# SOCKET WRENCHES <br> DESCRIPTION <br> TOOLS 

## 1. GENERAL

1.01 This section covers Bell System coded and noncoded socket wrenches.
1.02 This section is reissued for the following reasons. Since this is a general revision, revision arrows have been omitted. The Equipment Test List is not affected.
(a) To rate the KS-20476, L1 nut driver Mfr Disc.
(b) To add the Utica V-780 nut driver.
(c) To rate the 254 wrench Mfr Disc.
(d) To revise the format.
1.03 The following is a list of tools that have been Mfr Disc., with their replacement:
1.04 See the Tool Index for other Wrench practices.

## 2. DESCRIPTION OF TOOLS

2.01 33: The 33 tool (Fig. 1) is used on precisiontype interrupters, vertical drive shafts, and for removing contact protection assembly on A- and B-type sequence switches. The dimensions for the 33 tool are: $\mathrm{A}=11 / 32$-inch, $\mathrm{B}=1 / 2$-inch, and $\mathrm{C}=2-3 / 4$ inches.


Fig. 1-33 Hex, Single-End Socket Wrench
2.0246 and 47: The 46 and 47 (Fig. 2) are hex, single-end socket wrenches.


Fig. 2-46 and 47 Hex, Single-End Socket Wrenches
(a) 46: The 46 tool is for general use. The dimension for the 46 tool are: $\mathrm{A}=3 / 8$-inch, $\mathrm{B}=$ $17 / 32$-inch, and $C=2-3 / 4$ inches.
(b) 47: The 47 tool is for use on 16-type drives and tape announcing machines. The dimensons for the 47 tool are: $\mathrm{A}=1 / 2$-inch, $\mathrm{B}=23 / 32$ inch, and $C=3-3 / 4$ inches.

NOTICE
Not for use or disclosure outside the
Bell System except under written agreement
2.03 102: The 102 tool (Fig. 3) is for general use.


Fig. 3-102 3/8-Inch Hex, Single-End Socket Wrench
2.04 110: The 110 tool (Fig. 4) is equipped with a $9 / 32$-inch socket on the " $S$ " end and a $5 / 16$ inch socket on the " $L$ " end. The wrench is used on duplex motors.


Fig. 4-1 10 Hex, Double-End Socket Wrench
2.05 216C: The 216C tool (Fig. 5) is equipped with a $3 / 8$-inch socket on one end and a 7/16-inch socket on the other end. The 216 C tool is used for placing fuses in cable terminals.


Fig. 5-216C Hex, Double-End Socket Wrench
2.06 219: The 219 tool (Fig. 6) is equipped with a 5/16-inch socket which forms part of the 221 tool. The 219 wrench is used on 51-type dial testers.


Fig. 6-219 Hex, Single-End Socket Wrench
2.07 220: The 220 tool (Fig. 7) is equipped with a $3 / 16$-inch socket which forms part of the 221 tool.


Fig. 7-220 Hex, Single-End Socket Wrench
2.08 220B: The 220B tool (Fig. 8) is equipped with a $5 / 16$-inch socket. The 220 B wrench is used on the 214 A selectors of 1-type translators in the No. 4 A Toll System.


Fig. 8-220B Hex, Single-End Socket Wrench
2.09 254: The 254 tool (Fig. 9) (Mfr Disc.) is equipped with a $1 / 4$-inch square socket. The 254 tool is used on 16-type drives, 1 -type vertical drive shafts, and solenoid-type master switches.


Fig. 9-254 Square, Single-End Socket Wrench
2.10 276: The 276 tool (Fig. 10) is equipped with a $1 / 4$-inch socket. The 276 tool replaces the 32 , 92 , and 366 tools. The 276 tool is used on the 100 -type interrupters and for removing mounting nuts of 18 and 19 -type resistances which have not been wired.


Fig. 10-276 Hex, Single-End Socket Wrench
2.11 403A: The 403A tool (Fig. 11) is equipped with a $5 / 32$-inch socket and a $3 / 16$-inch socket. The 403A tool forms a part of the 72 tool.


Fig. 11-403A Hex, Douible-End Socket Wrench
2.12 447A: The protector wrench and adjuster is covered in Section 074-202-119.
2.13 KS-20476, L1: The KS-20476, L1 tool (Fig. 12) (Mfr Disc.) consists of a removable 12point socket wrench attached to a metal shaft having a plastic grip. The KS-20476, L1 tool was used for servicing CA through CF small crossbar switches.


Fig. 12-KS-20476, L1 or Utica V-780 Nut Driver and Socket
2.14 Utica V-780: The Utica V-780, 1/4-inch nut driver (Fig. 12) has a metal shaft with a plastic grip and is equipped with a Utica V-8, 1/4-inch, 12 -point socket. The Utica nut driver is used for servicing CA through CF small crossbar switches.

### 2.15 Screwdriver-Handle Hex, Socket

Wrenches: The socket wrench (Fig. 13) is furnished by three suppliers, as listed.


Fig. 13-Screwdriver-Handle Hex, Socket Wrench
(a) Steven Walden, Inc. 3410: The Steven Walden, Inc. 3410 tool is used on the KS-13834 perforators. The dimensions for the socket wrench are: $A=5 / 16$-inch and $B=6$ inches.
(b) $\boldsymbol{R}$-2874: The R-2874 tool is used on crossbar switches and 1-type translators. The dimensions for the R-2874 tool are: $\mathrm{A}=7 / 16$-inch and B $=7$ inches.
(c) Xcelite HS-9: The Xcelite HS-9 replaces the R -1977 tool and is used on the 157-type interrupters, A- and B-type sequence switches, and spring driven sequence switches. The dimensions for the R-2874 tool are: $A=9 / 32$ inch and $B=7$ inches.
2.16 Tee-Handle Hex, Socket Wrenches: The tee-handle hex, socket wrenches (Fig. 14) are furnished by three suppliers, as listed.
(a) $\boldsymbol{R}$-1681: The R-1681 tool replaces the AECo $\mathrm{H}-10053-1$ wrench and is used on the 197 - and 198-type switches. The dimensions for the R -1681 tool are: $\mathrm{A}=5 / 16$-inch, $\mathrm{B}=4-1 / 4$ inches, and $\mathrm{C}=$ 4 inches.
(b) KS-6257: The KS-6257 tool (Mfr Disc.) replaces the AECo, $\mathrm{H}-7058$ wrench and is used on the 197- and 198-type switches. The dimensions for the KS-6257 tool are: $\mathrm{A}=3 / 8$-inch, $\mathrm{B}=4-7 / 16$ inches, and $C=4-1 / 2$ inches.
(c) J. H. Williams \& Company 968D: The J. H. Williams \& Company 968D tool is used on pneumatic ticket distributing systems. The dimensions for the 968D tool are: $\mathrm{A}=13 / 16$-inch, $\mathrm{B}=7$ inches, and $C=6-3 / 4$ inches.


Fig. 14-Tee-Handle, Hex Socket Wrench

