



# SAFETY IS YOUR RESPONSIBILITY

Familiarize yourself with and follow applicable national, local and regional laws for compressed air and airgun use and transport. Do not load or fire this airgun until you have completely read this manual and are familiar with its safety features.

Handle this and any other airgun as if it were loaded and ready to fire.

Do not look down the barrel of any airgun. Accidental discharge could cause blindness, or other serious injury or death.

Keep the airgun in a safe condition until ready to shoot. Never point the airgun at anything you do not intend to shoot.

Always keep the muzzle pointed in a safe direction.

Always verify that the compressed air cylinder is fully seated before pressurizing the EPOCH®.

Always verify that the barrel is fully seated and locked in place before firing the EPOCH®.

Pressurize and load the airgun only when it will be immediately used.

Never field strip or disassemble the airgun while it is pressurized.

Do not brandish or display this product in public as it may cause confusion and maybe a crime.

Must be 18 years or older to purchase or operate this airgun. Keep this airgun out of reach of children.

Always wear eye protection designed for shooting sports when handling or firing a pressurized airgun.

Do not pressurize a compressed air cylinder after is certification has expired.

The EPOCH®'s match grade air rifle trigger is extremely sensitive to shock or impact, extreme care must be taken to avoid accidental discharge.

Never manipulate, adjust or change any of the internal components of your airgun unless specifically directed to do so in this manual. Improper manipulation of any

Internal component may affect the safety and reliability of your airgun and may cause serious injury or death.

Any repair or modification not performed by a SKOUT AIRGUNS qualified airsmith may affect the safety and reliability of this airgun.

Use only GR33SE™ silicone lubricant (included with the EPOCH®) to lubricate seals or components where specified.

#### NOTE:

Not all o-rings are alike. Use only SKOUT Airguns o-rings to ensure both the correct dimensions and materials characteristics. Only SKOUT genuine parts should be used in your air rifle. This safety & instruction manual should always accompany this airgun and be transferred with it upon change of ownership or when presented to another person. A copy of this safety and instruction manual is Available to download from www.SKOUTAIRGUNS.com

# EPOCH® SAFE CONDITION

# ALWAYS: HANDLE ANY AIRGUN AS IF IT WERE LOADED AND READY TO FIRE



The EPOCH® is considered to be in the "SAFE CONDITION" when it meets the following parameters:

- The air rifle is unloaded, with no magazine installed.
- Electronics are powered "OFF", the OLED screen and Safety Button should not display any illumination.
- The Breach is in the open position, with the bolt handle pulled to it's rear most position.

#### //////MARNING

Keep the airgun in a safe condition until ready to shoot. Never point the airgun at anything you do not intend to shoot.

# READY/FIRE CONDITION

# ALWAYS: HANDLE ANY AIRGUN AS IF IT WERE LOADED AND READY TO FIRE



The EPOCH® is considered to be in the "READY CONDITION" when it meets the following parameters:

- The air rifle is LOADED, with a magazine installed.
- Electronics are powered "ON", the OLED screen is illuminated
- The Safety Button will illuminate when pressed.
- The Breach is in the closed position, with the bolt handle pulled to it's forward most position.
- The air rifle is pointed down range in a safe direction.

### //////MARNING

Keep the airgun in a safe condition until ready to shoot. Never point the airgun at anything you do not intend to shoot.

# AIR SYSTEM



# AIR SAFETY

## ////////////WARNING

Improper use, filling, or storage of an air cylinder may result in property damage, serious injury, or death. Do not put any lubricants in the air cylinder or fill fittings, as this may cause an explosion when high pressure increases the amount of oxygen in direct contact with the lubricant, lowering its ignition temperature.

Fill the **EPOCH**® with compressed air only. It's valve system and design are centered around the energy and expansion characteristics of atmospheric air. Other gasses, liquefied gasses, or gas blends may cause physical damage or injury if used.

Fill the **EPOCH**® with dry air. Low-cost compressors operating in humid environments with poor drying capability may deliver both compressed air and moisture condensed from that air during compression. Condensed moisture inside the **EPOCH**®'s valve and air chambers will reduce shot-to-shot consistency.

Do not overfill the air cylinder - see maximum fill pressure on cylinder, never exceed 4500psi with any cylinder.

Do not modify the air cylinder in any way.

Any air cylinder that has been exposed to fire or heated to a temperature above 2500°F (1210°C) must be destroyed by properly trained personnel.

Inspect the air cylinder for any cracks or physical damage before filling. If any cracks or physical damage are noticed, the air cylinder should not be filled, and it should be checked by a professional technician before use or replaced altogether.

Inspect the air cylinder to verify that it is within its service life and the inspection duration, whether based on its date of manufacture or the most recent rectification. If the cylinder is outside of its inspection duration, have it professionally tested, inspected and re-certified before filling.

If a hose, fitting or other high-pressure component begins leaking, get away from it immediately and allow it to continue to leak until the pressure has dissipated.

Never grab or place any body part near leaking - high pressure air, as an air injection injury may occur.

When the air cylinder On/Off valve is in the "OFF" position, the cylinder may still be under pressure. This will NOT be indicated by any of the EPOCH®'s gauges.

# AIR TANK

The EPOCH® is factory equipped with a carbon fiber over-wrapped composite compressed air storage cylinder.

Some EPOCH®s may also be equipped with other compressed air cylinders that were installed as an after-market modification.

Manufacturers' information, including service pressure limits, date of manufacturing, service life, and information on inspection duration, is located on the cylinder's exterior **(FIG. 1)**. Cylinders will typically have a 15-year lifespan from the date of manufacturing and require testing and recertification on a 5-year cycle for DOT (Department of Transportation) (or other regulatory agency outside the United States) compliance.

Before filling the EPOCH® with compressed air, inspect the cylinder for defects or signs of wear. Do not fill the EPOCH® if its cylinder finish has dents, its fiberglass structure has become frayed or delaminated, its inspection date has expired without recertification, its service life has expired, or the manufacturer's safety and certification information is not visible on the cylinder.

After inspecting the air cylinder, ensure it is fully installed in the EPOCH®. There should be no gap or exposed threads between the cylinder body and the cylinder's on/off valve, and there should be no gap or exposed threads between the valve and the front of the EPOCH®'s lower receiver. If either has backed out, it may be tightened into place by hand-turning the cylinder clockwise. **(FIG. 2)** 

Maximum Fill Pressure: Take careful note of the air cylinder's service pressure rating. This is typically 300 bar (4,351 psi). The EPOCH® is rated for operation at a supply pressure of up to 4,500 psi (310 bar). The maximum safe pressure for filling the EPOCH® will be the lower of those two pressure limits. If the cylinder is rated for operation at or above 4,500 psi, the EPOCH® may be safely filled to no higher than 4,500 psi. If the cylinder is rated for service at up to 4,351 psi, the EPOCH® should not be filled beyond 4,351 psi.



# AIR GAUGES

**Source Air Gauge** –Displays the air pressure supplied to the EPOCH® by the air cylinder. When the cylinder's on/off valve **(FIG.3)** is in the open position, this is an indicator of how "full" the cylinder is and with experience (this will vary with projectile type/caliber and pressure/velocity settings) to estimate how many shots the EPOCH® can fire before refilling.

(FIG.3 - shown full at 4500psi)

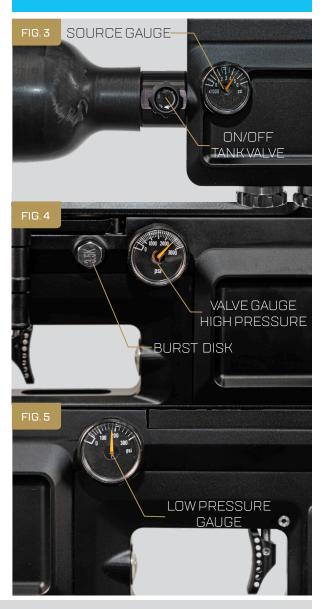
**Valve Pressure Gauge** – Displays the air pressure in the EPOCH®'s firing valve. This is the pressure of the air used to propel the projectile. Adjustment of this pressure, along with the valve dwell timing adjusts the velocity of each shot. Valve pressure may range from barely above 410 psi for .177 caliber pellets at 720 fps to just over 2500 psi achieving over 1,000 fps with a 44.75 grain .30 pellet with the short (25-inch – 635mm) barrel.

(FIG.4 - shown at 2500psi)

**Low Pressure Gauge** – Displays the air pressure fed to the EPOCH® solenoid pilot valve. This is lower pressure air that is used to control the EPOCH® 's main valve. This will normally be 170 – 200 psi, but may run as low as 100 psi when the EPOCH® is tuned for low velocities with .177 pellets or up as high as 193 psi when operating against higher valve pressure to reach higher velocities at larger caliber.

(FIG.5 - shown at 195psi)

The EPOCH® is equipped with three gauges to indicate the three states of air pressure in its pneumatic system



# EPOCH® TANK VALVE POSITION

## Turning "ON" the EPOCH®'s tank valve:

- Complete basic safety inspection detailed above.
- Ensure the EPOCH® has been turned off and is in a safe condition.
- Ensure the bleeder valve (FIG REF) is fully closed.
- SLOWLY rotate the tank valve counter-clock wise approximately 1/3 turn.
  - > Once audible airflow has begun, wait until source gauge stops moving.
  - > Finish opening the tank valve to the fully counter-clockwise position.
- The tank valve can be turned by hand, with your provided SKOUT Tool or with a standard 5/16" hex key inserted into one of the holes on the valve knob.

### ///////MWARNING

The air source gauge will continue to read pressure until the bleeder valve is opened, and all air is able to drain from the rifle.

## Turning "OFF" the EPOCH®'s tank valve:

- Ensure the EPOCH® has been turned off and is in a safe condition.
- SLOWLY rotate the tank valve clock wise approximately.
- The tank valve can be turned by hand, with your provided SKOUT Tool or with a standard 5/16" hex key inserted into one of the holes on the valve knob.
- Open the bleeder valve (FIG REF) and allow air to fully drain from the rifle.
- EPOCH® should NOT be considered degassed until all gauges read zero, including the low pressure gauge **(FIG 5.)**

### //////MARNING

EPOCH® may trap enough air inside the low pressure chamber area sufficient for several shots, even with the air source in the **"DFF"** position and source gauge reading zero. The EPOCH® should be unloaded and cycled in a safe direction to assure the rifle is fully degassed.

## ALWAYS: SLOWLY ROTATE THE TANK VALVE



# EPOCH® BLEEDER VALVE



# ALWAYS: OPEN THE BLEEDER WHEN STORING THE EPOCH®

The bleeder valve on the EPOCH® air rifle allows the user to release air pressure from the majority of the internal chambers of the air rifle.

The bleeder valve is operated by turning the knurled surface of the knob to the open or close position.

When opened, a burst of air will exit through the vent of the valve under the knurled cap. When closed, no air should escape the valve.

Do **NOT** use the 1/8 hex key screw to open or close the bleeder valve. The 1/8 hex screw is for servicing the bleeder valve **ONLY**.

## /////////////WARNING

EPOCH® may trap enough air inside the low pressure chamber area sufficient for several shots, even with the bleeder valve "OPEN" and the air source in the "OFF" position. The EPOCH® should be unloaded and cycled in a safe direction to assure the rifle is fully degassed.

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# FILLING THE EPOCH® WITH AIR

Whether you are transferring air from another compressed air cylinder or filling the EPOCH® directly from an air compressor, always follow the specific operation and safety instructions from the fill system being used.

### ///////MWARNING

Air fills should only be performed with the EPOCH® unloaded in the Safe Condition and pointed in a safe direction. Protective eyewear should be worn when filling any air tank.

01	02	03	04
Connect a 1/8-inch female disconnect fitting to the fill nipple from the compressed air filling system, located at the bottom front of the airgun.	Ensure the EPOCH® has been turned off and is in a "Safe Condition".	Ensure the bleeder valve is fully closed. (see PG)  Ensure the air cylinder on-off valve is fully open. (see PG)	Ensure the female connection fitting from the air fill system is fully engaged.

# FILLING THE EPOCH® WITH AIR

# CONT'D

## //////////////////////////WARNING

Air fills should only be performed with the EPOCH® unloaded in the Safe Condition and pointed in a safe direction. Protective ey wear should be worn when filling any air tank.

FILL STATION LINE PRESSURE-ZERO PSI

## 05 06 07 Fill the EPOCH® until it reach-Once the maximum fill pressure is reached and the compressed After depressurizing the fill es a maximum of 4500 psi or air supply from the fill system has been shut off, depressurize the hose, remove the fill station the service pressure of the air fill hose and fittings by opening the filling system's bleeder valve. fitting from the EPOCH®'s fill cylinder (see FIG1. max presnipple. sure). Some fill systems may automatically vent the fill hose when the fill system is shut off. FILL STATION BLEEDER - OPEN

# STORING/TRANSPORT

## SHORT TERM STORAGE

For the safety and longevity of internal components, the EPOCH®'s valve system should be depressurized before storage or transport. For short term storage, or local transport, it is not necessary to empty the air cylinder. The cylinder's on-off valve allows air stored in the cylinder to be isolated from the rest of the air rifle.

NOTE: The low-pressure regulator will still hold enough air for several shots after the rifle has been depressurized via the bleeder valve. To fully depressurize the airgun, the user should fire any remaining air out of the rifle while unloaded, and pointed in a safe direction.



# STORING/TRANSPORT - CONT'D

# LONG TERM STORAGE

For long term storage, shipping\*, or air transport\* one should degas the air cylinder as well as the rifle. Removing the bottle adapter may also be necessary depending on local rules and/or laws. **(SEE FIG )** 

NOTE\*: Transport laws vary by country, check with your chosen transport provider to assure the EPOCH® is properly degassed, and declared as required by law.



# REMOVING AIR CYLINDER

### ///////////////////////WARNING

The air cylinder should only be removed when necessary. Unscrewing the valve from the tank repeatedly will cause wear on the tank's threads and may shorten its usage life. If the threads feel loose, or the valve does not thread in easily, discontinue use of the air cylinder and have the components examined by a qualified professional.

IF YOU HEAR AIR ESCAPING AT ANY POINT DURING THIS PROCESS, **STOP** AND ALLOW ALL AIR TO VENT BEFORE PROCEEDING WITH TANK AND/OR TANK ADAPTER REMOVAL.

#### 01

Once all gauges read zero, the air cylinder should be able to be unscrewed from the air rifle

While unscrewing the cylinder and adapter from the air rifle, if you hear or feel any air flow, STOP and allow all air to vent before removing the air cylinder.



### 02

Unscrew the tank adapter from the tank. If necessary a wrench may be used on the flats of the tank adapter.

Removing the bottle adapter from the cylinder is only necessary if replacing the cylinder or to allow for FAA air travel inspection.

While unscrewing the cylinder from the adapter, if you hear or feel any airflow, STOP and allow all air to vent before removing the tank adapter.



# ELECTRONICS



## ELECTRONICS SAFETY

## ///////////WARNING

The EPOCH® airgun uses a lithium ion battery as the power source for its electronics. When used correctly, lithium ion batteries provide a safe and dependable source of portable power. However, misuse or abuse may result in leakage, fire, or explosion.

KEEP BATTERIES AWAY FROM CHILDREN.

THERE IS A CHEMICAL BURN HAZARD ASSOCIATED WITH ALL BATTERIES.

**USE ONLY SKOUT AIRGUNS BATTERY PACKS WITH THE EPOCH® AIR RIFLE.** 

USE ONLY SKOUT AIRGUNS' CHARGING SYSTEM (EXTERNAL OR INTERNAL) TO CHARGE YOUR EPOCH®'S BATTERY PACK.

DO NOT ATTEMPT TO DISASSEMBLE OR MODIFY THE EPOCH® BATTERY OR ELECTRONIC CONTROL BOARD.

DISCONTINUE USE IMMEDIATELY IF BATTERY SWELLS, EMITS FUMES/SMOKE OR BECOMES PERCEIVABLY HOT WHILE CHARGING.

KEEP BATTERIES AWAY FROM CHILDREN.
BATTERIES CAN EXPLODE OR LEAK AND CAUSE BURNS IF DISSEMBLED. CHARGED OR EXPOSED TO HEAT.

# BATTERY - CHECK POWER LEVEL

### 01

With the EPOCH® depressurized and pointed in a safe direction, turn it on by pressing and holding the power button on the rear of its grip for approximately 3 seconds.\*

\*Hold time may vary upon software version and settings.



#### 02

If voice is enabled, the EPOCH® will welcome you to the EPOCH® experience, announce its currently selected firing mode and battery charge level. If the rifle is in HUNT MODE, the voice has been disabled, or the speaker removed or damaged – the level will still be displayed on the OLED screen in a bar format.

## 03

Battery charge level will also be indicated by a 5 segment battery icon at the bottom of the OLED display in the rear of the Epoch®'s grip.

The estimated battery charge is based on voltage readings, which will vary according to temperature and battery condition.

**SKOUT Airguns recommends the battery level is at 60%** (3 OF 5 SEGMENTS) or higher before beginning a shooting session.



# BATTERY - CHARGING



#### NOTE:

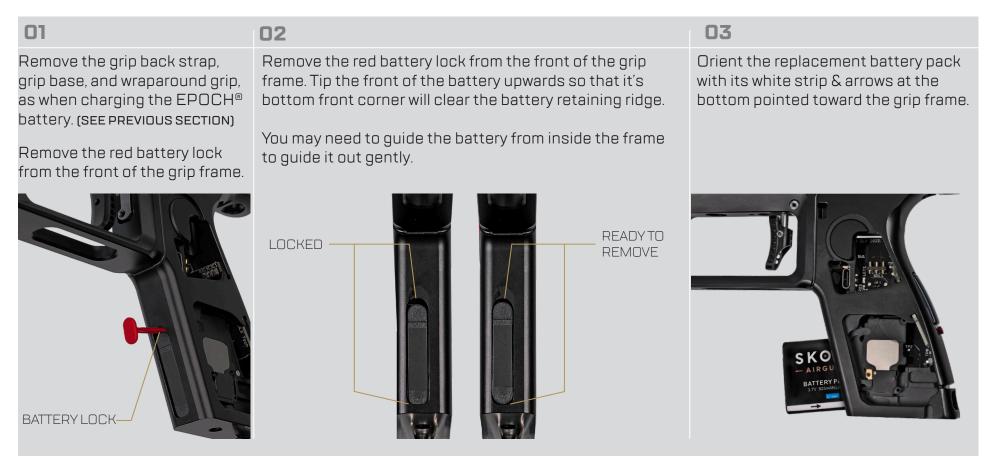
If you do not have access to an electrical outlet, the charge cable may be plugged into a portable USB power pack. The EPOCH® 's control board will illuminate an LED just beside the charging port when connected properly to a power source. This light indicates a connection of power to the board, it does not indicate charging level or status, refer to the previous section for battery level status.

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# BATTERY - REPLACEMENT

After years of use, disuse, or storage in harsh conditions, the EPOCH®'s battery pack may have a diminished charge capacity and be due for replacement.

The battery can also be swapped with a spare or back-up, which is much faster than waiting for a charge.



# BATTERY - REPLACEMENT - CONT'D

## 04

Once fully in, press downward on its front so that the bottom corner catches the battery retaining ridge.

## 05

Slide the red battery lock into the frame between the top of the battery slot and the top of the battery pack.

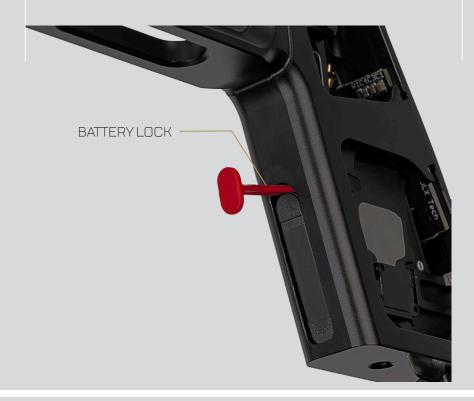
This will fill the gap visible above the battery pack.

### 06

Reinstall the wrap around grip, grip base and back strap as when completing the battery charging procedure.

(SEE PREVIOUS SECTION)





# GRIP - DIAGRAM



#### A. Main Grip

Note the tabs on top & bottom of the main grip, replace the grip if these tabs are broken.

#### B. Palm Swell Panel

Different combinations of palm swell will change the thickness of the grips, and any combination can be used. The palm swell panels are labeled "L" for left and "R" for right and numerated for thickness.

### C. Back Strap

The back strap retaining tab is located at the bottom of the grip. The top of the grip has an internal post that aligns with the frame.

## D. Grip Base

The grip base must be removed prior to removing the main grip panel. It is secured with two 5/32 bolts.

## E. Charging Port

The charging port for the EPOCH® is a USB-C connection. This is also the port used for any software updates.

## ELECTRONIC CONFIGURATION

## //////MARNING

As a precision air rifle with an extremely sensitive trigger, the EPOCH® employs multiple electronic safety features that are all active in its factory default configuration. Exercise extreme caution when disabling any of these features, and ensure that you fully understand and accept the risks before sacrificing reduced safety for increased convenience.

**NOTE**: The EPOCH®'s programming menu includes a "Reset to Factory Default" feature, which allows you to re-enable these safety features in a single step. (SEE PAGE XX)

## ///////WARNING

The EPOCH® should be depressurized, un-loaded, powered off and pointed in a safe direction before a user enters programming mode.

## /////////////////////////WARNING

The EPOCH® should be placed in "Safe Condition," as described in this manual, prior to attempting to make changes to the air rifles configuration.

The EPOCH should always be used with the latest version of software available. Programming software and the latest version of software can be downloaded from: www.skoutairguns.com/programming

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# PROGRAMMING MODE

#### **ENTERING PROGRAMMING MODE:**

With the EPOCH® in the OFF and safe condition, press and hold the safety button and the power button simultaneously for at least 3 seconds. The EPOCH® will boot into the main settings menu, indicated by voice (if enabled) and by text "MENU" at the top of the screen.



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# PROGRAMMING MODE

#### SCROLLING:

With "MENU" displayed at the top of the OLED screen, cycle through parameters in the main menu by pressing the safety button. Current settings will be displayed on the OLED screen while the voice (if enabled) announces the name of the parameter.

#### ADJUST A SETTING:

Select a parameter to adjust by pressing the power button. The EPOCH® will respond by changing "MENU" at the top of the screen to "SET", voice prompts (if enabled) will announce "SETTING" and the current value of the parameter being adjusted.

#### CHANGE A PARAMETER:

The value for the currently selected setting changed by pressing the safety button to cycle through the available options. When adjusting a numeric setting, the value will increase with each press of the safety button. To go to set a lower value continue pressing the safety button to cycle past the maximum value, then through to the lowest value and keep increasing until the desired value is reached.

### SAVING CHANGED PARAMETER(S):

Once the desired value is selected, press the power button to return to the main menu, then advance to the next setting with the safety button in order to save the changed value into non-volatile memory. Power the rifle off, the settings will be saved and become active during the next power cycle.



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# FIRING MODES

#### LIMIT MODE:

In this general use mode, switching into Fire Condition by pressing the Safety Button will begin a Fire Countdown on the OLED display. Every time the airgun is fired, or the timer reaches zero, the EPOCH®'s digital safety will automatically re-engage.

The EPOCH® leaves the factory in Limit Mode by default, in order to ensure the customer can familiarize themselves with the EPOCH® with all available safety measures in place. If the control board of the EPOCH® is "Factory Reset," the airgun will default back to "Limit Mode."

#### MATCH MODE:

In this benchrest competition mode, the digital safety must be disengaged with the safety button to enter Fire Condition, but the digital safety will not re-engage until the Fire Timer has expired or it is re-engaged manually. Multiple shots may be fired without leaving Fire Condition.

#### **HUNT MODE:**

This mode is focused on minimal noise when in use, otherwise the order of operations are identical to the Limit Mode. Voice feedback will be silenced by default, and the digital safety will re-engage after every shot, requiring the shooter to press the Safety Button to enter into Fire Condition for the next shot.

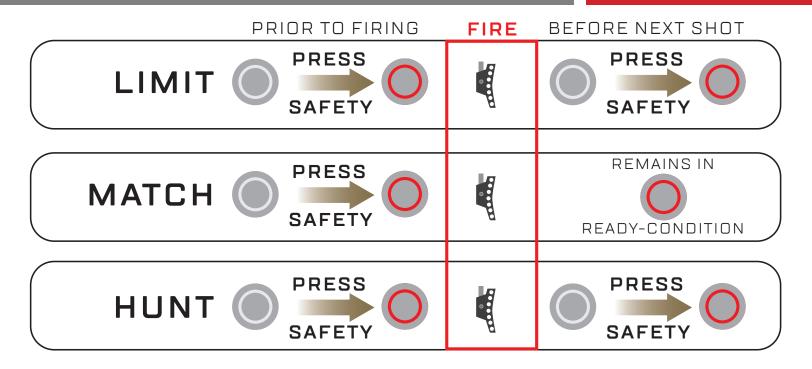
Because this mode uses the least number of sound outputs, Hunt Mode is also the most battery efficient mode of fire.

#### NOTE:

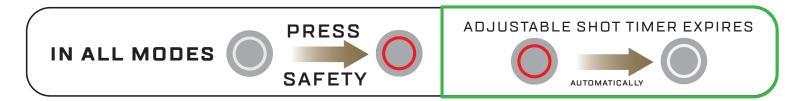
The customizable Shot Timer is active in **all modes** and will re-engage the safety after the timer expires.

Each mode's order of operation and function may change with software version update, refer to the patch notes on the most current version of SKOUT® Airguns software to confirm the above information is the most up to date available before using your SKOUT® Airgun.

# MODE DESCRIPTIONS



# NO SHOT



# ADJUSTABLE PARAMETERS

#### FIRE TIMER:

When the Fire Timer countdown period expires, the EPOCH® will re-engage its digital safety. This parameter adjusts the Fire Timer countdown period (between 1 to 60 min). This timer is active in all firing modes.

#### DWELL:

The Dwell parameter dictates the amount of time that the pneumatic valve is opened for each shot. The factory setting is optimized for the widest range of calibers and conditions, and should be used as a base for all tuning efforts.

Changing the Dwell setting will impact the velocity of each shot by increasing or decreasing the volume of air released by the firing valve. Used in combination with operating pressure adjustment, dwell timing adjustments can be used to optimize the number of shots available with each fill of the EPOCH®'s air cylinder.

#### BREACH SENSOR BYPASS:

Turning on Breech Sensor Bypass will allow the EPOCH® to fire if the Breech sensor is damaged and unable to detect when the Breech is closed. If this value is set to on, the bypass will be announced by voice when the airgun is powered on.

#### ///////////////////////////////WARNING

When the Breech Sensor Bypass is on, it is possible for the airgun to discharge when the breech is in the open position. Firing the airgun when the breech is not fully closed (bolt handle fully forward) may result in a high pressure blast of air from the magazine well which could cause injury to eyes, ears or face. ONLY use this setting if the breech sensor circuit is damaged, and have the breech sensor circuit repaired as soon as possible by a SKOUT Airguns certified airsmith.

#### SPEAKER VOLUME:

Turn voice feedback ON or OFF, this is OFF by default in HUNT mode.

# ADJUSTABLE PARAMETERS - CONT'D

## AUTO SHUTDOWN: (AUTO SHTDN)

This setting is different from Fire Timer, EPOCH® will turn all electronics systems off when this timer expires.

If no action is taken (firing, safety button inputs) in the time period defined by Auto Shutdown, the EPOCH® will power down its control system to conserve battery charge. The EPOCH® will need to be fully powered back on and the safety disengaged before another shot may be fired.

## VOICE SELECT: (VOICE SEL)

Use this parameter to choose from one of the pre-loaded voice sets, the EPOCH® board allows for up to four voice packs to be uploaded onto the board at one time. The software programmer available on SKOUTAirguns.com allows you to download new voice packs to your computer (as they are available). These voice packs can then be loaded onto your EPOCH® air rifle with a compatible Windows PC (Mac OS not currently supported).

#### VALVE STICK:

Unless this feature is needed, the value should remain at O milliseconds.

The Dwell setting of your EPOCH® rifle will be increased by this value for the first shot after the Stick Timer has expired. This may be used to prevent a low-velocity first shot if old seals, improper lubrication, or an extremely low actuation pressure setting on the Low Pressure Regulator are causing the valve to stick after being at rest for an extended period of time.

#### STICK TIMER:

This timer determines how long the airgun must be at rest before the Valve Stick value is added to the next shots dwell value.

# ADJUSTABLE PARAMETERS - CONT'D

### SOFTWARE VERSION: (SOFT VER)

This non-adjustable setting indicates the software version currently installed on the EPOCH®.

#### SHOT COUNT:

The Shot Counter parameter is an approximate count of cycles since the last time the counter was reset or the most resent software update.

This counter SHOULD NOT be used as an odometer, and does not accurately indicate the number of cycles on an EPOCH®. This counter should be used as a basic reference for maintenance intervals, or efficiency tracking.

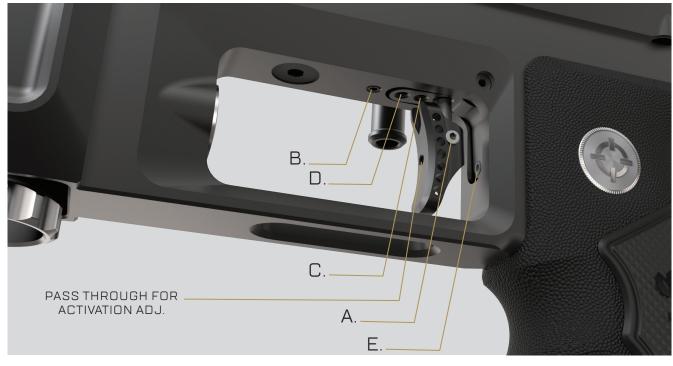
#### FACTORY RESET:

Factory Reset will return the EPOCH® to all electronic settings as specified from the factory. Please note that Firing Mode, and all timers will also be reset to factory configuration.

# ERGONOMICS



# TRIGGER ADJUSTMENT



- A. Trigger Shoe Height & Angle
- **B.** Post Travel Rear Travel Limit
- C. Pre-Travel Forward Travel Limit
- **D.** Magnetic Return Resistance
- E. Trigger Point Switch Actuation\*

  \*Access through hole in trigger shoe

#### //////////////////////////////WARNING

The EPOCH® has an extremely short and lightweight competition trigger pull which should always be handled with care. Any bumps or impacts while the gun is in the Fire Condition may result in an accidental discharge. The airgun should only be put into Fire Condition when it is ready to be fired in a safe direction. Care must be taken when configuring the EPOCH®'s trigger, as improper adjustment may result in unintended discharge.

Anytime the trigger is adjusted for a shorter or lighter trigger pull the chance of an accidental discharge from bump or impact is increased.

Do not adjust the trigger from factory settings when the EPOCH® is used for hunting purposes.

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# TRIGGER ADJUSTMENT - CONT'D

#### TRIGGER SHOE:

A lock screw in the side of the trigger shoe secures it to the trigger. The trigger shoe may be adjusted up or down along the trigger and biased with a twist to the left or right, before being locked into place with its set screw. The trigger shoe may need to be re-centered to access some of the other trigger adjustment points.

#### POST TRAVEL:

Post-travel adjusts the rear limit of the trigger's swing. Ideally, the trigger should stop just after the trigger break (activation of the electronic microswitch) is felt. Turning the adjuster clockwise brings the post-travel limit forward, while counterclockwise moves it back.

#### PRE-TRAVEL:

Pre-travel adjusts the forward limit of the trigger's swing. Turning the adjuster clockwise moves the pre-travel limit back, while turning counter-clockwise moves it forward. The pre-travel limit must be set far enough forward that the trigger can reset after each shot.

#### MAGNETIC RETURN FORCE:

Turning this adjuster clockwise brings it closer to the trigger return magnet, increasing the weight of the trigger pull, while turning it counter-clockwise makes the trigger pull lighter.

**IMPORTANT!** – The trigger must be adjusted such that the trigger comes to a stop against the Post-travel limit adjuster. Turning the Switch Activation adjuster in too far, so that the trigger pull is limited by physical interaction with the trigger's microswitch will leave the microswitch vulnerable to damage from aggressive trigger pulling. The trigger must be adjusted with enough swing to both activate the trigger's microswitch when the trigger is pulled and allow the microswitch to reset when the trigger is released.

# CHASSIS ADJUSTMENTS



- A. Cheek Riser Lock Screws \*

  \*one screw on each side
- B. Stock Extension Lock Screws
- C. Stock Length Adjustment Wheel
- **D.** Shoulder Pad Lock Screws\*

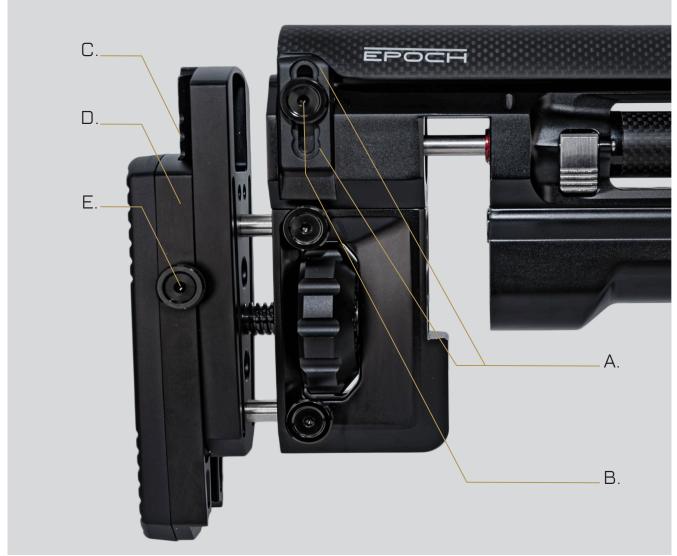
  \*one screw on each side
- E. Shoulder Pad

The EPOCH® has a highly adjustable factory chassis, and can be configured to each shooter's preferences. Before beginning any ergonomic adjustments, assure that the EPOCH® is in Safe Condition, and pointed in a safe direction.

With the exception of stock length, all other adjustments should be locked into place prior to firing the airgun. Stock length may be left unlocked in order to allow some pivot to the shoulder pad (at a shooters discretion).

The rifle can be safely fired without the cheek rest, if removal is necessary for user chosen accessories.

# CHEEK RISER & SHOULDER PAD



#### CHEEK RISER

Cheek riser height can be set in one of six positions (A.), shown here in its middle position.

To adjust cheek riser height, loosen the locking screw (B.) on each side of the rifle. Move the cheek riser into the desired position, and re-tighten the lock screws.

Note: The lock screws must be aligned with one of the 6 lock hole recesses in the cheek riser arm.

#### SHOULDER PAD

The shoulder pad (D.) of the EPOCH® can be adjusted vertically and is indexed in 1/4inch (6mm) increments (C.), shown in its middle position.

To adjust the shoulder pad height, loosen the locking screws (E.) on each side of the chassis, spring loaded internal bearings will hold its position with reasonable tension.

If the shooter wishes to make easy adjustments in the field, re-installing the locking screws (E.) is not required for proper function. To lock the shoulder stock in place, re-install the locking screws (E.)

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# STOCK LENGTH ADJUSTMENT



#### STOCK LENGTH

The butt of the EPOCH® stock may be adjusted in or out to tailor the fit of the stock between your shoulder and hand.

To adjust stock length, loosen the locking screws (A.) located above and below the adjustment wheel (B.)

The stock length adjustment wheel (B.) is indexed by a spring and bearing system, a physical "click" can be felt at each index point.

Once the stock length has been set, the locking screws (A.) should be re-tightened to retain the rigidity of the stock.

The EPOCH® can be used without these locks in place while the shooter dials in their personal fit. However, the stock will have some movement/play until fully locked down.

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### PALM SWELL ADJUSTMENT



#### PALM SWELLS

The EPOCH®'s grip system includes palm swell inserts in three sizes for both the left and right side of the grip, allowing fast and easy changes to the grip's contour for the best fit in your shooting hand.

To change the palm swells, simply remove the back strap of the grip as you would to charge the battery.

With the back strap removed, the palm swell plates will slide out of the main grip toward the rear of the EPOCH®.

There is a letter/number combination molded into the underside of each palm swell panel. Numbers from 1 – 3 indicate increasing thickness from smallest to largest, while L or R indicates if the panel is for the right or left side.

It is not necessary to match the thickness of the panels from right to left, instead one should focus on overall fit of the grip to the shooters hand

When final selection is complete, reinstall the panels making sure that the channels on the panel align and engage the grooves on the main grip.

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## MAGAZINE & PROJECTILES



### CHOOSING PROJECTILES

#### PELLET/SLUG SELECTION:

The EPOCH® is designed to shoot slugs or pellets in a wide variety of calibers. The best performance will be achieved with high-quality projectiles that are consistent in both mass and molding quality. For precision shooting, sizing, weighing, inspecting and sorting projectiles can ensure the consistency needed for the tightest possible groupings.

**Soft Lead Only** – Whether slug or pellet, the materials and finish of the EPOCH®'s barrel liners are engineered for use with soft lead projectiles. Use of other materials may result in poor performance or damage to the Barrel Liner. Slugs or pellets featuring polymer or hard metal penetrator tips or cores may be used in the EPOCH®, so long as their design only puts soft lead in contact with the rifled interior surface of the Barrel Liner.

EPOCH® should only be used with the projectile type (slug or pellet) corresponding to caliber marked on the barrel liner. Each liner's rifling depth and twist rate is optimized for the marked caliber/projectile, and should only be used with projectiles matching the barrel liner marking.





ALL PELLETS AND SLUGS SHOWN ARE .22 CALIBER

### MAGAZINE IDENTIFICATION

So long as the calibers are the same, the EPOCH® can use the same magazine for both slugs or pellets. Projectiles types should **NOT** be mixed within the same magazine, your projectile should always match the specification indicated on the barrel liner.

Caliber markings appear on the outside front of the magazine base, and the inside of the magazine lid. Some EPOCH® magazine lids are interchangeable between closely sized calibers(such as the one shown in the illustration on this page), the magazine base MUST match the caliber of the chosen projectile.

The EPOCH® magazine supports a maximum length of projectile of 13mm (0.51 in), pellet or slug.



### MAGAZINE LOADING

#### FOR A VIDEO TUTORIAL ON LOADING MAGAZINES - VISIT WWW.SKOUTAIRGUNS.COM/VIDEOS

01 02

Open the magazine by lifting up on the magazine cover, lift at the small notch directly parallel to the feed-port.

Rotate the magazine turret using the fin-

ger indentation on the turret to count the number of rotations.

All calibers will need at least 1.25 rotations of tension in order to feed reliably. One should not exceed 2 full rotations of the turret as it may damage the drive spring.

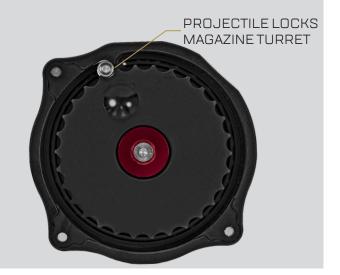
Small caliber pellets (.177) should be limited to 1.25 rotations to prevent deformation

ROTATE 2X MAXIMUM

03

Once desired tension has been achieved, placing a finger over the feed-port and sliding a projectile into the number 1 position will lock the turret.

With the turret rotation held in place by the first projectile, finish loading the magazine. Do not skip any slots or mix projectile types within a magazine.





# BARREL SYSTEM



### MODERATOR ASSEMBLY

#### MODERATOR ASSEMBLY

Where permitted the SKOUT EPOCH® comes equipped with a moderator mounted to the tip of the barrel assembly. The moderator should be checked for proper assembly and tightness before each shooting session.

The air shredder is located at the base of the moderator, and sandwiched in between the moderator and the barrel body. This color anodized component is caliber specific, and engraved with its corresponding caliber. If a caliber change has been made, special care should be taken to assure that the air stripper, barrel liner cap, barrel liner, breach, probe and magazine are all matching caliber to the projectile being used.

The o-rings present in the moderator should be clean, undamaged and the appropriate size. Damage or mis-sizing of these orings may cause misalignment or damage to the moderators components.



### LINER SECUREMENT

#### LINER LOCKING CAP

After the moderator has been removed, you will be able to access the liner locking cap and cap locking nut. The locking cap and nut are standard threads, shown partially installed in the illustration below. The liner locking cap is part of the modular caliber system of the EPOCH®, special care should be taken to confirm that the liner locking cap, barrel liner, breach, air stripper, magazine and probe are all the same caliber.

The cap and nut will be installed snugly from the factory, and should be tight before using the barrel on your EPOCH<sup>®</sup>. To remove the liner, first loosen the locking nut with a 7/8" (22MM) wrench then unscrew the locking cap with a set of non-marring pliers.

There are two o-rings inside the liner locking cap, and one on the outside of the barrel on the moderator platform. These o-rings do not actively seal pressure, but must be undamaged and properly sized. Damaged or missing o-rings in this location can cause mis-alignment of components or loosening of components during shooting.



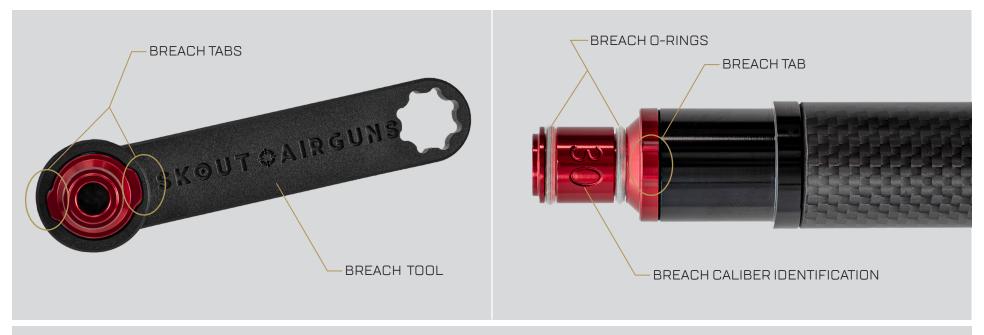
### LINER SECUREMENT CONT'D

#### BARREL BREACH

With the barrel removed from the rifle, one can access the barrel breach, located on the end of the barrel it is color coded and milled with its corresponding caliber size. Properly installed, the breach should be snugly tightened into the barrel base, with no threads exposed. Discontinue use, and seek guidance from the SKOUT Airguns technical team if the breach does not fully thread into the barrel sleeve.

Removal is not necessary during normal use or maintenance, however, the breach should be occasionally checked for tightness. Removal and replacement of the breach occurs during a caliber change, and should always match the caliber of the magazine, air shredder, barrel liner and probe.

To tighten/loosen the breach, use the breach tool supplied with your EPOCH<sup>®</sup>. The breach tool slides over the tabs on the breach and is standard threading. The tabs are different sizes and the breach tool will only fit when oriented the correct way.



### LINER IDENTIFICATION

#### BARREL LINER ID

Each Epoch® Barrel Liner has a front and rear. The front is identified by a shallow groove around its circumference. The groove will engage the o-rings inside the liner locking cap, this fit will be tight and a SMALL amount of lube may be applied to the outside of the liner groove to help with installation.

Markings on the barrel indicate the liner's caliber, followed by a box with a L or S character, "S" indicates the Short 25-inch (635mm) barrel, while "L" indicates the long 35-inch (889mm) barrel.

This is followed by "+" or "-" symbol - (+) symbol indicates that the barrel liner is slightly overbore, while a (-) symbol indicates it is slightly underbore. A neutral barrel liner, exactly at the specified caliber, and will not have a +/- marking.



### BARREL SECUREMENT

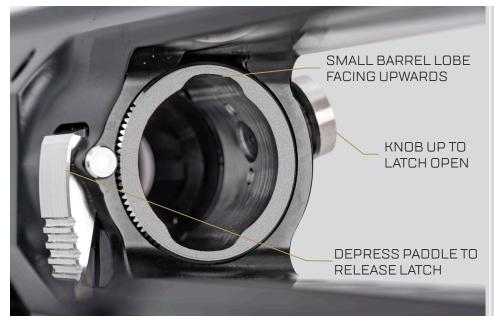
The EPOCH® is equipped with a multi-point barrel securement system. Each component should be checked as part of regular maintenance, special care should be made to confirm securement after servicing the barrel, the barrel liner or changing the caliber of the EPOCH®

The rear latch consists of a ratcheting latch knob and a locking pawl paddle. Pressing down on the paddle will release the pawls of the ratchet and allow the user to lift the knob the mechanism and release the barrel. Releasing the paddle will allow the pawls to engage, pushing the ratcheting knob down will lock the mechanism in position. This will lock the barrel breech into place, and secure the barrel to the rifle.

It should be noted that because the breach block is now locked in place, unscrewing the moderator or barrel from the breach block is possible while the breach block remains in the rifle. Do not remove any components from the barrel system while it is mounted on the EPOCH®.

#### BARREL LATCH OPEN







### BARREL SECUREMENT CONT'D

#### BARREL DEPTH AND ORIENTATION

Due to its bull-pup design, the primary barrel lock is located at the back of the EPOCH® just ahead of the magazine well. To confirm proper securement the latch must be ratcheted down fully & the barrel properly seated in both orientation and depth.

The barrel must be oriented & inserted into the barrel lock with the opening to the breach pointed toward the bottom of the rifle. The tabs on the breach are sized so that the barrel will be difficult to install if not properly oriented. If you encounter resistance, confirm orientation and cleanliness before proceeding. With the latch in the open position, and the flow port of the breach pointed down, insert the barrel through the receiver into the barrel latch. Once fully inserted the barrel lock can be secured by ratcheting it into a snug position.

To confirm installation depth, confirm that the center lip of the breach protrudes slightly into the magazine area & its lower surface is flush with the wall of the breach block.



### BARREL LOCK ASSEMBLY

The EPOCH® comes equipped with a barrel lock collar assembly located at the front of the chassis, were the barrel exits the body. This lock allows the user to add additional securement of the barrel at a second location, reducing barrel flex of the outer barrel sleeve.

This collar is secured by the most forward screw that passes through the sight-rail & chassis and into the barrel lock collar base. The compression ring goes inside of the barrel lock collar base & its tapered edge mates with a tapered surface inside the base. Other than a small slot for compression the ring should be undamaged, and smooth. Replace the collar if any damage or cracks are visible.

The locking collar threads into the lock base and compresses the delrin internal ring creating compression on the exterior barrel sleeve. This collar should be hand snug prior to shooting, and checked for tightness after transport or storage prior to shooting.



### SECURE BARREL LOCK

After inserting the barrel and assuring that the rear barrel latch is properly snug, with the barrel orientated correctly, one can move onto securing the barrel lock collar.

The barrel lock collar will be the last component to be tightened when securing the barrel. The lock collar should be hand tight, without threads showing.

This barrel lock is **NOT** a substitute for a properly secured barrel latch, see the previous section to assure that your barrel latch is properly secured and that your barrel is at its correct depth and orientation before tightening the barrel lock assembly.

There is a 3/16 hex key tool face machined into the lock collar, this is intended to help a user REMOVE the lock collar, and should never be used to tighten the barrel lock. **DO NOT** use tools to tighten the lock collar, as you may damage the outer barrel sleeve or barrel lock.

#### BARREL LOCK SNUG

#### BARREL LOCK LOOSE



### BARREL - CHECK LIST

After performing maintenance, caliber change, transport, or after a period of storage – a brief inspection of the barrel assembly and securement will ensure maximum safety and accuracy.

Ensure that the barrel is fully seated and locked into the EPOCH® Receiver. The Barrel should be secure (unable to be pulled forward out of the EPOCH®) and the Barrel Lock Knob must be in its lower position. Make sure there is no more than a hairline gap between the rear of the barrel assembly and the lock mechanism of the receiver. If there is a gap of 1.5 mm (1/16-inch) or more, the barrel is not locked in place and must be reinstalled.

Prior to shooting the EPOCH®, confirm the following:

- PRIOR to installation, inspect the barrel liner for cleanliness.
- Barrel is fully secured at the rear of the rifle with the barrel latch in the correct position. (Page XX)
- Barrel is fully seated at the correct depth, inspecting the magazine area for proper clearance. (Page XX)
- Barrel lock collar is snug and properly secured, with no threads showing. (Page XX)
- Moderator components are all present, properly ordered and screwed onto the barrel sleeve securely. (Page XX)
- The magazine, barrel liner, air stripper, probe and liner cap are all matched to the caliber of your chosen projectile.

# SHOOTING THE EPOCH®



### PREPARE TO SHOOT

Before loading the magazine into your EPOCH® the cocking handle must be moved to its rearmost position. This will also move the probe into its rearmost position and open the magazine well.

The magazine should be oriented upwards, and rotated so that the feed hole (open pass through portion) of the magazine is at the top & closest to the rifle (shown below). The caliber marking on the outside of the magazine will be right side up, and legible from the front of the rifle (text going left to right).

The magazine will self align without resistance when properly inserted, and is secured by magnetic force. Advancing the cocking handle will cause the probe to pass through the magazine advancing a projectile into the barrel liner. It is not unusual to feel some slight and varying resistance as the projectile is pushed out of the magazine by the probe and sealed into the breach.

When the breach is closed, the OLED display will indicate ready to fire by presenting a filled circle icon. If the cocking handle has not been cycled, the OLED will display a partial circle and will trigger a "Fire Fault" if one attempts to cycle the air rifle.



### READY/FIRE CONDITION



The EPOCH® is considered to be in the "READY CONDITION" when it meets the following parameters:

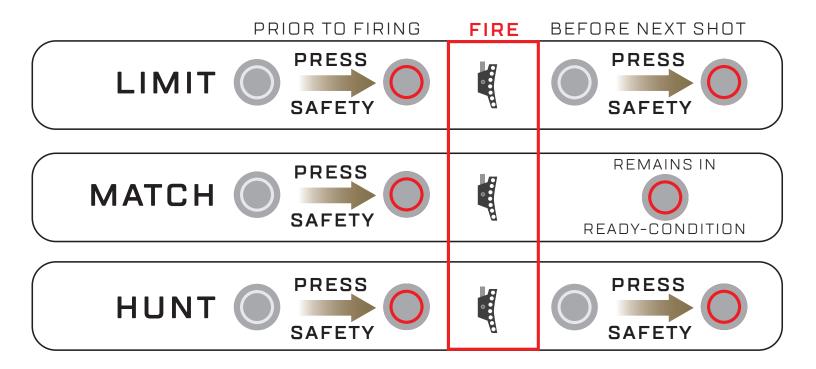
- The air rifle is LOADED, with a magazine installed.
- Electronics are powered "ON", the OLED screen is illuminated
- The Safety Button will illuminate when pressed.
- The Breach is in the closed position, with the bolt handle pulled to it's forward most position.
- The air rifle is pointed down range in a safe direction.

#### //////MARNING

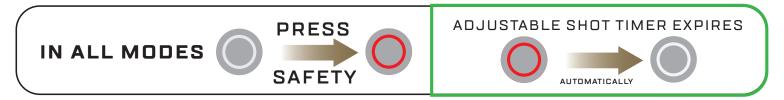
Keep the airgun in a safe condition until ready to shoot. Never point the airgun at anything you do not intend to shoot.

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## FIRING - PER MODE



### NO SHOT



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### AFTER SHOOTING

Upon firing the last projectile in the magazine, retracting the probe will allow the magazine turret to release any tension remaining in the magazine. You may hear, or feel the turret spin when retracting the probe for the last time. Dry firing the EPOCH® will not damage the rifle, and should be used to fully depressurize the rifle before storage or transport.

#### When you have finished your shooting session:

- After firing your last shot, do NOT load another projectile into the breach.
- Pull the bolt handle to its fully rearward position and remove the magazine.
- Push the bolt handle to its fully forward position to lock the handle and probe in their storage/closed configuration.
- Turn off the EPOCH® by holding its power button for approximately 3 seconds. The OLED display will go dark, and if enabled the voice will announce that the EPOCH® is powering off.
- Depressurize the EPOCH® using steps covered in the previous sections.
- Do not store the EPOCH® with a magazine installed.
- Return the EPOCH® to safe condition.
- Fully depressurizing the rifle is strongly recommended when storing or transporting the EPOCH® before or after a shooting session.

## EPOCH® BASIC MAINTENANCE



### BASIC MAINTENANCE

If stored in a protected environment, the EPOCH® will require very little effort to clean and maintain. Confirm that the EPOCH® is unloaded, in Safe Condition, and turned off before cleaning or any maintenance. Always keep the EPOCH® pointed in a safe direction, regardless of electronic, or air pressure status.

#### GENERAL CLEANING:

- Use a microfiber cloth to wipe any dust or dirt accumulated on the outer surfaces of the EPOCH®
  - > DO NOT use harsh solvents or petroleum based products on any surfaces.
- Cotton or foam swabs may be used on crevices or interior corners.

#### LUBRICATION:

- Heavy lubrication is not required in any part of the EPOCH®.
- Use only GR33SE silicone based lubricant (included with the EPOCH®, and available from SKOUT Airguns and its retailers)
- Routine lubrication is limited to a small amount of grease on the probe shaft o-rings.
  - > Minimal lubrication should be used to avoid contaminating the barrel liner with lubricant.
- Only lubricate o-rings as indicated in this manual or technical videos.

### BARREL MAINTENANCE

The EPOCH®'s barrel liners have a low-friction nickel and PTFE impregnated finish which is designed to self-clean with the use of soft lead projectiles. Cleaning the barrel's bore should only be performed in situations where dirt or other debris has made its way into the barrel.

Small bits of lead fouling visible in the barrel are not a cause for concern as they will be dislodged and expelled when firing the EPOCH®

#### BARREL CLEANING:

- Remove barrel as instructed in the Barrel Section of this manual.
  - > DO NOT use metal brushes, plastic brushes or any other type of brush in the bore of the EPOCH® barrel.
  - > DO NOT use harsh solvents or petroleum products in the bore of the EPOCH® barrel.
  - > DO NOT OIL the EPOCH®'s barrel for storage. It is manufactured from corrosion resistant materials, adding oil is unnecessary and will drastically reduce accuracy.
- Clean the barrel of the EPOCH® with appropriate caliber cleaning patches or non-marring barrel swab.



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