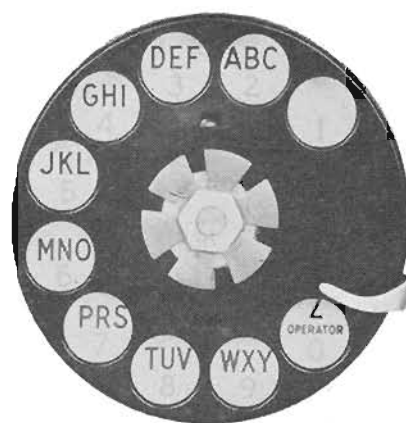


Dials Western Electric



No. 7D-3 Dial
Equipped with P-298106
Card Retainer Group



Type 6

A rotary mechanism actuated by finger wheel. When wound up and released causes pair of pulsing contacts to interrupt line current, operate central office selecting equipment according to digit or letter dialed.

Second pair of contacts in No. 7 closes and short circuits telephone receiver during windup and rundown of dial.

Dial provides pulsing rate of 10 pulses (line current interruptions) per second.

No. 7 dials used in 500, 50I and similar type telephone sets.

No. 7C dials have transparent plastic finger wheel. Do not require a separate number card holder; card holder is integral part of finger wheel.

No. 6 dials used in other series telephone sets, P. B. X. and central office switchboards. One additional pair of contacts short circuits transmitter; another opens receiver circuit during windup and rundown of dial.

Number Plate

| Code No. | Code No. | Basic Color | Characters | Use |
|----------|----------|-------------|-----------------------------|---|
| 7C-3 | P-349755 | Black | White | Illuminated dial station sets. |
| 7C-50 | P-19B819 | Black | Black | Full color station sets. |
| 7C-51 | P-19B820 | Green | White | Full color station sets. |
| 7C-52 | P-17A971 | Gray | White | Full color station sets. |
| 7C-53 | P-17A972 | Red | White | Full color station sets. |
| 7C-54 | P-19B821 | Brown | White | Full color station sets. |
| 7C-55 | P-19B822 | Beige | White | Full color station sets. |
| 7C-56 | P-17A973 | Yellow | Black | Full color station sets. |
| 7C-57 | P-17A974 | Blue | White | Full color station sets. |
| 7D-3 | P-349755 | Black | White | Station sets. |
| 6A | 164A | | Black Letters, Red Numerals | Station sets. |
| 6C | 164B | | | Coin collectors. |
| (a) 6D | 164A | | Black Letters, Red Numerals | Station sets — colored. |
| 6E | 164A | | Black Letters, Red Numerals | P.B.X. and C.O. switchboards for Local & Inter-toll dialing. |
| *6F | 164A | | Black Letters, Red Numerals | P.B.X. and C.O. switchboards with circuits for high speed dialing in Panel and Crossbar dial telephone systems. |
| *6G | 164A | | Black Letters, Red Numerals | 555 type P.B.X. switchboards. |

(a) Has transparent plastic finger wheel and a white finished case. Can be obtained with black finished case when specified.

*Pulsing rate 20 line current interruptions per second.

Note: Card Retainer group, P-298106, not furnished as component of loose 6 and 7 type dials with Black finish.



Dressings, Klein-Kord

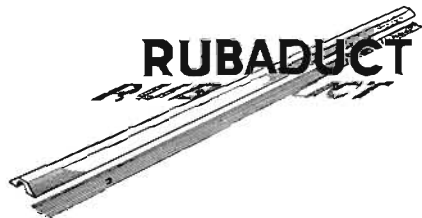
Mathias Klein

Preserves and lengthens the life of Klein-Kord cotton fabric.

No. K.K.D.-025, ¼ pint can.

Duct, Telephone, Rubber

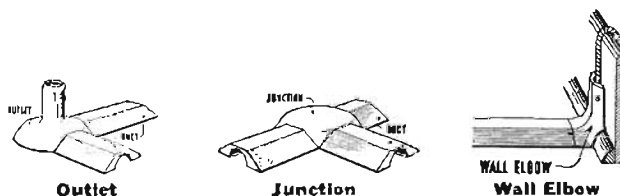
For Telephone and Low Tension Wiring Covering
B. F. Goodrich



Practical method of protecting telephone and other low tension wiring which runs over floor and wall surfaces to

desk, tables, intercommunicating systems and other equipment.

A neat, flexible, lightweight and durable molded rubber wire cover that is economical and easy to install. Plain brown Rubaduct is 3-in. wide and ¾-in. high, 3-ft. long with open-



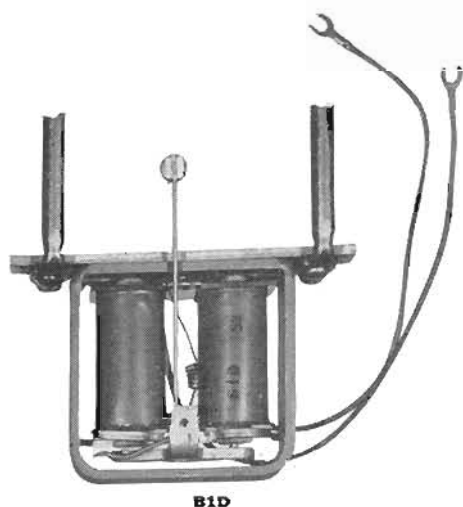
ing 1-in. wide and ⅝-in. high. Will accommodate cables up to ⅝-in. diameter, 8 pair, 5-triple or 5 quad telephone wire.

Outlet Fitting: Used to protect wires emerging from Rubaduct under desks, tables etc.

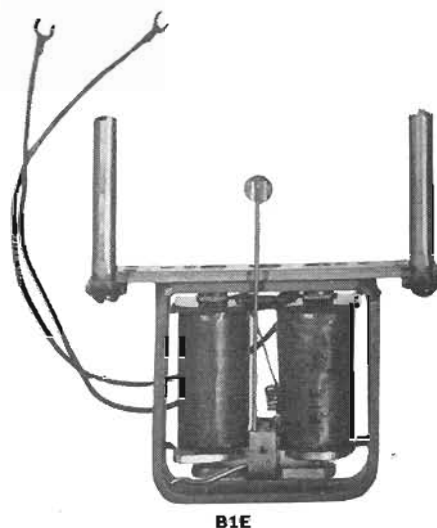
Wall Elbow Fitting: Used to protect wires entering Rubaduct from walls.

Junction Fittings: Used for right angle turns or for joining main and lateral runs of Rubaduct.

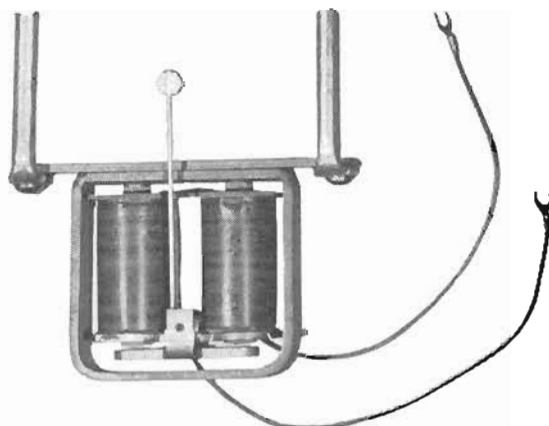
Ringers Western Electric



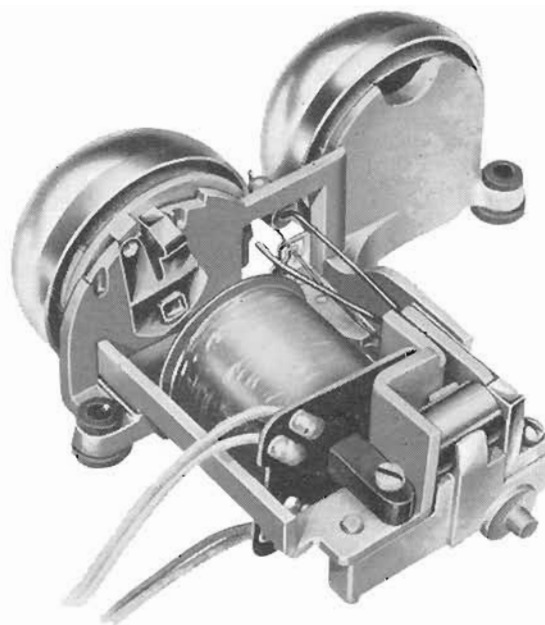
B1D



B1E



B1F



C4A

A series of ringers having B type structure have been designed to replace the older numbered type ringers. New ringers may be mounted interchangeably, using same mount-

ing screws, with older types which they replace. Arranged to mount same gongs.

| Ringer Code No. | Resistance D-C (Ohms) | Code No. Replaced Ringer | Arranged For Gongs (Inches) | Gongs Furnished | Use |
|-----------------|-----------------------|--------------------------|-----------------------------|--|--|
| B1D | 4600 | 6L, 6JA & 8JA | 2½ | (A) | Common Battery lines, non tube subscriber sets. |
| B1E | 4600 | 66JA | 3 | (A) | Common Battery lines, non tube subscriber sets. |
| B1F | 4600 | 38B & 45B | 3 | (A) | Magneto lines. |
| B1AB | 4600 | | | (*) | Common Battery lines, telephone set mountings. |
| B1AL | 4600 | | | { 1 No. 41A | |
| | | | | { 1 No. 41B | Common Battery lines, telephone set mountings. |
| B2AL | 4600 | | | { 1 No. 41A | |
| | | | | { 1 No. 41B | Common Battery lines, telephone set mountings. |
| B3A | 2000 | | | 1 No. 41A plus 101A gong attachment & 1 No. 41B. | No. 333A or similar vacuum tube sets on 4 party selective or 8 party semi-selective ringing. |
| B3B | 2000 | 6A & 8A | 2½ | (A) | Nos. 127R, 293 type & 295 type subscriber sets. |
| B3C | 2000 | 8A | 2½ | (A) | Tube type subscriber sets, 4 party selective & 8 party semi-selective service. |
| B4A | 500 (ea. winding) | 78AB | 2⅝ | (A) | No. 584DG subscriber set. |
| B5A | 2000 | 52A | 2½ | (A) | Magneto lines. |
| C4A | 3650 | | | { 1 No. 54A | |
| | | | | { 1 No. 55A | Nos. 500 & 501 type telephone sets. |
| | | | | { 2 No. 26A | Nos. 160C, R, AC, AR, BC & BR selector sets. |

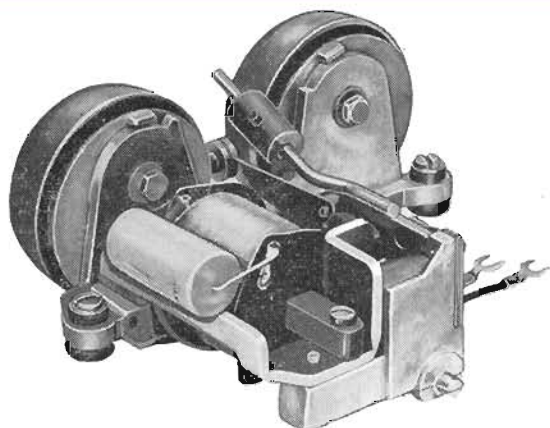
60CG

(*) Not equipped with gong posts or gongs.

(A) Gongs and gong mounting screws to be ordered separately.

Ringers, Multi-Frequency

U. S. Instrument
For Use in Western Electric No. 591 Telephone Sets



Especially designed for use in Western Electric No. 591 Telephone Sets to provide selective ringing in five frequencies for each of the Harmonic, Decimonic and Synchronomic series. Design and construction similar to Western Electric's new Type C straight line ringer used in Type 500 set.

Self-contained high impedance multi-frequency ringers designed and constructed to perform in the W. E.'s No. 591 set without making any changes in set itself. Ringers completely adjusted to ring at designated frequency.

A small clapper weight on a flexible arm that strikes the gongs and a separate resonant weight on a solid arm to obtain resonance is used. This unique design provides a pleasing tone quality. Ringer has superior sensitivity, it is possible to use up to 10 ringers bridged on a single line. When ordering please specify USI number and ringer frequency desired.

Harmonic

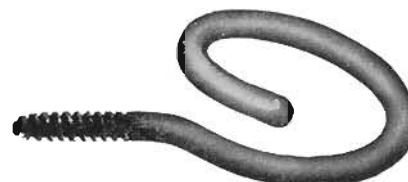
| Std. Ringer USI No. | Ringer Frequency Cycles | Ringer With Loudness Control |
|---------------------|-------------------------|------------------------------|
| GB600 | 16 2/3 | GB700 |
| GB601 | 25 | GB701 |
| GB602 | 33 1/3 | GB702 |
| GB603 | 50 | GB703 |
| GB604 | 66 2/3 | GB704 |

Synchronomic

| Std. Ringer USI No. | Ringer Frequency Cycles | Ringer With Loudness Control |
|---------------------|-------------------------|------------------------------|
| GB605 | 16 | GB705 |
| GB606 | 30 | GB706 |
| GB607 | 42 | GB707 |
| GB608 | 54 | GB708 |
| GB609 | 66 | GB709 |

Decimonic

| Std. Ringer USI No. | Ringer Freq. Cycles | Ringer With Loudness Control |
|---------------------|---------------------|------------------------------|
| GB610 | 20 | GB710 |
| GB606 | 30 | GB706 |
| GB611 | 40 | GB711 |
| GB603 | 50 | GB703 |
| GB612 | 60 | GB712 |

Rings, Bridle**Diamond****Style A, C, E, F****Style K, M, Q, R**

Use multi-size screw anchors to adapt wood screw type to masonry use. Standard package 100.

**Wood Screw Thread
Hot-Dip Galvanized or Enameled**

| No. | Style | Eye In. | Shank In. | Steel In. | Wt. Lbs. Galv. | Per 100 Enam. |
|-----|-------|---------|-----------|-----------|----------------|---------------|
| 810 | A | 1 5/8 | 1 1/4 | 1/4 | 11.1 | 15 |
| 812 | C | 1 1/4 | 1 1/4 | 1/4 | 8.9 | 12.5 |
| 814 | E | 5/8 | 7/8 | 3/16 | 3.6 | 5 |
| 816 | F | 3 | 1 7/8 | 3/16 | 31. | 33.5 |

Opening in all sizes 5/16-inch.

Specify galvanized or enameled.

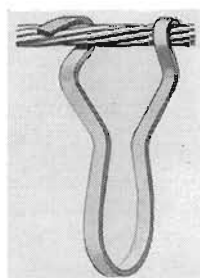
**Machine Screw Thread
Hot-Dip Galvanized Only**

| No. | Style | Eye In. | Thread | Wt. Lbs. Per 100 |
|-----|-------|---------|--------|------------------|
| 821 | K | 3/4 | 10-24 | 3.8 |
| 823 | M | 1 1/4 | 10-24 | 5.3 |
| 825 | Q | 1 1/4 | 1/4-20 | 8.1 |
| 827 | R | 1 5/8 | 1/4-20 | 9.5 |

Bridle rings with machine screw threads are used with Insulator Supports. Tapped — 10-24 or 1/4-20 as indicated.

**Rings, Bridle, Toggle
Diamond**

| No. | Size In. | Eye In. | Wt. Lbs. Per 100 |
|------|----------|---------|------------------|
| TBR2 | 3/16 x 4 | 3/4 | 8 |
| TBR4 | 1/4 x 4 | 1 1/4 | 17 |

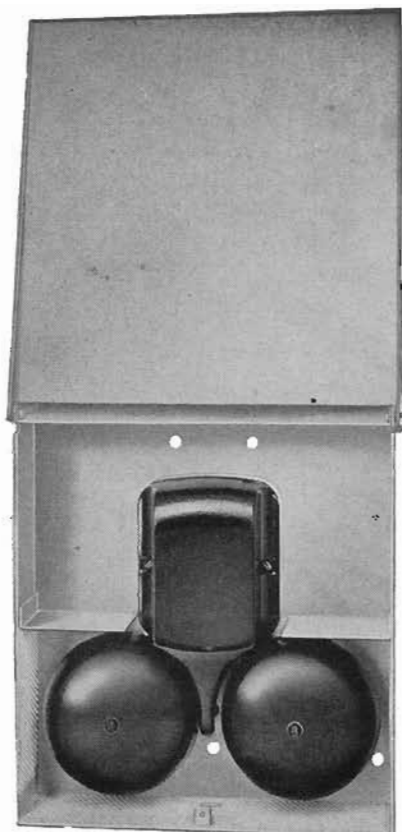
Rings, Cable**Copperweld****Non-Rusting**

Standard types of cable rings as well as Marlin hangers with Copperweld hooks are available in all sizes.

When ordering rings specify style, diameter of ring and size of messenger strand.

| Ring Size In. | Max. Cable Dia., In. | Std. Pkg. | Wt. Lbs. Per M Rings |
|---------------|----------------------|-----------|----------------------|
| 1 1/2 | 1 3/16 | 1000 | 48 |
| 2 | 1 9/16 | 500 | 96 |
| 2 1/2 | 1 15/16 | 500 | 110 |
| 3 | 2 1/4 | 400 | 125 |
| 3 1/2 | 2 5/8 | 300 | 140 |
| 4 | 3 | 200 | 195 |
| 4 1/2 | 3 1/2 | 200 | 210 |

Sets, Subscriber

Western Electric


No. 592 Type Subscriber Set Mounted in No. 169AW Backboard

No. 592AW Subscriber Set: Used on manual or dial lines in individual, two-party selective and four-party semi-selective line services.

No. 592BW Subscriber Set: Used on magneto non-polarized ringing lines.

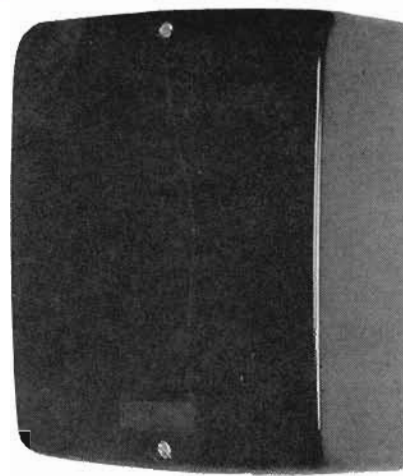
No. 592CW Subscriber Set: Used in four-party full selective and eight-party semi-selective service.

A No. 169AW backboard should be used for outdoor installations.

| No. | Resistance (Ohms) ± 10% | Gongs No. | Capacitor No. | Electron No. | Operating Current |
|-------|-------------------------------|--------------|------------------|-----------------|----------------------|
| 592AW | 4600 | 26B(2)* | 198A | | |
| 592BW | 4600 | 26B(2)* | | | |
| 592CW | 2000 | 26B(2)* | | 359A | A-C Not Biased |

*When specified on order, can be obtained with two No. 42A gongs (4-in. diam.) instead of two No. 26B gongs.

Used as extension, loud ringing bells. Consists of die-cast housing enclosing what is essentially the mechanism of a B1A ringer motor, the apparatus listed below and suitable terminals for connecting subscriber set in the telephone circuit.



No. 685AW

No. 685AW-3 Subscriber Set: Common battery type used in manual and dial systems. Can be used for all common battery services except those party-line stations where polarized selective ringing is involved. Particularly suitable in zones where transmission performance of 500 type set or improved ringing characteristics of the C4A ringer is required.

Consists of metal base, C4A ringer, 425B network and terminal block with necessary wiring. Black plastic cover assembled to base by means of machine screws. Manual volume control of ringer provided by means of arm projecting through one end of cover which operates a cam on the ringer.

When associated with "Hang-up" type hand telephone set equipped with G-type hand set, will provide same transmission performance as 500 type telephone set, may be used for same service.

No. 687AW-3 Subscriber Set: Replaces No. 531AW-3 set for use as extension ringer. Used in manual and dial systems. Customer ringer control the same as in No. 685AW-3 set.

No. 687BW-3 Subscriber Set: Replaces No. 531CW-3 set. Employs UA112 relay, 426A electron tube, 20A varistor. Used for securing additional ringers on 8 party lines and with auxiliary signals on polarized ringing lines.

No. 687CW-3 Subscriber Set: Similar to No. 687AW-3 except ringer is not furnished. Consists of metal base, No. 198C capacitor, terminal block with necessary wiring, black plastic cover assembled to base by means of machine screws.

Sets, Subscriber, Teletypewriter

Western Electric

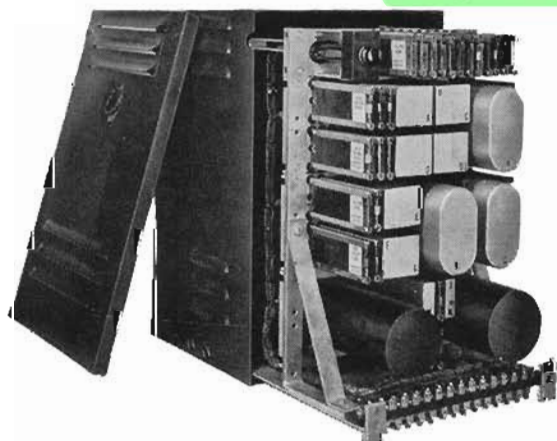
No. 128B2 Teletypewriter Subscriber Set (J-70027A)

A terminal telegraph repeater. Assembled in box for mounting in teletypewriter station. Operates over line facilities into No. 16B1 repeater, or equivalent. May be arranged for Type A or B polarizational operation on single or two-wire basis.

Connected to teletypewriter by means of single wire loop, two-wire loop magnet receiving or two-wire polar relay receiving.

Components are mounted on panel; housed in metal cabinet provided with louvers to facilitate dissipation of heat. Power for subscriber set must be supplied (probably by a rectifier).

Dimensions of cabinet: Approx. 9-in. wide, 8-in. deep, 16-in. high.



Sets, Telephone

Communication Equipment & Engineering



Type 501Z
With or Without Buttons



Type 211Z



Type 354Z

For use on dispatchers and message circuits. Combines induction coil and filter that introduces same high output into the telephone line as provided by the 42 or 42B induction coil. Provides filtering necessary to eliminate crosstalk between the physical and carrier system involved.

Field tests show bridging losses at carrier frequencies never exceed .2DB. The voice frequency range indicates a bridging loss in the receiving position of approximately .1DB.

All sets are equipped with telephone type high quality handset having modern transmitter and receiver units. Hand set equipped with push-to-talk switch and neoprene spring cord.

Four Types of Sets are Currently Available

Type 354Z telephone set embodying the same components for wall or booth mounting.

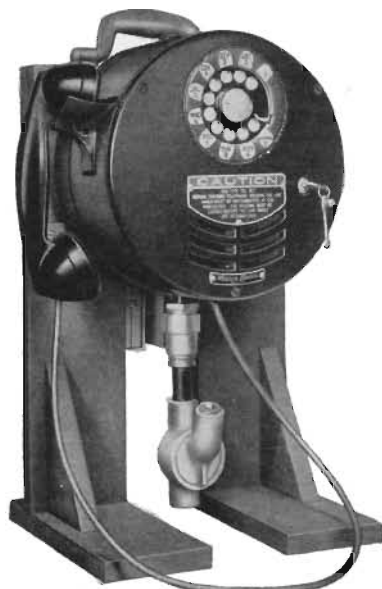
Type 211Z arranged for side of desk mounting, with filter mounted in small apparatus cabinet.

Type 501Z furnished without buttons or with four buttons permitting connection to either a dispatcher's circuit, a message circuit, or two yard circuits as needed.

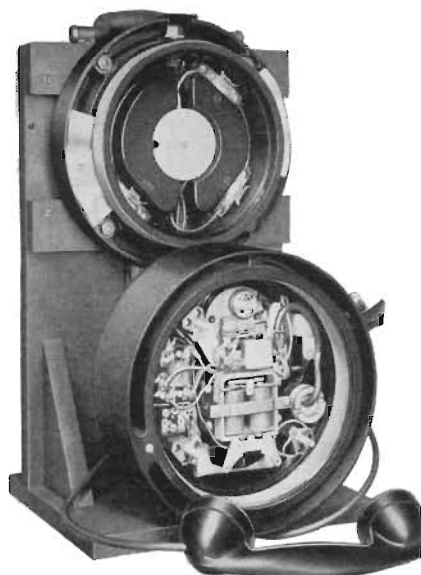
Sets, Telephone

Western Electric

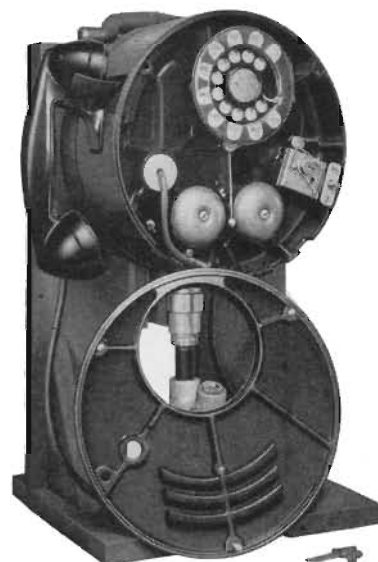
No. 320 Type



Closed View



Open View



Rear View or Main Housing

Used in hazardous locations, Class I, Group B, C, and D and Class II, E, F, G, atmospheres, as defined by the National Electrical Code of the National Board of Fire Underwriters. Designed for security against ignition of surrounding atmosphere under all conditions of normal operation. All elements of apparatus which might produce a spark or an arc are completely enclosed; necessary passages to outside are so designed that any flame due to explosion caused by sparking inside the set will be cooled to extinction, will not reach outside atmosphere.

Consists of base, housing that screws on base, handset attached by flexible cord. Base designed for wall or pedestal mounting.

Used in common battery systems, for individual line, regular PBX extensions, bridged stations. Normally employs bridged ringing; may be made suitable, however, for grounded ringing by a minor change in internal wiring.

No. 320EW Telephone Set: Used in manual systems.

No. 320FW Telephone Set: Used in dial systems.

Dial sets are equipped with No. 61D filter to suppress dialing induction into radio receiving sets.

| No. | Dial | Dial Adapter | Dial Number Plate | Apparatus Blank |
|-----------------|------|--------------|-------------------|-----------------|
| 320EW-3† | | | | 85A |
| 320FW-3† | 6A* | 56B | 147B | |

*No. 6A dial furnished less clamping ring, number plate, finger wheel and finger stop.

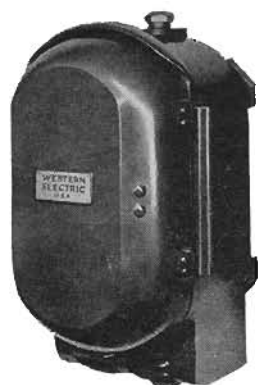
†No. 320 type also contains 195A capacitor, 101A induction coil, F6AW-2 hand set, two 29C gongs, B1AB ringer. Two K S-131911.1 resistors, one 37B varistor.

Sets, Telephone

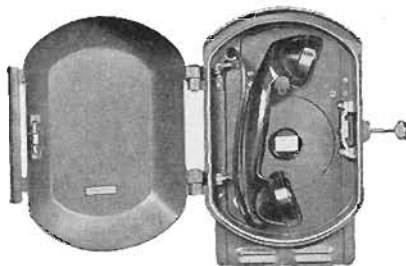
Western Electric

No. 325 Type

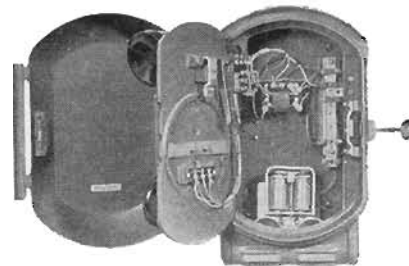
For Outdoor Use



Closed View



Outer Door Open



Inner Door Open

Common battery telephone sets for outdoor use; individual line, regular PBX station and non-selective party line services. Used for other services with slight connection changes.

Consists of gray finished aluminum housing and inner door; steel outer door; 195A Condenser; 101A Induction Coil; B1A1 Ringer; necessary wiring enclosed behind inner door. Hand set hung on switch hook assembled to inner door. Inner door equipped with spring latch and self-locking lock; arranged for mounting dial or apparatus blank.

No. 325JW Telephone Set: Arranged for manual service.

No. 325LW Telephone Set: Arranged for dial service.

No. 29A Bracket required for mounting each set on building, fence, pole, etc. Must be ordered separately.

No. 61L Filter required when it is desired to eliminate interference with radio reception where dial is used. Must be ordered separately; mounted by customer.

No. 85N Relay can be mounted on No. 325 type set when required for auxiliary signaling. Must be ordered separately.

| No. | Dial No. | Number Plate No. | Dial Adapters No. | Apparatus Blank No. | Hand Set |
|-------|----------|------------------|-------------------|---------------------|----------|
| 325JW | | | | 80B | F1CW-3 |
| 325LW | 6C | 147B | 58A | | F1CW-3 |

No. 500 Desk Type Telephone Sets

The 500 Type Telephone Set provides improved performance in all functions—transmission, dialing, ringing. These gains can be used either for extension of range of operations from central office or in increased use of fine gauge cable conductors.



No. 500 DRW-3

Nos. 500CRW-3 (manual) and 500DRW-3 (dial) telephone sets are general purpose sets used in common battery service on individual lines, including PBX stations requiring tip and ring only, or for any party line service with nonpolarized ringing. Apparatus components are 95B-3 Apparatus Blank or 7D-3 Dial; D3BB-3 Cord; 425B Network; 42A-9 Connecting Block (loose part); G1AR-3 Hand Set; C4A Ringer.

Nos. 500ERW-3 (manual) and 500FRW-3 (dial) telephone sets are used on divided code ringing and non-selective party line services. Plunger switch; wired to avoid interference with another party line user's dialing or talking when handset lifted to place a call. Only a low-loss receiver circuit is bridged across the line with normal operation of line switch (switch-hook) contacts. When line not busy pulling up left-hand plunger operates plunger switch, cuts in talking and dialing circuit elements; call can then be placed or answered. Restoring handset restores switch automatically. Components are otherwise same as Nos. 500CRW-3 and 500DRW-3. 49A-9 connecting block furnished as loose part.

No. 500MRW-3 (dial) telephone set has four conductor mounting cord D4AS-3 which provides separate ringing and talking circuits. Used with No. 2B Key Telephone Systems and Nos. 507A, 507B PBX Attendant Stations. Additional ringer bridges permitted where local ringing source available. Hand set equipped with retractile cord.

Illuminated Dial Telephone Sets

No. 500PRW-3 is used in dial systems on individual lines, two-party selective flat rate, two-party selective message rate (tip and ring), divided code ringing, non-selective party lines, four-party semi-selective, regular PBX stations and 755A PBX keyless stations. May be used in certain cases on common battery lines instead of local battery talking common battery signaling telephone sets, and the associated local battery.

Furnished wired for all the above services except tip party selective dial message rate, tip party flat rate automatic ticketing, tip party flat rate automatic message accounting and zone registration. May be arranged for these services by rearranging ringer connections.

Equipped with D6S-3 cord; No. 7C-3 dial; C4A Ringer and its volume adjustment control; 425B Network; G1AR-3 Handset. Lamp assembly, including G.E. No. 46 Mazda Miniature Lamp, furnished for dial illumination. Lamp operates when handset removed from cradle. 6-8 volt a-c or d-c supply required to operate lamp. A-C supply may be obtained from either a KS-16184 list 1 (ivory) or a KS-16184 list 2 (brown) transformer; must be ordered separately. Replaces the 500HW-3 Telephone Set.

Connecting block No. 1044A-9 furnished with each set as loose part.

No. 500URW-3 is equipped with No. 584A Key which enables customer to switch light on at any time. Light glows at low intensity with handset on cradle. Removal of handset increases brilliance of dial light to normal intensity. Otherwise same as No. 500PRW-3 set.

Polarized Ringing Service

Nos. 501CRW-3 (manual) and 501DRW-3 (dial) telephone sets have a cold cathode gas-filled tube as part of their ringing circuit. Primarily used with polarized ringing service (4-party selective or 8-party semi-selective). Components are otherwise same as Nos. 500CRW-3 and 500DRW-3 sets. 42A-9 connecting block furnished as loose part.

Sets, Telephone

Western Electric

For Use With Key Telephone Systems

Key equipped telephone sets are used with key telephone systems 1A and 1A1. Transmission features and external appearance of other 500 type sets except for push buttons or keys located on front of housing or incorporated in design of switch plungers. Include C4A Ringer and its volume adjustment control, 425B Network, 7D-3 Dial, GIAR-3 Handset.

No. 502BRW-3 Telephone Set has an exclusion switch which is operated by manually lifting left plunger; restored by replacing handset. When operated it disconnects and short circuits (excludes) one or more extension stations to assure privacy. Furnished with six conductor mounting cord.



No. 564 Key Equipped Telephone Set

Nos. 544, 564 and 565 are common battery, four and six button telephone sets arranged for hold (H) and pickup (P). Spring combination associated with pickup button (P^s) may be converted in field for signaling. Pickup buttons are illuminated type. When illuminated, serve as line busy and/or incoming call signals. Blocking ring furnished to block unused button. Sets are furnished wired for No. 1A key telephone system; may be changed for use in 1A1 key telephone system.

No. 566MBRW-3 Telephone Set is used in No. 755A PBX dial telephone system; equipped with one hold (H), one local (L), four pickup buttons.

No. 510BRW-3 telephone set is equipped with turn-push button key for two line pickup. Has four conductor mounting cord.

No. 510FRW-3 telephone set has six conductor mounting cord. Otherwise same as No. 510BRW-3. The additional mounting cord pair permits two line pickup and signaling as basic features.

No. 511DRW-3 telephone set is equipped with turn-push button key for two line pickup and signaling and an exclusion switch. Has fifteen conductor mounting cord and No. 7G-3 dial.

Nos. 502, 510 and 511 type telephone sets for manual service are obtained by conversion by the customer.

No. 544, 564 and 565 Desk Type Features Provided For

| No. | Cord | Key | Exclusion Key | Lamps Signal | Station Busy | Station Control Key Arrangement |
|-----------|--------|------|---------------|--------------|--------------|-------------------------------------|
| 544BBRW-3 | D19A-3 | 588B | | x | | HPPPs |
| 545BBRW-3 | D24B-3 | 588B | x | x | x | HPPPs |
| 564HBRW-3 | D30A-3 | 589H | | x | | 11PPPs ^s ps ^s |
| 565HBRW-3 | D40A-3 | 589H | x | x | x | HPPPs ^s ps ^s |
| 565GBRW-3 | D40A-3 | 589J | x | x | x | PPPs ^s ps ^s |
| 565LBRW-3 | D37A-3 | 589K | x | x | x | HPPPs ^s C |
| 566MBRW-3 | D20C-3 | 589L | | x | x | HPPPs ^s 1 |

H = Hold—Non-Locking

P = Pickup—Locking

S = Signal—Non-Locking

L = Local Line Pickup (755A PBX)

C = Cutoff (Turn Button)

PS = Pickup—Locking, convertible to Signaling—Non-Locking. Change can be made in field by customer.

Exclusion Key: Plunger operated switch; leads from this switch have spade tips so they can be connected to any line on key terminal strip.

Signal Lamps: Where illumination required, 51A Lamps should be ordered separately; installed by customer.

Station Busy Lamp: Sets are arranged to control station busy lamp(s) located at other stations. Lamps light when control station is busy regardless of line in use.

Manual sets are same as corresponding dial sets except dial is replaced with 95B-3 apparatus blank. Conversion of dial sets is made by customer.

No. 7 buzzer may be mounted in place of ringer by using 44B bracket.

No. 565 and 566 type sets equipped with No. 7G-3 dial.

For Persons With Impaired Hearing



No. 532BRW-3 (dial) telephone set is for use by persons with impaired hearing and for same service as 500CRW-3 and 500DRW-3 sets. Equipped with knurled lucite knob used as volume control, 419A varistor, 151A amplifier, 14634L2 potentiometer and regular components of 500DRW-3 set. Through use of transistor the amplifier in this set produces adequate level of sound without auxiliary batteries. No on-off switch provided; amplifier is in the circuit when handset off the mounting. Loudness of volume controlled by turning knurled knob adjacent to dial. No. 42A-9 connecting block furnished with this set.

No. 533BRW-3 telephone set, used by persons with impaired hearing, on polarized ringing lines for 4-party selective and 8-party semi-selective service. Otherwise same as 532BRW-3 set.

Sets, Telephone

Western Electric

Harmonic Ringing Service

Nos. **591ARW-3** (manual) and **591BRW-3** (dial) telephone sets are used on selective party lines using harmonic ringing system. Components are same as 500CRW-3 (manual) and 500 DRW-3 (dial) sets except ringer not furnished. Includes 42A-9 connecting block furnished as a loose part.

No. **591BRW-3** available with housing assembly and handset in colors. Includes components indicated when furnished in color.

| Telephone Set Code No. | Color | Housing Assembly | Components 591 Type Sets | | | Connecting Block |
|------------------------|--------|------------------|--------------------------|---------|---------------|------------------|
| | | | Dial | Handset | Mounting Cord | |
| 591BRW-50 | Ivory | P-17A985 | 7C-50 | G3AR-50 | D3BG-50 | 42A-4 |
| 591BRW-51 | Green | P-17A986 | 7C-51 | G3AR-51 | D3BG-52 | 42A-4 |
| 591BRW-52 | Gray | P-17A987 | 7C-52 | G3AR-52 | D3BG-52 | 42A-4 |
| 591BRW-53 | Red | P-17A988 | 7C-53 | G3AR-53 | D3BG-53 | 42A-4 |
| 591BRW-54 | Brown | P-17A989 | 7C-54 | G3AR-54 | D3BG-54 | 42A-9 |
| 591BRW-55 | Berge | P-17A990 | 7C-55 | G3AR-55 | D3BG-55 | 42A-4 |
| 591BRW-56 | Yellow | P-17A991 | 7C-56 | G3AR-56 | D3BG-56 | 42A-4 |
| 591BRW-57 | Blue | P-17A992 | 7C-57 | G3AR-57 | D3BG-52 | 42A-4 |

No. 500 Wall Type



No. 558BRW-3

No. **558BRW-3** Telephone Sets: Common battery, wall type; used in Nos. 1A and 1A1 key telephone systems. Single button sets which provide same features as No. 510 sets, such as 2 line pickup, extension cutoff, ringer cutoff, push-button signaling. For manual service, substitute No. 95B-3 apparatus blank for the dial.

All Western Electric telephone sets are equipped at the factory with spring (retractile) handset cords.

The letter "R" in the code indicates that the spring handset cord is furnished.

No. 500 Wall Type



No. 554BRW-3

No. **554BRW-3** Telephone Set: Common battery telephone set; wall mounting; same coded apparatus and transmission characteristics and ringer volume adjustment features as desk type sets. Used in dial systems on individual lines, 2-party selective flat rate, 2-party selective message rate, divided code-ringing, non-selective party lines, 4-party semi-selective, regular PBX stations. With slight connection changes may be used for other services. For manual service, substitute No. 95B-3 apparatus blank for the dial. Apparatus components mounted on common base plate. When required, apparatus blank mounts on housing. Arrangement of apparatus components generally similar to that of other 500 series telephone sets. Replaces No. 354 type sets.

No. **556BRW-3** Telephone Set: Common battery; wall type; used in dial systems for polarized ringing lines on 4-party selective and 8-party semi-selective services. Furnished wired for use on either negative ring or negative tip party; may be changed in the field for use on positive ring or positive tip party. Same coded apparatus, transmission characteristics, ringer volume adjustment features as 500 series desk type sets. For manual service, substitute No. 95B-3 apparatus blank for the dial. Replaces No. 356 type telephone sets.

Sets, Telephone

Western Electric
No. 500 Wall Type (Con't)
Harmonic Ringing Service

Nos. 593BRW-3 (Black) and 593BRW-50 (Ivory) telephone sets are used on common battery selective party lines using a harmonic ringing system. Same as No. 554BRW-3 set except ringer is not furnished and they are equipped with No. H4BH-3 (Black) or H4BH-50 (Ivory) retractile cords. Replace No. 252 type telephone sets. For manual service, necessary to substitute No. 95B-3 (Black) or 95B-50 (Ivory) apparatus blanks. This telephone set replaces No. 252 type.

Replacement Parts (For Black Sets Only)

No. 95B-3 Apparatus Blank: For manual service 500 series telephone sets. Replaces dial.

No. 44B Bracket: Mounts 7-type buzzer. 152A condenser in place of standard ringer. Mounting screws, two leads furnished.

No. P-348114 Instruction Card: Instructions for controlling ringer volume.

No. 152A Condenser: Used with 7-type buzzer to suppress interference with radio.

No. H4BG-3 Handset Cord: For G1A-3 handset.

No. D3BB Mounting Cord: For 500C/DW, E/FW, 501C/DW-3, 591A/BW, E/FW, 532BW-3, 533BW-3.

No. P-347341 Switch Cover: Plastic dust shield for line switch (Switchhook) contact spring assembly.

No. 7D-3 Dial: Replacement dial for 500 series sets.

No. P-347300 Ring Assembly: Gasket used between dial number plate and housing of 500 series sets.

No. P-298106 Station Number Card Holder: Used to hold and attach station number card to dial or apparatus blank.

No. P-338895 Housing Assembly: For 500C/DW-3, 501C/DW-3, 591A/BW.

No. P-19A417 Housing Assembly: For 500E/FW-3, 591E/FW.

No. P-338896 Housing Assembly: For 532BW-3, 533BW-3.

No. C4A Ringer: For replacement of C-2, C-3, C-4 ringers. Furnished with P-339769 mounting screw assembly, P-43A254 gong screw and lock washer assembly.

No. P-467742 Screw: Special captive screws to fasten housing to base.

No. G1A-3 Hand Set: For 500 series sets. Contains following parts:

P-347266 Cup Assembly: Equipped with spring contacts for transmitter unit, P-249778 screws, P-349532 Receiver Cap; P-349533 Transmitter Cap; P-339616 Handset Handle; U1 Receiver Unit; T1 Transmitter Unit and H4BG-3 Cord.

No. G1AR-3 Hand Set: Same as G1A-3 except substitute spring cord H4BH-3 for H4BG-3.

Sets, Telephone, Hand
Western Electric
No. 211 Type

Nos. 211JW-3 (Manual) and 211LW-3 (Dial) hand telephone sets are for use with manual or dial stations on individual lines, PBX extensions, two-party selective, four-party semi-selective, multiparty sidetone or anti-sidetone common battery service.

These hand telephone sets include a G1A-3 hand set and the new G6W-3 hand set mounting which was developed to provide proper wiring connections between No. 685AW-3 subscriber set and hand telephone set mounting. No. 685AW-3 set contains same ringing and transmission advantages as 500 type telephone sets.

No. 211LW-3 hand telephone sets include G6W-3 hand set mounting, No. 43A-3 dial mounting, No. 6A dial.

Nos. 211JRW-3 (Manual) and 211LRW-3 (Dial) hand telephone sets include G1AR-3 hand sets equipped with retractile cord. Otherwise, same as Nos. 211JW-3 and 211LW-3 respectively.

| No. | Hand Set Mounting | Dial No. | Dial Mounting No. | Hand Set | Replaces No. |
|-----------|-------------------|----------|-------------------|----------|--------------|
| 211JW-3* | G6W-3 | | | G1A-3 | 211AW-3F |
| 211JRW-3* | G6W-3 | | | G1AR-3 | |
| 211LW-3 | G6W-3 | 6A | 43A-3 | G1A-3 | 211BW-3F |
| 211LRW-3 | G6W-3 | 6A | 43A-3 | G1AR-3 | |

*Equipped with P-220057 card holder frame; P-172045 reinforcing ring; P-164442 card retainer; P-137593 window.

Sets, Telephone, Head
Western Electric
No. 52 Type



No. 52AW

Used by operators at switchboards, desks and PBX positions. Transmitter mounted on an arm attached to back of receiver case. Set carried on head by means of headband. Weight on the head is about 6 oz., excluding cord.

Transmitter unit is designed for common battery application. When used with local battery, a series resistance must be employed.

Impedance of HC3 unit is approximately 300 ohms at 1000 cycles. Its d-c resistance is approximately 65 ohms.

No. 52 Head Telephone Sets consist of the following assembly of apparatus:

Apparatus List

| | 52AW | Head Telephone Set | | | |
|--------------------------------|-----------|--------------------|-----------|------|------|
| | | 52BW | 52CW | 52DW | 52EW |
| 55AW Transmitter Arm | 1 | 1 | 1 | 1 | 1 |
| N1 Transmitter Unit | 1 | 1 | 1 | 1 | 1 |
| 10A Receiver Holder | 1 | 1 | 1 | 1 | 1 |
| HC3 Receiver Unit | 1 | 1 | - | 1 | 1 |
| HC4 Receiver Unit | - | - | 1 | - | - |
| 15A Headband | 1 | 1 | 1 | 1 | - |
| 15C Headband | - | - | - | - | 1 |
| L4AG Cord | 1 (5-ft.) | - | 1 (7-ft.) | - | - |
| L4AH Cord (10-ft. Retractable) | - | 1 | - | - | - |
| L4AK Cord (15-ft. Retractable) | - | - | - | 1 | - |
| L2Y Cord | - | - | - | - | 1 |
| 289B Plug | 1 | 1 | 1 | 1 | - |
| P-458981 Transmitter Cap | 1 | 1 | 1 | 1 | 1 |
| P-12A320 Polyethylene Disc | 1 | 1 | 1 | 1 | 1 |
| P-16A600 Receiver Cap | 1 | 1 | 1 | 1 | 1 |
| P-478356 Cord Fastener | 1 | 1 | 1 | 1 | - |
| KS-8010 Switch | - | 1 | - | - | - |
| 29A Connecting Block | - | 1 | - | - | - |

No. 52BW Head Telephone Set, used by supervisors, is same as No. 52AW set except it is equipped with L4AH retractile brown mercerized cotton covered cord. Normal extended length of this cord is 10-ft.; closes into uniform helix approximately 3-ft. long. Finished at plug end for

No. 289A Plug; other end equipped with No. 29A connecting block, KS-8010 transmitter cutout switch, sleeving which acts as wrist loop. No. 29A connecting block permits a second listener to plug in by the use of an R2DM cord and a receiver.

Sets, Telephone, Head

Western Electric

No. 52CW Head Telephone Set is designed for special installations at airports or where a high impedance receiver unit required. Similar to No. 52AW set except it is equipped with HC4 receiver unit with impedance of approximately 600 ohms at 1000 cycles, d-c resistance about 140 ohms. L4AG cord is 7-ft. in length.

No. 52DW Head Telephone Set, used by night operators, is similar to No. 52AW set except it is equipped with L4AK retractile brown mercerized cotton covered cord. Cord has

normal extended length of 15-ft.; closes into uniform helix approximately 3-ft. long. Finished at plug end for No. 289B plug; near other end a sleeving is attached to form wrist loop.

No. 52EW Head Telephone Set is intended for use by cable splicers. Connected as series talking set. Cord L2Y, approximately 7-ft., equipped with No. 3 test clips and No. 516A capacitor to permit testing working pairs without causing interference.

Local Battery Switchboards or Railway Train Dispatching Applications

For local battery operation, a resistance should be connected in series with battery supply to prevent overheating and damage to transmitter unit. To neutralize the slight loss of transmission introduced by this resistance, an electrolytic capacitor wired across it is recommended where heavy loading of dispatching line would make any loss objectionable. Resistance and capacity values recommended for various voltages are as follows:

| Talking Battery Voltage | Resistance (Ohms) | Capacitor Mf. |
|-------------------------|-------------------|---------------|
| 3.0 | 10 | 40 |
| 4.5 | 15 | 40 |
| 6. | 30 | 40 |
| 7.5 | 45 | 40 |
| 9. | 60 | 40 |
| 10.5 | 75 | 40 |
| 12. | 85 | 40 |
| 24. | 200 | 40 |

Higher battery voltages are preferable to lower battery voltages. If electrolytic condensers employed, correct polarity should be observed. Current through transmitter, under above conditions, is approximately 0.1 amp.

No. 55AW transmitter arm consists of transmitter case and stainless steel tube on which transmitter block mounted. Contact with transmitter unit made by springs inside case. Leads carried inside arm from these springs to transmitter terminal block.

N-1 transmitter unit is of direct action type; held in case by the cap. Concentric rings at base make electrical contact with springs in case.

No. 10A receiver holder consists of receiver case with contact springs inside for the receiver unit, terminal accommodations for receiver leads, friction joint. Friction joint allows tube of transmitter arm to turn and slide lengthwise when adjusting distance between transmitter and receiver.



No. 53AW

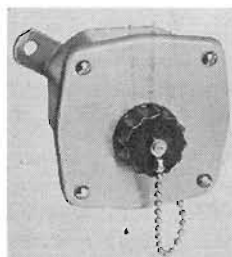
Used where a fully adjustable head telephone set is not required.

Provided with a handle so it can be used as a hand set when headband is not used.

Consists essentially of the following:

| Qty. | | |
|------|----------|--------------------------|
| 1 | P-20A094 | Handle |
| 1 | P-19A602 | Cover Assembly |
| 1 | P-43A315 | Transmitter Arm Assembly |
| 1 | P-16A542 | Transmitter Cap |
| 1 | P-16A545 | Receiver Cap |
| 1 | N1 | Transmitter Unit |
| 1 | HC3 | Receiver Unit |
| 1 | L4BB | Cord |
| 1 | 289B | Plug |
| 1 | 15A | Headband |

Sets, Telephone Sound Powered and Accessories U. S. Instrument



Jack Boxes

No. A531: Watertight brass enclosure. Equipped with single jack on cover to accommodate No. A529 plug and with molded phenolic terminal block in case.

No. A532: Same except has two jacks on cover.

No. A533: Same except has four jacks on cover.