

COMMON SYSTEMS
KS-16765 L2 ANNOUNCEMENT SET
AND ASSOCIATED AMPLIFIER

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1. GENERAL INFORMATION

1.1 Description:

This section describes a method of testing the KS-16765L2 Announcement Set and Associated Amplifier.

1.2 Circuits Tested:

SD-99531-01 KS-20449 Amplifier Circuit
or
SD-95281-01 KS-16754 Amplifier Circuit
SD-95283-01 Announcement Circuit Employing KS-16765L2 Announcement Set

1.3 Precautions:

1.31 This equipment contains coils which are subject to damage due to core magnetization. Use only ITE-4002 Tone Buzzer or X1000 range of ITE-4442A Volt-ohmmeter for continuity tests on the control circuits and associated amplifier circuits. Do not use R-9572 Test Receiver or ITE-4137 AC Buzzer on any portion of this equipment except as instructed.

1.32 This equipment contains semiconductor devices subject to damage by improper procedures. Methods of Handbook 3, Section 71 must be observed.

1.33 Hazardous voltages exist at certain points in the Announcement Set. Care should be exercised when making test connections to avoid electrical shock.

1.34 Do not remove or plug in KS-16765 L6 Amplifier Unit while power is turned on. Do not attempt to change setting of potentiometer on KS-16765L6 Amplifier. If trouble develops in amplifier, replace it.

1.35 Before connecting power to announcement set, be sure bail shipping lock and head lock springs are released. See Figure 1.

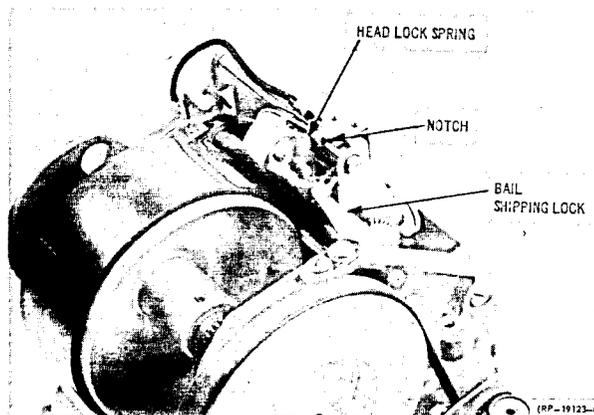


Figure 1 BAIL SHIPPING LOCK AND HEAD LOCK SPRING IN LOCKED POSITION.

(a) To release bail shipping lock, loosen the two mounting screws and move to extreme position away from bail and tighten screws.

(b) To remove head lock spring, remove spring from screw head on magnetic head and place in notch on carriage bracket. Do not permit spring to rest on slide rod.

2. RECORDS AND REQUIREMENTS

- 2.1 Records: Forms SD-97-1313 and SD-97-1315 are required for recording the results of these tests. For further information on records, refer to Section 6B of Handbook 3.
- 2.2 Lubricate, check and adjust the KS-16765L3 Recorder-Reproducer mechanism as described in BSP 034-354-701. This BSP should be obtained locally.
- 2.3 Other requirements are specified in the paragraphs describing the particular tests.

3. TEST EQUIPMENT

3.1 Test Sets

| <u>Amt</u> | <u>ITE</u> | <u>Description</u> |
|------------|------------|--------------------------|
| 1 | 4002 | Tone Buzzer |
| 1 | 4442A | Volt-Ohmmeter |
| 1 | 9650 | Operator's Telephone Set |

3.2 Cords: As required, cords furnished with ITE sets.

3.3 Miscellaneous:

| <u>Amt</u> | <u>Code</u> | <u>Description</u> |
|------------|-------------|--------------------|
| 1 | R-3314 | Stop Watch |
| 1 | R-9572 | Test Receiver |

4. FUSING

- 4.1 Check that Announcement Set power is plugged into correct receptacle which is properly fused according to job records.
- 4.2 Verify and install 0.5 Ampere AGC Bussman fuse in F1 fuse mounting on front set near recorder-reproducer connector.
- 4.3 Connect negative lead of ITE-4442A Volt-Ohmmeter to relay rack ground and verify supply +48 volts at punching 36 of TB1 T.S.
- 4.4 If there is a KS-20449 or KS-16754 amplifier mounted in connection with the Announcement Set, block operated ST relay of Announcement and verify the presence of +48 volts at punching 11 and ground at punchings 12 and 21 of T.S. on Amplifier Unit. Remove block from ST relay.

2.

5. LOCAL OPERATION TESTS

- 5.1 Record Within Limit
- 5.11 Set limit switch stop to mark 5.
- 5.12 Plug ITE-9650 Operator's Telephone Set into twin jack (J3 and J4) on front of KS-16765L2 Announcement Set.
- 5.13 Operate and hold DICTATE key. Relays D and ST operate. Recorder-reproducer drum rotates.
- 5.14 After approximately one revolution of the drum, the E relay operates and the D lamp lights.
- 5.15 Speak test announcement into transmitter of telephone set for period of approximately one minute.
- 5.16 At end of test announcement, release DICTATE key. D lamp goes out. Relays D and ST release. Drum coasts to a stop. The record-reproduce head carriage assembly returns to its starting position.
- 5.2 Reproduce and Repetition
- 5.21 Operate CHECK key to its locking position. The ST relay operates and the drum rotates.
- 5.22 Test Announcement is reproduced in telephone set receiver. Check that speech quality is intelligible and is comparable to good telephone reproduction without noticeable distortion.
- 5.23 After the entire one-minute announcement is heard, the STP relay operates, the record-reproduce head returns to its starting position. The STP relay releases and the announcement is repeated.
- 5.24 Before the announcement is complete, restore the CHECK key to normal. Without the F option for SD-95283-01, the recorder drum coasts to a stop, all relays release, and the head assembly returns to the starting position. When the CHECK key is restored, with the F option provided, the recorder completes the announcement in a normal way, the recorder drum coasts to a stop, all relays release and the head assembly returns to the starting position.

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- 5.3 Record Over Limit
- 5.31 Use R-3314 Stop Watch or equivalent to time period that D lamp is lit during this test.
- 5.32 Set time switch stop to mark 7.
- 5.33 Operate and hold DICTATE key. After approximately one revolution of drum, the D lamp lights.
- 5.34 Speak test announcement into telephone set transmitter until D lamp goes out (approximately two minutes). Record length of time D lamp was lit. Check that STP relay is operated, drum is stopped, and carriage head assembly returns to starting position.
- 5.35 Release DICTATE key. Relay STP and all other relays are released.
- 5.4 Reproduce to Full Limit and Repetition
- 5.41 Use R-3314 Stop Watch or equivalent to time period from operation of E relay through announcement cycle until STP relay operates in this test.
- 5.42 Operate CHECK key to locking position. After approximately one revolution, the E relay operates and test announcement is heard in telephone set receiver.
- 5.43 Check that speech quality is intelligible and is comparable to good telephone reproduction without noticeable distortion. Check that there is no trace of the previous test announcement in the background of this recording.
- 5.44 Observe operation of STP relay at end of announcement and record time since operation of E relay. This time period shall not be less than that observed in Paragraph 5.33.
3. 5.45 Restore CHECK key. All Relays are released and circuit is normal. If F option is provided and the announcement is repeating, the recorder will complete the announcement before the circuit restores to normal.
6. KS-20449 or KS-16754 AMPLIFIER TEST
- NOTE:** Do not operate the amplifier by blocking any relays.
- 6.1 Connect R-9572 Test Receiver across punchings 15 and 19.
- 6.2 Operate CHECK key on associated announcement set.
- 6.3 Monitor announcement in test receiver. Level of signal should be comparable to that of a receiver of a telephone set.
- 6.4 Use screwdriver to adjust gain control (R1 or KS-20449 Amplifier or R5 on KS-16754 Amplifier) for desired output. Turn gain control clockwise to increase gain; turn control counterclockwise to decrease gain.
- 6.5 Restore CHECK key and remove Test Receiver connection.
7. REMOTE OPERATION TESTS
- 7.1 The remote features of the KS-16765L2 Announcement Set are tested in operation tests of associated circuits such as:
- (a) 7A Announcement System.
 - (b) Personal Signaling System No. 1A (Bellboy).
 - (c) Various Vacant Code, Overflow and Intercepting Trunks
 - (d) 8A Announcement System
 - (e) Automatic Intercept System
 - (f) Emergency Announcement System

→ Arrowed lines indicate new or changed information

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Reason for Reissue:

To add KS-20449 Amplifier information.