

OPERATOR CHAIRS
METAL TYPE
DESCRIPTION

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1. GENERAL

1.01 This section describes Bell System operator chairs and associated accessories. Chairs and accessories may be ordered as described in this section.

1.02 The reasons for reissuing this section are to rate the KS-20751 operator chair A&M Only and to add the KS-22063 operator chair. Since this reissue is a general revision, no revision arrows have been used to denote significant changes. The Equipment Test List is not affected.

1.03 Operator chairs used in the Bell System have been designed with the object of producing a chair which provides maximum posture comfort for

the occupant while performing the duties of operating a switchboard or an auxiliary desk.

1.04 Manual telephone switchboard operation is based on teamwork between operators of adjacent positions and on the ability to bring a multiple of 10,000 subscriber lines or seven panels of a switchboard within the reach of every operator. To permit this, the switchboards are designed on minimum centers and fixed heights and the operator chairs must have the following features. Their width must fit the allocated space. They must have a rotating feature for teamwork and multiple reach and, because of physical variations in operators, the chairs must be adjustable in height.

1.05 There are four generations of operator chairs currently in service in the telephone companies operating rooms and private branch exchange (PBX) offices. They consist of the Western Electric No. 1 through No. 5 chairs, the KS-15531 metal chairs, the KS-15784 upholstered metal chairs, the KS-20751 (A&M Only) upholstered chairs, and KS-22063 upholstered metal chairs. The No. 1 through No. 5 chairs and the KS-15531 chairs have been rated Mfr Disc. There will be no further reference in this section to the No. 1 and 5 and KS-15531 chairs being rated Mfr Disc.

1.06 Refer to Section 065-100-501 for tests and inspections and to Section 065-100-802 for replacement parts, replacement procedures, and minor repairs.

2. KS-15784 OPERATOR CHAIRS

A. General

2.01 The KS-15784 operator chairs are available in two types, the center spindle chairs and the offset spindle chairs. The center spindle chairs are used at switchboards and the offset spindle chairs are used at information desks.

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2.02 The chairs are available in four sizes, which locate the seats of the chairs approximately 18, 20, 24, and 28 inches from the floor when adjusted to their lowest levels. The offset spindle chair is provided in the 18-inch size and gray or green color only. The 18-inch center spindle chair is available in four colors, gray, green, mahogany-green, and mahogany-blue combination. The 20-, 24-, and 28-inch chairs are furnished only in the mahogany-green or mahogany-blue color combination. These chairs are provided with upholstered backrests and upholstered or cane seats. The two seats are interchangeable on similar upper units. The upholstered and cane-seated chairs are shown in Fig. 1 through 4.



Fig. 1—KS-15784 Typical Operator Chair With Tufted Back and Ribbed Seat Edge



Fig. 2—KS-15784 Upper Unit—18-Inch Lower Unit

2.03 The plastic-covered metal framework of the chairs is available in three colors, gray, green, and mahogany; the seats and backrests are furnished in three colors, gray, green, and blue. These colors result from the use of three different colored threads in the weave. The bright green has medium blue, light blue, and yellow threads; the royal blue has dark blue, light blue, and green threads; and the oxford gray has brown, white, and green threads. The bright green is recommended for use with the green consoles, the royal blue for sky blue consoles, and the oxford gray for covert gray consoles.

2.04 The chair consists primarily of an upper unit and a lower unit interconnected by a threaded spindle and hub. This permits changing the height of the seat from the floor and also permits rotation from left to right to facilitate the work of a telephone operator. The form and location of the various components, such as the seat, the backrest, and the foot



Fig. 3—KS-15784 Typical Operator Chair With Polyfoam Smooth Back and Nonribbed Seat Edge

ring, are designed and arranged to give good posture and maximum comfort consistent with efficient operation of telephone switchboards and auxiliary desks.

2.05 Sizes: The center spindle operator chairs are available in the four sizes. The chair size desired may be determined by deducting 12 inches from the distance between the upper surface of the keyshelf and the floor or platform as shown.



Fig. 4—KS-15784 Operator Chair With Cane Seat and Tufted Back

40-inch keyshelf 10-inch platform	—18-inch chair
30-inch keyshelf no platform	—18-inch chair
40-inch keyshelf 8-inch platform	—20-inch chair
36-inch keyshelf no platform	—24-inch chair
40-inch keyshelf no platform	—28-inch chair

2.06 Backrests: Three backrests are available.

One has a gray-colored backplate, one has a green-colored backplate, and one has a mahogany-colored backplate. These backrests are used with chairs having a framework finished with a color corresponding to the backplate. The backrests are upholstered and have a polyfoam padding covered with gray, green, or blue fabric. The fabric has been treated to resist soilage. The backrests are attached to the chairs in such a manner as to provide an up and

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down swivel action which permits positioning to fit the occupant of the chair.

2.07 Upper Unit: Five upper units are available, one center-spindle upper unit finished in mahogany for use with mahogany lower units, one center-spindle upper unit finished in gray for gray lower units, one center-spindle upper unit finished in green for use with green lower units, one offset-spindle upper unit finished in gray for use with gray lower units, and one offset-spindle upper unit finished in green for use with green lower units. The upper units differ from the earlier types used on operator chairs by having the backrest upholstered and located lower. The construction of the seat also allows for a slight rearward tilt. The spindle, which is attached to the upper unit, is long enough to permit a 4-inch vertical adjustment of the seat and still have full contact with the threads in the hub on the lower unit. The upper units of the KS-15784 chairs are interchangeable with the upper units of the No. 1 through No. 5 and the KS-15531 chairs.

2.08 Lower Units: The general construction of the lower unit is the same for all of the KS-15784 chairs. The additional height for the various chairs is added in the legs between the floor and the foot ring. The foot ring is attached by means of a machine screw at each leg and can readily be removed when replacement is necessary. The lower units of the KS-15784 chairs are interchangeable with the lower units of the No. 1 through No. 5 and the KS-15531 chairs.

2.09 Seats: Four upholstered seats are available. Three are for use with the five upper units mentioned above and differ only in color (gray, green, or blue). The other is a replacement for the air cell or cane seat on existing KS-15531 upper units and is furnished in green color only. These seats consist of polyfoam and cotton padding covered with a silicon-treated nylon fabric attached to a plywood base.

2.10 Three cane seats are available. Two are for use with the five upper units mentioned above and differ only in color (gray or green). The other seat is a replacement for existing KS-15531 upper units, is furnished in green color only, and differs from the other two seats in the type of metal mounting brackets used for mounting the seats to the framework of the chair. The seats are made of natural-colored cane in a gray or green finished wooden frame. The seats are available either with or without mounting brackets.

2.11 The above seats are furnished with three sets of mounting holes that provide an adjustment of 1/2 inch from the delivered seat position to a forward or rearward position. This adjustment is provided to accommodate the local variation in seating requirements of the operators. The seats are fastened to the upper unit by four machine screws that can be easily replaced.

2.12 Chair Rests: Metal chair rests (floor glides), coded KS-5344, Item 5, are provided on each lower unit. These rests are 1-1/2 inches in diameter and equipped with a rubber grip for fastening into the chair. They may be removed easily for replacement by turning in a counterclockwise direction.

2.13 Offset Chairs: The 18-inch offset spindle chair is provided in gray or green color only. The spindle of this chair is offset and is located 2-7/8 inches back of the center line toward the rear of the seat. This makes the chair more adaptable where it is necessary to perform operations at the side as well as at the front, such as at the 23B, C, and similar-type auxiliary desks. The chair is raised or lowered in the usual manner.

B. Ordering Information

2.14 In making a choice between upholstered seats and cane seats for a particular office, it should be understood that both types of seats have certain disadvantages as well as advantages. The upholstered seat is softer and warmer than the cane seat. A wide difference of opinion will be encountered with respect to these seats even in the same office.

2.15 Upholstered seats generally will receive favorable reception in offices in any part of the country where the operating rooms are equipped with air-conditioning facilities. In operating rooms not equipped with air-conditioning, the choice between upholstered and cane seats will no doubt be influenced by the range of summer and winter temperatures and the percent of relative humidity encountered. The KS-15784 upholstered and cane seats are interchangeable with KS-15531 chairs except those having ball-bearing spindles. It may in certain cases be found desirable to change from upholstered to cane seats for the summer months.

2.16 Table A lists the type of KS-15784 operator chairs and component parts that are avail-

able. The list numbers for chairs include a complete chair. The list numbers for lower units include chair rests and a foot ring. The list number for an upper

unit does not include a seat which should be ordered per an added list. See Section 065-100-802 for piece-part data and repair procedures.

TABLE A

KS-15784 LIST NO.	DESCRIPTION	COLOR
1*	18-inch operator chair with upholstered seat	Green
2*	18-inch operator chair with cane seat	Green
3*	18-inch operator chair with upholstered seat	Mahogany green
4*	18-inch operator chair with cane seat	Mahogany green
7	20-inch operator chair with upholstered seat	Mahogany green
8	20-inch operator chair with cane seat	Mahogany green
9	24-inch operator chair with upholstered seat	Mahogany green
10	24-inch operator chair with cane seat	Mahogany green
11	28-inch operator chair with upholstered seat	Mahogany green
12	28-inch operator chair with cane seat	Mahogany green
13	Upper unit for 18-inch chair	Green
15	Upper unit for 18-, 20-, 24-, or 28-inch chairs	Mahogany green
16	Lower unit for 18-inch chair	Green
17	Lower unit for 18-inch mahogany chair	Mahogany
18	Lower unit for 20-inch mahogany chair	Mahogany
19	Lower unit for 24-inch mahogany chair	Mahogany
20	Lower unit for 28-inch mahogany-green chair	Mahogany
21	Cane seat (without brackets)	Green
21B	Cane seat (with brackets)	Green
22	Upholstered seat	Green
23	Upholstered backrest	Green
24	Upholstered backrest for mahogany-green chair	Green
25	Foot ring	Green
26	Foot ring	Mahogany
27	Cane seat for KS-15531 chairs (without brackets) Replaces KS-15531, L18	Green
27B	Cane seat for KS-15531 chair (with brackets)	Green
28	Upholstered seat for KS-15531 chair (without brackets)	Green
28B	Upholstered seat for KS-15531 chair (with brackets) Replaces KS-15531, L19	Green

* A&M Only

TABLE A (Contd)

KS-15784 LIST NO.	DESCRIPTION	COLOR
29	Offset upper unit for 18-inch offset chair	Green
30	18-inch offset operator chair with upholstered seat	Green
31	18-inch offset operator chair with cane seat	Green
32*	18-inch operator chair with upholstered seat	Gray
33*	18-inch operator chair with upholstered seat	Gray
34	18-inch offset operator chair with upholstered seat	Gray
35	18-inch offset operator chair with cane seat	Gray
36	Lower unit for 18-inch chair	Gray
37	Foot ring	Gray
38	Upper unit for 18-inch chair	Gray
39	Offset upper unit for 18-inch offset chair	Gray
40	Upholstered seat	Gray
41	Cane seat (without brackets)	Gray
41B	Cane seat (with brackets)	Gray
42	Upholstered backrest	Gray
43	Upholstered seat (Optional replacement for mahogany chairs.) Order with List 44 backrest.	Blue
44	Upholstered backrest. (Optional replacement for mahogany chairs.) Order with List 43 upholstered seat.	Blue
47	Upper unit. (Replacement for 18-, 20-, 24-, or 28-inch chairs using List 43 seat.)	Mahogany blue
50*	18-inch operator chair with upholstered seat	Mahogany blue
51	20-inch operator chair with upholstered seat	Mahogany blue
52	24-inch operator chair with upholstered seat	Mahogany blue
53	28-inch operator chair with upholstered seat	Mahogany blue
131 & 132	Mounting bracket assemblies for use with List 28 upholstered seat for KS-15531 chairs (when required)	—
133 & 134	Mounting bracket assemblies for use with List 21 green cane seat (when required)	—

* A&M Only

TABLE A (Contd)

KS-15784 LIST NO.	DESCRIPTION	COLOR
133B & 134B	Mounting bracket assemblies for use with List 41 gray cane seat (when required)	—
135 & 136	Mounting bracket assemblies for use with List 27 cane seat for KS-15531 chairs (when required)	—

*A&M Only

2.17 Example of Ordering Information: The choice of chair size should be made in accordance with information found in paragraph 2.05. In ordering these chairs and related components, the description should be limited as indicated in the following example:

Chairs

(Quantity) Chair, Operator, KS-15784, List (No.)

Upper Units

(Quantity) Unit, Upper, KS-15784, List (No.)

Lower Units

(Quantity) Unit, Lower, KS-15784, List (No.)

Seats

(Quantity) Seat, KS-15784, List (No.)

C. Accessories

Purse Holder

2.18 A purse holder (see Fig. 5), coded KS-15830, is available for operator chairs. The holder is made of two pieces of formed sheet steel held together by a spring hinge at the bottom. One piece is

fastened firmly to the underside of the chair seat, and the other is free to move under control of the hinge. The purse is placed between the two pieces, and the spring hinge tends to exert a slight pressure against it which keeps it in place. Various sized purses may be accommodated.

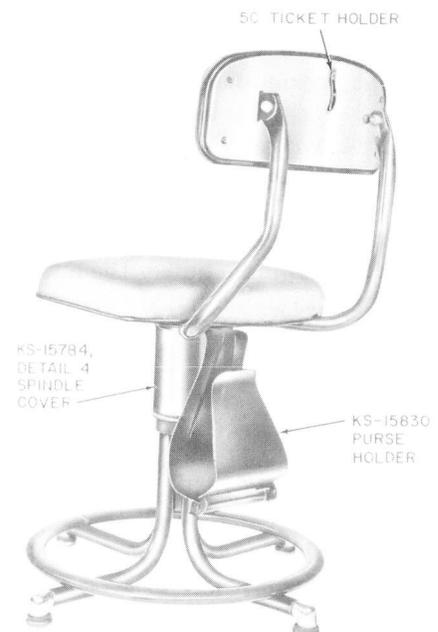


Fig. 5—KS-15784 Operator Chair Accessories

2.19 The holders are available in four separate list numbers. The L1 provides a mahogany-colored purse holder for use on Western Electric chairs No. 1 through 4, KS-15531, and KS-15784 center spindle mahogany-colored chairs. The L2 provides a matching-colored purse holder for the KS-15784 green center spindle chairs. The L3 provides a green holder plus a green-colored adapter for use on KS-15784, L5 and L6, offset operator chairs. The L4 consists of a mahogany-colored holder plus an adapter for use on supervisor chairs. The L5 consists of a green-colored holder plus an adapter for use on a green supervisor chair. Drilling information for mounting the purse holder on the supervisor chairs is covered in maintenance Section 065-100-802. The L6 provides a matching-colored purse holder for the KS-15784 gray chairs.

Spindle Cover

2.20 The KS-15784, Detail 4, shroud for the frame tubing is designed to function also as a spindle cover and is furnished with each new KS-15784 chair. It may also be ordered separately as KS-15784, L104 spindle cover to replace damaged KS-15801 spindle covers which have been rated A&M Only. It prevents operators clothing from being soiled or damaged by the lubricant used on the threaded portion of the spindle. This may occur either by direct contact or by transfer from a supervisor headset cord. The spindle cover consists of a rigid vinyl plastic sleeve and is arranged to be fastened to the underside of the upper unit of the operator chair, using the same holes provided for mounting a purse holder. The cover extends downward over the spindle hub of the lower unit and permits the chair to be adjusted vertically without exposing the threaded portion of the spindle. (See Fig. 5.)

2.21 The covers are available in three colors and may be ordered as L104 spindle cover (mahogany), L104A (green), or L104B (gray).

2.22 Ticket Holders: The No. 5C ticket holder may be provided where desired. The backrest of the KS-15784 operator chair has three sets of holes across the top of the backplate for mounting the ticket holder. The No. 12A ticket holder may be provided for use on the chairs equipped with a molded bakelite backrest (KS-15531 and Western Electric-type chairs). A small metal box may be attached to the backrest of the operator chairs for storing completed mark sense tickets. Boxes of this type may be

ordered through the Western Electric Distributing House. They are coded No. 4045 Gray Acme Visible Ticket Box for operator chairs.

3. KS-20751 OPERATOR CHAIRS

A. General

3.01 The KS-20751 (A&M Only) operator chairs (Fig. 6) were intended for use at traffic service positions, auxiliary service positions, and low-type switchboards.



Fig. 6—KS-20751 Operator Chair

3.02 The framework of the chair is of tubular steel, rectangular for the legs, and round for the foot ring and vertical column. Flat-bar stock is used for the backpost and provides spring action to the backrest which also has a tilt adjustment. All metal parts are finished in brushed chrome.

3.03 The seat height is adjustable from 16-1/2 inches to a height of 22-1/2 inches. Turning the upper unit clockwise will lower the seat, and turning it counterclockwise will raise the seat. Stops in both the extreme upper and lower positions are provided.

3.04 The upholstered seat and backrest, which are essentially latex foam covered with silicon-treated nylon fabric material, are available in one of three colors, royal blue, bright green, and oxford gray. These colors result from the use of three different colored threads in the weave. The bright green has medium blue, light blue, and yellow threads; the royal blue has dark blue, light blue, and green threads; and the oxford gray has brown, white, and green threads. The bright green is recommended for use with the green consoles, the royal blue for sky blue consoles, and the oxford gray for covert gray consoles. A commercial fabric is also available for these chairs.

3.05 Cane seats, which are available, are made of natural-colored cane in a wooden frame lacquered in colors to harmonize with the three upholstery colors of the backrests.

3.06 The design of the KS-20751 chair is such that the lower unit is interchangeable with the lower unit of the KS-22063 operator chair.

3.07 Metal chair supports (floor glides) are provided on each chair. These supports are 1-1/2 inches in diameter and equipped with rubber inserts to provide a slight cushion to compensate for uneven floors.

B. Ordering Information

3.08 Table B lists the type of KS-20751 operator chairs and component parts that are available.

4. KS-22063 OPERATOR CHAIRS

A. General

4.01 The KS-22063 operator chairs (Fig. 7) are intended for use at auxiliary service positions,

traffic service positions, and any low-type switchboard. The KS-22063 is designed to provide more comfort and flexibility for operators than the older types of chairs.

4.02 The lower unit of the KS-22063 operator chair is identical to the lower unit of the KS-20751 operator chair. The lower units are interchangeable.

4.03 The upper unit of the KS-22063 chair consists of the chair seat, a horizontally adjustable backrest post, a vertically adjustable and tiltable backrest, and a chair spindle. The chair seat and backrest are made of molded polystyrene and are filled with fire-retardant polyurethane foam. The foam is upholstered with a coarse, nylon fabric that is inherently mothproof and mildew resistant. It is offered in two fabric weaves; one which combines two or more colors for a contemporary effect, and the other of which is the classic basket weave. Both fabrics are offered in a variety of colors.

4.04 The height adjustment is made from a standing position by turning the upper unit clockwise to lower the seat and counterclockwise to raise it. The seat is adjustable from a height of 17-3/8 to 23-3/8 inches.

4.05 The framework of the KS-22063 chair is a tubular steel, rectangular for the legs, and round for the vertical column and foot ring. Flat bar stock is used for the backpost and provides spring action to the backrest. The entire assembly is finished in satin chrome.

4.06 Floor glides are provided on each chair. These glides are 1-1/2 inches in diameter and equipped with rubber inserts to provide a slight cushion to compensate for slightly uneven floors. The chair is also available with soft casters for hard surfaces and hard casters for carpeted flooring.

B. Ordering Information

4.07 Orders for the KS-22063 operator chairs should be similar to the following example:

KS-22063, List (No.) with List (No.) Fabric

4.08 Table C lists the types of KS-22063 operator chairs and component parts that are available.

TABLE B

KS-20751 LIST NO.	DESCRIPTION	COLOR
1	Operator chair with upholstered seat	Bright green
2	Operator chair with upholstered seat	Royal blue
3	Operator chair with upholstered seat	Oxford gray
7	Backrest	Bright green
8	Backrest	Royal blue
9	Backrest	Oxford gray
10	Seat cushion	Bright green
11	Seat cushion	Royal blue
12	Seat cushion	Oxford gray
13	Operator chair with cane seat	Bright green
14	Operator chair with cane seat	Royal blue
15	Operator chair with cane seat	Oxford gray
19	Cane seat (without bracket)	Bright green
19B	Cane seat (with bracket)	Bright green
20	Cane seat (without bracket)	Royal blue
20B	Cane seat (with bracket)	Royal blue
21	Cane seat (without bracket)	Oxford gray
21B	Cane seat (with bracket)	Oxford gray
24	Upholstered chair (commercial fabric)	—
25	Seat cushion (commercial fabric)	—
26	Backrest (commercial fabric)	—
148A & 149A	Mounting bracket assemblies for List 19 cane seat	Green
148B & 149B	Mounting bracket assemblies for List 20 cane seat	Blue
148C & 149C	Mounting bracket assemblies for List 21 cane seat	Gray

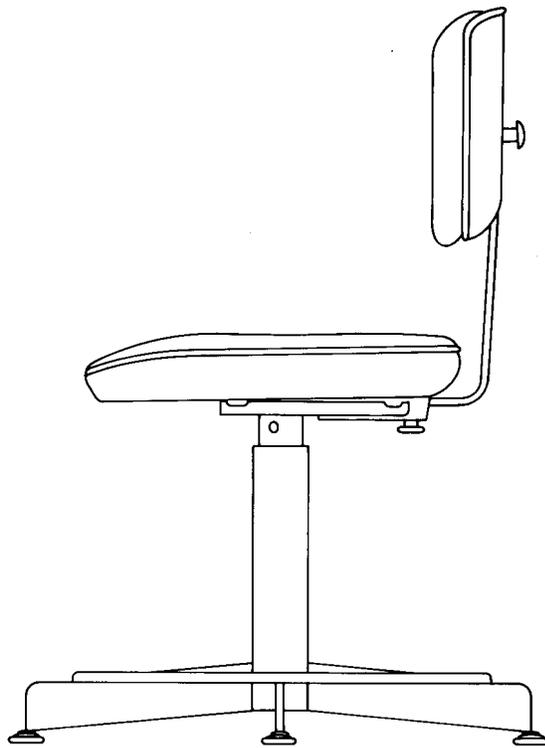


Fig. 7—KS-22063 Operator Chair

TABLE C

KS-22063 LIST NO.	DESCRIPTION	COLOR
1	Operator chair with foot ring and floor glides	—
2	Operator chair with foot ring and soft casters	—
3	Operator chair with foot ring and hard casters	—
4	Upper unit (includes L101 spindle cover kit, also a complete replacement for the upper unit of the KS-20751 operator chair)	—
8	Operator chair with floor glides	—
9	Operator chair with soft casters	—
10	Operator chair with hard casters	—
30	Contemporary weave fabric	Black/brown
31	Contemporary weave fabric	Beige/brown
32	Contemporary weave fabric	Orange/yellow
33	Contemporary weave fabric	Blue/beige
34	Contemporary weave fabric	Red/orange
35	Contemporary weave fabric	Gold/brown
40	Classic weave fabric	Beige
41	Classic weave fabric	Chocolate brown
42	Classic weave fabric	Black
43	Classic weave fabric	Orange
44	Classic weave fabric	Kelly green
45	Classic weave fabric	Antique gold