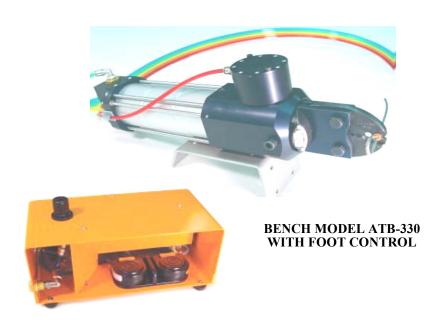


# BENCH MODEL ATB-330 HANDHELD MODEL AT-330 AIR POWERED COMPRESSION TOOL INSTRUCTION No. 330



**HANDHELD MODEL AT-330** 



# THE NATIONAL TELEPHONE SUPPLY COMPANY

# OPERATING INSTRUCTIONS FOR NICOPRESS® AIR POWERED COMPRESSION TOOLS

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# I. SAFETY AND WARNING REMINDERS

**NOTE:** THE *Nicopress*® Pneumatic Tool Is Designed To Be Used with *Nicopress*® Sleeves. Splicing Any Other items Should Not Be Attempted, As It May Cause Damage to Equipment and/or Injury to Personnel.

- 1. Carefully Read, Understand and Follow All Instructions in this Manual and On the Tool Before Attempting to Operate the Equipment. Become Thoroughly Familiar with the Controls and the Proper Use of the Unit. Restrict the Use of this Unit to Persons Who Have Read, Understand and Will Follow the Instructions And Maintenance Procedures.
- 2. THIS UNIT SHOULD BE INSTALLED IN A CLEAN AND WELL LIGHTED AREA.
- 3. ALWAYS WEAR SAFETY EYE PROTECTION AT ALL TIMES.
- 4. Inspect the Work Area and the Unit To Be Sure There Are No Loose or Missing Parts Prior to Operating this Tool.

# **II. SPECIFICATIONS AND FEATURES**

# **BENCH AIR TOOL MODEL ATB-330**

**POWER UNIT SIZE:** 9-1/2" H x 4" W x 15-3/4"L (6" W with Booster)

**WEIGHT:** 13 LBS. W/HEAD **FOOT CONTROL SIZE:** 8"H x 7"W x 13-1/2"L

WEIGHT: 15 LBS.
OPERATING PRESSURE: 85 TO 95 P.S.I.

**AIR INPUT:** 1/4" NPT AIR INLET ( PROPERLY OPERATING FILTER, REGULATOR,

LUBRICATOR SYSTEM IS REQUIRED.)

### **FEATURES:**

- OPERATES ON STANDARD SHOP AIR PRESSURE OF 85 95 P.S.I.
- NORMALLY CLOSED CRIMP JAW DESIGN FOR SAFETY.
- QUICK CHANGE CRIMP HEADS ALLOW FAST CHANGE-OVER.
- Positive Cycle Air Logic Control Prevents Partial Crimps.
- LIGHT WEIGHT TOOL IS EASILY MOVABLE AND ADJUSTABLE ON THE PRODUCTION LINE.
- BUILT-IN PRESSURE REGULATION SYSTEM ENSURES LONG, RELIABLE TOOL LIFE.
- TOOL COMES COMPLETE WITH HEX WRENCHES AND GAUGE.
- TOOL CAN BE BENCH MOUNTED VERTICALLY OR HORIZONTALLY ON WORK SURFACE.
- Crimp Height Adjustment

### HANDHELD AIR TOOL MODEL AT-330

**SIZE:** 8" H x 4" W x 15-3/4" L (6" W with Booster)

WEIGHT: 13 Lbs. w/Head OPERATING PRESSURE: 85 TO 95 P.S.I.

**AIR INPUT:** 1/4" NPT AIR INLET ( PROPERLY OPERATING FILTER, REGULATOR,

LUBRICATOR SYSTEM IS REQUIRED.)

### **FEATURES:**

- OPERATES ON STANDARD SHOP AIR PRESSURE OF 85-95 P.S.I.
- NORMALLY CLOSED CRIMP JAW DESIGN FOR SAFETY.
- Full Safety, Two Finger Trigger Activation, Easy to Use, Even with Work Gloves.
- QUICK CHANGE CRIMP HEADS ALLOW FAST CHANGE-OVER.
- SHOULDER STRAP TO FREE OPERATOR'S HANDS.
- BALANCED HANDLE PLACED CLOSE TO TRIGGER MECHANISM IS DESIGNED TO MINIMIZE OPERATOR FA-TIGUE.
- Tool Comes Complete with Hex Wrench and Gauge.
- THE TOOL IS PORTABLE AND CAN BE EASILY MOVED TO ANY LOCATION OR BENCH MOUNTED IN A PERMANENT LOCATION.
- CRIMP HEIGHT ADJUSTMENT

# III. UNPACKING AND INSTALLATION

- 1. CAREFULLY UNPACK UNIT AND REMOVE ALL PACKAGING MATERIALS. CHECK CARTON CONTENTS TO BE SURE ALL ITEMS ARE REMOVED FROM CARTON BEFORE PACKAGING MATERIALS ARE DISCARDED.
- 2. Carefully Read and Become Familiar with the Various Components and Functions of the Unit.
- 3. ALL TOOLS NECESSARY TO OPERATE THE UNIT ARE INCLUDED IN THE PACKAGE. THESE INCLUDE:
  - A. CRIMP GAUGE
  - B. 5/32" HEX WRENCH (BENCH MODEL ONLY)
  - C. 1/8" HEX WRENCH

### YOU WILL NEED A WRENCH FOR AIR LINE AND BENCH MOUNT ATTACHMENT

4. MOUNT BENCH MODEL USING MOUNTING BRACKET SUPPLIED. REFER TO ILLUSTRATIONS FOR OPTIONAL MOUNTING DIRECTIONS FOR BENCH ADAPTER (VERTICALLY OR HORIZONTALLY). MOUNT FOOT SWITCH CONTROL UNIT WITH AIR LINE ON FLOOR. CONNECT 3/8" AIR LINE TO INTAKE PORT, LOCATED ON LEFT SIDE OF FOOT SWITCH CONTROL BOX.

<u>IMPORTANT</u>: For Proper Operation and Protection of Unit, It Is Required That A Properly Functioning Filter, Regulator, Lubricator System Be Used.

<u>NOTE</u>: THE HANDHELD POWER CRIMPING UNIT COMES COMPLETE WITH A SHOULDER SLING. "D" RINGS ARE LOCATED AT THE FRONT AND REAR OF HANDLE FOR CONVENIENT HOOK-UP.

5. IF Unit Was Received with Power Crimping Head Already Installed On Unit, It Was Preset By the Factory and No Head Mounting Checkout Procedures Will Be Necessary.







- 6. If the Power Head Was Ordered Separately From the Unit, Unpack the Head and Insert Into Front of Tool. The Head Should Slide Into the Tool Cavity Easily. Do Not Force the Head Into the Tool. If the Head Does Not Easily Slide Into Place, Remove the Head and Check For Obstructions and Proper Cam Alignment.
- 7. After the Head Is Inserted, Assemble the Power Head Mounting Screws Into the Power Unit and Head, Being Sure Knurled Knobs Are Tight.

# IV. INITIAL SET-UP AND OPERATING INSTRUCTIONS

### 1. Bench Model

- A) AIR PRESSURE MAY NOW BE TURNED ON. CHECK FOR ANY AIR LEAKS WITH CONTROL UNIT IN POSITION. ACTIVATING THE RIGHT FOOT SWITCH WILL OPEN THE JAW, RELEASING WILL CLOSE THE JAW. AIR PRESSURE SHOULD BE SET FROM 85 TO 95 P.S.I.
- B) Load the Assembled Part Into The Crimp Jaw By Pressing The Right Foot Switch In The Control Unit. Be Sure the Assembly Is Properly Located In the Crimping Jaw and Release the Right Foot Switch. Press the Left Foot Switch to Crimp the Connection. After Completing the Crimp, Press the Right Foot Switch Again to Open The Crimp Jaw to Continue.

### 2. Handheld Model

- A) AIR PRESSURE MAY NOW BE TURNED ON. CHECK FOR ANY AIR LINE LEAKS. REFER TO ILLUSTRATIONS FOR LOCATION OF HAND CONTROLS. THE UPPER BUTTON OPENS THE CRIMP JAWS AND RELEASING CLOSES THE JAWS. PULLING BACK ON THE RED SAFETY LEVERS LOCATED ON EITHER SIDE OF HANDLE ALLOWS TRIGGER TO BE ACTIVATED AND UNIT TO BE CYCLED.
- B) PLACE THE ASSEMBLY TO BE CRIMPED INTO CORRECT CRIMP GROOVE BY PRESSING UPPER BUTTON. RELEASING BUTTON ALLOWS JAWS TO CLOSE AROUND AND GRASP ASSEMBLY BEING CRIMPED.
- C) ALIGN ASSEMBLY UNDER CRIMP JAW FOR PROPER CRIMP POSITION AND FULLY PULL BACK ON SAFETY AND SQUEEZE TRIGGER. AFTER COMPLETING ALL CRIMPS, PRESS UPPER BUTTON TO REMOVE COMPLETED ASSEMBLY.
- 3. *Nicopress*<sup>®</sup> Crimp Tools Are Factory Set To Provide Proper Crimps. This Should Be Checked Periodically With the Crimp Gauge.
- 4. Before Using The *Nicopress*® Pneumatic Tool To Crimp Assembly, Become Familiar with the Various Items On the Tool and Their Names and Functions.

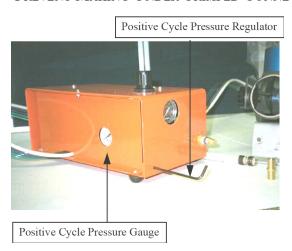
# V. INSPECTION, CALIBRATION AND MAINTENANCE

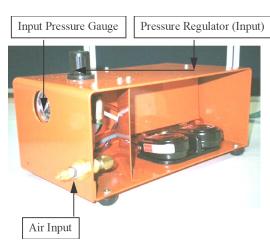
- 1 THE *NICOPRESS*® POWER CRIMP HEAD IS PRESET BY THE FACTORY TO THE CORRECT CRIMP DIAMETER, BUT IT IS RECOMMENDED THAT THE CRIMP BE CHECKED AT THIS TIME, BEFORE BEGINNING TO MAKE PERMANENT CONNECTIONS. INSPECT THE JUST COMPLETED CONNECTION WITH THE SUPPLIED CRIMP GAUGE.
- 2 The Crimp Adjust is factory set for the correct crimp diameter. In some cases the Finish Crimp diameter may be reduced and in all cases the finish crimp diameter can be increased. If the jaws close completely, the minimum Finish crimp diameter <u>can not</u> be adjusted. With the 1/8" hex wrench turning the hex screw located on the front of the power head on the left in 1/2" turn increments. A clockwise turn will increase the finish crimp diameter. A counter clockwise turn will decrease the finish diameter.





- 3 BENCH MODEL AIR INPUT AND CYCLE CONTROL
  - A) THIS POWER UNIT IS DESIGNED WITH A POSITIVE CYCLE DEVICE IN THE AIR CONTROL SYSTEM TO PREVENT MAKING UNDER CRIMPED CONNECTIONS.



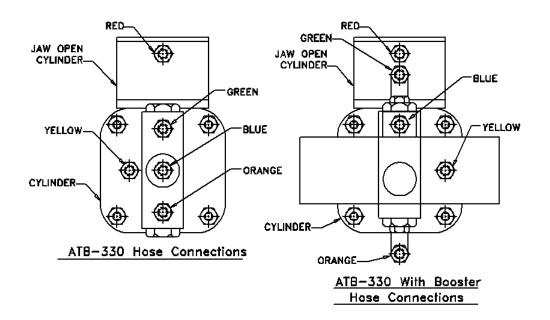


- B) THE NORMAL AIR INPUT IS 85 TO 95 P.S.I.
- C) THERE IS A PRESSURE REGULATOR KNOB LOCATED ON THE TOP OF THE CONTROL UNIT. ON THE LEFT SIDE OF THE CONTROL UNIT IS A PRESSURE GAUGE. LIFTING AND TURNING THE KNOB CLOCKWISE (RIGHT) WILL INCREASE THE PRESSURE INPUT. SET THIS INITIALLY AT 85 TO 95 P.S.I. PUSH THE KNOB BACK DOWN.

- D) LOCATED IN THE REAR OF THE UNIT IS ANOTHER GAUGE. THIS GAUGE SETS THE POSITIVE CYCLE INPUT REQUIREMENTS. THIS SHOULD BE SET INITIALLY AS REQUIRED TO MAKE A PROPER CRIMP. THIS PRESSURE IS ADJUSTED WITH A 5/32 HEX WRENCH THROUGH A HOLE TO A SET SCREW ON THE LEFT REAR SIDE OF THE ORANGE CONTROL UNIT.
- E) IF THERE IS INSUFFICIENT AIR PRESSURE TO COMPLETE CRIMP CYCLE, THE UNIT WILL HOLD POSITION UNTIL SUFFICIENT AIR PRESSURE IS SUPPLIED TO THE UNIT.

### 4. CLEANING AND LUBRICATION

- A) DIRTY AND CONTAMINATED AIR TO THE UNIT WILL EVENTUALLY CLOG UP THE UNIT AND PREVENT COMPLETE CRIMP CYCLE.
- B) Lack of Periodic Preventive Maintenance is the Most often Found Cause Of Tool Field Problems. When A Power Head Is Being Changed From One Size To Another, Take Extra Time To Check If the Unit Needs To Be Cleaned Or Lubricated. When Cleaning and Lubricating A Unit, Look For Signs Of Loose Or Worn and Dirty Parts.
- C) PERIODICALLY CLEAN AND LUBRICATE THE POWER HEAD WITH A GOOD QUALITY GREASE. LOOK FOR ANY LOOSE OR WORN PARTS AT THIS TIME. LOOK FOR ANY PREMATURE SIGNS OF WEAR AND/OR GALLING.
- D) LOCATED ON THE BOTTOM OF THE CONTROL UNIT IS A FILTER DRAIN. THIS SHOULD BE PERIODICALLY CHECKED AND DRAINED, IF NECESSARY
- E) IF THE POWER CRIMPING HEAD MUST BE REMOVED FOR CLEANING OR SERVICE, BE SURE THE AIR IS DISCONNECTED BEFORE ATTEMPTING ANY SERVICE WORK. THE HEAD MOUNTING SCREWS ARE THEN REMOVED. THE HEAD CAN BE CAREFULLY REMOVED. THIS SAME PROCEDURE IS USED WHEN CHANGING HEADS.
- 5. THE PNEUMATIC TOOL, ASSOCIATED VALVING AND CONTROL UNIT ARE NOT FIELD REPAIRABLE AND MUST BE RETURNED TO THE FACTORY FOR SERVICE. ANY TAMPERING WITH UNIT COULD VOID ALL WARRANTIES.
- 6. STANDARD REPAIR PARTS ARE AVAILABLE FROM THE NATIONAL TELEPHONE SUPPLY COMPANY FOR POWER CRIMPING HEADS.
- 7. Converting the Hand Operated Tool to Bench Operation:
  - A) DISCONNECT AIR SUPPLY FROM POWER UNIT.
  - B) REMOVE PLUG FROM REAR OF HANDLE ASSEMBLY.
  - C) INSTALL CONVERSION KIT TO REAR OF HANDLE ASSEMBLY.
  - D) ATTACH BENCH ADAPTER PLATE TO BOTTOM OF POWER UNIT.
  - E) THE BENCH ADAPTER ALLOWS MOUNTING OF POWER CRIMPING UNIT IN EITHER A VERTICAL OR TILTED HORIZONTAL POSITION.
  - F) Familiarize Operators with Functional Mode of Operation of Bench Control Procedure Before Beginning Production Operation.



# VI. CONTACTING FACTORY

CRIMPING TOOLS, WHILE DESIGNED TO GIVE MANY YEARS OF TROUBLE FREE SERVICE, MAY IN TIME, NEED REPAIR. FOR THIS REASON, THE NATIONAL TELEPHONE SUPPLY COMPANY MAINTAINS A COMPLETE REPAIR SERVICE FOR MAINTENANCE OF CRIMPING TOOLS.

### **INSTRUCTIONS FOR RETURN OF TOOL:**

- 1. Crimping Tools Being Returned For Service Should Be Tagged and Labeled With A Complete Description Of the Trouble And/Or Malfunction.
- 2. INCLUDE ALL BROKEN OR DEFECTIVE COMPONENTS, PARTS AND ACCESSORIES. SAMPLES OF CRIMPED PARTS ILLUSTRATING THE PROBLEM WOULD BE HELPFUL.
- 3. PACKAGE ALL CRIMPING TOOLS CAREFULLY USING AMPLE PACKING MATERIAL.
- 4. A Packing List Must Accompany the Shipment and Must Include the Model Number, Serial Number and Reason For the Return.
- 5. RETURN THE TOOL TO YOUR LOCAL *NICOPRESS*® DISTRIBUTOR.
- 6. Insure Shipment For FULL REPLACEMENT Value. The *Nicopress*® Distributor Will Send the Tool To the National Telephone Supply Co. for Repair.
- 7. SHIPPING CHARGES SHOULD BE PREPAID. SHIPPING CHARGES FROM OUR PLANT WILL BE INVOICED TO THE DISTRIBUTOR.
- 8. Customer Will Be Notified If Tool Is Non-Repairable and Informed of the Disposition and Handling procedures That Will Be Followed.
- 9. ALLOW 7 TO 10 WORKING DAYS, PLUS SHIPPING TIME, FOR REPAIR OF TOOLS.
- 10. Crimping Tools Will Be Repaired At No Charge If Malfunction Is Caused By Defect In Material Or Workmanship.

### FACTORY RETURN ADDRESS:

THE NATIONAL TELEPHONE SUPPLY CO. 5100 SUPERIOR AVENUE CLEVELAND, OH 44103

### OR CONTACT FACTORY AT:

PHONE: 216-361-0221 FAX: 216-361-3111 E-MAIL:support@nicopress.com

# VII. WIRE ROPE APPLICATIONS

### **SPLICING WIRE AND FIBER ROPE**

BECAUSE OF THE VARIATIONS OF STEEL WIRE ROPE AND FIBER ROPE DESIGN AND CONSTRUCTION, IT IS RECOMMENDED THAT ALL WIRE ROPE AND FIBER ROPE ASSEMBLIES BE PULL TESTED PRIOR TO USE.

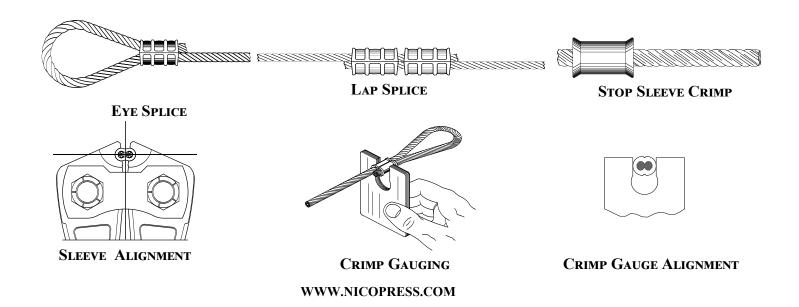
It has been Determined Through Pull Testing That *Nicopress*<sup>®</sup> Copper, Plated Copper and Stainless Steel Oval Sleeves will Hold Military Specification Aircraft Cable to Its Breaking Strength, When the Cable is Made to Military Specifications MIL-W-83420 (9/7/73), for Cable Constructions 3x7, 7x7 and 7x19. These Test Results were Obtained with *Nicopress*<sup>®</sup> Sleeves Crimped with *Nicopress*<sup>®</sup> Tools.

NICOPRESS SLEEVES MAY ALSO BE USED WITH OTHER WIRE ROPES OF DIFFERENT CONSTRUCTIONS, GRADES AND STRENGTHS. BECAUSE OF THESE VARIATIONS, SPLICES SHOULD BE PROOF TESTED INITIALLY ON THE SPECIFIC CABLE BEING USED. THIS IS TO ENSURE THE PROPER SELECTION OF MATERIALS, THE CORRECT PRESSING PROCEDURE AND THE ASSURANCE OF AN ADEQUATE MARGIN OF SAFETY FOR THE INTENDED USE.

To Make Eye Splices, Pull Enough Cable Through the Sleeves so that the End Will Still Protrude After Crimping. Refer to the Illustrations in Lining Up the Sleeve Between the Tool Jaws as Shown with the Long Axis Crosswise to the Jaws. Proof Testing is Recommended Whenever the Possibility of Injury or Property Damage Exists.

Lap or Running Splices can also be Made with *Nicopress*® Oval Sleeves When Lengthening A Cable or in Making Grommet Slings. Usually Two Sleeves Are Needed to Develop A Splice Equal to the Breaking Strength of the Wire. A short space should be kept between the sleeves (see drawing), make the inner end crimps first, proceeding to the outer ends. Refer to the Illustration for Details.

TO MAKE A PROPER LAP SPLICE, PULL THE ENDS OF THE ROPE THROUGH BOTH SLEEVES. BE SURE TO LEAVE A SPACE BETWEEN THE SLEEVES TO ALLOW FOR EXTRUSION OF THE SLEEVES DURING CRIMPING AND APPROXIMATELY 1/8" SPACE BETWEEN SLEEVES AFTER CRIMPING. THE ENDS OF THE WIRE SHOULD EXTEND APPROXIMATELY 1/16" BEYOND THE EDGE OF THE CRIMPED SLEEVES.



# CHOOSE THE PROPER CRIMPING HEAD FROM THE TABLES LISTED BELOW

TABLE I



Cable Size	Copper Oval Sleeve	Zinc/Copper Oval Sleeve	Tin Copper Oval Sleeve	Aluminum Oval Sleeve	Crimp Power Head Model	Tool Groove	No. of Crimps Required
3/64"	18-11-B4	28-11-B4	428-1.5-VB4	188-1.5-VB4	AT-B4	OVAL B4	1
1/16"	18-1-C	28-1-C	428-2-VC	188-2-VC	AT-C AT-CGMP	OVAL C	1
3/32"	18-2-G	28-2-G	428-3-VG	188-3-VG	AT-G AT-CGMP	OVAL G	1
1/8"	18-3-M	28-3-M	428-4-VM	188-4-VM	AT-M AT-CGMP AT-XPM	OVAL M	3
5/32"	18-4-P	28-4-P	428-5-VP	188-5-VP	AT-P AT-CGMP AT-XPM	OVAL P	3
3/16"	18-6-X	28-6-X	428-6-VX	188-6-VX	AT-X AT-XPM AT-X-F6*	OVAL X	4
7/32"	18-8-F2	28-8-F2	428-7-VF2		AT-F2	OVAL F2	4
1/4"	18-10-F6	28-10-F6	428-8-VF6	188-8-VF6	AT-F6* AT-X-F6*	OVAL F6	5
5/16"	18-13-G9	28-13-G9	428-10-VG9		AT-G9*	OVAL G9	4
				188-10-VG92	AT-G9*	OVAL G9	5

## \*MUST BE CRIMPED USING THE MODEL WITH A BOOSTER







Cable Size	Stainless Steel Oval Sleeve	Crimp Power Head Model	Tool Groove	No. of Crimps Required
3/64"	168-1.5-VB4	AT-B4	OVAL B4	1
1/16"	168-2-VB4	AT-B4	OVAL B4	1
3/32"	168-3-VC	AT-C	OVAL C	1
1/8"	168-4-VG	AT-G	OVAL G	1
5/32"	168-5-VM	AT-M	OVAL M	3
3/16"	168-6-VP	AT-P	OVAL P	4
7/32"	168-7-VX	AT-X*	OVAL X	4
1/4"	168-8-VF2	AT-F2*	OVAL F2	5

<sup>\*</sup>MUST BE CRIMPED USING THE MODEL WITH A BOOSTER

TABLE III



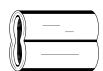


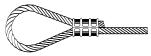


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Cable Size	Copper Stop Sleeve	Zinc/Copper Stop Sleeve	Aluminum Stop Sleeve	Crimp Power Head Model	Tool Groove	No. of Crimps Required
3/64"	871-12-B4	872-12-B4		AT-B4	OVAL B4	1
1/16"	871-1-C	872-1-C	878-2-VC	AT-C AT-CGMP	OVAL C	1
3/32"	871-17-J	872-17-J	878-3-J	AT-MJ	J	1
3/32"	871-33-VG	872-33-VG		AT-CGMP	OVAL G	1
1/8"	871-18-J	872-18-J	878-4-J	AT-MJ	J	1
1/8"	871-34-VG	872-34-VG		AT-CGMP	OVAL G	1
5/32"	871-19-M	872-19-M	878-5-M	AT-MJ	M	1
5/32"	871-35-VM	872-35-VM		AT-CGMP AT-XPM	OVAL M	2
3/16"	871-20-M	872-20-M	878-6-M	AT-MJ	M	1
	871-36-VM	872-36-VM		AT-CGMP AT-XPM	OVAL M	2
7/32"	871-22-M	872-22-M		AT-MJ	M	2
	871-37-VM	872-37-VM		AT-CGMP AT-XPM	OVAL M	3
1/4"	871-23-F6	872-23-F6	878-8-VF6	AT-F6* AT-X-F6*	OVAL-F6	3
5-16"	871-26-F6	872-26-F6	878-10-VF6	AT-F6* AT-X-F6*	OVAL-F6	3
3/8"	871-27-F6	872-27-F6		AT-F6* AT-X-F6*	OVAL-F6	3

### \*MUST BE CRIMPED USING THE MODEL WITH A BOOSTER







03.11

Cable Size	Aluminum Oval Sleeve	Crimp Power Head Model	Tool Groove	No. of Crimps Required
1/16"	1700-C	AT-C AT-CGMP	OVAL C	1
1/8"	1700-M	AT-M AT-CGMP AT-XPM	OVAL M	3
3/16"	1582-P	AT-P AT-CGMP AT-XPM	OVAL P	3
1/4"	1700-X	AT-X AT-XPM	OVAL X	4

# THE NATIONAL TELEPHONE SUPPLY COMPANY

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