

C.O. and Strowger Switch/Other Telecom Tools

Part 1



Western Electric

Northern Electric



Etelco

BT

The following are some of the tools in the collection of the Telephone Museum of P.E.I. - they are not for sale. I am posting this on the site, as it provides a good listing of the tools available from each manufacturer, plus descriptions of the designed usage from the manufacturer's catalogs. This is by no means a complete listing of all tools manufactured and used in the telecom industry. There was a specialty tool designed for just about every job. You may note some items marked as not yet received. These are items on order, or that are in the mail to me. I am continually looking for tools to add to this collection - Dave Hunter, dhunter@islandregister.com:

I have only listed a few of the Butt sets in the collection. I have 20-30 in the collection, but have only listed a few of the more common types. I have a number which were conversions of non-dial butt sets which have had dial shrouds added as well.

The early items I put on this list do not have accompanying photos. Recent additions do have photos, and as I get time, I will gradually re-vamp the listing to include photos for all items listed.

The latest versions of these files may be downloaded from:

Part 1:

http://www.islandregister.com/phones/tools_switching.pdf

Part 2:

http://www.islandregister.com/phones/tools_switching2.pdf

WE/NE/Bell C.O. Tools:

NE-1014B - Aug 22, 2012 - This is a 1014B donated by Barry McCallum and was a kit which included the NE-20B case, an NE715A tool, NE 716A tool, NE716B tool, NE717B tool, 1 Box containing four NE 718A tools, Container containing

eight P12B536 tubes, NE 666B tool, NE 674 tool, and a container holding one NE 689A contact separator.



The kit was made for replacing coils of NE-AF, NE-AG, NE-AJ, and NE-AK type relays. (line and cutoff type). A BSP for the use of this kit maybe found on the TCI document library, 040-272-801.

WE 1012A Tool Kit for replacing coils on 286, 287, and 288 type relays.



ED-30712 30 GR-1 Strowger test stand.



KS16368 L1 - Western Electric Soldering Iron, 120 VAC



Western Electric 945A1 Tool s/n 7057 for crimping 710 splices from Chuck Hensley



1011B - Western Electric telephone installer/repairperson's butt set, pin dial.

1013 - Western Electric Blue telephone installer/repairperson's dial butt set.

QSE4B2-76 - Northern Telecom (Northern Electric) Contempora handset style Central Office version butt set terminating in an NE-346 socket for cords below:

Number Unknown - Splicer's set - (346A transmitter with clip for attaching instrument to clothing) used when identifying pairs with a helper! Used with single ear piece!

C.O. Cords and Connectors for C.O. Butt Sets (accessories for above):

These all fit any butt set with an NE-346 socket on its output. Each cord has a matching NE-471A plug.

- 1) Begins with 471A and terminates with 360A tool at the test end which 419A's, 364's, or 365 tools plug into.
- 2) Begins with 471A and terminating in both Strowger test plug and alligator clip ends.
- 3) Begins with 471A and terminating in a switchboard plug.
- 4) Begins with 471A to spring loaded pins to plug directly into 100 pair CO based protector jacks. These jacks are on the sides of the protector housings. T.
- 5) 419A - Clips which insert into 360A tool to make test connections to relay springs (2).
- 6) 364 - Spade Terminals for use with 360 tool for test purposes (2) J.
- 7) KS-6278 - Suspender clip for use with 360 tool for test purposes (2) J.

Spare WE Butt set clip.

Western Electric 17B Magneto line test set. Used up to WWII.

Bell System "D" Crimpers HKP INC Crimps Sleeves used on Drop Wires, 20 gauge "JKT" first generation copper/steel jacketed pair/triplex or quad inside wiring cable. (2)

Bell System "B" Crimper - "B" Sleeve wire crimper and Holster. Crimping tool was used for cable splicing and supposedly gave a better connection than soldered - For B style beanies.

Bell Systems - Cleverly - probe with pointed end to puncture wire insulation and clip lead cord.

(2x) 139B - Coin Levelling Tool - used to level off over-filled coin boxes to allow removal.



787A - Coin Cleanout Tool.



724A - Tool for removing wires from terminals of a 66 or 110 block. Donated by R.P.



Bell System - Number not currently known - tool to punch a hole in the sheath of lead cable for insertion of an air fitting.

3146-A - Bell System/Klein Bell System "B" Linesman's Wrench for 3/4 inch hardware. Large end has 1-1/16" and 1-5/16" openings. Small end has 5/8" and 7/8" openings. Another model was made, the 3146 (without the -A suffix) which was made for 5/8" hardware. It's large end has 29/32" and 1-3/32" openings. Small end has 5/8" and 3/16" openings. J.

40 Tool - Screwdriver (PBX) For use on drops.

129B Tool - Double wrench for use in adjusting armature pivot screw, armature stop springs, adjusting posts and biasing spring studs on ringers. Two different sizes of jaw openings are provided for use on regular and slightly oversize parts.

544A Tool - Shaped like a bell with Bell System markings, used to replace lights in phone booths, approximately 2" long.

270 Tool - Spring Adjuster (PBX) For use in SC relays and 171 type interrupters.
(1)

319B Tool - Lamp Cap and Number Plate Extractor - for removing 2 and 4 type lamps caps from switchboards and 59 and 60 and similar type number plates. New.

419A Tool - Test Connector (Mag, CB and PBX) Fits NE C.O. butt set cord connector. (2)

363 Tool - Spring adjuster (Mag, CB and PBX) For use on B and G type relays, message registers, 200 type selectors, and 10 type buzzers (3*)

*477B tool, use so far unknown (Coaxial connector?)

340 Adjusting Key (CB and PBX) For turning the relay contact and pole adjusting screw on 208 and 218 type relays. (qty 5)

553-A Switchboard lamp puller (4* , one with bad spring)

597 A WE - Virtually identical to AE's H-14768, Armature Adjuster for use on type 57 and Class A relays (3).

Thin Files (3)

KS-2348 - W.E. Pin guided screwdriver - Equivalent to AE H-883182 (2)

KS-16750 L4 - W.E. dial finger wheel removal tool.

416B - Spring bender, relay (3*)

628A - Spring bender

R-3159 - Spring adjuster for normal post springs on 197 type switches (closely spaced switchboard lever keys)

KS-14796 - Brass pump type Switch Oiler

10 A - Tuning fork & case for use on precision type interrupters

407A - Jack Sleeve Remover for replacement purposes

111 - Jack Spring Cleaner for use on 122 type jacks

118 - Jack Spring Adjuster - for use in conjunction with the 117 tool on 92 type jacks.

74D Thickness Gauge nest for use on 200 type selectors, relays, keys, etc.

66D Thickness Gauge nest for measuring gaps on a, c, e, h, r, and 105 type relays and 1 type buzzers.

73370 - Gauge, Locating (unmarked, in wide box) TTY

R-2767 - Cable Splicer's knife and leather sheath.

484A - Used as a polarity shunt for adjusting a 209 W. E. polar relay. Thanks to Paul Wills for this ID.

466A - Adjuster for adjusting contact springs on handset mountings, desk stands, coin collectors, and other station apparatus.

123 - T-shaped jack sleeve extractor - for pulling worn jack sleeves out of strip-mounted switch board jack strips.

R-75957 - Straight Wooden handle bender. For general usage.

206 WE - Screwdriver 30 degree offset for use on 186, 206, A, C, E, H, L, N. R. and S Type Relays and 519 and C5 Type Keys (1).

511A - 511A: Bar of insulating material. Intended for use in holding No. 3, 32 or 33 sleeving for cleaning the feeder brush contact paths on the rotor hubs of Nos. 200 and 206 type selectors. Thanks for the lookup, Steph!

840A Tool - tool used to trip off excess wire after splicing with WE/ATT/Lucent modular 710 connectors in OSP. (4)

No Number - Strowger switch test plug - for connecting a butt set or other equipment to the test jack on a Strowger switch. This one does two sets of contacts and has a built in switch and resistor when the plug is inserted into a line in use to kill the "click".

Stainless steel box, 6 1/4 x 1 3/4 x 5/8 inch containing three double ended round feeler gauges ranging in size from .010 to .045 inch. Part numbers unknown.

Bell System 41B Stanley Yankee Push Drill with 8 bits.



BrightStar Bell Telephone Company of Canada angle flashlight.



Type "B" - Bell System "Small Installers Case"

Technical Tool Case Co. - switching tool case (2)

145A WE Test Set and manual- Subscriber Line Test Set - measures Volts, Ohms, loop current, loss, as well as balance, power influence, and circuit noise (these were measured in reference to the "quiet line" in the CO). The 145 also has a footage or "feet" function that served as a rough open locator in one position and a resistive fault locator when corrected for conductor gauge and temperature. It also includes a tone function.

AT-8629 Test Probe (Banana) - used in conjunction with the WE-145A to conduct pair identification using the tones generated by the set. A butt set was clipped to the probe, and proximity to the wire fed with the tone would give an audible indication, allowing it to be easily identified.

KS-14762 - 48V C.O. Sealed Beam Trouble lamp and 2 spare KS-16197 L3 48 volt bulbs.

KS-8455 L2 Bell System Line Loop Tester (a.k.a. "Kick Meter") complete with leather Bell System case and manual. Model 8455 Line Loop tester detects line shorts, opens and multiple ringers, DC voltages and loop resistance. It has the capability to measure DC voltage up to 100 volts and loop resistance to 2 meg-ohms. A front panel "reverse polarity" switch is featured allowing you to change polarity positions quicker and easier than manually switching test leads when making line checks.



KS-21250 L1 Coin Crafts Test Set - Checks payphone coin relay, sidetone, Refund/Collect Function, etc.

KS-20950 L1 - Payphone Parking Tool - Steel bracket - allows front section of recent single slot WE payphones to hang alongside the lower case for servicing. (KS-20950 L2 is the aluminum version of this bracket)

KS-8300 (2 Black for Operator Use) Bell System Dur-O-Lite mechanical pencils with dialing ball. These had the 1941 patented "Dialing Tool" U.S. Patent No. 2,247,027 by Bell Telephone Labs at the top. These are listed with the tools as Bell chose to call it a "tool".

KS-8300 (3 Green for General Office and Field Use) Bell System Dur-O-Lite mechanical pencils with dialing ball. At least one has the 1941 patented "Dialing Tool" U.S. Patent No. 2,247,027 by Bell Telephone Labs at the top.

KS-8400-1 A dialing tool designed to be slipped over the top of existing lead and wood pencils. These replaced the more expensive mechanical pencils.

KS-19092-L1 - Inserter, - For inserting and extracting 24 gauge strap wire on wedge terminals of printed circuits, (Initial application: Printed wiring boards in station data sets)

WE B Voltage Tester - long voltage probe with a hand held indicator assembly. Indicator begins to glow at 60-70 volts - upper limit about 7,200 volts/ Used to check for voltage before climbing or on joint plant use (shared poles).

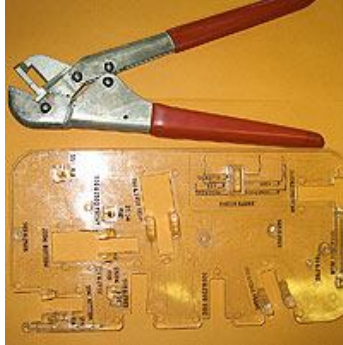
WE188A WE Test light (Stop Lite) - designed test for dangerous voltages in the order of 50 to 2000 volts 60Hz. AC or using a grounding bond, DC voltages up to 2000 volts. Yellow plastic two piece unit weighing about 1 pound.

QTH43A Parking Tool - designed to park the front portion of a Northern Electric Centurion Payphone beside the back portion for servicing. Thanks, Jeremy!

WE331B - Portable Telephone Set - used by radio companies to do their remote broadcasts. Each location that they remoted from would have a private line set up, and when they prepared to remote, the 331A would be plugged into the line. Their sound equipment would plug into the 331A. A beehive warning light attached to the phone would be lit then they were transmitting giving an indication for on-lookers to be quiet.



798A - Modular Notching Tool used to convert non-modular phones to accept modular connectors.



799 - Notching Template - used to guide installers to place notches in the correct position when using the 798A tool.

*Bell System Numberall - used by Splicers to Tag Cable counts on Lead Tags and sleeves.



Northern Telecom "Installation Tool" NR-2315 stamping set, same as Neuses 2315, only in different packaging.



Telephone Service Decal labelled on the back Sign No. 126W Double sided Date 17 3 58 and made for NE by Beaver Decalmania of Montreal, Quebec. Made in Canada.



Northern Electric/Telecom Books and Catalogues:

T-7 - Northern Electric Catalogue (1947) - Used Display copy

T-7 - Northern Electric Catalogue (1947) New, undistributed, and in original mailing envelope.

T-9 - Northern Electric Binder and catalogue pages (1962 onwards) By this time, NE catalogues were issued in a binder form, reducing the frequency of re-issuing the full catalogue - instead, pages were added and removed as required from the binder similar to the way BSP's and NEP's were updated.

Northern Telecom Product Handbook - Internal Use Fourth Edition June 1981, Very nice condition hard cover like new, 216 Pages, Some of the index: Telecommunications, Terminals, Electronic Office Systems, Cable, outside plant products, Business Communications and networks, Central Office Switching, Transmission Systems and Equipment, Network Support and Test Systems, Repair and overhaul Telephone Sets. I may digitize this handbook for posterity.

GTE/AE C.O. Tools:



AE Linefinder Test Stand H - 85829-1-2 - used for testing Strowger linefinder switches.

GTE/AE Payphone test coins, 7 dime equivalents and 1 nickel equivalent. These were used for dialing test numbers by technicians.



AE L965-A2 metal butt set

2 - GTE Automatic Electric Type 801 Model L9078-A1 orange butt sets

2 - AE West Test Sets - Magneto line test set (leather cased pre-dial version of butt set).

H-50754 - AE Monophone Tool



H-7067 Double Dog Bender (2)

H-13398-1 - Adjuster, Vertical Armature for use on Strowger Switch

H-14769 - Armature Stop Bender (4)

H-881419-1 Handle Remover for removing unthreaded handles from lever keys.

H-47202 - Cam Adjuster for adjusting Strowger switch multi-level normal post cam

H-45590 - Armature Bender for use on Type 27 manual Relay

H-16290-7 - Pliers spring adjusting (dial) - for adjusting tension on dial governor, pulse and shunt springs, Strowger switch wipers, and tensioning master switch governor springs.

H-880621-1 - Jack Spring Pliers.

H-20179-1 - Adjuster, spring for use on rotary line switch

H-88390-1 - Adjuster, spring for use on type 26 lever keys (4)

H-42873 - Spring Bender Lever for use on Horizontal (Class A) Relays (4)

H-88502-1 Armature Adjuster for use on Type 10 Alternating Current Relay (3)

H-88504-2 - Adjuster, spring for use on type 57 relays (3)

H-56518 - Adjuster, armature for use on type 10 AC relay

H-64980 - Adjuster, spring for use on minor type relays

H-46437-1 - Spin-tite wrench for assembling wipers to Strowger switch shaft

H-883999-1 - Adjuster, spring for use on Bar Relay (Type 59 detector)

H-831384-1 Armature Bender

H-44359 - Adjuster, spring for use on type 27 manual relay

H-20777 - Adjuster, spring for use on horizontal class A relays

H-88844-1 - Brush, Bank Cleaning w. spare brush

H-26917 - Dial Escutcheon tool (Reproduction)

H-883182 - Pin guide screwdriver - Equivalent to Bell System KS-2348.

H-883699-1 Contact (2) er, smooth finish

H-7066 - Adjuster, Spring - for use on plunger line switch, horizontal line switch (Class A), relay, Cam, and off-normal springs, vertical wiper spring and backstop.

H-883793-1 - for use on IBM model 21 writer assy. (Ticket Printer)

H-7057 - Tool for disassembling old-fashioned wipers with threaded hub and nut.

H-880922-1 - Lamp, for Visual Inspection and gauging of relay contacts.

GTE Precision Fiber Cleaving Tool - Designed to cleave fiber optic cable evenly and smoothly.

GTE SAMP Light - The GTE SAMP Light is a test pick used for determining the presence of various voltages when testing equipment for trouble conditions. It detects battery, and ground, and may be used types of solid State Circuitry. Specifically designed with 24 and 48 VDC Central Office Equipment.

Etelco/GPO/ATM Tools:

Most of the British Tools I have are Etelco (British Ericsson) but they all have direct ATM and GPO equivalents, so when a number is available, I will list first the Etelco number, followed by the GPO or ATM number and description:



GPO 280 - GPO 280HA70 Butt set. Used in the Summerside Island Tel exchange.



Spanners:

45B (L14502A) Box Spanner - For 32A BPO 2000 type bank nuts.

N9107 (L14273) Box Spanner - For Strowger Selector 3 magnet type rotary magnet 13/64 inch across flats.

N5291 (L14397) - L shape Box Spanner, cranked - .22" across flats. BPO #1 for 3000 type relay and uni-selector.

N9105 - (L14566A) Box Spanner T-form - for meter plate, .421" across hexagon flats. Selector Carriage, adjuster gland.

N8201 (P37544) - Box spanner, hardwood handle, brass ferrule, 9/32". 8 B.A.

N8333 (L14659A) - Spanner, for BPO No. 2 Uni-selector Wiper Assembly.

N9111 - L shape single ended, approx. 1/4". Spanner, Box 4 B.A.

N9106 (L14387) - Double ended steel spanner for telephone exchange maintenance .452 x.530 inches. 6 B.A. 4000 Selector.

N9116 (?) - 1/4 inch steel single ended spanner.

GPO H70 Double ended spanner,

N9104 - Spanner, Ring, D.E. 6/8 B.A.

N9109 - Spanner, Ring. D.E. 6/7 B.A. Cranked.

N9110 - Spanner, Flat D.E. 6/8 B.A. Selector N.P. link.

N9116 - (2) Spanners, Flat, S.E. 3 B.A. Cranked.

88 - Unknown Usage.

N8260 - Spanner, Flat, D.E. Relay resid. And Uniselector pointer.

LXR 4 H8 (L14341A) - Extractor for lamp caps, labels and label holders. Forged steel tongs with adjusting screw.

L14226A - Adjusting tool for adjusting rotary and vertical armatures of type 32A selectors (BPO 2000)

Pliers, etc.:

N8289 (L1315A) - Duck Bill Pliers, curved blade.

N8320 (L14317A) - Tapered Nose Pliers - for general use.

N8265 (L14322A) - Wire Cutting Pliers for general use.

Bank Cleaning Tools:

N9129 - Bank cleaner - uses fabric bank cleaning tape. Cleaning and lubricating selector bank contacts.

No Number - Same as above, only multiple levels- uses fabric bank cleaning tape. Cleaning and lubricating selector bank contacts.

N13298 - Same as above, only rotary end.

N9132 (L14444) - Bank contacts cleaning and oiling tool - Consists of circular shaped steel blade mounted on handle. Designed for use with stripped velvet, chamois or similar for cleaning the contacts of a 3 motion selector bank.

N9131 - Brush, teazle, wire - Cleaning selector bank contacts.

Switchboard Bulb Removers:

EXR GPO K1A 62 - Bulb Remover

K1A 81 - Bulb Remover

Uni-selector Combs and Tools:

#1 (L660468) - For fitting APO #3 and BPO #2 Uni-selector mechanisms to bank, 8 level.

#2 (L660460) - For fitting APO #3 and BPO #2 Uni-selector mechanisms to bank, 5 level.

N9108 - used to loosen the wiper assembly from the shaft to allow you to align the wiper tips with the bank contacts - 4000 Selector

N8353 - Spanner, Box, S.E. Uniselector wiper assembly clamp.

N8261 (GPO No. 3) - Spanner, Flat D.E. Uniselector knife-edge adjustment.

N8217 (GPO H70) - Spanner, Cranked, D.E. Uniselector Arm Backstop and Wiper Spindle.

Misc. Screwdrivers, Benders, Etc.:

N8375 - Spanner, Capstan, O.B.A., 10 inch shaft. Approx. 3/8 inch between flats. General Use.

N8296 (L14489) - Wooden handle screwdriver. 1/4" flat blade - For general use.

N8281 (Footprint GPO INST 6) 12 inch blade, plastic handle. For general maintenance and adjustment.

A4775 - Feeler gauges, Moore and Wheeler, 1/1000" up.

N8248 - Feeler Gauges, cranked, boxed, 17 parallel gauges, 2-18 mils, each with two bends, for checking armature travel and contact openings.

N5249 - Feeler Gauges, cranked, boxed. Ditto but 20 gauges of various thickness from 19-46 mils.

N8297 (I14454A) - Spring Contact Cleaning Tool - shaped and finely sandblasted steel blade.

N8283 (L14401A) - Contact Insulator - black fibre for insulating relay contacts for testing purposes.

N8202 (BPO 21)- Adjuster, spring. Aligning twin contacts and tensioning selector springs.

N6486Q - Plug, switchboard for Battery Jacks.

N3203 (L144288A) - Adjusting tool for adjusting vertical detent and vertical pawl guide of 32A (BPO 200) type selector.

N8237 (L14370A) - Adjusting tool for adjusting contact spring tips of BPO 600 and 3000 type relays so that the dual contacts operate simultaneously.

N8240 (L14398A) - Armature Guide. For replacing 3000 type armature. White opaque Celastoidtm.

N8328 (BPO13) - Adjuster for MDF protector springs.

N8299 - Capstan for spanner N9106

N94686 - Tool Wallet

Gram Gauges, Asst. Manufacturers:

GEC 50-250 GMS

GEC 4-24 GMS

GEC 100-500 GMS.

70F -10-0-10 GMS

83C - -55-0-55 GMS.

N8214 - Etelco gauge,tension with N8252 and N8253 pointers, 10-80 GM, in 5 GM divisions, with vernier adjust 1-4 GM.

62B WE 0-700 GMS

Correx dial 0-50 GMS (2)

Correx dial 0-100 GMS (2)

Harris Dracon:

10113-000 - Modular Fan-out Adapter 4 Wire.

10210-100 - Banjo Modular Test Adapter 4 Wire.

10220-100 - Banjo Modular Test Adapter 6 Wire.

10230-100 - Banjo Modular Test Adapter 8 Wire.

216-C Harris Corp - Can Wrench

HD8762/D814 Harris Dracon punch-down (impact) tool, 66, 110, Bix blades (T)

TS-21 - The Harris Dracon TS21 Test Set employs the latest technology in integrated circuit design to provide both DTMF (Touch Tone) and dial pulse output. The TS21 also provides last number redial, and field replaceable line cords and belt clips. This Test Set, often called a "butt-in," is a self-contained, line-powered, portable handset used by installers, repair technicians, and other authorized personnel for line testing and temporary communications. This was originally a C.O. version, but its cord has now been swapped with the TS-22AL, now giving it a standard cord set. T.

TS-22 - Harris Dracon TS22 "Butt-In" test set employs an integrated circuit design to provide both DTMF and dial pulse output. It also provides last number

redial and repertory memory (auto dial) for 9 individual numbers. The TS22 is a self-contained, mutually powered (by line and 9 volt battery once off hook) combination handset. It is used by installers, repair technicians, and other personnel for line testing and temporary communications. The TS22 is equipped with an amplified speaker that amplifies the receive signal in either the talk or monitor mode. T.

TS-22AL - Harris Dracon TS22AL "Butt-In" test set employs an integrated circuit design to provide both DTMF and dial pulse output. It also provides last number redial and repertory memory (auto dial) for 9 individual numbers. The TS22AL is a self-contained, mutually powered (by line and 9 volt battery once off hook) combination handset. It is used by installers, repair technicians, and other personnel for line testing and temporary communications. This unit has an amplified speaker, Data Lock-Out. This particular one formerly had a standard cord set, but its cord set has been exchanged with the TS-21, thus making it a C.O. version. This set now is equipped with a short cord with a 346 connector at the end allowing interchangeable cord sets with 471A connectors to be used with it. Several examples of these cords are shown at the top of this document. T.

NeusesTools:

CB-54 - Pen type Contact Burnisher



N-2315 - General Numbering and Stenciling kit

N-50 - 0-50 Gram Gauge

N-58 - Bender for General Usage.

416B - Spring bender, relay

N-506A - Spring Adjuster - to put a bow in a contact to add tension

N-207 - Offset screwdriver for tightening contact spring stack screws on closely space relays and keys. Equivalent to WE 207 Screwdriver (MAG, BB, & PBX) 90 degree offset for use with the 206 tool (3)

N-536 - Spring Adjuster, general purpose relay and key spring

N-2878 Cable Sheath Ripper - removal of cover plastic on multi-conductor cables.

N-2060 - Cable ring cutting tool - cuts the jacket around the cable to a preset depth (about 3/32") For 3/16 up to 1/2 inch cables. T.

SA-9 - Armature Stop Bender equivalent to AE H-14769 (1).

SA-6 - Equivalent to AE H-88502-1 Armature Adjuster for use on Type 10 Alternating Current Relay (1)

SA-246 - Equivalent to AE H-24600-1 - Spring Adjuster for use on Horizontal (Class A) Relays

N2B (WE415B* on way)- Equivalent to WE 415B spring adjuster (CB) for use on horizontal 221 Type Relays

NL-19945 - Bender for General Usage.

NL-19946 - Bender for General Usage.

N-80223 - Gap Gauge, .030, .045, .060, .120

Wire Wrap:

KS-20827 unwrap tool (M)

KS-17593 L1, KS 16942 L2 Both unwrap tools *

635B wrap tool (M)

H1-2038 Molex Pin Extractor

Jonard:

JIC538A - Key Slot Cleaner for Payphones. Equivalent to WE and NE 538A tools.



PB-3R - Jonard Contact Burnisher set + pkg. Spare blades for cleaning relay contacts.



SA-20 Jonard - Bender.

Other Asst. Telecom Tools (Misc. Manufacturers):



Tempo Sidekick T&N (left) - same as 7B plus 5 additional measurements
Tempo E2520 TDR (right) - TDR for display of line faults and graphical display, line measurements.



DDI Transmission Test Set - Model 100P.



C.O. Stool - Made by Putman Rolling Ladder Co. Ltd. of NYC for Bell and ATT.

Tempo Sidekick 7B - The SIDEKICK 7B, which combines the functions of a Longitudinal Balance Tester with a Volt- Ohmmeter/ Kickmeter, is used to quickly determine the noise susceptibility of dry or idle working pairs.

The SIDEKICK's patented Stress Test determines the capacitive and series resistance balance characteristics of telephone pairs. When this test is activated, the SIDEKICK excites the pair in a longitudinal, or simplex fashion, through a network that is perfectly balanced between Tip and Ring.

The SIDEKICK's analog meter simultaneously measures the audible noise produced when the 90 dBrnC power influence encounters imbalances on the pair.

Metro-Tel TPM-32 Digit Grabber - tests DTMF and Pulse, displays dialed number across display. Diagnostic mode displays diagnostic info on second line.



WILCOM Products Model No. T136BSBZ-WP Circuit Test Set.



2 - Wilcom T194 Transmission Line and Noise Test sets.



BK 1045A Telephone Tester



Fairchild/Dumont Signal Generator



43-114 - Radio Shack in-store telephone tester, test dial tone, dial, loop, cords, Tx and Rx, etc.



H..F. Wilson W4496A wire wrap gun.



OK G-100/R3278 squeeze wire wrap tool



Molded HMW polyethylene Tool case, measures 18.5" x 10" x 14".

Jensen Tools L4475JT Pallet #17 and Jensen Tools G1772JTR1 Pallet #5 for above tool case.

Splicer's Scissors, no maker's name - donated by an anonymous donor who says these are 60 years old, and were used by her father.



1- Aircraft Tool Supply W403 Impact Brake Relining Tool Kit - Used to install rivets on phone cases. For 4-5S nickel finish steel tubular rivets, 150 deg countersunk head (5/16" long, 9/64" body diameter, 0.296 head diameter). Rivets can be ordered from Dennis Hallworth.



1971 Miller Equipment Climbing belt, Pole Spurs and bag, and a Jelco pole strap. for pole climbing.

Connecticut Telephone & Electric Co. - Pocket volt/ammeter designed for testing #6 dry cells in telephone service.

Aftermarket dial finger wheel removal tool (orange) with pen type cover.

187S Homs - 7-digit number stamper, designed to stamp telephone number cards.

1468-3 ATI Ind. - tool designed for removing stuck mouth and ear pieces from G type handsets (2)

HC-7 United Seal Company - Hand press for crimping lead seals on payphone coin boxes (2)

T-18 Arrow - wire stapler, shooting a special rounded staple designed for stapling cable up to 3/16" dia.

T-25 Arrow - wire stapler, shooting a special rounded staple designed for stapling cable up to 1/4" dia.

462-100 Cook Electronic 3/8 nut driver.

N.S.N. 5120-00-554-3372 - GC Electronics (General Cement) fiber cartridge-fuse puller.

UP-B22 - Benner-Nauman Booth Wrench (T) Security driver for servicing booth screws.

XSMoern RJ-11 - RJ-45 Ratcheting Crimping tool.

Several Spudgers, different manufacturers, wooden and plastic (Monarch Moldings, etc.).

4-5 - HJJ Co. Los Gatos Cal. Grabber Tool.

CGL 49112 - Guild Tip Crimping tool for crimping phone tips onto cloth cords.



31CE - National Telephone Supply Nicopress Crimping tool #31, C, E, crimps C and E size Nicopress connectors.

17-2/17-BA - National Telephone Supply Nicopress tool for A, B size Nicopress connectors for drop and station wire.



Unkown as yet - Plier type wire stretcher similar to a fencing tool. No manufacturer's marking.

QTH36B Seicor - Punch Down Tool for CO quick connect frame blocks..



4055 3M/MS - Insertion tool for SAC boxes, the light green cross connect boxes at the side of the road serving neighbourhoods



BIX Tool - Original BIX tool for Northern Telecom Bix blocks



LRC Thomas & Betts - For snap and seal connectors. There is a plastic grommet put around the wire, then you manually force the wire into the plug and this tool is used to drive the grommet into the end of the plug sealing around the cable.



3M MR1 Hand Crimping tool for Picabond Connectors - These were primarily used to splice outside plant cables and as you mentioned do in line or butt splices and it splices, cuts off excess and insulates all in one pull of the handle.



CMC 5334-A - The CMC 5334 Polar Probe is a test pick used for determining the presence of various voltages when testing equipment for trouble conditions. It detects battery, ground, ringing generator and may be used on dry reed relays and all types of solid State Circuitry.

CMC 8336 - The CMC 8336 Coin Test Set is designed to test the count collect and refund functions of older non-digital payphones. It may be used at the location of the phone, or from the Central Office. This unit was made by the Canadian Division of Communication Manufacturing Co. (Canada) Ltd., "Products and Services for the Telephone Industry", 528 Gordon Baker Road, Willowdale, Ontario, M2H 3B4. Their main address was in Long Beach California.



E-9E - 3M/Electronic Specialty Mkts. Parallel action crimping tool for UAL, UR, UY, UB Scotchlok connectors.

DLW Magic Automatic Pistol Grip Cable Stripper - for stripping cables.

Unmarked - No number, steel wedge 1/2" one end to 1/8" other end, 3" long, 3/8" wide. Used to drive stuck bits out of a hammer drive such as a Rawl drive.

Hook, push spring

HTX-202A - Crimper for telephone spade terminals. This is made to crimp D-sub computer pins and sockets on 26-28 AWG wire, butt insulated connectors 22-26 AWG wire, Telephone spade lugs 22-26 AWG wire, Non-insulated connectors for 20-22 AWG wire, and non -insulated connectors for 15-18 AWG wire. Also at the

same time, several hundred telephone spade terminals were purchased in two of the more commonly required sizes.

Strap (Antistatic) and Mat:



Test Instruments (excluding Western, Northern, and Automatic Electric):

77M Progressive Electronics Toner

467XXLMM - Progressive Electronics Leather case for 77M

200B Progressive Electronics Inductive Amp. - used with 77M (T)

Megger

RJ-11 to RJ-45 Cable Tester

Dynatel:

Dynatel 3M 573/573A Sheath Fault Cable Locator - for underground cable locating, tracing and diagnostics. An excellent lightly used unit.

Dynatel 3M 745 Digital Subscriber Loop Tester



SDC TMG-303 - Fox and Character Generator:

Digitech 2652 - Signal and Distortion Analyzer/tester:



Atlantic Research DATA TECH DTS-1-M470/483 teletype loop tester: There is a built-in FOX generator (the Quick Brown Fox Jumped over the lazy red dog - which tests all characters on a terminal), that will do baudot, ASCII, Teletypesetter, and EBCDIC, and a built in distortion analyzer.



Teletype Corp Tool Case - large fibre case with "La Corporation de Telephone de Quebec" branding.

Set 113777 - Tool set

Contains:

135675 - Roll, Tool 2

136676 - Handle

135677 - Bit, 1/4 " Socket

135678 - Bit, 5/16 socket

135679 - Bit, Disk

135680 - Bit, adjusting

Set 113756 - Tool Set open ended wrenches143-102

Contains:

135060 - Roll, Tool

154393 - Wrench, open end - 5/32"

129534 - Wrench, 3/16" & 1/4" open end

152837 - Wrench, 3/16" & 1/4" open end, 1/4 end with 15 deg. Bend

152835 - Wrench, 5/16" & 3/8" open end

129536 - Wrench, 7/16" & 1/2" open end

129537 - Wrench, 9/16" & 3/4" open end

129535 - Wrench, 5/8" & 3/4" open end

117375 Set - (I now have two of these sets) Gauge - contains snap in gauges as follows:

Thickness	Shape	Part Number
.002	Flat	96356
.002	Flat, brass	96358
.003	Flat	93833
.004	Flat	93822
.005	Flat	93823
.006	Flat	96360
.006	Round	96369
.007	Flat, phosphor- bronze	96362
.008	Round	96371
.010	Round	96373
.010	Flat	96364
.012	Round	93828
.015	Round	96375
.018	Round	93824
.020	Round	96377
.025	Round	93825
.030	Round	93811
.035	Round	96383
.037	Round	98136
.040	Round	96385
.045	Round	96389
.050	Round	96391
.055	Round	93827
.060	Round	96393

73370 - Gauge, locating used to adjust the selector mechanism on a Model 15 or 19 vintage Teletype

101082 - Wrench, 3/4 open end, offset

PK 50037 - Punched paper test tape "The Quick Brown Fox"

48102 - Punched paper test tape

Unlabelled - Punched paper test tape

402868 - Gauge, backup bar

ASR 28, ASR 33 and ARS 35 Type Code charts

84020, Puller, Bearing

1/4 inch hex speed nut tool

5/16 Snap-On Hex key

183103 - Gauge, Tape Reader

180587 - Tool, Carriage Adjusting

402617 - Gauge

402878 - Col. Tractor and Friction gauge, Gauge, Pallet depth

184098 Tool, Selector Cam Removal (2)

93814 - Tool, holds 4 round gauges, .090, .100, .110, & .120 (2)

161430 - Handwheel (2)

181465 - Adapter, Handwheel for model 33 page printer

310394 - Wiper, nozzle

178902 - Gauge, tape, advanced feel hole

156011 - Gauge, tape, inline feed hole

183103 - Gauge, tape reader

186308 - Gauge, keyboard adjusting

75765 - Hook, pull spring

75503 - Hook, push spring

142554 - Hook, pull spring

142555 - Hook. push spring
185832 - Clip, armature (2)
321071 - Clip, armature
302990 - Gauge, tape
199413 - Wrench, 3/16" & 1/4" Offset, Open End
125752 - 3/16" socket wrench
95368 - Offset end black screwdriver, adjusting
72575 - L shape Finger Bending tool
72574 - 45 degree Finger Bending tool
185829 - Bender, Contact Spring
121550 - Bender, Contact Spring
87698 - Stone, Carborundum
135679 - Bit, Disc
129534 (2) 3/16, 1/4 inch open ended wrench.

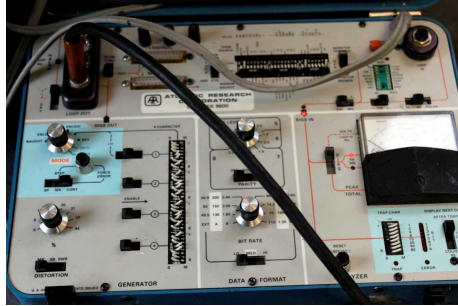
Chatillon Gram Gauges:

Chatillon 0-200 gram/0-8 ounce scale
Chatillon (TTY CORP 110443) 8 oz.
Chatillon (TTY CORP 110444) 32 oz.
Chatillon (TTY CORP 82711) 64 oz.
Chatillon (TTY CORP #?) 12 lbs.
Chatillon (TTY CORP #?) 15 lbs.
Chatillon (TTY CORP #?) 25 lbs.

Not an official Teletype tool, but none the less a very handy tool working around machines:

Klein/Vaco K46 Slotted Screw-holding screwdriver. Very useful for starting screws in awkward places.

Data-Tek 9600 - Serial loop test unit for testing modems, teletypes.



Most items identified from listings in Bell Telephone Labs Catalog X-65518-01, issue 14, April 1, 1932, and from Automatic Electric Technical Bulletin 150-540, issue 10, ATM, Etelco Cat. 60, and Teletype Maintenance Tools, Teletype Corporation Section 570-005-800TC, Issue 6, Aug. 1977.

These Items do not represent all items made by these manufacturers, only those currently in the Museum's growing tool collection.

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