TELEPHONE SETS

502, 510 AND 511 TYPES MAINTENANCE

1. GENERAL

1.01 This section covers requirements and procedures for the maintenance of 502, 510 and 511-type telephone sets.

1.02 These sets are similar in appearance and construction to the 500-type telephone sets and, therefore, Section C32.539 covering the maintenance of 500-type sets shall supplement the maintenance information contained in this section. This section covers only the features that are peculiar to these type sets.

1.03 Sections dealing with description, installation, connections and cording should be consulted for identifying features of these sets and for information pertinent to the maintenance information covered in this section.

2. MAINTENANCE

Exclusion Plunger

2.01 The exclusion plunger shall remain in the operated position when pulled up to the full extent of its stroke. It shall return to the normal (fully depressed) position when the handset is placed on the cradle so that the exclusion plunger will drop by the force of the weight of the handset to its normal position.

2.02 Where the plunger fails to remain in the operated position (fully raised), check for a broken plunger or check that the exclusion switch contact spring pile-up is parallel to the mounting bracket. Where the plunger does not drop from the weight of the handset or fails to release from the fully depressed position when the handset is raised, check for excessive shifting of the exclusion switch assembly or for binding of the plunger at the plunger holes.

2.03 **Contact Follow:** With the cover removed, when the exclusion switch is operated by manual means the normally closed contacts shall have perceptible follow.

2.04 **Contact Separation:** The normally closed exclusion switch contacts (plunger fully depressed) shall have a minimum separation of 0.015 in. The normally open contacts (plunger fully raised) shall have a minimum separation of 0.015 in.

Combination Turn and Push Button (584A Key)

2.05 The combination turn and push button plunger shall operate freely in both positions of the key and return fully to the normal position after being depressed to the limit of its stroke and then released slowly. It shall lock reliably when fully rotated and shall return to the unoperated position when released slowly from the locked position. If the plunger does not function properly, replace the telephone set.

2.06 It shall not be possible to make or break the contacts, as the case may be, by any side thrust against the plunger in either the operated or the unoperated position.

2.07 When the plunger is fully depressed, there shall be perceptible clearance between the bottom push button contact and the base of the set.

2.08 **Contact Sequence:** All normally closed contacts shall break before any normally open contact makes. The contacts of the turn button combination shall not be made or broken, as the case may be, by the operation of the plunger as a push button.

2.09 **Contact Follow:** All contact springs, including those which make contact when the key button is in the normal position, shall have a perceptible (approximately 0.010 in.) follow.

2.10 **Contact Separation:** The normally closed turn button contacts shall have a break of not less than 0.015 in. The normally open contacts shall have a break of not less than 0.025 in. The push button contacts shall have a minimum separation of 0.030 in.

2.11 **Contact Spring Adjustment:** Adjustment of this key should be undertaken only if the replacement of the complete telephone set would cause inconvenience. If it is necessary to adjust the key, use a 363 tool and be sure there is adequate light to work by. Particular attention should be given to the turn button contact sequence. If any adjustment is made on the contact springs, recheck all the requirements applying to the key. If the springs cannot be adjusted, the telephone set must be replaced.