

DATA AUXILIARY SETS 801A1, 801A2, 801A3 AND 801A4 FOR AUTOMATIC CALLING INSTALLATION AND CONNECTIONS

1. GENERAL

1.01 This section is reissued to:

- (a) Make revisions of the text.
- (b) Incorporate the information that had appeared in issue 3 of the section entitled Data Auxiliary Set 801A-Type For Automatic Calling Connections (598-010-400) which has been cancelled.

Due to extensive revisions change arrows have been omitted.

1.02 Data Auxiliary Sets 801A1, 801A2, 801A3, and 801A4 will be referred to in this section as ACU's (Automatic Calling Units) unless due to special applications it becomes necessary to refer to the data auxiliary set by complete nomenclature.

1.03 When test and demonstration calls are made, refer to the section entitled Crediting Charges On Test Calls (010-250-001) to properly credit charges.

1.04 The cover removal and replacement procedures for the ACU's are described in the section entitled Data Auxiliary Sets 801A1, 801A2, 801A3, and 801A4 For Automatic Calling, Maintenance (598-010-300).

1.05 The ACU mounting cord change procedure is described in the section entitled Data Auxiliary Sets 801A1, 801A2, 801A3, and 801A4 For Automatic Calling, Maintenance (598-010-300).

1.06 This section does not include specific installation methods and option wiring for the associated data sets.



Before starting installation, verify that telephone (data) line is arranged for ground start operation.

1.07 Ground start operation may be verified by connecting a 1011B installer's handset across Tip and Ring. Dial tone should not be heard. Momentarily ground the tip side of the line and dial tone should be heard.

1.08 When a power failure occurs, it is required that a momentary ground start be applied to the telephone (data) line when initiating a call. One button of the associated data set must be modified to supply this momentary ground. (Consult applicable data set practices for modification procedures.)

Note: Data set button should be designated DIAL TONE.

2. INSTALLATION

2.01 The ACU's shall be installed in conformance with existing practices covering installation of station sets.

2.02 For selection of type connecting blocks and electrical code requirements, refer to section entitled Data Sets, General Installation Information (590-010-200).

2.03 The ACU must be located within range of the interface connector cords supplied by the customer. These cords should not be over 50-feet long.

2.04 The customer must furnish a 3-wire, 60-Hz ac power outlet (two parallel blades and a U-shaped grounding pin). The outlet should not be under the control of a switch.

2.05 Fig. 1 and 2 illustrate the main components and the arrangement of these components in typical installation. Fig. 3 illustrates a block diagram of a typical installation.

3. CONNECTIONS



To eliminate possible damage to electronic components in the ACU, do not make power connection until all other connections have been completed.

3.01 ACU options must be specified on the service order. Refer to Fig. 4 for the location of

TB1 and TB2 for strapping location. Strap the options per Table A.

3.02 Since it is possible to interchange two ACUs which contain the same options with different designations, Table B is provided to identify the options for all interchangeable ACUs to aid in correlating the options of the replacing ACU with those of the replaced ACU.

3.03 Set the Abandon Call Retry (ACR) Timer for the desired time interval (Fig. 5 and Table C). Where no ACR time interval is specified, set time to 40-second position.

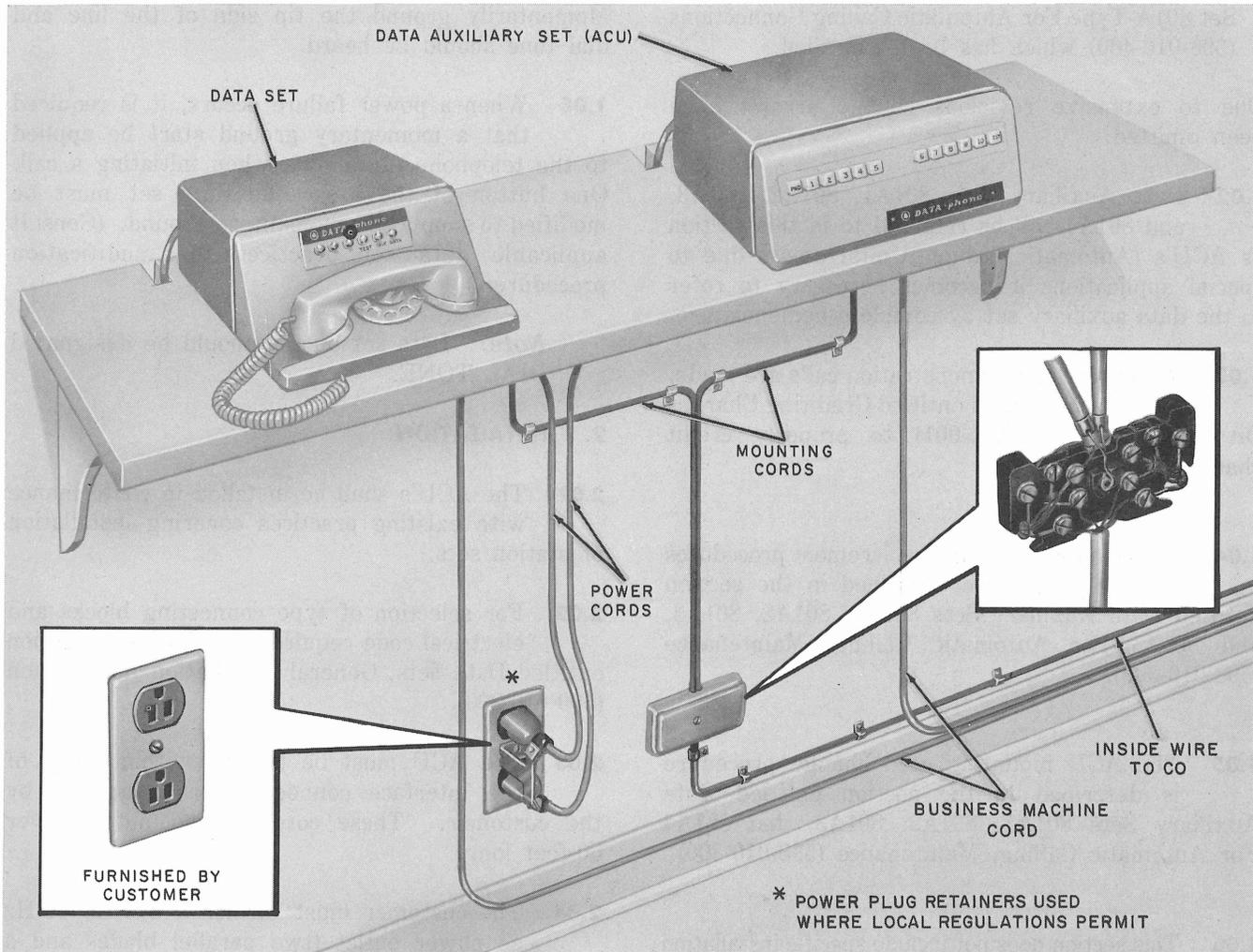


Fig. 1—Main Components of a Typical Installation Using a Single ACU and Integral Data Set

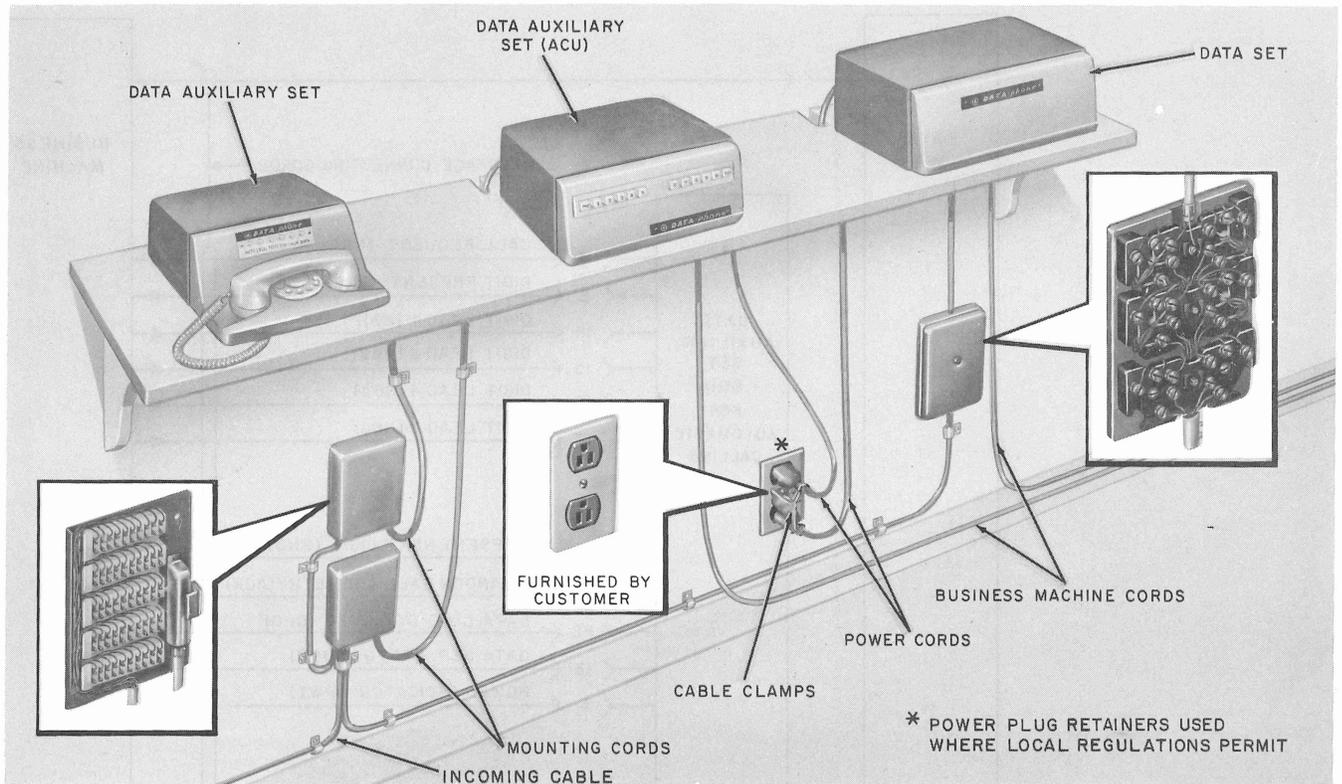


Fig. 2—Main Components of a Typical Installation Using a Single ACU with Data Auxiliary Set

3.04 Mounting cord interconnecting arrangements for the ACU and associated data set are shown in the connecting section of the applicable data set. Select the interconnecting figure that is applicable and wire accordingly.

3.05 Connect the power cord between the ACU power cord connector and the furnished 3-wire power outlet. Secure the power outlet end

of the power cord with an approved type clamp unless prohibited by local ordinance.

3.06 Perform installation tests as described in section entitled Data Auxiliary Sets 801A1, 801A2, 801A3, and 801A4 For Automatic Calling Test Procedures (598-010-500).

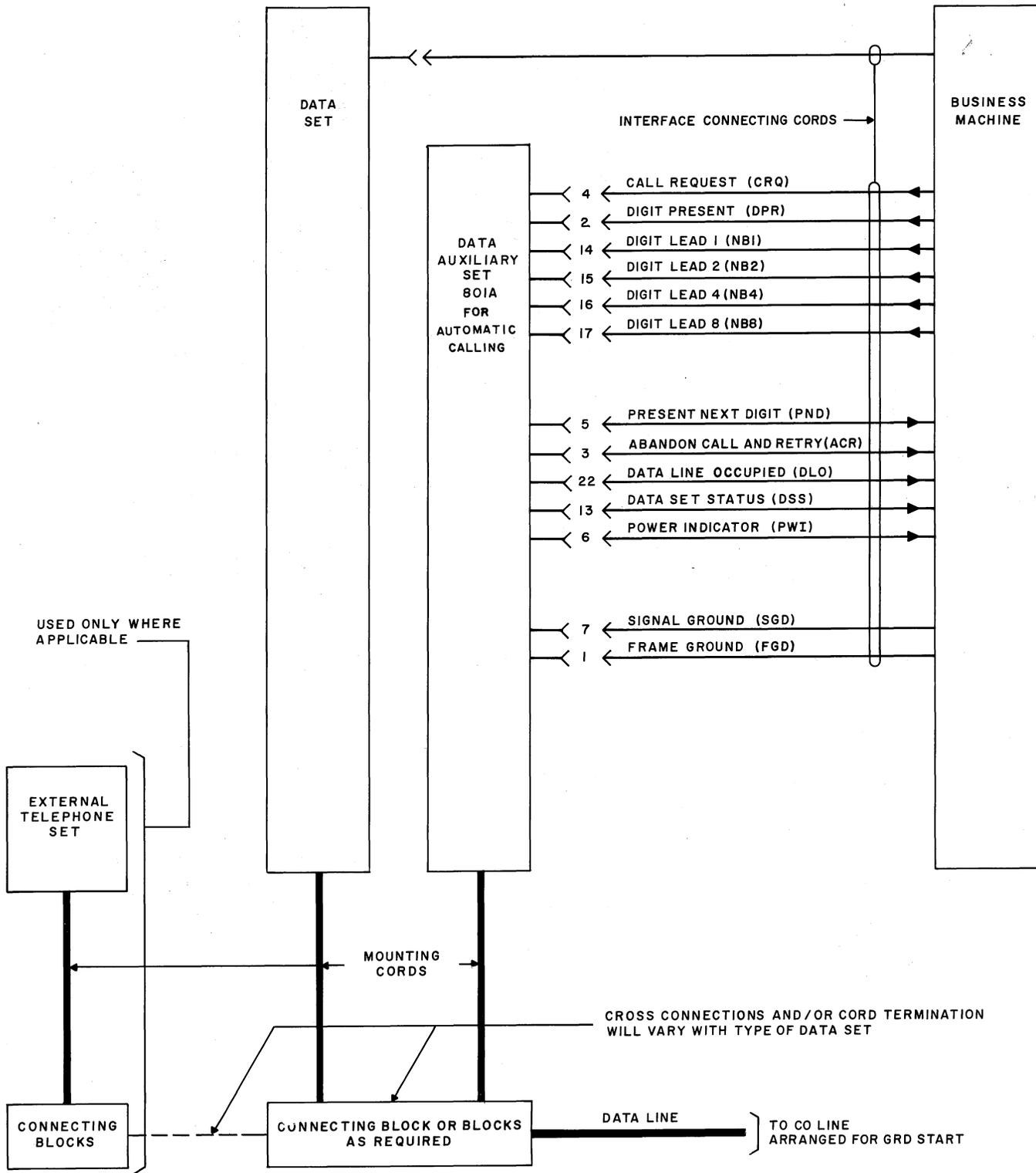


Fig. 3—Block Diagram of a Typical Installation

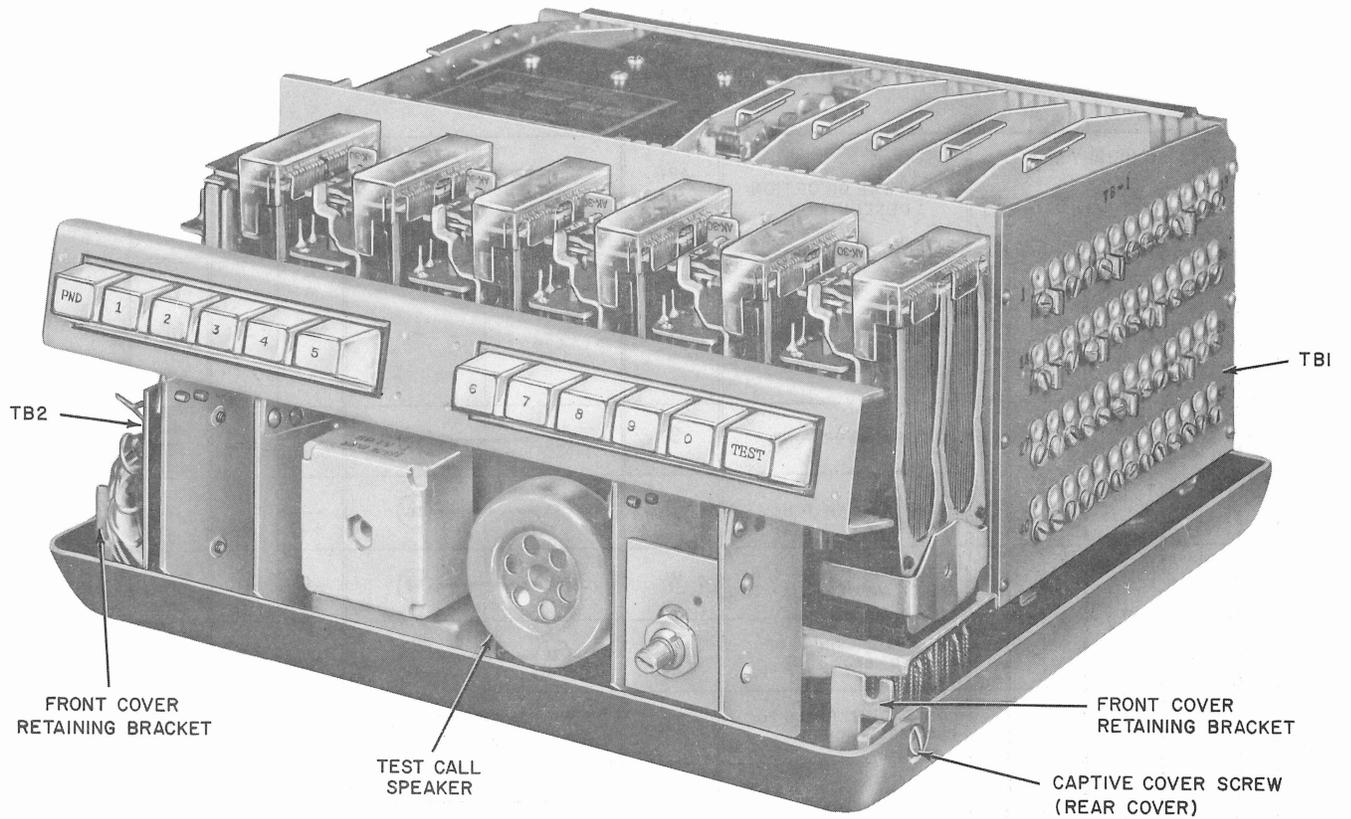


Fig. 4—Data Auxiliary 801A-Type (Front View)

TABLE A
OPTION IDENTIFICATION AND CONNECTIONS

DATA AUXILIARY SET CODE				FEATURE OR OPTION DESCRIPTION	APP OR WIRING	TBI		TB2		PRINTED BOARD DESIG (SEE FIG.1)	NOTES
80IA1	80IA2	80IA3	80IA4			CONNECT AS SHOWN		CONNECT AS SHOWN			
						TERMINAL NO.	TERMINAL NO.	TERM. NO.	TERM. NO.		
*	*			DETECTS ANSWER TONE	R	—	—	—	—	I AND 7	
*	*			2025 ~ ANSWER TONE	S	36	37	—	—	—	I PER CKT
†	†			2225 ~ ANSWER TONE	T	35	36	—	—	—	
*	*			DETECTS AND WAITS FOR END OF ANSWER-BACK TONE	W	32	33	—	—	—	I PER CKT
†	†			DETECTS BEGINNING OF ANSWER-BACK TONE	X	31	32	—	—	—	
	*	*		CONTACT INTERFACE TO BUSINESS MACHINE	U	4 — 5 16 — 17		—	—	4B	I PER CKT
*			*	VOLTAGE INTERFACE TO BUSINESS MACHINE	V	1 — 2 5 — 6 10 — 11 17 — 18 21 — 22		—	—	4A	
*	*	*	*	STOP ACR TIMER ON DATA SET OFF-HOOK	Y	14 — 15		—	—	—	I PER CKT
†	†	†	†	ACR TIMER CONTINUES WITH DATA SET OFF-HOOK	—	REMOVE Y WIRING		—	—	—	
*	*	*	*	CALL TERMINATION CONTROLLED THROUGH DATA AUXILIARY SET	—	Z WIRING REMOVED		—	—	—	I PER CKT
†	†	†	†	CALL TERMINATION CONTROLLED THROUGH DATA SET	Z	28	29	—	—	—	
*	*	*	*	WHEN CONNECTED TO DATA SET EQUIPPED WITH 58A CONTROL UNIT OR 3A1 DATA UNIT	Q	—	—	DT	D2	—	I PER CKT
†	†	†	†	WHEN CONNECTED TO DATA SET NOT EQUIPPED WITH 58A CONTROL UNIT OR 3A1 DATA UNIT	—	—	—	REMOVE Q WIRING		—	
*	*	*	*	10-CONDUCTOR MOUNTING CORD (DIOH-61) (MFD. DISC)	K	—	—	—	—	—	I PER CKT
†	†	†	†	14-CONDUCTOR MOUNTING CORD (M14C-61)	M	—	—	—	—	—	
*	*	*	*	10-CONDUCTOR MOUNTING CORD (DIOP-61)	F	—	—	—	—	—	I PER CKT

* FURNISHED BY MANUFACTURER.

† OPTIONAL CONNECTION FOR THIS GROUP.

△ SUBSTITUTE THIS MOUNTING CORD WHEN MORE CONDUCTORS ARE REQUIRED FOR A SPECIFIC INSTALLATION.

TABLE B
OPTIONS OF ALL AVAILABLE ACU'S

DESCRIPTION	DATA AUXILIARY SETS			
	801C1 & 2	801C3 & 4	801A1, 2, 3 & 4	801A5 & 6
Ground Start (4-Wire)	Not Avail.	ZK	Not Avail.	Not Avail.
Ground Start (2-Wire)	V	V	Fac. Wired	Fac. Wired
Without Ground Start (Loop Start)	Y	Y	Not Avail.	Not Avail.
Detect End of Answer-Tone	W Note 1	W Note 2	W Note 3	W Note 5
Detect Beginning of Answer-Tone	X	X	X	X
Detect 2025 Answer-Tone	S Note 1	S Note 2	S Note 3	S Note 5
Detect 2225 Answer-Tone	T	T	T	T
Mounting Cord - 10 Conductor	M Note 4	M	F Note 8	M
Mounting Cord - 14 Conductor	N	N	M	N
Data Set to Data Mode by Contact to DT	Q	Q	Q	Q
Data Set to Data Mode by Isolated Contact	Remove Q	F	Remove Q	F
Data Set to Data Mode by Grounded Contact	Not Avail.	ZG	Not Avail.	ZG
Stop ACR Timer When DSS Goes on	R	R	Y	R
Do Not Stop ACR Timer When DSS Goes on	Remove R	H	Remove Y	H
Data Set Answer Detection Without End of Number	Not Avail.	E	Not Avail.	E
ACU Answer Detection or End of Number	Fac. Wired	B	Fac. Wired	B
Isolated TK Contact	Fac. Wired	ZA	Fac. Wired	ZA
Isolated CL Contact	Not Avail.	ZC	Not Avail.	ZC
Grounded TK and CL Contacts	Not Avail.	ZB	Not Avail.	ZB
Terminate Call Via Data Set After DSS on (Line Transfer in Test)	Remove Z	G	Z	G
Terminate Call Via Data Set After DSS on (CL Contact in Test)	Not Avail.	ZD	Not Avail.	ZD
Terminate Call Via CRQ After DSS on (Line Transfer)	Z	Z	Remove Z	Z
Terminate Call Via CRQ After DSS on (CL Contact)	Not Avail.	A	Not Avail.	A
2-Wire	Fac. Wired	ZH	Fac. Wired	Fac. Wired
4-Wire	Not Avail.	ZJ	Not Avail.	Not Avail.
DLO Controlled by ACU	Fac. Wired	ZM	Fac. Wired	Fac. Wired
DLO Controlled by ACU and Data Set	Not Avail.	ZL	Not Avail.	Not Avail.
Contact Interface	Not Avail.	Not Avail.	U Note 6	ZE
Voltage Interface	Fac. Wired	Fac. Wired	V Note 7	ZF

Notes

1. Available only in 801C2
2. Available only in 801C4
3. Available only in 801A1 and 2
4. P in early production sets
5. Available only in 801A6
6. Available only in 801A2 and 3
7. Available only in 801A1 and 4
8. Available only in early production sets

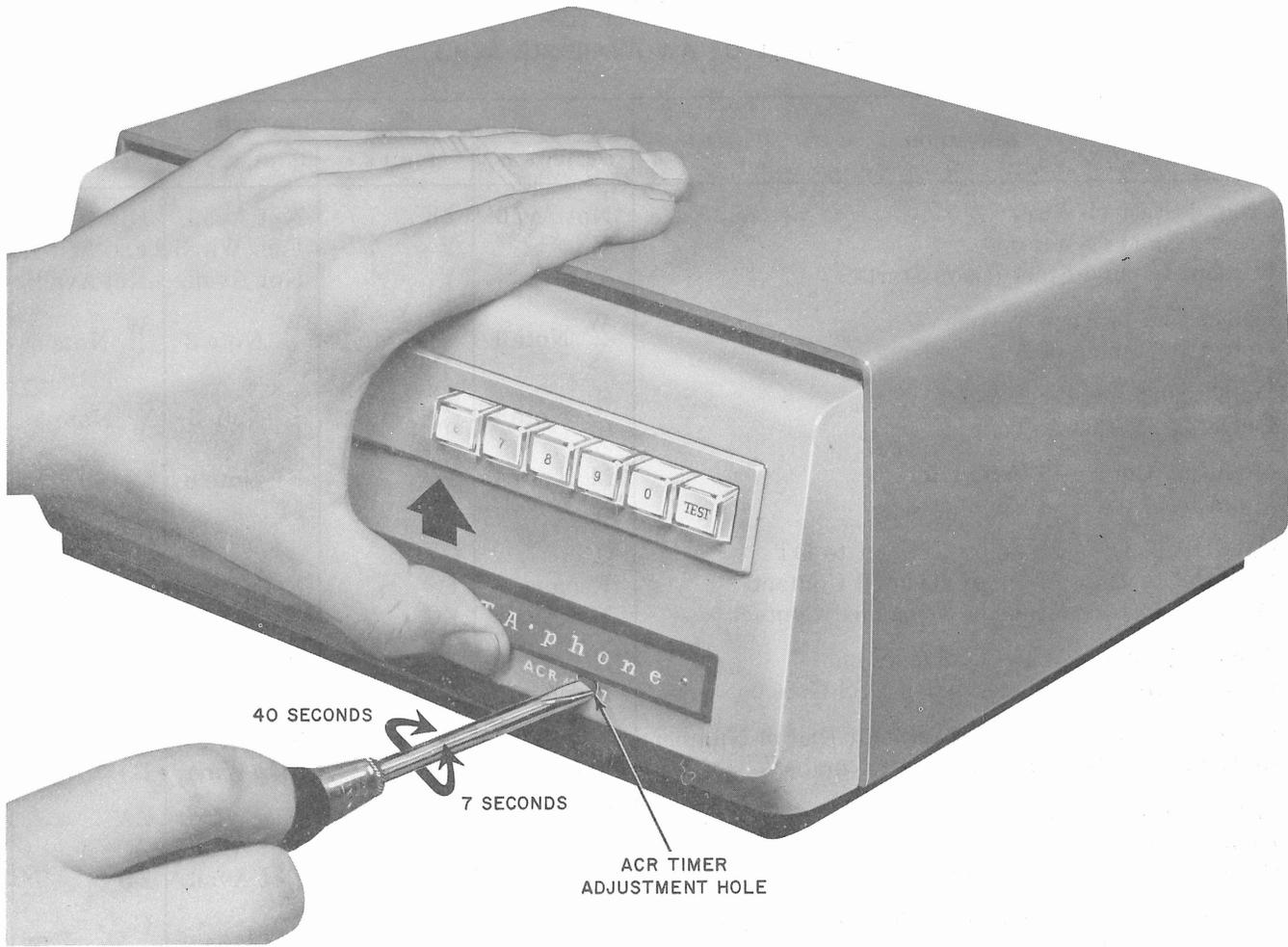


Fig. 5—ACR Timer Adjustment

TABLE C
ACR TIMER ADJUSTMENT

INTERVAL SELECTED	Expose ACR timer adjustment hole as shown in Fig. 5 and set timer as described below.
SECONDS	
7	Rotate adjustment screw to extreme counterclockwise position.
10	Rotate adjustment screw one position clockwise from extreme counterclockwise position.
15	Rotate adjustment screw two positions clockwise from extreme counterclockwise position.
25	Rotate adjustment screw three positions clockwise from extreme counterclockwise position.
40	Rotate adjustment screw to extreme clockwise position.