35 CONTROLMATIC TELETYPEWRITER DATA STATION ARRANGED FOR PRIVATE LINE INSTALLATION

1. GENERAL

1.01 This section describes the procedures to be followed for the installation of a Model 35 CONTROLMATIC Teletypewriter (TTY) Data Station arranged for private line service.

1.02 The CONTROLMATIC is a self-contained station which is normally furnished completely assembled by the distributing house (see Fig. 1).

1.03 The customer must furnish a standard 3-wire, grounding-type 103- to 127-volt, 59.5- to 60.5-Hz power receptacle (to accept a plug equipped with two parallel blades and round grounding pin).

The receptacle shall not be under control of a switch.

1.04 Verify that the overall facilities meet transmission requirements for 100-word per minute private line operation.

1.05 Reference directions (left, right, front, or rear) are in respect to facing the keyboard which is located at the front of the TTY.

2. INSTALLATION

2.01 The external dimensions of the CONTROLMATIC data station are as follows:

Width—40 inches

Height—35 inches

Depth—24 inches

2.02 Verify that the location selected by the customer is adequate for maintenance. When the lower cover is open, complete access is provided for equipment located under the cover from the top, front, and sides. If access from the rear is required, it will be necessary to remove the cover. The minimum clearance at the rear of the cabinet for opening the cover is 13 inches and for removing the cover is 36 inches.

2.03 Verify that the customer-provided ac power receptacle is within seven feet of the selected location.

Do not connect ac power to the CONTROLMATIC data station until all required options are installed.

2.04 To gain access to TTY components, mounted beneath the lower cover, proceed as follows.

(1) Operate the two cover latches on each side of the upper cover and raise the upper cover to a partially open-latched position.

(2) Remove the two screws that secure the faceplate to the lower cover and remove the faceplate by lifting vertically.

(3) Grasp the handgrips located in front of the lower cover, operate the lower cover latch located at the right front of the typing unit, and raise the lower cover.

(4) Verify that the left rear stop arm is latched when the lower cover is fully open.

2.05 The format logic panel and Data Auxiliary Set 820D-type are mounted on a framework located behind the front panel. Access to these components is accomplished as follows:

(1) Remove the chad box by lifting it up and away from the front panel.

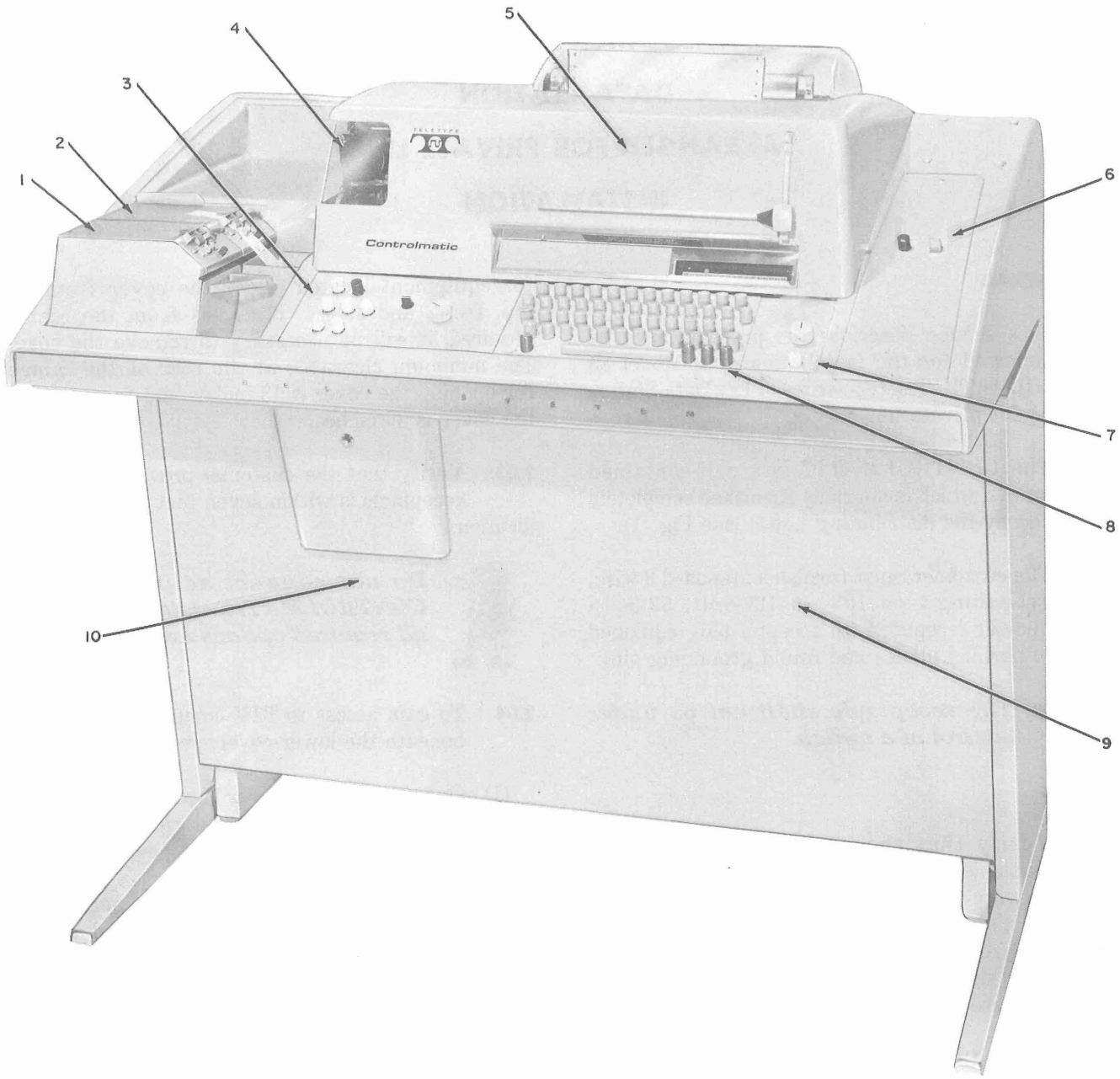


Fig. 1—CONTROLMATIC Teletypewriter Data Station Arranged for Private Line Service

(2) Release the front panel by momentarily operating the two pushbutton latches at the top of the panel.

(3) Depress the safety clip underneath the keyboard and lower the front panel to the floor.

(4) Remove the front panel by lifting the rear to separate the hinges.

2.06 Insure that all plug-in station components are securely fastened and connected with the proper mating receptacles. Connector and terminal field locations are shown in Fig. 2.

3. OPTIONS

3.01 Options to provide specific customer requirements may be installer-provided at time of installation. Table A lists lettered options

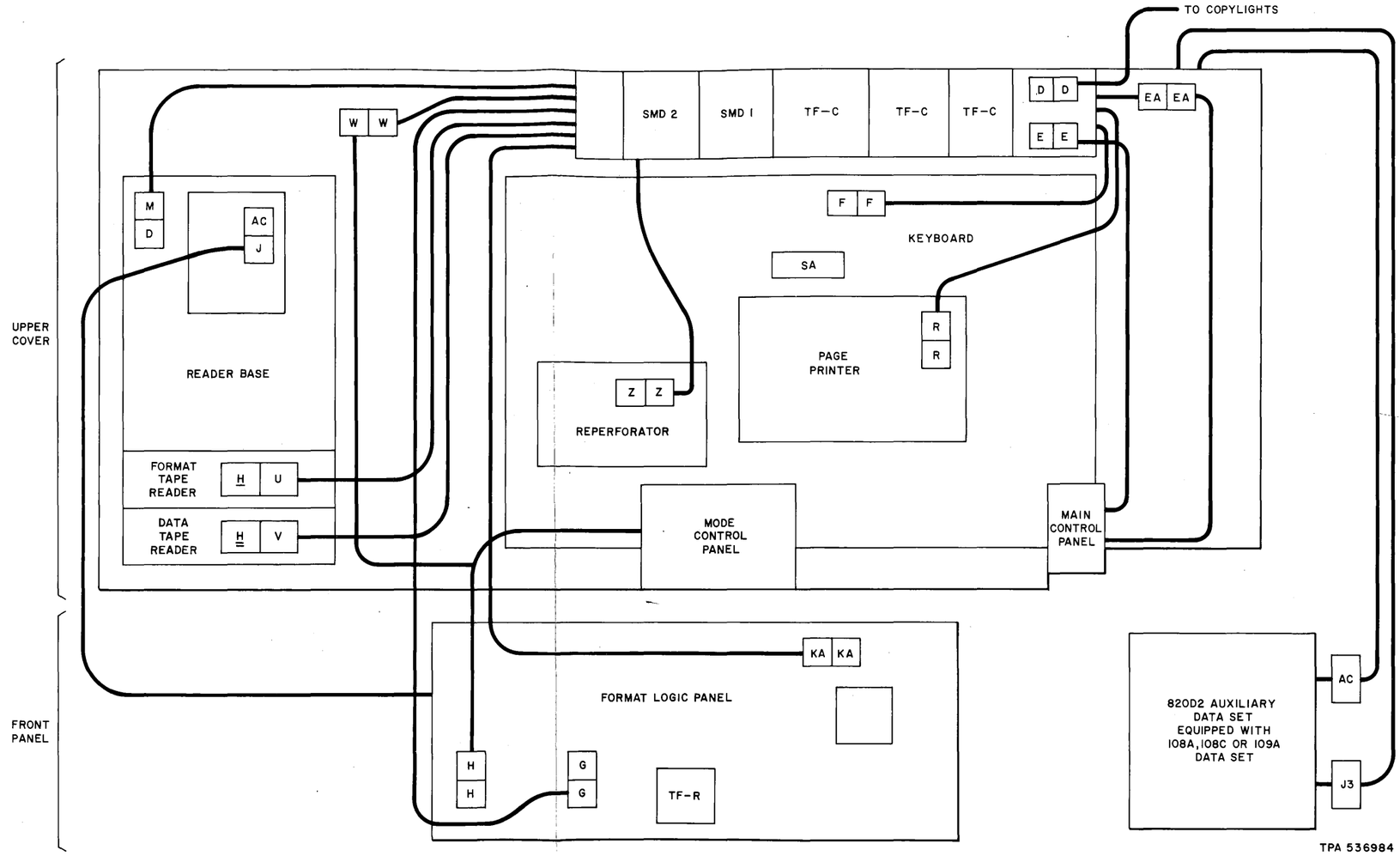
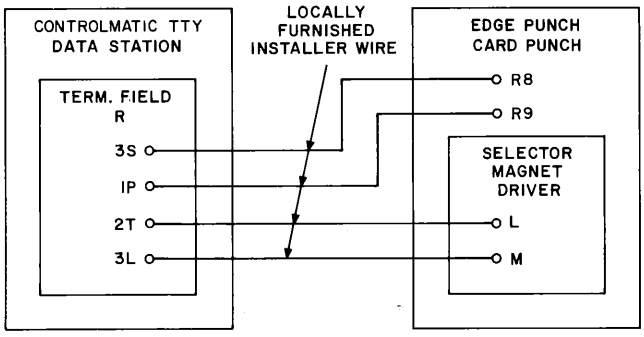


Fig. 2—Data Station Connection and Terminal Field

and their respective functions. These options are provided by installing or removing leads or straps within the TTY portion of the data station. Connections for options provided by this method are explained in 3.02 through 3.10. Options requiring additional equipment changes are shown in Fig. 3 through 6. The required options for each installation should be specified on the service order or work sheet.

TABLE A

OPTIONS	FUNCTIONS
A	20-ma Line Operation
B	60-ma Line Operation
C	Auxiliary Receiver
D	Normal Control Code Response
E	Additional Control Code Response
F	Selective Character Suppression During Program Control Mode
G	Selective Character Suppression at all Times
H	Stepping Switch Input
J	Stepping Switch Input Release
K	Auxiliary Input Device
L	Half-Duplex Operation



NOTE: ADD STRAP BETWEEN TERMINALS 7 AND 14 ON SELECTOR MAGNET IF NOT PRESENT.

Fig. 3—Connections for Edge Punched Card Punch

A or B Option

3.02 The CONTROLMATIC is normally furnished for operation using a 20-ma signal line (A option). Table B shows wiring that must be changed for operation using a 60-ma line (B option). For example, change the lead from pin 16 to pin 17 on connector MA.

3.03 For 60-ma operation, the 305459 circuit cards in the selector magnet drivers must be replaced by 305460 cards.

C Option

3.04 When an auxiliary receiver (receiving only typing reperforator—ROTR) is required, C option wiring strap must be removed between terminals 3S and 1P. The signal leads for the receiver must be connected across the unstrapped terminals as shown in Table C.

D or E Option

3.05 The CONTROLMATIC is normally furnished with wiring which permits the control relays to respond only to normally generated ASCII codes (D option). Table D shows wiring that must be changed for operation which allows control responses to codes not normally allowed. For example, change the lead from pin 25 to pin 36 on connector P.

F or G Option

3.06 Selective character suppression permits suppression of a preselected character. F option permits suppression during the program control mode only. G option permits the character

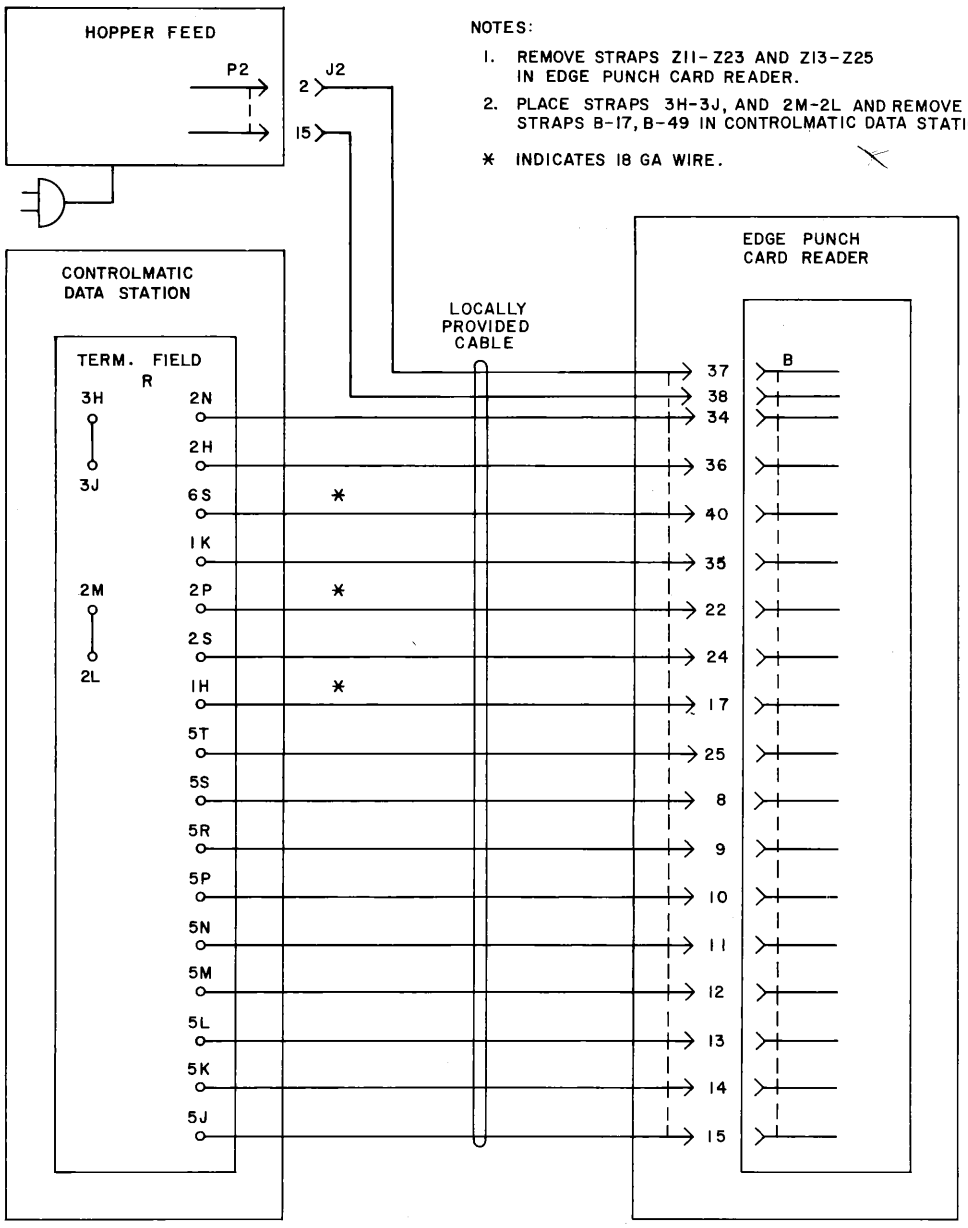


Fig. 4—Connections for Edge Punched Card Reader

suppression circuit to operate at all times. Establish the required option as shown in Table E.

H Option

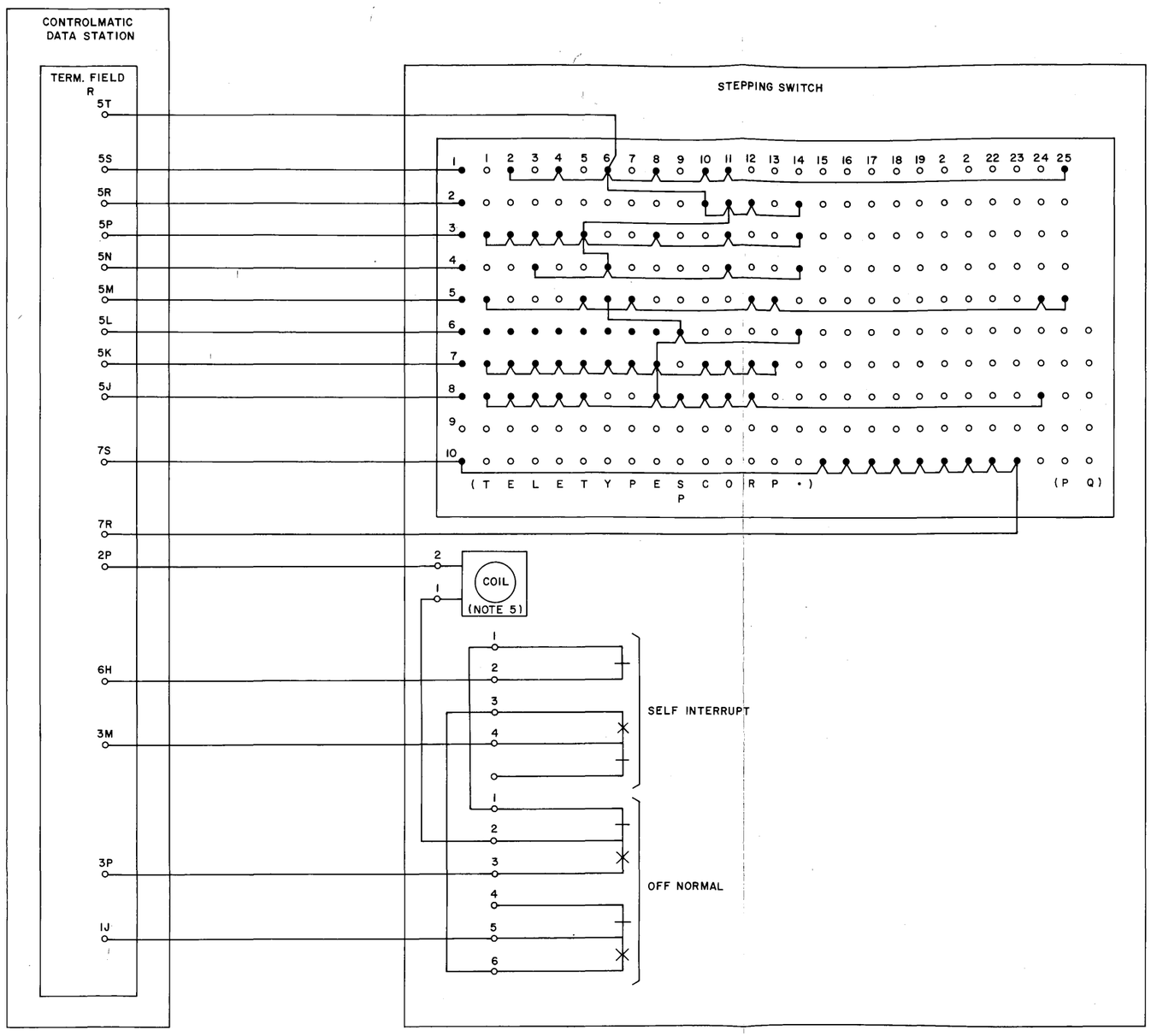
3.07 When a stepping switch, or any type of input device driven by the distributor auxiliary contact is used as an optional (data input 2) input, a strap between 3M and 1J on logic panel terminal field R is required.

J Option

3.08 When an optional input device, such as a stepping switch, is equipped with a release contact, the strap between 4H and 5H on logic panel terminal field R should be removed (J option) and the release contact wired across these terminals.

K Option

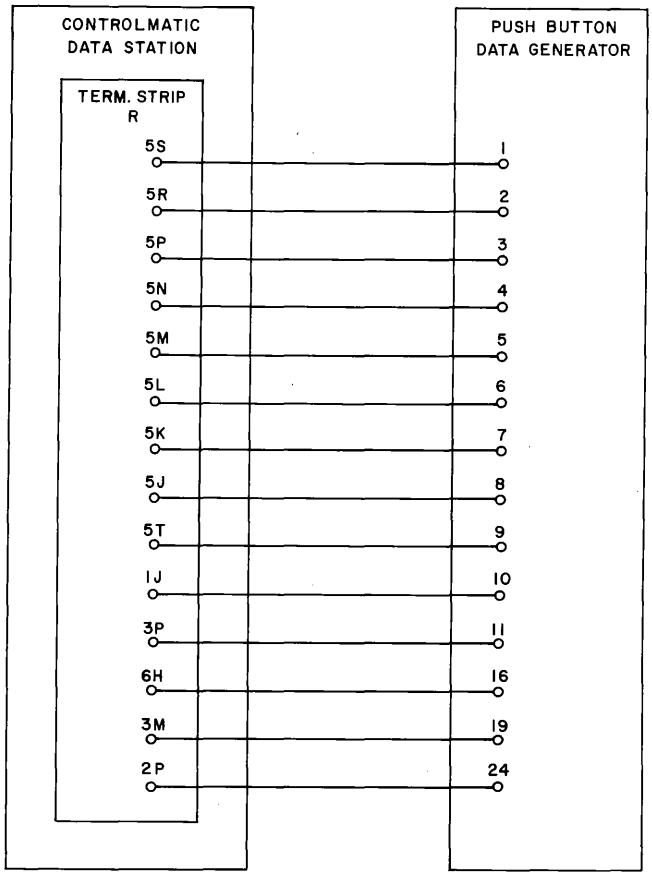
3.09 Use of an auxiliary input device (data input 3) requires that K option strap be placed



NOTES:

1. STEPPING SWITCH VIEWED FROM WIRING SIDE.
2. WIRING IN 10 TH LEVEL IS REQUIRED TO HOME SWITCH. IT STARTS IN POSITION NEXT TO LAST CHARACTER OF TEXT AND ENDS ONE POSITION BEFORE CONTROL P.
3. STEPPING SWITCH MUST ALWAYS BE CODED WITH CONTROL P AND CONTROL Q AS THE LAST CHARACTER.
4. LETTERS SHOWN IN PARENTHESIS ARE SHOWN AS TYPICAL ENCODING OF SWITCH.
5. 48 VOLT DC OPERATION.

Fig. 5—Connections for Stepping Switch Input



NOTES:

1. BECAUSE THIS UNIT BASICALLY IS A STEPPING SWITCH, A CONTACT IS NEEDED TO PROVIDE PROPER STEPPING WITH CORRECT TIMING. THIS WILL BE THE DISTRIBUTOR AUXILIARY CONTACT. ALSO THIS UNIT MUST BE ABLE TO CONTROL THE DISTRIBUTOR MAGNET IN ORDER TO HAVE THE CORRECT TIMING.
2. IF A SINGLE UNIT IS USED, THE OPTION W MUST BE WIRED AS SHOWN ON 7504 WD. ALSO IF A TIME AND DATE GENERATOR IS TO BE USED THE G.C. OPTION MUST BE WIRED. WHEN A CLOCK IS USED THE UNIT OPERATES THROUGH THE P.B.D.G. AND SO NO ADDITIONAL INTERFACING TO THE CONTROLMATIC TTY IS NEEDED.

Fig. 6—Connections for Pushbutton Data Generator

across terminals 3H and 3J on logic panel terminal field R. If a release contact is associated with the device, the strap should be removed and the release contact connected across the terminals.

L Option

3.10 The CONTROLMATIC is furnished for half-duplex operation with L option strap in place. For full-duplex operation, remove L option

TABLE B

UNIT	CONNECTOR	A OPTION	B OPTION
		PIN	PIN
Logic Panel	MA	16	17
Logic Panel	K	E	H
Logic Panel	K	M	K
Logic Panel	T	7	9

TABLE C

UNIT	TERMINALS	OPTION
Logic Panel	3S ┐ 1P ┘	C (no aux rcvr)
	3S (+ signal lead) 1P (— signal lead)	aux rcvr required

TABLE D

UNIT	CONNECTOR	D OPTION	E OPTION
		PIN	PIN
Logic Panel	P	25	36
Logic Panel	P	23	32

TABLE E

UNIT	WIRE FROM TERMINAL	TO CONNECTOR	FOR OPTION
Logic Panel	R-6S	S-10	F
Logic Panel	R-6T	S-10	G

strap and connect signal leads as shown in Table F.

TABLE F

UNIT	TERMINALS			OPTION
Power and Signal Line Terminal Board	T6 — T7	(L Option Strap)		Half-Duplex
	T5 — T6	+ sig line — sig line	send loop	Full-Duplex
	T7 — T8	+ sig line — sig line	rec loop	

3.11 The CONTROLMATIC will accept an edge punched card punch as optional on-line output devices. Installer connections to be made for the edge punched card punch are shown in Fig. 3.

3.12 The CONTROLMATIC will accept any two of three available optional input devices as follows:

- Edge Punched Card Reader
- Stepping Switch
- Pushbutton Data Generator.

Refer to Fig. 4 through 6 for installer connections to be made for these optional input devices.

4. DATA AUXILIARY SET 820D-TYPE

4.01 CONTROLMATIC data stations require a Data Auxiliary Set 820D2 or 820D-L1A equipped with 108A-, 108C-, or 109A-type Data Set for establishing connections and transmitting and receiving data. Refer to sections listed in Part 5 for procedures to be used at time of installation.

5. REFERENCES

5.01 For information regarding optional output devices, refer to the section entitled Receiving Only Typing Reperforator (574-203-222).

5.02 For information regarding connections and options for data sets used with CONTROLMATIC arranged for private line service, refer to the following sections:

591-023-201 Data Sets 108A- and 108C-Type—Single Private Line Station Using Data Auxiliary Set 820D-Type—Installation and Connections

591-024-201 Data Set 109A-Type—Single Private Line Station Using Data Auxiliary Set 820D-Type—Installation and Connections