XP-357 Operator's Manual

Last Updated: August 8, 2023

XP-357™ OPERATION

The XP-357 utilizes the rapid release of compressed air or CO2 to create a loud report and tuned shockwave effect.

COMPANY PROPRIETARY

WARNING: Compressed Air Hazard - Do not point toward any personnel when firing.

XP-357 COMPONENTS

XP-357	
1. Relief Valve	4. Valve Cap
2. Trigger Plug	5. Exhaust Cap
3. Fill Valve	6. Exhaust Port

OPERATING THE XP-357

1. Fill the XP-357 between 100 and 150 psi via the Fill Valve using any standard Schrader valve air attachment. *Fill time should take only a few seconds when using a pressurized source. Fill time from a compressor without a reservoir may take longer depending on the capacity of the compressor.*
2. Connect a 9-12 Volt DC power source to the Trigger Plug (via Trigger Cable, Key Fob Receiver, or Long Range Receiver Box). When 9-12 Volts DC is applied, the XP-357 will fire by opening the solenoid valve producing a loud report (110dB) and tuned Shock Wave. The valve is not polarity sensitive. *The shock wave can be quite forceful at close distances, Use Caution When Used In Close Proximity to Exposed Skin or Tissue.*
3. The XP-357 can immediately be refilled and fired again using steps 1 and 2 above.

KEYFOB RECEIVER OPERATION

KEYFOB RECEIVER	
1. Power Switch	3. Key Fob Transmitter
2. Power On LED	4. Connecting Plug

To remotely fire the XP-357 with the Key fob Receiver, plug the green cord of the Receiver into the black two pin plug of the XP-357. Turn the Key fob Receiver on and the Power On LED will illuminate. Fire the XP-357 by pressing the button on the Key fob remote. The Receiver does not have an Arming feature, it will fire immediately when it receives a signal from the Key fob Transmitter. Typical range for the Key fob is 30m to 50m in open air.

PLEASE NOTE THE FOLLOWING:

If charged to over 150 psi, the Relief Valve will release and relieve the internal pressure to prevent over pressurizing the XP-357.

Three 1/4-20 threaded bolt holes are provided on the front of the XP-357 for mounting an optional FX Attachment.

The XP-357 will experience some recoil when fired. Be sure to securely restrain the XP-357 before firing.

The XP-357 can be connected to a continuous compressed gas supply and will automatically recharge once fired.

Several different triggering options and accessories are available from Explotrain.

If dirt or debris enter the opening, the Shaped Piston inside the XP-357 may not seal properly and the XP-357 cannot be charged. Keep the opening area of the XP-357 as free of dirt and debris as possible.

The XP-357 can be used underwater. However, after firing some water is likely to intrude into the chamber. After underwater use, unscrew and remove the Valve Cap, remove the Shaped Piston Assembly, clean and dry the components, and reassemble. Anti-seize thread compound and silicone spray lubricant are recommended to aid in reassembly.

Troubleshooting

Problem: No audible sound when fired. Possible causes are no air, unit not filled to recommended pressures, Shaped Piston not sealing properly, or dirt and/or debris on the gasket. Recommended Solutions: Fill XP-357 to recommend pressures. If dirt and/or debris contamination is suspected inside the unit, follow instructions in the Disassembly section and clean all visible signs of contamination from all components and reassemble unit following the instructions in the Reassembly section.

Problem: Leaking Noise. Possible causes could be dirt and/or debris inside the unit preventing the Shaped Piston from sealing, dirt and/or debris in the valve, or a loose Schrader valve core. Recommended Solutions: If dirt and/or debris contamination is suspected inside the unit, follow instructions in the Disassembly section and clean all visible signs of contamination from all components and reassemble unit following the instructions in the Reassembly section. **CAUTION:** Ensure Exhaust Cap is securely tightened. If air is escaping from the Schrader valve, use a valve core removal tool to tighten the valve core and re-check for leaks.

Problem: Not firing. Recommended Solutions: Check input battery voltage. For manual trigger cable operation, check your supplied 9-12V. For key fob operation, open the key fob receiver box and check or replace the 8 double AA batteries.

Maintenance

Disassembly

CAUTION: Before attempting to disassemble the unit, make sure all air has been evacuated from the unit by pulling the ring on the pressure relief valve.
CAUTION: Before disassembly, mark which end of the Main Cylinder is the Valve Cap end and which is the Exhaust Cap end. It must be reassembled in the same orientation. Note: An easily fabricated maintenance fixture is recommended to help hold the unit securely during disassembly and reassembly. Contact Explotrain for a drawing of the fixture if desired. For routine disassembly it is recommended to unscrew the Valve Cap end to gain access to the internal components.

- Hold the Valve Cap end securely and rotate the cap counterclockwise to loosen. Remove from unit and set aside.

- Insert forefinger through Exhaust Cap opening and push Shaped Piston Assembly upwards. Grasp Top Seal and pull entire Shaped Piston Assembly free and set aside.
- Inspect all o-rings and other components for dirt or other contamination and wipe with clean cloth to remove all contamination. Isopropyl alcohol may be used for stubborn deposits.
- Please note that the Exhaust Cap end is securely tightened at the factory and may be difficult to loosen. The previously mentioned maintenance fixture will aid in this operation. The Exhaust Cap is removed in a similar fashion to the Valve Cap by grasping securely and turning counterclockwise to loosen. Once removed, inspect o-ring and rubber washer seal for contamination and clean if necessary. For complete removal of rubber washer seal for replacement or inspection it will be necessary to remove the six #4-40 x 3/4" socket cap screws and aluminum spacers with a 3/32" allen wrench. Remove o-ring to gain access to stainless steel retaining ring and rubber washer. Remove retaining ring and rubber washer. Inspect o-ring groove and rubber washer seal groove and remove all contamination. Inspect stainless steel retaining ring for flatness.

Cleaning

- Once the XP-357 has been disassembled all components should be wiped down with a clean cloth. Isopropyl alcohol may be used for stubborn dirt or contamination deposits.
- Inspect all o-rings for damage.
- Make sure the tiny .040" hole just off center in the Top Seal is not obstructed. You should be able to see through the hole when held up to the light.

Exhaust Cap reassembly

- Place the rubber washer seal into the cleaned groove, making sure it fully seats into place and is properly aligned to the screw holes in the cap.
- Place the stainless steel retaining ring into place over the rubber washer making sure it is properly aligned to the screw holes in the cap.
- Insert the rubber o-ring into its groove directly above the stainless steel retaining ring.
- Reinstall the six #4-40 socket cap screws by inserting an aluminum spacer over each screw and applying a small amount of blue Loctite thread locker (Loctite 243) to the first few lead-in threads. Insert into the screw holes in the Exhaust Cap. Be sure the rubber washer seal and stainless steel retaining ring are properly aligned around the spacers before tightening. Using a 3/32" allen wrench, tighten snugly, but DO NOT OVERTIGHTEN.

Unit Reassembly

- Spray a light coating of silicon spray on all o-rings and inside Main Cylinder.
- Apply a light coating of copper-based anti-seize lubricant on the threads on both ends of the Main Cylinder. Silicone spray may be used if anti-seize lubricant is not available.
- Make sure the Shaped Piston and the Top Seal are both tight against the piston shaft.
- Insert Shaped Piston Assembly into Main Cylinder in the orientation it was removed. Push it through the Main Cylinder until the Shaped Piston end just slightly emerges from the other end.
- Align the Shaped Piston between the six screw spacers of the Exhaust Cap and carefully screw the Exhaust Cap onto the Main Cylinder. ***CAUTION:*** Do not cross-thread the cap onto the Main Cylinder. NOTE: It is recommended that the previously mentioned fixture be attached to the Exhaust Cap and the fixture held in a vise to be able to securely tighten the Main Cylinder to the Exhaust Cap. Do not use a wrench to tighten the Main Cylinder to the Exhaust Cap, but tighten it as securely as possible by hand.
- Align the Valve Cap onto the other end of the Main Cylinder and carefully screw the Valve Cap onto the Main Cylinder. ***CAUTION:*** Do not cross-thread the cap onto the Main Cylinder. Snugly tighten the Valve Cap on the Main Cylinder. It is not necessary for the Valve Cap end to be extremely tight.
- Fill with compressed air to the recommended pressure and apply a soapy solution to all threaded fittings and around where the Valve Cap and Exhaust Cap screw onto the Main Cylinder to check for leaks. If leaks are visible, tighten the connection and recheck. If leaks persist the o-rings may need replacement. Contact Explotrain for more information.
- When no leaks are detected fill with compressed air to recommended pressure, connect to a voltage source, and test fire for proper operation.

If you have any questions, concerns, or would simply like to talk to us about using your XP-357 safely and effectively, please contact us at 850 862-5344 or information@explotrain.com

Programming a replacement XP-357 or XP-870 Key Fob to a Receiver:

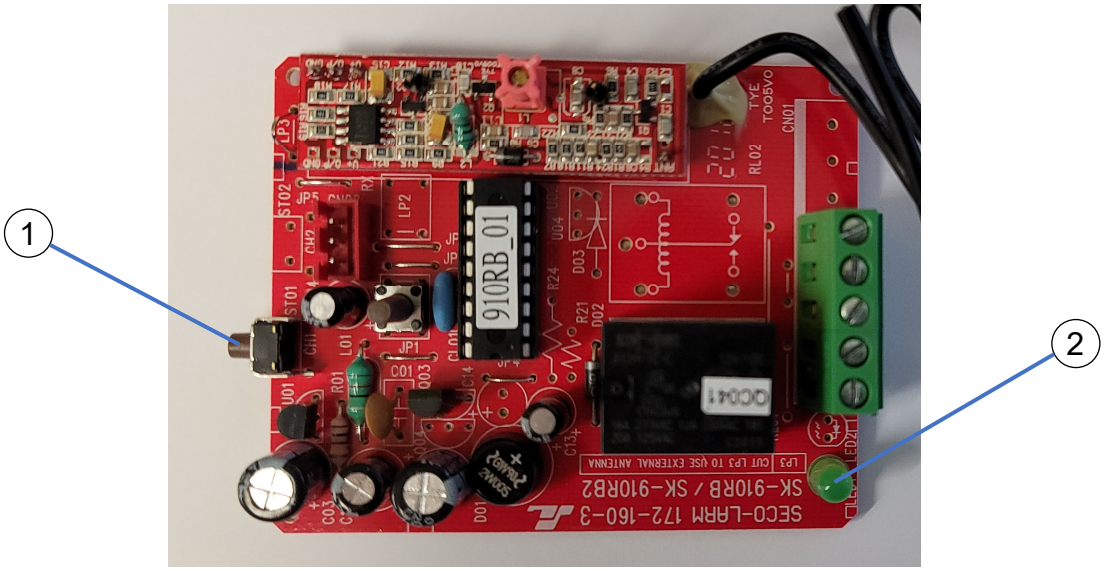
1. Press and hold the brown channel 1 mode switch for 3 seconds or more. The green channel 1 LED will start to flash indicating that it is in learning mode.
2. While the LED is flashing, press the button of the key fob transmitter to be learned one time. The green channel 1 LED will flash once to indicate the transmitter button has been successfully learned. After the button has been learned, the receiver will automatically exit learning mode.

NOTES:

- Each receiver channel can learn the codes of up to 15 different transmitters on a first-in, first-out basis.
- The green channel 1 LED will flash a maximum of 15 seconds. If no transmitter button is pressed during this time, the receiver will exit the code learning mode and the LED will turn off.
- If the code being learned has already been learned, the green channel 1 LED will turn steady ON and then start flashing again. The code will not be learned a second time.

To clear channel memory:

To clear all codes from memory, press and hold the brown channel mode switch for 3 seconds or more until the green channel 1 LED flashes. Release, then press the switch again for 3 seconds or more until the LED stops flashing. The LED will then flash twice to indicate that all codes associated with that channel have been erased.



1. Channel 1 mode switch	2. Channel 1 indicator LED