## TOOLS

## WRENCHES, SOCKET SCREW-DESCRIPTION

## 1. GENERAL

1.01 This section covers Bell System coded and noncoded socket screw wrenches.
1.02 This section is reissued to add the C Key Kit (AT-8032). The Equipment Test List is not affected.
1.03 The information contained in this section supersedes the corresponding information in Sections 074-107-101, 074-137-101, and 074-870-101.
1.04 See tool index for other Wrench practices.
2. DESCRIPTION OF TOOLS

294
295
296


Bristol Set Screw Wrenches.

|  | No. of <br> Whench <br> Flutes | For Size | Dimensions (Inches) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Serew | A | B | C |  |  |
| 294 | 4 | $1 / 4$ | $2-5 / 16$ | $7 / 8$ | .125 |
| 295 | 4 | $5 / 16$ | $2-19 / 32$ | $31 / 32$ | .172 |
| 296 | 6 | $3 / 8$ | $2-55 / 64$ | $1-1 / 16$ | .219 |

The 294 is for use on reciprocating bar-type interrupters.
The 295 is for general use.
The 296 is for use on gear reduction and friction roll drives.

643A
643B


Wrenches for Hex Socket-Head Screws
Wrench
643A
643B

Dim. A
(Inches)
.062
. 078

Screw Size
No. 5 and 6
No. 8

Replace the D-176938 and D-176939 tools, respectively. For use on the KS- 13882 perforators.

644A


Ratchet Wrench for 5/32-Inch Socket-Head Screws. Replaces the D-176940 tool. For use on the KS-13882 perforators.

Not for use or disclosure outside the Bell System except under written agreement

## C KEY KIT (AT-8032)



This kit consists of a plastic envelope containing one each of the following sizes of hexagonal socket keys. The keys are for use in turning hexagonal socket set screws and hexagonal socket head cap screws.

| KEY SIZES <br> WIDTH ACROSS FLATS | SET <br> SCREW NO. | CAP <br> SCREW NO. |
| :---: | :---: | :---: |
| .050 | 3,4 | 0,1 |
| $1 / 16$ | 5,6 | 2 |
| $5 / 64$ | 8 | 3,4 |
| $3 / 32$ | 10,12 | 5,6 |
| $7 / 64$ | - | 6 |
| $1 / 8$ | $1 / 4$ | 8 |
| $9 / 64$ | - | 8 |
| $5 / 32^{*}$ | $5 / 16$ | 10,12 |
| $3 / 16$ | $3 / 8$ | $1 / 4$ |
| $1 / 4^{* *}$ | - | - |
| $5 / 16^{* *}$ | - | - |

* The $5 / 32$ key may also be used with threftproof screws. It has a 0.0995 -inch hole, $3 / 16$ inch deep at each end.
** Used to change components of the AT-8900 C Drill-driver.

WRENCHES, SOCKET-HEAD SCREW, STRAIGHT
In ordering, specify wrench number desired.

*During 1960 changes were made in the socket dimensions of certain socket head cap screws. In some cases the use of different wrenches is required for hexagon head cap screws of the same nominal size manufactured before and after the change was introduced.

Each wrench consists of a T-handle, a $1 / 16$-inch set-screw wrench, and three straight wrenches. For use on the KS-13834 perforator and 1-type translators.

## WRENCHES,SOCKET-HEAD SCREW

In ordering, specify wrench size desired.
This wrench is the same type as those listed under Socket-Head Screw Wrenches.

| Wrench | Cap Screw |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Set <br> Screw <br> (In.) | *Befors 1960 Change | *After 1960 Change | Dimensions (Inches) |  |
|  |  |  |  |  |  |
| Dim. A |  |  |  |  |  |
| (In.) |  | (Inches) |  | B | C |
| 9/16 | 1 | 3/4 | - | 5-3/4 | 1-3/4 |
|  | 1-1/8 | 7/8 |  |  |  |
| 5/8 | - | - | 3/4 | 6-1/4 | 1-7/8 |
| 3/4 | - | - | 7/8 | 7-1/4 | 2-1/8 |

*During 1960 changes were made in the socket dimensions of certain socket head cap screws. In some cases the use of different wrenches is required for hexagon head cap screws of the same nominal size manufactured before and after the change was introduced.

For use on motor alternators.

## WRENCH, SOCKET-HEAD SCREW

In ordering, specify wrench number desired.


| Wronch | $\begin{aligned} & \text { Ser } \\ & \text { Serow } \end{aligned}$ | cap Scrow |  | Dimmeneions (Inchea) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { "Bofore } \\ & 1200 \\ & \text { Chenge } \end{aligned}$ | $\begin{aligned} & \text { - After } \\ & 1960 \\ & \text { Chempe } \end{aligned}$ |  |  |  |
|  |  |  |  | A | 8 | c |
| R-2485 | 5/16 ${ }^{\prime \prime}$ | No. 10 | No. 10 | 5/32 | 2-1/2 | 27/32 |
| R-2486 | 5/8' | $\begin{aligned} & 3 / 8^{\prime \prime} \\ & 7 / 16^{\prime \prime} \end{aligned}$ | $3 / 8^{\prime \prime}$ | 5/16 | 3-3/4 | 1-1/4 |
| R-2670 | No. 10 | No. 5 <br> No. 6 | $\begin{aligned} & \text { No. } 4 \\ & \text { No. } 5 \end{aligned}$ | 3/32 | 2 | 21/32 |
| R-2671 | 1/4" | No. 8 | - | 1/8 | 2-1/4 | 3/4 |
| R-2672 | 1/2' ${ }^{\prime \prime}$ | - | 5/16" | 1/4 | 3-1/4 | 1-1/8 |
| R-2673 | 3/4' | $1 / 2^{\prime \prime}$ | $\begin{aligned} & 7 / 16^{\prime \prime} \\ & 1 / 2^{\prime \prime} \end{aligned}$ | 3/8 | 4-1/4 | 1-3/8 |
| R-2812 | 3/8' | 1/4" | 1/4" | 3/16 | 2-3/4 | 15/16 |
| R-2865 | 1/2' | - | 5/16 ${ }^{\prime \prime}$ | 1/4 | 3-1/4 | 4 |
| R-2958 | No. 8 | No. 3 <br> No. 4 | No. 2 <br> No. 3 | 5/64 | 1-7/8 | 39/64 |
| R-2959 | $\begin{aligned} & \text { No. } 5 \\ & \text { No. } 6 \end{aligned}$ | No. 2 | No. 1 | 1/16 | 1-3/4 | .9/16 |
| R-2961 | No. 3 <br> No. 4 | No. 0 <br> No. 1 | No. 0 | . 050 | 1-3/4 | 9/16 |
| R-2964 | 7/16' | 5/16" | - | 7/32 | 3 | 1-1/32 |
| R-3415 | - | - | No. 6 | 7/64 | 2-1/8 | 23/32 |
| R-3416 | - | - | No. 8 | 9/64 | 2-3/8 | 13/16 |
| P-431479 | 5/16' | No. 10 | No. 10 | 5/32 | 2-15/32 | 9/32 |

*During 1960 changes were made in the socket dimensions of certain socket head cap screws. In some cases the use of different wrenches is required for hexagon head cap screws of the same nominal size manufactured before and after the change was introduced.

The R-2485 wrench is for use on multifrequency motor generator sets.

The R-2486, R-2670, R-2672, R-2673, R-2865, R-3415, and R-3416 wrenches are for general use.
The R-2671 wrench is for use on pneumatic ticket distributing systems.
The R-2812 wrench is for use on panel friction drives, gear reduction drives, and miscellaneous brackets.
The R-2958 wrench is for use on apparatus in the AMA System, KS-14156 switchboard clock, and 8-type buzzers.
The R-2959 wrench is for use on 8-type buzzers, the 531 A key, the KS-13834 perforator, and timers of the automatic ticketing system.
The R-2961 wrench is for use on timers of the automatic ticketing system.
The R-2964 wrench is for use on couplings of large motor generator sets.
The P-431479 wrench is for use on J2 carrier telephone condenser drives.

## WRENCHES, BRISTOL

In ordering, specify set screw. When ordering a wrench for the No. 10 or $5 / 16$-inch set screw with four flutes, specify a four-flute wrench; otherwise, a six-flute wrench will be furnished.


| Set <br> Screw | A | Dimansions (Inches) <br> $\mathbf{B}$ | C | Flutes |
| :--- | :---: | :---: | :---: | :---: |
| No. 4 | 0.060 | $1-3 / 4$ | $5 / 8$ | 6 |
| No. 6 | 0.076 | $1-27 / 32$ | $21 / 32$ | 4 |
| No. 8 | 0.094 | $1-31 / 32$ | $45 / 64$ | 6 |
| No. 10 | 0.110 | $2-3 / 32$ | $3 / 4$ | 4 or 6 |
| $5 / 16^{\prime \prime}$ | 0.183 | $2-19 / 32$ | $15 / 16$ | 4 or 6 |

For general use.

## WRENCHES

In ordering, specify wrench number desired.


For general use.

