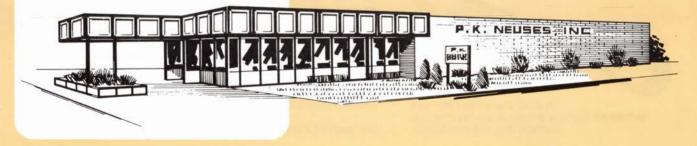
# Neuses, Inc.

E)	
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SMALL TOOLS
for the
COMMUNICATION
TELEPHONE
and
ELECTRONIC
INDUSTRIES





P. K. NEUSES, Inc.

Plant: 1401 Rohlwing Road, Rolling Meadows, Illinois 60008 Mail: Box 100, Arlington Heights, Illinois 60006 Telephone: (312) 253-6555

**CATALOG 80A** 



N-62267 Cable Sheath Slitter with 2 blades. Size: 6" x 1½". Weight: 2 ozs. N-62267A Pkg. of 6 extra blades.

### N-62267 CABLE SHEATH SLITTER

For slitting most types of cable jackets. Especially good for most of the outdoor, heavy-duty types of cable sheathing.

The slender but tough and very sharp hook blade digs in between sheathing and wires and with the side supports permits most accurate jacket stripping. Handles large and small diameter cables equally well.

The forked ends of the tool are made of ductile aluminum and may be carefully bent (to expand the opening between forked ends) to fit many cable sizes.

The razor sharp hook lets you cut into cable at any point without previously notching, thereby avoiding hazard to wires inside and your hands.

An extra blade is included (as shown). Blades are easily changed. The two screws that hold blade in cutting position also secure the extra blade with its cutting end protected until put into position for use.



N-2878 Cable Sheath Stripper. Size: 6" x 3". Weight: 41/4 ozs. N-2878B Blade Guide Retainer N-2878H Pkg. of 6 extra blades.

## N-2878 CABLE SHEATH STRIPPER

For stripping the jacket from all sizes of plastic and fabric covered cable. Red, rigid, phenolic handle equipped with a razor blade at one end with an "L" shaped hardened steel guide and blade guard. Handle shaped to fit worker's hand and so constructed that hand is fully protected from skinned knuckles through contact with the cable jacket. Stainless steel saddle with heavy nickel plated screws and screw bushings hold the guide and blade in place.

Operator holds **Cable Sheath Stripper** in one hand and guides cable with the other. Cable jacket is slit neatly and cleanly without damage to wire or insulation.

Blade may be reversed for new cutting edge. Two extra blades carried in slot in handle under name plate. Blades are standard Schick Injector blades—inexpensive—easily obtainable.



N-2060 Cable Tool (.031" cut)
N-2060-18 Same as N-2060 except has .018" cut.
N-2060A Pkg. of 6 extra blades.

### N-2060 CABLE TOOL

For "ring" cutting the sheathing of *inside type* plastic, fabric or rubber covered cable. Cut through sheathing *limited* to 1/32" (or .018", see below).

Cable is pushed into tool and against the spring. Back pressure holds the cable against the cutting blade. An accurate .031" (or .018") deep cut is made when the tool is rotated around the circumference of the cable.

This tool is most practically suited for the customary *inside type* 3/16", 1/4", 3/8" or 1/2" cables, but will handle thin sheathed cable up to 1" in diameter.

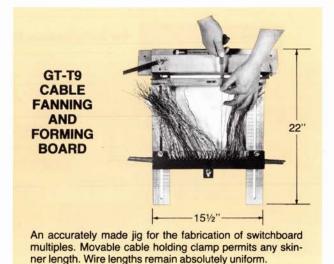
The N-2060 Cable Tool is often used with the N-62267 Cable Sheath Slitter (above) to split the sheathing lengthwise after the circular cutting.

See page 4 for complete kit of cable terminating tools.



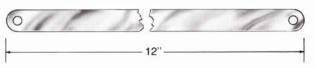


Has special top cutting edge for wires and cables, and the longer bottom blade, shaped to prevent damage to conductors, serves as a cutting guide. Removes plastic and rubber-like jackets from all diameter cables. Cuts off fillers and is ideal for use on shielded and non-round cables.



73/4"

**N-90872 PROTECTOR RETAINER CLAMP** (3800 Cook Protector) Sturdily made of varnished hard maple, plated metal parts.



N-284 STRAIGHT METAL NEEDLE (Chicago Type) Intended for use as a cable sewing needle, 1/64" thick.



N-289 METAL HOOK (Weco. 289)
For dressing skinners to relays and resistances. Insulated handle.



# N-1000 WIRE STRIPPER

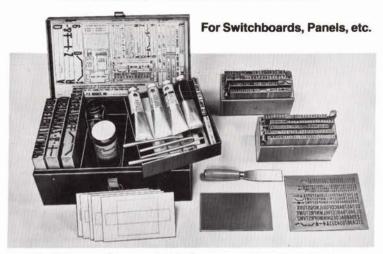
Strips wire, cuts wire, gauges wire sizes, crimps terminals, shears bolts clean, measures stud sizes. Red plastic covered handle. 71/2" long.



N-724A WIRE REMOVAL TOOL (Aeco 10731-A) Wire removal tool for quick connect terminal blocks. Slot width .050/.053. Red plastic coated (insulated) handle.

# N-2500 AERIAL DROP WIRE SLITTER Gives optimum performance with minimum of effort, even at low temperatures, on any parallel 2-conductor cable. Easy-to-use—slip cable into slot and pull. Rollers immediately place cable in parallel position and knife blade cuts through the exact center between the conductors. Cut made straight and evenly—wires remain fully insulated. N-2500A Package of 3 extra blades.

# N-2315 NUMBERING AND LETTERING KIT



Contains everything needed for the permanent marking of various switchboard panels, junction boxes, sub-assemblies and chassis.

Indispensable in the laboratory, specialty department or in the field for marking those "very few of a kind" switchboard and other electronic assemblies. Not intended for production marking.

Ideal for marking cables and wire or any place a permanent, non-fading, vivid, easy-to-read, clean marking is required. No tapes to come off. Special formula oil-base heavy stamping inks dry with clear brilliance and can be used for marking practically any background material.

### CONTENTS

Peg rubber stamps: 3/4", 3/8", 1/4", 3/16", 1/8".

Peg stamps: A-Z, numbers and symbols.

Peg stamp repair sets: 3/8", 1/4", 3/16", 1/8". Adhesive backed for attaching to pegs.

Fuse capacity stamps: 3/8" and 3/16".

Tubes of heavy opaque stamping inks. Colors: White, Black, Yellow, English Vermillion (Red).

Inking plate, knife and brush for spreading ink, fluid for cleaning inking plate, peg stamps and unwanted markings.

Neatly housed in sturdy steel carrying case. Case size: 13%" long x 7½" wide x 5" deep.

Replacement parts and additional supplies available.

# TK-18 RELAY SERVICE TOOL KIT

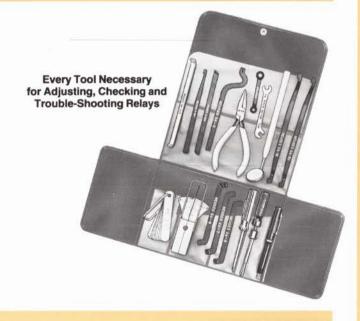
From the time that relays first came to be, there has always been a need for a set of specially designed tools to adjust them. Not a lot of make-shift gadgets that a fellow might happen to have in his tool box, but a set of tools exactly suited for any job of adjusting, checking, trouble-shooting, etc., all types of relays.

The **TK-18 Tool Kit** comes complete with every tool listed below—thickness gauges, a spring tension gauge, a contact burnisher—everything you could wish for to do the job fast and efficiently.

A new 8-page instruction booklet on "How to Service Relays" is available without charge. Send your request to P. K. Neuses, Inc., P.O. Box 100, Arlington Heights, Illinois 60006.

**TK-18 Tool Kit**—Vinyl plastic case with pockets, instruction booklet and one each of the following tools:

SA-6	SA-9	N-50	N-206	N-376A	CB-5
SA-7	SA-18	N-84	N-207	N-474A	N-82-13
SA-8	SA-32	N-96	SA-246	N-3216	N-1253





# TK-2 CABLE TERMINATING TOOL KIT

A complete set of tools specifically designed for cable sheath slitting, ring cutting, lacing, sewing, parallel drop wire slitting, switch or panel board terminating—everything needed for cable work.

The **TK-2 Cable Tool Kit** comes complete in a handy vinyl carrying case and is perfect for use in either the Central Office or in the field.

The kit consists of one each of the following tools: N-2878 Sheath Stripper, N-62267 Sheath Slitter, N-2060 Ring Cutting Tool, N-287 Curved Sewing Needle, N-287-7S Straight 7" Sewing Needle for longer reach, N-2257 Wire Loop Lacing Needle, N-2500 Aerial Drop Wire Slitter and N-284 Straight Flat Metal Sewing Needle.

A complete description of each tool can be found on pages 2 and 3 of this catalog.

### **SPRING TENSION GAUGES / DYNAMOMETERS**

**Extremely Accurate for Setting or Checking** Tension of Relays and Other Springs

Well Made • Accurately Calibrated Definite and Dependable • Easy to Hold

Construction — Non-magnetic stainless steel frame with scale calibrated front and back. Indicating spring. Folding handle. Adjustable tension attachment.

N-10 (Weco. 70F) 10-0-10 grams, 1 gram steps. N-30 (Weco. 70H) 0-30 grams, 2 gram steps.

N-50 (Weco. 70D) 50-0-50 grams, 5 gram steps. (Included

in TK-18 Tool Kit).

N-150 (Weco. 70J) 0-150 grams, 5 gram steps.

N-300 0-300 gram range, 10 gram steps.

# FOR HEAVIER SPRINGS

N-700 (Weco. 62B) 0-700 grams range, 50 gram steps. STG-2-Z

Range: 0 to 23/4 lbs. in ounces, and 0-1200 grams in 100 gram divisions.

N-2000 Range: 0 to 5 lbs. in ounces, and 0-2000 grams in

100 gram divisions.

Grams (units of weight of the metric system) may be converted to ounces avoirdupois by this table:

> 1/4 ozs. = 7.087 grams 1/2 ozs. = 14.175 grams

1 ozs. = 28.350 grams

3 ozs. = 85.050 grams

7 ozs. = 198.450 grams

10 ozs. = 283.500 grams

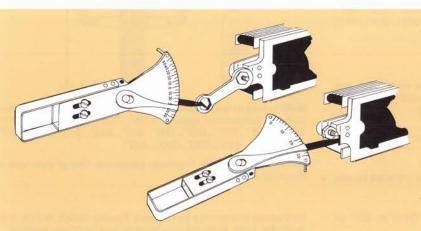
16 ozs. = 453.600 grams



GRAMS P.K.NEUSES, INC. ARLINGTON HTS., II

N-300

Size: 41/2" x 13/4"

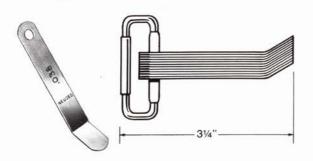


# **THICKNESS GAUGES**

Thickness Gauges of hardened, tempered, bright polished spring steel—U.S. Government Bureau of Standards accuracy rigidly adhered to. Our Thickness Gauges are made of the finest grade steel. They will withstand long wear. Sizes are permanently etched on each blade.



**N-74D** (Weco. 74D) Thickness gauge set with rounded end leaves 1¾" long by ¼" wide on **N-131R** ring. Readily removed and replaced. 13 leaves: .0015", .002", .003", .004", .005", .006", .007", .008", .009", .010", .011", .012", .018".



**N-82-43** Thickness gauge set. One of each size as shown on **N-131R** ring. Individual leaves, rounded end offset type, ½" wide by 3" long with 30° offset 11/16" from end, in stock in these thicknesses, specify: .0015", .002", .0025", .003", .004", .005", .006", .007", .008", .009", .010", .011", .012", .013", .014", .015", .016", .017", .018", .019", .020", .021", .022", .023", .024", .025", .026", .027", .028", .029", .030", .031", .032", .033", .034", .035", .036", .037", .038", .039", .040", .045", .050".

**N-82-13** Thickness gauge set. 13 **N-82** leaves on **N-131R** ring. .0015", .002", .003", .004", .005", .006", .007", .008", .009", .010", .011", .012", .018". (Included in **TK-18 Tool Kit**.)

**N-82-15** (Weco. KS6938) Thickness gauge set. 15 **N-82** blades .026" to .040" on **N-131R** ring.

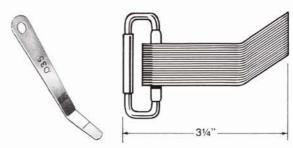
N-82-25 (Weco. KS6909) Thickness gauge set. 25 N-82 blades. .0015" to .025" on N-131R ring.

N-82-37 Thickness gauge set. 37 N-82 blades .0015" to .037" on N-131R ring.

# **NON-MAGNETIC STAINLESS STEEL BLADES**

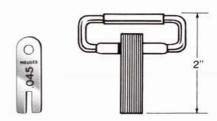
N-82-SS-25 Thickness gauge set. Same as N-82-25 except .0015" to .010" blades are of Type 301 non-magnetic SS blades. .011" to .025" are standard (magnetic) thickness gauge steel. On N-131R ring.

**N-82-SS** Individual non-magnetic SS leaves available. .0015", .002", .003", .004", .005", .006", .007", .008", .009", .010".



**N-88** Individual leaves, tapered, rounded end offset type, ½" wide by 3" long tapered down to ¼" wide, 35° offset 1" back from narrow end, scribe line .375" back from narow end. In stock in these thicknesses, specify: .0015", .002", .0025", .003", .004", .005", .006", .007", .008", .009", .010", .011", .012", .013", .014", .015", .016", .017", .018", .019", .020", .021", .022", .023", .024", .025", .026", .027", .028", .029", .030", .031", .032", .033", .034", .035", .036", .037".

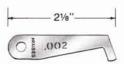
N-88-37 Thickness gauge set. One of each size .0015" to .037" on N-131R ring.



**N-90** Individual leaves, straddle type,  $\frac{1}{2}$ " wide by  $\frac{1}{2}$ " long in stock in these thicknesses, specify: .0015", .002", .0025", .003", .004", .005", .006", .007", .008", .009", .010", .012", .013", .015", .017", .020", .023", .025", .030", .040", .045".

**N-90-21** (Weco. 66D) Thickness gauge set. One of each size as shown on **N-131R** ring.

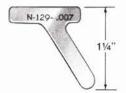
Individual leaves may be ordered. Specify series: N-74D, N-82, N-82-SS, N-88, N-90. Be sure to state leaf thickness wanted.



N-92A	(Weco. 92A)	Thickness gauge, dog leg .010" thick.
N-92D	(Weco. 92D)	Thickness gauge, dog leg .018" thick.
N-92H	(Weco. 92H)	Thickness gauge, dog leg .025" thick.
	(Weco. 92P)	Thickness gauge, dog leg .003" thick.
N-92R	(Weco. 92R)	Thickness gauge, dog leg .0015" thick.
N-92S	(Weco. 92S)	Thickness gauge, dog leg .002" thick.



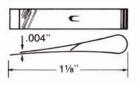
**N-117A** (Weco. 117A) Thickness gauge, double end, .006" and .008". Double end flat limit gauge intended for use in measuring the clearance between the rotary pawl and the rotary pawl front stop of Nos. 197 and 198 type switches.



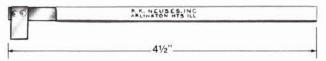
**N-129A** (Weco. 129A) Airline thickness gauge .007". For use in checking the gap between the heel piece and armature of 247 and 248 type relays.



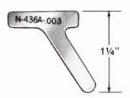
N-131R Sliding member ring for gauges, keys, etc.



**N-133A** (Weco. 133A) Thickness gauge for use in gauging stud gaps in U & Y type relays.

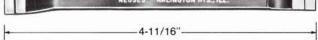


**N-134A** (Weco. 134A) Thicknes gauge. Flat blade in an insulated handle for adjusting separation of the normally open contact of the make before break springs of U & Y type relays. .010" thick.



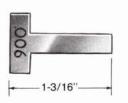
 $\mbox{N-436A}$  (Weco. 436A) Thickness gauge. Airline T gauge .003" for use on R & T type relays.



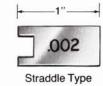


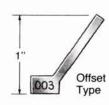
N-80223 (Weco. 80223) Double ended thickness gauge. Has 2 steps .030" and .045" at one end and .060" and .120" at other end. For adjusting release armature on SXS switches (Strowger switches).

# Airline Gauges Cat. No. 90410 (formerly EE-AM-90410)









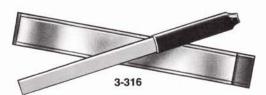
Cat. No.	Detail No.	Thickness
N-90410	Det. 1	.003"
N-90410	Det. 2	.0015"
N-90410	Det. 3	.0015"
N-90410	Det. 4	.004"
N-90410	Det. 5	.003"
N-90410	Det. 6	.006"
N-90410	Det. 7	.002"
N-90410	Det. 8	.0015"
N-90410	Det. 9	.004"
N-90410	Det. 10	.006"
N-90410	Det. 14	.005"

Shape	Use
Offset	Type 58 relays
Offset	Type 58 relays
"T" large	Type 45 relays
"T" large	Type 45 relays
"T" small	Type 57 relays
"T" small	Type 57 relays
Straddle	Type "CODEL" relays
"T" small	44 type Rt/sw.
"T" small	44 type Rot/sw.
"T" large	5.5%

"T" large

# "NON-RESIDUAL" CONTACT BURNISHERS CONTACT CLEANING TOOLS

Designed for any type contact—silver, platinum, gold, palladium, tungsten, molybdenum—all precious metal contacts. These "non-residual" tools leave no filings, grit, dust or film on contacts to start a new carbonaceous build-up. They are economical and flexible, with enough stiffness to apply the right pressure to the contact face offering minimum wear on costly contacts. Insulated plastic handles eliminate possible shocks or shorts when working on live contacts. The microfine abrading element texture leaves contacts smooth, clean and without residue. These burnishers have been proven successful by leading instrument manufacturers as the only tool to use in cleaning contacts for longer life and fewer service complaints.



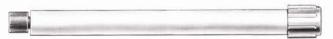
**3-316** Overall length 3" in balance with 2" long blade. 3/16" width by .007" thickness lets you get into cramped places. For best efficiency, each tool is in a vinyl case for protection from grease and moisture. Quantity users (1000 or more) may have name embossed at low per piece cost. Standard package contains 50 contact burnishing tools.

3-316S-10 Sample trial package of 10.



N-318 Heavy duty type with greater contact burnishing area. Blade is ¼" wide, .010" thick and 3¼" long. Standard package contains 50.

N-318S-10 Sample trial package of 10.



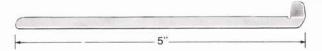
N-373D (Weco. 373D) For holding and storing N-374A, B and C burnisher blades. Insulated handle with holding chuck.



**N-374A** (Weco. 374A) Burnisher blade for cleaning contact points. Use with **N-373D** holder. .018" thick, tapered ends.



N-374B (Weco. 374B) Burnisher blade for use with N-373D holder. .018" thick, tapered end.



N-374C (Weco. 374C) Burnisher blade for use with N-373D holder. .018" thick, tapered end.



# **POCKET TYPE WITH REPLACEABLE BLADES**

Handy and practical, with pocket clip and magazine of extra blades. Blades fit into chuck at end of barrel. Practically any degree of blade rigidity is possible by varying depth of blade in chuck. Reservoir for extra blades at other end. Black plastic barrel and cap permits working on live contacts. 41/4" long x 3/8" diameter overall. Blades are 11/64" wide x 11/2" long.

CB-5 Contact burnisher with 6 (No. 266B) .007" thick blades. (Included in TK-18 Tool Kit.)

CB-54 Same as CB-5 except has 6 (No. 466B) .0035" thick blades.

CB-6 Same as CB-54 except also contains 6 (No. 266C) round ended abrasive rods.

CB-7 Same as CB-5 except has 6 (No. 566B) new smooth satin finished blades.

266B Extra .007" blades. Packge of 100 blades.

**266BM-25** Minimum package 25 — .007" blades.

**266C** Round ended abrasive rods for cleaning concave contacts. 1¼" long x .022" diameter with mildly abrasive balls at ends. Fits **CB-5** or **CB-54**. Minimum package 50 rods.



N-266E .004" thick burnisher blades. Fits our CB-5 and CB-54 holders.

N-266E-25 Minimum package 25 — .0035" blades.

466B Extra .0035" blades. Package of 100 blades.

466BM-25 Minimum package 25 — .0035" blades.

566B Extra .007" satin finished blades for CB-7. Package of 100 blades

**566BM-25** Extra .007" satin finished blades for **CB-7**. Package of 25 blades.

# SPRING, ARMATURE, ETC.



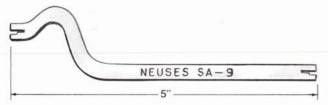
SA-6 (Aeco. H-88502-1) Adjuster, armature with oblique slots tapered from .115" to .130" wide by .047" deep. (Included in **TK-18 Tool Kit.**)



**SA-7** Adjuster, armature with oblique slots .088" wide by .047" deep. (Included in **TK-18 Tool Kit.**)



**SA-8** (Weco. 597A) (Aeco. H-14768) Adjuster, armature with 3 oblique slots .1094" wide by .047" deep. (Included in **TK-18 Tool Kit**.)



**SA-9** (Aeco. H-14769) Armature stop adjuster with .064" slots stepped down to .032" each end. (Included in **TK-18 Tool Kit.**.)



**SA-18** (Aeco. H-42873) Spring adjuster, offset with .018" lengthwise slots, insulated handle. (Included in **TK-18 Tool Kit.**)



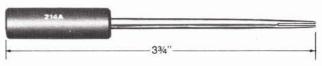
**SA-32** (Aeco. H-20777) Spring adjuster, offset with .032" lengthwise slots, insulated handle. (Included in **TK-18 Tool Kit**.)



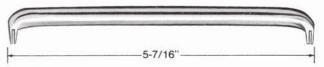
N-58 (ITT 58()770) Double end spring adjuster  $\mbox{\upshape $\mu$}$  offset .023" and .025" slots.



N-88 (Stromberg 88) Fast bending tool, .036" slot, offset 30°.



N-214A (ITT 214A) Similar to N-363 except has .018" slot 7/16" deep. See page 10.



**SA-246** (Aeco. H-24600-1) Adjuster tool .040" and .028" slots. (Included in **TK-18 Tool Kit.**.)



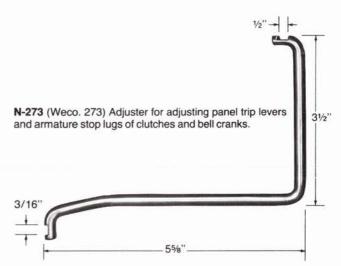
N-259 (Weco. 259) Spring adjuster .031" slot. Insulated handle.



N-268 (Weco. 268) Double end, spring adjuster .025" slots. Insulated handle.



N-272 Adjuster tool. 33/4" long, slot size .021", handle 21/2".





N-143 Spring adjusting tool 3" long, slot .014", leaf springs.



N-303 (Weco. 303) Armature adjuster 3" long, .038" slot.

N-203 Spring adjusting tool 3" long, slot .020", leaf springs.



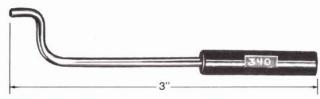
N-325B (Weco. 325B) Clutch trip lever adjuster. Slots .080".



N-326B (Weco. 326B) Tool for holding trip lever of clutches. Slots .080".



N-332 (Weco. 332) Retractile spring lug adjuster—horizontal trip rods. Slots .072".



**N-340** (Weco. 340) Armature and contact airgap adjuster (polarized relays).



**N-363** (Weco. 363) Adjuster tool with 1/8" round shank tapering down to .018" wide slot that is 3/16" deep.



**N-363B** (Aeco. 363B) Similar to **N-363** except has .022" slot 13/64" deep and 22° offset.



**N-371** (Weco. 371) Spring adjuster, single end, .057" slot, insulated handle.



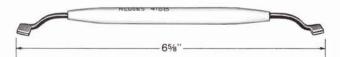
**N-390** (Aeco. H88390-1) Double end adjuster, type 26 for lever key adjusting. Slot sizes .034" and .023".



**N-405A** (Weco. 405A) Drift tool in adjusting position of line bank combs and plunger type primary, secondary and out of trunk switches.



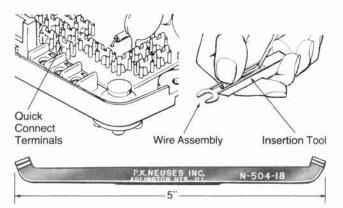
**N-415B** (Weco. 415B) Contact spring adjusting tool. Intended for use in the maintenance of horizontal type relays in step-by-step dial telephone systems. .020" slots.



N-416B (Weco. 416B) Same as N-415B except has .035" slots.



**N-493** (Automatic Electric BT-900493-SP) Insertion tool for AMP "Spanish terminal". 31/2" long. For use when inserting the spade terminal leads into the quick-connect terminals.



N-504-18 (Aeco. H-88504-2) Oblique, offset, double ended spring adjuster with .018" wide slots.



N-504-34 (Aeco. H-88504-1) Same as N-504-18 except has .034"



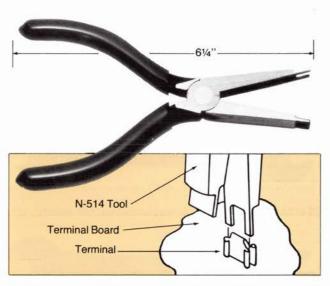
N-505A (Weco. 505A) Spring adjuster .014" slot. Insulated handle.

N-506A (Weco. 506A) Spring adjuster .024" slot, 1/4" deep. Insul-

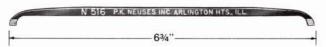
N-506B (Weco. 506B) Spring adjuster .024" slot, 3/16" deep. Insulated handle.

N-507A (Weco. 507A) Spring adjuster .032" slot. Insulated handle.

All tools above are the same as N-505A except for slot and depth



N-514 (Automatic Electric CT-900514-SP) Receptacle adjusting tool used to resize terminals in 80E telephone set. 61/4" long. Fingers of tool are inserted into terminal until fingers contact terminal board. Handles of pliers are then squeezed together firmly to resize.



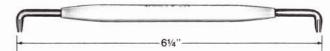
N-516 (Aeco. 12861) Chisel edged, double ended spring adjuster with .016" wide offset lengthwise slots.



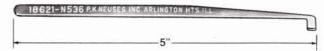
N-524A (Weco. 524A) Spring adjuster, .015" slot, for adjusting the outer movable spring of No. 245 and 254 relays. Insulated handle.



N-524B (Weco. 524B) Spring adjuster, .015" slot, used with N-524A above. Insulated handle.



N-534 (Weco. C-653431) Double ended adjuster with smoothly polished slots .034" wide x 1/4" deep for contact and multiple springs of crossbar switches. Insulated handle.



N-536 (Aeco. 18621) Chisel edged, single ended spring adjuster with .036" wide slot, lengthwise.



N-582A (Weco. 582A) Spring adjuster for adjusting the tongs of the springs which rest on the spoolhead of "VA" type relays. .035" slots. Insulated handle.



N-1631 Adjuster tool with crosswise slots, one slot .016" wide and other slot .031" wide.



N-19945 Double end adjuster for 400 type relays, .017" slots.



N-19946 Double end adjuster for 400 type relays, same as above except .035" slots.

# Need a special tool?

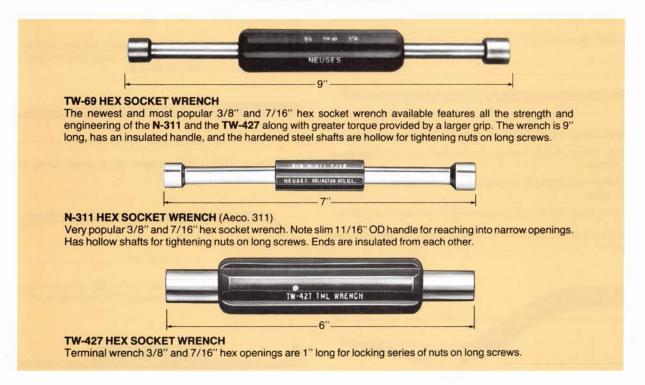
Send P. K. Neuses, Inc. your blueprint, specifications and quantity . . .

We'll review and send quote. For further information on special tools call:

(312) 253-6555

12

# HEX, BOX, OPEN END, ETC.





N-24 (Stromberg 24) Double socket wrench and screwdriver 1/4" and 3/16" hex.

N-72 (Weco. 72) Double socket wrench and screwdriver 3/16" and 5/32" hex.

N-48 (Weco. 48) (Aeco. H-883772-1) Double socket wrench and screwdriver 7/32" and 1/4" hex.



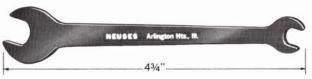
N-43 (Weco. 43) Double open end wrench 3/16" and 1/4".



N-74 (Weco. 74) Double open end wrench 5/32" and 7/32".



**N-110** (Weco. 110) Double end socket wrench for 9/32" and 5/16" hex nuts.



N-417A (Weco. 417A) Double open end wrench 1/4" and 3/8", 15°.



**N-418A** (Weco. 418A) Double open end wrench 7/32" and 5/16", 15°.



N-474A (Weco. 474A) Box wrench, 2% "long, offset, 1/4 " and 3/16 " hex. (Included in TK-18 Tool Kit.)



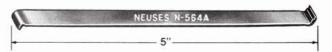
**N-476A** (Weco. 476A) Hex socket wrench for 3/16" nuts used in adjusting armature mounting screws of 247 and 248 type relays.



**N-3216** Open end wrench, 3" long, 1/4" opening at 15°, 7/32" opening at 60° end. (Included in **TK-18 Tool Kit.**)



N-40 (Weco. 40) Double screwdriver for use with drops, offset, 021"



N-564A (Weco. 564A) Offset screwdriver 45° for No. 6 screws.



**N-42** (Stromberg 42) Screwdriver for switchboard plugs. Has point for engaging "hole-in-head" screws.



N-1253 Screw-holding screwdriver 1/8" x 3" plus handle. (Included in TK-18 Tool Kit.)



N-96 Screwdriver, precision, No. 0, for Phillips head screws. (Included in TK-18 Tool Kit.)



N-1734 (Stromberg 93) Screw-holding screwdriver 5/32" x 4" plus handle.



**N-206** (Weco. 206) Offset screwdriver 30° for mounted relay screws and general use. Blade ends .028" thick and ¼" wide. (Included in **TK-18 Tool Kit.**)



**NL-15049** New offset screwdriver for slotted small screws in confined quarters. Has .015" bit width for smallest of screw slots. Lets you reach into aperture small as 9/32". Hardened and stress relieved for maximum toughness.



**N-207** (Weco. 207) Offset screwdriver used with **N-206** for mounted relay screws and general use. Blade ends .028" thick and ¼" wide. (Included in **TK-18 Tool Kit.**)



N-576099 (North 576099) Offset Phillips screwdriver No. 1.



N-563A (Weco. 563A) Offset screwdriver 90° for No. 6 screws.

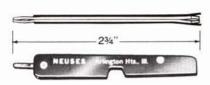


N-136B (Weco. 136B) Cut-over tool for holding the armature of flat type relays in either the operated or non-operated position. Package of 10.





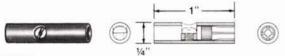
N-411C (Weco. 411C) Adjustable test probe, insulated handle.



N-357 (Weco. 357) Clip, for making connection to the springs of A and B type sequence switches. Also used for making connections to the springs of various other types of apparatus.



N-419A (Weco. 419A) Test connector, used with No. 360 type tools for test connections to spring and relay terminals.

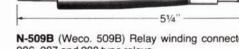


No. 360 Type

Nos. 360A, 360B and 360C: spring chucks. Used in conjunction with Nos. 361B, 364 365 or 419A tool; arranged to attach to Nos. 893, W1C, W1H, W1J, W1L, W1M or similar cords. Shells of insulating material colored as indicated: 360A-Red, 360B-Black, 360C-White.



N-509A (Weco. 509A) Relay winding connector for use with U & Y type relays.



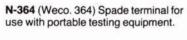
N-509B (Weco. 509B) Relay winding connector for use with No. 286, 287 and 288 type relays.

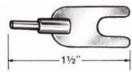


N-548A (Weco. 548A) Used in making test connections on holding magnets on Nos. 300, 301, 302 and 303 type switches. Insulated handle.

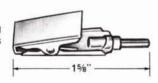


N-361B (Weco. 361B) Connector for making connection to the winding terminals of E, F, H, R and T type relays.





N-365 (Weco. 365) Connecting clip used with No. 360 connectors for portable testing equipment.



N-2348 (Weco. KS-2348) (Aeco. H-883182-1) Screw guiding screwdriver for small "hole-in-head" screws. Retractable guide pin simplifies screw insertion and removal.

N-2348B Replacment screwdriver blades for N-2348 screwdriver. N-2348J Pointer and shaft assembly.



N-14162 (Weco. KS14162) 11" brushes. Package of 10.

N-14164 (Weco. KS14164) 11" brushes. Package of 10.

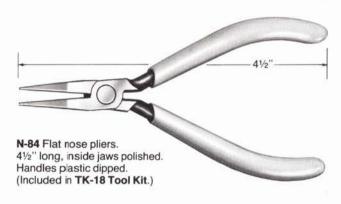


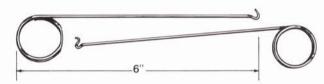
N-2969 (Weco. R2969) 6" brushes. Package of 10.

# TCI Library www.telephonecollectors.info



**N-28** (Weco. 28) Phone plug gauge. ¼" thick plug gauge, tip .160", dead collar .236", sleeve .242".





N-120 Pull "Teletype" style tool for relay coil springs or any other "reach-in" use.

N-125 Push, same as above except push type.

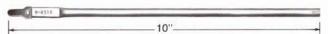


**N-313D** Heat coil pliers. Nose-shaped for handling heat coils of protectors or inserting and extracting coils, fuses and other cylindrical shaped components. Insulated dipped plastic handles are designed for "no-pinch" clearance.



**N-376A** (Weco. 376A) Inspection mirror, magnifying. Has  $\frac{1}{4}$ " diameter handle with  $\frac{1}{8}$ " diameter mirror on 45° angle. (Included in **TK-18 Tool Kit.**)

N-376B (Weco. 376B) Same as above but with 3/4" mirror.



N-451A (Weco. 451A) Terminal cleaner of plunger trip lineswitch banks



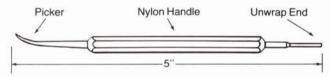
**N-557A** (Weco. 557A) Plug cushion placing clip used for applying cushions (rubber grommets) on switchboard plugs.



N-647 Bare wire strapping tool. Use to speed and simplify strapping bare wire from terminal-to-terminal. Tool is held in the hand like a pencil—gives fingertip accuracy and consistency—reduces unnecessary hand movements. Feed No. 22-gauge wire (or similar size) directly from the spool through center hole running full length of the tool. Lead wire into back end—feed out directly to the work from the insulated front end. 6" long.



N-1102 (Weco. R1102) Spudger, pencil type.



**N-2830** Combination hand unwrap and "picker" tool for wire wrapped connections. Working ends are of stainless steel for 28-30 gauge wire. Unwraps right and left hand connections. Picker end has a correctly designed pick for lifting unwrapped wires safely without damaging insulation or neighboring connections. The handle is made of Delrin.



**N-3328** Unwrapping tool. Hand operated tool for removal of 22 or 24 gauge wire from terminals. Retractable sleeve protects extractor head. Insulated handle and tip. 6%" long.



N-6320 (Weco. KS6320) Orangewood stick. Package of 10 pieces.



 $\mbox{N-570679}$  (North 570679) Magnetic shunt for adjusting polar relays in registers.  $11\!\!/\!\!4^{\prime\prime}$  long.

### N-2403 CABLE AND CONDUIT LOCATOR

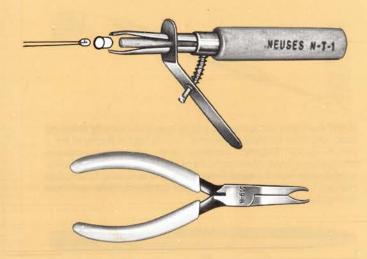
The N-2403 probe offers fast, easy penetration of ground and positive location of underground objects with its highly machined stainless steel tip. The probe is not intended to replace existing cable or conduit locators—it is a practical, inexpensive tool that needs no special care. It will add safety and increase production of your power digging equipment. The N-2403 Cable and Conduit Locator comes complete in sturdy tube, ready to use. It is available in 3', 4', 5' and 6' sizes with 3' extensions for extra length as needed.

N-2403	3 Foot Locator (Complete)
N-2404	4 Foot Locator (Complete)
N-2405	5 Foot Locator (Complete
N-2406	6 Foot Locator (Complete)
N-240-X	3 Foot Extension

N-240-T Tip

N-240-H 8" Handle N-240-XC Extension Coupling



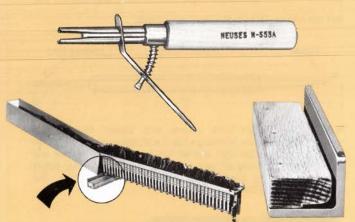


# **N-T1 MICRO-MINIATURE EXTRACTOR**

Specially designed for those "grain of wheat" lamps of 1/8" diameter (T-1 type) with wire terminal bases. New extractor safely extracts the micro-miniature lamps as well as lamp caps from control panel assemblies. Features the same specifications as the N-553A extractor but has a specially designed front and end receiver for the micro-miniature lamps.

# N-319B LAMP CAP EXTRACTOR (Weco. 319B)

Specially designed to extract switchboard lamp caps. Handles are plastic dipped. Length 5%".



### N-553A LAMP EXTRACTOR (Weco. 553A)

Firmly and gently grasps miniature lamps with bayonet-type bases. Overall length is 4%" with  $\frac{1}{2}$ " diameter handle. Area of lamp grasp is limited to  $\frac{3}{4}$ " to prevent shorting.

### N-4080 SUPPORT BRACKET

Designed specifically for the Leich 40B and 80A PABX systems, this new support holds the bar firmly in the open position during maintenance and inspection. The **N-4080 Support Bracket** eliminates the chance of the bar falling on its side, which invariably happens without support, causing relays and contacts to become dislodged.

Terms: 30 days net. F.O.B. factory, Rolling Meadows or Arlington Heights, Illinois.

Please file claims with carrier for damage, broken boxes, etc. Please pay from invoice. Statements sent upon request only.

Our prices are in accordance with current price regulations as set forth by the U.S. Government. Manufacture of merchandise and performance of services ordered are in full compliance with all sections of the Fair Labor Standards Act of 1938, as amended.

# Neuses, Inc.

TELE/COMMUNICATION TOOLS

Plant: 1401 Rohlwing Road, Rolling Meadows, Illinois 60008 • Telephone: (312) 253-6555

Mail: P.O. Box 100, Arlington Heights, Illinois 60006



# SMALL TOOLS FOR THE COMMUNICATIONS TELEPHONE AND ELECTRONICS INDUSTRIES



Price List for Catalog 80A — Effective September 1, 1979

PAGE 2				
N-62267	Cable Sheath Slitter	5.62	N-92P	Thickness Gauge, Dog Leg .003" Thick94
N-62267A	Extra Blades (Pkg. of 6)	4.52	N-92R	Thickness Gauge, Dog Leg .0015" Thick94
N-2878	Cable Sheath Stripper	9.96	N-92S	Thickness Gauge, Dog Leg .002" Thick94
N-2878B N-2878H	Blade Guide Retainer Extra Blades (Pkg. of 6)	1.86	N-117A N-129A	Thickness Gauge, Double End
N-2060	Cable Ring Cutting Tool	8.98	N-131R	Airline Gauge, .007"94 Sliding Member Ring20
N-2060A	Extra Blades (Pkg. of 6)	.84	N-133A	Thickness Gauge, .004"
N-2060-18	Cable Ring Cutting Tool, .018" Cut	8.98	N-134A	Thickness Gauge, Flat Blade 3.18
N-2060-18A	Extra Blades(Pkg. of 6)	.84	N-436A	Airline Gauge, .003"
N-287 N-287A	Curved Cable Lacing Needle	3.02 6.56	N-80223 N-90410-1	Double Ended Step Gauge
N-287-7S	Straight Cable Lacing Needle, 7"	3.02	N-90410-1	Detail 1, .003" Offset       1.28         Detail 2, .0015" Offset       1.28
N-287-7SA	Extra Blades (Pkg. of 6)	6.56	N-90410-3	Detail 3, .0015" "T" 1/4
N-2257	Cable Wire Puller	3.22	N-90410-4	Detail 4, .004" "T"
N-2257A	Extra Wire Loops (Pkg. of 6)	4.92	N-90410-5	Detail 5, .003" "T"
N-2257-XL	Extra Long Reach Wire Puller	4.48	N-90410-6 N-90410-7	Detail 6, .006" "T"
PAGE 3			N-90410-8	Detail 8, .0015" "T"
N-2077	Cable Jacket Remover	13.52	N-90410-9	Detail 9, .004" "T"
N-90872	Protector Retainer Clamp	7.20	N-90410-10	Detail 10, .006" "T" 1.20
N-1000	Wire Stripper	7.45	N-90410-14	Detail 14, .005" "T" Ige
GT-T9 N-284	Cable Fanning Board	1.98	PAGE 8	
N-289	Metal Hook	1.34	3-316	Contact Burnishing Tools
N-724A	Wire Removal Tool	4.72		(Std. Pkg. of 50), each piece
N-2500	Aerial Drop Wire Slitter	7.78	3-316S-10	Contact Burnishing Tools (Pkg. of 10) 4.25
N-2500A	Extra Blades (Pkg. of 3)	2.88	N-318	Heavy Duty Contact Burnishing Tools
PAGE 4			N-318S-10	(Std. Pkg. of 50), each piece
N-2315	Numbering & Lettering Kit	89.75	14 0100 10	(Pkg. of 10)
N-2880	Stamping Ink, Black	2.43	N-373D	Burnisher Holder 2.82
N-2881	Stamping Ink, White	2.43	N-374A	Blade 1.02
N-2882 N-2883	Stamping Ink, Yellow	2.43	N-374B N-374C	Blade
TK-18	Relay Service Tool Kit		CB-5	Contact Burnisher with 6 .007" Blades 4.90
TK-2	Cable Terminating Tool Kit	50.70	CB-54	Contact Burnisher with 6 .0035" Blades 5.02
			CB-6	Contact Burnisher with 6 .0035" Blades and
PAGE 5 N-10	0 to 10 Grams	0.50	CB-7	6 266C Abrasive Rods
N-30	0 to 30 Grams		CB-7	Finish Blades
N-50	0 to 50 Grams	9.58	266B	Extra .007" Burnisher Blades (Pkg. of 100) 10.12
N-150	0 to 150 Grams	9.58	266-BM-25	Extra .007" Burnisher Blades (Pkg. of 25) 2.95
N-300 N-700	0 to 300 Grams		266C	Ball Ended Abrasive Rods (Pkg. of 50)
STG-2-Z	0 to 700 Grams		N-266E N-266E-25	Blades (Pkg. of 100) 20.52 Blades (Pkg. of 25) 5.70
N-2000	0 to 2000 Grams		466B	Extra .0035" Burnisher Blades (Pkg. of 100) 12.80
			466BM-25	Extra .0035" Burnisher Blades (Pkg. of 25) 4.02
PAGE 6			566B	Extra .007" Satin Finish Burnisher Blades
N-74D N-74D	Individual Thickness Gauge Leaves	4.75	566BM-25	(Pkg. of 100)
N-82	Individual Thickness Gauge Leaves	.48	300DW-23	(Pkg. of 25)
N-82-13	Thickness Gauge Set	6.44		
N-82-15	Thickness Gauge Set	7.40	PAGE 9	#7!!W
N-82-25 N-82-37		12.20	SA-6 SA-7	"Z" Wrench .130" Slots
N-82-43		17.96 20.84	SA-8	"Z" Wrench .088" Slots
N-82-SS	Individual Non-Magnetic SS Blades	1.04	SA-9	Reverse Curve Wrench
N-82-SS-25	Non-Magnetic Stainless Steel Blades		SA-18	Spring Adjuster .018"
N-88	Individual Thickness Gauge Leaves	.90	SA-32	Spring Adjuster .032"
N-88-37 N-90	Thickness Gauge Set  Straddle Type Thickness Gauge Leaves	33.50 .54	N-58 N-88SC	Adjuster, Double End 5.10 Adjuster, Bending 5.18
N-90-21	Thickness Gauge Set		N-214A	Adjuster .018" Slot
220 50 5250000000			SA-246	Adjuster Tool
PAGE 7	Thirt		N-259	Adjuster, .031" Slot
N-92A N-92D	Thickness Gauge, Dog Leg. 018" Thickness Gauge, Dog Leg. 018" Thickness Gauge, Dog Leg. 018" Thick		N-268 N-272	Adjuster, Double End .025"
N-92H	Thickness Gauge, Dog Leg, .018" Thick Thickness Gauge, Dog Leg .025" Thick	.94 .94	N-272 N-273	Adjuster Tool .021" Slot
17.55		.04		



# Price List for Catalog 80A — Effective September 1, 1979 (Continued)

PAGE 10				
N-143	Spring Adjuster .014"\$	3.58	N-365	Connecting Clip 1.70
N-203		3.58	N-411C	Test Probe
N-303	Armature Adjuster .038" Slot	2.34	N-419A	Test Connector 7.26
N-325B	Adjuster .080" Slot	4.16	N-509A	Relay Winding Connector 13.36
N-326B	Adjuster .080" Slot	3.04	N-509B	Relay Winding Connector 13.36
N-332	Adjuster, Lug	2.10	N-548A	Test Connector
N-340	Adjuster, Airgap	1.60	N-2348	Guide Pin Screwdriver 5.18
N-363	Adjuster .018" Slot	2.58	N-2348B	Replacement Blades
N-363B	Adjuster .022" Slot	2.68	N-2348J	Pointer and Shaft Assembly 1.58
N-371	Adjuster .057" Slot	3.92	N-389A	Dial Bank Cleaning Brush 2.24
N-390	Adjuster, Double End	4.58	N-389B	Brush Head Only 1.12
N-405A	Adjuster, Drift Tool	5.76	N-14162	Brush (Pkg. of 10)
N-415B N-416B	Adjuster, Double .020"	5.12	N-14164	Brush (Pkg. of 10)
N-410B	Adjuster, Double .035"	5.12	N-2969	Brush (Pkg. of 10)
N-504-18	Insertion Tool	5.44 2.60	PAGE 15	
14-304-10	Adjuster .010 Oblique Siots	2.00	N-28	Phone Plug Gauge
PAGE 11			N-84	Flat Nose Pliers
N-504-34	Adjuster .034" Oblique Slots \$	2.60	N-120	Pull Tool
N-505A		3.66	N-125	Push Tool
N-506A	Adjuster, Spring .024" Slot	3.66	N-313D	Heat Coil Pliers 8.44
N-506B	Adjuster, Spring .024" Slot	3.66	N-376A	Inspection Mirror
N-507A	Adjuster, Spring .032" Slot	3.66	N-376B	Inspection Mirror 2.26
N-514	Receptacle Adjusting Tool		N-451A	Terminal Cleaner 4.48
N-516		3.78	N-557A	Plug Placing Clip 5.08
N-524A		6.22	N-647	Bare Wire Strapping Tool
N-524B N-534	Adjuster, Spring .015"	6.22 7.78	N-1102 N-2830	Spudger, Pencil Type
N-536	Adjuster, Chisel Edge .036"	2.26	N-3328	Unwrapping Tool 4.86
N-582A	Adjuster, Double .035" Slots	7.26	N-6320	Orangewood Stick (Pkg. of 10)
N-1631	Adjuster, Double .016" and .031"	3.28	N-570679	Magnetic Shunt
N-19945	Adjuster, Double .017"	4.50		
N-19946	Adjuster, Double .035"	4.50	<b>BACK COVE</b>	R
			N-2403	3 Foot Locator (Complete) \$ 7.20
PAGE 12		TOTAL PROPERTY.	N-2404	4 Foot Locator (Complete) 7.72
TW-69	Hex Socket Wrench\$		N-2405	5 Foot Locator (Complete) 8.78
N-311 TW-427	Wrench, Hex Socket	4.75	N-2406	6 Foot Locator (Complete) 9.60
N-24	Wrench, Terminal Socket  Double Socket Wrench and Screwdriver	4.75 3.70	N-240-X N-240-T	3 Foot Extension
N-48	Double Socket Wrench and Screwdriver	3.70	N-240-H	8" Handle 3.20
N-72	Double Socket Wrench and Screwdriver	3.70	N-240-XC	Extension Coupling 1.34
N-43	Double Open End Wrench	1.12	N-T1	Micro Miniature Extractor 2.68
N-74	Double Open End Wrench	1.12	N-319B	Lamp Cap Extractor 7.74
N-110	Double End Socket Wrench	3.62	N-553A	Lamp Extractor
N-417A	Double Open End Wrench	1.66	N-4080	Support Bracket 5.12
N-418A	Double Open End Wrench	1.66		
N-474A N-476A	Wrench, Box	.34		
N-3216	Open End Wrench			
14-02-10	Open Lina Wiench	1.00		
PAGE 13				
N-40	Offset Screwdriver\$	4.66		
N-42		4.60		
N-96		1.74		
N-206	Offset Screwdriver	1.58		
N-207		1.58		
N-563A N-564A	NECO: 100E	2.40		
N-1253	가도 가게 살아가 있다면 가게 되었다면 하면 그렇게 하면 그렇게 되었다면 하다면 하는데	2.40		
N-1734		2.02		
NL-15049	Table 1974 Table 1974	8.10		
N-576099	Offset Phillips Screwdriver	4.40		
N-2348		5.18		
PAGE 14		0992020		
N-136B	Cut-Over Tool (Pkg. of 10)\$			
N-357 N-360A,B,C		4.64		
N-361B	Connector			
N-364		1.24		
55.55 S.S.		7.5		

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