

CODED JACKS—500 THROUGH 549

DESCRIPTION

1. GENERAL

1.01 This section lists and illustrates coded plugs within the part or type number range of 500 through 549, used for the maintenance and operation of equipment in central offices.

1.02 The information provided in this section was previously shown in Section 032-511-101, Issue 3. The Equipment Test List is not affected. In addition, the following jacks were added:

- 515C
- 517D
- 547B-49
- 547B-50
- 547B-54
- 548A-49
- 548A-50
- 548A-54

2. DESCRIPTION OF CODED JACKS

2.01 500A: The 500A unit-type jack (Fig. 1) is designed for strip-type mounting. This jack is furnished only on orders for jack mountings. This jack is used with the No. 116, 136, 137, 250A, or similar-type jack mountings having 7/8-inch or greater mounting centers. The 500A jack is designed to be used with the 310 plug.

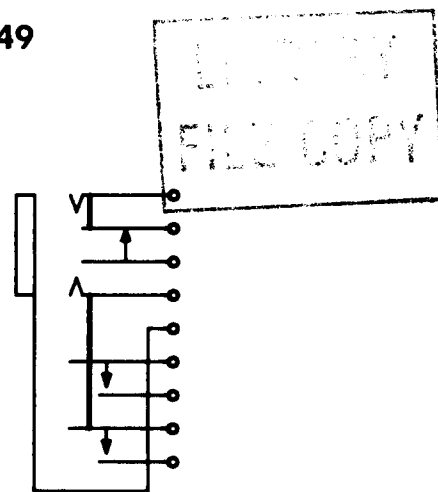


Fig. 1—500A Jack

2.02 502A: This multicontact jack (Fig. 2) consists of a metal bracket on which are mounted two pairs of contact springs insulated from each other. The terminals are designed for mechanically wrapped connections. The 502A jack is used with a 240A plug in the SD-32021-01 switchman's talking line circuit in step-by-step systems.

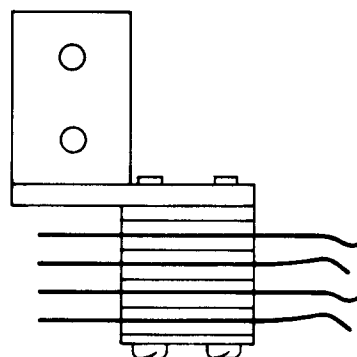


Fig. 2—502A Jack

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Bell System except under written agreement

2.03 503A, B, and C: These are coaxial-type jacks. (Fig. 3).

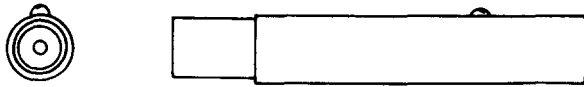


Fig. 3—503-Type Jack

(a) **503A:** The 503A jack has one end designed for a 358A plug. The other end is designed for a solderless shield connection to the 724 cable by means of a sleeve which is furnished as a loose part with the jack. This jack is tested at 2000 volts ac. It is provided with a 2A cushion and is used with a P2DE cord.

(b) **503B:** The 503B jack has one end designed for a 358A plug. The other end is designed for a solderless shield connection to the 724 cable by means of a sleeve which is furnished as a loose part with the jack. This jack is tested at 3000 volts ac. It is provided with a 2A cushion and is used with a P2ER cord.

(c) **503C:** The 503C jack has one end designed for a 358A plug. The other end is designed for a solderless shield connection to the 730A cable by means of a sleeve which is furnished as a loose part with the jack. This jack is tested at 2000 volts ac. This jack is used with P2AT and P2AU cords.

2.04 504A: The 504A (Fig. 4) is a coaxial-type jack. One end is designed for a 358A plug. The other end is designed for a soldered connection to the center conductor. This jack is not designed for a coaxial cable connection. It is tested at 2000 volts ac and is used in the 33A equalizer.

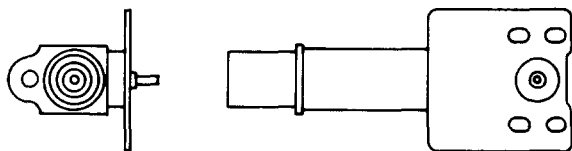


Fig. 4—504A Jack

2.05 505A: The 505A (Fig. 5) is a coaxial-type jack designed for use with the 358A and similar-type plugs. This jack is tested at 2000 volts ac. This jack is designed for a soldered wire connection to the inner contact terminal at the mounting end. This jack is not designed for a coaxial cable connection. The outer contact is electrically common with the mounting plate. This jack is used in the J68371A transmitter-receiver bay of the TJ Radio System.

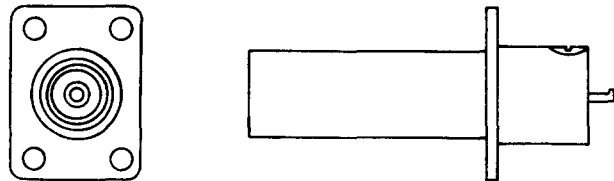


Fig. 5—505A

2.06 506A: The 506A (Fig. 6) is a multicontact jack. This jack consists of two metal brackets between which there are mounted two pairs of contact springs that are insulated from each other. This jack is used with a 240A plug and also with the selector and connector shelf equipment in Step-By-Step Telephone Systems.

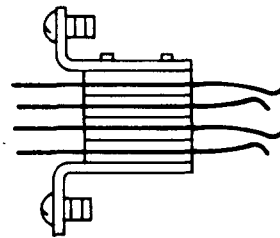


Fig. 6—506A Jack

2.07 507A: The 507A (Fig. 7) is a coaxial-type jack. This jack has coaxially arranged inner and outer contacts. One end is used with the 358A and similar-type plugs. The other end is designed for a solderless shield connection to the connection cable by means of a sleeve which is furnished as a loose part with the jack. When the jack is installed and the inner conductor of cable is soldered to the center of the jack, a low-pressure hermetic seal is obtained.

This jack is tested at 1000 volts ac. This jack replaces the 492A jack and is used in the J68816A and B amplifiers in the L3 Carrier Telephone System.

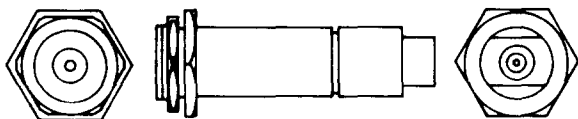


Fig. 7—507A Jack

2.08 509A and B: The 509A and B (Fig. 8) are coaxial-type jacks. They are used with the 358A and similar-type plugs. The test voltage is 2000 volts ac.

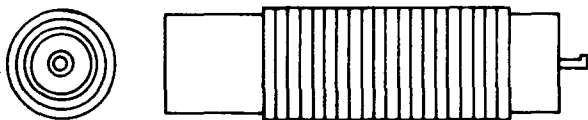


Fig. 8—509A or B Jack

(a) **509A:** The 509A jack is designed for a soldered wire connection to the inner contact terminal. This jack is not designed for a coaxial cable connection. This jack is provided with two hexagon nuts (shipped loose) for mounting. The 509A jack is used in the J68406 FM terminal equipment of the TH Radio System.

(b) **509B:** The 509B jack is designed for a solderless shield connection to a KS-19224, L1, cable. A KS-15712, L13, connector and two P-11B649 hex nuts are shipped loose. The 509B jack is used with the 100A Protection Switching System.

2.09 510A: The 510A (Fig. 9) is a unit-type jack.

This jack is designed for strip-type mounting and is used with the 309 or similar-type plugs. The 510A jack is used with the 259A or 260A jack mounting and furnished only on orders for jack mountings. The center springs are equipped with standard bar-type contacts of No. 2 metal. The terminals are designed for mechanically wrapped connections. This jack is used as a trunk jack of the 608A PBX. Con-

nection to ground is accomplished by assembling the jack to the mounting strip of the associated jack mounting. The mounting strip is equipped with terminals for grounding purposes.

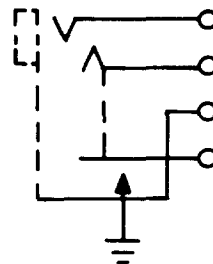


Fig. 9—510A Jack

2.10 511A: The 511A (Fig. 10) is a unit-type jack.

This jack is designed for strip-type mounting and is used with the 309 or similar-type plugs. The 511A jack is used with the 259A or 260A jack mounting and furnished only on orders for jack mountings. The contact springs are equipped with standard bar-type contacts of No. 2 metal. The terminals are designed for mechanically wrapped connections. The 511A jack is used as a manual station line jack of the 608A PBX. Connection to ground is accomplished by assembling the jack to the mounting strip of the associated jack mounting. The mounting strip is equipped with terminals for grounding purposes.

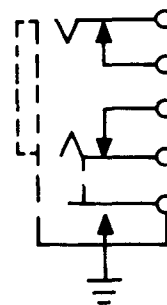


Fig. 10—511A Jack

2.11 512A: The 512A (Fig. 11) is a unit-type jack.

This jack is designed for strip-type mounting and designed to be used with the 309 or similar-type plugs. The 512A jack is used with the 259A or 260A jack mounting and furnished only on orders for jack mountings. The contact springs are equipped with standard bar-type contacts of No. 2 metal. The terminals are designed for mechanically wrapped connections. The 512A jack is used as a dial auxiliary line jack of the 608A PBX. Connection to ground is accomplished by assembling the jack to the mounting strip of the associated jack mounting. The mounting strip is equipped with terminals for grounding purposes.

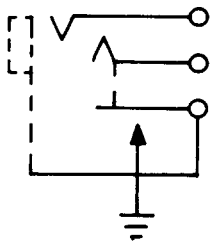


Fig. 11—512A Jack

2.12 513A, B, C, E, F, G, H and J: These are twin coaxial-type jacks. The 513-type jacks are designed for mounting in jack mountings such as the 230 and 231 types. The inner contacts are electrically common. When a plug is inserted into one of the jack fingers, the electrical connection between the center contacts is broken and the center contact of the other finger is shunted through a resistor to the outer contacts. When plugs are inserted in both jacks, the electrical connection between the center contacts is broken. The ac test voltage is 1000 volts.

(a) **513A:** The 513A jack (Fig. 12) has one end designed to be used with the 358A or similar-type plugs. The other end is designed for a solderless shield connection to two 728A cables by means of sleeves which are furnished as loose parts with the jack. The 513A jack is equipped with a cable guard.

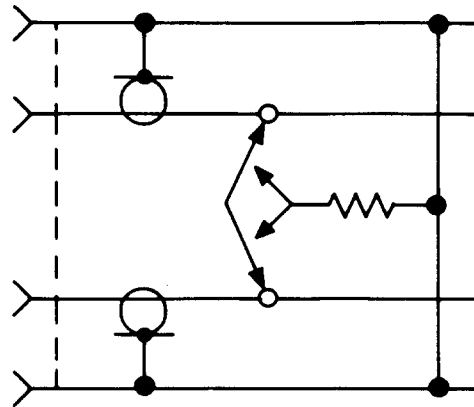


Fig. 12—513 A, F, or G Jack

(b) **513B:** The 513B jack (Fig. 13) has one end designed to be used with the 358A or similar-type plugs. The other end is designed for a solderless shield connection to two 728A cables by means of sleeves which are furnished as loose parts with the jack. The resistor is omitted.

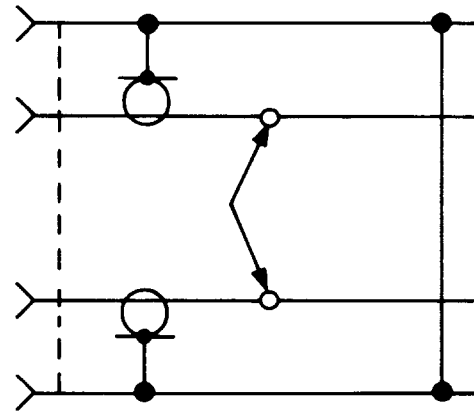


Fig. 13—513 B, C, E, H, or J Jack

(c) **513C:** The 513C jack (Fig. 13) has the resistor sleeves and cable guard omitted.

(d) **513E:** The 513E jack (Fig. 13) has one end designed to be used with the 358A or similar-type plugs. The 513E jack is equipped with a cable guard. This jack is provided with two KS-15712,L1,

shields and is arranged to accommodate a KS-19906 cable. The resistor is omitted for this jack.

(e) **513F:** The 513F jack (Fig. 12) is designed to accept one 724 or 728A cable on one side and one 730A cable on the other side.

(f) **513G:** The 513G jack (Fig. 12) is designed to accept two 730A cables. This jack is equipped with a cable guard.

(g) **513H:** The 513H jack (Fig. 13) has one end designed to be used with the 358A or similar-type plugs. This jack is provided with two KS-15712,L20, outer sleeves and is designed to accept two 730A cables. This jack does not have a resistor and cable guard.

(h) **513J:** The 513J jack (Fig. 13) has one end designed to be used with the 358A or similar-type plugs. This jack is provided with two KS-15712, L31, shields, is designed to accept a KS-19224,L2, cable, and is equipped with a cable guard. This jack does not have a resistance.

2.13 514A, B, C, D, and E: These are triple coaxial-type jacks. The upper finger of these jacks serves as a monitoring jack. One end of each jack finger is designed to be used with the 358A or similar-type plugs. The other end of the two lower fingers is designed for a solderless shield connection to two 728A cables by means of sleeves which are furnished as loose parts with the jack. The inner contacts of the two lower fingers are electrically common. When a plug is inserted into either of the two lower jack fingers, the electrical connection between the center contacts is broken, and the center contacts of the other finger are shunted through a resistor to the outer contacts. When plugs are inserted into both of the two lower jack fingers, the electrical connection between the center contacts is broken. These jacks are equipped with a cover and used in the TH Radio System.

(a) **514A:** The 514A (Fig. 14) is a triple coaxial-type jack.

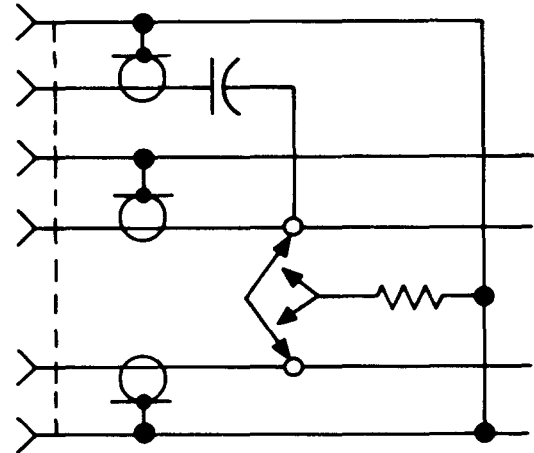


Fig. 14—514A Jack

(b) **514B:** The 514B jack (Fig. 15) does not have a resistor.

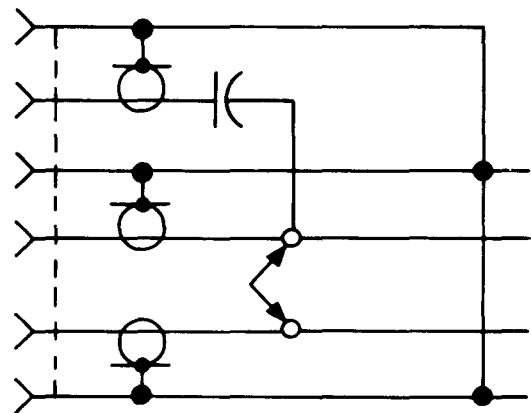


Fig. 15—514B Jack

(c) **514C:** The 514C jack (Fig. 16) does not have a resistor, capacitor, sleeves, or cover.

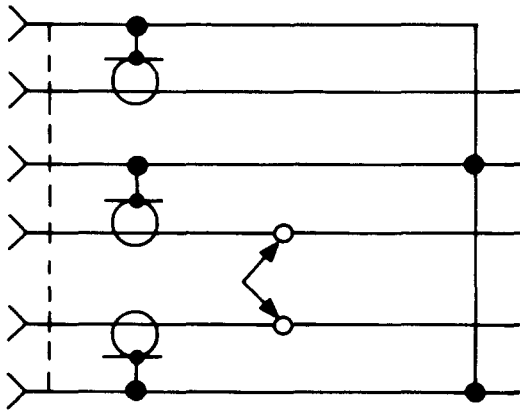


Fig. 16—514C, D, or E Jack

(d) **514D:** The 514D jack (Fig. 16) is designed to accept three 730A cables. This jack is also provided with three KS-15712, L20, outer sleeves, which are shipped loose. The resistor, capacitor, and the cover, are omitted on the 514D jack.

(e) **514E:** The 514E jack (Fig. 16) is designed to connect a 760A cable and a KS-19224, L2, cable. This jack is also provided with KS-15712, L20 and L22, outer sleeves, a terminal block, and mounting screws which are shipped loose. The three terminals on the body assembly have been omitted. This jack does not have a resistor, capacitor, or cover.

2.14 515A and C: The 515A and C are single-mounted jacks (Fig. 17).

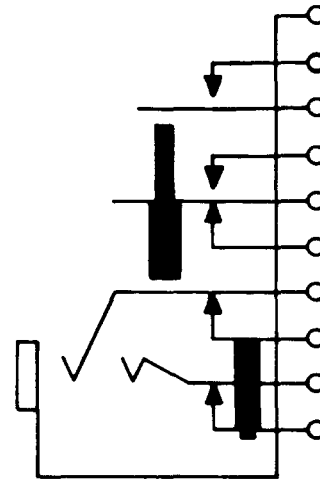


Fig. 17—515A or C Jack

(a) **515A:** The 515A jack is designed to be used with the 310 or similar-type plugs. This jack is mounted with the springs in a vertical plane and used in the trunk finder circuit of step-by-step systems.

(b) **515C:** The 515C jack is arranged to be used in the J98626AA communication panel. This jack is equipped with a C-type frame. This jack is mounted with the springs in a vertical plane and is also used with the 310 or similar-type plugs.

2.15 516A: The 516A is a twin coaxial-type jack (Fig. 18) which consists of a pair of coaxial jacks held rigidly in a metal cover. The 516A jack is designed for the 337 or similar-type plugs and 754-type cables. The mounting lugs on the two individual jacks may be positioned for mounting so as to extend in the same direction, side-by-side. This jack is used in the baseband switch bays of the TH Radio System.

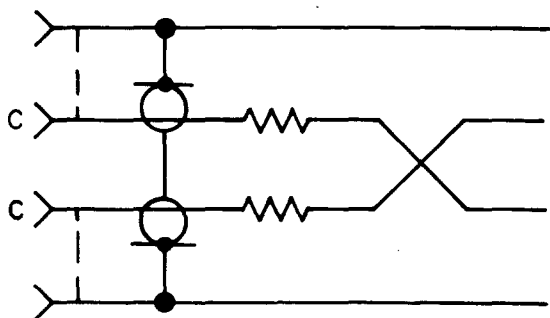


Fig. 18—516A Jack

2.16 517C and D: The 517C and D jacks are used as components of a jack assembly in the 636CAMS1, 2636CAMS1, 637DAMS1, 2637DAMS1, 638CAMS1, 2638CAMS1, 639DAMS1, 2639DAMS1, 682AAMS1, 2682AAMS1, 683AAMS1, and 2683AAMS1 type telephone sets. These jacks provide the connection of the 52-type head telephone sets equipped with either the 289B or 396-type plugs.

(a) **517C:** The 517C jack (Fig. 19) is designed for the 47 or similar-type plugs. This jack should be mounted with the springs in a horizontal plane.

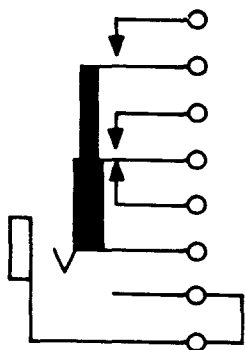


Fig. 19—517C Jack

(b) **517D:** The 517D jack (Fig. 20) provides a contact spring combination consisting of three sets of normally open contacts and one set of normally closed contacts. These normally opened contacts are made before the single closed contacts break. This jack is designed for the 47 or similar-type plugs. This jack should be mounted with the springs in a horizontal plane.

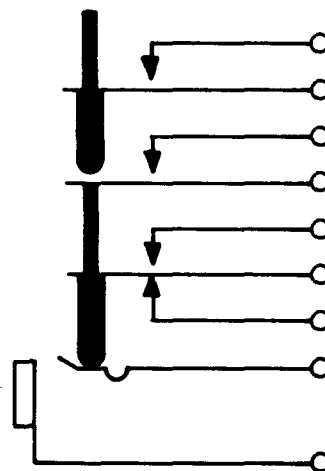


Fig. 20—517D Jack

2.17 518AM: The 518AM is a single-mounted twin jack (Fig. 21) and has a single frame with two sleeves. This jack is designed to be used with the 338 or a similar-type plug. The contact spring of the 518AM jack is equipped with No. 2 metal contacts. The terminals are designed for mechanically wrapped connections. This jack is used in the Testing, Monitoring, and Patching Equipment in the N Carrier System.

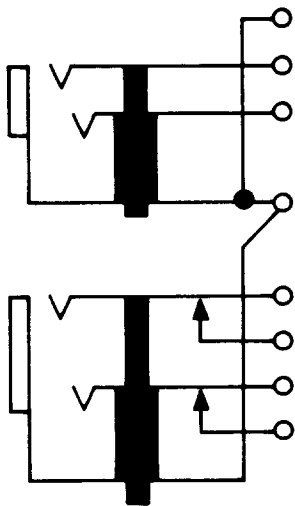


Fig. 21—518AM Jack

2.18 **540A, B, C, and D:** These are coaxial-type jacks (Fig. 22).

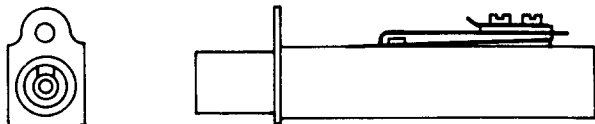


Fig. 22—540-Type Jack

(a) **540A:** The 540A jack is designed to be used with the 358A or similar-type plugs. This jack is designed for a solderless shield connection to the 724 or similar-type cable by means of a sleeve which is furnished as a loose part with the jack. This jack is also equipped with a 75 ohm resistor and provided with a switching arrangement which normally connects the center contact through the resistor to ground. When a plug is inserted, the connection between the center contact and the resistor is broken. This jack is used with the J68860E, J68860M, and X75705B High Frequency Bays in the SD Submarine Cable System.

(b) **540B:** The 540B jack is designed to be used with the 358A or similar-type plugs. This jack is also equipped with a 75 ohm resistor and provided with a switching arrangement which normally connects the center contact through the resistor to ground. When a plug is inserted, the connection between the center contact and the resistor is broken. This jack is used with the L multiplex and the KS-19224, L1, cable.

(c) **540C:** The 540C jack is designed to be used with the 358A or similar-type plugs. This jack is also equipped with a 75 ohm resistor and provided with a switching arrangement which normally connects the center contact through the resistor to ground. When a plug is inserted, the connection between the center contact and the resistor is broken. This jack is designed to be used with a KS-19906 cable, and is provided with a KS-15712, L1, outer shield. This jack is used with the SF Submarine Cable.

(d) **540D:** The 540D jack is standard size and is designed for a solderless shield connection to a 724 or similar-size cable by means of a sleeve which is furnished as a loose part with the jack. This jack is equipped with an auxiliary contact which contacts the center contact of the jack. When a 512A or similar plug with a guide bushing enters the jack, the auxiliary contact breaks connection to the center contact and makes a connection to ground. A KS-15712, L5, shield connector is shipped loose with this jack. This jack is used in the T4M Digital Project.

2.19 **541A-49, 541A-50, and 541A-54:** These flush-type jacks (Fig. 23) consist essentially of a block of insulating material containing 12 contacts having clip-type terminals. Each clip terminal permits the connection of two insulated wires in multiple without the removal of the conductor insulation. The associated 504A-type plug can be inserted in one position only. These 41A-type jacks are used with portable telephone sets having two through twelve conductor mounting cords in prewired homes (subscriber stations). They form part of the 547B-type jacks and can be mounted on a 63A bracket with a 16A-type faceplate.

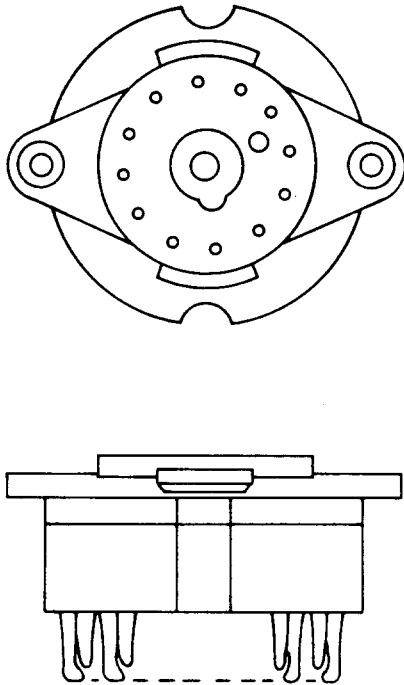


Fig. 23—541A-Type Jack

- (a) **541A-49:** This jack has a light olive gray color and replaces the 541A-42 jack.
- (b) **541A-50:** This jack is ivory in color.
- (c) **541A-54:** This jack is brown in color.

2.20 542A and B: These are coaxial-type jacks (Fig. 24).

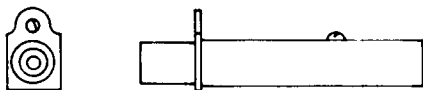


Fig. 24—542A or B Jack

- (a) **542A:** The 542A jack is designed to be used with a 358A or similar-type plugs. This jack is equipped with a P12B726 terminal. This jack is designed for a solderless shield connection to a connecting cable by means of a Thomas and Betts GSC 12B outer sleeve which is furnished as a loose

part with the jack. This jack is tested at 2000 volts ac and is used on the J68858 L Supergroup Multiplex Bay of the Toll System.

- (b) **542B:** The 542B jack is designed to be used with a 358A or similar-type plugs. This jack is equipped with a P45P337 terminal and a KS-15712, L1, outer shield and is designed to accommodate a KS-19906 cable. This jack is tested at 2000 volts ac and used on the J68858 L Supergroup Multiplex Bay of the Toll System.

2.21 543A: The 543A is a coaxial-type twin jack (Fig. 25) which has coaxial designed inner and outer contacts. One end of each jack is designed to be used with the 358A and similar-type plugs. The other end of each jack is designed for a solderless shield connection to a miniature coaxial cable by means of a sleeve which is furnished as a loose part with the jack. The jack is designed for mounting in jack mountings such as the 185 and 230A. The mounting lugs on the two individual jacks may be positioned for mounting so as to extend back-to-back, or in the same direction, side-by-side, or at right angles to each other. The outer contacts are connected together. A removable coverplate is furnished for use in covering an unused cable entrance hole. The jack construction permits strapping of the inner contacts. The 543A jack is used on the J68858 L Supergroup Multiplex Bay of the Toll Systems.

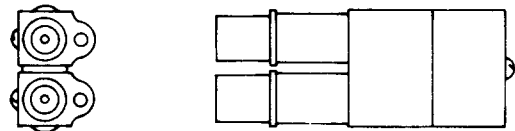


Fig. 25—543A Jack

2.22 544A: (AT&T Special) The 544A is a single-mounted jack (Fig. 26) designed for the 310 or similar-type plugs, and mounted with the springs in a vertical plane. This jack is provided with a feature for minimizing the possibility of shorting the tip and ring springs when a plug is inserted. The 238-type jacks are recommended for general use. The 544A jack is used in the J1G000 Digital Data System.

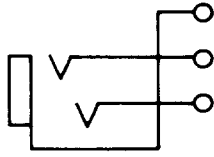


Fig. 26—544A Jack

2.23 545A and B: The 545A and B are twin coaxial-type jacks (Fig. 27) designed to be mounted in jack mountings such as the 230 and 231 types. The inner contacts are electrically common. When a plug is inserted into one of the jack fingers, the electrical connection between the center contacts is broken, and the center contact of the other finger is shunted through a resistor to the outer contacts. When plugs are inserted in both jack fingers, the electrical connection between the center contacts is broken.

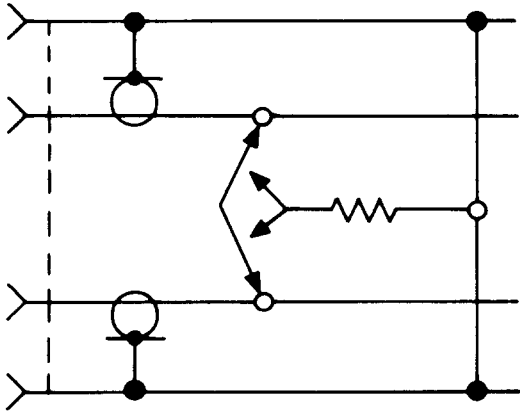


Fig. 27—545A or B Jack

(a) **545A:** The 545A jack has one end designed for use with the 358A or similar-type plugs. The other end is designed for a solderless shield connection to two miniature cables by means of sleeves which are furnished. The 545A jack is equipped with a cable guard and used with the

J68774P Measuring Equipment.

(b) **545B:** The 545B jack is designed to accommodate a KS-19906 cable and is provided with a KS-15712, L1, outer shield. This jack is used with the SF Submarine Cable.

2.24 546A and B: These are coaxial-type jacks (Fig. 28).

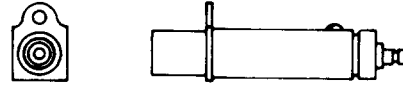


Fig. 28—546A or B

(a) **546A:** The 546A jack has coaxially arranged inner and outer contacts. One end of the jack is designed for a 358A plug. The other end is equipped with a KS-19180, L3, connector. The test voltage is 1000 volts ac. This jack is used in the J68858 L Multiplex Bay in Toll Systems.

(b) **546B:** The 546B jack has coaxially designed inner and outer contacts. The test voltage is 1000 volts ac. This jack is equipped with a KS-19900, L2, connector and the adapter has a D mounting hole rather than a keyway. This jack is used with the SF Submarine Cable.

2.25 547B-49, 547B-50, and 547B-54: The flush wall-type jacks (Fig. 29) of a 541A-type jack, a 43B bracket, and a flush-type coverplate are arranged for mounting in a standard electrical outlet box. The associated 504A-type plugs can be inserted in one position only. This jack is used with the portable telephone sets having two through twelve conductor mounting cords.

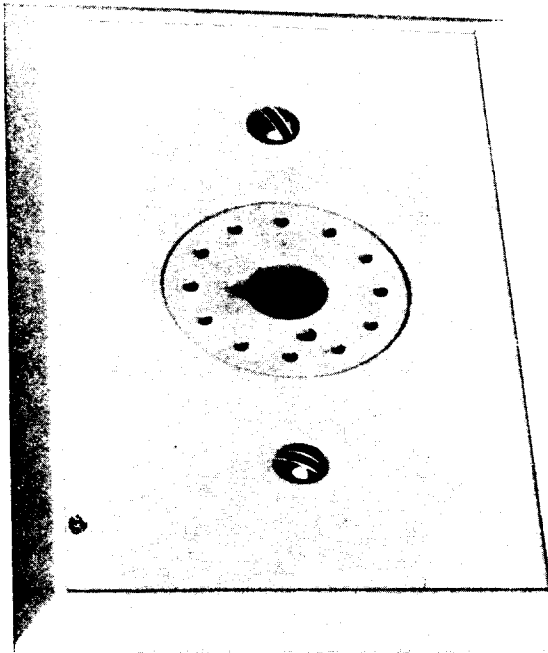


Fig. 29—547B-Type Jack

- (a) **547B-49:** This jack is light olive gray in color.
- (b) **547B-50:** This jack is ivory in color.
- (c) **547B-54:** This jack is brown in color.

2.26 548A-49, -50, and -54: These flush-type jacks (Fig. 30) consist essentially of a block of plastic insulating material containing four intermeshed coil spring contacts. These jacks are associated with the 283B or 505A-type plug and the plug can be inserted in one position only. The 548A-type jacks are designed for mounting in the woodwork at subscribers stations on a 63A bracket with a 16A-type faceplate, or on a bracket in a standard electrical outlet box. These jacks also form part of the 550A-type jack. The use of the 548A-type jacks is with the portable telephone sets having two, three, or four conductor mounting cords. The 548A-type jacks will not fit faceplates designed for 493A-type jacks.

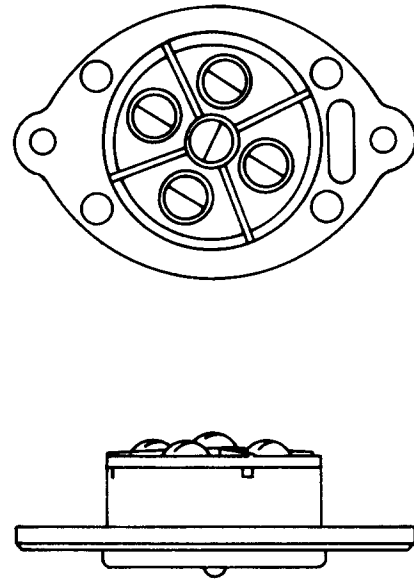


Fig. 30—548A-Type Jack

- (a) **548A-49:** This jack is light olive gray in color.
- (b) **548A-50:** This jack is ivory in color.
- (c) **548A-54:** This jack is brown in color.

2.27 549A-49 and -50: The nonflush-type jacks (Fig. 31) consist essentially of a block of insulating material containing four intermeshed coil spring contacts. The associated 283B or 505A plugs can be inserted in one position only. These jacks are mounted on the woodwork at the subscribers station and used with portable telephone sets having two, three, or four conductor mounting cords.

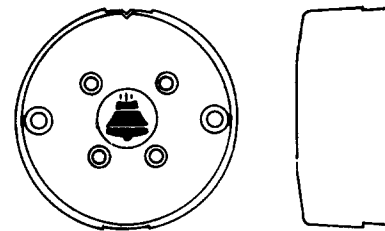


Fig. 31—549A-Type Jack

- (a) **549A-49:** This jack is a light olive gray in color.
- (b) **549A-50:** This jack is ivory in color.