

Daystate



THE OFFICIAL HANDBOOK



TWELFTH EDITION

PULSAR

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SAFETY

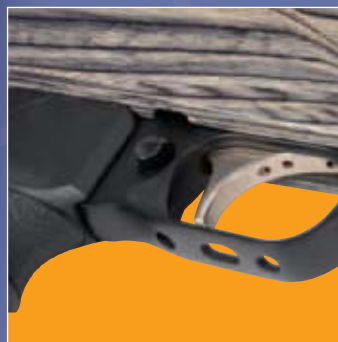
- Never point your airgun at anyone or anything other than a legitimate target
- Always check that your airgun is not loaded when you first pick it up
- Always treat your airgun as if it was loaded, even if you know it's not
- Never shoot on land where you do not have permission to shoot
- Always use a safe, large backstop to catch your pellets - and pay due attention to what's behind it, should you miss
- Never leave your airgun unattended
- Always store your airgun and pellets separately and securely so that no unauthorised person can use them
- Know and abide by the laws relating to airguns.

GENERAL INFORMATION

Congratulations on choosing a Daystate air rifle. Your rifle has been hand assembled using the finest materials available, from parts precision-made using CNC engineering technology. This rifle is the culmination of the companies involvement with pre-charged air rifles and uses knowledge gained from manufacturing this type of air rifle for almost four decades, making your Daystate one of the most accurate and reliable rifles available today. Use this handbook to get the best from your rifle.

Further information that includes more detail on the topics covered can be found online at www.daystate.com/support under the online handbook.

Daystate also has an active owners club which is free to join and can be found online at <http://v2.daystateowners.com>





FILLING YOUR AIR RIFLE WITH COMPRESSED AIR

Note: Do not use any other gas than clean, dry compressed Air

- Unscrew the dust cap from the rifle's charging connector and attach the female snap-on charging connector onto the inlet valve. Ensure that the connector's outer sleeve is fully forward and that the connection is secure
- Check that the bleed screw on the charging unit is closed and open the feed valve on the air bottle. Compressed air will now fill the reservoir
- Fill to a maximum of 230 bar. The exact filling pressure (SWP) is printed on a small disc at the rear of the breech block
- Close the feed valve
- Sharply open the bleed valve on the charging unit and bleed off the air from the filler hose
- Remove the snap-on connector and replace the rifle's dust cap

LOADING YOUR RIFLE – SINGLE SHOT

Remember to keep the muzzle of the air rifle pointing in a safe direction at all times

- Apply the safety catch
- Pull the cocking lever all the way back*
- Check that the pellet is not damaged and push the pellet directly in to the barrel
- Push the lever forwards

The air rifle is now loaded

- Disengage the safety catch a red LED will light on the rear of the gun and the built-in laser will illuminate the target**. The rifle can now be fired

LOADING THE DAYSTATE MULTI-SHOT MAGAZINE

- Apply the safety catch
- Pull the cocking lever all the way back*
- Remove the magazine from the left side

Note that the magazine can be factory supplied to be inserted from the right side

- The magazine can now be loaded. Load one pellet into the LARGE bottom hole ensuring that the pellet head passes the seating O-ring
- Rotate the magazines inner pellet carrier anti-clockwise to load subsequent pellets one click at a time up to a maximum of ten pellets
- Replace the magazine back into the breech block and return the lever forward to the closed position
- Disengage the safety catch. A red LED will light on the rear of the gun and the built-in laser will illuminate the target**. The rifle can now be fired
- To fire the next shot repeat the cycling of the side lever. Note: the rifle is designed not to double-load, the magazine will not rotate unless the rifle has been fired
- When the last shot is chambered a red dot is displayed on the left side of the magazine. When the last shot is taken, the red light at the rear of the gun will pulse to indicate the magazine is empty. It is possible to remove and 'top up' the magazine should shooting time allow



Figure 1

NOTE: The laser will switch off 1.5 seconds after firing, or the rifle will set to standby mode if the rifle is not fired within one minute. The rifle can be 'dry' fired (with air and no pellet in the breech) without any mechanical damage occurring as long as there is enough air.

**With the breech bolt open the trigger is disengaged and the rifle will not fire*

***The laser can be switched off*

DAYSTATE 10-SHOT MAGAZINE

- The picture shows the stop pin correctly fitted for Pulsar/Wolverine. For Huntsman/Air Wolf use the lower hole. **The magazine can be adapted to be inserted from the right side. Use a small Allen key or needle to push out the magnet and along with the stop pin move to the opposite side.**

Figure 1: Stop pin in correct hole for Pulsar. Allen key inserted to illustrate magnet removal



FITTING A RIFLE SCOPE

Attaching the mounts

Daystate recommend the use of Blueprint Mounts.

- Loosely fix one mount to the dovetails on the front section of the breech block and the other on the rear*

Aligning the crosshair

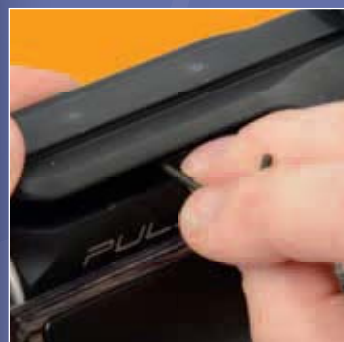
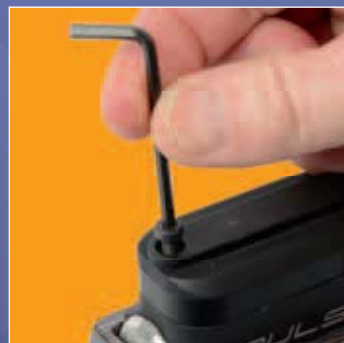
You will need either a gun-vice or 'Workmate' because to perfectly align the sight the rifle will need to be held firm and level.

- Place the gun vice or Workmate on a firm and level surface
- Clamp the rifle, making sure you do not damage the stock
- Place one spirit level across the flat part of the breech block and adjust the rifle until it is level
- Now look through the sight and without moving the rifle, rotate the scope until the vertical cross hair aligns with a vertical plumb line. All screws should now be tightened

To zero the rifle

- Set up a large paper target, with a safe and suitable backstop at around 10 metres
- Mark a simple cross on the target and from about 10 metres fire a test shot
- If the pellet is close to the 'mark' then note its position
- If the shot was lower than 5 inches (130 mm) then you will probably run out of adjustment on the elevation turret and it will be necessary to pack up the back of the scope*
- Using the turrets on your scope, adjust until the centre of the crosshair and the pellet hole coincide
- Repeat stages 1-4 at your chosen zeroing distance

**It is quite common when sighting in an airgun to need to tilt the scope forward by shimming the rear mount by up to .3 mm. A good material to use for this purpose is 35mm film negative or lead tape (used to weight golf clubs). Simply cut the shim to the same size as the mount and place it between the scope tube and the base of the rearmost mount ring*





Switching side-lever positions

All Pulsar rifles are fitted with an ambidextrous stock and can be converted by the shooter to left or right-handed lever action.

To switch the lever:

- Loosen the two retaining screws on the cheek-piece and slide it rearwards off the dovetail
- Remove lever pivot bolt – slide out the complete lever assembly
- Loosen the two blanking plate securing screws and slide out the blanking plate – replace on the opposite side
- Re-insert the lever assembly on the opposite side and replace lever pivot bolt – do not overtighten
- Reverse the cocking lever handle to underside of the lever

Batteries

- Before changing batteries the safety switch should be in the 'SAFE' position
- The information display will display "LOW BATTERY" when the 9 volt battery pack drops to 7 volts
- Batteries are primary (non-rechargeable) Alkaline AA cell (R6). A high quality battery will ensure a long battery life of thousands of shots
- Battery options: The Mk5 GCU system fitted to the pulsar has been designed to work with different capacity batteries other than those supplied. It is also possible to use lithium (disposable) batteries, or lithium-ion (rechargeable) batteries, even high-capacity Lithium 9 volt (PP3) can be used by connecting directly into the battery box terminals. A reduced shot count and battery life should be expected when using lower capacity primary, or secondary batteries

Note; Low Battery indicator is calibrated for the standard Alkaline batteries supplied and may give a misleading reading when used with other types

Auto-safe feature

- If the safety catch is left in the 'Fire' position for 5 minutes without the rifle being fired, the rifle automatically switches to standby (power-save). To reactivate the rifle, re-apply the safety catch or open/close the side lever



PELLET RECOMMENDATIONS

The Daystate multi-shot magazine has been engineered for round-nosed pellets and may misalign or even jam if used with other shapes.

Recommended pellet types:

- Rangemaster Sovereign .177, .22, .25
- Rangemaster Keiser .177, .22
- Rangemaster Monster .25



PULSAR PROGRAMMING

CAUTION ensure the rifle is unloaded and cross bar safety in the 'SAFE' position (right side protruding).

Point the muzzle in a safe direction and opening the side lever. If the rifle is in standby mode it will be necessary to activate the side lever twice or flick the safety to fire and back to safe to switch the rifles power on. With the side lever open, programming mode is then entered by keeping the trigger pulled for 5 seconds. Release and re-apply the trigger. The rifle will now scroll through the options available:

- Power adjustment
- Magazine on/off reset
- Laser on/off

Release the trigger when the required option is reached. Using the trigger you will now be able to toggle between further options:

- **Power adjustment*** – low power – medium power – high power
- **Magazine on/off reset** – with magazine counter on, the rifle resets to 10 and will count down to 0, when the rifle will pulse 4 times and stop firing. To reset the counter and resume firing, open the bolt for 5 seconds to replace the magazine
- **Magazine off** – the rifle will fire single shot. Reopen, reload and close the side lever to continue firing
- **Laser on/off** – toggle between on and off to control the laser

Additional programs

In addition to the user program options, there are two additional features that automatically apply:

- **Low Battery** – Batteries need changing
- **Low Pressure** – refill the gun with air - up to the pressure specified in the small disc on the left side of the breechblock. The low pressure warning comes on when the air pressure drops to 10 bar below the minimum. This pressure changes depending on the power setting in use.

** Power settings vary depending on calibre, specification and local legal restrictions. On high power rifles power settings are LOW=65% MEDIUM=85% HIGH=100% of available power. On UK specification rifles (12 ft/lbs) the power levels are 10.5, 11, 11.5 ft/lbs – depending on the pellets in use. * Power settings vary depending on calibre, specification and local legal restrictions.*



Butt-pad adjustment

The butt pad fitted to the Pulsar can be adjusted to many positions

- Loosen pad screw for up/down adjustment - 5mm Allen key
- Loosen pad screws for cant adjustment - 2.5mm Allen key

Additional spacers can be purchased to lengthen the stock



Stock Removal

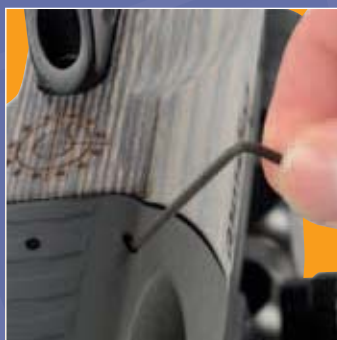
To remove the stock, first apply the safety catch, then remove the stock bolt (5mm Allen key) and remove the rear part of the stock complete with pistol grip assembly. The forend will remain on the air tube.



Laser adjustment

The laser can be accessed by three holes in the forend of the stock loosen the left screw and tighten right to move the laser left and vice versa. Up and down movement can be adjusted by loosening one of the side adjusters and then screwing in or out the bottom adjuster.

Allen screw size: 2mm



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Laser and zeroing tips

An easy way to adjust the laser and the scopes' zero, is to clamp the rifle upside down in a workbench. Look through the scope and adjust the laser to coincide with the same aiming point.

Figure 2: Pulsar clamped for Laser adjustment

Figure 4: Adjusting the laser for vertical

Figure 3: adjusting the laser horizontally

Figure 5: Caution, over adjustment on horizontal may prevent the beam exiting the aperture



Figure 2



Figure 3



Figure 4



Figure 5

RECOMMENDED MAINTENANCE

Pre-charged air rifles contain extremely high pressures and can be dangerous if not serviced correctly, all work should be carried out by a Daystate factory-trained gunsmith.

Correct maintenance will ensure a longer trouble-free life. Daystate recommends that the rifle be returned to the factory or your Daystate approved servicing agent for routine maintenance every three years.

BARREL CLEANING

For optimum performance the barrel should be periodically cleaned with a barrel cleaning solution recommended for air rifles or a pellet lubricant. Daystate also advises the use of a lubricant applied to the pellets to reduce lead deposits and maintain the barrel. Frequency of cleaning depends on the pellet type used and the individual barrel, but as general guidance the barrel should be cleaned after every tin of pellets.

AIR RESERVOIR

The alloy under-barrel pressure cylinder will withstand pressures many times the working pressure of the rifle. The air cylinder should be replaced every 10 years.

HAND PUMPS

This type of charger offers an inexpensive and convenient method of charging your rifle. If you regularly use this type of charger, care should be taken to avoid condensation build-up from inside the pump being transferred to the air cylinder. Always refer to the pump manufacturer's operating instructions.

WALNUT STOCK

Walnut stocks have an oiled finish; the stock should be periodically wiped over with suitable walnut stock oil or boiled linseed oil.

ACTION

To keep the rifle clean, a suitable gun cleaner or oil can be applied to a cloth and used to wipe over the outside of the gun.

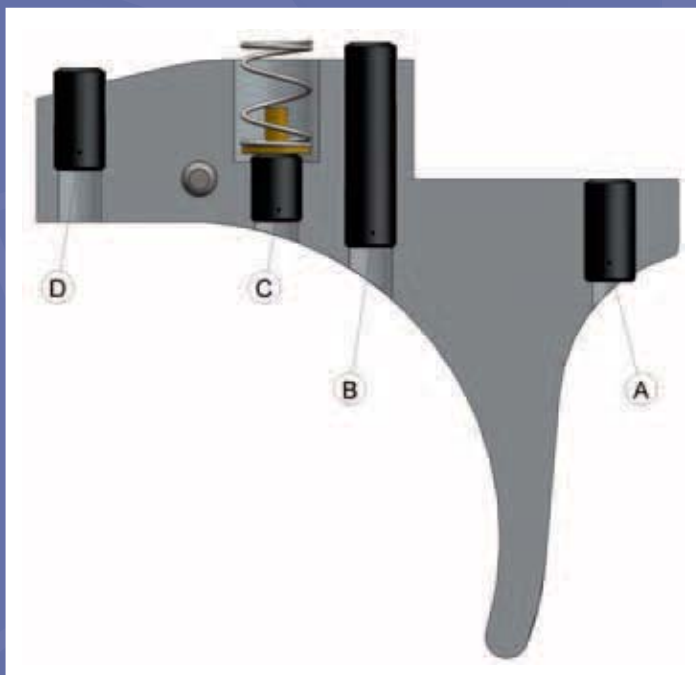
LUBRICATION

Daystate has teamed up with Ballistol to provide ecologically and dermatologically safe lubricants for the maintenance your rifle. Please see the enclosed Ballistol leaflet for details. The bolt shaft and sidelever pivots should be lubricated periodically with a small amount of light grease or oil. Do not lubricate any of the internal parts such as the firing valve or hammer assembly. The snap-on filling connector is factory lubed with a special non-combustible grease. The connector can be maintained by wiping over with oil or grease but should be left dry.

MORE INFORMATION

More servicing information can be found online at www.daystate.com/support and <http://v2.daystateowners.com>





TRIGGER ADJUSTMENT

Allen Key Size: 1.5 mm

Note: It is not necessary to remove the rifle's action from the stock to adjust the trigger

Ensure that the safety switch is in the 'SAFE' position and that the rifle is unloaded

Screw A: 2nd Stage Contact Screw - Factory Set

Screw B: 2nd Stage Weight Screw - Adjust clockwise to make heavier

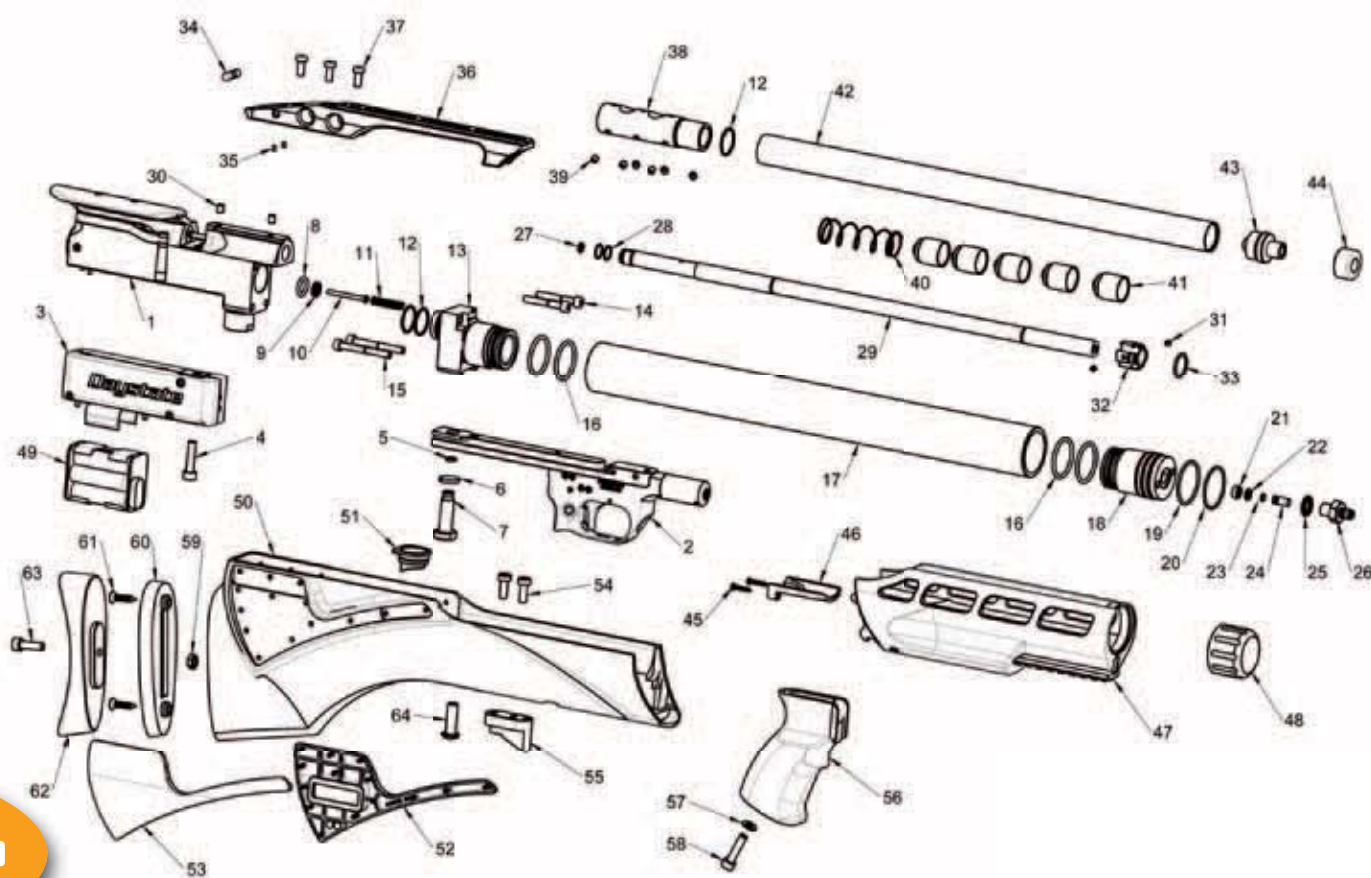
Screw C: 1st stage Weight Screw - Adjust clockwise to make heavier

Screw D: 1st Stage Travel Screw - Adjust clockwise to Decrease trigger travel

Some models are fitted with a match trigger blade. Use a .9mm (supplied) Allen key to adjust the trigger shoe position



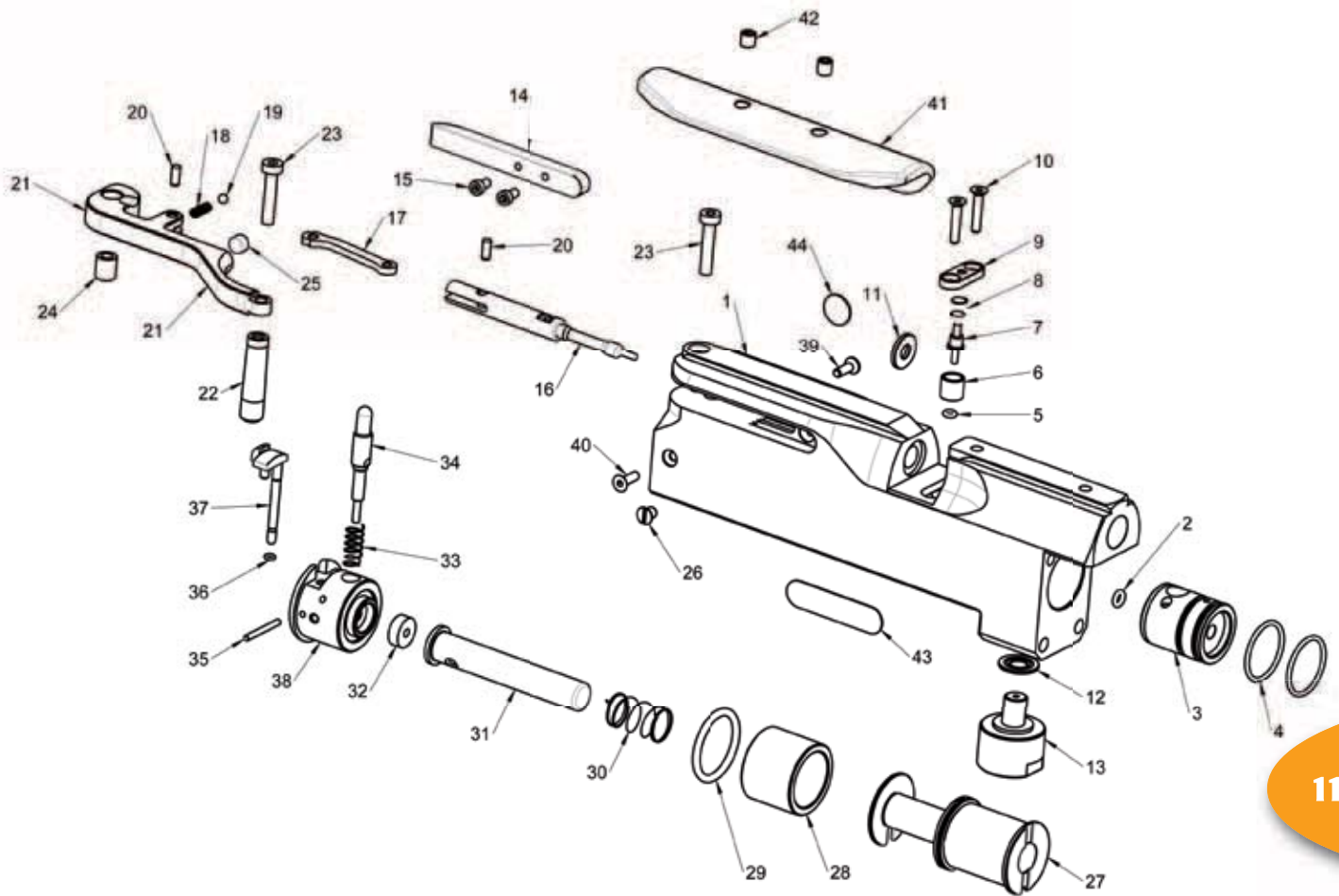
PULSAR PARTS DIAGRAM



- | | | | |
|---------------------|-----------------|---------------|------------|
| 1 Breech block | 17 Air cylinder | 33 O-ring | 49 Housing |
| 2 Trigger | 18 Front body | 34 Bubble | 50 Stock |
| 3 GCU electronics | 19 O-ring | 35 Screw | 51 Cover |
| 4 GCU screw | 20 O-ring | 36 Intermount | 52 Plate |
| 5 Seal | 21 Washer | 37 Screw | 53 Plate |
| 6 Washer | 22 Filter | 38 Adapter | 54 Screw |
| 7 Screw | 23 O-ring | 39 Screw | 55 Adapter |
| 8 Valve seal O-ring | 24 Piston | 40 Spring | 56 Grip |
| 9 Valve seal | 25 Dowty seal | 41 Baffle | 57 Washer |
| 10 Valve | 26 Filler | 42 Shroud | 58 Screw |
| 11 Spring | 27 O-ring | 43 Adapter | 59 Nut |
| 12 O-rings | 28 O-ring | 44 Cover | 60 Plate |
| 13 Housing | 29 Barrel | 45 Screw | 61 Screw |
| 14 Screw | 30 Screw | 46 Plate | 62 Pad |
| 15 Screw | 31 Screw | 47 Forend | 63 Screw |
| 16 O-ring | 32 Bush | 48 Cover | |



PULSAR PARTS DIAGRAM



1 Breech block	14 Cover	27 Solenoid	40 Screw
2 O-ring	15 Screw	28 Spacer	41 Cheek rest
3 Valve	16 Bolt	29 O-ring	42 Screw
4 O-ring	17 Arm	30 Spring	43 Cover
5 O-ring	18 Spring	31 Hammer	44 Pressure disc
6 Bush	19 Ball bearing	32 Grommet	
7 Pin	20 Pin	33 Spring	
8 Spring	21 Lever	34 Shaft	
9 Plate	22 Arm	35 Pin	
10 Screw	23 Screw	36 O-ring	
11 Washer	24 Bush	37 Shaft	
12 Dowty seal	25 Magnet	38 Plug	
13 Sensor	26 Screw	39 Screw	



3 YEAR WARRANTY

All new Daystate rifles are guaranteed against faulty parts and labour for a period of 3 years from date of purchase (proof of purchase required). After this period it is recommended that the rifle be returned to Daystate or its authorised agent for a scheduled service and subsequently every 3 years. Servicing is charged at current rates. The warranty applies to the first purchase of a new rifle and is not transferable to subsequent owners.

EXCLUDED FROM WARRANTY

Failure due to misuse or abuse, the fitting of non-standard parts, springs, seals, water-damage to wooden stocks, batteries and fair wear and tear. Daystate Ltd or their approved agent must carry out all maintenance and warranty work. The rifle must be maintained and used as outlined in this Instruction Manual. Should a rifle be returned or collected under warranty, Daystate or its approved agent reserve the right to charge for postage and inspection costs.

While every effort is taken to ensure the accuracy of the information in this instruction manual, Daystate Ltd or their agents cannot be held responsible for errors or omissions. Products are continually updated and specification may change without notice.

Visit the online handbook at www.daystate.com/support for the latest information. E&OE. www.daystate.com



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