## SHEET INDEX

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| DWG ISSUE | CD ISSUE | DATE ISSUED | DRAWN | APPD |
|---|---|---|---|---|
| / | / | 6-3-63 | TNC DHC | WJM PBF ARM |

## SUPPORTING INFORMATION

| CATEGORY | NO. |
|---|---|
| | |

## SHEET INDEX NOTES

1. WHEN CHANGES ARE MADE IN THIS DRAWING, ONLY THOSE SHEETS AFFECTED WILL BE REISSUED.
2. THIS SHEET INDEX WILL BE REISSUED AND BROUGHT UP TO DATE EACH TIME ANY SHEET OF THE DRAWING IS REISSUED, OR A NEW SHEET IS ADDED.
3. THE ISSUE NUMBER ASSIGNED TO A CHANGED OR NEW SHEET WILL BE THE SAME ISSUE NUMBER AS THAT OF THE SHEET INDEX.
4. SHEETS THAT ARE NOT CHANGED WILL RETAIN THEIR EXISTING ISSUE NUMBER.
5. THE LAST ISSUE NUMBER OF THE SHEET INDEX IS RECOGNIZED AS THE LATEST ISSUE NUMBER OF THE DRAWING AS A WHOLE.

SD- 69454-01

STATION SYSTEMS

KEY AND TELEPHONE CIRCUIT

ARRANGED FOR TOUCH-TONE CALLING ON 2- AND 4-WIRE LINES

1616-TYPE TELEPHONE SETS

(2)

AT&TCO STANDARD

SD-69454-01-A1

13 SHEETS

BELL TELEPHONE LABORATORIES INCORPORATED

3S

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CIRCUIT NOTES:

101.

| DESIG | AMP | POTENTIAL FUSED | ONE PER |
|---|---|---|---|
| | | | |

102.

| FEATURE OR OPTION | PROVIDE FIG. | APP OR WRG | QUANTITY |
|---|---|---|---|
| | | | |
| PLUG TERMINATION OF D120C CORD OF 1616-TYPE TEL SET | 1 | | |
| TOUCH TONE DIAL CKT | 2 | | |
| DC BUZZER | 3 | | ONE PER KEY TEL SET |
| TEL SET CKT FOR 1616-TYPE TEL SET ARRANGED FOR HANDSET OR HEAD TEL SET OPERATION OR FOR HANDSET OR SPEAKERPHONE OPERATION | 4 | | |
| 599B KEY | 5 | | |
| KEY AND TRANSMITTER UNIT FOR SPEAKERPHONE SYS NO. 3A | 6 | | |
| FIRST KEY UNIT OF 1616-TYPE TEL SETS | 7 | | |
| SUPPLEMENTARY KEY UNIT OF 1616-TYPE TEL SETS | 8 | | SEE NOTE 301 |
| OPERATOR HEADSET | 9 | | AS REQD |
| WITH CONTROL UNIT 55A, SEE NOTE 105 | | Z | |

103.

| NETWORK VALUES | | | |
|---|---|---|---|
| NETWORK NO. | NETWORK CODE | RESISTANCE IN OHMS | CAPACITANCE IN UF |
| | | | |

CIRCUIT NOTES: (CONTINUED)

104.

| RECORD OF FIGURES, WIRING, AND APPARATUS CHANGES | | | | | | | |
|---|---|---|---|---|---|---|---|
| CHANGED ON ISS. | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | A&M | MD | |
| | | | | | | | |

105. SETS SHALL BE FURNISHED WITH INDICATED LEADS SPADE TIPPED, TAPED AND STORED. FOR THE FOLLOWING CONDITIONS LEADS SHALL BE TERMINATED AS SPECIFIED BELOW:

SPEAKERPHONE: (MODIFIED 55A CONTROL UNIT)

| INTERNAL LEAD CONNECTIONS | | |
|---|---|---|
| LEAD DESIGNATIONS | 3RD KEY POSITION 667 TRANSMITTER LEADS | 1616-TYPE CALL DIRECTORS |
| T1 | Y-BL | 3 OF (TB2) |
| R1 | BL-Y | 6 OF (TB1) |
| LK | Y-O | 4 OF (TB1) |
| AG | O-Y | 1 OF (TB1) |
| A1 | O-V | 2 OF (TB1) |
| | | |
| | | |
| | | |

WITH THE 667B TRANSMITTER THE LEADS TO THE TURN KEY ARE AVAILABLE.

FOR SPEAKERPHONE SYSTEM NO. 3A, THE LOUDSPEAKER LEADS SHALL BE BROUGHT FROM THE CONTROL UNIT VIA LEADS EXTERNAL TO THE TELEPHONE SET CORD. THE MAXIMUM ALLOWABLE CONDUCTOR LENGTH BETWEEN THE CONTROL UNIT AND THE TELEPHONE SET IS 100 FEET FOR SPEAKERPHONE SYSTEM NO. 3A.

AN EXTERNAL TRANSMITTER CANNOT BE USED WITH THE 1616 TELEPHONE SET.

DRAWING ISSUE / TNC DHC ARM

STATION SYSTEMS
KEY AND TELEPHONE CIRCUIT (2)

SD-69454-01-BI

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CIRCUIT NOTES: (CONTINUED)

106. ALL KEY POSITIONS ARE ARRANGED IN THE SHOP AS PICKUP POSITIONS. TO CONVERT A KEY POSITION FROM PICKUP (LOCKING) TO SIGNALING (NONLOCKING) REMOVE THE SCREW DETAIL P-10E837 FROM THE PLUNGER AT THE KEY POSITION TO BE CONVERTED. MAKE THE NECESSARY CONNECTION CHANGES AS SHOWN IN TABLE C. TO CONVERT A KEY POSITION FROM NONLOCKING TO LOCKING, INSERT SCREW DETAIL P-10E837 IN PLUNGER.

107. WHEN USING THE ARRANGEMENT FOR A COMMON SIGNALING KEY FOR SEVERAL PRIVATE OR INTERCOMMUNICATING LINES AS PROVIDED FOR IN TABLE C, THE 6TH KEY OF ANY SUPPLEMENTARY KEY UNIT IS CONVERTED TO NONLOCKING AND IS USED AS THE SIGNALING KEY. THE SIGNALING IS DIRECTED TO THE S OR S1 LEAD OF THE LINES TO BE SIGNALED. THE AUTOMATIC CUTOFF FEATURE OF KEY TELEPHONE SYSTEM NO. 1A1 CANNOT BE USED ON A LINE CONNECTED TO THE COMMON SIGNALING KEY.

108. WHEN MORE THAN 5 PRIVATE AND INTERCOMMUNICATING LINES WITH COMMON SIGNAL KEY ARE REQUIRED PER TELEPHONE SET, THE C TERMINALS OF THE KEY UNITS OF THE LINES USING COMMON SIGNALING ARE STRAPPED TOGETHER.

109. THE RINGER OR BUZZER MAY BE CONNECTED WITHOUT CAPACITOR FOR PRIVATE LINE, COMMON, OR INTERCOM LINE SIGNALS AS REQUIRED. WHEN POWER FAILURE FEATURE IS PROVIDED A CAPACITOR IS REQUIRED.

110. WHEN A KEY AND TRANSMITTER UNIT (FIG. 6) IS USED IT SHALL BE PLACED IN THE 3RD KEY POSITION OF THE 18-BUTTON SET OR THE 5TH KEY POSITION OF THE 30-BUTTON SET IN PLACE OF THE APPARATUS BLANK OR KEY UNIT OCCUPYING THAT POSITION.

111. WHEN SIGNALING KEYS ARE TO BE PROVIDED ON ANY SUPPLEMENTAL KEY UNIT OF A 1616-TYPE TELEPHONE SET, THE SPADE TIPPED LEADS ASSOCIATED WITH PICKUP KEYS TO BE USED AS SIGNALING KEYS SHALL BE CONNECTED TO THE C TERMINAL ON (T8$\overline{V}$T). THESE C TERMINALS SHALL BE STRAPPED TO THE SG TERMINAL OF TERMINAL STRIP (T8$\overline{V}$T).

112. THE 599B KEY SHALL BE LOCATED IN THE FIRST KEY POSITION REPLACING EITHER THE 599A OR THE 598A KEY UNIT.

EQUIPMENT NOTES:

201. A D120C CORD CONSISTS OF AN 8-FOOT LENGTH OF 120-STRANDED 27-GAUGE CONDUCTORS JACKETED AND GROUPED INTO BLUE-WHITE, ORANGE-WHITE AND GREEN-WHITE SERVINGS OF 40 CONDUCTORS EACH. THE CORD IS PROVIDED WITH 3 PLUGS ON THE END TOWARD THE CABLE AND 3 PLUGS AND TERMINAL STRIPS MOUNTED ON A KEY FRAME INSIDE THE SET.

202. THE KS-8109 BUZZER SHALL BE MOUNTED ON THE RELAY BRACKET USING TWO NYLON SCREWS AND TWO FIBER WASHERS TO INSULATE THE BUZZER FROM THE BRACKET. THE NYLON SCREWS AND FIBER WASHERS ARE FURNISHED IN THE SET.

DRAWING ISSUE

/ 7NC DHC ARM

STATION SYSTEMS
KEY AND TELEPHONE CIRCUIT

(2)

SD-69454-01-B2

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INFORMATION NOTES:

301. THE 18-BUTTON KEY TELEPHONE SET SHALL BE PROVIDED WITH A TELEPHONE SET CIRCUIT AND ANY KEY ARRANGEMENT AS SHOWN IN TABLE A.

302. RINGER CONNECTIONS MAY BE MADE BY CONNECTING THE CABLE LEADS ASSOCIATED WITH R OR R1 AND B OR B1 LEADS AT THE EQUIPMENT AS DESIRED OR REQUIRED.

303. WHEN A 598A KEY IS ADDED, THE T, R, AND A LEADS CONNECT AS FOLLOWS:

| LEAD DESIG | FROM | | | | TO | | | | COLOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TB I | TB II | TB III | TB IV | TB II | TB III | TB IV | TB V | TB I | TB II | TB III | TB IV |
| R | 1 | | | | R | | | | BL-V | | | |
| | | 1 | | | | R | | | | BL-V | | |
| | | | 1 | | | | R | | | | BL-V | |
| | | | | 1 | | | | R | | | | BL-V |
| T | PIN 45 OF ASSOC CONN | | | | T | | | | V-BL | | | |
| | | | | | | T | | | | | | |
| | | | | | | | T | | | | | |
| | | | | | | | | T | | | | |
| A | PIN 46 OF ASSOC CONN | | | | A-H | | | | G-V | | | |
| | | | | | | A-H | | | | | | |
| | | | | | | | A-H | | | | | |
| | | | | | | | | A-H | | | | |

304. 8R-V LEAD SHALL BE CONNECTED TO TERMINAL 27 OF THE THIRD PLUG INSIDE THE 1616-TYPE SETS. THE SPADE TIPPED END SHALL BE TAPED AND STORED.

305. RINGER VOLUME CONTROL IS LOCATED ALONG THE BASE AT THE LEFT FRONT OF SETS. THE RINGER IS MANUALLY SHUT OFF WHEN THE CONTROL ARM IS MOVED TO THE EXTREME LEFT POSITION. THE LOUDEST POSITION IS THE FARTHEST RIGHT POSITION.

306. BUZZER LEADS BZ AND BZ1 MAY BE CONNECTED AT THE EQUIPMENT TO PROVIDE THE REQUIRED TYPE OF BUZZER OPERATION.

307. UNLESS OTHERWISE SPECIFIED:
RESISTANCE VALUES ARE IN OHMS,
CAPACITANCE VALUES ARE IN MICROFARADS.

FIG. 101
TOP VIEW 599A KEY

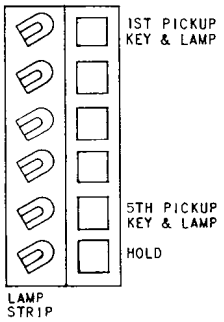



FIG. 102
TOP VIEW 598A KEY

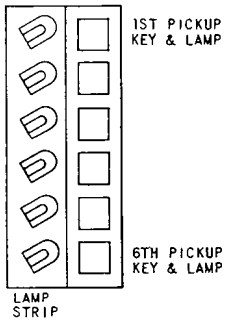
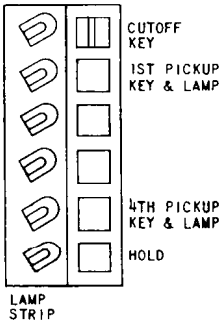



FIG. 103
TOP VIEW 599B KEY




| FIGURES AND OPTIONS ON THIS DWG | | | |
|---|---|---|---|
| CKT. FIG. | | APP OR WIRING | |
| 1 | | 2 | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |

DRAWING ISSUE
/ [illegible]

STATION SYSTEMS
KEY AND TELEPHONE CIRCUIT
2

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DRAWING ISSUE

/ TNC DNC ARM

TABLE A

CODE IDENTIFICATION FOR 18-BUTTON KEY TEL SET

| BASE & 1ST SUFFIX | 2ND SUFFIX | LEFT KEY POSITION | NO. 2 KEY POSITION | NO. 3 KEY POSITION | |
|---|---|---|---|---|---|
| 1616A | 2 | 599A | 598A | 598A | |
| | 7 | 599B | | | |
| | 11 | 599A | | 667B | |
| | 13 | 599B | | | |

TABLE B OF FIG 7 AND 8

PICKUP-SIGNALING CONVERSION OF KEY UNIT
CONVERT KEYS FROM LOCKING TO NONLOCKING OR VICE VERSA
(SEE NOTES 106, 107, 108, AND 111) AND CHANGE SET LEADS AS FOLLOWS

| NO. OF PICKUP KEYS | NO. OF SIG KEYS CONVERTED FROM PICKUP KEYS | | | NO. OF PRIVATE AND INTERCOM LINES WITH COM SIG KEYS (PER KEY UNIT) | KEY LEADS & TERMS OF KEY UNIT OR UNITS INVOLVED | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 599A | 599B | 598A SUPL KEY | | O-W | S-W | G-R | BL-BK | BR-BK | Y-O SUPL KEY ONLY | O-Y SUPL KEY ONLY |
| 6 | - | - | - | - | A-H | A-H | A-H | A-H | A-H | A-H | G |
| 5 | - | - | 1 | - | A-H | A-H | A-H | A-H | A-H | C | G |
| 4 | 1 | - | 2 | - | A-H | A-H | A-H | A-H | C | C | G |
| 3 | 2 | 1 | 3 | - | A-H | A-H | A-H | C | C | C | G |
| 2 | 3 | 2 | 4 | - | A-H | A-H | C | C | C | C | G |
| 1 | 4 | 3 | 5 | - | A-H | C | C | C | C | C | G |
| - | - | - | 6 | - | C | C | C | C | C | C | G |
| 5 | | | 1 | 2 | A-H | A-H | A-H | C | C | C | SG |
| 5 | | | 1 | 3 | A-H | A-H | C | C | C | C | SG |
| 5 | | | 1 | 4 | A-H | C | C | C | C | C | SG |
| 5 | | | 1 | 5 | C | C | C | C | C | C | SG |

STATION SYSTEMS
KEY AND TELEPHONE CIRCUIT

2

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DWG SIZE 3S

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/

# FIG. 1

PLUG TERMINATION OF
D120C CORD
SEE NOTE 105

| D120C CORD COLOR | PLUG TERM. | LEAD DESIGNATION | | |
|---|---|---|---|---|
| | | PLUG 1 BLUE-WHITE SERVING | PLUG 2 ORANGE-WHITE SERVING | PLUG 3 GREEN-WHITE SERVING |
| BL-W | 1 | R | R | R |
| W-BL | 26 | T | T | T |
| O-W | 2 | A1 | | |
| W-O | 27 | A, S, OR S1 | A, S, OR S1 | A, S, OR S1 |
| G-W | 3 | L | L | L OR † R1 |
| W-G | 28 | LG | LG | LG OR † T1 |
| BR-W | 4 | R | R | R |
| W-BR | 29 | T | T | T |
| S-W | 5 | | | |
| W-S | 30 | A, S, OR S1 | A, S, OR S1 | A, S, OR S1 |
| BL-R | 6 | L | L | L OR † P1 |
| R-BL | 31 | LG | LG | LG |
| O-R | 7 | R | R | R |
| R-O | 32 | T | T | T |
| G-R | 8 | | | |
| R-G | 33 | A, S, OR S1 | A, S, OR S1 | A, S, OR S1 |
| BR-R | 9 | L | L | L |
| R-BR | 34 | LG | LG | LG |
| S-R | 10 | R | R | R |
| R-S | 35 | T | T | T |
| BL-BK | 11 | | | |
| BK-BL | 36 | A, S, OR S1 | A, S, OR S1 | A, S, OR S1 |
| O-BK | 12 | L | L | L OR † S |
| BK-O | 37 | LG | LG | LG OR † AG |
| G-BK | 13 | R OR ER | R | R |
| BK-G | 38 | T OR ET | T | T |
| BR-BK | 14 | | | |
| BK-BR | 39 | A, S, OR S1 | A, S, OR S1 | A, S, OR S1 |
| S-BK | 15 | L | L | L OR † M1 |
| BK-S | 40 | LG | LG | LG OR † M2 |
| BL-Y | 16 | R | R | R |
| Y-BL | 41 | T | T | T |
| O-Y | 17 | FW | | |
| Y-O | 42 | | A, S, OR S1 | A, S, OR S1, † A1 |
| G-Y | 18 | SP | L | L OR † F1 |
| Y-G | 43 | P3 | LG | LG |
| BR-Y | 19 | SG | PB | RR |
| Y-BR | 44 | † CS | SPARE | RT |
| S-Y | 20 | R OR R1 | BZ | SPARE |
| Y-S | 45 | B OR B1 | BZ1 | SPARE |
| | 21 | VACANT | VACANT | VACANT |
| | 46 | | | |
| | 22 | | | |
| | 47 | | | |
| | 23 | | | |
| | 48 | | | |
| | 24 | | | |
| | 49 | | | |
| | 25 | | | |
| | 50 | | | |

† SPEAKERPHONE SYSTEM NO. 3A

FIG. 104
PLUG
NUMBERING SCHEME

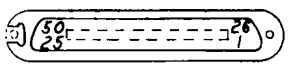
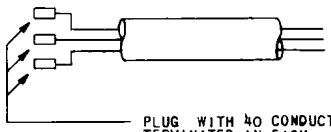



FIG. 105
D120C CORD



PLUG WITH 40 CONDUCTORS TERMINATED IN EACH.

STATION SYSTEMS
KEY AND TELEPHONE CIRCUIT

(2)

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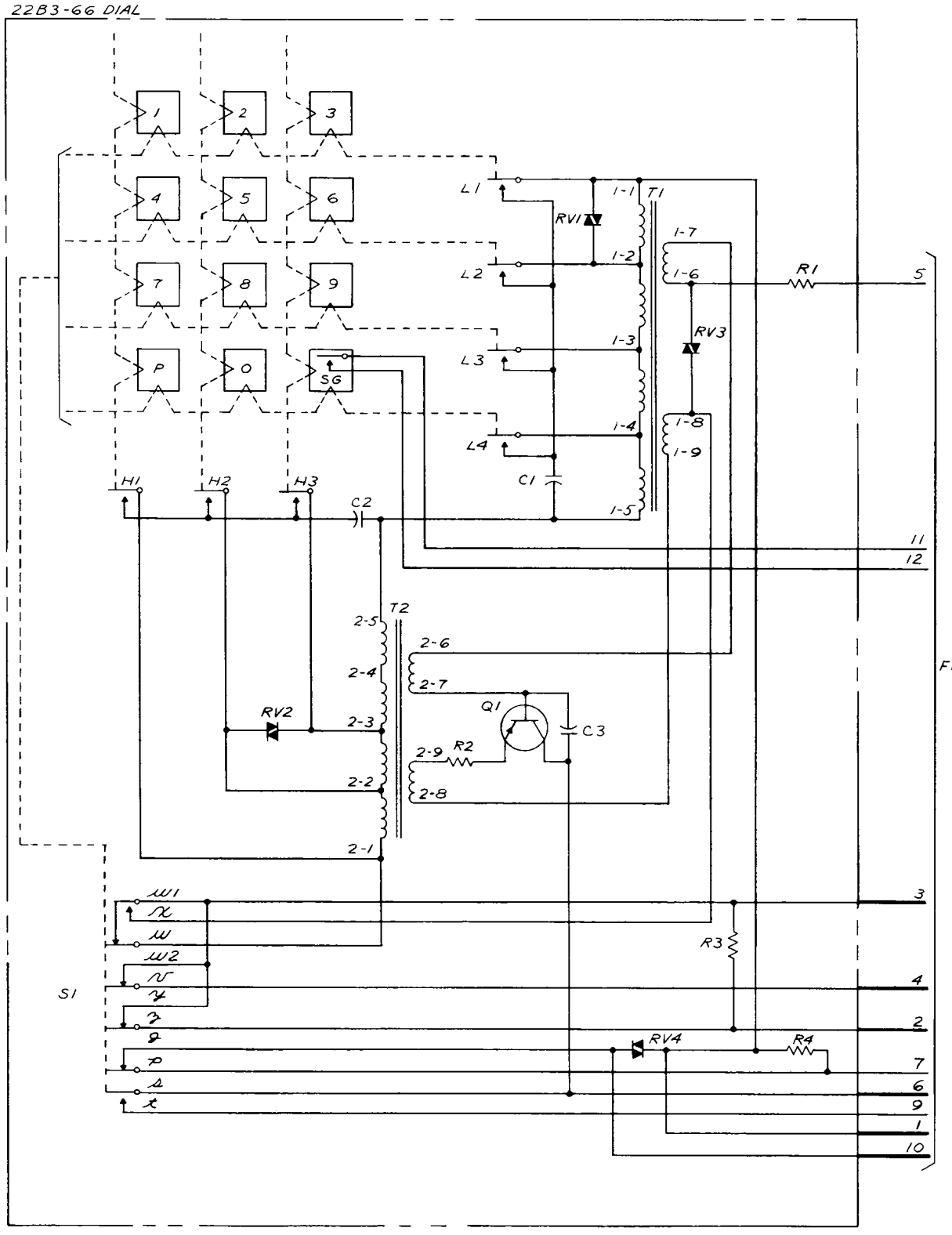
# FIG. 2
TOUCH-TONE DIAL CKT
1616 SET




DRAWING ISSUE
1

STATION SYSTEMS
KEY AND TELEPHONE CIRCUIT
2

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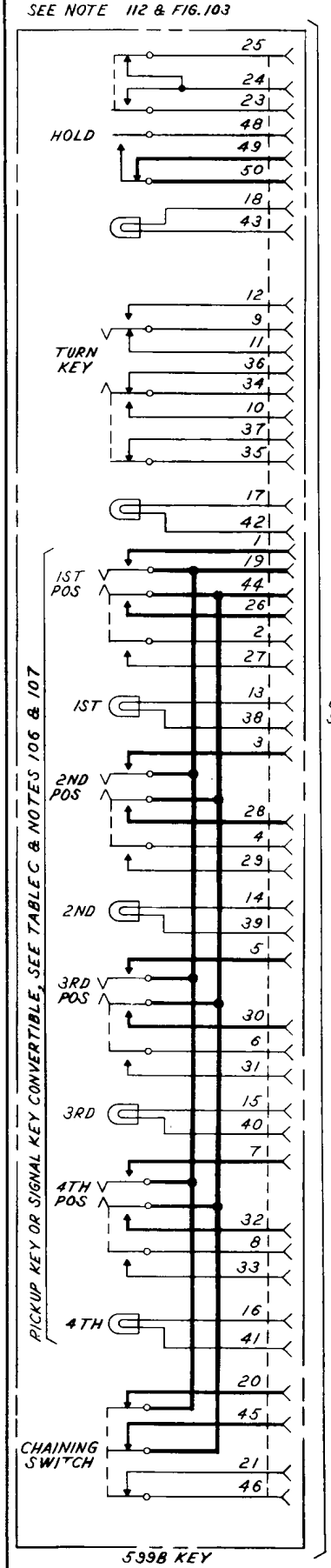
DRAWING ISSUE
/ THIS DWG ARM

FIG. 5
599B KEY
SEE NOTE 112 & FIG. 103




THE FOLLOWING TABLE LISTS THE SERVICE FEATURES AND LEADS UTILIZED TO PROVIDE THESE SERVICES IN THE 1616-TYPE TELEPHONE SETS.

SEE NOTE 112

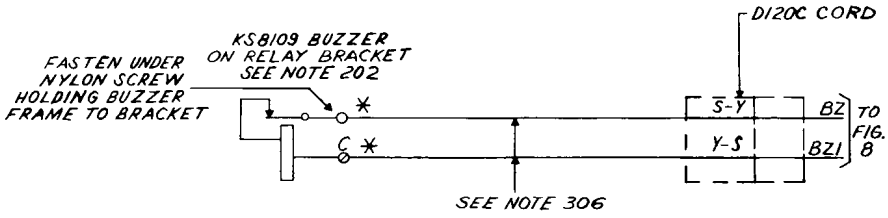
| FEATURE (599B KEY) | 5TH AND 6TH PICKUP KEY LEADS | | | | | | SPADE TIPPED LEADS IN SET | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | R 5TH G-BK | T 5TH BK-G | A 5TH BK-BR | R 6TH BL-Y | T 6TH Y-BL | A 6TH Y-O | BL-Y | Y-BL | O-Y | Y-O | BR-BK |
| CUTOFF STA ON 1A1 SYS | TO EQUIP. | | | TO EXT STA | | | TAPE AND STORE | | G TB1 | TAPE AND STORE | |
| CUTOFF STA ON 4-WIRE LINE (AUX RELAY REQD) | TO EQUIP. GRD | TO EQUIP. AUX REL | | | | TAPE AND STORE | TAPE AND STORE | | | G TB1 | G TB1 |
| CUTOFF EXT RING. OR BUZ | TO EQUIP. | | | TO EXT RING. OR BUZ | | | TAPE AND STORE | | | | |
| CUTOFF BELL IN SET | TO EQUIP. | | | * | * | | 1 TB2 † | A NET. † | TAPE AND STORE | | |
| CUTOFF BUZ IN SET | TO EQUIP. | | | * | * | | D A CAP. | C C C | TAPE AND STORE | | |
| MONITORING | TO MON EQUIP. | | | | | | R TB1 | T TB1 | | | |

† TAPE AND STORE THE S-Y AND Y-S LEADS FROM A OF NETWORK AND 1 OF TB2.

* THE BL-Y AND Y-BL LEADS SHOULD BE TAPED AND STORED AT THE EQUIPMENT WHEN THE SPADE TIPPED LEADS ARE USED IN THE SET.

TO FIG. 7 IN PLACE OF 599A KEY SHOWN THEREON

FIG. 3
DC BUZZER CKT




* INDICATES LEADS ARE SPADE TIPPED

STATION SYSTEMS
KEY AND TELEPHONE CIRCUIT

SD-69454-01-C3

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# FIG. 4
TELEPHONE SET CKT
FOR 1616-TYPE
KEY TELEPHONE SETS
SEE NOTE 301 & TABLE A

DRAWING ISSUE
1 TKS DHC ARM

NIA-TYPE RINGER SEE NOTE 305

TB2

1000 BK S +
1600 S-R +
2400 R

D120C CORD

SEE NOTE 302

TO FIG. 7

TO FIG. 6

TO FIG. 12

TO FIG. 8

TO FIG. 7

D120C CORD

4010B NETWORK

SWITCH

FLASH SEE NOTE 2

FW

TB1

TB2

241A AMPL

100A

517A

517A

G3AR HANDSET

UI RCVR UNIT

TI XMTR UNIT

915

# FIG. 9
OPERATOR HEADSET

52A OR 53A HEADSET

289-TYPE

HC3 RCVR UNIT

NI XMTR UNIT

SHEET NOTES:

1. * INDICATES LEADS ARE SPADE TIPPED.
2. a AND b SHOULD MAKE BEFORE c AND d BREAK.
3. + INDICATES LEADS ARE TAPED AND STORED.

STATIONS SYSTEMS
KEY AND TELEPHONE CIRCUIT (2)

SD-69454-01-C4

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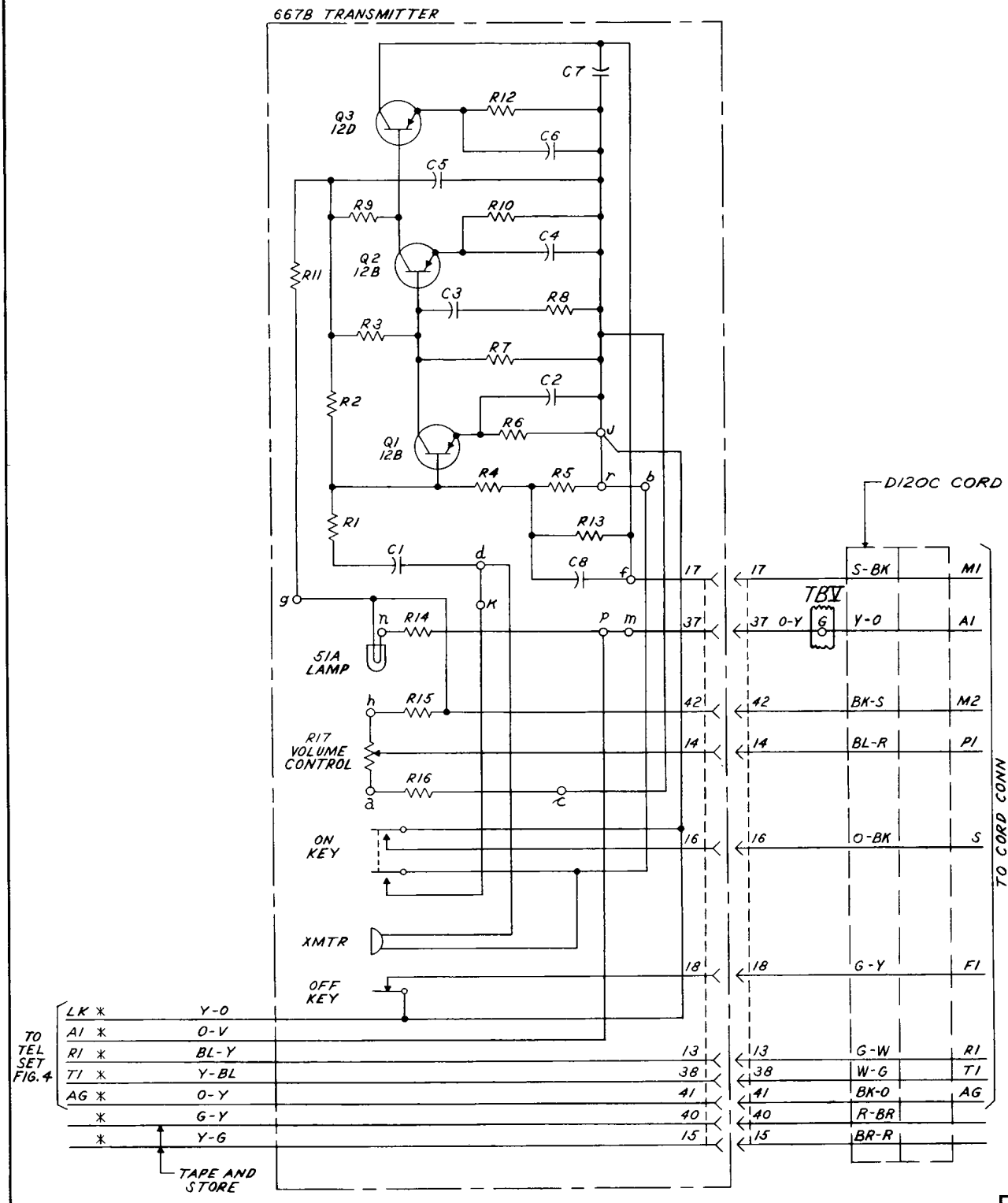
/ TMC DAC ARM

# FIG. 6
KEY AND TRANSMITTER CIRCUIT
FOR SPEAKERPHONE MODULE
SEE NOTES 105 & 110




NOTES:

1. * INDICATES LEADS ARE SPADE TIPPED AND OF SUFFICIENT LENGTH TO REACH NETWORK OR TERMINALS WHEN SPEAKERPHONE MODULE IS IN 3RD KEY POSITION OF A 1616-TYPE TEL SET.
2. SCRIPT LETTER DESIGNATIONS ARE A PART OF PRINTED CIRCUIT BOARD.

STATION SYSTEMS
KEY AND TELEPHONE CIRCUIT
(2)

SD-69454-01-C5

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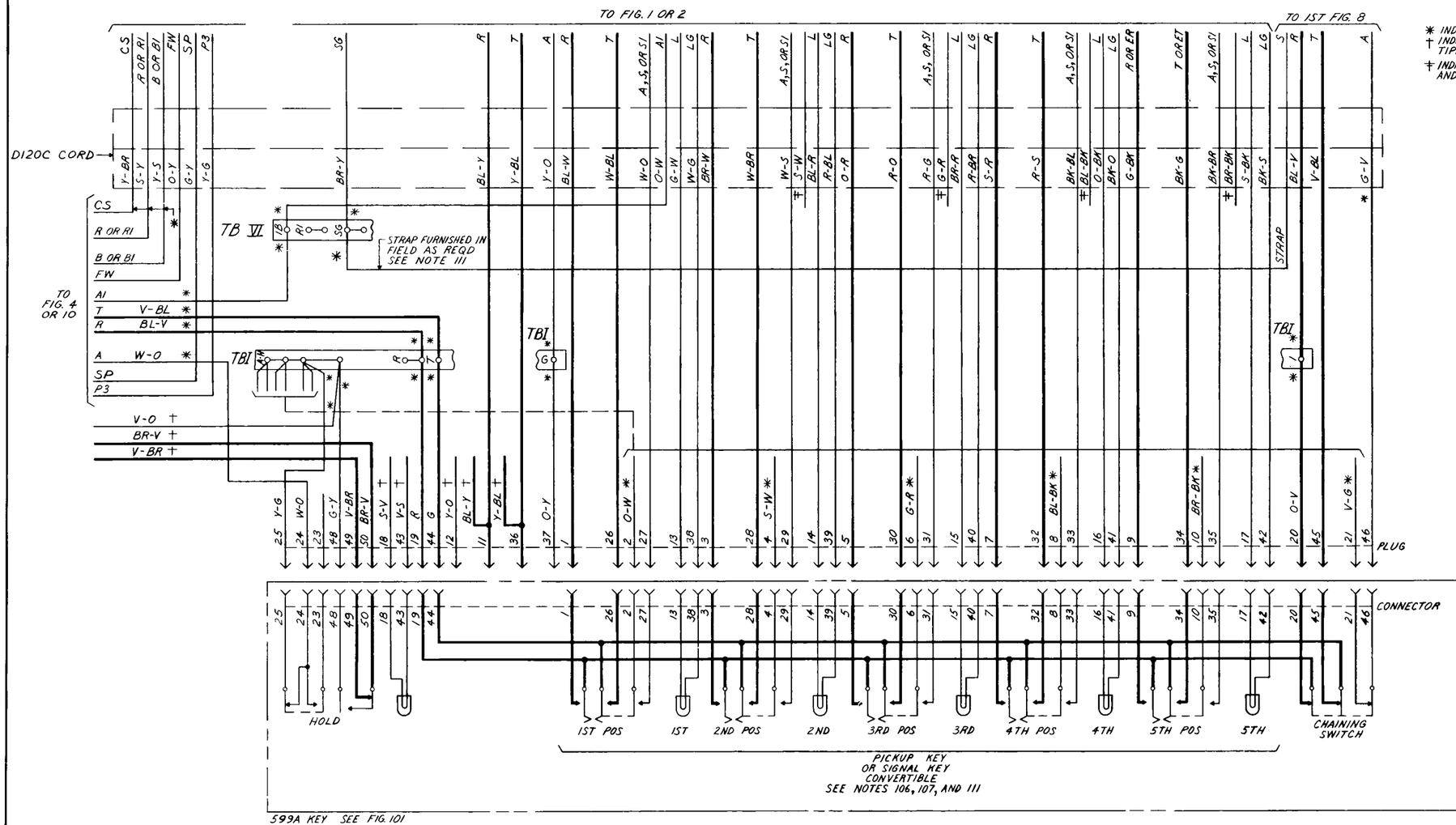
# FIG. 7
FIRST KEY UNIT OF
1616-TYPE TELEPHONE SET
SEE NOTE 110




* INDICATES LEADS ARE SPADE TIPPED.
† INDICATES LEADS SHALL BE SPADE TIPPED AND STORED.
‡ INDICATES LEADS SHALL BE CUT DEAD AND INSULATED AT THE BUTT.

DRAWING ISSUE
/ TMC DHC APM

STATION SYSTEMS
KEY AND TELEPHONE CIRCUIT (2)
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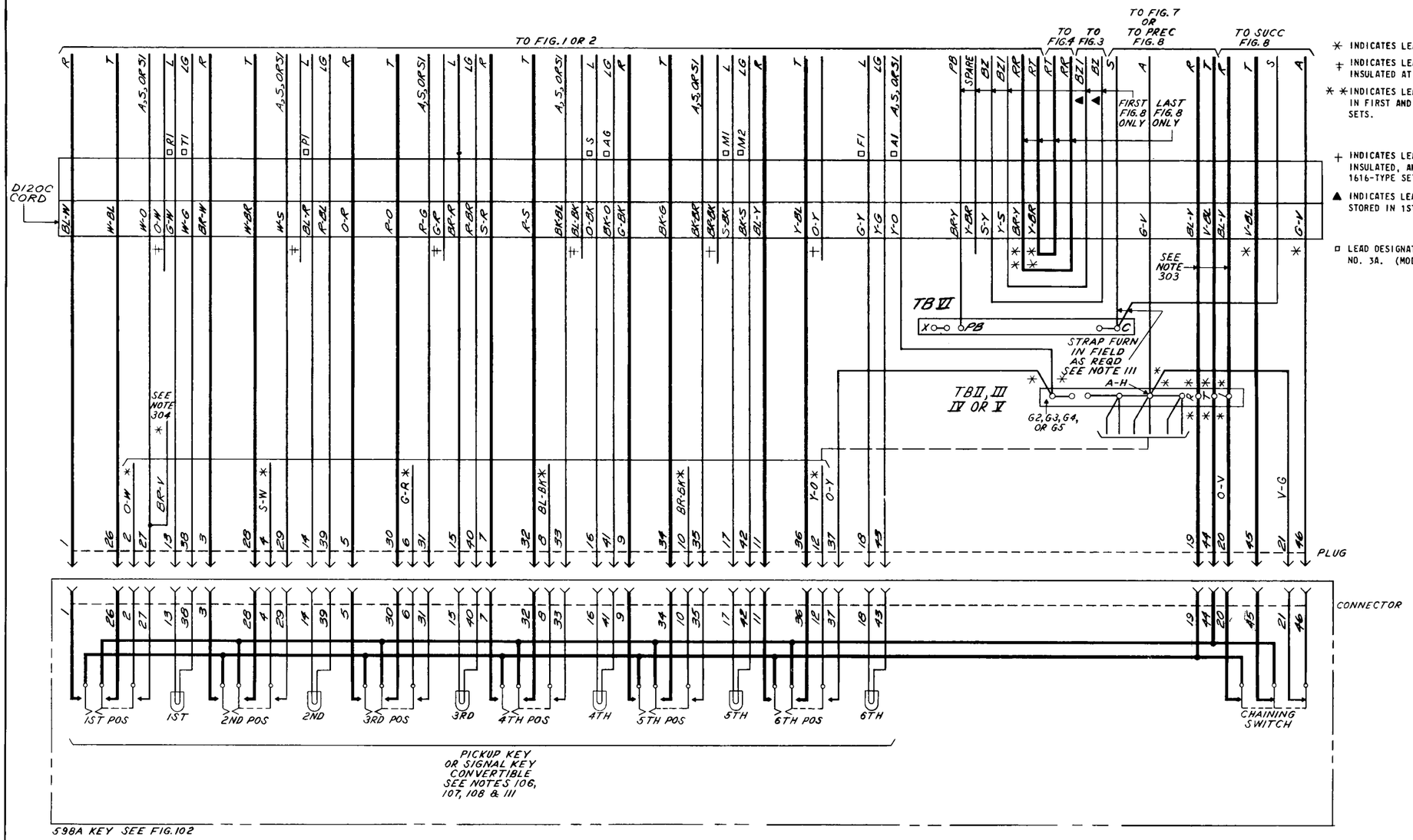
# FIG. 8
SUPPLEMENTARY KEY UNIT
SECOND OR LAST KEY UNIT OF THE 1616-TYPE KEY TELEPHONE SET




* INDICATES LEADS ARE SPADE TIPPED.

‡ INDICATES LEADS SHALL BE CUT DEAD AND INSULATED AT THE BUTT.

* * INDICATES LEADS SHALL BE TAPED AND STORED IN FIRST AND LAST FIG. 8 OF THE 1616-TYPE SETS.

\+ INDICATES LEAD SHALL BE SPADE TIPPED, INSULATED, AND STORED IN LAST FIG. 8 OF THE 1616-TYPE SETS.

▲ INDICATES LEADS SHALL BE SPADE TIPPED, AND STORED IN 1ST FIG. 8 OF 1616-TYPE SETS.

□ LEAD DESIGNATIONS FOR SPEAKERPHONE SYSTEM NO. 3A. (MODIFIED).

DRAWING ISSUE
/ DWC DWC ARM

STATION SYSTEMS
KEY AND TELEPHONE CIRCUIT

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# CIRCUIT REQUIREMENTS

## KEY AND TELEPHONE CIRCUIT

DRAWING ISSUE 1 TAC DHC ARM

| APPARATUS | | | | | MECH REQT | | | CIRCUIT PREPARATION | | | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIG | CODE | OPT. | FIG. | | BSP FIG. | CONT PRES | ARM. TRVL | BLOCK OR INSULATE | TEST CLIP DATA | | | | TEST WDG | TEST FOR | AFTER SOAK | TEST | READJ | |
| | | | | | | | | | CONN BAT. | CONN GRD | | | | | MA | MA | MA | |
| RELAY | | | | | | | | | | | | | | | | | | |
| FW | MA4 | | 4 | | 101 | | | | TERM.11 TB1 | TERM.1 TB1 | B/G | | | 0 | | 17.0 | 16.0 | |

STATION SYSTEMS
KEY AND TELEPHONE CIRCUIT

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