

NON-MULTIPLE MANUAL CORD SWITCHBOARDS

GENERAL

A non-multiple manual cord switchboard is a single or two-position type of PBX equipped with one jack for each station, central office trunk, and tie line. Connections between stations and central office trunks and between two stations are made by plugging in pairs of cords to the proper jacks.

This type of PBX is provided where the requirements for stations, trunks, tie lines, and simultaneous connections exceeds the capacity of manual cordless switchboards, and where certain features not provided with cordless switchboards are required.

EQUIPMENT AND CAPACITIES

EQUIPMENT—The switchboards are approximately 4 feet high, and require floor space less than 3 feet square plus a 30-inch minimum seating space in front and a 30-inch working space in back of the board. The standard finishes are oak and mahogany-walnut. On the 555 type, the wood panels are detachable for refinish or replacement purposes.

The front of the switchboard is equipped with the necessary lamp signals, jacks, and cords, and with a writing shelf 30 inches from the floor. In dial central office areas, a dial is mounted on each position of the board.

The attendant's telephone is usually a headset (52 type or headband receiver with separate transmitter). A handset equipped with cord and plug may be provided for use during off-peak periods or as the regular set where traffic is light and intermittent.

CAPACITIES—Non-multiple cord switchboards are provided in the following capacities:

Type	Station Jacks per Strip	Stations	Trunks	Cord Pairs
551-A	10	40	10	10
551-B	10	80	15	15
551-B	20	320	15	15
555	10	60	13	15
555	20	120	13	15

The 555 types supersede the 551 types which are no longer manufactured. The 555 boards fill the same requirements as the 551 types except for the 320-line size. The small demand for 320-line boards is met by re-use of 551-B PBX's.

OPERATION AND SUPERVISION

OPERATION—The 551 and 555 types are designed for operation in common battery central office areas, but can be modified for operation in magneto areas.

As explained in the exhibits following, both the 551 and 555 are operated in essentially the same manner, but the keys and cord pairs are arranged differently and the key operations are entirely different.

SUPERVISION—The 551 and 555 types of switchboards are normally arranged for through supervision, but can be arranged for non-through supervision, if desired. The type of supervision required should be specified. On the 555 type, a combination of through and non-through supervision, called automatic discrimination, is also available. A directional relay is added to provide through supervision on outgoing calls and non-through supervision on incoming calls, which are more subject to transfer. The arrangement, therefore, gives the customer the advantages of through supervision on outgoing calls, but without its disadvantages on incoming calls. (See Part VI, Section 1, for explanation of through and non-through supervision.)

FEATURES AND ARRANGEMENTS

Certain features and arrangements which may be provided with practically all types of PBX systems, including non-multiple cord PBX's are described in other sections of the manual as indicated below:

1. Night service (Part VI, Section 1)—Provided by (1) connecting a station to a trunk by means of a cord pair (2) operating the back key of the cord circuit to its back or night-and-through dialing position and (3) turning off battery and buzzer keys to prevent operation of lamp and buzzer signals. A maximum of three stations may be connected to one trunk by means of a patch cord, provided the bell limitation of four per trunk is not exceeded. Calls may be directed to particular departments through the use of night directory listings with or without central office night terminal equipment as outlined in Part VI, Section 1.
2. Off-premises stations (Part X, Section 1)—Available under the conditions prescribed for all PBX systems. Station jacks 1 to 10 on the 551-A and 1 to 20 on the 551-B switchboards are arranged for line relays to be used for on-premises as well as off-premises stations located beyond the normal transmission and signaling range of the switchboard but which do not require use of long line equipment. Off-premises stations which require the use of long line equipment at the PBX do not have to be assigned to particular jacks. Off-premises stations which require long line equipment at the central office (but not at PBX) may require line relays at the PBX.

Because of the longer signaling and transmission range of the 555 switchboard, station jacks are not arranged for line relays and it is not necessary to assign certain stations to particular jacks as is done with the 551 type boards.

3. Tie lines (Part X, Section 1)—Local tie lines of the trunk-to-station or trunk-to-trunk type not requiring terminal equipment are regularly available. Likewise, all types of tie lines requiring terminal equipment and designed for use between two manual PBX's or between a manual and a dial PBX are standard for termination on trunk jacks. Interexchange tie lines may also be provided. Each tie line reduces the trunk capacity of the switchboard by one. If more than four tie lines are terminated on a 555 type switchboard an external relay mounting arrangement will have to be provided.
4. Field lines (Part VI, Section 1)—Magneto field lines may be connected to common battery non-multiple cord switchboards by means of field line terminal equipment.
5. Power supply (Part VI, Section 1)—Both the direct current for talking purposes, lamp signals and relay apparatus and the 20 cycle A.C. ringing current are furnished by the telephone company. A hand generator is provided on the switchboard for use in event of failure of the ringing current supply.

Features and arrangements applicable to non-multiple switchboards only are described below.

TWO POSITION NON-MULTIPLE PBX—Two non-multiple cord switchboards are sometimes lined up together side by side when two attendants are needed to handle the traffic during the busiest hours of the business day. The trunk and station jacks are divided between the two boards in a manner that enables either of the two attendants to reach the jacks in front of the other. Where the jack space required for the number of stations in use does not exceed two panels the jacks are mounted on the inner panels for convenient reach of both attendants. The trunk and station capacity of the two-position arrangement is theoretically doubled; however, a controlling factor is the amount of operating work (work units) that two attendants can handle. Ordinarily, the primary purpose of a two-position non-multiple arrangement is to divide the operating work during certain periods between two attendants.

Normally the two switchboards lined up together are of the same type and capacity.

TWO-POSITION GROUPING—To enable one attendant to operate a two-position non-multiple PBX during certain periods, a grouping arrangement is provided which connects the headset used by the one attendant to the cord pairs in both positions. On the 551 boards a group-

ing or transfer key is operated to make the connection; on the 555 type, the removal of the attendant's headset plug from one position automatically groups the cords of that position to the adjacent position.

TWO-POSITION PLATFORMS—Longer cord pairs are required with each position of a two-position non-multiple installation to reach the jacks of the other position. The 551 boards are mounted on a six-inch platform to accommodate the longer cords. An alternative arrangement is for the customer to furnish a platform large enough to accommodate attendants' chairs of standard height.

A platform is not required for two-position 555 switchboards because the longer cords are accommodated by provision of an auxiliary pulley attached to the cord unit.

EXTRA HEIGHT ATTENDANTS' CHAIRS—Office chairs of a standard height are not suitable for a two-position non-multiple PBX mounted on a platform unless the platform is large enough to accommodate the chairs. The telephone company furnishes chairs of extra height without charge when required (the customer always furnishes chairs of standard height).

TWO-PARTY PBX STATION LINES (555 PBX ONLY)—Two-party line PBX station line service with full selective ringing may be provided with the 555 PBX only. A jack for each party line station appears on the switchboard. Party line service is sometimes warranted on off-premises stations where considerable mileage is involved and there is little or no need for intercommunication between stations on the same party line.

STATION BUSY TEST (555 PBX ONLY)—This feature permits the PBX attendant to test a station jack for a busy condition by touching the tip of a cord plug to the station jack. This is particularly desirable where there are two lines terminating on an order turret at one location; that is, one PBX line for incoming calls, and a PBX or CO line for outgoing calls. With such an arrangement, one line must test busy while the other is in use. Modification of the cord circuits is necessary to provide this service and is done on a special-assembly-of-equipment basis.

SPLITTING KEY (555 PBX ONLY)—This standard arrangement permits the PBX attendant, after ringing the called station on an incoming central office or tie line call answered with a trunk cord, to announce the call without being heard by the calling party.

MONITORING KEY (555 PBX ONLY)—An optional arrangement that permits the PBX attendant to listen in on any connection on which the lever key is in the talk position, but disconnects her transmitter from the circuit.

NON-MULTIPLE MANUAL CORD SWITCHBOARDS

OPTIONAL AUXILIARY SERVICES

The following auxiliary services which may be associated with non-multiple cord switchboards are fully described in the sections indicated below.

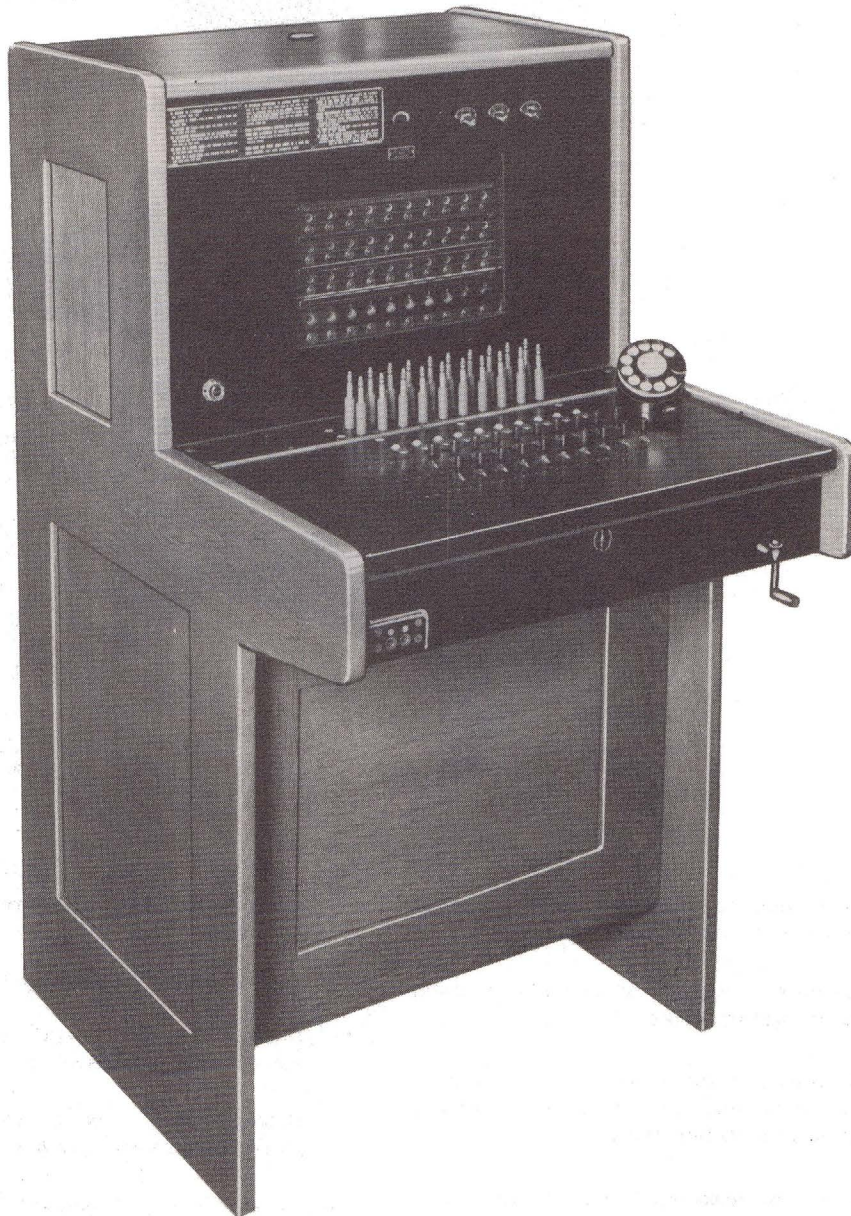
1. Paging and code calling systems (Part III, Section 1)
—Loudspeaker paging system may be terminated on a jack of the switchboard. The signals of a code calling system may be connected at night to a PBX station which in turn is connected to a trunk. The signals sound once at each application of the ringing current.
2. Conference equipment (Part VI, Section 1)—Manual conference equipment may be provided on non-multiple cord boards. A cord pair is required for each

trunk, station and tie line connected, and the number of cord pairs required may be larger than ordinarily required. When provided with the 555 PBX, the conference equipment is in a separate unit which occupies the space of two trunk jacks.

3. Recorder connector equipment (Part III, Section 1)—
A recorder connector may be associated with a switchboard to enable any PBX station to request connection to customer-owned voice recording equipment. Connection is made through use of a spare station jack, a spare trunk jack and two cord pairs. PBX must be arranged for non-through supervision on central office connections.

NON-MULTIPLE MANUAL CORD SWITCHBOARD

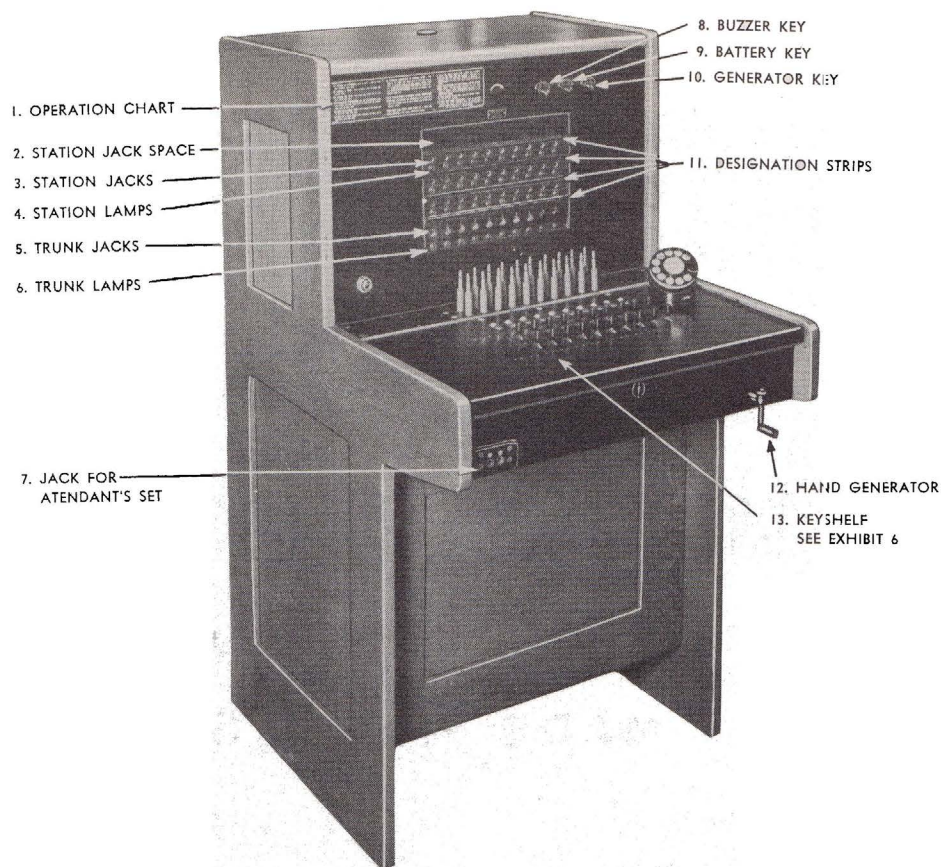
551 A



551-A NON-MULTIPLE MANUAL CORD SWITCHBOARD

2' $\frac{1}{2}$ " Wide; 3' 10" High; 2' $\frac{5}{4}$ " Deep
Capacity: 10 Trunks, 10 Cord Pairs, 40 Stations
Standard Finishes: Oak and Mahogany-Walnut
(Board Illustrated Equipped With: 8 Trunks, 10 Cord Pairs, 30 Stations)

OPERATION 551-A CORD SWITCHBOARD



1. Instructions pertaining to operation of 551-A board are posted as reference for PBX attendant.

2. Space used to obtain capacity of 40 stations. Each strip provides 10 station jacks.

3. Station jacks provided for termination of station lines. Station connections are made by inserting station cord plug into station jack.

4. Station lamp signal associated with station jack lights when station user lifts receiver to make a call and is extinguished when the attendant answers or when receiver is hung up.

5. Trunk jacks provided for the termination of central office trunks. Connections are made to trunks by inserting trunk cord plugs into trunk jacks. Ten trunk jacks are provided on the 551-A board.

6. Trunk lamp signal associated with trunk jack lights on the first ringing impulse, on incoming calls, and

stays lighted until attendant inserts trunk cord plug into trunk jack.

7. Jack provided for attendant's set.

8. Buzzer key controls audible signal which supplements lamp signals.

9. Battery cut-off key to prevent operation of signals when board is not attended.

10. Generator key to connect hand generator for ringing when the regular source is not available.

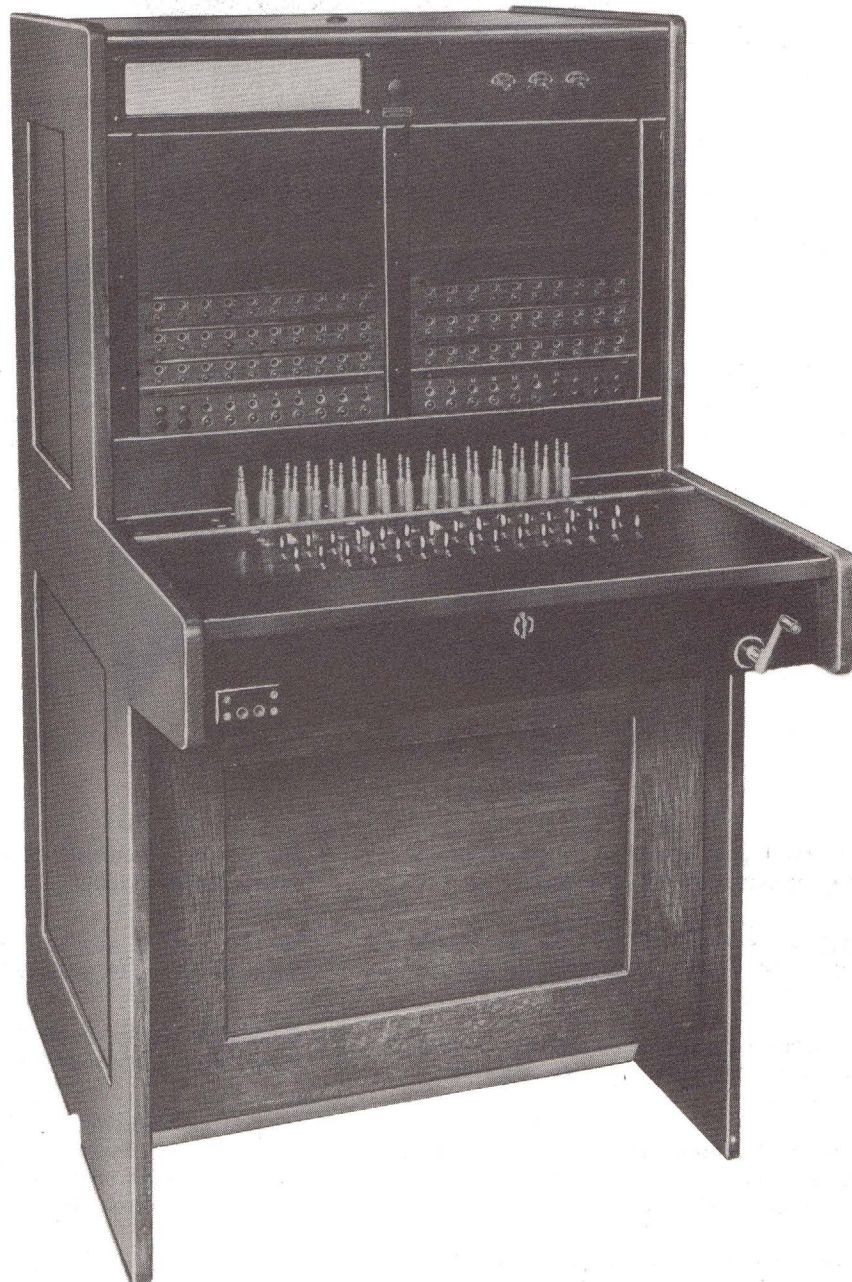
11. Strips associated with stations show station numbers or station user's name. Telephone numbers are shown on strips associated with trunk jacks.

12. Hand generator for ringing stations if regular ringing current supplied from central office is interrupted.

13. Keyshelf—See Exhibit 6.

NON-MULTIPLE MANUAL CORD SWITCHBOARD

551-B



551-B NON-MULTIPLE MANUAL CORD SWITCHBOARD

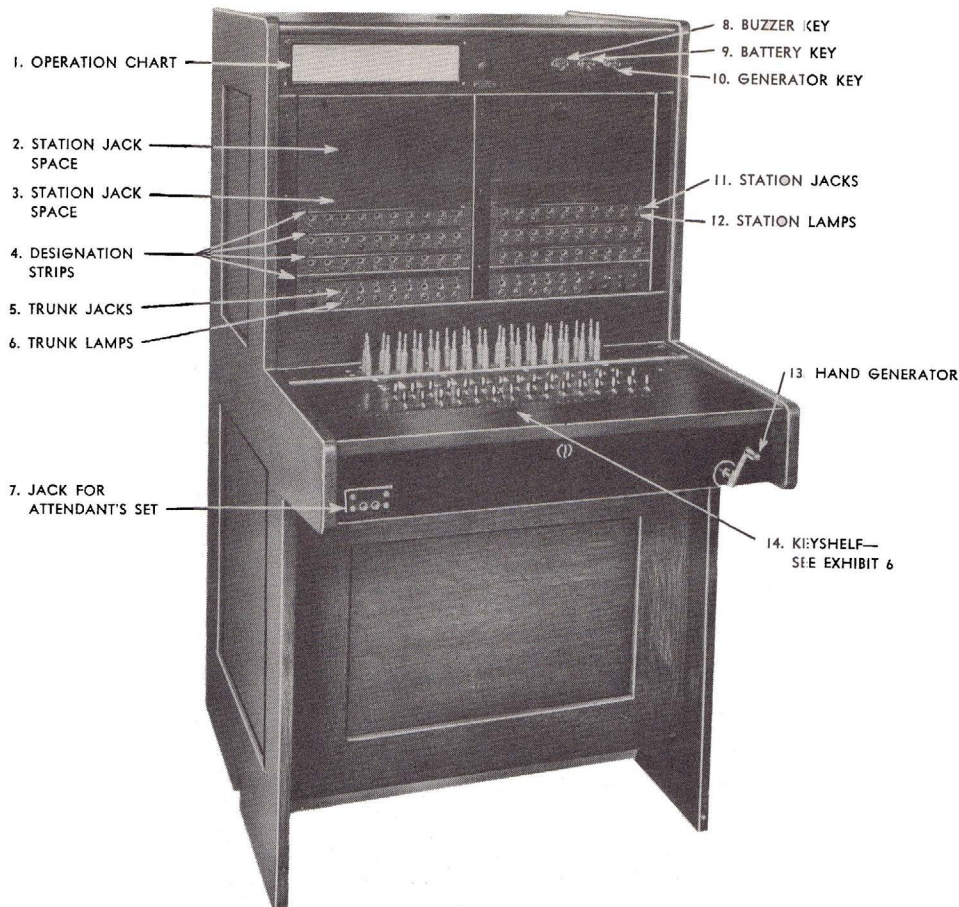
2' $2\frac{7}{8}$ " Wide; 4' $3\frac{3}{16}$ " High; 2' $10\frac{1}{2}$ " Deep

Capacity: 15 Trunks, 15 Cord Pairs, 80 to 320 Stations

Standard Finishes: Oak and Mahogany-Walnut

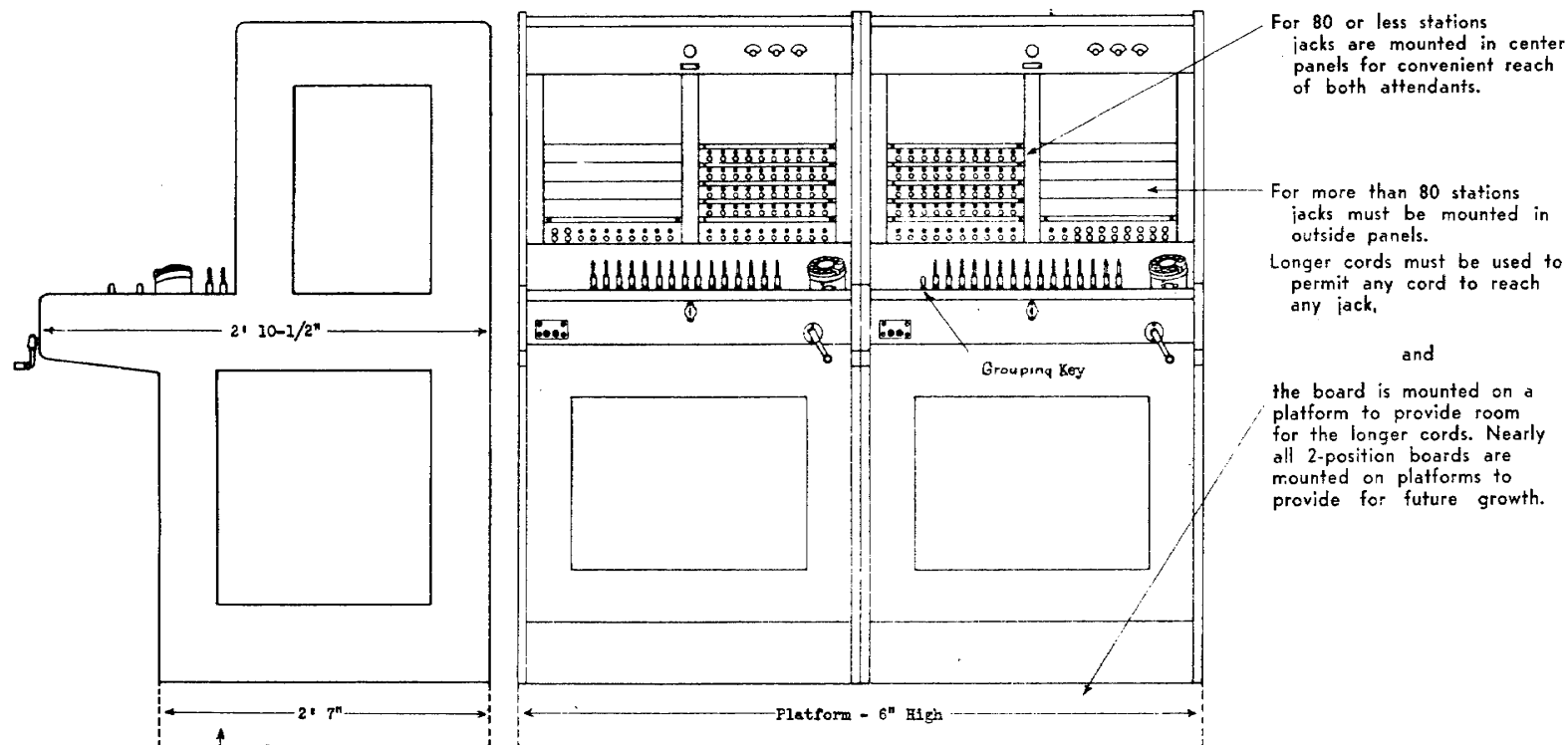
(Board Illustrated Equipped With: 14 Trunks, 15 Cord Pairs, 60 Stations)

OPERATION 551-B CORD SWITCHBOARD



1. Instructions pertaining to operation of 551-B board are posted as reference for PBX attendant.
2. Space used to obtain capacity of 320 stations. A total of sixteen strips, with twenty jacks per strip, may be installed.
3. Space used to obtain capacity of 80 stations. A total of eight strips, with ten jacks per strip, may be installed.
4. Strips associated with stations show station numbers or station user's name. Telephone numbers are shown on strips associated with trunks.
5. Trunk jacks provided for the termination of central office trunks. Connections are made to trunks by inserting trunk cord plugs into trunk jacks. Fifteen trunk jacks are provided on the 551-B board.
6. Trunk lamp signal associated with trunk jack lights on the first ringing impulse, on incoming calls, and stays lighted until attendant inserts trunk cord plug into trunk jack.
7. Jack provided for attendant's set.
8. Buzzer key controls audible signal which supplements lamp signals.
9. Battery cut-off key to prevent operation of signals when board is not attended.
10. Generator key to connect hand generator for ringing when the regular source is not available.
11. Station jacks provided for the termination of station lines. Station connections are made by inserting station cord plugs into station jacks. See (2) and (3) above for station capacities.
12. Station lamp signal associated with station jack lights when station user lifts receiver to make a call and is extinguished when the attendant answers or when receiver is hung up.
13. Hand generators for ringing stations if regular ringing current supplied from central office is interrupted.
14. Keyshelf—See Exhibit 6.

TWO-POSITION 551-B CORD SWITCHBOARD

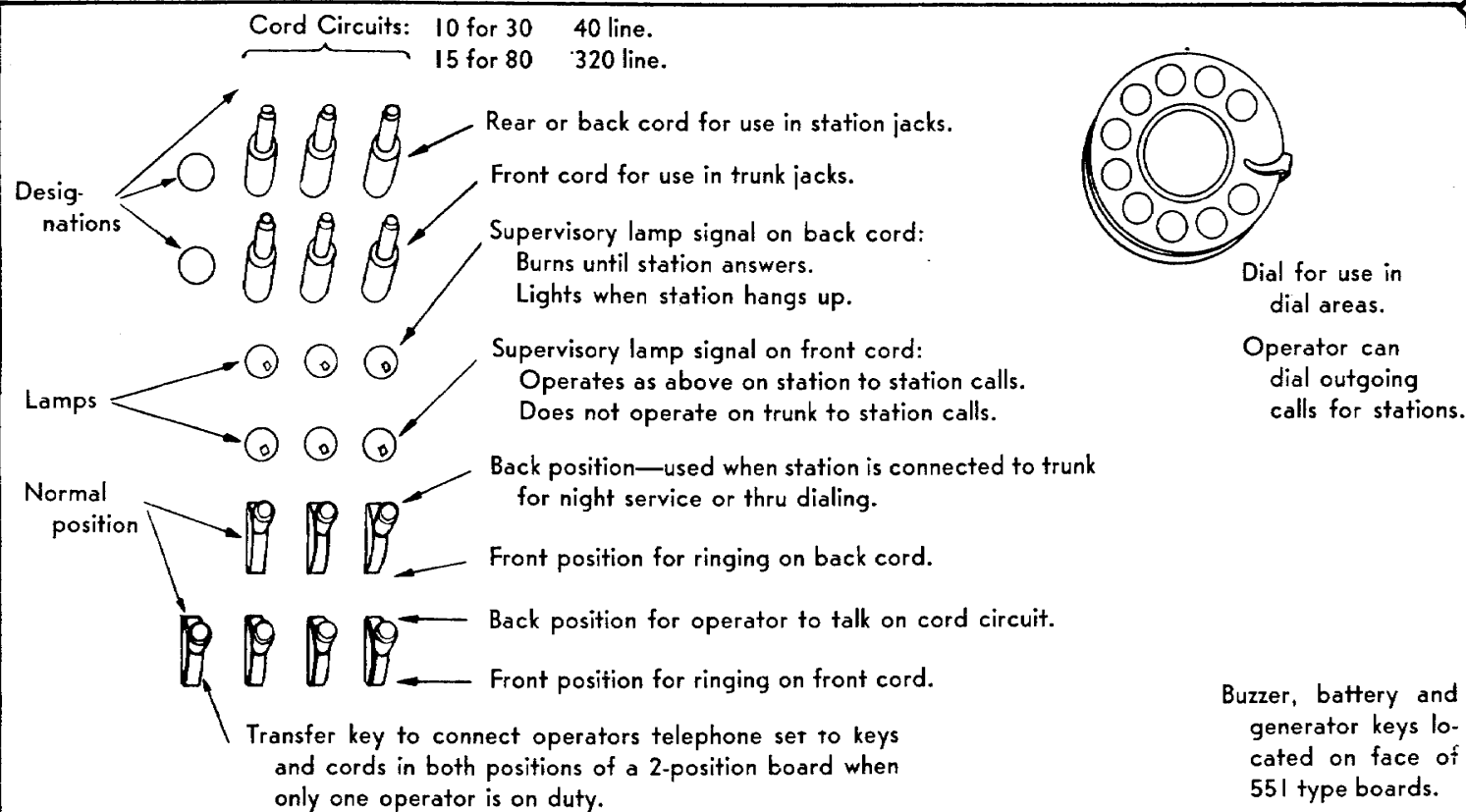


APPROXIMATE DIMENSIONS:

H—4' 3-3/16" W—4' 5-3/4" D—2' 10-1/2"

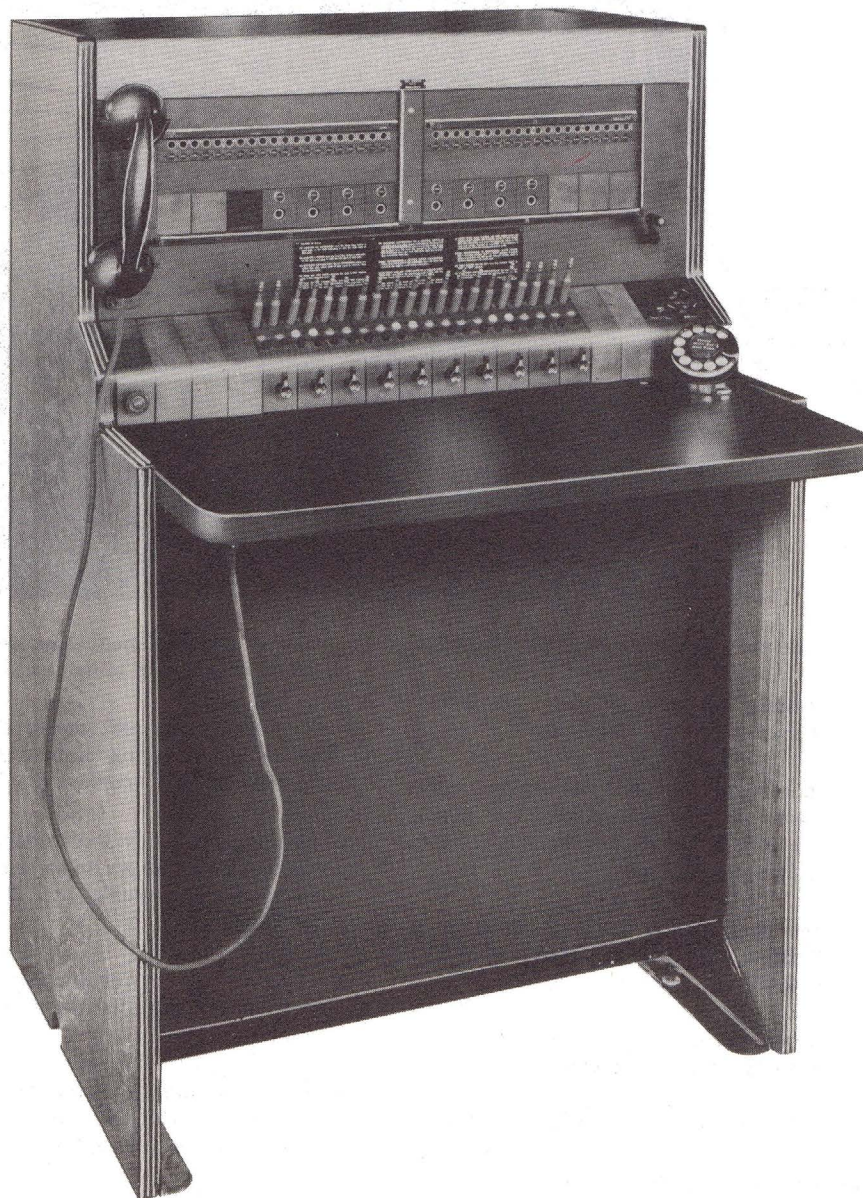
Telephone Company will furnish platform same size as base of switchboard. The customer may elect to provide a platform large enough for switchboard and operators' chairs. This makes chairs of extra height unnecessary.

KEY SHELF FOR 551 TYPE NON-MULTIPLE CORD SWITCHBOARDS



NON-MULTIPLE MANUAL CORD SWITCHBOARD

555



555 NON-MULTIPLE MANUAL CORD SWITCHBOARD

2' 5 $\frac{3}{8}$ " Wide; 3' 10" High; 2' 5 $\frac{7}{8}$ " Deep

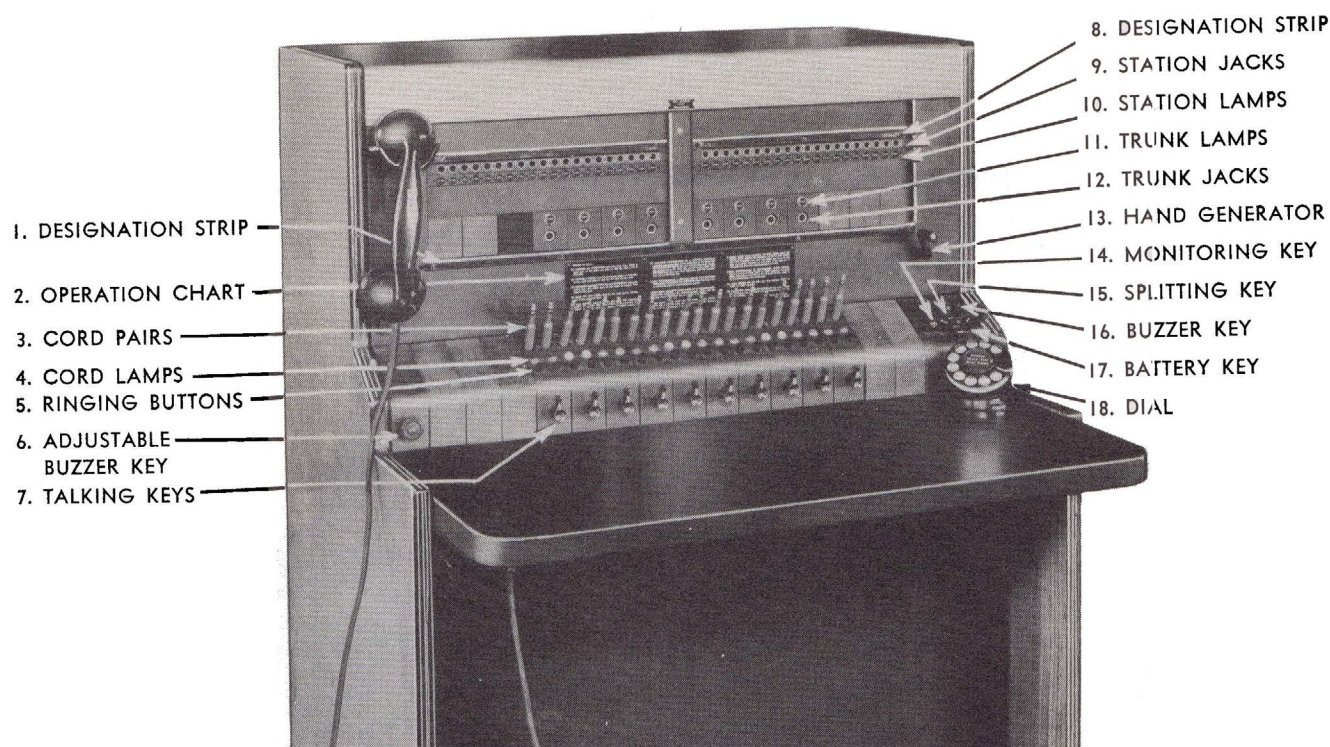
Capacity: 13 Trunks, 15 Cord Pairs, 60 to 120 Stations

Standard Finishes: Oak and Mahogany-Walnut

The 14th unit space cannot be used for a central office trunk unit because of interference with other equipment but is available for additional tie line or part of the conference equipment.

(Board Illustrated Equipped With: 8 Trunks, 10 Cord Pairs, 40 Stations)

OPERATION OF 555 CORD SWITCHBOARD



1. Telephone numbers are shown on designation strip.
2. Instructions pertaining to operation of 555 board are posted as reference for PBX attendant.
3. Left cord of each cord pair is used for making connections to any jack on the switchboard and must always be used for connections to trunks. Right cord is used for connections to stations.
4. Lamp signals light when plug is inserted into station jack and stay lighted until station answers. When station hangs up the lamp signals are again lighted.
5. Non-locking ringing buttons when depressed will provide ringing over the associated cord.
6. Knob used to adjust the volume of the audible signal.
7. When upright, the key is in normal position, when turned to right in talk position, and when pushed in toward the face of the switchboard in night or through dial position.
8. Station numbers or station users' names are shown on these strips.
9. Station jacks provided for termination of station lines. For 60 station capacity 6 strips, with 10 jacks per strip, are provided. For 120 station capacity, 6 strips, with 20 jacks per strip, are provided.
10. Station lamp signal lights when the receiver is removed from the switch hook at the associated station, and is extinguished when the attendant answers or when receiver is hung up.
11. Trunk lamp signal lights on the first ringing impulse, on incoming calls, and stays lighted until attendant inserts trunk cord plug into trunk jack.
12. Trunk jacks provided for the termination of trunks. Connections are made to trunks by inserting plug on left cord into trunk jack. Thirteen trunk jacks can be provided.
13. Hand generator for ringing stations if regular ringing current supplied from central office is interrupted.
14. Key to permit the attendant to listen in on any connection on which the lever key is in talk position. Monitoring key is optional.
15. Splitting key permits the attendant, after ringing the called station on an incoming trunk or tie line call answered with the left cord, to announce the call without being heard by the calling party.
16. Buzzer key controls audible signal which supplements lamp signals.
17. Battery cut-off key to prevent operation of signals when board is not attended.
18. Dial is provided when switchboard is in a dial central office area.

MULTIPLE MANUAL CORD SWITCHBOARDS

GENERAL

A multiple manual cord switchboard is arranged for more than one appearance of the trunk, tie line and station jacks. Since the reach of an attendant is limited to the jacks in her position and to those in the adjacent panels of the positions on either side, it is normally necessary to provide a multiple appearance of jacks when three or more positions of switchboard are provided.

The multiple manual type is provided where the requirements for stations, trunks, tie lines, and simultaneous connections exceed the capacity of non-multiple switchboards, or when more than two attendants are required to handle the traffic during the busiest hours. The multiple manual type of switchboard is particularly appropriate where a large portion of the traffic is incoming and when close supervision of both incoming and outgoing calls is necessary. If, however, close supervision of calls is unnecessary and a large portion of the traffic is outgoing and interoffice, or more than 8-hour operation is desired, an attended dial PBX may serve the customer's requirements more efficiently and economically. As outlined in the section immediately following, outgoing calls and calls between PBX stations are dialed direct by the station users without the assistance of the dial PBX attendant.

EQUIPMENT AND CAPACITIES

EQUIPMENT—The multiple manual switchboard is made up of several sections, each section corresponding to an 80-line single-position non-multiple cord switchboard in appearance and operation.

Each section or position has two jack panels, a left and a right panel, in which the station, trunk and tie line jacks are mounted. The following types of switchboards are used to provide multiple manual PBX service. The comparative features are described later in this section.

1. **551-D**—Consists of 551-B type non-multiple sections arranged for multiple operation. The trunks, tie lines and station jacks are multiplied on a three panel basis. (See exhibits.) The 551-D switchboards are no longer manufactured and are to be superseded by a multiple type board similar to the 555.
2. **552-D**—Consists of 552-A type non-multiple sections arranged for multiple operation. This equipment is designed primarily as multiple sections associated with a dial PBX system, but may be used to provide multiple manual PBX service, where 48-volt operation is required to serve a large number of PBX stations which are a considerable distance from the switchboard. The trunk, tie line and station jacks are multiplied on a three panel basis.

3. **605-A**—Has larger capacity and occupies more space than the 551-552 types. The trunk, tie line and station jacks are multiplied on a four panel basis.
4. **606-A**—Similar to 605-A but has much larger capacity and provides additional service features.
5. **607-A**—Similar in capacity and features to the 606-A, but more compact in design.
6. **607-B**—Same capacity and size as the 607-A, but has fewer service features.

Each station and trunk jack has an associated line lamp to summon the attendant. Each trunk jack also has an associated busy lamp to indicate the trunk is in use. Ordinarily, a maximum of four appearances of both line and busy lamps is provided.

Attendants' telephone sets are the same types as those used with non-multiple cord switchboards. The 600 type boards are equipped with double headset jackets to eliminate delay when an attendant relieves another.

In dial central office areas a dial is mounted at each attendant's position.

Chairs higher than standard office chairs are furnished without charge when required.

CAPACITIES—The capacities of the various types of multiple manual boards listed below vary, depending upon whether or not designation strips for identifying the jacks are used. When designation strips are omitted, the capacity is increased, and the panel frames are marked to identify the jacks. Each position has a capacity of 15 cord pairs.

Type of PBX	*	Stations	
		With Designation Strips	Without Designation Strips
551-D	30	420	600
552-D	30	420	600
605-A-Small	200	1040	1520
605-A-Large	200	1200	1760
606-A	(Nominal capacity of 5000-9600 lines)		
607-A }	(Nominal capacity of 2500-5600 lines)		
607-B }			

* On basis of 10 jacks per strip—Can be increased by using 20 jacks per strip.

The station and trunk capacities indicated above are nominal, that is, the station capacity may be increased at the expense of the trunk capacity, and vice versa.

OPERATION AND SUPERVISION

OPERATION—Multiple manual cord switchboards are designed for operation in common battery manual or dial central office areas, but can be modified for operation in magneto areas.

The method of operation is similar to that of non-multiple manual cord boards. However, because several attendants have access to the lines, a means of determining whether a line is in use before plugging in must be provided. Touching the sleeve of a busy station jack with the plug of a cord will produce a slight clicking sound in the attendant's receiver. Busy lamps are provided with trunk jacks. (See exhibits.)

SUPERVISION — Ordinarily non-through supervision should be specified for multiple manual PBX systems although through supervision may be furnished if required. (See Part VI, Section 1, for explanation of through and non-through supervision.)

FEATURES AND ARRANGEMENTS

Certain features and arrangements which may be provided with practically all types of PBX systems, including multiple manual switchboards, are described in other sections of the manual as indicated below.

1. Night Service (Part VI, Section 1)—On the 552-D and 600 type switchboards special strips of jacks are installed above the station multiple for night connections. With the 551-D night connections are established in the same manner as with non-multiple cord switchboards.
2. Off-premises stations (Part X, Section 1)—Available under the conditions prescribed for all PBX systems. Long line equipment may be involved.
3. Tie lines (Part X, Section 1)—Local tie lines of the trunk-to-station type and the types of tie lines requiring terminal equipment designed for use between two manual PBX's or between a manual and a dial PBX may be provided. Interexchange tie lines of the magneto type may also be furnished. Tie lines may be arranged for one or more appearances as required.
4. Field lines (Part VI, Section 1)—Magneto field lines may be connected to common battery multiple cord switchboards by means of field line terminal equipment.
5. Power supply (Part VI, Section 1)—Both the direct current for talking purposes, lamp signals, and relay apparatus, and the 20 cycle A.C. ringing current are furnished by the telephone company. A hand generator

is provided at each position for use in the event of failure of the ringing current supply.

Features and arrangements applicable to multiple manual switchboards are described below.

COMPARATIVE FEATURES OF 551 AND 600 TYPES

—The 551-D, which is multiplied on a three-panel basis, occupies less space than the 600 types because no head or feet sections are required to provide additional end panels of multiple. However, a relatively small distributing frame section is required at the head of the originating end of the board, and a storage battery cabinet which may be located at the other end of the line-up or at another convenient place. (See exhibits.) The 551-D type often meets the requirements for multiple manual PBX service, but if the customer's requirements are likely to exceed the capacity of the 551-D within a few years, it may be desirable to install a 605-A type initially.

The 605-A switchboard, which is multiplied on a four-panel basis, occupies more space than the 551-D because it requires (1) an additional section at each end to provide an extra panel of multiple, and (2) a distributing frame section or a cable turning section, or both, at the head end. (See exhibits.)

The 607-A type switchboard supersedes (within the limits of its capacity) the 606-A switchboard. The 606-607 type switchboards provide the following service features:

1. Audible ringing on intercommunicating calls and station to tie line calls.
2. Answering of all calls by means of the back cord and completion with the front cord.
3. Machine ringing started automatically upon plug in on calls completed to PBX stations.
4. Repeating tie lines equipped with a single jack instead of the customary two jacks.
5. Audible and flashing recall whereby a single operation of the switchhook to recall the attendant causes the supervisory lamp to flash intermittently and a buzzer to sound until the attendant answers or the station hangs up. This may be provided on either a two-cord basis (double recall) or a one-cord basis (single recall).
6. Idle trunk indicating lamps on central office and tie line groups.

The 607-B type switchboard is identical in appearance and capacity as the 607-A but provides only the following service features:

MULTIPLE MANUAL CORD SWITCHBOARDS

1. Audible and flashing recall on a single basis (optional features).
2. Idle trunk indicating lamps on central office and tie line groups.

The 607-A and 607-B switchboards are more compact than the 606-A, as indicated below:

Lower keyshelf—30 inches as compared to 40 inches.

Deeper keyshelf—19 $\frac{3}{4}$ inches as compared to 14 $\frac{3}{4}$ inches.

Lower over-all height—5 feet, 4 inches as compared to over 6 feet.

Use of the 606-607 type switchboards on installations of fewer than 1,000 stations are not ordinarily provided unless the customer particularly desires the special features outlined above.

TELAUTOGRAPH PANEL—A single panel may be located between two regular positions of multiple PBX switchboards for the purpose of mounting telautograph equipment used in hotels to transmit longhand messages by wire. The addition of telautograph equipment will affect the layout of the switchboard in that additional multiplying of the jacks may be necessary due to the lengthening of the switchboard. The charges for the panel are based upon the modifications required in each particular case. Telautograph equipment is described and illustrated in Part XI.

BUSY OR AVAILABILITY LAMPS—Where large groups of station lines terminate in order equipment, such as the No. 4 turret, busy or availability lamps may be provided at additional charges.

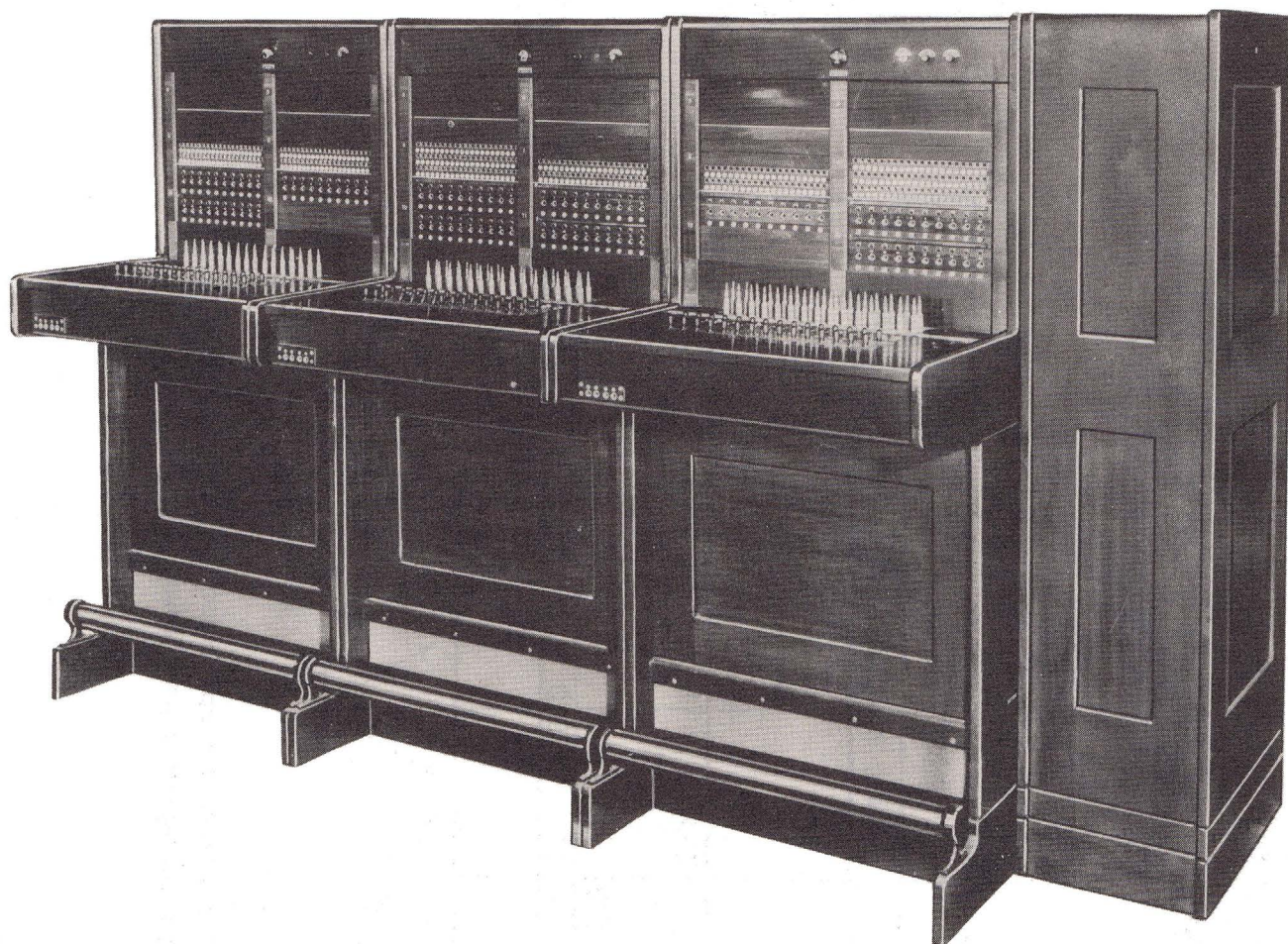
OPTIONAL AUXILIARY SERVICES

The following auxiliary services, which may be associated with multiple manual cord switchboards, are fully described in the sections indicated below.

1. Paging and code calling systems (Part III, Section 1)
—Loud speaker paging systems may be terminated on a jack of the switchboard. The signals of a manual code calling system may be connected at night to a PBX station which in turn is connected to a trunk. With this arrangement, all signals will sound once at each application of ringing current.
2. Conference equipment (Part VI, Section 1)—Operation same as with non-multiple cord boards except that additional appearances of conference jacks may be required. Under multiple appearance arrangement, the attendant must determine when conference circuit is in use before attempting to set up a conference connection.
3. Recorder connector equipment (Part III, Section 1)—A recorder connector may be associated with a multiple manual switchboard. Connection is made through use of a spare station jack, a spare trunk jack, and two cord pairs. PBX must be arranged for non-through supervision on central office connections.

MULTIPLE MANUAL CORD SWITCHBOARD

551-D



551-D MULTIPLE MANUAL CORD SWITCHBOARD

Dimensions for Each Position: 2' $27\frac{7}{8}$ " Wide; 4' $9\frac{3}{16}$ " High; 2' $10\frac{1}{2}$ " Deep

Capacity: 30 Trunks, 15 Cord Pairs, 420 Stations (with Des. Strips),
600 Stations (without Des. Strips)

Standard Finishes: Oak and Mahogany-Walnut

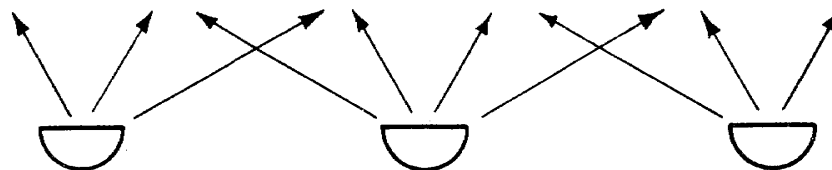
PANEL ARRANGEMENT FOR 551-D MULTIPLE CORD SWITCHBOARD

No cable turning or head sections required. But small distributing frame section may be attached to first position.

POSITION 1		POSITION 2		POSITION 3	
PANEL 1	PANEL 2	PANEL 3	PANEL 4	PANEL 5	PANEL 6
0	100	200	0	100	200
99	199	299	99	199	299
0 9	10 19	20 29	0 9	10 19	20 29

No foot section required. But battery cabinet may be attached to last position.

← Trunks appear in every third panel.



Any attendant can reach one appearance of all stations, trunks, and tie lines by reaching into panel in adjacent position.

MULTIPLE MANUAL CARD SWITCHBOARD

605-A

605-A
MULTIPLE MANUAL
CORD SWITCHBOARD
Standard Finish: Mahogany-Walnut

DIMENSIONS AND CAPACITIES

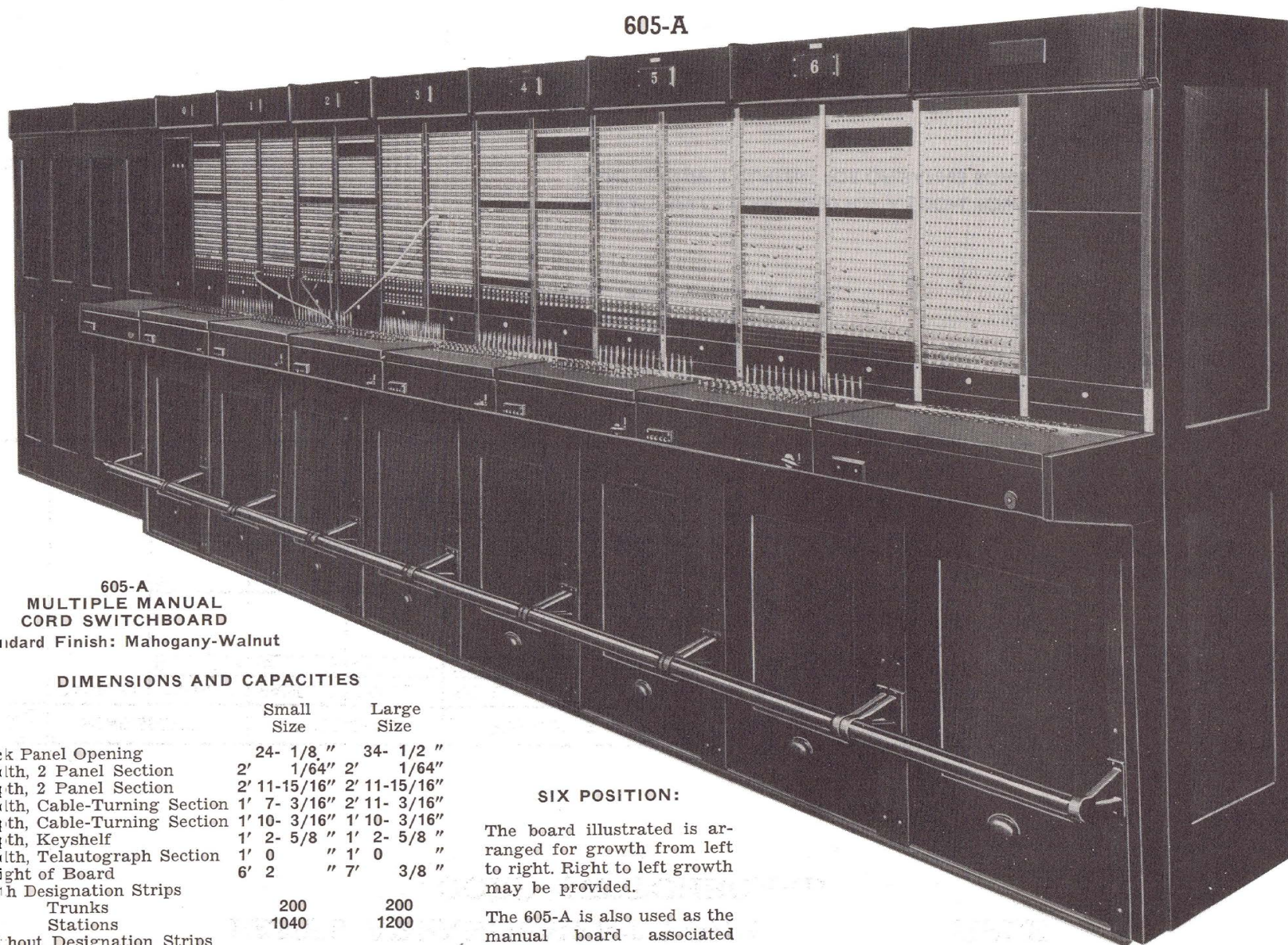
	Small Size	Large Size
Jack Panel Opening	24- 1/8"	34- 1/2"
Width, 2 Panel Section	2' 1/64"	2' 1/64"
Depth, 2 Panel Section	2' 11-15/16"	2' 11-15/16"
Width, Cable-Turning Section	1' 7- 3/16"	2' 11- 3/16"
Depth, Cable-Turning Section	1' 10- 3/16"	1' 10- 3/16"
Depth, Keyshelf	1' 2- 5/8"	1' 2- 5/8"
Width, Telautograph Section	1' 0"	1' 0"
Height of Board	6' 2"	7' 3/8"
With Designation Strips		
Trunks	200	200
Stations	1040	1200
Without Designation Strips		
Trunks	200	200
Stations	1520	1760

SIX POSITION:

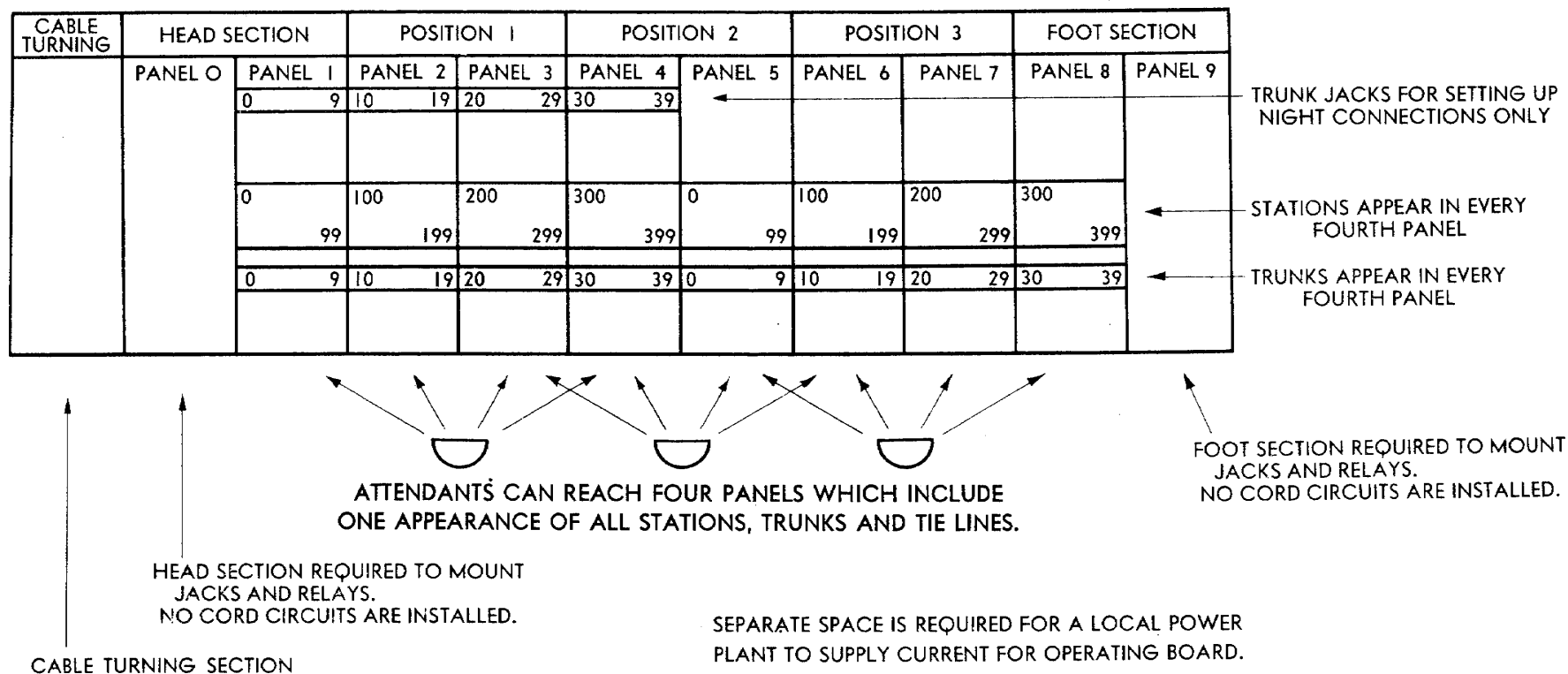
The board illustrated is arranged for growth from left to right. Right to left growth may be provided.

The 605-A is also used as the manual board associated with 701 type dial PBX systems.

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PANEL ARRANGEMENT FOR 605-A MULTIPLE CORD SWITCHBOARD



FLOOR PLAN DATA MULTIPLE MANUAL SWITCHBOARD

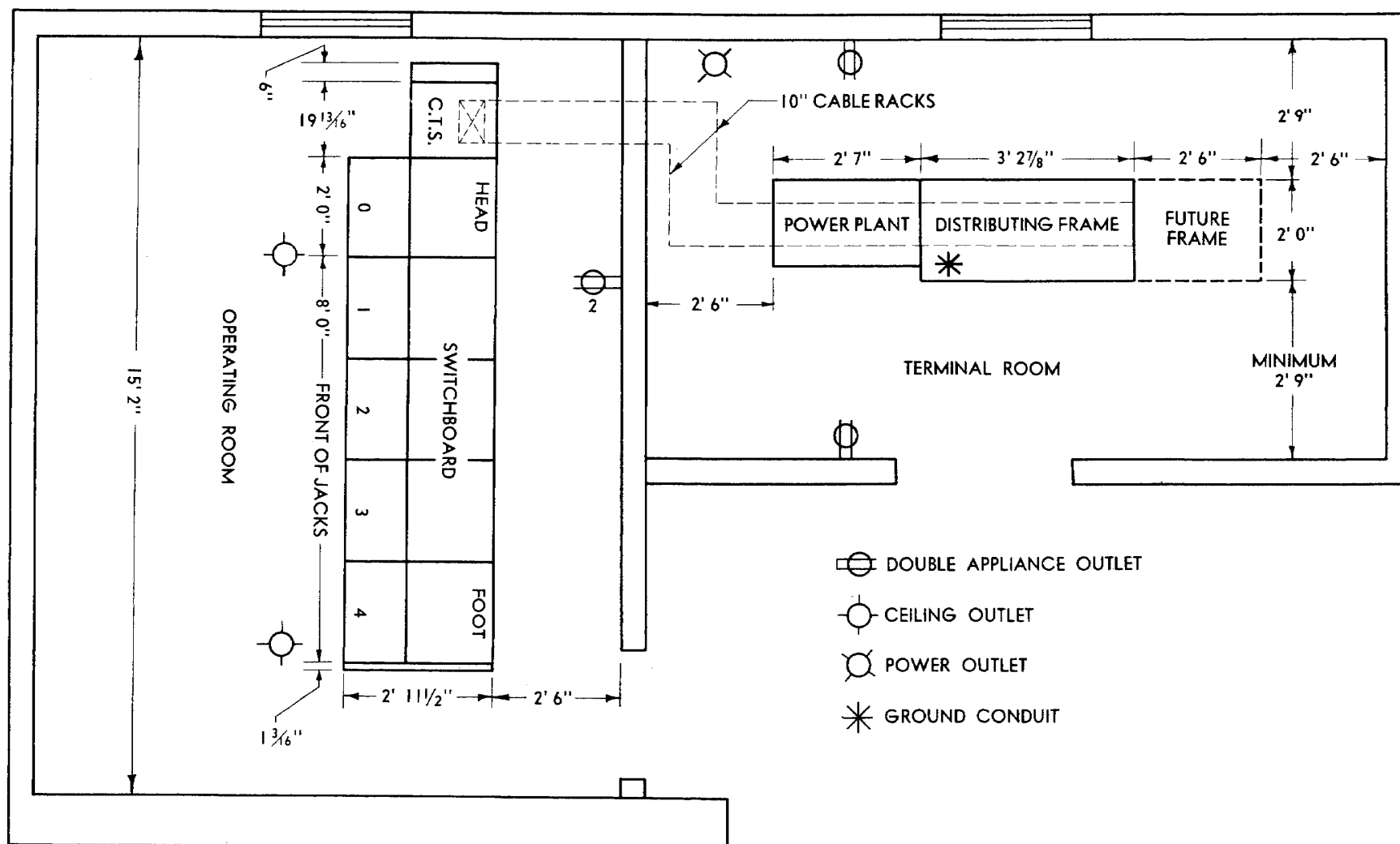


Diagram above shows floor plan for 605-A switchboard. With 551-D and 552-D boards, no cable turning, head, or foot sections are required.

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