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REQUEST OUR BROCHURE...

Penn-Union Compression Connectors

We offer a complete line of Compression Connectors. Contact us to request a brochure.



We are Penn Union. For over 80 years we have been known, within the industry, for our superior quality and competitively priced, **Mechanical and Compression Connectors.**

Penn Union manufactures extremely dependable connectors at a low installed cost and its full line of compression connectors have a color-coding system that makes inspections and certified installations much simpler.

We take pride in providing products that are relied upon to consistently perform in the most demanding applications.

Have an electrical connection problem? Penn Union can solve it. With over 30,000 variations of connectors, you will find us to be flexible and easy to do business with. Whatever your need, we have the experience and capabilities to deliver solutions — from coast-to-coast or around the world.

Connect with us. Experience what you have been missing.

HAND-OPERATED CRIMP TOOLS

TDM-250 MECHANICAL COMPRESSION TOOL WITH BUILT-IN DIES

MORE ECONOMICAL

- Dieless - no dies to buy or lose
- Compression connectors are UL listed and CSA certified when installed in accordance with manufacturer's installation instructions
- Widest range available - crimps #8-250 MCM AL or CU
- Costs less than expensive hydraulic tools
- Quality construction - all-steel, durable construction
- Five year manufacturer's warranty for replacement or service

MORE CONVENIENT TO USE

- Unique telescopic handle design provides increased leverage. At 250 MCM, the TDM-250 requires less handle load than conventional 250 MCM tools require at 250 MCM.
- No dies to change or lose
- Easy-to-read settings are provided on calibrated index plates, one for AL and one for CU, located on the side of the tool.
- Small head - convenient in confined areas.
- Easiest bench use - machined flat head surface allows you to stand tool freely in working position.



CATALOG NO.	WIRE RANGE
TDM-250	#8 - 250 MCM CU #8 - 250 MCM AL
TDM-250XF	#8 - 4/0 EXTRA FLEXIBLE CU #8 - 250 MCM CU

For use with: BCU, BBCU, BLU, BBLU, BBLZ, BLY (use TDM-250XF) style copper connectors

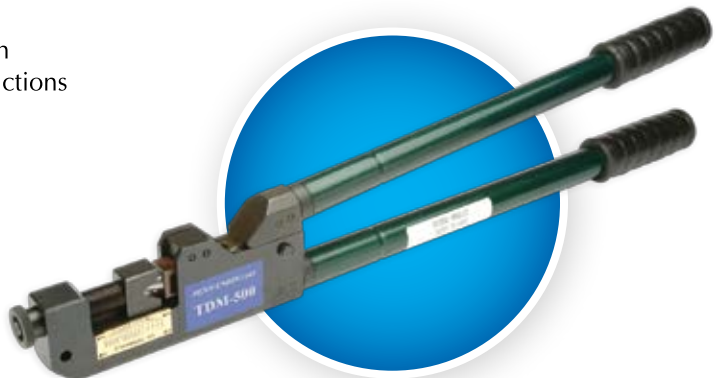
TDM-500 MECHANICAL COMPRESSION TOOL WITH BUILT-IN DIES

MORE ECONOMICAL

- Dieless - no dies to buy or lose
- Compression connectors are UL listed and CSA certified when installed in accordance with manufacturer's installation instructions
- Widest range available - crimps #8-500 MCM AL or CU
- Costs less than expensive hydraulic tools
- Quality construction - all-steel, durable construction
- Five year manufacturer's warranty for replacement or service

MORE CONVENIENT TO USE

- Unique telescopic handle design provides increased leverage. At 500 MCM, the TDM-500 requires less handle load than conventional 250 MCM tools require at 250 MCM.
- No dies to change or lose
- Easy-to-read settings are provided on calibrated index plates, one for AL and one for CU, located on the side of the tool.
- Small head - convenient in confined areas.
- Easiest bench use - machined flat head surface allows you to stand tool freely in working position.



CATALOG NO.	WIRE RANGE
TDM-500	#8 - 500 MCM CU #8 - 500 MCM AL

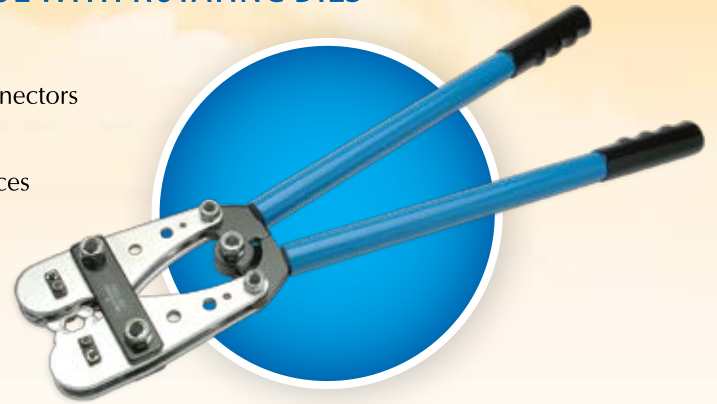
For use with: BCU, BBCU, BLU, BBLU, BBLZ style copper connectors

TDM-408 MECHANICAL COMPRESSION TOOL WITH ROTATING DIES

- Comfort grip handles reduce fatigue during continuous use
- Penn-Union BLU, BBLU, BBLZ, BCU and BBCU Series connectors are UL listed and CSA certified when installed with this tool
- Crimps all popular small to mid-range copper lugs and splices
- Built-in rotatable dies eliminate need to carry and maintain nine sets of dies
- Plated jaws ensure protection against corrosion

CAPACITY: 8 - 4/0 AWG Copper Only

LENGTH: 24.4 in. **WEIGHT:** 8.8 lbs.



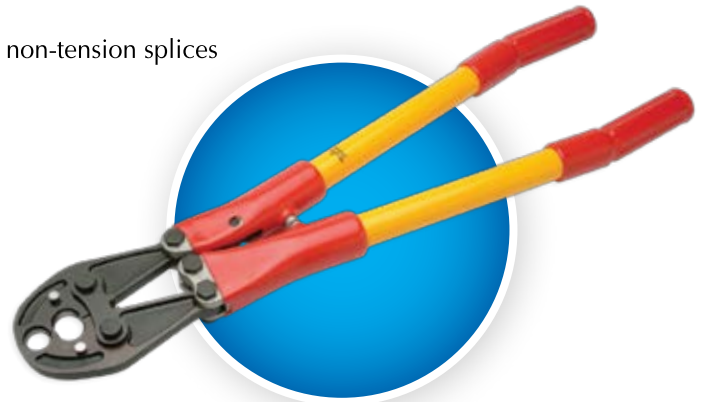
For use with: BCU, BBCU, BLU, BBLU, and BBLZ style copper connectors

TMU-OD3 MECHANICAL COMPRESSION TOOL

- Die inserts snap into the D3 groove with one hand and are locked into the tool with spring loaded positive lock die retainer buttons
- Versatile mechanical compression tool for full tension and non-tension splices
- Over center cam action
- High strength, butting, forged steel jaws
- Provides 4.5 tons of crimping force
- No additional dies required for "O" and "D3" size tap connectors; D3 Groove accommodates full line of industry standard "W" die inserts
- Bent handles and anti-slip grips for easier operation
- Tool adjustment easily checked and adjusted with allen wrench

CAPACITY: 14 - 4/0 AWG

LENGTH: 25.5 in. **WEIGHT:** 9.0 lbs.



For use with: CCT, CST and CDT style copper connectors; KO, KD, PIK, PSK, PSKS and DBTBF style aluminum connectors

TRC-28 MECHANICAL RATCHET HAND CRIMP TOOL

- For insulated and non-insulated terminals, and Type "RTC" copper CTAPS (RTC-2 through RTC-6)
- Full cycle ratcheting mechanism ensures proper crimp

CAPACITY: Insulated terminals 8 - 2 AWG;

Non-insulated terminals 6 - 1/0 AWG

LENGTH: 16.1 in. **WEIGHT:** 4.6 lbs.



HDT-1000 DIELESS HAND OPERATED HYDRAULIC TOOL 12 TON OUTPUT FORCE

- Dieless operation
- Twist handle release mechanism
- 7 indent profiles per crimp, requiring fewer crimps per connector
- Hinged head for easy removal of splices up to 1000 MCM
- Automatic two-speed pump provides rapid advance reducing cycle time
- Audible pressure “pop-off” valve indicates crimp completion
- Easy installation with 180° swivel crimping head
- Includes durable high impact carrying case

CAPACITY: 3/0 AWG - 1000 MCM Copper Lugs and Splices
1/0 AWG - 600 MCM Aluminum Lugs and Splices

LENGTH: 25.0 in. **WEIGHT:** 17.0 lbs.



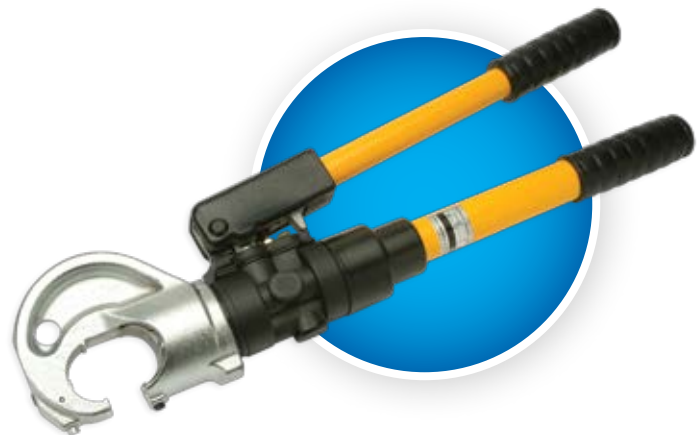
*For use with: BCU, BBCU, BLU, BBLU and BBLZ style copper connectors;
BCUA and BLUA style aluminum connectors*

TPU-12B DIE-TYPE HAND OPERATED HYDRAULIC TOOL 12 TON OUTPUT FORCE WITH 1.0" JAW OPENING

- Accepts all semi-circular slotted dies common to most 12 ton tools (“U” Dies)
- Die changes are easy with push button die locks
- Strong, lightweight fiberglass handles with twist release mechanism
- Automatic two-speed pump
- Audible pressure “pop-off” valve
- Easy installation with 180° swivel crimping head
- Compression connectors are UL listed and CSA certified when installed with specified die set
- Includes durable high impact carrying case

CAPACITY: 8 AWG - 750 MCM Aluminum & Copper Lugs,
8 AWG - 400 MCM Aluminum and Copper Splices

LENGTH: 22.9 in. **WEIGHT:** 13.9 lbs.



*For use with: BCU, BBCU, BLU, BBLU, BBLZ, BLY, CST, CDT, TLU, LL, LLR, and LLN style copper connectors;
KO, KD, KN, PIK, PSK, PS, TP, TPO, PSS, PSKS, KBO, KKBO, KBD, KKBD, BCUA, BLUA, FKLA, FSLA, FULA style aluminum connectors*

TPU-12B42 DIE-TYPE HAND OPERATED HYDRAULIC TOOL

12 TON OUTPUT FORCE - 1.65" JAW OPENING

- Large 1.65" jaw opening allows for easy installation of lugs and splices up to 750 MCM
- Accepts all semi-circular slotted dies common to most 12 ton tools ("U" Dies)
- Die changes are easy with push button die locks
- Strong, lightweight fiberglass handles with twist release mechanism
- Automatic two-speed pump
- Audible pressure "pop-off" valve indicates crimp completion
- Easy installation with 180° swivel crimping head
- Compression connectors are UL listed and CSA certified when installed with specified die set
- Includes durable high impact carrying case

CAPACITY: 8 AWG - 750 MCM Aluminum & Copper Lugs/Splices

LENGTH: 25.2 in. **WEIGHT:** 18.0 lbs.



For use with: BCU, BBCU, BLU, BBLU, BBLZ, TLU, LL, LLR, and LLN style copper connectors;

KO, KD, KN, PIK, PSK, PS, PSS, PSKS, KBO, KKBO, KBD, KKBD, BCUA, BLUA, FKLA, FSLA, FULA and DBTBF style aluminum connectors

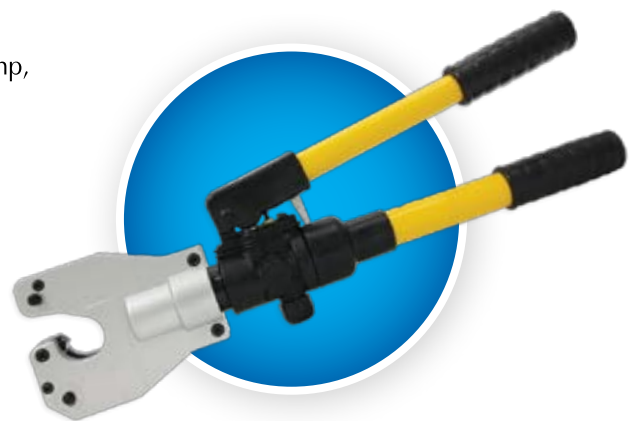
TPU-6 DIELESS HAND OPERATED HYDRAULIC TOOL

6 TON OUTPUT FORCE

- Dieless installation system utilizes four indentors to make crimp, eliminates need to purchase and maintain dies
- Automatic two-stage pumping piston for rapid advance
- Audible pressure "pop-off" valve indicates crimp completion
- Strong, lightweight fiberglass handles with twist release mechanism
- Easy installation with 360° swivel crimping head
- UL listed and CSA certified crimp connections when used with Penn-Union copper color-coded lugs and splices (6 AWG - 500 MCM)
- Includes durable high impact carrying case

CAPACITY: 8 AWG - 500 MCM Copper Lugs and Splices

LENGTH: 23.6 in. **WEIGHT:** 11.0 lbs.



For use with: BCU, BBCU, BLU, BBLU and BBLZ style copper connectors

BCUA and BLUA style aluminum connectors (NOT UL listed or CSA certified with this tool)

HAND-OPERATED HYDRAULIC TOOLS

TPU-18B DIE-TYPE HAND OPERATED HYDRAULIC TOOL

18 TON OUTPUT FORCE

- Accepts all semi-circular slotted “U” dies
- Die changes are easy with push button die locks
- Removeable end cap for easy removal of splice connections
- Automatic two-stage pump for rapid advance
- Audible pressure “pop-off” valve indicates crimp completion
- Easy turn valve release for rapid ram retraction
- Comfortable rubber grip handles help reduce operator fatigue
- Easy installation with 180° swivel crimping head
- Compression lugs and splices are UL listed and CSA certified when installed with specified die set
- Includes durable high impact carrying case

CAPACITY: 8 AWG - 1250 MCM Copper Lugs/Splices
8 AWG - 1000 MCM Aluminum Lugs/Splices

LENGTH: 25.6 in. **WEIGHT:** 14.3 lbs.



For use with: BCU, BBCU, BLU, BBLU, BBLZ, TLU, LL, LLR, and LLN style copper connectors;

KO, KD, KN, PIK, PSK, PS, PSS, TP, TPO, PSS, PSKS, KBO, KKBO, KBD, KKBD, BCUA, BLUA, FKLA, FSLA, FULA style aluminum connectors

TPU-6FT DIELESS HAND OPERATED HYDRAULIC TOOL

6 TON OUTPUT FORCE

- Dieless installation system utilizes four indentors to make the crimp, eliminates need to purchase and maintain dies
- Flip top allows easy removal of splice connections
- Automatic two-stage piston for rapid advance
- Audible pressure “pop-off” valve indicates crimp completion
- Strong, lightweight fiberglass handles with twist release mechanism
- Easy installation with 360° swivel crimping head
- UL listed and CSA certified crimp connections when used with Penn-Union copper color-coded lugs and splices (6 AWG - 750 MCM)
- Includes durable high impact carrying case

CAPACITY: 8 AWG - 750 MCM Aluminum & Copper Lugs/Splices,

LENGTH: 22.8 in. **WEIGHT:** 11.5 lbs.



For use with: BCU, BBCU, BLU, BBLU and BBLZ style copper connectors;

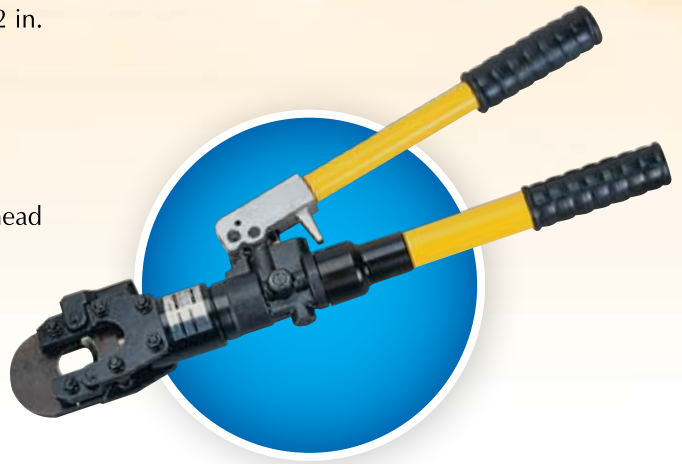
BCUA and BLUA style aluminum connectors (NOT UL listed or CSA certified with this tool)

HCT-1000 HAND OPERATED HYDRAULIC CUTTER

- Automatic two-speed pump for cutting copper, aluminum and ACSR conductor, soft steel bar up to 5/8 in., rebar up to 1/2 in.
- Heat treated steel cutting blades for durability
- Hinged flip top cutting head
- Twist handle release mechanism
- Easy operation and accessibility with 180° swivel cutting head
- 1-year limited warranty (excluding blades)
- Includes nylon bag with carrying strap for portability

CAPACITY: Aluminum & Copper Cable up to 1000 MCM
ASCR Up to 1033.5 MCM
Steel Bar up to 5/8 in.; Rebar up to 1/2 in.

LENGTH: 23.8 in. **WEIGHT:** 12.1 lbs.



REMOTE HYDRAULIC TOOLS

TPU-60 REMOTE OPERATED HYDRAULIC TOOL 60 TON OUTPUT FORCE

- Application: substation and transmission construction
- Accepts industry standard 60 ton "L" type dies currently used with BURNDY, ALCOA and HUSKIE 60 ton presses
- Easy die set installation, top of head swivels 90° for easy connector removal
- Includes aluminum base for added stability and metal carrying case with storage room for dies

CAPACITY: For 1000 MCM and 1500 MCM HBLTU Style crimp lugs (UL Listed Only). Suitable for copper and aluminum stranded cable up to 2000 MCM

OPERATING PRESSURE: 10,000 psi **TYPE:** Single Acting

OIL VOLUME: 303 cc **RAM STROKE:** 1.5 in. Travel

MAX CONNECTOR: O.D. 2.36 in.

HEIGHT: 15.6 in. **DIAMETER:** 5.7 in. **WEIGHT:** 67.0 lbs.



For use with: HBLTU style copper connectors

TPU-12BH REMOTE OPERATED HYDRAULIC TOOL 12 TON OUTPUT FORCE - 1.00" JAW OPENING

- Accepts all semi-circular slotted dies common to most 12 ton tools ("U" dies)
- Die changes are easy with push button die locks
- Integral lifting eye for easy maneuverability
- Compatible with universal hot-stick tooling
- Internal ram spring retracts jaw when pump pressure is relieved
- Compression connectors are UL listed and CSA certified when installed with specific die set
- Includes durable high impact carrying case

CAPACITY: 8 AWG - 750 MCM Aluminum & Copper Lugs
8 AWG - 400 MCM Aluminum & Copper Splices

LENGTH: 8.3 in. **WEIGHT:** 7.9 lbs.



For use with: BCU, BBCU, BLU, BBLU, BBLZ, BLY, CST, CCT, TLU, LL, LLR, and LLN style copper connectors; KO, KD, KN, PIK, PSK, PS, TP, TPO, PSS, PSKS, KBO, KKBO, KBD, KKBD, DBTBF, BCUA, BLUA, FKLA, FSLA, FULA style aluminum connectors

TPU-12B42H REMOTE OPERATED HYDRAULIC TOOL

12 TON OUTPUT FORCE - 1.65" JAW OPENING

- Accepts all semi-circular slotted dies common to most 12 ton tools ("U" dies)
- Die changes are easy with push button die locks
- Integral lifting eye for easy maneuverability
- Internal ram spring retracts jaw when pump pressure is relieved
- Compression connectors are UL listed and CSA certified when installed with specified die set
- Includes durable high impact carrying case

CAPACITY: 8 AWG - 750 MCM Aluminum & Copper Lugs/Splices

LENGTH: 9.9 in. **WEIGHT:** 11.7 lbs.



For use with: BCU, BBCU, BLU, BBLU and BBLZ style copper connectors;

KO, KD, KN, PIK, PSK, PS, PSS, PSKS, KBO, KKBO, KBD, KKBD, BCUA, BLUA, FKLA, FSLA, FULA style aluminum connectors

TPU-18BH REMOTE OPERATED HYDRAULIC TOOL

18 TON OUTPUT FORCE

- Removeable end cap allows for easy removal of splice connections
- Captive knurled steel pin locks end cap securely in place
- Internal ram spring retracts jaw when pump pressure is relieved
- Compression connectors are UL listed and CSA certified when installed with specified die set
- Includes durable high impact carrying case

CAPACITY: 8 AWG - 1250 MCM Copper Lugs/Splices
8 AWG - 1000 MCM Aluminum Lugs/Splices

LENGTH: 9.4 in. **WEIGHT:** 10.6 lbs.



For use with: BCU, BBCU, BLU, BBLU and BBLZ style copper connectors;

KO, KD, KN, PIK, PSK, PS, PSS, PSKS, KBO, KKBO, KBD, KKBD, BCUA, BLUA, FKLA, FSLA, FULA style aluminum connectors

TPU-6H DIELESS REMOTE OPERATED HYDRAULIC TOOL

6 TON OUTPUT FORCE

- Dieless installation system, utilizes four indentors to make crimp, eliminates the need to purchase and maintain dies
- UL Listed and CSA certified range taking crimp connections when used with Penn Union copper color-coded lugs and splices (6 AWG - 500 MCM)
- Includes durable high impact carrying case

CAPACITY: 8 AWG - 500 MCM Aluminum and Copper Lugs/Splices

LENGTH: 10.6 in. **WEIGHT:** 6.2 lbs.



For use with: BCU, BBCU, BLU, BBLU and BBLZ style copper connectors;

*BCUA and BLUA style aluminum connectors
(NOT UL listed or CSA certified with this tool)*

REMOTE HYDRAULIC TOOLS

TPU-1500H REMOTE OPERATED HYDRAULIC TOOL 15 TON OUTPUT FORCE

- Compatible with industry standard 15 ton "P" dies as well as standard 12 ton "U" dies with the PU-15 adapter (pg. 20)
- 1.97 in. jaw opening, 1.67 in. jaw opening with "U" die adapter
- 15 ton output with any 10,000 psi hydraulic pump
- Compression lugs and splices are UL Listed and CSA certified when installed with specified die set
- Includes durable high impact carrying case

CAPACITY: 8 AWG - 1500 MCM Copper Lugs/Splices
8 AWG - 1250 MCM Aluminum Lugs/Splices

LENGTH: 11.8 in. **WEIGHT:** 15.4 lbs.



For use with: BCU, BBCU, BLU, BBLU, BBLZ, TLU, LL, LLR, and LLN style copper connectors;

BCUA, BLUA, DBTBF, KO, KD, KN, PIK, PSK, PS, PSS, PSKS, KBO, KKBO, KBD, KKBD, FKLA, FSLA, FULA style aluminum connectors

TPU-6FTH DIELESS REMOTE OPERATED HYDRAULIC TOOL 6 TON OUTPUT FORCE

- Flip top design with pull pin locking mechanism
- Accepts larger connectors up to 750 MCM
- Dieless installation system utilizes four indentors to make crimp, eliminates the need to purchase and maintain dies
- UL Listed and CSA Certified range taking crimp connections when used with Penn Union copper color-coded lugs and splices (6 AWG - 750 MCM)
- Includes durable high impact carrying case

CAPACITY: 8 AWG - 750 MCM Aluminum & Copper Lugs/Splices

LENGTH: 11.0 in. **WEIGHT:** 6.6 lbs.



For use with: BCU, BBCU, BLU, BBLU and BBLZ style copper connectors; BCUA and BLUA style aluminum connectors (NOT UL listed or CSA certified with this tool)

HYDRAULIC PUMPS

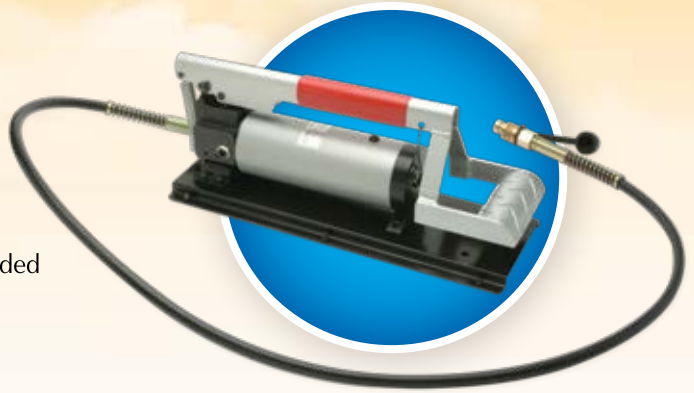
M-FP 10,000 PSI MANUAL FOOT PUMP

- Two-stage operation provides rapid advance
- Automatic safety bypass valve actuates when reaching maximum pressure
- Knob type release valve
- Integral handle lock for easy carrying
- Hydraulic hose (6 ft.) with Quick Connect coupler included

RESERVOIR CAPACITY: .74 qt.

LENGTH: 18.7 in. **WIDTH:** 6.8 in.

HEIGHT: 6.8 in. **WEIGHT:** 24.0 lbs



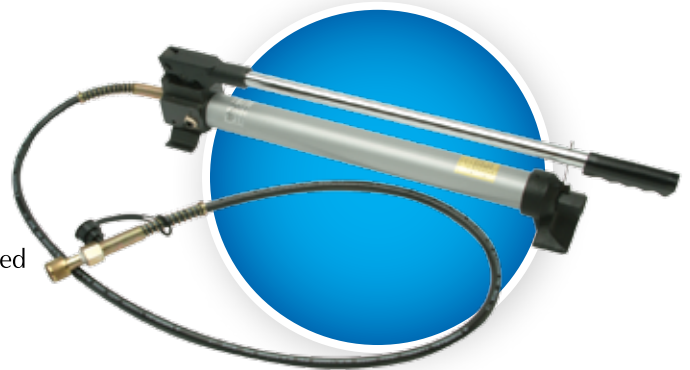
M-HP 10,000 PSI MANUAL HAND PUMP

- Two-stage operation provides rapid advance
- Automatic safety bypass valve actuates when reaching maximum pressure
- Knob type release valve
- Integral handle lock for easy carrying
- Hydraulic hose (6 ft.) with Quick Connect coupler included

RESERVOIR CAPACITY: .74 qt.

LENGTH: 26.7 in. **WIDTH:** 4.4 in.

HEIGHT: 5.9 in. **WEIGHT:** 17.6 lbs



HP-3000 10,000 PSI ELECTRIC/HYDRAULIC PUMP

- For use with all Penn-Union remote tools
- Includes pendant control with 6 ft. operating cord, allowing user to advance and retract at will
- Low pressure provides fast ram advance, pump automatically changes over to low volume high pressure
- Hydraulic hose (6 ft.) with Quick Connect coupler
- Red LED light to confirm pump is in "on" position
- Cast aluminum reservoir
- Integral handles for easy portability
- Convenient inspection window for quick check of reservoir oil level

RESERVOIR CAPACITY: 3.17 qt. **LENGTH:** 9.0 in. **WIDTH:** 7.5 in.

HEIGHT: 16.2 in. **WEIGHT:** 48.7 lbs with oil



TPU-42B BATTERY-ACTUATED HYDRAULIC TOOL 12 TON - 1.65" JAW OPENING

- 18v LI-ION battery operation
- Provides up to 70% more crimp cycles than with Ni-Cd batteries
- Integral LED work light and built in diagnostics
- Accepts all semi-circular slotted dies common to most 12 ton tools ("U" dies)
- Audible pressure "pop-off" valve indicates crimp completion
- Easy installation with 360° swivel crimping head
- Aluminum and copper color-coded lugs and splices are UL listed and CSA certified when installed with specified die set
- Can be used with Tool Analyzer ST-100 (pg. 22) to retrieve tool statistics
- Includes high impact carrying case, lanyard, die compartment & battery charger

CAPACITY: 8 AWG - 750 MCM Aluminum & Copper Lugs/Splices

LENGTH: 16.5 in. **WIDTH:** 11.8 in.

HEIGHT: 11.8 in. **WEIGHT:** 17.6 lbs.



For use with: BCU, BBCU, BLU, BBLU, BBLZ, TLU, LL, LLR, and LLN style copper connectors;

KO, KD, KN, PIK, PSK, PS, PSS, PSKS, KBO, KKBO, KBD, KKBD, BCUA, BLUA, FKLA, FSLA, FULA style aluminum connectors

TPU-6B DIELESS BATTERY-ACTUATED HYDRAULIC TOOL 6 TON OUTPUT FORCE

- 18v LI-ION battery operation
- Provides up to 70% more crimp cycles than with Ni-Cd batteries
- Integral LED work light and built in diagnostics
- Dieless installation system utilizes four indentors to make the crimp, eliminates the need to purchase and maintain dies
- Audible pressure "pop-off" valve indicates crimp completion
- UL listed and CSA certified crimp connections when used with Penn-Union copper color-coded lugs and splices (6 AWG - 500 MCM)
- Can be used with Tool Analyzer ST-100 (pg. 22) to retrieve tool statistics
- Includes durable high impact carrying case with lanyard and battery charger

CAPACITY: 8 AWG - 500 MCM Aluminum & Copper Lugs/Splices

LENGTH: 14.2 in. **WIDTH:** 3.0 in.

HEIGHT: 12.2 in. **WEIGHT:** 9.7 lbs.



For use with: BCU, BBCU, BLU, BBLU and BBLZ style copper connectors; BCUA and BLUA style aluminum connectors (NOT UL listed or CSA certified with this tool)

TPU-6FTB DIELESS BATTERY-ACTUATED HYDRAULIC TOOL

6 TON OUTPUT FORCE

- 18v LI-ION battery operation
- Provides up to 70% more crimp cycles than with Ni-Cd batteries
- Integral LED work light and built in diagnostics
- Flip top design with pull pin locking mechanism allows for easy cable positioning and removal
- Accepts larger connectors up to 750 MCM
- Dieless installation system utilizes four indentors to make the crimp, eliminates the need to purchase and maintain dies
- Audible pressure “pop-off” valve indicates crimp completion
- UL listed and CSA certified crimp connections when used with Penn-Union color-coded lugs and splices (6 AWG - 750 MCM)
- Can be used with Tool Analyzer ST-100 (pg. 22) to retrieve tool statistics
- Includes durable high impact carrying case with lanyard and battery charger

CAPACITY: 8 AWG - 750 MCM Aluminum & Copper Lugs/Splices,

LENGTH: 14.2 in. **WIDTH:** 3.0 in. **HEIGHT:** 14.0 in. **WEIGHT:** 10.6 lbs.



For use with: BCU, BBCU, BLU, BBLU and BBLZ style copper connectors;

BCUA and BLUA style aluminum connectors (NOT UL listed or CSA certified with this tool)

BCT-750 BATTERY-ACTUATED CABLE CUTTER

- 18v LI-ION battery operation
- Light weight, hook head type design
- Hardened steel blades for long life
- Ergonomic space saving design
- Includes high impact carrying case with lanyard and battery charger

CUTTING CAPACITY: 750 MCM Hard Drawn Copper, 1000 MCM Soft Drawn Copper, 1000 MCM Aluminum

LENGTH: 4.2 in. **WIDTH:** 4.6 in. **HEIGHT:** 14.8 in. **WEIGHT:** 4.4 lbs.



BCTA-1000 BATTERY-ACTUATED HYDRAULIC CABLE CUTTER

- 18v LI-ION battery operation
- 180° head rotation for easy operation
- Light weight and portable
- Flip top head design with positive latch
- Includes high impact carrying case with lanyard and battery charger

CUTTING CAPACITY: Aluminum & Copper Cable up to 1.29" Diameter (1250 MCM); and ACSR up to 1113 MCM

LENGTH: 16.9 in. **WIDTH:** 2.9 in. **HEIGHT:** 12.2 in. **WEIGHT:** 20.3 lbs.



HAND-OPERATED CABLE CUTTERS

CT-2/0 HEAVY-DUTY CABLE CUTTER

- Forged steel construction for durability and long life
- Insulated handles

CUTTING CAPACITY: Aluminum & Copper Cables Only

- up to 2/0 AWG

LENGTH: 9.2 in. **WEIGHT:** 1.1 lbs.



CT-250 HIGH QUALITY MANUAL CABLE CUTTER

- Designed for easy cutting, minimum cable distortion and long life
- Heat treated durable steel blades
- Steel handles with non-slip rubber grips
- Economical, lightweight, compact design fits easily into tool boxes
- 1-year limited warranty (excluding blades)

CUTTING CAPACITY: Aluminum & Copper Cables Only

- up to 250 MCM

LENGTH: 11.8 in. **WEIGHT:** 1.5 lbs.



CT-500 HIGH QUALITY MANUAL CABLE CUTTER

- Designed for easy cutting, minimum cable distortion and long life
- Heat treated durable steel blades
- Steel handles with non-slip rubber grips
- Economical, lightweight, compact design fits easily into tool boxes
- 1-year limited warranty (excluding blades)

CUTTING CAPACITY: Aluminum & Copper Cables Only

- up to 500 MCM

LENGTH: 20.9 in. **WEIGHT:** 2.6 lbs.



CT-750 MANUAL RATCHET CABLE CUTTER

- Simple one-hand operation
- Compact ratchet design for tight work spaces
- Rust resistant black oxide finish
- Heat treated steel cutting blades can be opened mid-cycle
- 1-year limited warranty (excluding blades)

CUTTING CAPACITY: Aluminum & Copper Conductors up to 750 MCM; NOT FOR USE on ACSR or Steel Jacketed Cable

LENGTH: 9.4 in. **WEIGHT:** 2.1 lbs.



CT-1000 MANUAL RATCHET CABLE CUTTER

- Two-handed operation provides additional leverage, makes cutting larger cables easier
- Ratcheting mechanism and compact design allow for use in tight spaces
- Cutting blades can be opened mid-cycle
- Steel handles with non-slip rubber grips
- 1-year limited warranty (excluding blades)

CUTTING CAPACITY: Aluminum & Copper Cables Only
- up to 1000 MCM

LENGTH: 16.9 in. **WEIGHT:** 2.0 lbs.

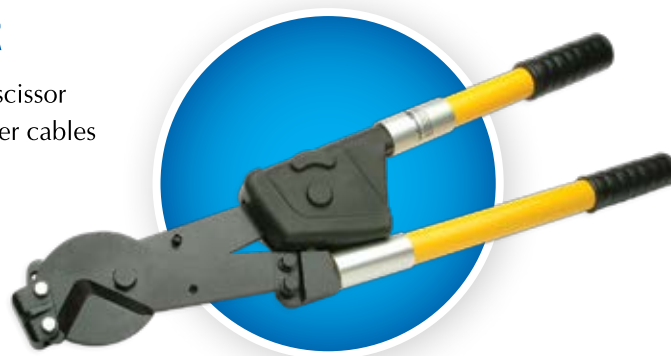


CTA-750 MANUAL RATCHET CABLE CUTTER

- Two cutting actions - fast scissor, quickly cut small cable in scissor mode, cutter converts automatically to ratchet mode for larger cables
- 1-year limited warranty (excluding blades)

CUTTING CAPACITY: Aluminum & Copper Conductors
up to 750 MCM; ACSR Conductor up to 636 MCM (30/19)
and Soft Steel Rod up to 1/2 in.

LENGTH: 31.5 in. **WEIGHT:** 11.0 lbs.



DCT-750 DRILL-ACTUATED CABLE CUTTER

- Time saving cable cutter easily attaches to any cordless or corded drill motor that accepts a 3/8" drive shaft
- Rugged metal housing with durable gears for long life
- Contour machined blade design minimizes cable distortion
- Replaceable heat-treated durable steel blades
- Ergonomically designed handle for comfort and control
- 1-year limited warranty (excluding blades)

CUTTING CAPACITY: Aluminum & Copper Cables Only - up to 750 MCM

LENGTH: 8.7 in. **WIDTH:** 8.7 lbs. **HEIGHT:** 3.5 lbs. **WEIGHT:** 6.2 lbs.



Drill not included

SMALL TERMINAL TOOLS

HTC-228 RATCHET-CONTROLLED CRIMPING TOOL NON-INSULATED TERMINALS 22 - 8 AWG

- Locking ratchet control design ensures a proper, fully completed crimp every time

LENGTH: 9.3 in. **WEIGHT:** 1.0 lb.



HTC-2214 RATCHET-CONTROLLED CRIMPING TOOL INSULATED TERMINALS 22 - 14 AWG

- Color-coded die grooves for easy identification
- Locking ratchet control design ensures a proper, fully completed crimp every time

LENGTH: 8.5 in. **WEIGHT:** 1.1 lbs.



HTC-1210 RATCHET-CONTROLLED CRIMPING TOOL INSULATED TERMINALS 12 - 10 AWG

- Locking ratchet control design ensures a proper, fully completed crimp every time

LENGTH: 12.8 in. **WEIGHT:** 2.0 lbs.

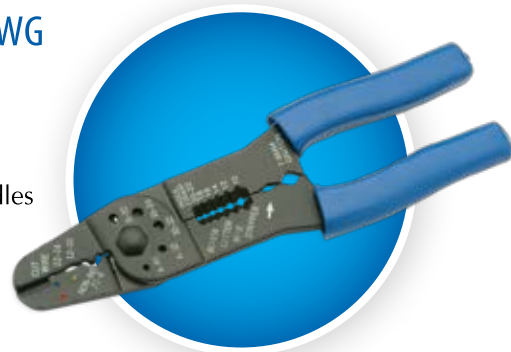


HTS-1 GENERAL PURPOSE CRIMPING TOOL INSULATED AND NON-INSULATED TERMINALS 22 - 10 AWG

- Integrated bolt cutter and wire stripper
- Easy wire cutting with anvil type wire cutter
- Durable heavy gauge steel construction with cushioned plastic handles
- Color-coded crimping grooves for easy identification

CAPACITY: Insulated and Non-insulated Terminals 22 - 10 AWG

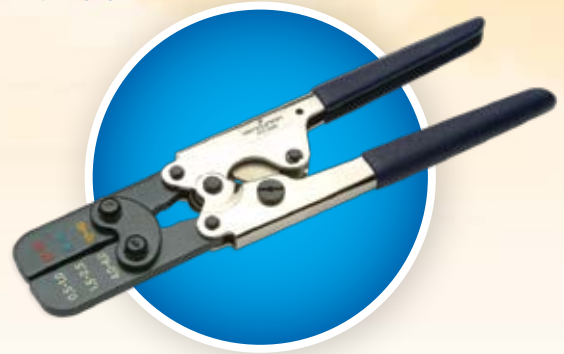
LENGTH: 9.0 in. **WEIGHT:** 0.7 lbs.



HTC-3200 HEAVY-DUTY RATCHET-TYPE CRIMPING TOOL INSULATED TERMINALS 22 - 10 AWG

- Color-coded die grooves for easy identification
- Locking ratchet control design ensures a proper, fully completed crimp every time

LENGTH: 9.0 in. **WEIGHT:** .88 lbs.



MP-1810 MULTI-PURPOSE 7-IN-1 TOOL

- Wire stripper, steel wire cutter, pliers, wire loop, scale mm/in., crimping tool with grinding blades
- High carbon steel tool with black oxide finish
- Serrated nose grip for easy wire pulling and straightening
- Contoured grips for comfort and control

CAPACITY: 18 - 10 AWG

LENGTH: 6.7 in. **WEIGHT:** 0.3 lbs.



MP-2616 MULTI-PURPOSE 7-IN-1 TOOL

- Wire stripper, steel wire cutter, pliers, wire loop, scale mm/in., crimping tool with grinding blades
- High carbon steel tool with black oxide finish
- Serrated nose grip for easy wire pulling and straightening
- Contoured grips for comfort and control

CAPACITY: 26 - 16 AWG

LENGTH: 6.7 in. **WEIGHT:** 0.3 lbs.



12 TON CRIMP DIE SELECTION CHARTS

PENN-UNION COMPRESSION DIES EQUIVALENT TO BURNDY AND HUSKIE "U" TYPE DIES FOR 12 TON TOOLS AND USE WITH COPPER CONNECTORS				
COPPER CONDUCTOR SIZE	DIE COLOR CODE	PENN-UNION	BURNDY	HUSKIE
8 AWG	RED	T-49	U8CRT	—
6 AWG	BLUE	T-7	U5CRT	HT41AT
4 AWG	GRAY	T-8	U4CRT	HT41AU
3 AWG	WHITE	T-9	U3CRT	HT41AV
2 AWG	BROWN	T-10	U2CRT	HT41AW
1 AWG	GREEN	T-11	U1CRT	HT41AX
1/0 AWG	PINK	T-12	U25RT	HT41AY
2/0 AWG	BLACK	T-13	U26RT	HT41AZ
3/0 AWG	ORANGE	T-14	U27RT	HT41BA
4/0 AWG	PURPLE	T-15	U28RT	HT41BC
250 kcmil	YELLOW	T-16	U29RT	HT41BE
300 kcmil	WHITE	T-17	U30RT	HT41BF
350 kcmil	RED	T-18	U31RT	HT41BJ
400 kcmil	BLUE	T-19	U32RT	HT41BK
500 kcmil	BROWN	T-20	U34RT	HT41BL
600 kcmil	GREEN	T-22	U36RT	HT41BM
650 kcmil	PINK	T-300	U34ART	HT41FB
750 kcmil	BLACK	T-24	U39RT	HT41BP

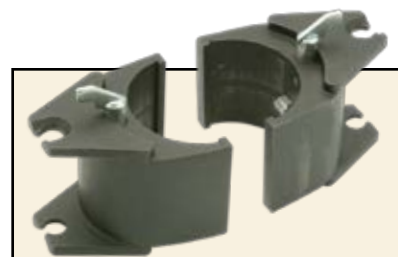


"U" TYPE DIES

TOOLS THAT ACCEPT "U" TYPE DIES	
TPU-12B	PAGE 6
TPU-12B42	PAGE 7
TPU-18B	PAGE 8
TPU-12BH	PAGE 10
TPU-12B42H	PAGE 11
TPU-18BH	PAGE 11
TPU-1500H (WITH PU-15 ADAPTER)	PAGE 12
TPU-42B	PAGE 14

Penn-Union dies listed above provide UL and/or CSA certified connections when used with Penn-Union tools and connectors.

PENN-UNION COMPRESSION DIES EQUIVALENT TO BURNDY AND HUSKIE "U" TYPE DIES FOR 12 TON TOOLS AND USE WITH ALUMINUM CONNECTORS				
ALUMINUM OR COPPER CONDUCTOR SIZE	DIE COLOR CODE	PENN-UNION	BURNDY	HUSKIE
8 AWG	BLUE	T-374	U8CABT	HT41GL
6 AWG	GRAY	T-346	U6CABT	HT41GE
4 AWG	GREEN	T-375	U4CABT	HT41GM
2 AWG	PINK	T-348	U2CABT	HT41GF
1 AWG	GOLD	T-471	U1CART	—
1/0 AWG	TAN	T-296	U25ART	HT41EX
2/0 AWG	OLIVE	T-297	U26ART	HT41EY
3/0 AWG	RUBY	T-467	U27ART	HT41GW
4/0 AWG	WHITE	T-298	U28ART	HT41EZ
250 kcmil	RED	T-324	U29ART	HT41FW
300 kcmil	BLUE	T-470	U30ART	HT41GZ
350 kcmil	BROWN	T-299	U31ART	HT41FA
400 kcmil	GREEN	T-472	U32ART	HT41HH
500 kcmil	PINK	T-300	U34ART	HT41FB
600 kcmil	BLACK	T-473	U36ART	HT41HG

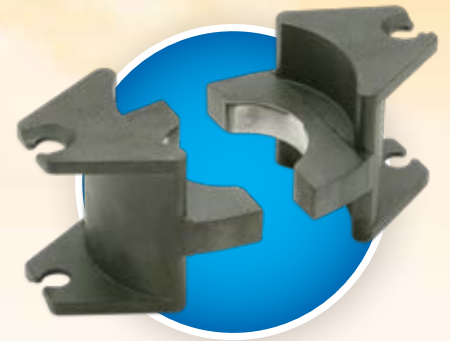


PU-15 "U" DIE ADAPTER

- Accepts all industry standard 12 ton "U" style dies
- For use in TPU-1500H, 15 ton remote hydraulic crimping tool (pg. 12)

15 TON CRIMP DIE SELCTION CHARTS

PENN-UNION COMPRESSION DIES EQUIVALENT TO BURNDY AND HUSKIE "P" TYPE DIES FOR 15 TON TOOLS AND USE WITH COPPER CONNECTORS			
COPPER CONDUCTOR SIZE	PENN-UNION	BURNDY	HUSKIE
750 kcmil	T-24P	P39RT	HT61BP
800 kcmil	T-25P	P40RT	HT61BR
1000 kcmil	T-27P	P44RT	HT61BU
1500 kcmil	T-31P	P46RT	HT61BV



"P" TYPE DIES

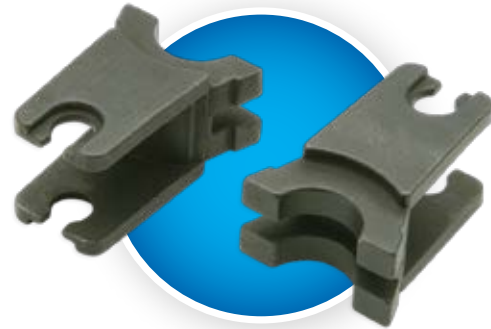
Penn-Union 15 TON Crimp Tool
Model TPU-1500H (pg. 12)
accepts all industry standard
"P" Type Dies

PENN-UNION COMPRESSION DIES EQUIVALENT TO BURNDY AND HUSKIE "P" TYPE DIES FOR 15 TON TOOLS AND USE WITH ALUMINUM CONNECTORS			
ALUMINUM OR COPPER CONDUCTOR SIZE	PENN-UNION	BURNDY	HUSKIE
750 kcmil	T-301P	P39ART	HT61FC
800 kcmil	T-474P	P40ART	HT61HJ
1000 kcmil	T-302P	P44ART	HT61FD

Penn-Union dies listed above provide UL and/or CSA certified connections when used with Penn-Union tools and connectors.

"W" TYPE CRIMP DIE SELECTION CHARTS

PENN-UNION COMPRESSION DIES EQUIVALENT TO BURNDY AND HUSKIE "W" TYPE DIES FOR USE IN 4-6 TON TOOLS		
PENN-UNION	BURNDY	HUSKIE
PW-K840	W-K840	HT58AE
PW-161	W-161	HT58BX
PW-162	W-162	HT58BZ
PW-163	W-163	HT58CB
PW-164	W-164	HT58CD
PW-165	W-165	HT58CE
PW-166	W-166	HT58CF
PW-167	W-167	HT58CG
PW-171	W-171	HT58CM
PW-BG	W-BG	HT58G
PW-C	W-C	HT58J
PW-O	W-O	HT58AK
PW-CUTTER	W-CUTTER	HT58CUT
PW-236	W-236	HT58DE
PW-238	W-238	HT58DG
PW-239	W-239	HT58DH
PW-241	W-241	HT58DK



"W" TYPE DIES

Penn-Union Compression Tool
Model TMU-OD3 (pg. 5)
accepts all industry standard
"W" Type Dies

PENN-UNION	BURNDY	HUSKIE
PW-243	W-243	HT58DM
PW-245	W-245	HT58DP
PW-247	W-247	HT58DT
PW-248	W-248	HT58DV
PW-249	W-249	HT58DW
PW-687	W-687	HT58KA
PW-702	W-702	HT58KH
PW-L	W-L	HT58AF

TOOL ACCESSORIES



LI-18-A LITHIUM ION BATTERY

- 18v DC output, capacity 3Ah
- Charging time 60 minutes
- Provides up to 70% more crimp cycles than Ni-Cd batteries
- Works with Penn-Union 18v tools: TPU-6B, TPU-6FTB, TPU-42B, BCT-750, and BCTA-1000 (pgs. 14-15)



LI-18-B LITHIUM ION BATTERY

- 18v DC output, capacity 1.5Ah
- Charging time 30 minutes
- Provides up to 70% more crimp cycles than Ni-Cd batteries
- Works with Penn-Union 18v tools: TPU-6B, TPU-6FTB, TPU-42B, BCT-750, and BCTA-1000 (pgs. 14-15)



BC-07 18V LITHIUM ION BATTERY CHARGER

- LED display indicates charging status
- Battery protection circuitry prevents overcharging
- Charges Penn-Union 18v Li-ION batteries: LI-18-A and LI-18-B



ST-100 ANALYZER FOR BATTERY-ACTUATED TOOLS WITH SENSOR TECHNOLOGY

- Easily plugs into Penn-Union battery compression tools (TPU-42B, TPU-6B, and TPU-6FTB pgs. 14-15) and allows user to monitor
- Crimping pressure
- Tool temperature
- Battery voltage
- Logs number of crimp cycles and crimping pressure achieved

User Enabled Features:

- Set LED on time
- Set pressure alarm
- Set temperature alarm



PG-1000 IN-LINE PRESSURE GAUGE KIT

- Use to measure oil pressure of hydraulic pumps
- Maximum working pressure 10,000 psi
- 2.5" diameter gauge
- 3/8" NPT connection



TG-1000 CRIMPING TOOL LOAD CELL

- Use to calibrate and measure force developed by 12 ton hydraulic tools
- Maximum working pressure 10,000 psi
- Supplied with U-Type test dies
- Large, easy to read 3.5" diameter gauge
- Includes steel carrying case



H-6 6 FOOT HYDRAULIC HOSE

- Maximum pressure 10,000 psi
- 3/8" male NPT out threads



H-10 10 FOOT HYDRAULIC HOSE

- Maximum pressure 10,000 psi
- 3/8" male NPT out threads

TOOL ACCESSORIES



C-18 QUICK COUPLER

- Complete quick coupler
- 3/8" male NPT threads each end



C-18-F CONNECTOR

- Female coupling half
- 3/8" male NPT screw type



C-18-M CONNECTOR

- Male coupling half
- 3/8" NPT threads



C-20 QUICK COUPLER

- Complete quick coupler
- 3/8" female NPT threads each end



C-20-F CONNECTOR

- Female coupling half
- 3/8" female NPT threads
- Push/pull quick connect



C-20-M CONNECTOR

- Male coupling half
- 3/8" female NPT threads

WARRANTY INFORMATION

All Penn-Union tools including hydraulic and mechanical crimping tools, battery powered crimping tools, hydraulic and mechanical cable cutters, hydraulic pumps, pressure gauges and accessory items carry a one-year (1) warranty against defects in materials and manufacturing from purchase date. Cutting blades, batteries, and chargers are NOT covered under this warranty as they are considered expendables.

Penn-Union warrants all new tooling products to be free of defects in materials and manufacturing for a period of one-year (1) from the date of sale. Upon receipt or notification of a defective product within the warranty period, it will be replaced or repaired at Seller's option free of charge.

Seller shall not be responsible for the cost of transportation incurred in connection with the repair or replacement of these products.

Penn-Union does not assume any liability for the improper selection, repair, use or abuse of such tools. If in the Seller's judgment the tool has been abused, tampered with, altered, or damaged by improper selection, repair or use, the above warranty is void.

This warranty, and the Seller's obligation hereunder, is in lieu of all other warranties, express, implied or statutory, including any warranties of merchantability and of fitness for a particular purpose, and all other obligations or liabilities, including incidental and consequential damages.

REPAIR AND WARRANTY CLAIMS

All claims must be sent to Penn-Union for inspection and authorization. A Return Materials Authorization (RMA) must be requested and issued before shipping tools to Penn-Union. An authorization can be requested by contacting Penn-Union by telephone (814) 734-1631, fax (814) 734-4946 or email (sales@penn-union.com). Please include all details of the claim including model number, description of issue, date of purchase and distributor through which the tool or accessory was purchased. Non-warranty repairs will be handled using this same procedure. Any repairs which exceed 50% of the cost of a new tool will be advised prior to repairs being made. All products will be returned to Penn-Union's Edinboro, PA, USA facility.

PENN-UNION COPPER CONNECTORS FOR USE WITH VERSA-CRIMP® TYPE INSTALLATION TOOLING

(Number of required crimps per connection by connector & tool combinations)



COPPER CONNECTOR CATALOG NUMBER FOR TYPES: BLU, BCU, BBLU, BBCU	VERSA-CRIMP® TOOLS WIRE RANGE AWG OR MCM STRAINED COPPER	VERSA-CRIMP® TOOLS / CONNECTOR TYPES / NUMBER OF CRIMPS						
		VC6-350		VC6-500-BP		VC6-3 ⬠		VC6-FT
		BLU/BCU	BBLU/BBCU	BLU/BCU	BBLU/BBCU	BLU/BCU	BBLU/BBCU	BLU/BCU
- 6	# 6	1	2	1	2	—		—
- 4	# 4	1	2	1	2	—		—
- 2	# 6 - #2	1	2	1	2	1	2 O'LAP	1
- 1	# 6 - #1	1	3	1	3	1	2	1
- 1/0	# 6 - 1/0	1	3	1	3	1	2	1
- 2/0	# 4 - 2/0	1	3	1	3	1	2	1
- 3/0	# 2 - 3/0	2	3	2	3	2 O'LAP	2	2 O'LAP
- 4/0	# 1 - 4/0	2	3	2	3	2 O'LAP	2	2 O'LAP
- 025	1/0 - 250	2	3	2	3	2 O'LAP	2	2 O'LAP
- 030	2/0 - 300	2	4	2	4	2 O'LAP	3	2 O'LAP
- 035	3/0 - 350	—		3 O'LAP	5	2 O'LAP	3	2 O'LAP
- 040	4/0 - 400	—		3 O'LAP	6	2 O'LAP	3	2 O'LAP
- 050	4/0 - 500	—		4 O'LAP	6	2	4 O'LAP	2
- 060	250 - 600	—		—		—		2
- 075	500 - 750	—		—		—		3 O'LAP
- 080	500 - 800	—		—		—		—
- 100	750 - 1000	—		—		—		—
- 150	1000 - 1500	—		—		—		—

⬠ Users of HUSKIE® EP-630A, ANDERSON VC7 and related tools must strip off an extra 1-5/8" of insulation from one end of cable to permit removal of tool over conductor sizes 250 MCM and larger on "BCU" and "BBCU" splicing sleeves.

⬠ VC8C Tool Crimps 500 MCM only.

⬠ VC8C Tool Crimps 500-600 MCM only.

VERSA-CRIMP® TOOLS / CONNECTOR TYPES / NUMBER OF CRIMPS

VC6-FT	VC7 ①		VC7-FT		VC8C	
	BLU/BCU	BBLU/BBCU	BLU/BCU	BBLU/BBCU	BLU/BCU	BBLU/BBCU
—	—	—	—	—	—	—
—	—	—	—	—	—	—
2 0'LAP	1	2	1	2	—	—
2	1	2	1	2	—	—
2	1	2	1	2	—	—
2	1	2	1	2	—	—
2	2	2	2	2	—	—
2	2	2	2	2	—	—
2	2	2	2	2	—	—
3	2	3	2	3	—	—
3	2	3	2	3	—	—
3	2	3	2	3	—	—
4 0'LAP	2	4	2	4	1 ②	2 ②
4	—	—	2	4	1 ③	3 ③
4 0'LAP	—	—	3	4	2 0'LAP	3
—	—	—	—	—	2 0'LAP	3
—	—	—	—	—	2	4 0'LAP
—	—	—	—	—	2	4 0'LAP

VERSA-CRIMP® is a registered trademark of HUBBELL Incorporated

TOOL SUMMARY:

REPRESENTATIVE TOOL & RELATED TOOLS

“P” = PENN-UNION®

“A” = ANDERSON®

“H” = HUSKIE®

“A” VC6-350
RELATED TOOLS:

“A” VC6-350R
“A” VC6-350-SN
“A” VC6-350R-SN

“A” VC6-500-BP
RELATED TOOLS:

NONE

“A” VC6-3 ①
RELATED TOOLS:

“P” TPU-6
“H” EP-630A
“P” TPU-6B
“A” VC6-3
“A” VC6-3-BP
“H” REC-6630
“P” TPU-6H
“A” VC6R
“H” EP-630HA

“A” VC6-FT
RELATED TOOLS:

“P” TPU-6FT
“H” EP-750A
“P” TPU-6FTB
“A” VC6-FT-BP
“H” REC-750
“P” TPU-6FTH
“A” VC6-FTR
“H” EP-750HA

“A” VC7 ①
RELATED TOOLS:

“A” VC7R

“A” VC7-FT
RELATED TOOLS:

“A” VC7-FTR

“A” VC8C
RELATED TOOLS:

NONE

COMPRESSION CONNECTOR CRIMPING GUIDELINES

To retain UL or CSA rating, installation tools and methods must be matched to the connectors used

Of all the methods used to make electrical connections, compression of the connector onto the cable with some type of compression tool is considered by most installers to be the most permanent of the common connection methods. To maintain Underwriters Laboratories (UL) or Canadian Standards Association (CSA) for a completed compression connection, it is necessary to use the installation tools and installation methods which have been qualified for the connectors by those organizations during the listing/certification processes.

Cable Preparation

It is imperative that the cable strands and the compression connector be clean and free of dirt and/or corrosion. This is particularly important when making connections on cables which have been installed for a period of time.

Connectors which are Underwriters Laboratories Listed or Canadian Standards Association Certified may contain installation instructions in the connector carton which may include information such as usable cable types, insulation strip lengths, and crimping tools for specific connectors. Proper preparation of the cable can make the difference between a permanent connection and a connection which may require a service call at some point in the future.

The cable material will dictate the type of connector which can be used in the compression connection. Copper cable can be installed in a copper compression connector which has a "CU" rating or in an aluminum compression connector which has a "AL9CU" rating. Aluminum cable on the other hand, can ONLY be installed in an aluminum compression connector which has a rating of "AL" or "AL9CU". **ALUMINUM CABLE CAN NEVER BE INSTALLED IN A COPPER COMPRESSION CONNECTOR.**

Once the cable preparation has been accomplished and the proper type and size of compression connector has been selected, the connector manufacturer's recommendations for choice of compression tooling and compression methods

should be followed to maintain the UL and/or CSA rating for the completed connection. Connector manufacturers will often be in a position to specify several equivalent UL/CSA crimping recommendations for a specific connector installation. For connectors from No. 22 AWG through No. 10 AWG the compression tools most often have mechanical operation. For No. 8 AWG through 4/0 AWG, the compression tools could use either mechanical or hydraulic means to apply the crimping force.

Historically at 250 kcmil and above in wire size, the crimping force was almost always applied by a hydraulic crimping tool. With the advent of the TDM500, that has changed to 500kcmil due to the extra available leverage generated by the extendable handles. Mechanical tools for small wire sizes are generally single leverage types, while those for the medium sized cables apply the crimping force via a compound leverage system. Mechanical crimping tools make either a surrounding type of crimp (Fig. 1A) or a nest and indenter crimp shape (Fig. 1B). The hydraulic crimping tools used for the medium and large cable sizes can have quite a variety of crimping die systems and hydraulic pressure sources.

Die-type Crimpers

The die-type tools require that a separate set of inserts be placed into the crimping tool head for each different size and type (AL or CU) of connector that is to be crimped. These crimping die inserts are shaped to compress their specific connector size the correct amount when the full force of the hydraulic system of the tool is applied to them. Die type crimping tools generally produce crimps that surround the barrel of the connector with either a rounded oval or a hexagonally shaped outer surface.

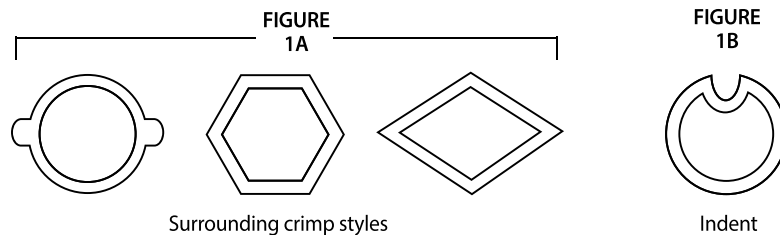
Many of the copper and aluminum connectors used in the electrical contracting industry have a color code applied to them which matches up with a crimping die reference of the same color. This color code is meant to allow the installer to be able to find the correct die more quickly from as many as

several dozen die sets that may be required to crimp all of the connectors within the installation range of the specific hydraulic crimping tool.

Certain styles of connectors used in the electric utility industry are designed to minimize the number of crimping die sets that each line crew must carry. These special connectors are designed to have a constant outside diameter on the crimp barrel portion of the connector with various inside diameters to match conductor size. For example, a popular grouping of electric utility connectors has a constant outside diameter of 0.640 inches for a series of cable sizes from No. 10 AWG through 1/0 AWG and all of the individual connectors are crimped with the same die insert. Electric utilities also use a series of compression taps with a cross section shape similar to the letter "H" which are grouped to install most cable size combinations between No. 6 AWG and 500 kcmil with only three crimping die sizes.

Dieless-type Crimpers

The other class of hydraulic crimping tools are the dieless tools. Dieless actually means that there is no die insert change needed when one needs to crimp a different connector size within the range of the tool. The dieless hydraulic tools can be further classified by the three general crimp shapes that are made. One group of dieless tools makes crimps which are of the nest and indenter style with the nest being a stationary portion of the tool and the indenter moving with the hydraulic ram. A second grouping of dieless tools makes use of multiple indentors which indent the connector from multiple sides without the use of a nest. The third group of dieless tools provides a crimp which surrounds the connector barrel and has an appearance more like that of a die type tool than either of the two indenter style dieless tools can provide. All of the dieless tool types are capable of crimping cylindrical connector barrels as recommended by their respective manufacturers.



AWG VS. METRIC WIRE SIZES










Circ. Mils	Equivalent Circ. Mils	Awg. Size	Metric Wire Size mm ²	Stranding/ Wire Diameter Per Strand		Approximate Overall Diameter		Circ. Mils	Equivalent Circ. Mils	Awg. Size	Metric Wire Size mm ²	Stranding/ Wire Diameter Per Strand		Approximate Overall Diameter	
				in	mm	in	mm					in	mm	in	mm
—	987	—	0.50	1/0.32	1/1.813	.032	0.81	83690	—	1	—	19/0.0664	19/1.69	.332	8.43
1020	—	20	—	7/0.121	7/3.07	.036	0.91	—	98680	—	50	19/0.073	19/1.85	.365	9.27
—	1480	—	0.75	1/0.39	1/1.991	.039	0.99	105600	—	1/0	—	19/0.0745	19/1.89	.373	9.46
1620	—	18	—	1/0.403	1/1.02	.040	1.02	133100	—	2/0	—	19/0.0837	19/2.13	.419	10.6
1620	—	18	—	7/0.152	7/3.86	.046	1.16	—	138100	—	70	19/0.086	19/2.18	.430	10.9
—	1974	—	1.0	1/0.45	1/1.14	.045	1.14	167800	—	3/0	—	19/0.094	19/2.39	.470	11.9
—	1974	—	1.0	7/0.17	7/4.32	.051	1.30	167800	—	3/0	—	37/0.0673	37/1.71	.471	12.0
2580	—	16	—	1/0.508	1/1.29	.051	1.29	—	187500	—	95	19/0.101	19/2.57	.505	12.8
2580	—	16	—	7/0.192	7/4.88	.058	1.46	—	187500	—	95	37/0.072	37/1.83	.504	12.8
—	2960	—	1.5	1/0.55	1/1.40	.055	1.40	211600	—	4/0	—	19/0.1055	19/2.68	.528	13.4
—	2960	—	1.5	7/0.21	7/5.33	.063	1.60	—	237.8 MCM	—	120	37/0.081	37/2.06	.567	14.4
4110	—	14	—	1/0.641	1/1.63	.064	1.63	250 MCM	—	—	—	37/0.0822	37/2.09	.575	14.6
4110	—	14	—	7/0.242	7/6.15	.073	1.84	300 MCM	—	—	150	37/0.090	37/2.29	.630	16.0
—	4934	—	2.5	1/0.71	1/1.80	.071	1.80	350 MCM	—	—	—	37/0.0973	37/2.47	.681	17.3
—	4934	—	2.5	7/0.27	7/6.86	.081	2.06	—	365.1 MCM	—	185	37/0.100	37/2.54	.700	17.8
6530	—	12	—	1/0.808	1/2.05	.081	2.05	400 MCM	—	—	—	37/0.104	37/2.64	.728	18.5
6530	—	12	—	7/0.305	7/7.75	.092	2.32	—	473.6 MCM	—	240	37/0.114	37/2.90	.798	20.3
—	7894	—	4	1/0.89	1/2.26	.089	2.26	—	473.6 MCM	—	240	61/0.089	61/2.26	.801	20.3
—	7894	—	4	7/0.34	7/8.64	.102	2.59	500 MCM	—	—	—	37/0.1162	37/2.95	.813	20.7
10380	—	10	—	1/1.019	1/2.59	.102	2.59	500 MCM	—	—	—	61/0.0905	61/2.30	.814	20.7
10380	—	10	—	7/0.385	7/9.78	.116	2.93	—	592.1 MCM	—	300	61/0.099	61/2.51	.891	22.6
—	11840	—	6	1/1.109	1/2.77	.109	2.77	600 MCM	—	—	—	61/0.0992	61/2.52	.893	22.7
—	11840	—	6	7/0.42	7/1.07	.126	3.21	700 MCM	—	—	—	61/0.1071	61/2.72	.964	24.5
13090	—	9	—	1/1.144	1/2.91	.1144	2.91	750 MCM	—	—	—	61/0.1109	61/2.82	.998	25.4
13090	—	9	—	7/0.432	7/1.10	.130	3.30	750 MCM	—	—	—	91/0.0908	91/2.31	.999	25.4
16510	—	8	—	1/1.285	1/3.26	.128	3.26	—	789.4 MCM	—	400	61/0.114	61/2.90	1.026	26.1
16510	—	8	—	7/0.486	7/1.23	.146	3.70	800 MCM	—	—	—	61/0.1145	61/2.91	1.031	26.2
—	19740	—	10	1/1.141	1/3.58	.141	3.58	800 MCM	—	—	—	91/0.0938	91/2.38	1.032	26.2
—	19740	—	10	7/0.54	7/1.37	.162	4.12	1000 MCM	986.8 MCM	—	500	61/0.1280	61/3.25	1.152	29.3
20820	—	7	—	1/1.443	1/3.67	.144	3.67	1000 MCM	—	—	—	91/0.1048	91/2.66	1.153	29.3
20820	—	7	—	7/0.545	7/1.38	.164	4.15	—	1233.7 MCM	—	625	91/0.117	91/2.97	1.287	32.7
26240	—	6	—	1/1.162	1/4.11	.162	4.11	1250 MCM	—	—	—	91/0.1172	91/2.98	1.289	32.7
26240	—	6	—	7/0.612	7/1.55	.184	4.66	1250 MCM	—	—	—	127/0.0992	127/2.52	1.290	32.8
—	31580	—	16	7/0.68	7/1.73	.204	5.18	1500 MCM	—	—	—	91/0.1284	91/3.26	1.412	35.9
33090	—	5	—	7/0.688	7/1.75	.206	5.24	1500 MCM	—	—	—	127/0.1087	127/2.76	1.413	35.9
41740	—	4	—	7/0.772	7/1.96	.232	5.88	—	1578.8 MCM	—	800	91/0.132	91/3.35	1.452	36.9
—	49340	—	25	7/0.85	7/2.16	.255	6.48	—	1973.5 MCM	—	1000	91/0.147	91/3.73	1.617	41.1
—	49340	—	25	19/0.052	19/1.32	.260	6.60	2000 MCM	—	—	—	127/0.1255	127/3.19	1.632	41.5
52620	—	3	—	7/0.867	7/2.20	.260	6.61	2000 MCM	—	—	—	169/0.1088	169/2.76	1.632	41.5
66360	—	2	—	7/0.974	7/2.47	.292	7.42	—	—	—	—	—	—	—	—
—	69070	—	35	7/1.100	7/2.54	.300	7.62	—	—	—	—	—	—	—	—
—	69070	—	35	19/0.061	19/1.55	.305	7.75	—	—	—	—	—	—	—	—

DIESEL LOCOMOTIVE & CAR WIRING CABLE

Conductor Stranding	Approx. Size Awg	Circular Mil Area	Conductor Diameter Inches
19/0117	16	2601	.060
19/27	14	3831	.070
19/25	12	6088	.090
27/24	10	10910	.123
37/24	8	14950	.140
61/24	6	24640	.180
91/24	5	36760	.220
105/24	4	42420	.240
125/24	3	50500	.260
150/24	2	60600	.325
225/24	1	90900	.390
275/24	1/0	111100	.420
325/24	2/0	131300	.460
450/24	3/0	181800	.565
550/24	4/0	222200	.590
650/24		262600	.660
775/24		313100	.740
925/24		373700	.790
1100/24		444400	.870
1325/24		535300	.940
1600/24		646400	1.025
1925/24		777700	1.120
2300/24		929200	1.230
2750/24		1111000	1.370

ADDITIONAL WIRE SIZE RECOMMENDATIONS FOR COPPER PENN-CRIMPS®

TYPES: BCU, BCU-FL, BBCU, BBCU-FL, BLU, BLU-FL, BBLU, BBLU-FL, BBLZ

Copper Connector Catalog Type Splices and Lugs (1 & 2 Hole)	 	 	 	 	 	 	 	 		
	Class B & C Building Wire Cu Cable Size & Stranding	Class I Flexible Cable (#24AWG Cu Strands) Size & Stranding	Class K Weld Cable (#30AWG Cu Strands) Size & Stranding	Diesel Locomotive Cable (#24AWG Cu Strands) Size & Stranding	Class H Cable (No. & Dia. of Wire) Size & Stranding	Class G Cable (No. & Dia. of Wire) Size & Stranding	Class M Flexible Cable (#34AWG Cu Strands) Size & Stranding	Metric Cable Wire Size Range Copper Cable Only Metric Size & Dia.	Navy Cable	Air Craft
BCU-BBCU-BLU-BBLU-8 BBLZ	#8 AWG 7 or 19	#8 AWG 41/24	None	None	*#8 AWG 133/.0111	*#8 AWG 49/.0184	#8 AWG 420/34	6mm ² 3.21mm	#23	AN-8
BCU-BBCU-BLU-BBLU-6 BBLZ	#6 AWG 7 or 19	#6 AWG 63/24	None	None	*#7 AWG 133/.0125	#7 AWG 49/.0206	#7 AWG 532/34	10mm ² 4.12mm	None	None
BCU-BBCU-BLU-BBLU-5 BBLZ	#5 AWG 7 or 19	None	None	None	*#6 AWG 133/.0140	*#6 AWG 49/.0231	#6 AWG 665/34	16mm ² 5.18mm	#30	AN-6
BCU-BBCU-BLU-BBLU-4 BBLZ	#4 AWG 7 or 19	None	None	None	*#5 AWG 133/.0158	*#5 AWG 49/.0260	#5 AWG 836/34	*20mm ² 5.72mm	#40	None
BCU-BBCU-BLU-BBLU-3 BBLZ	#3 AWG 7 or 19	#4 AWG 105/24	#4 AWG 420/30	#4 AWG 105/24	#4 AWG 133/.0177	#4 AWG 49/.0292	#4 AWG 1064/34	25mm ² 6.60mm	#50	AN-4
BCU-BBCU-BLU-BBLU-2 BBLZ	#2 AWG 7 or 19	None	None	None	*#3 AWG 133/.0199	*#3 AWG 49/.0328	#3 AWG 1323/34	*30mm ² 7.01mm	#60	None
BCU-BBCU-BLU-BBLU-1 BBLZ	#1 AWG 19 or 37	#2 AWG 161/24	#2 AWG 665/30	#2 AWG 150/24	#2 AWG 133/.0223	#2 AWG 49/.0368	#2 AWG 1666/34	*40mm ² 8.20mm	#75	AN-2
BCU-BBCU-BLU-BBLU-1/0 BBLZ	1/0 AWG 19 or 37	None	#1 AWG 836/30	#1 AWG 225/24	#1 AWG 259/.0180	#1 AWG 133/.0251	#1 AWG 2107/34	50mm ² 9.27mm	#100	AN-1
BCU-BBCU-BLU-BBLU-2/0 BBLZ	2/0 AWG 19 or 37	1/0 AWG 266/24	1/0 AWG 1064/30	1/0 AWG 275/24	1/0 AWG 259/.0202	1/0 AWG 133/.0282	1/0 AWG 2646/34	70mm ² 10.92mm	#125	AN-1/0
BCU-BBCU-BLU-BBLU-3/0 BBLZ	3/0 AWG 19 or 37	2/0 AWG 342/24	2/0 AWG 1323/30	2/0 AWG 325/24	2/0 AWG 259/.0227	2/0 AWG 133/.0316	None	*85mm ² 11.94mm	#150	None
BCU-BBCU-BLU-BBLU-4/0 BBLZ	4/0 AWG 19 or 37	None	3/0 AWG 1666/30	3/0 AWG 450/24	3/0 AWG 259/.0255	3/0 AWG 133/.0355	2/0 AWG 3325/34	95mm ² 12.80mm	#200	AN-2/0 AN-3/0
BCU-BBCU-BLU-BBLU-025 BBLZ	250 MCM 37 or 61	None	None	None	None	None	3/0 AWG 4256/34	120mm ² 14.40mm	None	None
BCU-BBCU-BLU-BBLU-030 BBLZ	300 MCM 37 or 61	4/0 AWG 532/24	4/0 AWG 2107/30	4/0 AWG 550/24	*4/0 AWG 259/.0286	*4/0 AWG 133/.0399	4/0 AWG 5320/34	150mm ² 16.00mm	#300	AN-4/0
BCU-BBCU-BLU-BBLU-035 BBLZ	350 MCM 37 or 61	None	None	262 MCM 650/24	*250 MCM 427/.0242	*250 MCM 259/.0311	None	*180mm ² 17.42mm	#350	None
BCU-BBCU-BLU-BBLU-040 BBLZ	400 MCM 37 or 61	None	None	313 MCM 775/24	300 MCM 427/.0265	300 MCM 259/.0340	250 MCM 6384/34	185mm ² 17.80mm	#400	None
BCU-BBCU-BLU-BBLU-045 BBLZ	450 MCM 37 or 61	None	None	None	*350 MCM 427/.0286	*350 MCM 259/.0368	300 MCM 7581/34	None	None	None
BCU-BBCU-BLU-BBLU-050 BBLZ	500 MCM 37 or 61	350 MCM 882/24	None	373 MCM 925/24	400 MCM 427/.0306	400 MCM 259/.0393	350 MCM 8806/34	240mm ² 20.30mm	None	None
BCU-BBCU-BLU-BBLU-060 BBLZ	600 MCM 61 or 91	None	None	444 MCM 1100/24	450 MCM 427/.0325	450 MCM 259/.0417	400 MCM 10101/34	300mm ² 22.63mm	None	None
BCU-BBCU-BLU-BBLU-065 BBLZ	650 MCM 61 or 91	500 MCM 1225/24	None	535 MCM 1325/24	500 MCM 427/.0342	500 MCM 259/.0439	450 MCM 11396/34	None	None	None
BCU-BBCU-BLU-BBLU-075 BBLZ	750 MCM 61 or 91	None	None	646 MCM 1600/24	*550 MCM 703/.0280 *600 MCM 703/.0292	*550 MCM 427/.0359 *600 MCM 427/.0375	500 MCM 12691/34	None	None	None
BCU-BBCU-BLU-BBLU-080 BBLZ	800 MCM 61 or 91	None	None	None	*650 MCM 703/.0304	*650 MCM 427/.0390 *700 MCM 427/.0405	550 MCM 13664/34	400mm ² 26.1mm	None	None
BCU-BBCU-BLU-BBLU-100 BBLZ	1000 MCM 61 or 91	750 MCM 1862/24	None	777 MCM 1925/24	*700 MCM 703/.0316 *750 MCM 703/.0327	*750 MCM 427/.0419 *800 MCM 427/.0433	600 MCM 14945/34 650 MCM 16226/34	500mm ² 29.3mm	None	None

*Not UL Listed

ELECTRICAL POWER CONNECTORS & ACCESSORIES



With a history dating back to 1928, Penn Union has an excellent reputation as a U.S. designer, manufacturer and supplier of quality electrical connectors and related products. Penn Union services the distribution, construction, utility, power transmission, industrial, telecom, renewable energy, aerospace, transportation and MRO markets through a worldwide network of manufacturing representatives and wholesale electrical distributors.

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