

STATION DIALS

35-TYPE

IDENTIFICATION AND MAINTENANCE

1. GENERAL

- 1.01 This section provides information on 35 type dials.
- 1.02 This section is reissued to add information on the 35Q3J Dial.
- 1.03 The 35-type dials (Fig. 1 and 2) are TOUCH-TONE® dials having twelve push-buttons. Ten are used in "number-letter" calling and two are used to give special service connections.
- 1.04 The twelve pushbuttons, switches, and multifrequency oscillator are a unit. It is mounted in a manner similar to a rotary dial.

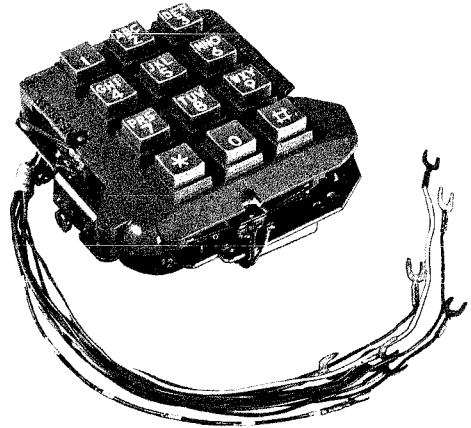


Fig. 1 — 35-Type Dial — Front View

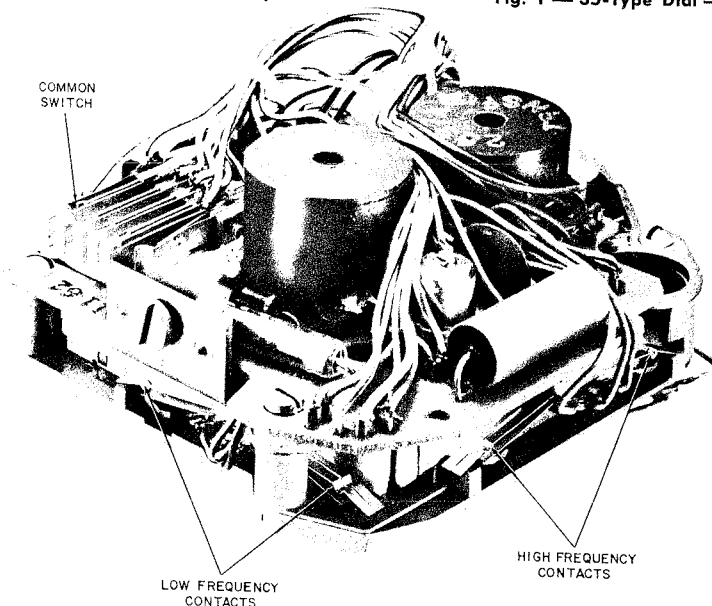


Fig. 2 — 35-Type Dial — Rear View

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1.05 The transistorized oscillator generates the customer dialing signals and is powered by current from the telephone line.

1.06 Each pushbutton operates a different pair of frequency contacts which closes a path for 2 of the 7 output frequencies of the dial (Fig. 3). All pushbuttons operate the common switch which reduces side tone to the receiver, opens the transmitter path, applies bias voltage to the transistorized oscillator, and breaks the DC path to the tank coils.

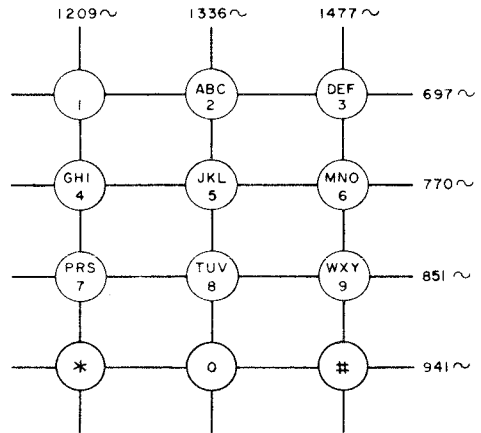


Fig. 3 – Dial Frequencies

2. IDENTIFICATION

2.01 Table A lists the 35-type dials and describes their uses.

**TABLE A
DIALS**

Dial Number	Pushbutton Characters	Uses	Remarks	Fig. No.
35A3 35Q3A*	See Fig. 1	General purpose; in desk, wall, and panel mounted telephone sets	Has general purpose common switch. Cannot be used with 3A speakerphone.	4 4A
35B3 35Q3B*		In telephone sets for 3A speakerphone systems and in the 1035B3QA dial	Has an expanded common switch and wiring consistent with use.	5 5A
35E3 35Q3E*		In coin telephones	Similar to 35A3 dial but has modified circuit for use with coin telephones.	6 6A
35J3 35Q3D*		In 1- and 2-type consoles	Has an expanded common switch and wiring consistent with use.	7 7A
35B3QA 35Q3C*		Business Interphone	Has an expanded common switch and wiring consistent with use.	8 8A
35Q3J		Multicom Medium Speed Service	Has an expanded common switch and wiring consistent with use.	9

Dials are available in grey only.

*Have no Black or Green leads. Refer to Part 5 for set wiring changes and connection information.

3. MAINTENANCE



Maintenance for the 35-type dial consists only of determining if the dial is defective. Do not attempt adjustments of the dial in the field.

- 3.01** To maintain proper dial polarity, refer to sections containing connections for the telephone sets of which this dial is a component.
- 3.02** The 35-type dial must be poled properly. It will function only when the (O-BK) dial lead is connected to the ring (- negative) side of the circuit and the (OR) dial lead is connected to the tip (+ positive) side of the circuit.
- 3.03** If unable to dial, proceed as follows:
- (1) Check wiring for secure and correct connections. See Part 5 for changes to set wiring when using new type dials.
 - (2) Check for presence of dial tone. If no dial tone is heard, check with 1011-type test set at connecting block. Make normal tests of telephone components as described in appropriate sections.
 - (3) Check all buttons for tone feedback. Two tones should be heard in the receiver when any button is depressed. These tones are blended together, but can be separately identified. When any two adjacent buttons are depressed simultaneously, only one tone should be heard. If feedback tones are not as described, replace dial.
- 3.04** To test dial frequency and amplitude outputs, dial the station ringer test circuit provided for TOUCH-TONE dials. Refer to Section 951-920-100 for details.
- 3.05** If dial meets requirements of 3.03 and 3.04 and trouble still exists, check Central Office or PBX equipment.

4. SCHEMATICS

- Fig. 4 — 35A3-Type Dial
 Fig. 4A — 35Q3A-Type Dial
 Fig. 5 — 35B3-Type Dial
 Fig. 5A — 35Q3B-Type Dial
 Fig. 6 — 35E3-Type Dial
 Fig. 6A — 35Q3E-Type Dial
 Fig. 7 — 35J3-Type Dial
 Fig. 7A — 35Q3D-Type Dial
 Fig. 8 — 35B3QA-Type Dial
 Fig. 8A — 35Q3C-Type Dial
 Fig. 9 — 35Q3J-Type Dial

5. CONNECTION INFORMATION 35Q TYPE DIALS

- 5.01** To replace existing 25 and 35 Type dials with the new 35Q Type dial proceed as follows:

Note: 35Q Type Dials have no black or green leads.

(a) **1500DQ1A, 1554BQ1A, 2500DQ1A and 2554BQ1A Telephone Sets**

Connect the O-BK, R, W, and R-G leads to the same locations as the existing dial. Move the S-W switchhook lead from F to RR on the network.

(b) **1511 and 2511 Telephone Sets**

Connect the O-BK, V-W, V-G, R, R-G and W leads to the same locations as the existing dial. Move the S-G 631A key lead from L1 to RR on the network.

(c) **1558DR & 2558DR Telephone Sets**

Connect the R-G, W, R, and O-BK leads to the same locations as the existing dial. Move the S-G pick-up key lead from F to RR on the network.

(d) **1565 and 2565 Type Telephone Sets**

(other than those listed below)

Connect the O-BK, V-W, V-G, R, R-G and W leads to the same locations as the existing dial. The G lead of the 636A Key should be moved from L2 to RR on the network.

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(e) *1565Q1B and 2565Q1B Telephone Sets*

Connect the BL-BK, V-G, V-W, R, W, R-GN, O-BK, and S leads to the same locations as the existing dial. The S-W switchhook lead should be moved from F to RR on the network.

(f) *2565LQF and LQE Telephone Sets*

Connect the V-G, O-BK, R-G, R, W, and V-W leads to the same locations as the existing dial. Move the G pick-up key lead from F to RR on the network.

(g) *1630 and 1631 Type, 2630 and 2631 Type Telephone Sets*

Connect the W, R-G, R, V-G, V-W and O-BK leads to the same locations as the existing dial. Move the V-BL mounting cord lead from terminal 4 on the terminal strip to RR on the network.

(h) *1634 and 1635 Type, 2634 and 2635 Type Telephone Sets*

Connect the W, R-G, R, V-G, V-W and O-BK leads to the same location as the existing dial. Move the W-BL mounting cord lead from

terminal 4 on the terminal strip to RR on the network.

(i) *1 & 2, QCN 3 & 4 Type Consoles*

Connect the W, R-G, R, BL-BK, O, G-W, V-BL and O-BK leads to the same location as the existing dial. Connect a jumper between terminals 1 and 7 of the dial assembly terminal strip.

(j) *1236 and 2236 QAS Coin Telephones*

Connect the BL, W, R, R-G, O-BK and O-R leads to the same location as the existing dial. Connect a jumper between C on the network and 6 on the terminal strip.

(k) *2565QHA Telephone Set*

Connect dial leads as follows:

R-G	R of network
R	Y of network
V-G	G of network
W	RR of 636QM Key
V-W	SG of 636QM Key
BK	6 of 636QM Key
G	ON1 of 636QM Key
O-BK	C of network

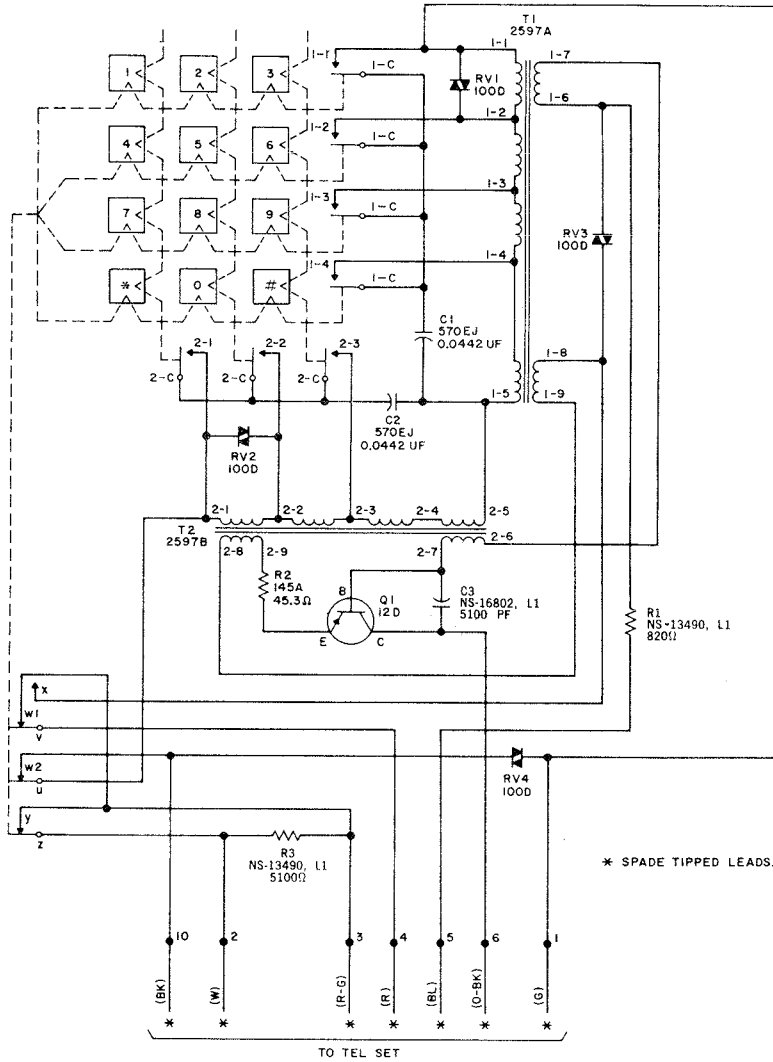


Fig. 4 - 35A3 Dial

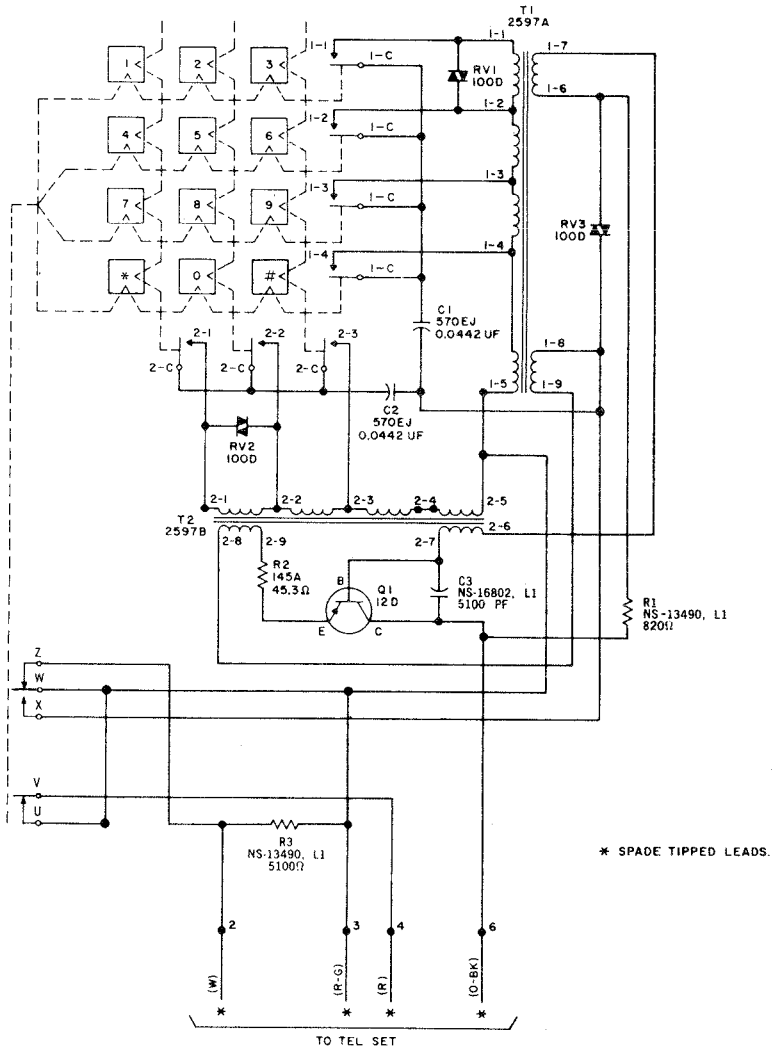


Fig. 4A — 35Q3A Dial

* SPADE TIPPED LEADS.

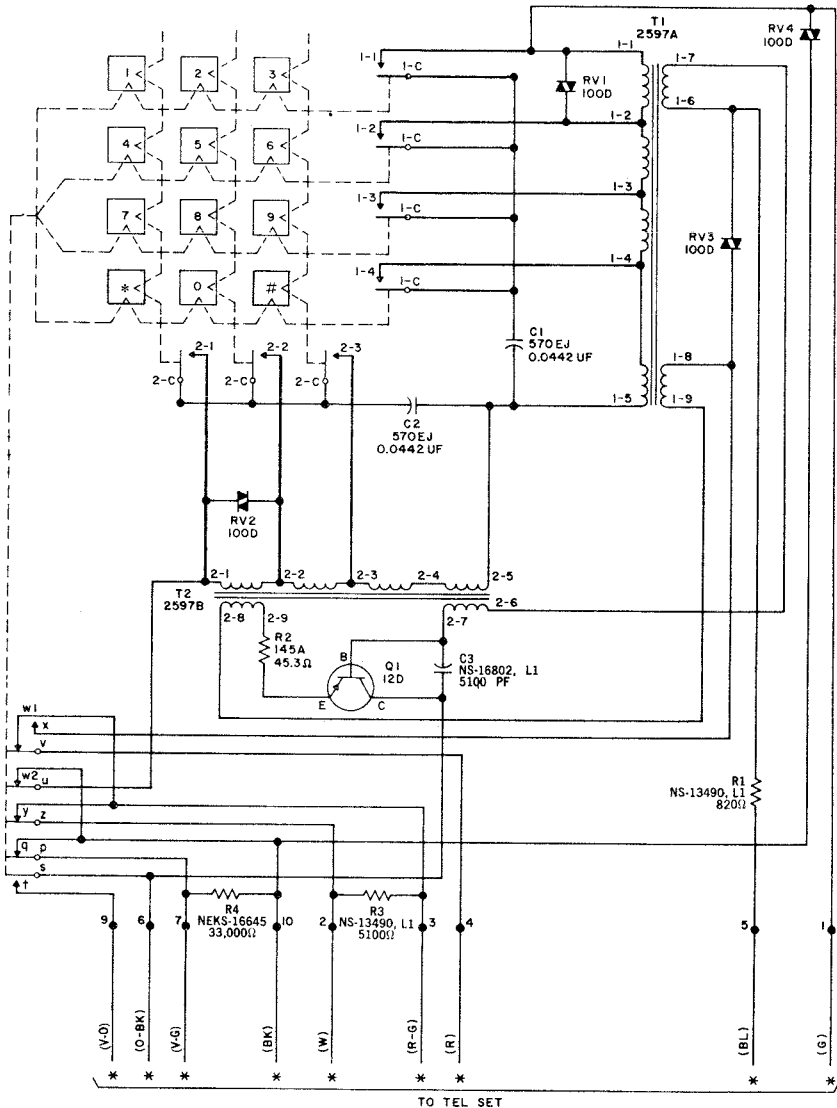


Fig. 5 - 35B3 Dial

* SPADE TIPPED LEADS.

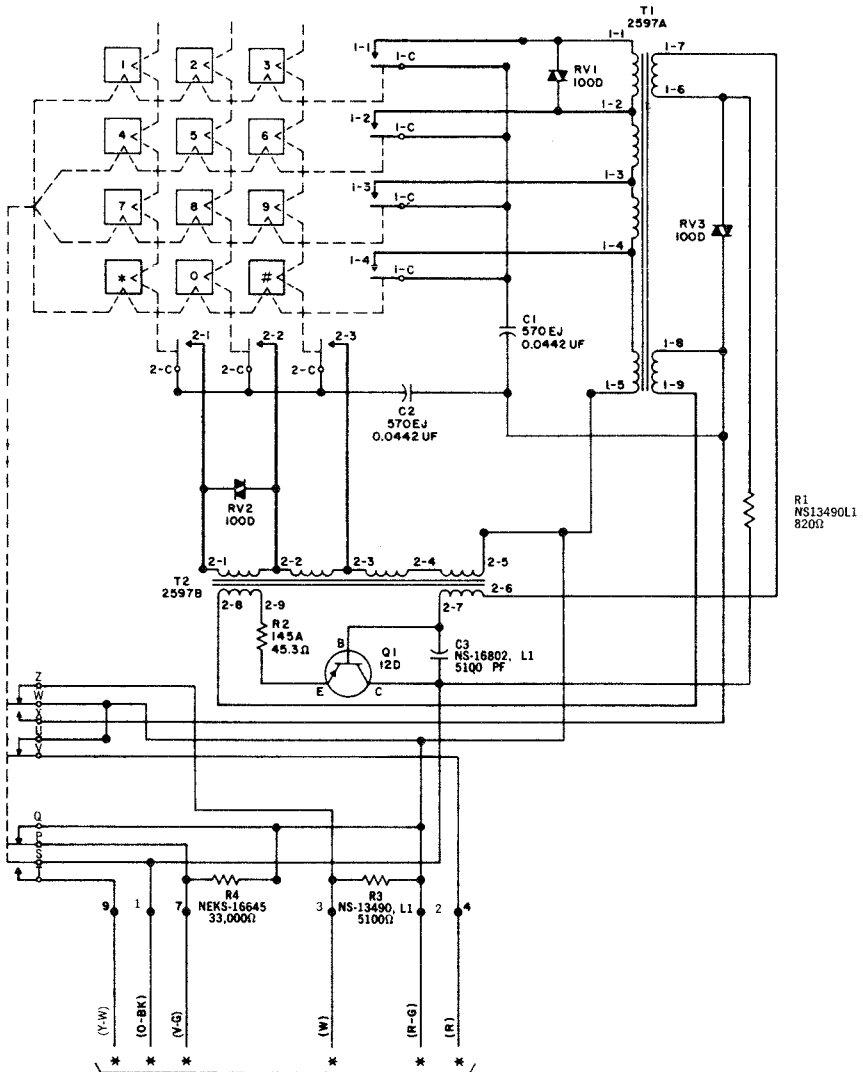


Fig. 5A - 35Q3B Dial

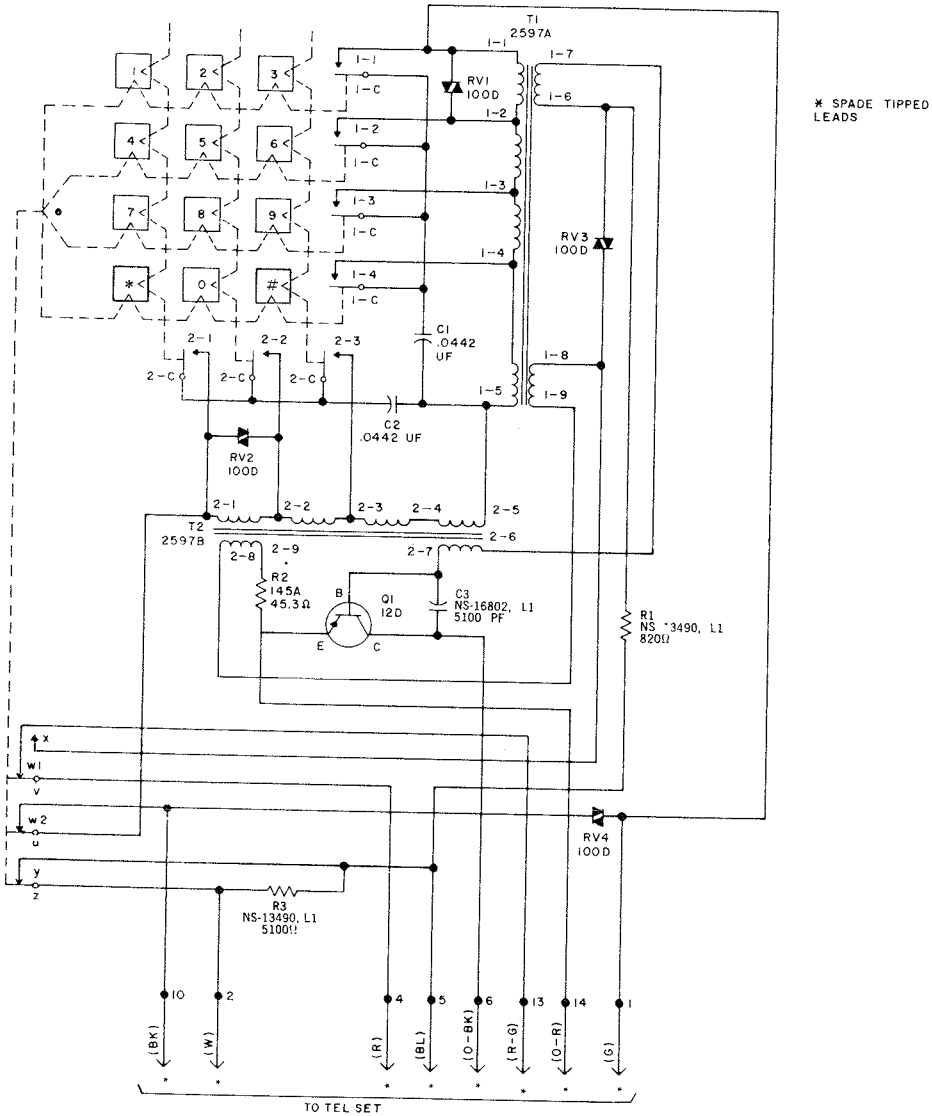


Fig. 6 - 35E3 Dial

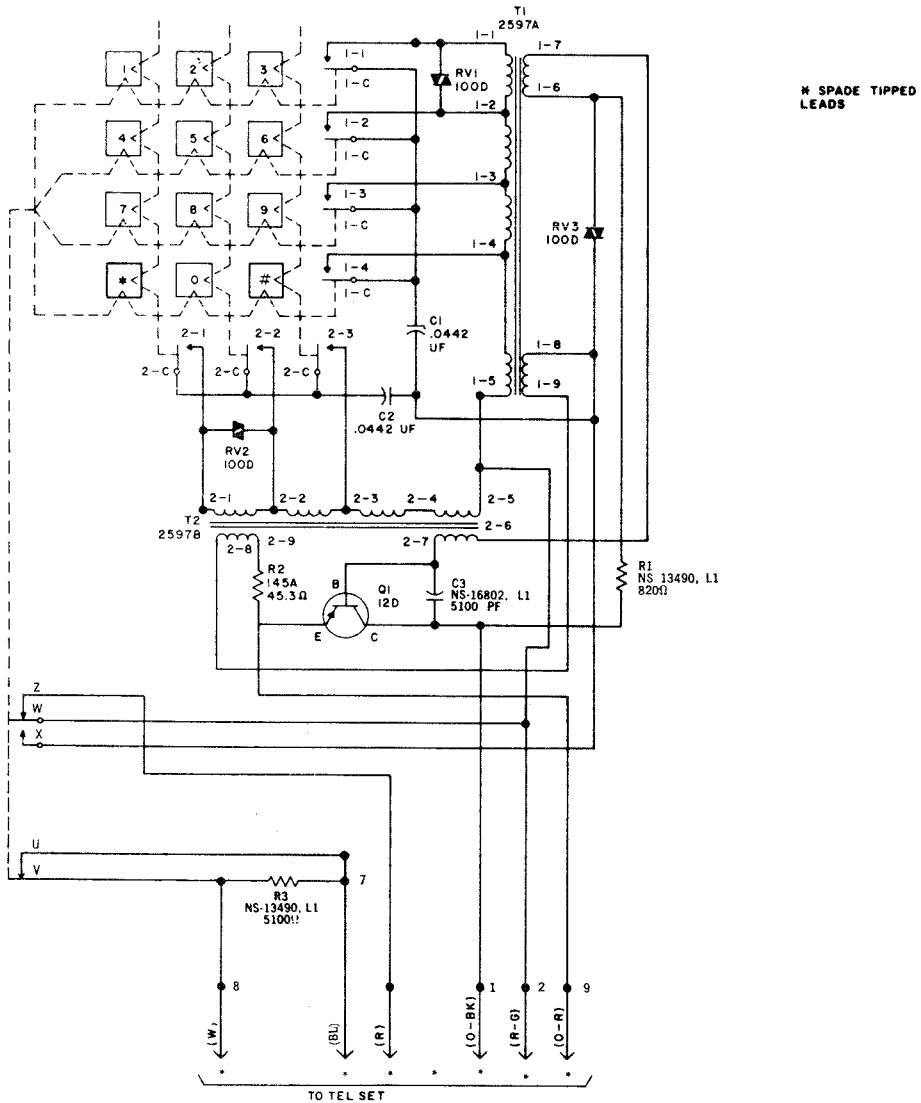


Fig. 6A - 35Q3E Dial

* SPADE TIPPED LEADS

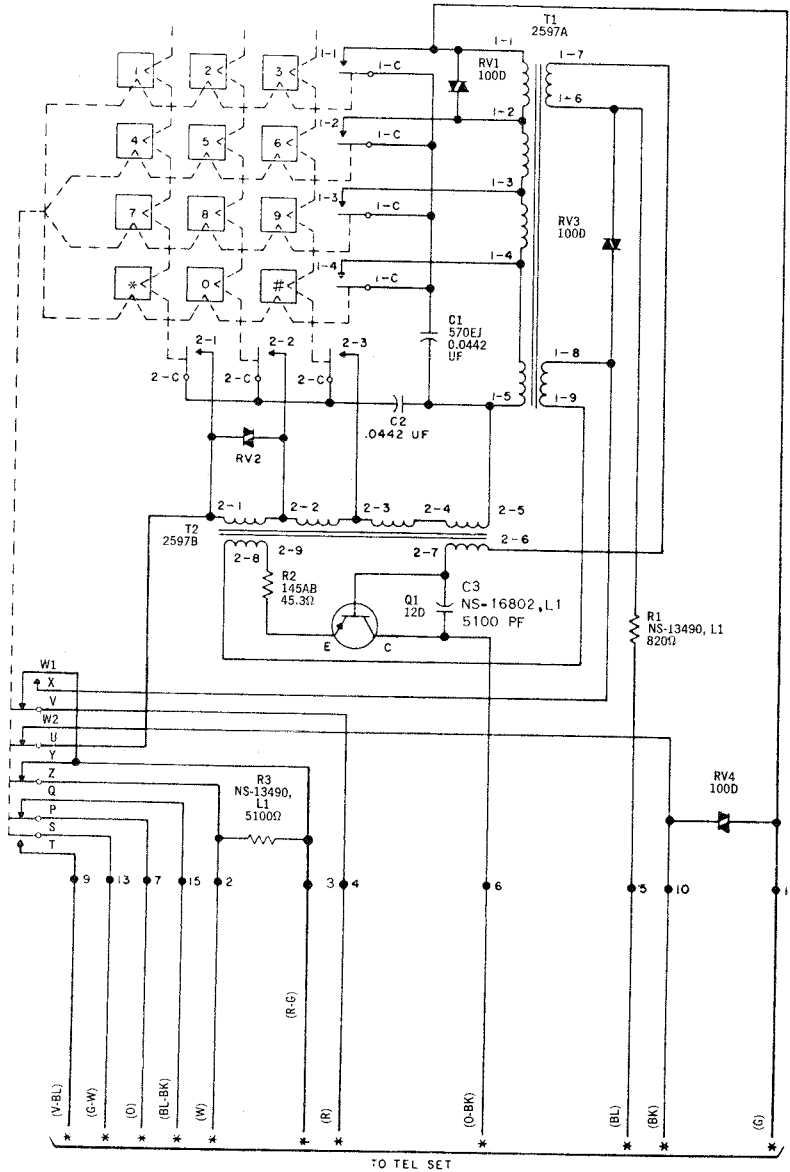


Fig. 7 - 35J3 Dial

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K SPADE TIPPED LEADS

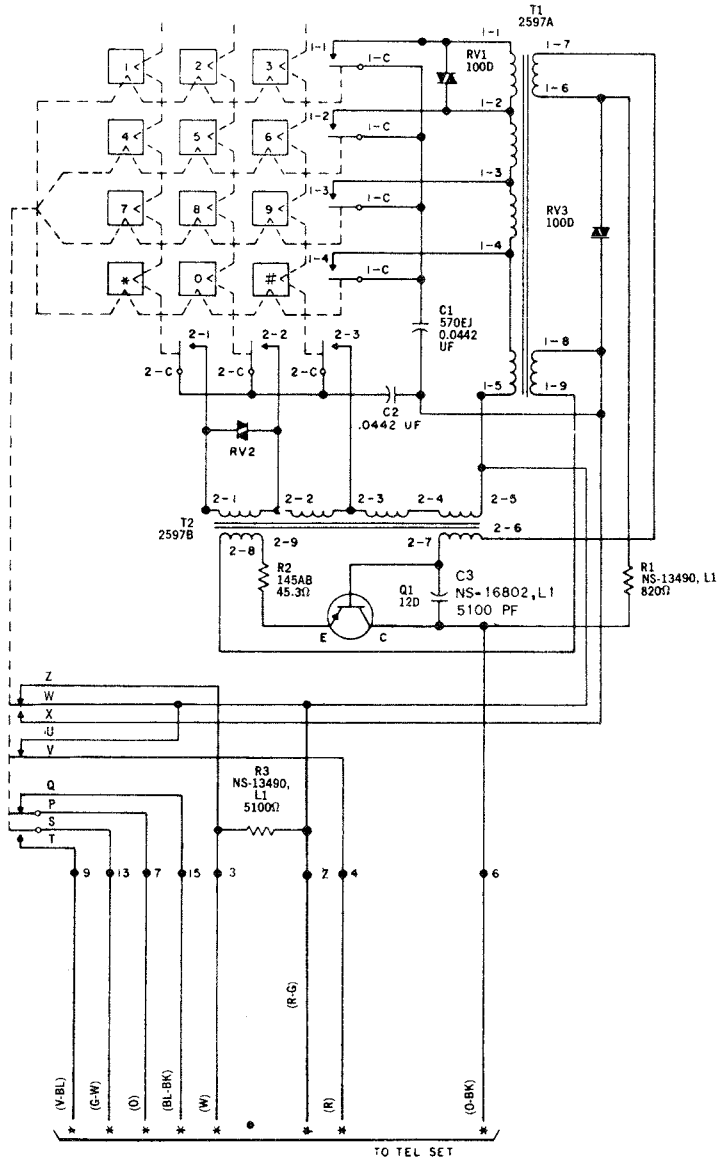


Fig. 7A — 35Q3D Dial

* SPARE TIPPED LEADS

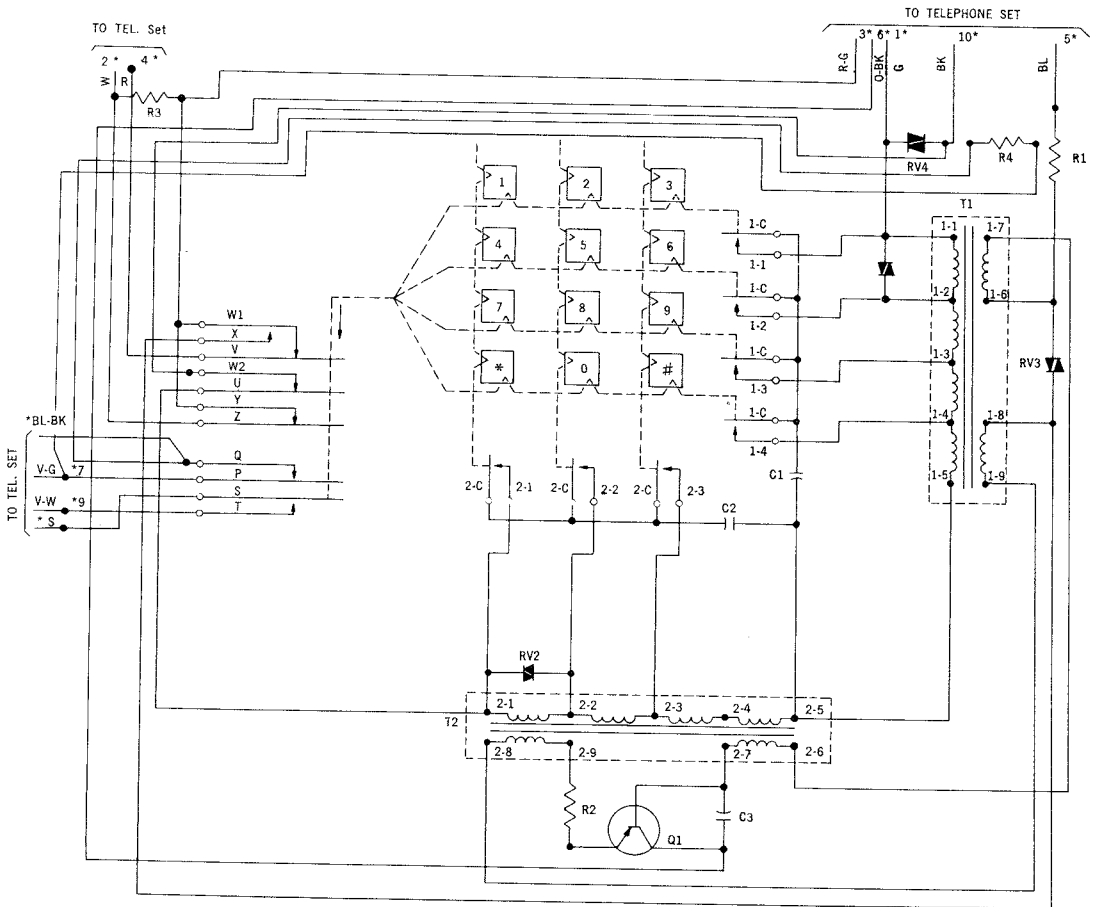


Fig. 8 — 35B3QA Dial

* SPARE TIPPED LEADS

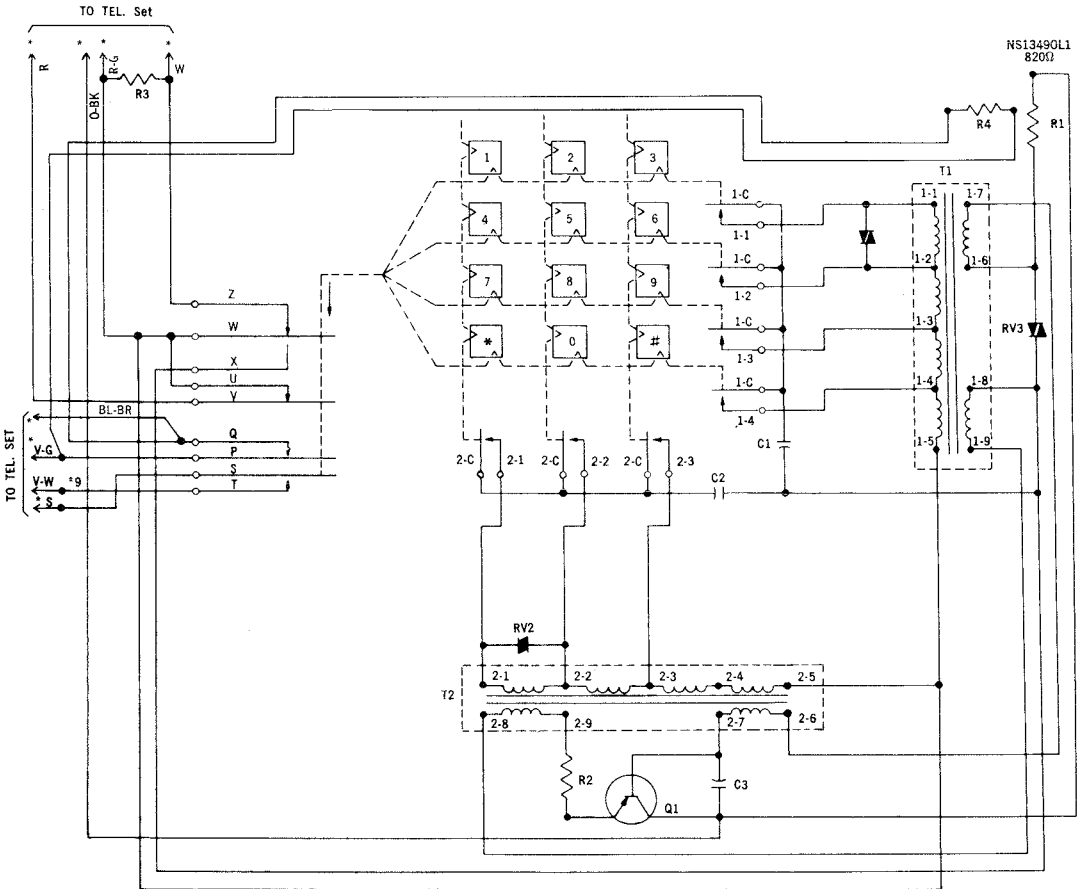


Fig. 8A — 35Q3C Dial

*Spade Tipped Leads

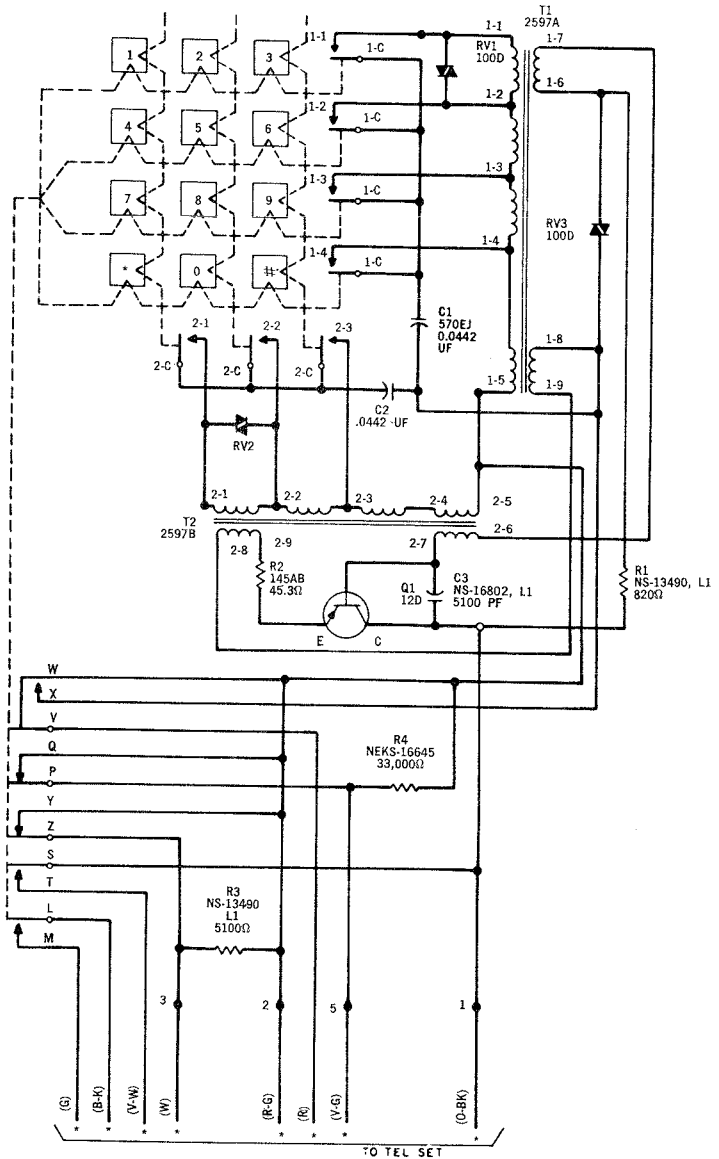


Fig. 9 — 35Q3J Dial