

CORD REELS

KS-14975 AND KS-16124 TYPES

PIECE-PART DATA AND REPLACEMENT PROCEDURES

1. GENERAL

1.01 This section covers the information necessary for ordering parts to be used in the maintenance of KS-14975 and KS-16124 type cord reels other than KS-16124 L4 and L6. See 1.05. It also covers approved procedures for replacing these parts.

1.02 This section is reissued to:

- Add information on KS-16124 L6
- Update piece-part numbers for KS-14975 L1, L2, L3, L4, L5, L6 and KS-16124 L1, L2, and L3
- Revise 1.05 to add information on KS-16124 L4 and L6
- Revise 3.05 to include KS-16124 L5 and L7
- Revise 3.06, 3.07, and 3.08 to include instructions for installing plastic shell screw, 840218226
- Add 3.09, 3.12, and 3.13 and renumber paragraphs accordingly.

Since this reissue covers a general revision, arrows ordinarily used to indicate changes have been omitted.

1.03 Part 2 of this section covers the piece-part numbers and the corresponding names of the parts which it is practicable to replace in the field. No attempt should be made to replace parts for which no ordering information is given.

1.04 Part 3 of this section covers the approved procedures for the replacement of the parts covered in Part 2.

1.05 It is not practicable to replace parts of the KS-16124 L4 (rated Manufacture Discontinued) or L6 cord reels used initially in the blind attendant

detector circuits. Defective cord reels of these types should be returned to the Distributing House for repair.

2. PIECE-PART DATA

2.01 The figures included in this part show the various parts in their proper relation to other parts of the cord reel.

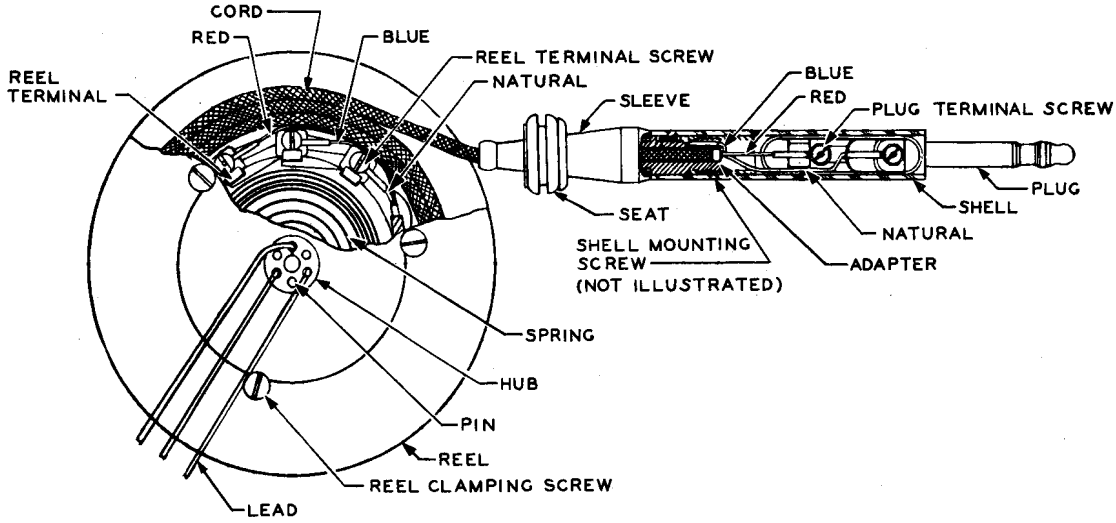
2.02 When ordering parts for replacement purposes, give both the piece-part number and the name of the piece part; for example, P-484150 screw. If a part identified by other than a piece-part number is required, order the part by the drawing number and the part name and specify the KS and list numbers of the reel on which it is to be used; for example, B-125968-2 cord for KS-14975 L3 cord reel. Do not refer to the BSP number or to any information shown in parentheses on the illustration.

3. REPLACEMENT PROCEDURES

3.01 *List of Tools*

CODE OR SPEC NO.	DESCRIPTION
TOOLS	
45B	Hex. single-end socket wrench
KS-2348	Cord repair screwdriver
KS-6854	Screwdriver
—	3-inch C screwdriver (or replaced cabinet screwdriver)

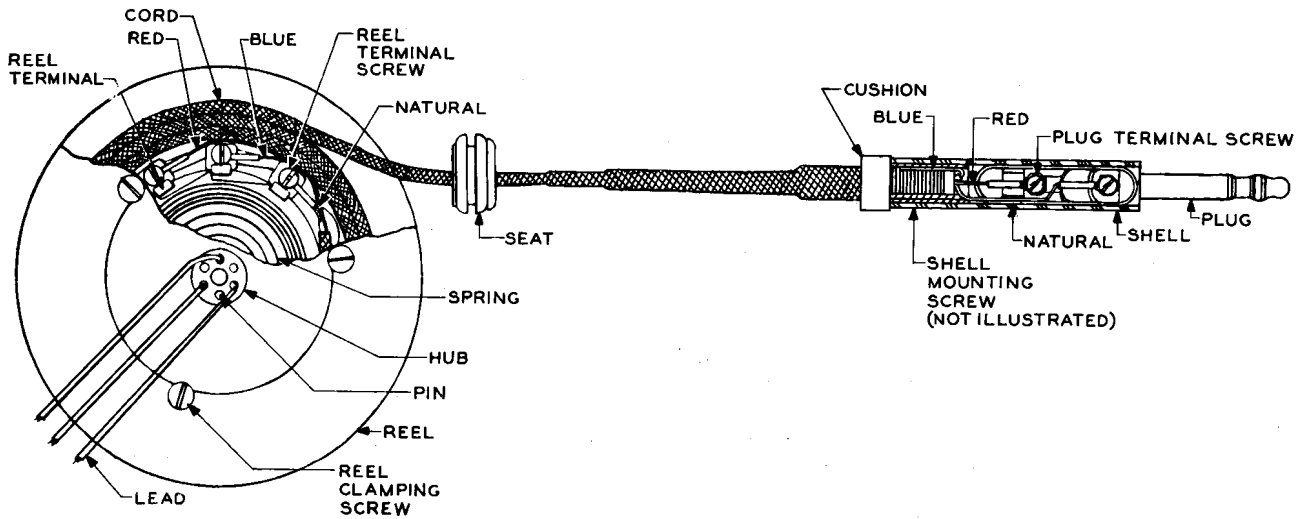
3.02 No replacement procedures are specified for screws or other parts where the replacement consists of a simple operation.



CORD REEL	PLUG (LESS SHELL)	SHELL	SHELL MOUNTING SCREW	PLUG TERMINAL SCREW	REEL TERMINAL SCREW	PIN	CORD AND SEAT
KS-14975 L1 MFR DISC	310	P-475860	840218226	P-484150	B-124618	B-124622	See Note.
KS-14975 L2 MFR DISC	309	P-475817	840218226	P-484150	B-124618	B-124622	See Note.
KS-16124 L1 MFR DISC	310	P-475860	840218226	P-484150	B-124618	B-124898	See Note.
KS-16124 L2 MFR DISC Replaced by KS-16124 L3	310	P-475860	840218226	P-484150	B-124618	B-124898	See Note.

Note: If either the cord or the seat needs to be replaced, the entire cord unit should be returned to the Distributing House for modification of the cord unit.

Fig. 1—KS-14975 L1 and L2 and KS-16124 L1 and L2 Cord Reels



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CORD REEL	CUSHION	PLUG	SHELL	SHELL MOUNTING SCREW	PLUG TERMINAL SCREW	PIN	SEAT	REEL TERMINAL SCREW	CORD
KS-14975 L3 MFR DISC Replaced by KS-14975 L5	2A	310	P-475860	840218226	P-484150	B-124622	B-124619	B-124618	B-125968-2 (includes 310 plug and 2A cushion) or KS-16516 L2 (less 310 plug and 2A cushion)
KS-14975 L4 MFR DISC Replaced by KS-14975 L6	1A	309	P-475817	840218226	P-484150	B-124622	B-124619	B-124618	B-125968-3 (includes 309 plug and 1A cushion) or KS-16517 L1 (less 309 plug and 1A cushion)
KS-14975 L5	2A	310	P-475860	840218226	P-484150	B-124622	B-124619	B-124618	B-125968-2 (includes 310 plug and 2A cushion) or KS-16516 L2 (less 310 plug and 2A cushion)
KS-14975 L6	1A	309	P-475817	840218226	P-484150	B-124622	B-124619	B-124618	B-125968-3 (includes 309 plug and 1A cushion) or KS-16517 L1 (less 309 plug and 1A cushion)
KS-16124 L3	2A	310	P-475860	840218226	P-484150	B-124898	B-124619	B-124618	B-125968-1 (includes 310 plug and 2A cushion) or KS-16516 L1 (less 310 plug and 2A cushion)

Fig. 2—KS-14975 L3, L4, L5, and L6 and KS-16124 L3 Cord Reel

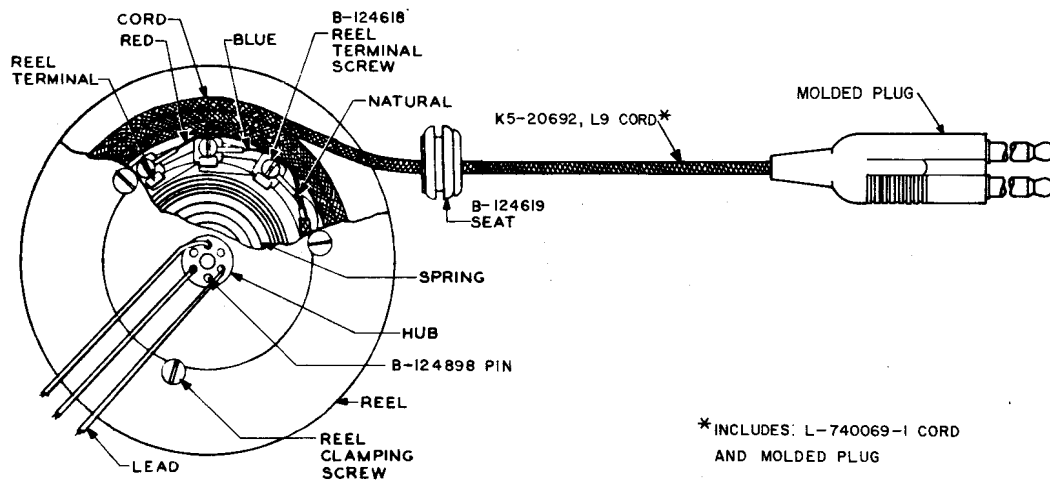


Fig. 3—KS-16124 L5 Cord Reel

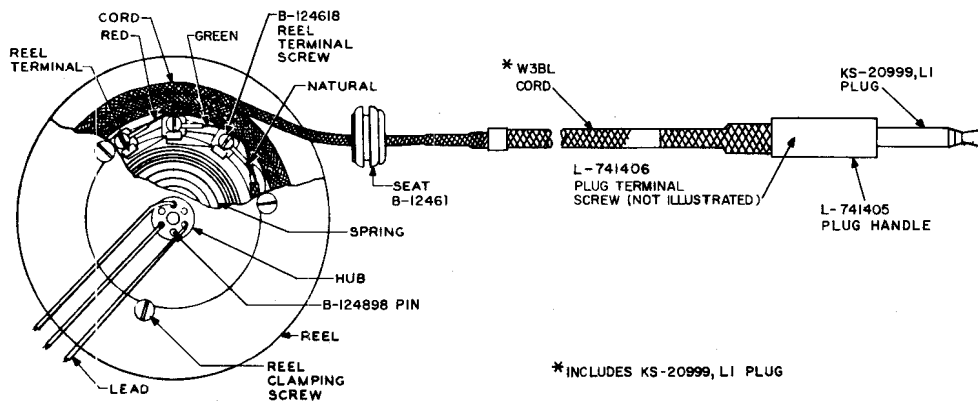


Fig. 4—KS-16124 L7 Cord Reel

3.03 If necessary to remove a KS-14975 cord reel from a 508 PBX cord unit or a KS-16124 cord reel from a 557 PBX cord unit, proceed as follows.

(a) Remove the seat (Fig. 2, 3, 4) from the bracket (not illustrated) and unwind a sufficient number of turns of the cord from the reel to remove the spring tension. Remove the leads and tag the terminals. Remove the screw (not illustrated) with the KS-6854 screwdriver and fiber washer from the hub of the cord reel. Lift the cord reel from the cord unit. On the 508 PBX, remove the tubing from the leads. On the 557 PBX, remove the tape which secures

the cord reel leads to the insulator. Slide the insulator off the leads.

(b) New cord reels are provided with leads projecting from both sides of the hub. The leads which are not to be used should be cut flush with the hub.

(c) To remount the cord reel, slide the insulator over the leads of the cord reel and insert the three pins through the insulator and into the hub to hold the insulator in place. Place the leads in the grooves of the insulator and on the 557 PBX, secure them with a piece of masking tape. Place tubing on the leads of cord reels to be mounted in cord units of the 508 PBX.

(d) Mount the cord reel on the cord reel mounting plate using the screw and fiber washer. Seat the reel pins in the holes of the mounting plate. If difficulty is experienced in mounting the cord reel on the mounting plate, remove the cord reel mounting plate from the cord unit by removing the three flathead screws, using the KS-6854 screwdriver, from the back of the cord unit, mount the cord reel on the mounting plate, and secure the mounting plate to the cord unit using the three flathead screws. Reconnect the leads and remount the seat.

(e) With the cord fully wound on the cord reel, wind two additional turns of the cord on the reel of the KS-14975 cord reel and three additional turns of the cord on the reel of the KS-16124 cord reel in the direction shown by the arrow on the reel.

3.04 If necessary to remove a KS-14975 cord reel from a 520 PBX cord unit, proceed as follows.

(a) Using the 45B wrench, remove the hexagon nut, washer, and cord reel cover. Remove the seat from the bracket, and unwind a sufficient number of turns of the cord from the reel to remove the spring tension. Remove the leads and tag the terminals. Remove the fiber washer and lift the reel off the pins.

(b) New cord reels are provided with leads projecting from both sides of the hub. The leads that are not to be used should be cut flush with the hub.

(c) Mount the cord reel to the cord unit, and remount the fiber washer.

(d) With the cord fully wound on the cord reel, wind two additional turns of the cord on the reel in the direction shown by the arrow on the reel.

(e) Remount the cord reel cover, washer, and hexagon nut.

3.05 *Cord (Equipped With Plug Assembly) for KS-14975 L3, L4, L5, and L6 and KS-16124 L3, L5, and L7:* To replace a cord, proceed as follows. Refer to appropriate Fig. 1, 2, 3, or 4.

(a) On a cord reel that is mounted in a cord unit with the heads of the reel clamping screws remote from the cord reel mounting plate, the cord reel need not be removed from the cord unit. If the heads of the reel clamping screws are adjacent to the cord reel mounting plate, the cord reel should be removed as covered in 3.03 or 3.04.

(b) Unwind the cord from the reel and, with the reel or cord unit resting on a flat horizontal surface, remove the three reel clamping screws with a 3-inch C screwdriver.

(c) When disassembling the reel, exercise care that the hub is not pulled up as it may cause the spring to fly out and be decompressed. Press downwards on the hub and, with the fingers, pry the upper reel half off. Remove the three reel terminal screws with the KS-2348 screwdriver and remove the cord from the reel. Remove the seat from the cord.

(d) Place the seat on the new cord, and mount the cord on the reel. Mount the terminals on the cord reel with the flat side (uncrimped) outermost. Remount the reel terminal screws and reel half, making sure that the reel terminals line up with their clearance slots in the reel half. Then on the KS-14975 cord reel, snap the reel halves together with the fingers.

(e) On all cord reels, remount the reel clamping screws and wind the cord on the reel in the direction shown by the arrows on the reel.

(f) Remount the cord reel in the cord unit as covered in 3.03 or 3.04.

(g) If a cord has been replaced on a cord reel without removing the cord reel from the cord unit, the reel should be tensioned as covered in 3.03 or 3.04.

3.06 *Cord (Utilizing Existing Seat Assembly, Plug Assembly, and Cushion) for KS-14975 L3, L4, L5, and L6 and KS-16124 L3 (Fig. 2)*

(a) Remove the cord from the reel as covered in 3.05.

(b) Remove the seat from the cord. Slide the cushion off the cord. Remove the shell mounting screw with the KS-2348 screwdriver,

and slide off the shell. Remove the plug terminal screws which connect the red and natural conductors to the plug using the KS-2348 screwdriver. Unscrew the plug from the cord.

(c) Remove the insulation from the blue conductor of the new cord to within 1/16 inch of the cord butt, bend the conductor back over the butt of the cord, thread the red and natural conductors into the plug, and screw the plug onto the butt of the cord until the screw holes in both conductor terminals come over their respective screw holes in the plug with a slight amount of slack.

(d) Remount the plug terminal screws and the shell. Fasten in place using a new, plastic shell screw. Observe the following instructions and precautions when using the plastic shell mounting screw, 840218226.

(1) The plastic-type shell screw, 840218226, is electrically nonconductive and is being used instead of the metal shell screw. The plastic screw is manufactured without a formed thread. A thread is formed as the screw is steadily turned under constant axial thrust. While using the KS-2348 screwdriver to turn the screw, care should be exercised to avoid stripping the screw thread or damaging the slot.

(2) The plastic screw should be inserted until it is flush with the plugshell. It should be inserted perpendicular to the axis of the plug, not tilted. A plastic screw that is tilted may permit the plugshell to slide over it and slip off the plug.

(3) If the plastic screw is removed from the plug, the screw should be replaced. Repeated insertion may result in crossthreading and weak threads.

(4) When the screw is properly seated in position, the screw slot should be in line with the long axis of the plug within 30 degrees. In this position the head of the screw offers maximum resistance to breakage.

(5) Push the cushion up to the plugshell, place the seat on the cord, and connect the cord to the reel and tension the cord as covered in 3.05.

3.07 Plug for KS-14975 L1 and L2 and KS-16124

L1 (Fig. 1): Remove the shell mounting screw with the KS-2348 screwdriver, and slide off the shell. Remove the plug terminal screws which connect the red and natural conductors to the plug using the KS-2348 screwdriver. Unscrew the plug from the adapter. The new plug should be assembled and connected in the reverse order. Remount the shell. Fasten in place with a new plastic shell screw.

3.08 Plug for KS-14975 L3, L4, L5, and L6 and KS-16124 L2 and L3 (Fig. 1 or 2):

Remove the shell mounting screw with the KS-2348 screwdriver, and slide off the shell. Remove the plug terminal screws, and unscrew the plug from the cord. Thread the red and natural conductors into the new plug and, after making sure that the blue conductor is bent back over the butt of the cord, screw the plug onto the butt of the cord until the screw holes in both conductor terminals come over their respective screw holes in the plug with a slight amount of slack. Reassemble the plug terminal screws and shell. Fasten in place using a new, plastic shell screw.

3.09 Plug for KS-16124 L7 (Fig. 4)

(a) With the tip of the KS-20999 L1 plug pointing away, grip the sleeve of the plug with the thumb and forefinger of the left hand. With the thumb and forefinger of the right hand, rotate the handle of the plug 30 degrees clockwise. The handle of the plug may now be removed from the rest of the plug.

(b) Using a KS-2348 screwdriver, remove the plug terminal screws. The plug to be replaced is now free of the cord.

(c) Fasten the white (tip) and red (ring) leads to the brass portion of the replacement plug using the screws supplied and the KS-20999 L1 plug. Replace the handle fully over the brass portion of the plug. Rotate the handle 30 degrees counterclockwise to lock in position (tip of plug pointing away).

3.10 Cushion for KS-14975 L3, L4, L5, and L6 and KS-16124 L2 and L3 (Fig. 1 or 2):

To replace a cushion on a cord which is not attached to the cord reel, remove the old cushion and slide the new cushion over the cord body beginning at the cord reel end until it reaches the shell of the

plug. To replace a cushion on a cord which is mounted on a reel and equipped with a plug, the procedures covered in Section 032-322-811 should be followed.

3.11 *Seat (Fig. 1 or 2):* To replace a seat on the KS-14975 L3, L4, L5, and L6 and KS-16124 L2 and L3 cord reels, it is necessary to remove the plug from the cord as covered in 3.08.

3.12 *Seat:* To replace a seat on the KS-16124 L5 cord reel (Fig. 3), remove the cord from the cord reel as covered in 3.05.

3.13 *Seat:* To replace a seat on the KS-16124 L7 cord reel (Fig. 4), proceed as follows.

- (1) Using the method of 3.09(a), remove the handle of the KS-20999 L1 plug.
- (2) Pull the old seat over the plug.
- (3) In the reverse manner, install the replacing seat on the cord.
- (4) Reassemble the handle of the KS-20999 L1 plug.

3.14 *Continuity Test:* Conductor shall be checked for continuity and for absence of shorts between conductors.