

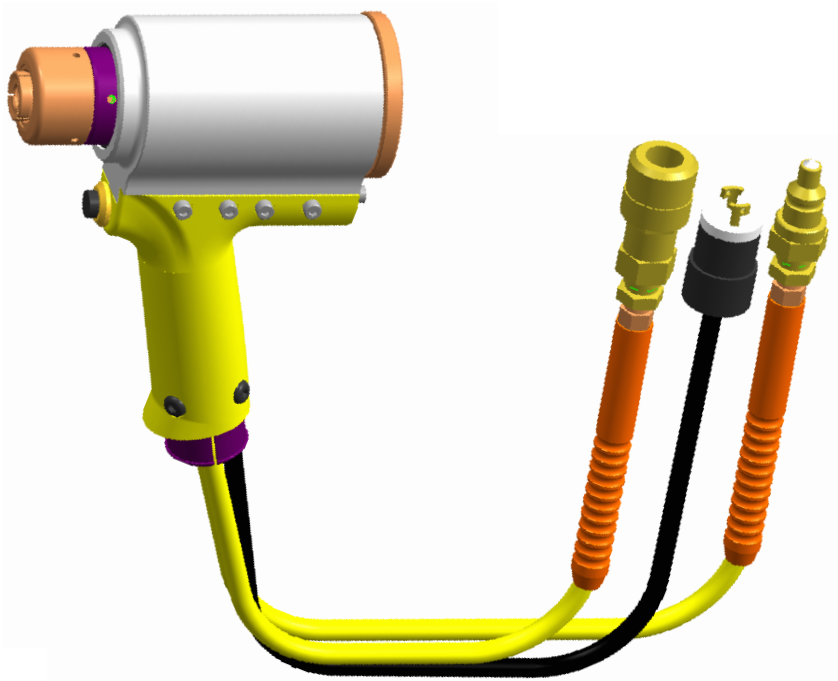


ARCONIC
Innovation, engineered.

Instruction Manual

SFBTT20-ST

BobTail® Installation System



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April 27, 2018
HK1110

**ARCONIC**

EC Declaration of Conformity

Manufacturer:

Huck International, LLC, Industrial Products Group, 1 Corporate Drive, Kingston, NY, 12401, USA

Description of Machinery:

Models SFBTT 8, 15, 20, 32, 46 family of hydraulic installation tools and specials based on their design (e.g. PR#####).

Relevant provisions complied with:

Council Directive related to Machinery (2006/42/EC)

British Standard related to hand held, non-electric power tools (ISO 11148-1:2011)

European Representative:

Rob Pattenden, Huck International, Ltd. Unit C Stafford Park 7, Telford Shropshire TF3 3BQ, England, United Kingdom

Authorized Signature/date:

I, the undersigned, do hereby declare that the equipment specified above conforms to the above Directive(s) and Standard(s).

Signature: _____

Full Name: Robert B. Wilcox

Position: Engineering Manager

Location: Huck International, LLC d/b/a Arconic Fastening Systems and Rings
Kingston, New York, USA

Date: 01/11/2016 (November 1, 2016)



Declared dual number noise emission values in accordance with ISO 4871

A weighted sound power level, LWA: **71** dB (reference 1 pW) Uncertainty, KWA: 3 dB

A weighted emission sound pressure level at the work station, LpA: **60** dB (reference 20 µPa) Uncertainty, KpA: 3 dB

C-weighted peak emission sound pressure level, LpC, peak: **100** dB (reference 20 µPa) Uncertainty, KpC: 3 dB

Values determined according to noise test code ISO 3744. The sum of a measured noise emission value and its associated uncertainty represents an upper boundary of the range of values which is likely to occur in measurements.

Declared vibration emission values in accordance with EN 12096

Measured Vibrations emission value, a:	.52 m/s²
Uncertainty, K:	.08 m/s²

Values measured and determined according to ISO 28662-1, ISO 5349-2, and EN 1033

Test data to support the above information is on file at:
Arconic Fastening Systems and Rings, Kingston Operations, Kingston, NY, USA.



Safety Instructions

GLOSSARY OF TERMS AND SYMBOLS:



- Product complies with requirements set forth by the relevant European directives.



- **READ MANUAL** prior to using this equipment.



- **EYE PROTECTION IS REQUIRED** while using this equipment.



- **HEARING PROTECTION IS REQUIRED** while using this equipment.



WARNINGS: must be understood to avoid severe personal injury.



CAUTIONS: show conditions that will damage equipment and/or structure.

Notes: are reminders of required procedures.

Bold, Italic type and underlining: emphasizes a specific instruction.

I. GENERAL SAFETY RULES:

1. A half hour long hands-on training session with qualified personnel is recommended before using Huck equipment.
2. Huck equipment must be maintained in a safe working condition at all times. Tools and hoses should be inspected at the beginning of each shift/day for damage or wear. Any repair should be done by a qualified repairman trained on Huck procedures.
3. For multiple hazards, read and understand the safety instructions before installing, operating, repairing, maintaining, changing accessories on, or working near the assembly power tool. Failure to do so can result in serious bodily injury.
4. Only qualified and trained operators should install, adjust or use the assembly power tool.
5. Do not modify this assembly power tool. This can reduce effectiveness of safety measures and increase operator risk.
6. Do not discard safety instructions; give them to the operator.
7. Do not use assembly power tool if it has been damaged.
8. Tools shall be inspected periodically to verify all ratings and markings required, and listed in the manual, are legibly marked on the tool. The employer/operator shall contact the manufacturer to obtain replacement marking labels when necessary. Refer to assembly drawing and parts list for replacement.
9. Tool is only to be used as stated in this manual. Any other use is prohibited.
10. Read MSDS Specifications before servicing the tool. MSDS specifications are available from the product manufacturer or your Huck representative.
11. Only genuine Huck parts shall be used for replacements or spares. Use of any other parts can result in tooling damage or personal injury.
12. Never remove any safety guards or pintail deflectors.
13. Never install a fastener in free air. Personal injury from fastener ejecting may occur.
14. Where applicable, always clear spent pintail out of nose

assembly before installing the next fastener.

15. Check clearance between trigger and work piece to ensure there is no pinch point when tool is activated. Remote triggers are available for hydraulic tooling if pinch point is unavoidable.
16. Do not abuse tool by dropping or using it as a hammer. Never use hydraulic or air lines as a handle or to bend or pry the tool. Reasonable care of installation tools by operators is an important factor in maintaining tool efficiency, eliminating downtime, and preventing an accident which may cause severe personal injury.
17. Never place hands between nose assembly and work piece. Keep hands clear from front of tool.
18. Tools with ejector rods should never be cycled with out nose assembly installed.
19. When two piece lock bolts are being used always make sure the collar orientation is correct. See fastener data sheet for correct positioning.

II. PROJECTILE HAZARDS:

1. Risk of whipping compressed air hose if tool is pneudraulic or pneumatic.
2. Disconnect the assembly power tool from energy source when changing inserted tools or accessories.
3. Be aware that failure of the workpiece, accessories, or the inserted tool itself can generate high velocity projectiles.
4. Always wear impact resistant eye protection during tool operation. The grade of protection required should be assessed for each use.
5. The risk of others should also be assessed at this time.
6. Ensure that the workpiece is securely fixed.
7. Check that the means of protection from ejection of fastener or pintail is in place and operative.
8. There is possibility of forcible ejection of pintails or spent mandrels from front of tool.

III. OPERATING HAZARDS:

1. Use of tool can expose the operator's hands to hazards including: crushing, impacts, cuts, abrasions and heat. Wear suitable gloves to protect hands.
2. Operators and maintenance personnel shall be physically able to handle the bulk, weight and power of the tool.
3. Hold the tool correctly and be ready to counteract normal or sudden movements with both hands available.
4. Maintain a balanced body position and secure footing.
5. Release trigger or stop start device in case of interruption of energy supply.
6. Use only fluids and lubricants recommended by the manufacturer.
7. Avoid unsuitable postures, as it is likely for these not to allow counteracting of normal or unexpected tool movement.
8. If the assembly power tool is fixed to a suspension device, make sure that fixation is secure.
9. Beware of the risk of crushing or pinching if nose equipment is not fitted.

Continued on next page...



Safety Instructions

IV. REPETITIVE MOTION HAZARDS:

1. When using assembly power tool, the operator can experience discomfort in the hands, arms, shoulders, neck or other parts of the body.
2. When using tool, the operator should adopt a comfortable posture while maintaining a secure footing and avoid awkward or off balanced postures.
3. The operator should change posture during extended tasks to help avoid discomfort and fatigue.
4. If the operator experiences symptoms such as persistent or recurring discomfort, pain, throbbing, aching, tingling, numbness, burning sensations or stiffness, these warnings should not be ignored. The operator should tell the employer and consult a qualified health professional.

V. ACCESSORIES HAZARDS:

1. Disconnect tool from energy supply before changing inserted tool or accessory.
2. Use only sizes and types of accessories and consumables that are recommended. Do not use other types or sizes of accessories or consumables.

VI. WORKPLACE HAZARDS:

1. Be aware of slippery surfaces caused by use of the tool and of trip hazards caused by the air line or hydraulic hose.
2. Proceed with caution while in unfamiliar surroundings; there could be hidden hazards such as electricity or other utility lines.
3. The assembly power tool is not intended for use in potentially explosive environments.
4. Tool is not insulated against contact with electrical power.
5. Ensure there are no electrical cables, gas pipes, etc., which can cause a hazard if damaged by use of the tool.

VII. NOISE HAZARDS:

1. Exposure to high noise levels can cause permanent, disabling hearing loss and other problems such as tinnitus, therefore risk assessment and the implementation of proper controls is essential.
2. Appropriate controls to reduce the risk may include actions such as damping materials to prevent workpiece from 'ringing'.
3. Use hearing protection in accordance with employer's instructions and as required by occupational health and safety regulations.

4. Operate and maintain tool as recommended in the instruction handbook to prevent an unnecessary increase in the noise level.
5. Select, maintain and replace the consumable / inserted tool as recommended to prevent an unnecessary increase in noise.
6. If the power tool has a silencer, always ensure that it is in place and in good working order when the tool is being operated.

VIII. VIBRATION HAZARDS:

1. Exposure to vibration can cause disabling damage to the nerves and blood supply to the hands and arms.
2. Wear warm clothing when working in cold conditions and keep hands warm and dry.
3. If numbness, tingling, pain or whitening of the skin in the fingers or hands, stop using the tool, tell your employer and consult a physician.

X. HYDRAULIC TOOL SAFETY INSTRUCTIONS:



WARNINGS:

Do not exceed maximum pull or return settings on tool.

1. Carry out a daily check for damaged or worn hoses or hydraulic connections and replace if necessary.
2. Wipe all couplers clean before connecting. Failure to do so can result in damage to the quick couplers and cause overheating.
3. Ensure that couplings are clean and correctly engaged before operation.
4. Use only clean oil and filling equipment.
5. Power units require a free flow of air for cooling purposes and should therefore be positioned in a well ventilated area free from hazardous fumes.
6. Do not inspect or clean the tool while the hydraulic power source is connected. Accidental engagement of the tool can cause serious injury.
7. Be sure all hose connections are tight.
8. Wipe all couplers clean before connecting. Failure to do so can result in damage to the quick couplers and cause overheating.



Principle of Operation

The operator pushes the Tool's Nose over the end of the fastener until the Tool's Puller bottoms on the fastener. When the Tool's Limit Switch Rod makes contact with the end of the fastener, the Limit Switch in the back of the Tool is activated. When the trigger is pressed, the rig receives a

signal to swage the fastener. The Piston moves back to start the swaging process.

After the fastener is fully swaged, the operator must release the trigger, at which point the Tool's Anvil is ejected off of the collar and the Tool is released from the fastener.

Specifications

Power Source: Huck Powerig® Hydraulic Power Source

Hose Kits: Use only genuine HUCK Hose Kits rated @ 10,000 psi working pressure.

Hydraulic Fluid: Hydraulic fluid shall meet DEXRON® III, DEXRON VI, MERCON®, Allison C-4 or equivalent Automatic Transmission Fluid (ATF) specifications. Fire-resistant fluid may be used if it is an ester-based fluid such as Quintolubric® HFD or equivalent. Water-based fluid shall NOT be used as serious damage to equipment will occur.

Max Operating Temp: 125 ° F (51.7 ° C)

Max Flow Rate: 2 gpm (7.6 l/m)

Max Inlet Pull Pressure: 7,000 psi, (483 bar)

Max Inlet Return Pressure: 5,000 psi, (345 bar)

Pull Capacity: 20,650 lbf (92 KN)

Return Capacity: 9,500 lbf (42 KN)

Stroke: 2.00 inches (5.08 cm)

Weight: 9 lbs (4.08 kg)

Where the following trade names are used in this manual, please note:

DEXRON is a registered trademark of General Motors Corporation.

Loctite is a registered trademark of Henkel Corporation, U.S.A.

LUBRIPLATE is a registered trademark of Fiske Brothers Refining Co.

MERCON is a registered trademark of Ford Motor Corp.

MOLYKOTE is a registered trademark of Dow Corning Corporation

Never-Seez is a registered trademark of Bostik, Inc.

Quintolubric is a registered trademark of Quaker Chemical Corp.

Slic-tite is a registered trademark of LA-CO Industries, Inc.

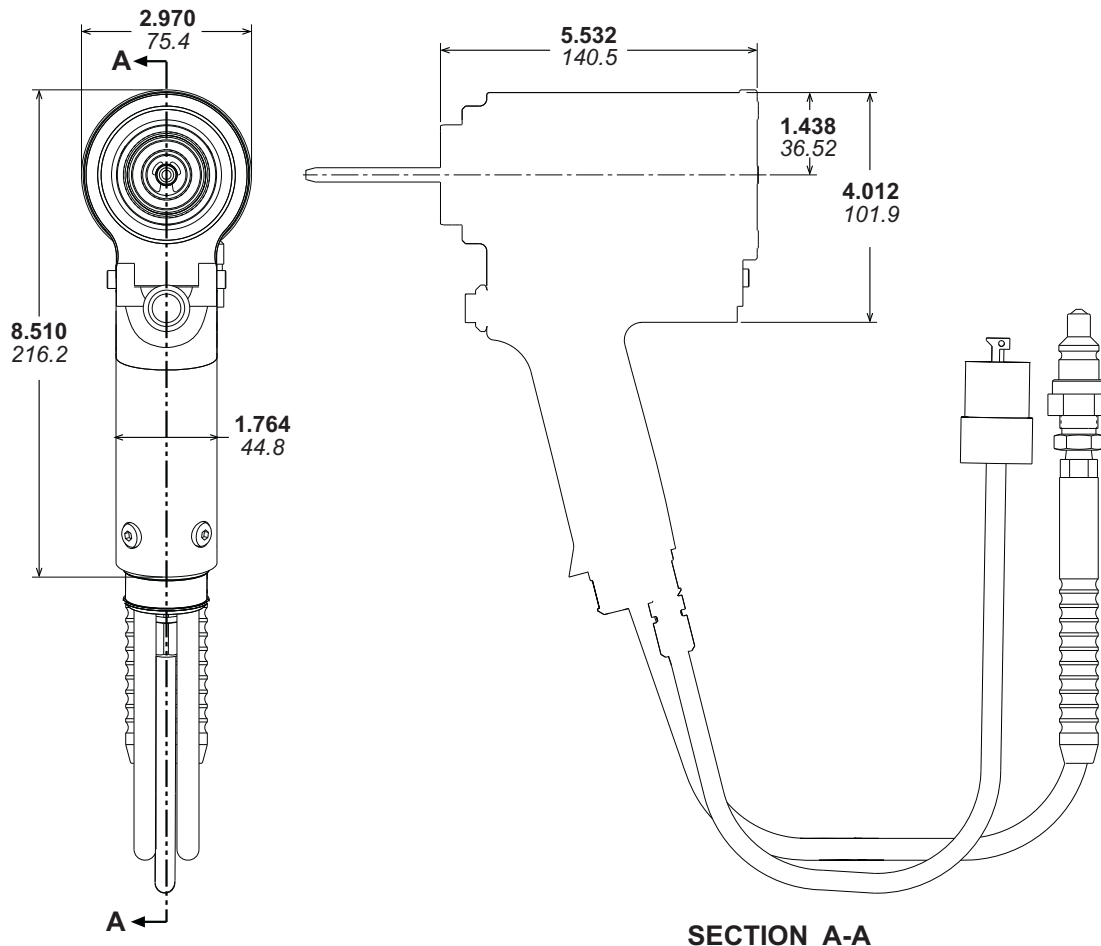
Spirolox is a registered trademark of Smalley Steel Ring Company

Teflon is a registered trademark of E. I. du Pont de Nemours and Company.

Threadmate is a registered trademark of Parker Intangibles LLC.

TRUARC is a trademark of TRUARC Co. LLC.

Vibra-Tite is a registered trademark of ND Industries, Inc. USA.



SECTION A-A



Preparation for Use



WARNINGS:

Read full manual before using tool.

A half-hour training session with qualified personnel is recommended before using Huck equipment.

When operating Huck installation equipment, always wear approved eye protection.

Be sure there is adequate clearance for the operator's hands before proceeding.

Correct PULL and RETURN pressures are required for operator's safety and for Installation Tool's function. Pressure Gauge T-124833CE, is available for purchase for checking pressures. See Tool SPECIFICATIONS and Gauge Instruction Manual. Failure to verify pressures may result in severe personal injury.

Be sure to connect Tool's hydraulic hoses to Powerig Hydraulic Unit before connecting Tool's switch control cord to unit. If not connected in this order, severe personal Injury may occur.



CAUTIONS:

Do not let disconnected hoses and couplers contact a dirty floor. Keep harmful material out of hydraulic fluid. Dirt in hydraulic fluid causes valve failure in tool and in Powerig Hydraulic Unit.

Do not use TEFLON® tape on pipe threads. Pipe threads may cause tape to shred resulting in tool malfunction. (Slic-Tite is available in stick form as Huck P/N 503237.)

Hose couplers must be completely screwed together to insure that ball checks in both nipple and body are completely open. Improperly assembled couplers will cause overheating and malfunctions in both tool and Powerig. Hand tighten couplers. Do NOT use a pipe wrench.

POWER SOURCE CONNECTIONS

Coat hose fitting threads with a non-hardening Teflon™ thread compound such as Slic-tite™ (Slic-tite is available from Huck as part number 503237.)

2. Use only a Huck POWERIG 918, 940, or equivalent that has been prepared for operation per applicable instruction manual. Check both PULL and RETURN pressures and adjust as necessary to match installation tool. Gage part number T-124833(new), for checking

POWERIG pressures is available from Huck.

3. Turn POWERIG to "OFF" and couple tool hoses to POWERIG hoses.
5. Turn POWERIG to "ON" and depress and release trigger a few times to circulate hydraulic fluid. Observe action of tool. Check for fluid leaks.
6. Attach the proper Nose Assembly to the tool.

Assembly of NPTF Threaded Components

AIR FITTINGS

- 1) Apply TEFLON® stick to male threads which do not have pre-applied sealant per manufacturer's recommendations. (Proceed to All Fittings step 2)

HYDRAULIC FITTINGS

- 1) Apply Threadmate™ to male and female threads which do not have pre-applied sealant per manufacturer's recommendations. (Proceed to All Fittings step 2)

ALL FITTINGS:

- 2) Tighten to finger-tight condition.
- 3) Wrench tighten to 2-3 turns past finger-tight condition.

- 4) Final thread engagement can be checked (optional) by measuring the dimension from the flange of male fitting to the end of the thread before assembly and subtracting the distance under the flange after assembly.

Thread Size	Final thread engagement at full make-up
1/8-27 NPTF	.235 inch (.59 cm)
1/4-18 NPTF	.339 inch (.86 cm)
3/8-18 NPTF	.351 inch (.89 cm)



Tool to Powerig® Hydraulic Power Source Setup



WARNING: To prevent tripping hazard, suspend tools and route hoses off of floors.



WARNING: Only use compatible equipment with this tool.

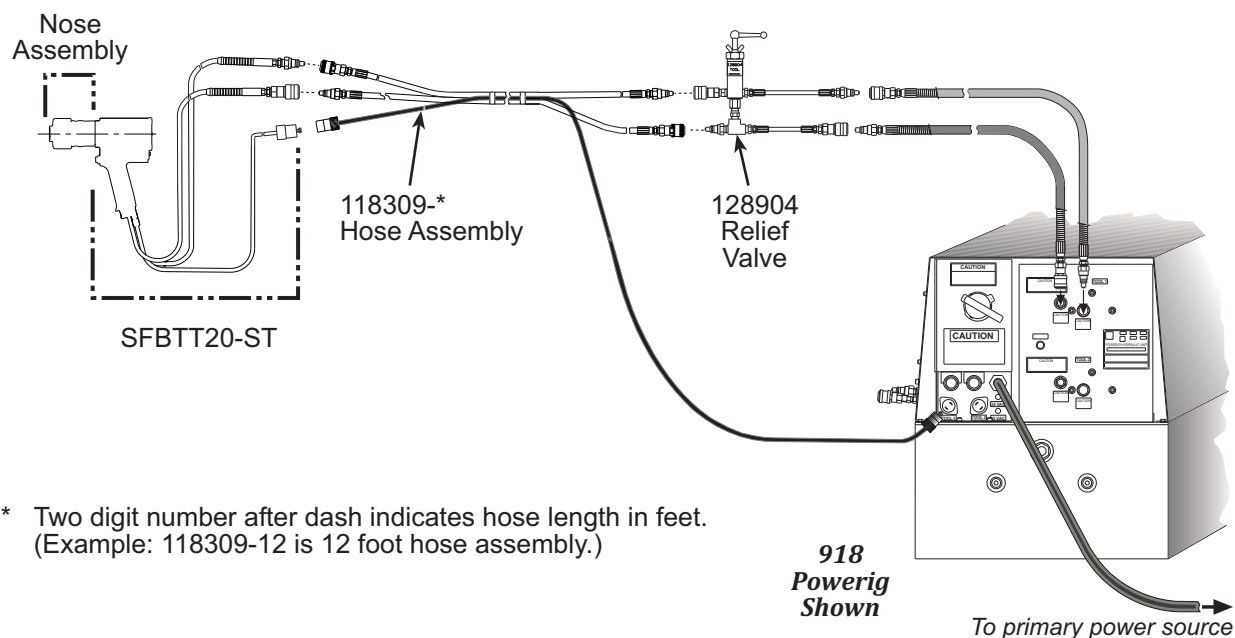
NOTE: To decrease Relief Valve pressure, turn the Relief Valve handle gradually counterclockwise; turn clockwise to increase pressure.

1. With the Nose Assembly in place on the Installation Tool, begin setup. First connect the Hydraulic Hoses to the Powerig.
2. Connect Relief Valve 128904 to the other end of the Powerig Hydraulic Hoses.
3. Connect 118309- Hose Assy to the Relief Valve (Tool Side).
4. Connect the other end of the 118309- Hose Assy to the installation tool.
5. Connect the Power Cord from the Tool to the 118309- Hose Assembly.
6. Connect the Power Cord from the Hose Assembly to the Powerig.
7. Set Pull and Return pressures on Powerig and Relief Valve using Huck Gage P/N: T-124833CE and **Table 1**.
8. Once the system is set up, install test fastener. Check to be sure that the fastener is installed correctly. This can be checked by inspecting the dimples on the collar flange. At least one dimple should be marked by the anvil.

Table 1 - Pressure Settings

Fastener Size	Fastener Grade	Powerig PULL Pressure Setting, psi	Powerig RETURN Pressure Setting, psi	128904 Relief Valve Setting, psi
12mm	8	7500	4500	4400
14mm	8	7500	4500	5900
5/8" / 16mm	8	7500	4500	6100
1/2"	5	7500	2600	2900

Figure 3





Operating Instructions



WARNING: To avoid pinch point, never place hand between nose assembly and work piece.



WARNING: Only use compatible equipment with this tool.

1. Push the tool's nose over the end of the fastener until it bottoms out.
2. Press the trigger and hold until the collar is swaged and the tool's Anvil is ejected off the collar and the tool is released from the fastener.

Limit Switch Adjustment

TOOLS NEEDED

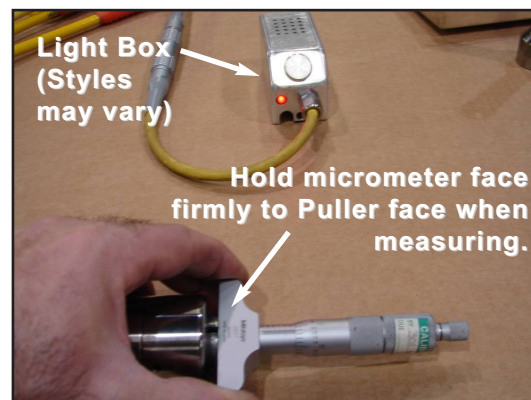
1. Controller or Light Box
2. Depth Micrometer
3. Allen Wrench

Refer to Parts List on page 11, and Figures AA and BB on pages 12 and 13 for identification of Components.

NOTE: It is important to ensure that the face of the micrometer is firmly against the Puller Head, and the micrometer depth pin is in contact with the Actuator Rod when measuring.

1. Check to see where the Limit Switch is set using the Light Box and the Depth Micrometer.
2. Using an Allen wrench, remove Screw (Item 24, Figure AA).
3. To increase the switch setting turn the Set Screw (Item 17d, figure BB) counterclockwise; to decrease it, turn it clockwise.

4. Adjust the switch to the specification of .390-.400". You will notice the Light Box light will come on once the switch has been made.
5. Replace Screw (24).
NOTE: After tightening the Lockdown Screw, verify the adjustment again by measuring with the depth micrometer.
6. Once adjusted to the desired specification, disconnect the Light Box and reconnect the system. The tool is now ready to drive fasteners.





Maintenance

**CAUTIONS:**

- Consult MSDS before servicing tool.
- Keep dirt and other material out of hydraulic system.
- Separated parts must be kept away from dirty work surfaces.
- Dirt/debris in hydraulic fluid causes failure in POWERIG® Hydraulic Unit's valves.



WARNING: Inspect tool for damage or wear before each use. Do not operate if damaged or worn, as severe personal injury may occur.

- The efficiency and life of your tool depends on proper maintenance. Please read this section completely before proceeding with maintenance and repair. Use proper hand tools in a clean and well-lighted area. Only standard hand tools are required in most cases. Where a special tool is required, the description and part number are given.
- While clamping tool or parts in a vise, and when parts require force, use suitable soft materials to cushion impact. For example, using a half-inch brass drift, wood block and vise with soft jaws greatly reduces possibility of damaging tool. Remove components in a straight line without bending, cocking or undue force. Reassemble tool with the same care.

Sealants, Lubricants, Service Kits

- See **SPECIFICATIONS** for fluid type. Dispose of fluid in accordance with local environmental regulations. Recycle steel, aluminum, and plastic parts in accordance with local lawful and safe practices.
- Rub Slic-Tite® with PTFE thread compound, or equivalent, on pipe plug threads and quick connect fitting.



CAUTION: Do not use TEFLON®* tape on pipe threads. Pipe threads may cause tape to shred resulting in tool malfunction. (Slic-Tite®* is available in stick form as Huck P/N 503237.)

- Smear LUBRIPLATE® 130AA, or equivalent lubricant, on O-Rings and mating surfaces to aid assembly and to prevent damage to O-Rings. (LUBRIPLATE 130-AA is available in a tube as Huck P/N 502723.)
- Each Service Kit contains perishable parts for your specific tool. As foreseeable use may indicate, keep extra kits (O-rings, Back-up Rings, other standard items) and

tool parts in stock. When stock is depleted, you can get kit items from any regular retailer of these items. See kit parts list for: O-ring size (AS568- number); material; durometer.

System Inspection

Operating efficiency of the tool is directly related to the performance of the complete system, including the tool with nose assembly, hydraulic hoses, trigger and control cord, and POWERIG. Therefore, an effective preventive maintenance program includes scheduled inspections of the system to detect and correct minor troubles. At the beginning of each shift/day:

- Inspect tool and nose assembly for external damage.
- Verify that hydraulic hose fittings, couplings, and electrical connections are secure.
- Inspect hydraulic hoses for damage and deterioration. Do not use hoses to carry tool. Replace hoses if damaged.
- Observe tool, hoses, and hydraulic unit during operation to detect abnormal heating, leaks, or vibration.
- Max hydraulic fluid contamination level: NAS 1638 class 9, or ISO CODE 18/15, or SAE level 6.

POWERIG Maintenance

Maintenance instructions and repair procedures are in the appropriate POWERIG Instruction Manual.

Tool Maintenance

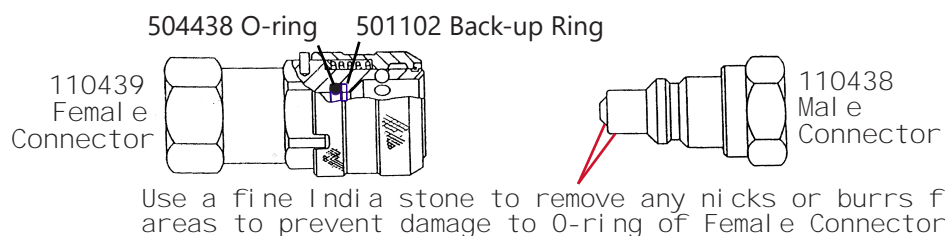
Whenever disassembled and also at regular intervals (depending on severity and length of use), replace all seals, wipers, and back-up rings in tool. Service Kits, hoses, and extra parts should be kept in stock. Inspect cylinder bore, pistons, and piston rods for scored surfaces and excessive wear or damage. Replace as necessary.



CAUTION: Always replace seals, wipers, and back-up rings when tool is disassembled for any reason.

Nose Assembly Maintenance

Clean nose assembly often. Dip in mineral spirits or similar solvent to clean puller and wash away metal chips and debris. At regular intervals, as experience shows, disassemble nose and use a sharp "pick" to remove imbedded particles from grooves of puller.





Tool Assembly Parts List (Figures AA & BB)

Item	Description	SFBTT20-ST	Qty.	
1	Handle Assembly	128985	1	
1a	Trigger Switch Assy	120361	1	
1a1	Trigger Switch	128743	1	
1a2	O-Ring	500779	1	
1b	Handle	129017	1	
1c	Button Head Screw	502489	4	
1d	Clamp Guide	128838	1	
1e	Strain Relief Assy	505344	1	
1f	Cord Assembly	128854	1	
1g	Bullet Receptor	507174	1	
2 *	Piston Assembly	128837	1	
3	Wiper	506067	1	✓
4	Back-up Ring	501151	1	✓
5	O-Ring	506089	1	✓
6 *	Cylinder Assembly	128978	1	
7	Back-up Ring	501154	3	✓
8	O-Ring	503850	2	✓
9	End Cap	128976	1	
10	O-Ring	506619	1	✓
11	Back-up Ring	501147	1	✓
12	Set Screw	501780	3	
13	Hydraulic Hose	118944-2	2	
14	Hex Reducing Bushing	503431	2	
15	Female Coupler	110439	1	
16	Male Coupler	110438	1	
17	Switch Housing Assy	128984	1	
17a	Switch Housing	128980	1	
17b	Limit Switch Lever	128823	1	
17c	Compression Spring	508368	1	
17d	Set Screw	508364	1	
17e	Dowel	501349	1	
17f *	Switch Assembly	129131	1	
17g	Cap Screw	505879	2	
17h	Set Screw	508365	1	
18	Cap Screw	500062	6	
19	Locking Disc	122764	1	
20	Locking Disc Cover	128983	1	
21	Wiring Cover	128982	1	
22	Cap Screw	500061	12	
23	End Cap Cover	128981	1	
24	Button Head Screw	502471	1	
25	Cap Screw	-	-	
26	Actuator Rod Assy	128861	1	
26a	Actuator Rod	128813	1	
26b	Retaining Ring	506063	1	

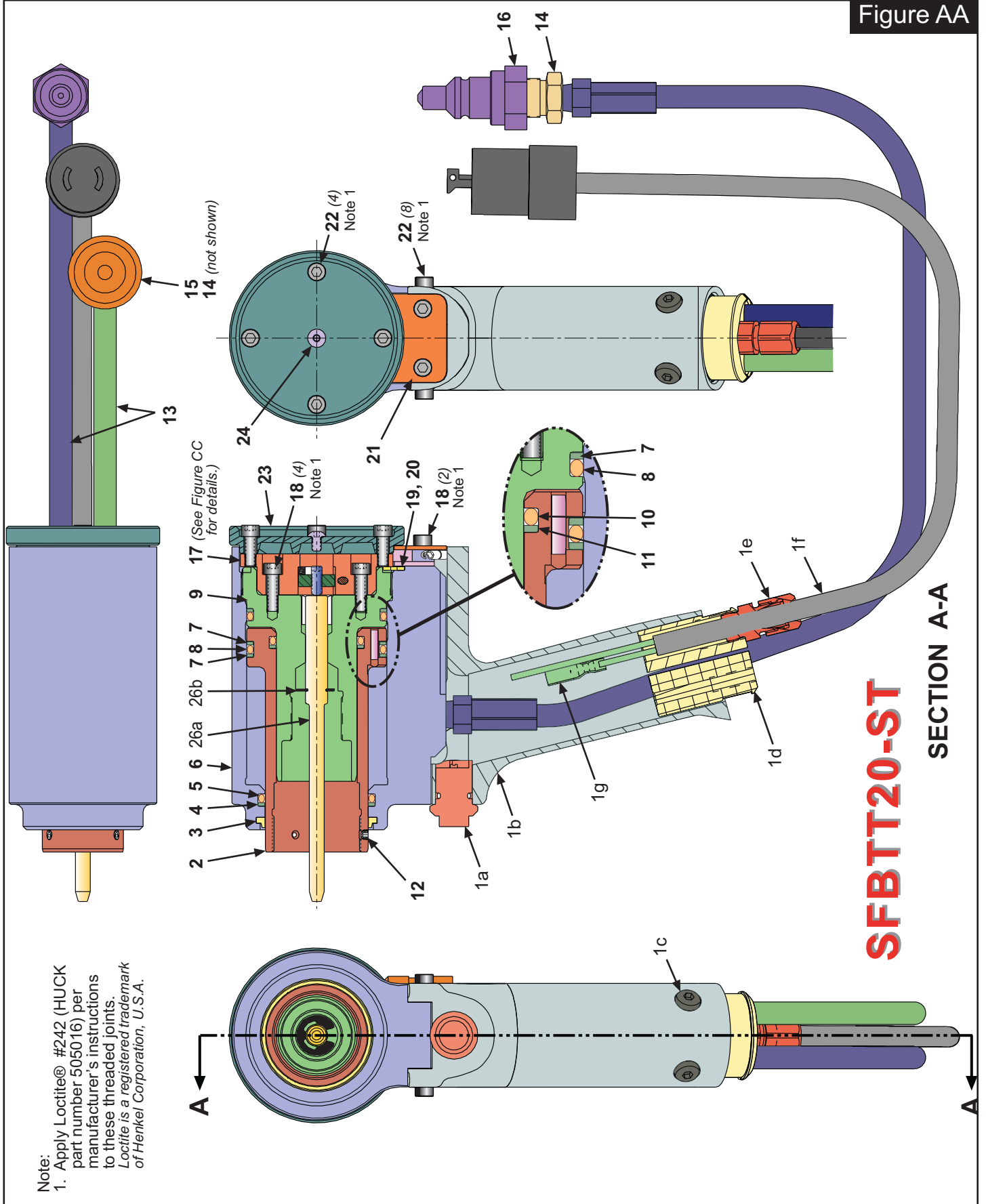
✓ *These parts are also included in the tool Service Kit (see KITS AND ACCESSORIES) for each tool.*

* *When replacing these parts, the assembly must be ordered. The individual sub-components are not sold separately.*



Main Components Drawing

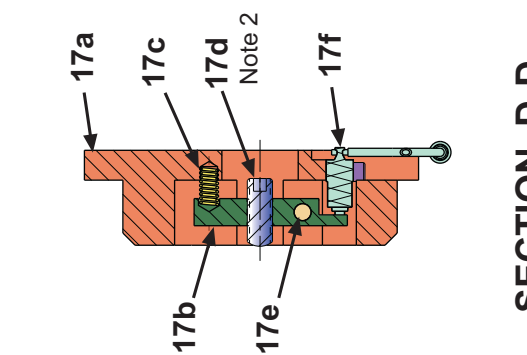
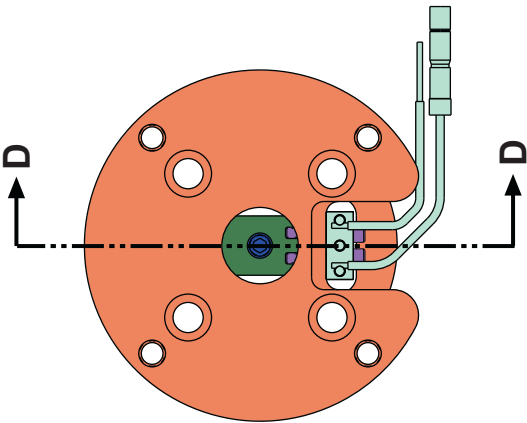
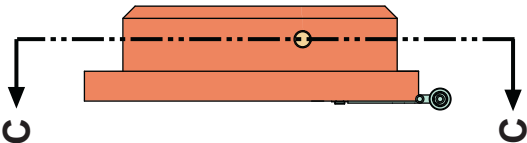
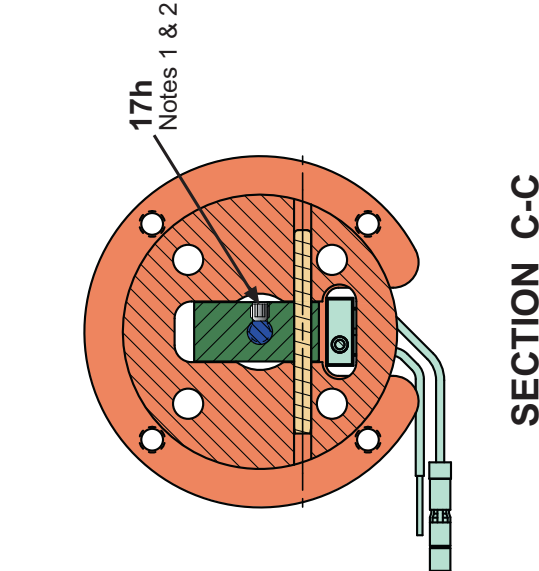
Figure AA



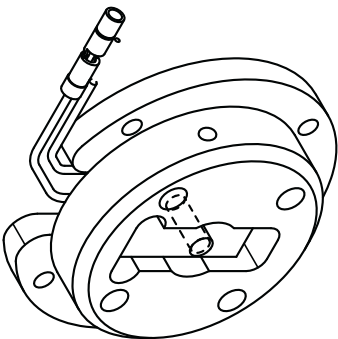
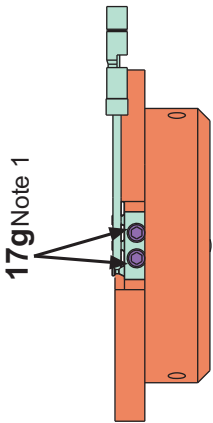


Components Drawing - Switch Housing Assembly

Figure BB

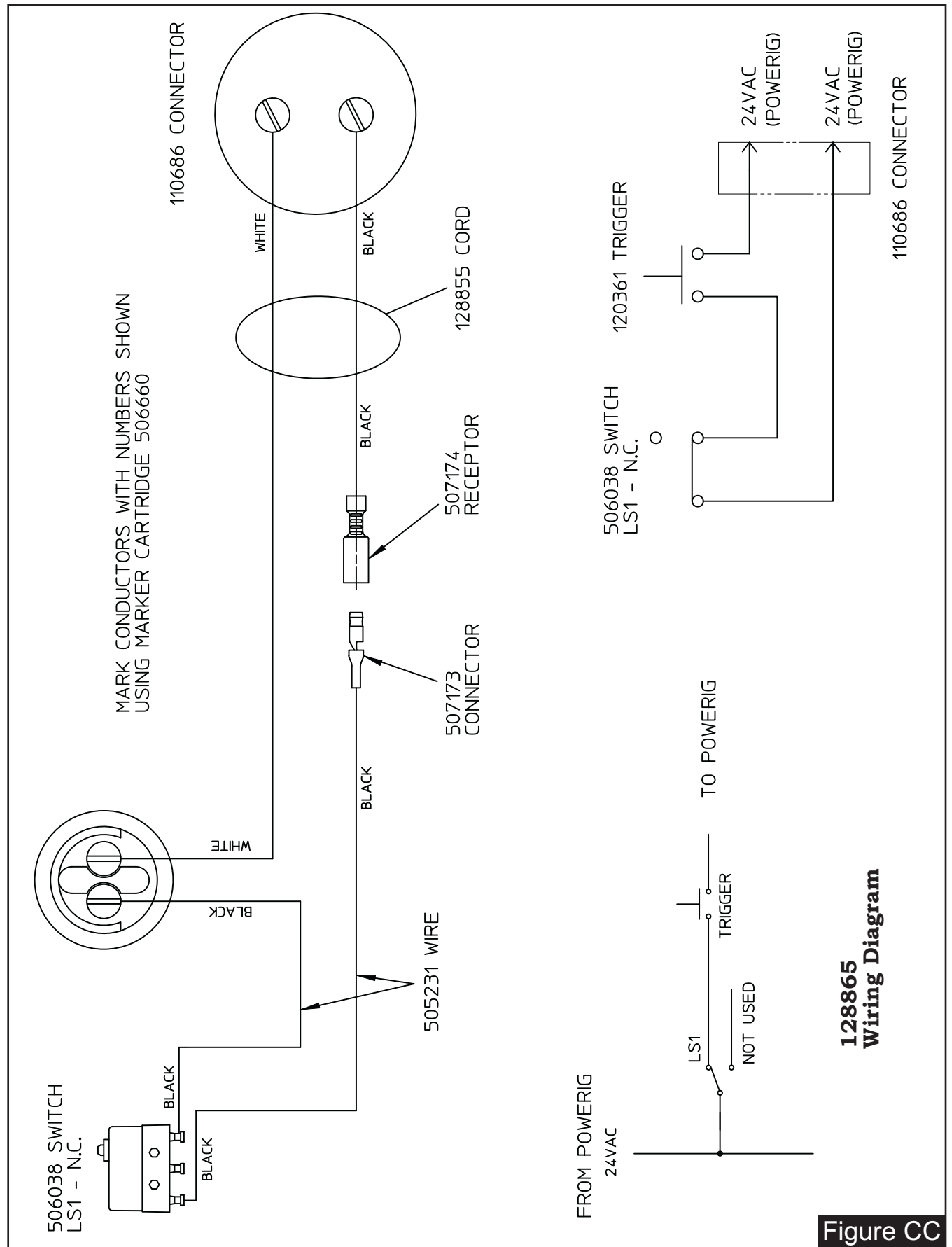


- Notes:
1. Apply Vibra-TITE® (HUCK part number 505125) per manufacturer's instructions to these threaded joints. *Vibra-TITE is a registered trademark of ND Industries.*
 2. Tighten Setscrew (17h) against Setscrew (17d) until Setscrew (17d) turns with difficulty.



128984 - Switch Housing Assembly

Wiring Diagram 128865





Optional Equipment

To maintain CE conformity, only CE compatible equipment should be used with these tools. Installation tools and nose assemblies are the only CE components unless otherwise noted. Controls and other hardware shown in the manual are for domestic use only.

Service Kit - BTT20SFKIT

Teflon Stick - 503237

Loctite* 242 - 505016

**Loctite is a trademark of Henkel Corporation, U.S.A.*

Anti-seize Lubricant - 508183

Hose Cable

Extension Assy - 128461-(length)



Limited Warranties

Limited Lifetime Warranty on BobTail® Tools:

Huck International, Inc. warrants to the original purchaser that its BobTail® installation tools manufactured after 12/1/2016 shall be free from defects in materials and workmanship for its useful lifetime. This warranty does not cover special order / non-standard products, or part failure due to normal wear, tool abuse or misapplication, or user non-compliance with the service requirements and conditions detailed in the product literature.

Two Year Limited Warranty on Installation Tools:

Huck International, Inc. warrants that its installation tools manufactured after 12/1/2016 shall be free from defects in materials and workmanship for a period of two years from date of purchase by the end user. This warranty does not cover special order / non-standard products, or part failure due to normal wear, tool abuse or misapplication, or user non-compliance with the service requirements and conditions detailed in the product literature.

90 Day Limited Warranty on Nose Assemblies and Accessories:

Huck International, Inc. warrants that its nose assemblies and accessories shall be free from defects in materials and workmanship for a period of 90 days from date of purchase by the end user. This warranty does not cover special clearance noses, or special order / non-standard product, or part failure due to normal wear, abuse or misapplication, or user non-compliance with the service requirements and conditions detailed in the product literature.

Useful lifetime is defined as the period over which the product is expected to last physically, up to the point when replacement is required due to either normal in-service wear, or as part of a complete overhaul. Determination is made on a case-by case basis upon return of parts to Huck International, Inc. for evaluation.

Tooling, Part(s) and Other Items not manufactured by Huck:

HUCK makes no warranty with respect to the tooling, part(s), or other items manufactured by third parties. HUCK expressly disclaims any warranty expressed or implied, as to the condition, design, operation, merchantability, or fitness for use of any tool, part(s), or other items thereof not manufactured by HUCK. HUCK shall not be liable for any loss or damage, directly or indirectly, arising from the use of such tooling, part(s), or other items or breach of warranty or for any claim for incidental or consequential damages.

Huck shall not be liable for any loss or damage resulting from delays or non-fulfillment of orders owing to strikes, fires, accidents, transportation companies or for any reason or reasons beyond the control of the Huck or its suppliers.

Huck Installation Equipment:

Huck International, Inc. reserves the right to make changes in specifications and design and to discontinue models without notice.

Huck Installation Equipment should be serviced by trained service technicians only.

Always give the serial number of the equipment when corresponding or ordering service parts.

Complete repair facilities are maintained by Huck International, Inc. Please contact one of the offices listed below.

Eastern

One Corporate Drive Kingston, New York 12401-0250
Telephone (845) 331-7300 FAX (845) 334-7333

Outside USA and Canada

Contact your nearest Huck International location (see reverse).

In addition to the above repair facilities, there are Authorized Tool Service Centers (ATSC's) located throughout the United States. These service centers offer repair services, spare parts, Service Parts Kits, Service Tool Kits and Nose Assemblies. Please contact your Huck Representative or the nearest Huck International location (see reverse) for the ATSC in your area.



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Arconic Inc. (NYSE: ARNC) creates breakthrough products that shape industries. Working in close partnership with our customers, we solve complex engineering challenges to transform the way we fly, drive, build and power.

Through the ingenuity of our people and cutting-edge advanced manufacturing, we deliver these products at a quality and efficiency that ensures customer success and shareholder value.

Arconic Fastening Systems world-wide locations:

AMERICAS

Kingston Operations

1 Corporate Drive
Kingston, NY 12401
800-278-4825
845-331-7300
FAX: 845-334-7333

Tucson Operations

3724 East Columbia
Street
Tucson, AZ 85714
800-234-4825
520-519-7400

Carson Operations

900 Watsoncenter Road
Carson, CA 90745
800-421-1459
310-830-8200
FAX: 310-830-1436

Acuña Operations

Hidalgo #120
Parque Industrial Amistad
Acuña, Coahuila 26220
Mexico
FAX: 525-515-1776

Waco Operations

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