

TELEPHONE SETS

1511 DQA (M.D.) 2511 DQA TYPES

IDENTIFICATION, INSTALLATION, AND MAINTENANCE

1. IDENTIFICATION

1.01 The difference between 1511 and 2511 type sets is that the 1511 is equipped with a 10 button TOUCH-TONE® dial while the 2511 has a 12 button TOUCH-TONE® dial. All other features exist in both sets.

1.02 This section is reissued to include information on the 35Q3B dial.

ORDERING GUIDE

Set Telephone 2511 DQA*.

TABLE A
REPLACEABLE COMPONENTS

Component	2511 DQA	1511 DQA
Dial	35Q3B	35B3 (MD) 25B3
Faceplate		P8973* P8993*
Housing		P-83A3*
Number Card Window		P-896334
Ringer		C4A
Exclusion Switch		P-19A410
Term. Strip & Key Assembly		P-89029
Mounting Cord		D16QA*
Set Hand		G3AR*
Cord, Set Hand		H4CJ*

* Add 2 digit colour code see Table B.

DESIGN FEATURES

- Exclusion Switch
- 2 Line Pickup
- Signalling

APPLICATION

CO, PBX, 1A1 and 1A2 telephone system line circuits.

COLOUR

2511 Type Set

- Sets are furnished in standard telephone apparatus colour with coordinated colour faceplates as shown in Table B.

1511 Type Set

- Sets are furnished in standard telephone apparatus colour and matching faceplates.

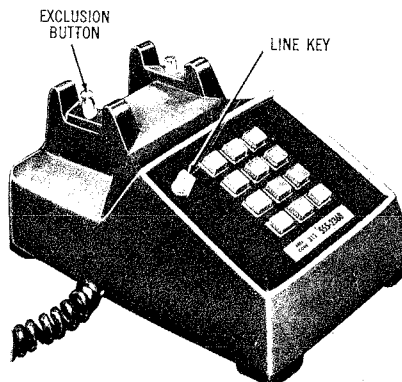


Fig. 1 — 2511 DQA Telephone Set

TABLE B

COLOUR

Housing, Handset, Cord		Faceplate Coordinated Colour	
Black	(—03)	Charcoal	(—70)
Ivory	(—50)	Muted Ivory	(—80)
Green	(—51)	Light Green	(—71)
Red	(—53)	Muted Red	(—69)
White	(—58)	Light Gray	(—73)
Light Beige	(—60)	Muted Beige	(—75)

OPERATING FEATURES

- **Exclusion switch**—pull up left-hand line switch plunger to cutoff extension stations.
- **Line pickup key**—turnbutton portion of key. Turn to connect talking circuit to either of two lines as desired.
- **Signalling key**—pushbutton portion of line pickup key. Depress to activate external signalling device, if provided.

2. INSTALLATION

Use Standard Procedures.

3. MAINTENANCE

- (a) Maintenance of 1500 and 2500-series telephone sets consist of cleaning exterior surfaces, burnishing and adjusting key contacts, and replacing defective components.
- (b) Housings, handset, and dial pushbuttons can be cleaned with a clean KS-2423 cloth moistened with water. Do not use scouring powders or cleaners. Replace coloured sets if cleaning procedures do not result in a satisfactory appearance.
- (c) Inspect exterior and interior surfaces of the set for obvious defects such as broken, loose or displaced parts. Check for obstruction of moving parts or the presence of foreign material that may interfere with the proper operation of the set.
- (d) Check line and ground terminations and wiring dress before proceeding with maintenance procedures.
- (e) Maintenance of handsets, dials, and ringers is outlined in sections covering these components.
- (f) Networks and line switch assemblies are riveted to the baseplate and no attempt should be made to replace them in the field. If defective, replace complete telephone set.

EXCLUSION SWITCH AND PLUNGER UNIT



Do not perform any field maintenance other than cleaning contacts with a 265C tool.

3.01 The exclusion plunger shall:

- (a) Remain in operated position when pulled up to the full extent of its stroke.
- (b) Return to fully depressed position when the handset is placed on the cradle.
- (c) Drop by its own weight from the mid position to the fully depressed position when the right plunger is depressed.

3.02 With set housing removed:

- (a) Normally closed contacts of exclusion switch shall have perceptible follow when the switch is operated manually.
- (b) Normally open contacts shall have a minimum separation of 0.015 inch; gauge by eye. The thickness of three sheets of a Bell System Practice is approximately 0.015 inch.

3.03 Replace set if exclusion switch fails to meet these requirements.

TURNBUTTON/PUSHBUTTON KEY



Adjust this key only if replacement of the complete telephone set is impracticable.

3.04 Use a 363 tool to adjust key. Be sure there is adequate light. Pay particular attention to turnbutton contact operating sequence. If any adjustment is made on the contact springs, recheck all requirements applicable to the key. If springs cannot be adjusted, replace the telephone set.

3.05 Requirements of the key include:

- (a) The pushbutton shall operate freely in either turnbutton position and return to normal after being depressed to the limit of its stroke.

- (b) When plunger is fully depressed, there shall be perceptible clearance between bottom pushbutton contacts and set baseplate.
- (c) Contacts for turnbutton operation shall not be made or broken by operation of the plunger as a pushbutton.
- (d) The pushbutton contacts shall have a minimum separation of 0.030 inch. Gauge by eye.
- (e) It shall not be possible to make or break the contacts by any side thrust against the plunger in either the operated or unoperated position.
- (f) All springs, including those which make when the key is unoperated, shall have perceptible follow (approximately 0.010 inch).
- (g) All normally closed contacts shall break before any normally open contact makes.
- (h) Normally closed turnbutton contacts shall have a break of at least 0.015 inch. Normally open contacts shall have a break of at least 0.025 inch.

PLUNGERS

- 3.06 Plungers should move freely throughout entire travel without binding or squeaking. They are accessible from the underside of the housing when the handhold cover is removed.

LINE SWITCH ASSEMBLY



Do not perform any field maintenance other than replacing cover, cleaning contacts, and lubricating bearing points.

- 3.07 Remove switch cover by depressing sides between thumb and index finger and tilting cover away from mounting.

- 3.08 Clean contacts with a 265C tool.
- 3.09 The operating bracket assembly should function without binding or squeaking.
- 3.10 To eliminate any binding or squeaking, clean bosses on operating bracket arms, spring anchor points, operating brackets, shaft bearing points, and pins with a KS-2423 cloth moistened with KS-7860 petroleum spirits. Lubricate bearing surfaces (Fig. 2) with a No. 2 or softer graphite pencil.

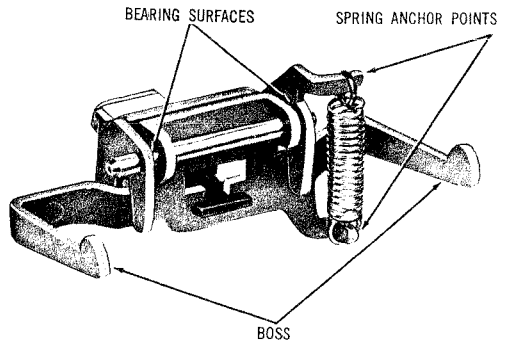


Fig. 2 — Line Switch Assembly

DIAL

- 3.11 If no tones are heard when a dial button is depressed, check line polarity.



Do not attempt repair of TOUCH-TONE® dials in the field. Replace dial.

- 3.12 When replacing a 35B3 dial with a 35Q3B dial connect the O-BK, V-W, V-G, R, RG and W leads to the same locations and move the S-G Key lead from L1 to RR on the network.