrete Calling Generator
QHQ(X) (X)	1050 wpm DATASPEED RO Printer Connected to DATASPEED Tape Equipment (5, 6 or 8-level) Sender or Receiver (X) (X)- Select two-character suffix which determines equipment association from the following: BR - Adjunct to DATASPEED Tape Receiver Furnish the following: 1 - TP325190 Modification Kit BS - Adjunct to DATASPEED Tape Sender 1 - TP325191 Modification Kit
QHR	1050 wpm DATASPEED RO Printer Adjunct to DATASPEED Tape Equipment (5, 6 or 8 level) Sender/Receiver Furnish the following: 1 - TP325192 Modification Kit

4.2 Following are items which may be required in addition to the basic USOC(s) and should be specified as required. These items are shown as they will appear in the Bell System Teletypewriter Station Engineering Arrangements (BSTSEA) Book 1, Section C.

Code	Description and Material Required
WES43	804A Type Data Auxiliary Set E/W a Rotary Dial and for association with a 202D Type Data Set For required material, see Attachment 10.
WES44	804A Type Data Auxiliary Set E/W a TOUCH-TONE Dial and for association with a 202D Type Data Set For required material, see Attachment 10.
WES45	804A Type Data Auxiliary Set E/W a Rotary Dial and for association with a 402D Type Data Set For required material, see Attachment 9.
WES46	804A Type Data Auxiliary Set E/W a TOUCH-TONE Dial and for association with a 402D Type Data Set For required material, see Attachment 9.
WES47	Panel for DATASPEED RO Printer without a Dialer furnish the following: 1-TP331160EJ Panel
WES48	Shelf for DATASPEED RO Printer E/W a 202C Type Data Set Furnish the following: 1 - TP331140EJ Shelf
WES49	Shelf for DATASPEED RO Printer E/W an 804A Type Data Auxiliary Set Furnish the following: 1 - TP331110EJ Shelf
WES4A	Mounting Hardware for 202D Type Data Set W/O an 804A Type Data Auxiliary Set in a DATASPEED RO Printer Furnish the following: 1 - TP331380 Modification Kit
WES4D	DATASPEED Printer Ink Furnish the following: 1 - TP301168 Bottle of Ink
WES4E	DATASPEED Printer Simulator Rurnish the following: 1 - Simulator DATS2

MEMORANDUM "B"
ACCOMPANYING E.L. 1537
ATTACHMENT 1

BELL SYSTEM COMPANY PRIVATE

MATERIAL LIST

DATASPEED RO PRINTER
750 WPM OPERATION
8 LEVEL UPPER CASE
AND 5 LEVEL FONTS

Book 1
Section F

M-QHWCA
M-QHWCB
M-QHWCC
M-QHWCD
M-QHWCE

ON JOB DATE: _____

REQ/RM NO. _____

WE NO. _____

SHIP VIA DATE: _____

PAGE OF

SEND SHIPPING RECEIPT TO (IF DIFFERENT FROM SHIP TO)

SHIP TO:

ACCOUNTING INFORMATION

WE EDIT	QTY. ORD.	QTY. SHP C	QTY. SHP NEW	USOC CHAR.		COMP. ADD.	RETURNS ONLY QTY.	RETURNS ONLY CLS.	RETURNS ONLY ACC.CODE
					Material Common to Listed Codes				
	1				Bracket KS19266 L65				
	1				Interface, Parallel (750) DAIF2/AAB				
	1RL				Paper, Teletypewriter KS8621 8-1/2" White				
	1				Printer, RO, DATASPEED 2101B-950				
	1			↓	TP325386 Front Plate				
	1			QHWCA	TP322154 Control Card				
	1			↓	TP325740 Core Plane				
	1			QHWCB	TP322155 Control Card				
	1			↓	TP325760 Core Plane				
	1			QHWCC	TP322155 Control Card				
	1			↓	TP325770 Core Plane				
	1			QHWCD	TP322154 Control Card				
	1			↓	TP325470 Core Plane				
	1			QHWCE	TP322154 Control Card				
	1			↓	TP325420 Core Plane				
	1			WES47	TP331160EJ Panel (Solid)				
	1			WES49	TP331110EJ Shelf (For 804A)				
					NOTE: Include WDP0256 which is provided with the 2101B-950 when printer is shipped.				

MEMORANDUM "B"
ACCOMPANYING E.L. 1537
ATTACHMENT 2

BELL SYSTEM COMPANY PRIVATE
MATERIAL LIST

Book 1
Section F

M-QHXBA
M-QHXBB
M-QHXBC
M-QHXBD
M-QHXBE

DATASPEED RO PRINTER
1050 WPM OPERATION
8 LEVEL UPPER CASE
AND 5 LEVEL FONTS

ON JOB DATE: _____

REQ/RM NO. _____

WE NO. _____

SHIP VIA DATE: _____

PAGE OF

SEND SHIPPING RECEIPT TO (IF DIFFERENT FROM SHIP TO)

SHIP TO:

ACCOUNTING INFORMATION

WE EDIT	QTY. ORD.	QTY. SHP C	QTY. SHP NEW	USOC CHAR.		COMP. ADD.	RETURNS ONLY QTY.	RETURNS ONLY CLS.	RETURNS ONLY ACC.CODE
					Material Common to Listed Codes				
	1				Bracket KS19266 L65				
	1				Interface, Serial (1050) DAIF1/AAB				
	1RL				Paper, Teletypewriter KS8621 8-1/2" White				
	1				Printer, RO, DATASPEED 2101B-950				
	1			↓	TP325386 Front Plate				
	1			QHXBA	TP322154 Control Card				
	1			↓	TP325740 Core Plane				
	1			QHXBB	TP322155 Control Card				
	1			↓	TP325760 Core Plane				
	1			QHXBC	TP322155 Control Card				
	1			↓	TP325770 Core Plane				
	1			QHXBD	TP322154 Control Card				
	1			↓	TP325470 Core Plane				
	1			QHXBE	TP322154 Control Card				
	1			↓	TP325420 Core Plane				
	1			WES47	TP331160EJ Panel (Solid)				
	1			WES48	TP331140EJ Shelf (For 202C)				
	1			WES49	TP331110EJ Shelf (For 804A)				
					NOTE: Include WDP0256 which is provided with the 2101B-950 when printer is shipped.				

MEMORANDUM "B"
ACCOMPANYING E.L. 1537
ATTACHMENT 3

BELL SYSTEM COMPANY PRIVATE

MATERIAL LIST

Book 1
Section F

M-QHXDC

DATASPEED RO PRINTER
857 WPM OPERATION
5 LEVEL WEATHER FONT

ON JOB DATE: _____

REQ/RM NO. _____

WE NO. _____

SHIP VIA DATE: _____

PAGE OF

SEND SHIPPING RECEIPT TO (IF DIFFERENT FROM SHIP TO)

SHIP TO:

ACCOUNTING INFORMATION

WE EDIT	QTY. ORD.	QTY. SHP C	QTY. SHP NEW	USOC CHAR.		COMP. ADD.	RETURNS ONLY QTY.	CLS.	ACC. CODE
	1			QHXDC	Bracket KS19266 L65				
	1				Interface, Serial (857) DAIF1/AAG				
	1RL				Paper, Teletypewriter KS8621 8-1/2" White				
	1				Printer, RO, DATASPEED 2101B-950				
	1				TP322155 Control Card				
	1				TP325386 Front Plate				
	1				TP325770 Core Plane				
	1			WES47	TP331160EJ Panel (Solid)				
	1			WES48	TP331140EJ Shelf (For 202C)				
	1			WES49	TP331110EJ Shelf (For 804A)				
					NOTE: Include WDP0256 which is provided with the 2101B-950 when printer is shipped.				

MEMORANDUM "B"
ACCOMPANYING E.L. 1537
ATTACHMENT 4

BELL SYSTEM COMPANY PRIVATE
MATERIAL LIST

Book 1
Section F

M-QHYAA
M-QHYAB
M-QHYAC
M-QHYAD
M-QHYAE

DATASPEED RO PRINTER
1200 WPM OPERATION
8 LEVEL UPPER CASE
AND 5 LEVEL FONTS

ON JOB DATE: _____

REQ/RM NO. _____

WE NO. _____

SHIP VIA DATE: _____

PAGE OF

SEND SHIPPING RECEIPT TO (IF DIFFERENT FROM SHIP TO)

SHIP TO:

ACCOUNTING INFORMATION

WE EDIT	QTY. ORD.	QTY. SHP C	QTY. SHP NEW	USOC CHAR.		COMP. ADD.	RETURNS ONLY QTY.	RETURNS ONLY CLS.	RETURNS ONLY ACC.CODE
					Material Common to Listed Codes				
	1				Bracket KS19266 L65				
	1				Interface, Serial (1200) DAIF1/AAC				
	1RL				Paper, Teletypewriter KS8621 8-1/2" White				
	1				Printer, RO, DATASPEED 2101B-950				
	1			↓	TP325386 Front Plate				
	1			QHYAA	TP322154 Control Card				
	1			↓	TP325740 Core Plane				
	1			QHYAB	TP322155 Control Card				
	1			↓	TP325760 Core Plane				
	1			QHYAC	TP322155 Control Card				
	1			↓	TP325770 Core Plane				
	1			QHYAD	TP322154 Control Card				
	1			↓	TP325470 Core Plane				
	1			QHYAE	TP322154 Control Card				
	1			↓	TP325420 Core Plane				
	1			WES47	TP331160EJ Panel (Solid)				
	1			WES48	TP331140EJ Shelf (For 202C)				
	1			WES49	TP331110EJ Shelf (For 804A)				
					NOTE: Include WDP0256 which is provided with the 2101B-950 when printer is shipped.				

MEMORANDUM "B"
ACCOMPANYING E.L. 1537
ATTACHMENT 5

BELL SYSTEM COMPANY PRIVATE

MATERIAL LIST

Book 1
Section F

M-QHVCF
M-QHVCG
M-QHVCH
M-QHVCJ

DATASPEED RO PRINTER
750 WPM OPERATION
8 LEVEL UPPER AND
LOWER CASE FONTS

ON JOB DATE: _____

REQ/RM NO. _____

WE NO. _____

SHIP VIA DATE: _____

PAGE OF

SEND SHIPPING RECEIPT TO (IF DIFFERENT FROM SHIP TO)

SHIP TO:

ACCOUNTING INFORMATION

WE EDIT	QTY. ORD.	QTY. SHP C	QTY. SHP NEW	USOC CHAR.		COMP. ADD.	RETURNS ONLY QTY.	RETURNS ONLY CLS.	RETURNS ONLY ACC.CODE
					Material Common to Listed Codes				
	1				Bracket KS19266 L65				
	1				Interface, Parallel (750) DAIF2/AAB				
	1RL				Paper, Teletypewriter KS8621 8-1/2" White				
	1				Printer, RO, DATASPEED 2101B-950				
	1				TP322188 Y Driver Card				
	1			↓	TP325454 Front Plate				
	1			QHVCF	TP322154 Control Card				
	1				TP325400 Core Plane				
	1			↓	TP325740 Core Plane				
	1			QHVCG	TP322154 Control Card				
	1				TP325400 Core Plane				
	1			↓	TP325470 Core Plane				
	1			QHVCH	TP322154 Control Card				
	1				TP325400 Core Plane				
	1			↓	TP325420 Core Plane				
	1			QHVCJ	TP322190 Control Card				
	1				TP325320 Core Plane				
	1			↓	TP325390 Core Plane				
	1			WES47	TP331160EJ Panel (Solid)				
	1			WES49	TP331110EJ Shelf (For 804A)				
					NOTE: Include WDP0256 which is provided with the 2101B-950 when printer is shipped.				

BELL SYSTEM COMPANY PRIVATE

Book 1
Section F

M-QHTBF
M-QHTBG
M-QHTBH
M-QHTBJ

MEMORANDUM "B"
ACCOMPANYING E.L. 1537
ATTACHMENT 6

MATERIAL LIST

DATASPEED RO PRINTER
1050 WPM OPERATION
8 LEVEL UPPER AND
LOWER CASE FONTS

ON JOB DATE: _____

REQ/RM NO. _____

WE NO. _____

SHIP VIA DATE: _____

PAGE OF

SEND SHIPPING RECEIPT TO (IF DIFFERENT FROM SHIP TO)

SHIP TO:

ACCOUNTING INFORMATION

WE EDIT	QTY. ORD.	QTY. SHP C	QTY. SHP NEW	USOC CHAR.		COMP. ADD.	RETURNS ONLY QTY.	RETURNS ONLY CLS.	RETURNS ONLY ACC.CODE
					Material Common to Listed Codes				
	1				Bracket KS19266 L65				
	1				Interface, Serial (1050) DAIF1/AAB				
	1RL				Paper, Teletypewriter KS8621 8-1/2" White				
	1				Printer, RO, DATASPEED 2101B-950				
	1				TP322188 Y Driver Card				
	1			↓	TP325454 Front Plate				
	1			QHTBF	TP322154 Control Card				
	1				TP325400 Core Plane				
	1			↓	TP325740 Core Plane				
	1			QHTBG	TP322154 Control Card				
	1				TP325400 Core Plane				
	1			↓	TP325470 Core Plane				
	1			QHTBH	TP322154 Control Card				
	1				TP325400 Core Plane				
	1			↓	TP325420 Core Plane				
	1			QHTBJ	TP322190 Control Card				
	1				TP325320 Core Plane				
	1			↓	TP325390 Core Plane				
	1			WES47	TP331160EJ Panel (Solid)				
	1			WES48	TP331140EJ Shelf (For 202C)				
	1			WES49	TP331110EJ Shelf (For 804A)				
					NOTE: Include WDP0256 which is provided with the 2101B-950 when printer is shipped.				

MEMORANDUM "B"
ACCOMPANYING E.L. 1537
ATTACHMENT 7

BELL SYSTEM COMPANY PRIVATE

MATERIAL LIST

Book 1
Section F

M-QHSAF
M-QHSAG
M-QHSAH
M-QHSAJ

DATASPEED RO PRINTER
1200 WPM OPERATION
8 LEVEL UPPER AND
LOWER CASE FONTS

ON JOB DATE: _____

REQ/RM NO. _____

WE NO. _____

SHIP VIA DATE: _____

PAGE OF

SEND SHIPPING RECEIPT TO (IF DIFFERENT FROM SHIP TO)

SHIP TO:

ACCOUNTING INFORMATION

WE EDIT	QTY. ORD.	QTY. SHP C	QTY. SHP NEW	USOC CHAR.		COMP. ADD.	RETURNS ONLY QTY.	RETURNS ONLY CLS.	RETURNS ONLY ACC.CODE
					Material Common to Listed Codes				
	1				Bracket KS19266 L65				
	1				Interface, Serial (1200) DAIF1/AAC				
	1RL				Paper, Teletypewriter KS8621 8-1/2" White				
	1				Printer, RO, DATASPEED 2101B-950				
	1				TP322188 Y Driver Card				
	1			↓	TP325454 Front Plate				
	1			QHSAF	TP322154 Control Card				
	1				TP325400 Core Plane				
	1			↓	TP325740 Core Plane				
	1			QHSAG	TP322154 Control Card				
	1				TP325400 Core Plane				
	1			↓	TP325470 Core Plane				
	1			QHSAH	TP322154 Control Card				
	1				TP325400 Core Plane				
	1			↓	TP325420 Core Plane				
	1			QHSAJ	TP322190 Control Card				
	1				TP325320 Core Plane				
	1			↓	TP325390 Core Plane				
	1			WES47	TP331160EJ Panel (Solid)				
	1			WES48	TP331140EJ Shelf (202C)				
	1			WES49	TP331110EJ Shelf (804A)				
					NOTE: Include WDP0256 which is provided with the 2101B-950 when printer is shipped.				

MEMORANDUM "B"
ACCOMPANYING E.L. 1537
ATTACHMENT 8

BELL SYSTEM COMPANY PRIVATE
MATERIAL LIST

Book 1
Section F

M-QHMAK
M-QHNBK
M-QHUCK

DATASPEED RO PRINTER
6 LEVEL TELETYPEWRITER FONT

ON JOB DATE: _____

REQ/RM NO. _____

WE NO. _____

SHIP VIA DATE: _____

PAGE OF

SEND SHIPPING RECEIPT TO (IF DIFFERENT FROM SHIP TO)

SHIP TO:

ACCOUNTING INFORMATION

WE EDIT	QTY. ORD.	QTY. SHP C	QTY. SHP NEW	USOC CHAR.		COMP. ADD.	RETURNS ONLY QTY.	RETURNS ONLY CLS.	RETURNS ONLY ACC.CODE
					Material Common to Listed Codes				
	1				Bracket KS19266 L65				
	1RL				Paper, Teletypewriter KS8621 8-1/2" White				
	1				Printer, RO, DATASPEED 2101B-950				
	1				TP322188 Y Driver Card				
	1				TP322189 Control Card				
	1				TP325454 Front Plate				
	1				TP325300 Core Plane				
	1				TP325330 Core Plane				
	1			QHMAK	Interface, Serial (1200) DAIF1/AAC				
	1			QHNBK	Interface, Serial (1050) DAIF1/AAB				
	1			QHUCK	Interface, Parallel (750) DAIF2/AAB				
	1			WES47	TP331160EJ Panel (Solid)				
	1			WES48	TP331140EJ Shelf (For 202C)				
	1			WES49	TP331110EJ Shelf (For 804A)				
					NOTE: Include WDP0256 which is provided with the 2101B-950 when printer is shipped.				

M-DF3++
M-DUA++
M-DUC++
M-DYA++
M-DYC++
M-DYL++
M-WES45
M-WES46

MEMORANDUM "B"
ACCOMPANYING E.L. 1537
ATTACHMENT 9

SUPPLEMENTARY
MATERIAL LIST

DATASPEED DATA SETS
PARALLEL TRANSMISSION

ON JOB DATE: _____

REQ/RM NO. _____

WE NO. _____

SHIP VIA DATE: _____

PAGE OF _____

SEND SHIPPING RECEIPT TO (IF DIFFERENT FROM SHIP TO)

SHIP TO:

ACCOUNTING INFORMATION

WE EDIT	QTY. ORD.	QTY. SHP C	QTY. SHP NEW	USOC CHAR.		COMP. ADD.	RETURNS ONLY QTY.	RETURNS ONLY CLS.	RETURNS ONLY ACC.CODE
	1			DF3++	Drawing, Schematic SD-1D040-01				
	1			↓	Set, Data 402D4				
	1			DUA++	Drawing, Schematic SD-1D039-01				
	1			↓	Set, Data 402C5				
	1			DUC++	Drawing, Schematic SD-1D039-01				
	1			↓	Set, Data 402C7				
	1			DYA++	Drawing, Schematic SD-1D040-01				
	1			↓	Set, Data 402D3				
	1			DYC++	Drawing, Schematic SD-1D039-01				
	1			↓	Set, Data 402C6				
	1			DYL++	Drawing, Schematic SD-1D039-01				
	1			↓	Set, Data 402C8				
	1			WES45	Adapter 153B				
	1				Adapter, Bridging KS19252 L1				
	1				Cord D4BM-61 9'-0"				
	1				Drawing, Schematic SD-1D041-01				
	1			↓	Set, Data Auxiliary 804A5				
	1			WES46	Adapter 153B				
	1				Adapter, Bridging KS19252 L1				
	1				Cord D4BM-61 9'-0"				
	1				Drawing, Schematic SD-1D041-01				
	1			↓	Set, Data Auxiliary 804A7				

NOTE: Replace ++ with two character suffix which appears on service order and decode to determine options.

NOTE: Selection of WES45 or WES46 only required when indicated by decoding of two character suffix of DF3 and DYA.

M-DRA++
M-DRC++
M-DRE++
M-DRF++
M-DRL++
M-DRM++
M-WES43
M-WES44

MEMORANDUM "B"
ACCOMPANYING E.L. 1537
ATTACHMENT 10

SUPPLEMENTARY
MATERIAL LIST

DATASPEED DATA SETS
SERIAL TRANSMISSION

ON JOB DATE: _____

REQ/RM NO. _____

WE NO. _____

SHIP VIA DATE: _____

PAGE OF

SEND SHIPPING RECEIPT TO (IF DIFFERENT FROM SHIP TO)

SHIP TO:

ACCOUNTING INFORMATION

WE EDIT	QTY. ORD.	QTY. SHP C	QTY. SHP NEW	USOC CHAR.		COMP. ADD.	RETURNS ONLY QTY.	RETURNS ONLY CLS.	RETURNS ONLY ACC.CODE
	1			DRA++	Drawing, Schematic SD-1D048-01				
	1			↓	Set, Data 202C9				
	1			DRC++	Drawing, Schematic SD-1D048-01				
	1			↓	Set, Data 202C11				
	1			DRE++	Drawing, Schematic SD-1D049-01				
	1			↓	Set, Data 202D3				
	1			DRF++	Drawing, Schematic SD-1D048-01				
	1			↓	Set, Data 202C10				
	1			DRL++	Drawing, Schematic SD-1D048-01				
	1			↓	Set, Data 202C12				
	1			DRM++	Drawing, Schematic SD-1D049-01				
	1			↓	Set, Data 202D4				
	2			WES43	Block, Connecting 66E-25				
	1				Cord D4BM-61 9'-0"				
	1				Cord D34B-61				
	1				Drawing, Schematic SD-1D041-01				
	1			↓	Set, Data Auxiliary 804A5				
	2			WES44	Block, Connecting 66E25				
	1				Cord D4BM-61 9'-0"				
	1				Cord D34B-61				
	1				Drawing, Schematic SD-1D041-01				
	1			↓	Set, Data Auxiliary 804A7				
					NOTE: Replace ++ with two character suffix which appears on service order and decode to determine options.				
					NOTE: Selection of WES43 or WES44 only required when indicated by decoding of two character suffix of DRE and DRM.				

This memorandum lists the items specified in Memorandum B and includes the order wording and approximate price as furnished by Western Electric. All items are ready to order now with a two to four-month factory delivery interval. The Chief Accountant's Division recommends that costs be included in Account 234, Code 58C. The costs of maintenance parts stock should be charged to Account 605, Code 58R. As normally, costs of telephone sets and data sets should be included in Account 231-02.

Order Wording	Approximate Price Each
(Qty.) Interface, Parallel (750) DAIF2/AAB	$ 231.00
(Qty.) Interface, Serial (857) DAIFI/AAG	297.00
(Qty.) Interface, Serial (1050) DAIFI/AAB	297.00
(Qty.) Interface, Serial (1200) DAIFI/AAC	297.00
(Qty.) Printer, RO, DATASPEED 2101B-950	5,445.00
(Qty.) Simulator DATS2	289.00
(Qty.) TP301168 Bottle of Ink	405.00/c
(Qty.) TP322154 Circuit Card	60.00
(Qty.) TP322155 Circuit Card	61.20
(Qty.) TP322176 Circuit Card	174.00
(Qty.) TP322188 Circuit Card	141.00
(Qty.) TP322189 Circuit Card	113.00
(Qty.) TP322190 Circuit Card	77.70
(Qty.) TP325190 Modification Kit	63.50
(Qty.) TP325191 Modification Kit	60.90
(Qty.) TP325192 Modification Kit	104.00
(Qty.) TP325195 Modification Kit	436.00
(Qty.) TP325200 Modification Kit	175.00
(Qty.) TP325300 Core Assembly	570.00
(Qty.) TP325320 Core Assembly	674.00
(Qty.) TP325330 Core Assembly	591.00
(Qty.) TP325386 Front Plate	59.00
(Qty.) TP325390 Core Assembly	516.00
(Qty.) TP325400 Core Assembly	509.00
(Qty.) TP325420 Core Assembly	661.00
(Qty.) TP325454 Front Plate	92.20
(Qty.) TP325470 Core Assembly	661.00
(Qty.) TP325740 Core Assembly	669.00
(Qty.) TP325760 Core Assembly	611.00
(Qty.) TP325770 Core Assembly	611.00
(Qty.) TP331110EJ Shelf	57.00
(Qty.) TP331140EJ Shelf	42.90
(Qty.) TP331160EJ Panel	43.70
(Qty.) TP331380 Modification Kit	12.10

Maintenance Parts and Apparatus

Part No.	Qty.	Description	Price	Avail.
TP102617	1	Fluorescent Lamp	$ 149.00/c	s
TP117176	5	Fuse 0.5A SL-BL	24.30/c	s
TP120139	5	Fuse 1.0A	11.10	s
TP120167	5	Fuse 3.2A SL-BL	14.90/c	s
TP124999	1	Sensitive Switch	135.00/c	s
TP126295	5	Fuse 5.0A	14.90/c	s
TP126296	5	Fuse 0.5A	14.90/c	s
TP139200	5	Fuse 0.125A SL-BL	23.00/c	s
TP139820	5	Fuse 2.5A SL-BL	18.90/c	s
TP142159	2	Lamp 6V	36.50/c	s
TP143306	5	Fuse 1.0A SL-BL	24.30/c	s
TP150537	6	Ball Bearing	1.15	s
TP151418	5	Fuse 10A	13.50/c	s
TP154290	1	"O" Ring	7.75/c	s
TP171644	5	Fuse 1.5A	11.40/c	s
TP171658	5	Fuse 3.0A	5.25/c	s
TP182611	5	Fuse 3/8 SL-BL	16.20/c	s
TP198092	1	Fan	11.20	s
TP199549	5	Lamp 48V	63.50/c	s
TP300469	2	Tube	33.10	s
TP301019	2	Magnet Coil	19.50	s
TP301021	2	Magnet Core	19.50	s
TP303950	1	Line Feed Driver Circuit Card	24.00	s
TP310529	2	Belt	290.00/c	s
TP322145	1	Spacing Drive Circuit Card	416.00	s
TP322156	1	Memory Input Logic Circuit Card	375.00	s
TP322157	1	Tracing Drive Circuit Card	607.00	s
TP322158	1	Memory Output Logic Circuit Card	189.00	s
TP322192	1	Test Character Generator Circuit Card	34.90	s
TP330013	1	Switch Assembly	15.40	s
TP330080	1	Spiral Spring	149.00/c	s
TP330152	1	Paper Jam Alarm Circuit Card	130.00	n
TP330190	1	High Voltage Power Supply	117.00	s
TP330206	2	Belt - 120 Teeth	103.00/c	s
TP330295	2	Belt - 75 Teeth	71.60	s
TP330349	1	Motor	20.80	s
TP330354	1	Roller Assembly	13.10	s
TP330355	2	Belt - 30 Teeth	85.10/c	s

Maintenance Parts and Apparatus (Continued)

Part No.	Qty.	Description	Price	Avail.
TP330369	1	Switch	$ 446.00/c	s
TP330374	2	Teflon Washer	3.15/c	s
TP331074	1	Motor	31.10	s
TP331197	1	Motor Control Circuit Card	58.10	s
TP331120	1	P.W. Motor Control Card	78.00	s
TP331249	2	Belt - 70 Teeth	82.40/c	s
TP331259	1	Motor	48.00	s
TP331355	1	Spring Band	506.00/c	s
TP331399	1	High Voltage Cover Assembly	732.00/c	s
TP331420	1	Ballast Assembly	700.00/c	s
TP337663	1	Tank Lid Assembly	46.40	n
DAR2/AAB	1	Recorder	1,210.00 Ea.	s
DAPS8	1	Power Supply	710.00 Ea.	s

Optional Maintenance Items

The following parts are not common to every application of the DATASPEED RO Printer. (Refer to Notes 1 through 4 for specific information.)

Part No.	Qty.	Note	Description	Price	Avail.
TP303934	1	4	Type 5 Relay Circuit Card	$151.00	n
TP322130	1	1	Shift Register Circuit Card	66.90	n
TP322132	1	1	Data Set Control Card	69.60	n
TP322134	1	1	Parallel Station Control Card	89.20	n
TP322154	1	2	ASCII Control Circuit Card	60.00	n
TP322155	1	2	Baudot Control Circuit Card	61.20	n
TP322180	1	1	Rec'r/Dist'r Control Card (1050 Baud)	101.00	n
TP322181	1	1	Rec'r/Dist'r Control Card (1200 Baud)	96.10	n
TP322182	1	1	Rec'r/Dist'r Control Card (890 Baud)	96.10	n
TP322183	1	1	Rec'r/Dist'r Control Card (840 Baud)	96.10	n
TP322184	1	1	Rec'r/Dist'r Control Card (600 Baud)	96.10	n
TP322186	1	1	Rec'r/Dist'r Control Card (300 Baud)	96.10	n

Optional Maintenance Items (Continued)

Part No.	Qty.	Note	Description	Price	Avail.
TP322188	1	3	"Y" Driver Circuit Card	$ 141.00	n
TP322189	1	2	Teletypesetter Control Card	113.00	n
TP322190	1	2	Modified ASCII Control Card	77.70	n
TP325300	1	2	Teletypesetter Core Plane (Upper Case)	570.00	n
TP325310	1	2	Baudot Fractions Core Plane (Upper Case)	607.00	n
TP325320	1	2	Modified ASCII Core Plane (Upper Case)	674.00	n
TP325330	1	2	Teletypesetter Core Plane (Lower Case)	591.00	n
TP325390	1	2	Modified ASCII Core Plane (Lower Case)	516.00	n
TP325400	1	2	ASCII Core Plane (Lower Case)	509.00	n
TP325420	1	2	ASCII Core Plane (Upper Case with zero printed Ø)	661.00	n
TP325470	1	2	Modified ASCII Core Plane for Weather (Upper Case)	661.00	n
TP325740	1	2	ASCII Core Plane (Upper Case)	669.00	n
TP325760	1	2	Baudot Comm. Core Plane (Upper Case)	661.00	n
TP325770	1	2	Baudot Weather Core Plane (Upper Case)	611.00	n

NOTES:

1. Select appropriate circuit card or cards for serial or parallel operation. Serial operation requires data set control, shift register and Rec'r/Dist'r control cards.
2. Select proper combination of control circuit card and core plane assembly.
3. Required for Up-Low Option.
4. Required when DATASPEED RO Printer is adjunct to DATASPEED Type 5 Tape Equipment.
5. Key to availability symbols.

   s - Factory stock - now
   n - Non stock; 1 to 4-month interval

Following are the applicable BSP Sections for the arrangements now available (Limited Printing - through Teletype Corporation) on the 2101AB DATASPEED Printer.

Title	BSP No.	Issue No.	Contents
2101AB DATASPEED Printer Receive-Only Station	578-500-101	1	Gen D & O
Recorder and Paper Transport for 2101AB DATASPEED Printer Terminals	578-500-113	1	D & PO
2101AB DATASPEED Printer (Receive-Only) Electronic Circuits	578-500-114	1	D & PO
2101AB DATASPEED Printer (Receive-Only) Enclosures and Paper Handling	578-500-115	1	D & PO
2101AB DATASPEED Printer Receive-Only Station	578-500-201	1	Inst.
2101AB DATASPEED Printer Receive-Only Station	578-500-301	1	CO & TS
Recorder and Paper Transport for 2101AB DATASPEED Printer Terminals	578-500-704	1	A & L
2101AB DATASPEED Printer (Receive-Only) Enclosures and Paper Handling	578-500-705	1	A & L
Recorder (DAR) and Paper Transport (DAT) for 2101AB DATASPEED Printer Terminals	578-500-803	1	Parts

Title	BSP No.	Issue No.	Contents
2101AB DATASPEED Printer Receive-Only Cover Base (DAB), Cover (DARC), Cabinet (DAC) and Paper Holder	578-500-804	1	Parts
Modules and Electrical Components for 2101AB DATASPEED Printer Terminals	578-500-805	1	Parts
2101AB DATASPEED Printer Receive-Only Station for DATA-PHONE Service	579-805-350	1	FMP

1. GENERAL

1.1 This memorandum provides a comparison of the major items required for the basic USOC's described in Memorandum "D". This is being provided to show the similarities in the features which can be provided with the DATASPEED Printers.

USOC	2101B-950 DATASPEED RO Printer	DAIF2/AAB Parallel Interface	DAIF1/AAB Serial Interface	DAIF1/AAC Serial Interface	DAIF1/AAG Serial Interface	TP322188 Y Driver Card	TP325386 Front Plate	TP325454 Front Plate	TP322154 Control Card	TP322155 Control Card	TP322189 Control Card	TP322190 Control Card	TP325300 Core Plane	TP325320 Core Plane	TP325330 Core Plane	TP325390 Core Plane	TP325400 Core Plane	TP325420 Core Plane	TP325470 Core Plane	TP325740 Core Plane	TP325760 Core Plane	TP325770 Core Plane
QHWCA	X	X					X		X											X		
QHWCB	X	X					X			X											X	
QHWCC	X	X					X			X												X
QHXBA	X		X				X		X											X		
QHXBB	X		X				X			X											X	
QHXBC	X		X				X			X												X
QHXDC	X				X		X			X												X
QHYAA	X			X			X		X											X		
QHYAB	X			X			X			X											X	
QHYAC	X			X			X			X												X
QHVCF	X	X				X		X	X								X			X		
QHTBF	X		X			X		X	X								X			X		
QHSAF	X			X		X		X	X								X			X		
QHUCK	X	X				X		X			X		X		X							
QHNBK	X		X			X		X			X		X		X							
QHMAK	X			X		X		X			X		X		X							
QHVCJ	X	X				X		X				X		X		X						
QHTBJ	X		X			X		X				X		X		X						
QHSAJ	X			X		X		X				X		X		X						
QHWCE	X	X					X		X									X				
QHXBE	X		X				X		X									X				
QHYAE	X			X			X		X									X				
QHWCD	X	X					X		X										X			
QHXBD	X		X				X		X										X			
QHYAD	X			X			X		X										X			
QHVCH	X	X				X		X	X								X	X				
QHTBH	X		X			X		X	X								X	X				
QHSAH	X			X		X		X	X								X	X				
QHVCG	X	X				X		X	X								X		X			
QHTBG	X		X			X		X	X								X		X			
QHSAG	X			X		X		X	X								X		X			