# BAABS BLAST LIGHT OPERATION AND MAINTENANCE MANUAL MARCH 2024



## **SCHMIDT**®

### SAVE THIS MANUAL AND MAKE AVAILABLE TO ALL USERS OF THIS EQUIPMENT!

Manual Part Number 7200-371









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#### 1.0 RULES FOR SAFER OPERATION

- **1.1 KNOW YOUR EQUIPMENT.** Do Not operate this equipment in a manner other than its intended application. Do Not operate this equipment or any other Schmidt® equipment without following the *Rules for Safer Operation* and all the operating procedures and instructions. Learn the applications and limitations as well as the specific potential hazards related to this machine. Failure to do so could result in serious injury or death.
- **1.2 RECEIVE PROPER TRAINING.** Do Not operate this equipment unless you have received operational and maintenance training. Begin by thoroughly reading and understanding this operation and maintenance manual and all included information. Consult an authorized Schmidt distributor or Axxiom Manufacturing, Inc.
- **1.3 USE PROPER PERSONAL PROTECTIVE EQUIPMENT.** Do Not operate or perform maintenance on this equipment without wearing OSHA approved eye, ear, foot, and lung protection. Reference OSHA 29 CFR 1910.
- **1.4 ADHERE TO ALL REGULATIONS.** Do Not operate this equipment without observing all local, state, and federal safety regulations including, but not limited to, OSHA (Occupational Health and Safety Administration).
- 1.5 ALWAYS USE CORRECT REPLACEMENT PARTS AND ACCESSORIES. Do Not use replacement parts that are not Schmidt® original factory replacement parts. Non-original parts may not fit properly and can cause equipment damage and/or failure which can result in serious injury to operating personnel. Consult Axxiom Manufacturing, Inc.
- 1.6 SAVE THIS OPERATION AND MAINTENANCE MANUAL. Refer to this operation and maintenance manual as needed as well as any additional information included from other manufacturers. Never permit anyone to operate this equipment without having him/her first read this manual and receive proper training. Make this manual readily available to all operating and maintenance personnel. If the manual becomes lost or illegible replace it immediately. This operation and maintenance manual should be read periodically to maintain the highest skill level; it will reduce the chance of serious accidents.

#### 2.0 GENERAL INFORMATION

- 2.1 The BAABS Blast Light is designed to be used with the BAABS system. Consult an authorized Axxiom Distributor for details.
- 2.2 The BAABS Blast Light operates on 12Vdc (0.5 amps) or 24 Vdc (0.25 amps).
- 2.3 The BAABS Blast Light, when used with BAABS, is designed to follow the blast pattern.

#### 3.0 BAABS BLAST LIGHT

		4500-000-27	<b>BAABS Blast Ligh</b>	t Subassemi	bly with Twist-Loc	ck Plug
		4500-000-27S	BAABS Blast Ligh	t Subssemb	ly with Sealed Plu	g
No.	Part No.	Description		No.	Part No.	Description
1.	4500-000-05	Locking Knob w/ Bolt		8.	4500-000-37	BAABS Blast Light Tear-Off Lens Pack
2.	4500-000-29	BAABS Blast Light Hous	ing	9.	7109-301	Twist Lock 3 Prong Male Plug
3.	4500-000-30	BAABS Blast Light Lens	Cover	10.	4500-000-43	O-ring
4.	4500-000-28	BAABS LED Blast Light A	Assy	11.	*******	BAABS Blast Light Rail Adapter
5.	4500-000-44	BAABS Blast Light Rail A	dapter Assy	12.	*******	BAABS Blast Light Rail Adapter Cover
6.	4500-000-35	BAABS Blast Light Shock	k Absorber	13.	***************************************	BAABS Thread Forming Screws
7.	4500-000-36	BAABS Blast Light Prote	ctive Lens	14.		BAABS Thread Forming Screws

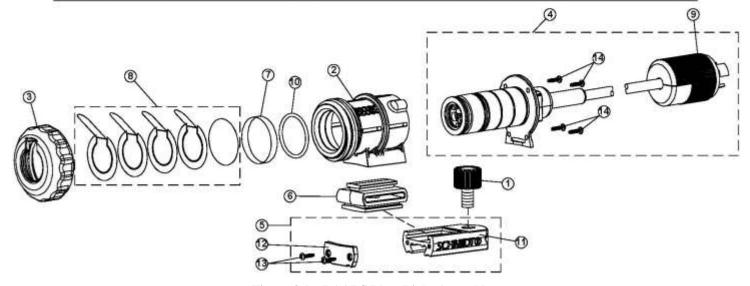


Figure 3.1 – BAABS Blast Light Assembly

#### 3.1 DISASSEMBLY PROCEDURE. Refer to Figure 3.1 on the previous page.

The tools required for this procedure include: #1 Philips screwdriver.

- **3.1.1** Remove Lens Cover (#3) from Housing (#2) by turning counterclockwise.
- **3.1.2** Remove Tear-Off Lens Pack (#8), Protective lens (#7) and O-ring (#10).
- **3.1.3** Remove 2 thread forming screws (#13). Remove Rail Adapter Cover (#12). Slide Rail Adapter (#11) from Shock Absorber (#6).
- **3.1.4** Remove 4 thread forming screws (#14). Pull out LED Blast Light Assembly (#4). Slide out Shock Absorber (#6) from Housing (#2)
- **3.1.5** Remove Locking Knob (#1) from Rail Adapter (#11) by turning knob counterclockwise.
- **3.1.6** Discard and replace worn or broken parts.

#### 3.2 REASSEMBLY PROCEDURE. Refer to Figure 3.1 on the previous page.

The tools required for this procedure include: #1 Phillips screwdriver.

- **3.2.1** Clean all parts of debris and dust.
- **3.2.2** Attach Locking Knob (#1) to Rail Adapter (#11) by turning knob clockwise.
- **3.2.3** Slide Shock Absorber (#6) into Housing (#2).
- 3.2.4 Push LED Blast Light Assembly (#4) into Housing (#2). Secure into place with 4 thread forming screws (#14).
- **3.2.5** Slide Rail Adapter (#11) onto Shock Absorber (#6).
- 3.2.6 Install Rail Adapter Cover (#12) onto Rail Adapter (#11). Secure into place with 2 thread forming screws (#13).
- **3.2.7** Install O-ring (#10) into O-ring groove in Housing (#2).
- 3.2.8 Insert Tear-Off Lens Pack (#8) into Lens Cover (#3) lining up the Tear-Off Lens tabs with the tab slot in the Lens Cover. The Tear-Off Lens with the longest tab is installed first and the Tear-Off Lens without a tab faces the light housing (#2).
- **3.2.9** Press fit Protective Lens (#7) into Lens Cover (#3). This will hold all lenses in place in the Lens Cover.
- **3.2.10** Install Lens Cover (#3) on Housing (#2) by turning clockwise until seated. Hand tight, do not over tighten.

#### 3.3 INSTALLATION ON BAABS. Refer to Figures 3.1 & 3.2.

- **3.3.1** Turn Locking Knob (#1) counterclockwise until the bolt is flush with the slot in the Rail Adapter Assembly (#5).
- **3.3.2** Slide the Rail Adapter Assembly (#5), Locking Knob (#1) end first, onto the BAABS Rail (#20), until it reaches the Rail Adapter Assembly stop.
  - **Note:** The Blast Light Assembly can be mounted on the Upper Rail (#20) or the Lower Rail (#21) for BABBS Long Rail and 2XL Rail Packages. For the BAABS Short Rail the light can only be mounted on the Upper Rail (#20) as shown in Figure 3.2.
- **3.3.3** Lock the Rail Adapter Assembly (#5) in place on the BAABS Rail (#20) by turning Locking Knob (#1) clockwise until tight. Hand tighten only, do not over tighten.

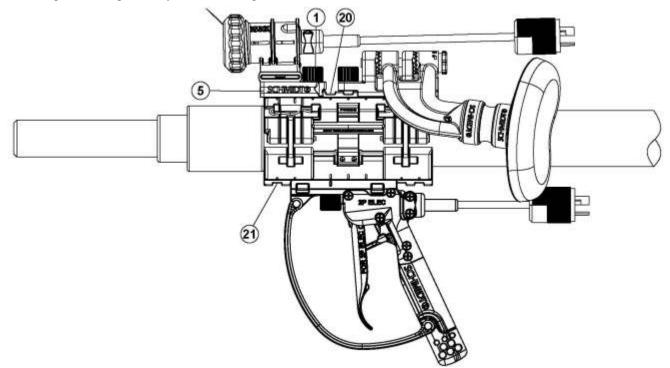


Figure 3.2 – BAABS Blast Light on BAABS (Short Rail)

#### 3.4 CONNECTING BAABS BLASTING LIGHT TO POWER

- **3.4.1** Determine the cord length necessary to connect the BAABS Blast Light to the 12Vdc or 24Vdc power supply.
- **3.4.2** Starting at the BAABS Blast Light, connect the power cord(s) to the blast light electrical connector. Figure 3.1 (#9)
- 3.4.3 Attach the power cord(s) to the blast hose using cable ties or tape. Be sure to leave slack to allow blast hose movement. See Figure 3.4. If the power cord is too tight, the cord connector will be under strain and the wires may pull out of the connectors.



Figure 3.4

3.4.4 The blast hose rotates as the operator moves the hose causing the operator to either change hand grip or resist the hose rotation causing fatigue. The BAABS System is designed to rotate on the hose maintaining grip without rotational stress. The rotation may cause the power cords to wrap around the hose. See Figure 3.5. If this occurs, stop blasting. Unplug the Blast Light and BAABS Trigger Deadman electrical connectors from the power cord to unwrap the cords from the hose, and then reconnect. Failure to do so may cause the electrical cord to pull out from the connector or damage the Light or Trigger Deadman at the power cord connections.



Figure 3.5

## **▲** DANGER

Do Not use this light in combustible environments. This light is not rated for use in combustible environments. Using the BAABS Blast Light in a combustible environment can cause an explosion and result in severe injury or death to operating personnel.

- **3.5.1** Connect the BAABS Blast Light to proper power supply (12VDC). Light will automatically turn on. The Blast Light does not have a power on/off switch.
- 3.5.2 Remove the outer Tear-Off Lens (#8) if the light brightness is below acceptable level. Remove the Tear-Off Lens with the longest tab by pulling the tab toward center of the light not away from the light. When the last tab is removed, a Tear-Off lens without a tab remains. Replace it with a new Tear-Off Lens Pack as soon as possible. Continued use increases the chance of damage to the Protective Lens (#7). See Maintenance and Inspection Section 3.6 below for Tear-Off Lens Pack (#8) replacement.

#### 3.6 MAINTENANCE AND INSPECTION. Refer to Figure 3.1 on the previous page.

- **3.6.1** Tear-Off Lens Pack replacement.
- **3.6.2** Remove Lens Cover (#3) from Housing (#2) by turning counterclockwise.
- **3.6.3** Remove remaining Tear-Off lenses (#8), Protective (#7) lenses and O-ring (#10).
- **3.6.4** Discard Tear-Off Lens without tab.
- **3.6.5** Inspect Protective Lens (#7) and O-ring (#10) for damage. Replace if necessary.
- 3.6.6 Insert Tear-Off Lens Pack (#8) into Lens Cover (#3) lining up the Tear-Off Lens tabs with the tab slot in the Lens Cover. The Tear-Off Lens with the longest tab is installed first, facing out and away from the blast light housing (#2). The Tear-Off Lens without a tab last faces the blast light housing (#2).
- **3.6.7** Press fit Protective Lens (#7) into Lens Cover (#3). This will hold all lenses in place in the Lens Cover.
- **3.6.8** Install O-ring (#10) into O-ring groove in Housing (#2).
- **3.6.9** Install Lens Cover (#3) on Housing (#2) by turning clockwise until seated. Hand tighten only, do not over tighten.

#### 4.0 Troubleshooting

#### 4.1 Light off when attached to power supply.

- **4.1.1** Check all electrical connections.
- **4.1.2** Make sure red clamp connected to (+) terminal and black clamp to the (-) terminal.
- **4.1.3** Check clamps and battery terminals for corrosion.
- **4.1.4** Check power supply and electrical connections with a voltmeter.

#### 4.2 Light is dim. Refer to Figure 3.1 on the previous page.

- **4.2.1** Pull outer Tear-Off Lens (#8) tab to uncover a new Tear-Off Lens. If this is the last Tear-Off Lens with a tab, replace it with a new Tear-Off Lens Pack (#8). See section 3.6 for procedure.
- **4.2.2** Power supply output amperage too low. See Section 2.2.
- **4.2.3** Poor wiring connections. Check for broken wire strands and/or poor terminal connections.

#### 5.0 Recommended Spare Parts

Part No.	Description
4500-000-05	Locking Knob w/ Bolt
4500-000-30	BAABS Blast Light Lens Cover
4500-000-37	BAABS Blast Light Tear-Off Lens Pack
7109-301	Twist Lock 3 Prong Male Plug
	4500-000-05 4500-000-30 4500-000-37

#### **NOTES**

### WARNING

- 1. Any person intending to operate this equipment or any person intending to be in the vicinity during its operation must receive proper training from his/her supervisor, employer and/or supplier. If this equipment is to be leased or rented, the supplier must assure that the lessee or renter has received proper training before the lessee or renter takes possession of the equipment. Consult Axxiom Manufacturing, Inc.
- 2. Any person authorized to operate this equipment or any person intending to be in the vicinity during its operation and who is not capable of reading and understanding this manual must be fully trained regarding the *Rules for Safer Operation* and all operating procedures, and must be made aware of all the Dangers, Warnings, and Cautions identified herein. Consult Axxiom Manufacturing, Inc.
- 3. Do Not operate any abrasive blaster or blast equipment before reading and completely understanding all the warnings, operating procedures and instructions, and the *Rules for Safer Operation* contained in this manual.
- 4. Do Not operate any abrasive blaster or blast equipment without following the *Rules for Safer Operation* and all the operating procedures and instructions. Failure to properly use blast equipment could result in serious injury or death.
- 5. Do Not perform any maintenance on any abrasive blaster or blast equipment while it is pressurized. Always depressurize the abrasive blaster vessel before loading abrasive or performing any maintenance.
- 6. Do Not use abrasives containing free silica. Silica can cause silicosis or other related respiratory damage. All operators must wear personal protective equipment for all abrasive blasting operations. Observe all applicable local, state, and federal safety regulations in conjunction with airline filters and respiratory protection. Reference OSHA 29 CFR 1910.134.
- 7. Do Not enter areas during abrasive blasting operations without breathing protection. All personnel in the vicinity of abrasive blasting operations should wear NIOSH approved air fed respirators, hoods, or helmets.
- 8. Do Not modify or alter any abrasive blaster, blast equipment or controls thereof without written consent from Axxiom Manufacturing, Inc.
- 9. Do Not use bleeder type deadman valves on any Schmidt® abrasive blaster. The use of A-BEC, Clemco or a similar bleeder type deadman valve can cause unintentional start-up without warning, which can result in serious personal injury.
- 10. Do Not sell, rent, or operate abrasive blasters without remote controls. OSHA regulations require remote controls on all blast machines. Failure to use remote controls can cause serious injury or death to the operator(s) or other personnel in the blasting area. Reference OSHA 29 CFR 1910.244(b).
- 11. Do Not repair or replace any portion of Schmidt® equipment using components that are not Schmidt® original factory replacement parts. Use of replacement components that are not Schmidt® original factory replacement parts may result in equipment failure which can result in serious personal injury and in addition will void all warranties.