

SERVICE
AC1 AND AD1 TELEPHONE BASES
WITH 220A, 1220A, AND 2220B HAND TELEPHONE SETS

1. GENERAL

1.01 Reissued to:

- Add information on D4BW-29 mounting cord
- Include information on 1220A(MD) and 2220B hand telephone sets
- Show early and current model P1A ringer connections for AC1 and AD1 telephone bases
- Add Table A and read note 1.01



All AC1 and AD1 telephone bases manufactured prior to 10-1-72 and any base which is opened for any reason should be rewired as shown in Table A before proceeding with connections shown in other tables.

1.02 Information on the 1220A(MD) and 2220B hand telephone sets was formerly found in Sections 502-323-400 and 502-324-400, respectively, which are hereby canceled.

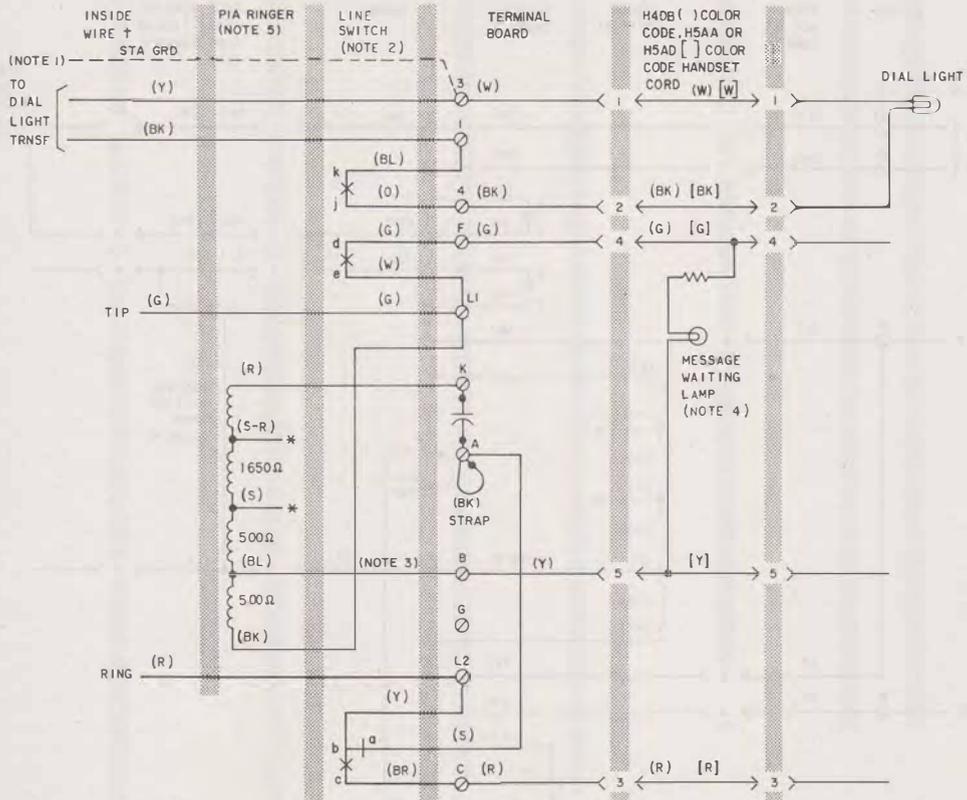
TABLE A

**CONVERSION OF EARLY MODEL AC1 AND AD1
TELEPHONE BASES (FIG. 1 AND 2),
MANUFACTURED PRIOR TO 10-1-72 TO AGREE
WITH CURRENT PRODUCTION MODELS
(FIG. 3 AND 4) (SEE READ IN 1.01)**

WIRE OR LEAD (SEE NOTE)	COLOR	REMOVE FROM	CONNECT TO
Ringer Leads	BL	B	*
	S	*	B
	BK†	G	L1
Strap from A	BK	A	L2

* Insulate and store.
† AD1 base only.

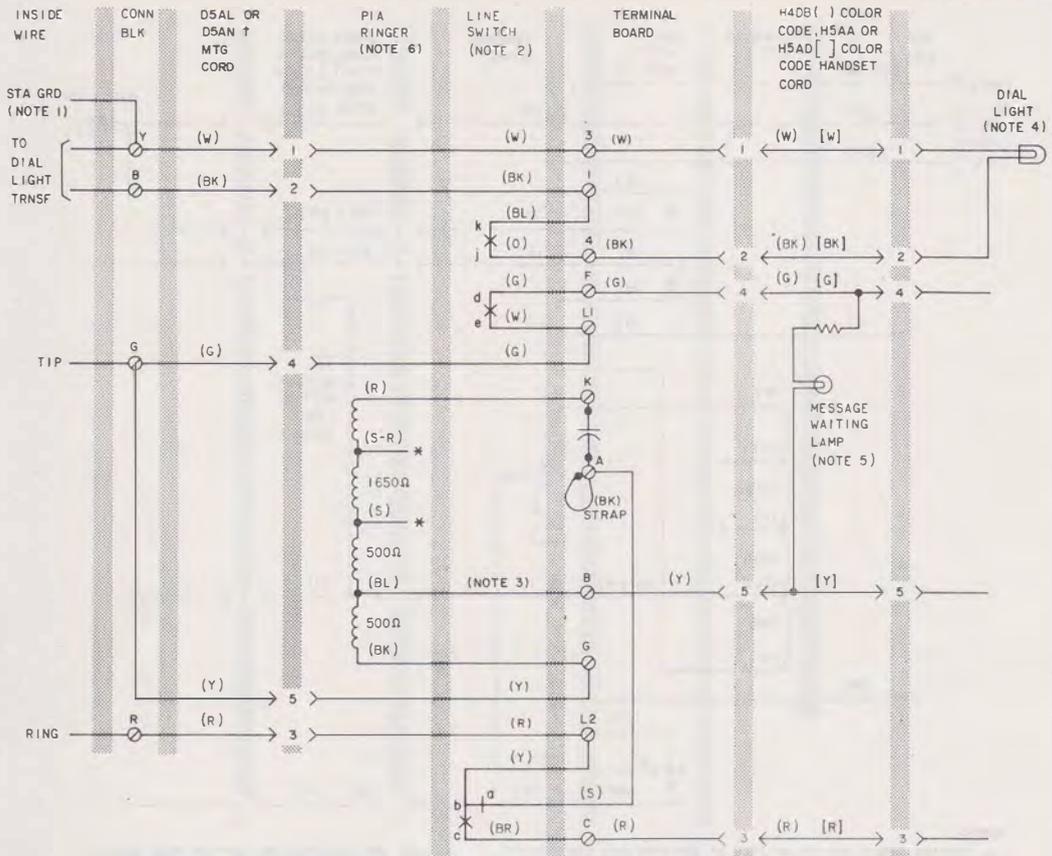
Note: Early model AC1 and AD1 bases, the leads from pins 1 and 5 of the mounting and handset cord jacks are (W) and (Y), respectively. In current model, the leads from pins 1 and 5 are (Y) and (W), respectively.



NOTES:

- STATION GROUND MAY BE OMITTED IF NOT REQUIRED FOR SERVICE; NOT REQUIRED FOR PROTECTION OF DIAL LIGHT TRANSFORMER.
 - LINE SWITCH OFF-HOOK SEQUENCE:
bc CLOSES ab OPENS
de CLOSES jk CLOSES
 - DISCONNECT (BL) LEAD FROM TERMINAL B WHEN H5AA HANDSET CORD IS USED AND TIP PARTY IDENTIFYING GROUND IS NOT PROVIDED, INSULATE AND STORE.
 - LAMP AND RESISTOR ARE PART OF H5AD HANDSET CORD ONLY (MESSAGE WAITING FEATURE). [Y] LEAD IS NOT TERMINATED IN SET PLUG.
 - SET WIRED FOR INDIVIDUAL OR BRIDGED RINGING, FOR ALL OTHER CLASSES OF SERVICE REFER TO RINGER CONNECTION TABLE.
- * INSULATED AND STORED
† WHEN USED WITH KTS(Y) INSIDE WIRE LEAD BECOMES "A" LEAD AND (BK) INSIDE WIRE LEAD BECOMES "A" LEAD. SEE TABLES E AND F FOR ADDITIONAL CONNECTIONS.

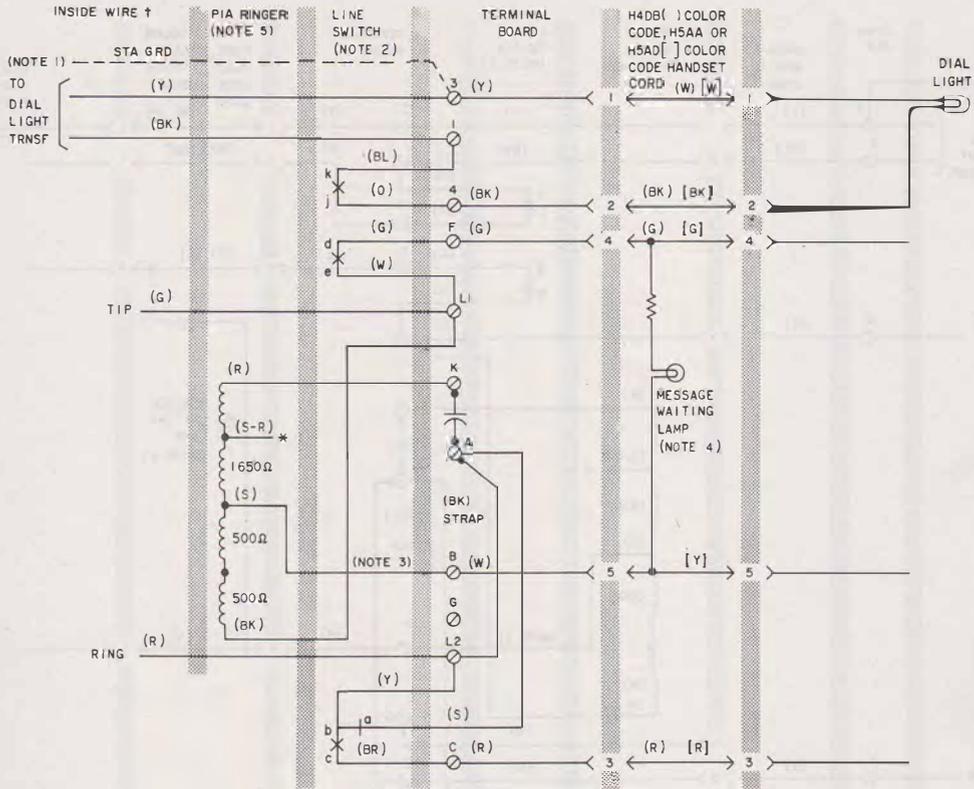
Fig. 1—AC1 Telephone Base Wiring Diagram (Early Model)◆



NOTES:

1. STATION GROUND MAY BE OMITTED IF NOT REQUIRED FOR SERVICE; NOT REQUIRED FOR PROTECTION OF DIAL LIGHT TRANSFORMER.
 2. LINE SWITCH OFF-HOOK SEQUENCE:
bc CLOSES ab OPENS
de CLOSES jk CLOSES
 3. DISCONNECT (BL) LEAD FROM TERMINAL B WHEN H5AA HANDSET CORD IS USED AND TIP PARTY IDENTIFYING GROUND IS NOT PROVIDED, INSULATE AND STORE.
 4. CHANGE TO 53A LAMP IF COMBINED LENGTH OF HAND TELEPHONE CORD AND (ADI BASE) MOUNTING CORD EXCEEDS 15 FEET.
 5. LAMP AND RESISTOR ARE PART OF H5AD HANDSET CORD ONLY (MESSAGE WAITING FEATURE). [Y] LEAD IS NOT TERMINATED IN HANDSET PLUG.
 6. SET WIRED FOR INDIVIDUAL OR BRIDGED RINGING, FOR ALL OTHER CLASSES OF SERVICE REFER TO RINGER CONNECTION TABLE.
- * INSULATED AND STORED
† WHEN USED WITH KTS (W) MTG CORD LEAD BECOMES "A" LEAD AND (BK) MTG CORD LEAD BECOMES "A" LEAD. SEE TABLES E AND F FOR ADDITIONAL CONNECTIONS.

Fig. 2—AD1 Telephone Base Wiring Diagram (Early Model)◆



NOTES:

1. STATION GROUND MAY BE OMITTED IF NOT REQUIRED FOR SERVICE; NOT REQUIRED FOR PROTECTION OF DIAL LIGHT TRANSFORMER
2. LINE SWITCH OFF-HOOK SEQUENCE:
bc CLOSES ab OPENS
de CLOSES jk CLOSES
3. DISCONNECT (S) LEAD FROM TERMINAL B WHEN H5AA HANDSET CORD IS USED AND TIP PARTY IDENTIFYING GROUND IS NOT PROVIDED. INSULATE AND STORE.

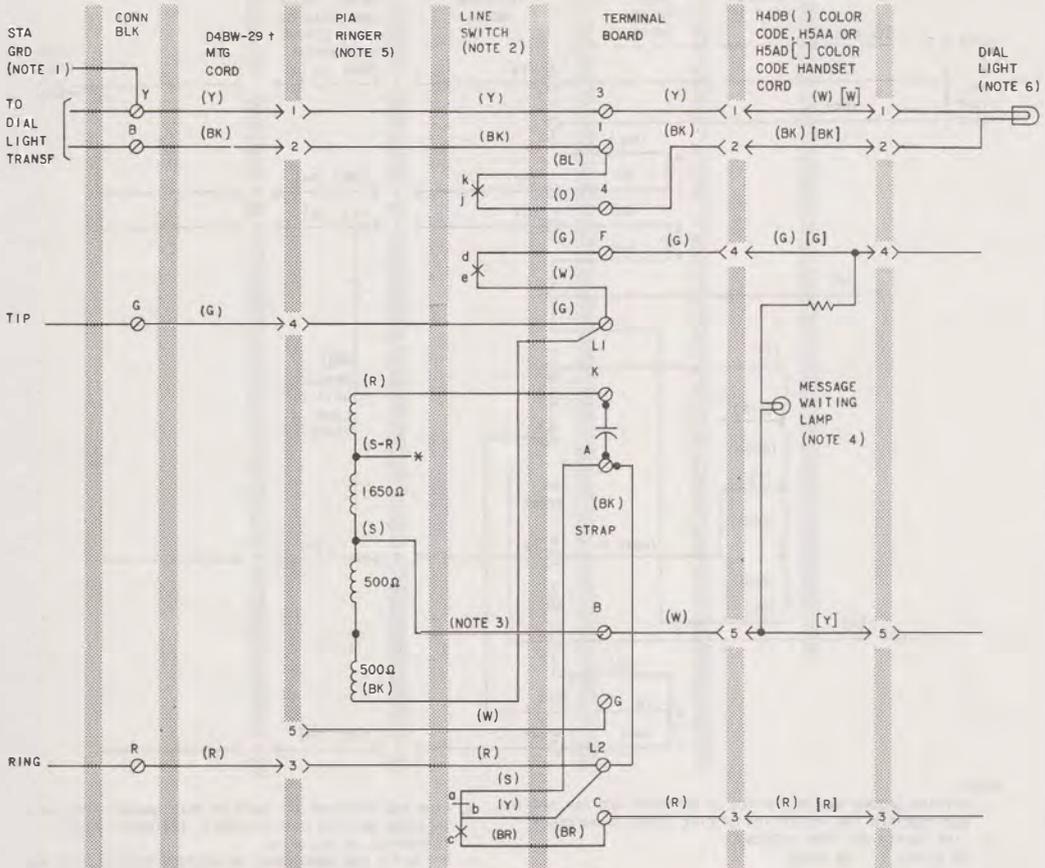
4. LAMP AND RESISTOR ARE PART OF H5AD HANDSET CORD ONLY (MESSAGE WAITING LAMP FEATURE). [Y] LEAD IS NOT TERMINATED IN SET PLUG.
5. SET WIRED FOR INDIVIDUAL OR BRIDGED SERVICE, FOR ALL OTHER PARTY SERVICE REFER TO RINGER CONNECTION TABLE.

* INSULATED AND STORED

† WHEN USED WITH KTS (Y) INSIDE WIRE LEAD BECOMES "A" LEAD AND (BK) INSIDE WIRE LEAD BECOMES "A" LEAD. SEE TABLES E AND F FOR ADDITIONAL CONNECTIONS.

Fig. 3—AC1 Telephone Base Wiring Diagram (Current Model)¶





NOTES:

1. STATION GROUND MAY BE OMITTED IF NOT REQUIRED FOR SERVICE; NOT REQUIRED FOR PROTECTION OF DIAL LIGHT TRANSFORMER.
2. LINE SWITCH OFF-HOOK SEQUENCE:
bc CLOSES ab OPENS
de CLOSES jk CLOSES
3. DISCONNECT (S) LEAD FROM TERMINAL B WHEN H5AA HANDSET CORD IS USED AND TIP PARTY IDENTIFYING GROUND IS NOT PROVIDED, INSULATE AND STORE.
4. LAMP AND RESISTOR ARE PART OF H5AD HANDSET CORD ONLY (MESSAGE WAITING LAMP FEATURE). [Y] LEAD IS NOT TERMINATED IN SET PLUG.
5. SET WIRED FOR INDIVIDUAL OR BRIDGED SERVICE, FOR ALL OTHER PARTY SERVICE REFER TO RINGER CONNECTION TABLE.
6. CHANGE TO 53A LAMP IF COMBINED LENGTH OF HAND TELEPHONE SET CORD AND (ADI BASE) MOUNTING CORD EXCEEDS 15 FEET.

* INSULATED AND STORED

† FOR KTS USE THE "A" AND "A1" LEADS ARE (Y) AND (BK) IN THE D4BW-29 MTG CORD AND (Y) AND (W) IN THE D5AL OR D5AN MTG CORD.

Fig. 4—AD1 Telephone Base Wiring Diagram (Current Model)

TABLE B
TELEPHONE BASE CONNECTIONS FOR
INDIVIDUAL AND 2-PARTY SERVICE
(SEE READ IN 1.01)

WIRE OR LEAD	COLOR	INDIV OR BRIDGED (NOTE 1)	RING PARTY (NOTE 1)	TIP PARTY		
				NO IDENT GRD (NOTE 1)	WITH IDENT GRD	
Inside Wire (AC1 only) (Note 3)	Ring	R	L2	L2	L1	L1
	Tip	G	L1	L1	L2	L2
	TRNSF	Y	3	3	3	3
	TRNSF	BK	1	1	1	1
Mtg Cord at Conn Block (AD1 only)	Ring	R	R	R	G	G
	Tip	G	G	G	R	R
	TRNSF	Y	Y	Y	Y	Y
	TRNSF	BK	B	B	B	B
Ringer Leads (Note 2)		R	K	K	K	K
		BK	L1	3	3	3
		S	B	B	B	B
Handset Cord Jack Leads (220A only)		R	C	C	C	C
		G	F	F	F	F
Handset Cord Jack Leads (1220A, 2220B only)		R	C	C	F	F
		G	F	F	C	C
Strap from A		BK	L2	L2	L2	A

Notes:

1. If H5AA handset cord is used for other than tip party identifying ground, disconnect (S) ringer lead from terminal B; insulate and store.

Caution: Do not store spade tipped leads under terminal board mounting screws.

2. To permanently silence ringer, move (R) ringer lead from terminal K; insulate and store.
3. Inside wire will be run directly to terminal board.

TABLE C

CONNECTIONS FOR 4-PARTY FULL SELECTIVE
OR 8-PARTY SEMISELECTIVE RINGING USING
426N DIODE (SEE READ IN 1.01)

WIRE OR LEAD	LEADS OR COLOR	-RING	-TIP	+RING	+TIP
Line Wire at Conn Block	RING	R	R	R	R
	TIP	G	G	G	G
	TRNSF	Y	Y	Y	Y
	TRNSF	BK	B	B	B
Mtg Cord at Conn Block (AD1 only)	RING	R	R	R	R
	TIP	G	G	G	G
	TRNSF	Y	Y	Y	Y
	TRNSF	BK	B	B	B
Inside Wire or Mtg Cord At Term. Board		R	L2	L2	L2
		G	L1	L1	L1
		Y	3	3	3
		BK	1	1	1
426N Diode *	(1)	L2	L1	3	3
	(2)	G	G	G	G
Ringer Leads		R	3	3	L2
		BK	K	K	K
		S	B	B	B
		S-R	G	G	G
Strap from A		BK	3	3	L2
Line Switch		S	†	†	†

* (1) Flanged (Gold) base

(2) Knob end (housing tip)

† Insulate and store.

Caution: Do not store spade tipped leads under terminal board mounting screws.

TABLE D

P-90D231 POLARITY GUARD ASSEMBLY
CONNECTIONS (AC1 OR AD1) TELEPHONE BASE
AND 1220A OR 2220B HAND TELEPHONE SET
(SEE READ IN 1.01)

WIRE OR LEAD	COLOR	REMOVE FROM	CONNECT TO	
		TERM. BOARD	POLARITY GUARD ASSY	TERM. BOARD
Handset Cord Jack	R	C	Term. C	
	G	F	Term. F	
Polarity Guard Assembly	R			C
	G			F

Note: For use when specified by local instructions for end-to-end signaling installations.

TABLE E

CONVERSION FOR 1A1, 1A2, AND 6A KTS
WITHOUT DIAL LIGHT USING INSIDE WIRE
AND D4BW-29 MOUNTING CORD
(SEE READ IN 1.01)

WIRE OR LEAD	COLOR	TERMINAL BOARD	
		REMOVE FROM	CONNECT TO
Line Switch	BR	C	3
	S	A	L2
	Y	L2	1
	BL	1	*
Inside Wire or Mtg Cord	R	L2	C
Strap from A	BK	L2	C

* Insulate and store.

Caution: Do not store spade tipped leads under terminal board mounting screws.

TABLE F

CONVERSION FOR 1A1, 1A2, AND 6A KTS,
WITH DIAL LIGHT, USING INSIDE WIRE
AND D5AL OR D5AN MOUNTING CORD
(SEE READ IN 1.01)

WIRE OR LEAD	COLOR	TERMINAL BOARD	
		REMOVE FROM	CONNECT TO
Line Switch	BR	C	3
	S	A	L2
	Y	L2	G
Mtg Cord Jack Lead	R	L2	C
Strap from A	BK	L2	C

TABLE G

CONNECTIONS FOR MESSAGE WAITING LAMP AND
DIAL LIGHT FEATURES NONKEY SYSTEM
USE, SEE NOTES (SEE READ IN 1.01)

WIRE OR LEAD	COLOR	TERMINAL BOARD	
		REMOVE FROM	CONNECT TO
Handset Cord Jack Leads	G	F	L1
	W [Y]	B	L2

Notes:

1. Install D4BW-29 mounting cord.
2. Install H5AD handset cord.
3. Refer to Section 502-303-101, Table G, for connections when used with 1A1, 1A2, and 6A KTS.

[] Early bases (Fig. 1 and 2)