

PRO-TARGET

COMPRESSED AIR SYSTEM

PLEASE READ THIS INSTRUCTION BOOK BEFORE USING YOUR PRO-TARGET

GENERAL INFORMATION

LENGTH : 1200 M/M (1.2 MTRS)
WEIGHT : 4.0 KGS
MAX PRESSURE : 200 BAR
MIN PRESSURE : 110 BAR

ALWAYS TREAT YOUR PRO-TARGET AS IF LOADED. ALWAYS STORE/TRANSPORT WITH THE BREECH IN THE 'SPRING BACK' POSITION. REGULARLY SMEAR THE EXTERNAL SURFACES WITH OIL TO PREVENT SURFACE CORROSION. UNAUTHORISED DISASSEMBLY OR MODIFICATION WILL INVALIDATE THE WARRANTY.

****** WARRANTY ******

THIS PRODUCT IS WARRANTED TO THE RETAIL CUSTOMER FOR 12 MONTHS FROM DATE OF PURCHASE AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP. PROOF OF PURCHASE IS REQUIRED TO RECEIVE WARRANTY REPAIRS.

WHAT IS COVERED

REPLACEMENT PARTS AND LABOUR. RETURN TRANSPORTATION TO THE CONSUMER.

WHAT IS NOT COVERED

TRANSPORTATION FROM THE CONSUMER TO THE MANUFACTURER.
DAMAGE CAUSED BY MISUSE, ABUSE, LACK OF MAINTENANCE OR DISASSEMBLY.
ANY OTHER EXPENSES INCURRED BY THE CONSUMER.
NO WARRANTY IS IMPLIED AS TO FITNESS FOR ANY PARTICULAR PURPOSE.

IMPORTANT INFORMATION

****** WARNING ******

- A USE COMPRESSED AIR ONLY. DO NOT USE ANY OTHER GAS OR GAS MIXTURE. USE A COMPRESSOR OR PUMP FITTED WITH A WATER FILTER, OTHERWISE CORROSION AND MAL-FUNCTION WILL OCCUR WITH THE RIFLE.
- B RIFLES NEED TO BE REFILLED WHEN PRESSURE OF RIFLE IS DOWN TO 110 BAR. THIS WILL BE AFTER APPROXIMATELY 100 SHOTS HAVE BEEN FIRED.

VERY IMPORTANT INFORMATION, PLEASE READ

VELOCITY, MUZZLE ENERGY AND THE LEGAL USE OF AIR RIFLES.

The current laws on the ownership and use of air rifles make it very difficult for manufacturers to meet the needs of the shooter and legislation when it comes to performance.

New or different pellets, lubricants and aftermarket services can alter the velocity of an air rifle significantly, long after the rifle has left the factory. Even the running-in process associated with any new product can alter the performance. These variables result in removal of any control by the manufacturer.

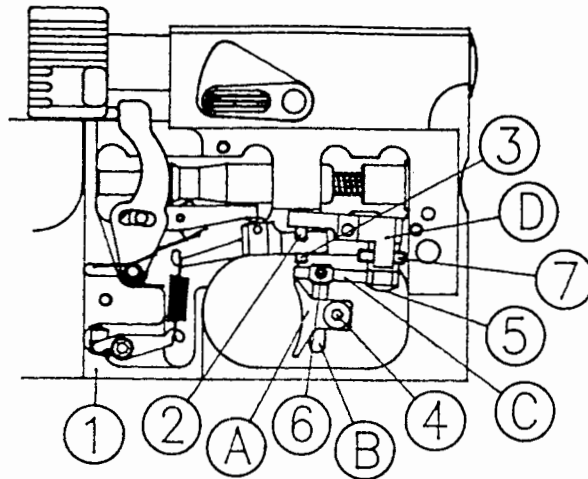
Because of this, AIR ARMS has adopted the principle that all air rifles that it produces will be set up on one brand and type of pellet. This pellet will be made known to the user of the rifle through the User Handbook. The choice of pellet is made on the basis of a compromise between quality, efficiency, price and availability and should be suitable for most applications. Whether the set up is changed or not, it is advisable to check the performance regularly, particularly after the running-in period.

Our rifles can be set up to suit any pellet that is or will come onto the market, however AIR ARMS will not set up a rifle to use an inefficient pellet that will knowingly result in over power on other pellets. If the owner/user decides to alter the set up for this purpose they must realise that the responsibility to check conformity with all relevant legislation rests on their shoulders.

It is a very serious offence to be in possession of an over powered air rifle and, if conviction results, can mean confiscation, a heavy fine, or imprisonment even a combination of all three.

AIR ARMS rifles are currently set up at the factory to produce between 11.3 and 11.5ft/lbs with the pellet specified below. This is to allow for any slight increase in performance after the running-in period.

SET UP PELLET.....WEIGHT.....



TRIGGER ADJUSTMENT

- | | |
|------------------------------|----------------------------|
| (1) Trigger Weight Screw | (7) Follow-On Travel Screw |
| (2) 1st Stage Travel Screw | (A) Trigger Shoe |
| (3) 2nd Stage Adjuster Screw | (B) Trigger Pillar |
| (4) Trigger Shoe Screw | (C) Trigger Bar |
| (5) Trigger Bar Screw | (D) Trigger Pivot Block |
| (6) Trigger Pillar Screw | |

The position of the Trigger Shoe can be moved in three planes as follows:

- (a) Vertically - By loosening screw (4) and sliding up/down on the Trigger Pillar (B).
- (b) Longitudinally - By loosening screw (6) and sliding Trigger Pillar (B) along Trigger Bar (C).
- (c) Radially - By loosening screw (5) and turning Trigger Bar (C) on the pivot block (D).

TRIGGER WEIGHT ADJUSTMENT

The trigger weight is adjusted by turning screw (1) clockwise to increase weight and anticlockwise to decrease weight. Access to screw (1) is from underneath the stock, adjacent to the rear stock fixing screw.

1st STAGE TRAVEL ADJUSTMENT

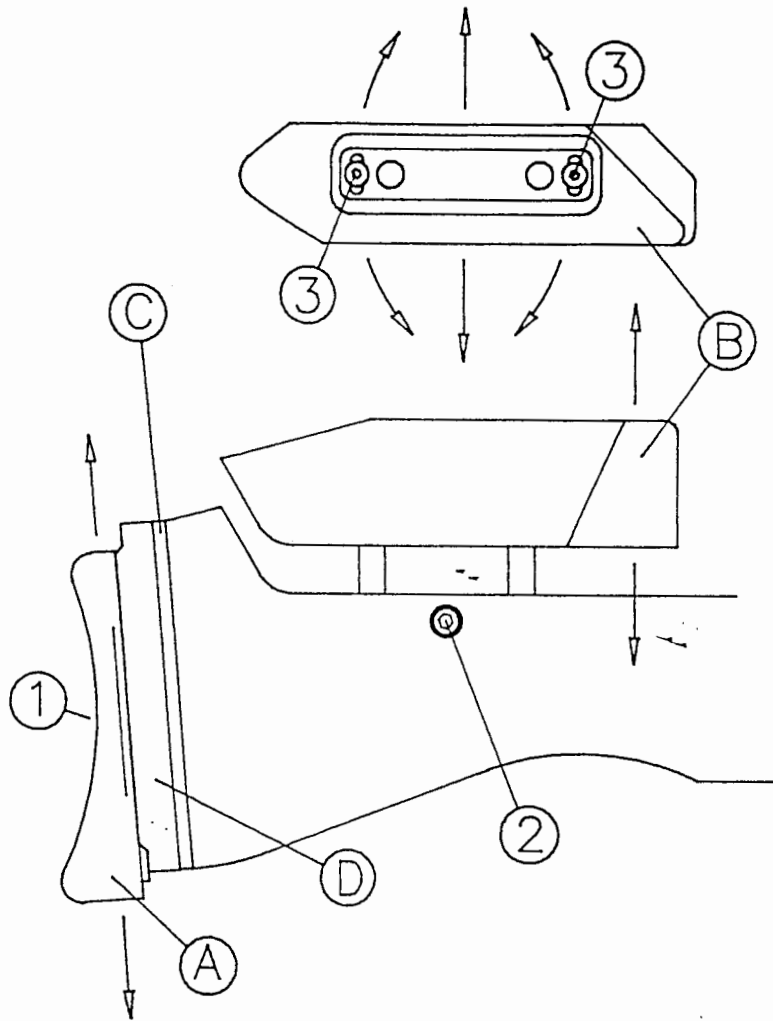
1st Stage Travel is adjusted with screw (2). Turning the screw clockwise will decrease travel and anticlockwise increase travel.

2nd STAGE ADJUSTMENT

The 2nd stage is adjusted with screw (3). Turning the screw clockwise will increase the trigger travel between the end of 1st Stage and the 2nd stage. If the screw is turned too far anticlockwise, then the rifle will fire before the end of 1st Stage travel is reached.

FOLLOW-ON TRAVEL ADJUSTMENT

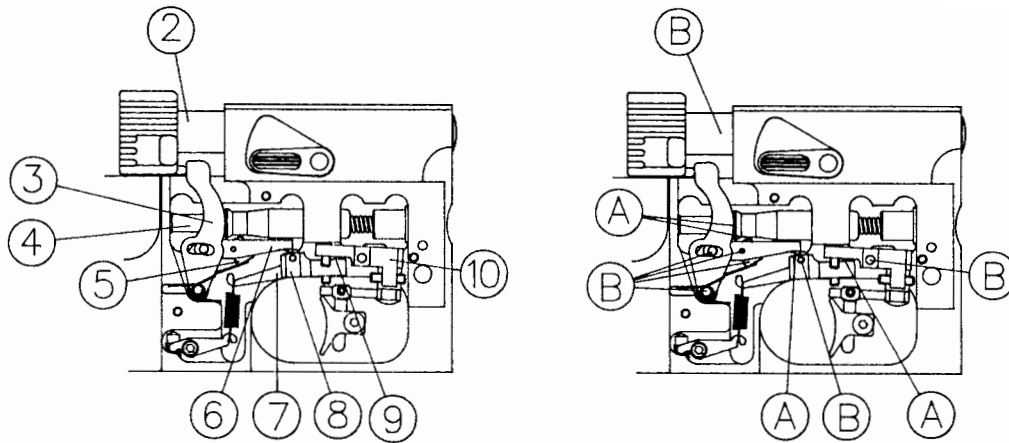
Follow-On travel is adjusted with screw (7). Turn the screw clockwise to decrease or anticlockwise to increase the amount of trigger travel after the Let-Off point.



STOCK ADJUSTMENTS

- | | |
|--|-------------------------|
| (1) Shoulder Pad locking screw | (A) Shoulder Pad |
| (2) Cheek Piece vertical locking screw | (B) Cheek Piece |
| (3) Cheek Piece lateral locking screws | (C) Shoulder Pad Spacer |
| | (D) Mounting Block |

- (a) The Shoulder Pad (A) can be adjusted vertically by first loosening screw (1).
- (b) The Cheek Piece (B) can be adjusted vertically by first loosening screw (2).
- (c) The Cheek Piece (B) can be adjusted laterally by first loosening screws (3).
- (d) The length of the stock can be reduced by removing spacer (C), or increased by fitting additional spacers. The spacers are 5mm thick and will require longer Mounting Block screws to suit the number of additional spacers.



- | | |
|------------------------|-----------------------|
| (1) Breech Shaft | (6) Middle Sear |
| (2) Cocking Arm | (7) Middle Sear Block |
| (3) Piston | (8) Trigger Cam Point |
| (4) Piston Catch Plate | (9) Pivot Block |
| (5) Top Sear | |

LUBRICATION

The wear parts of the PRO-TARGET have been designed to require minimal lubrication during normal use. The lubricant applied to the internal parts during assembly at the factory is normally sufficient for 10000 shots, any roughness of operation may indicate that lubrication is necessary before this number.

If you have limited knowledge of the workings of a precision mechanism, maintenance and lubrication is best left to an experienced gunsmith or, preferably, the factory.

Regularly protect the external surfaces with a light smear of mineral oil.

Under or over lubrication will effect the consistency of the PRO-TARGET.

Points (A), lubricate with Moly Grease

Points (B), lubricate with a low viscosity mineral oil.

POINTS (A)

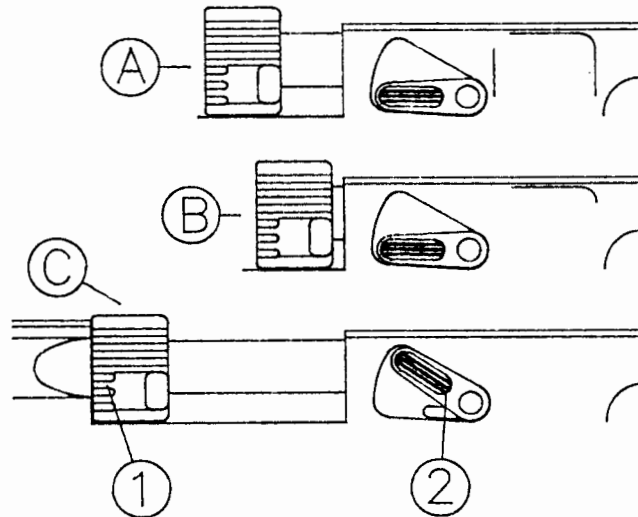
- (a) Cocking Arm/Piston contact point
- (b) Top Sear/Middle Sear contact point
- (c) Trigger Cam Point
- (d) Piston/Piston Catch Plate contact point

POINTS (B)

- (e) Breech Shaft
- (f) Top Sear pivot pin
- (g) Cocking Arm pivot pin
- (h) Striker Catch Plate & pivot pin
- (i) Pivot Block pivot pin

Occasionally grease the connecting thread and 'O' ring between the cylinder and rifle with 'O' ring grease.

- * DO NOT USE ANY OIL OR GREASE THAT CONTAINS SILICON *
- * DO NOT USE ANY SYNTHETIC OIL *
- * DO NOT LUBRTICATE THE STRIKER BEARINGS (RN103) *



COCKING AND LOADING

- | | |
|--|-------------------------------------|
| (1) Breech Block | (B) Breech Block in Cocked Position |
| (2) Release Lever | (C) Breech Block in Firing Position |
| (A) Breech Block in Spring-Back Position | |

The Pro-Target should always be stored and/or transported with the Breech Block (1) in the Spring-Back Position (A).

LOADING SEQUENCE

- (a) With the Breech Block (1) in position (A), pull the Breech Block (1) back until in position (B).
- (b) Insert pellet into barrel.
- (c) Push the Breech Block (1) forward until the Release Lever (2) clicks into the fully up position as in (C). (If the Release Lever is not in the fully up position, a misfire may result. This action is not dangerous, but will almost certainly mean a loss of a shot.)
- (d) The Pro-Target is now ready to fire.
- (e) Immediately after firing, push Release Lever (2) down until the Breech Block (1) springs back to position (A).

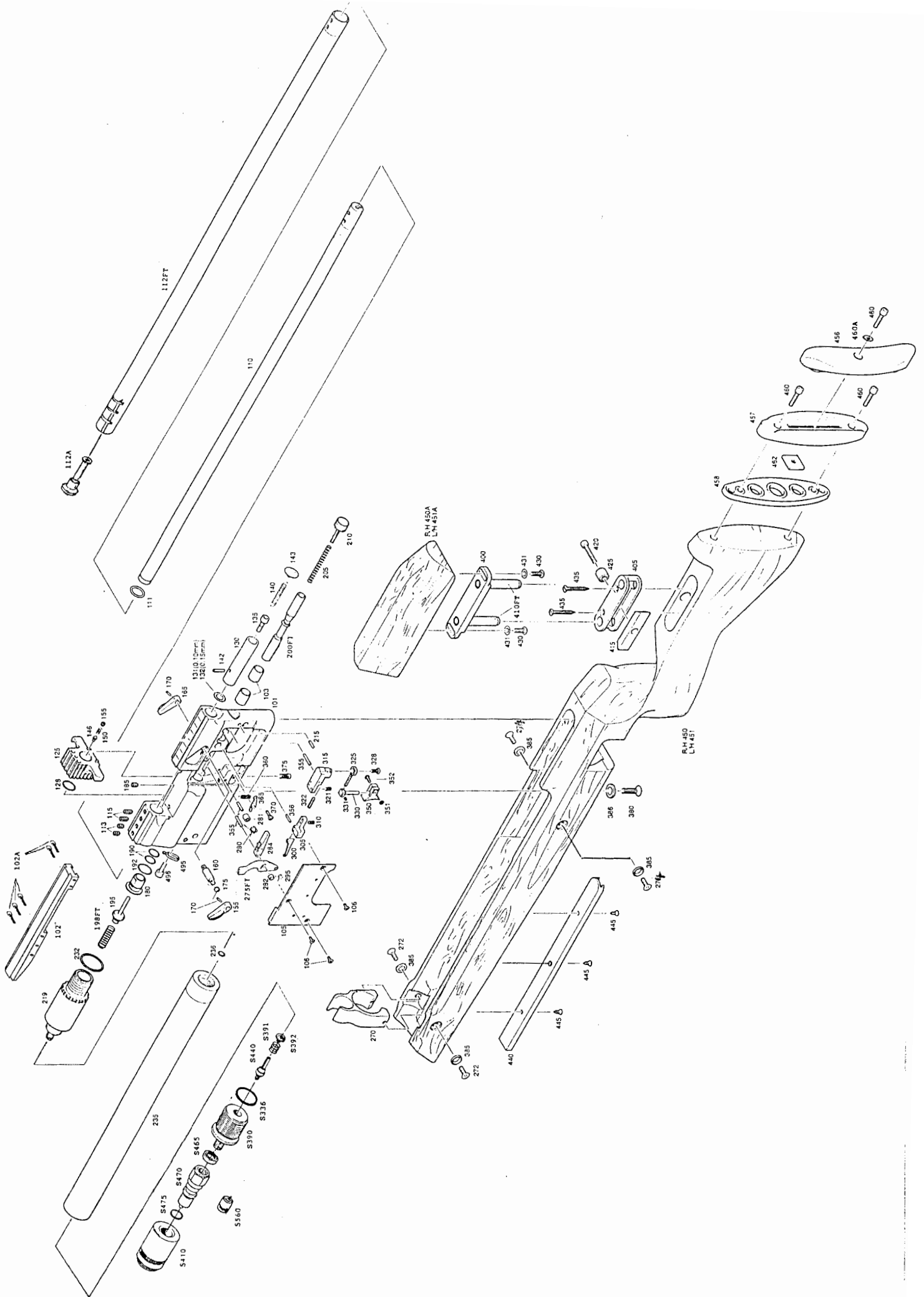
It is quite safe to cock and test fire the PRO-TARGET without loading a pellet into the barrel.

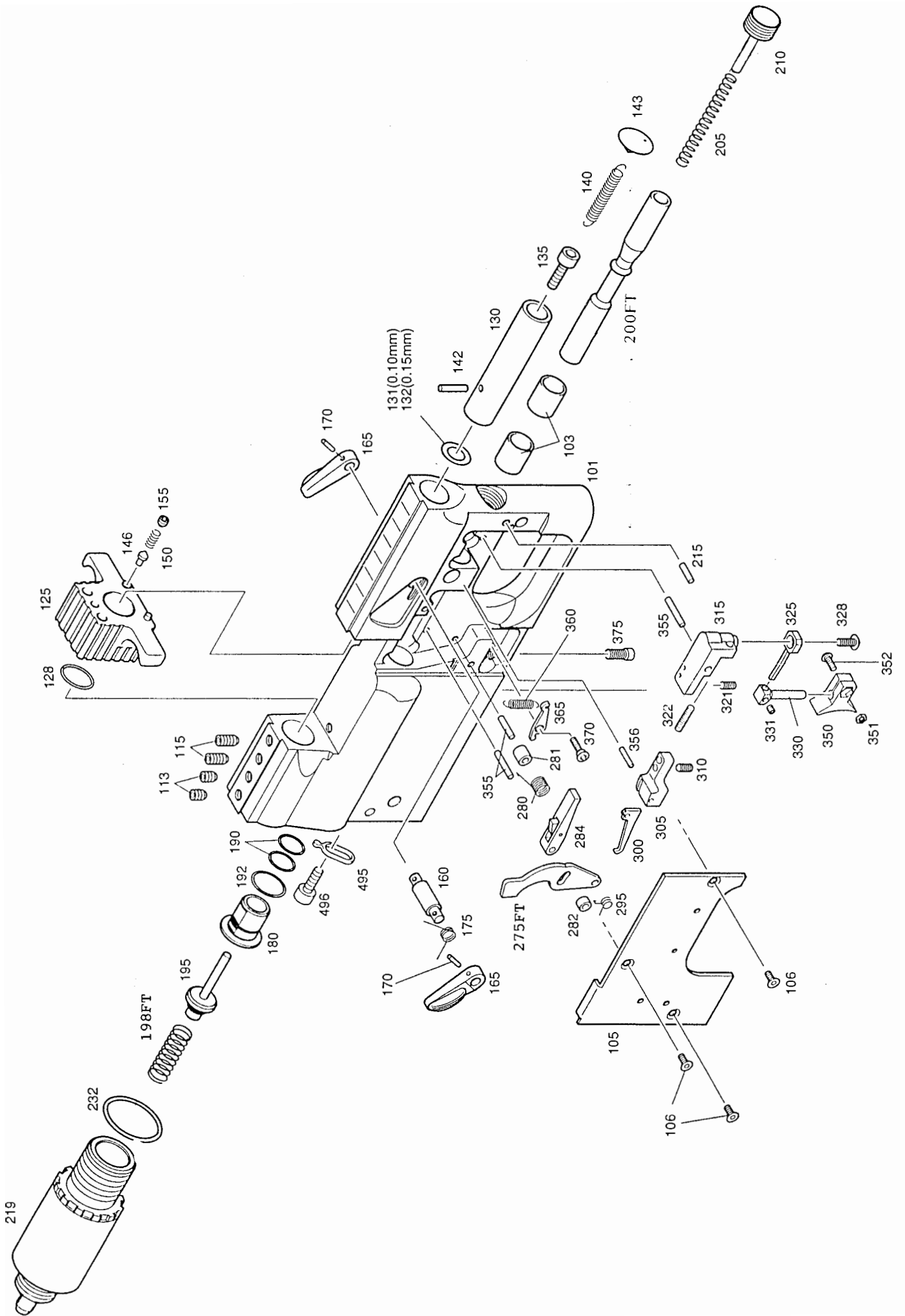
CHECKING PERFORMANCE

1. Use a reliable chronograph to check the pellet velocity. To use the formula below the reading must be in feet per second (FPS).
2. Use fine measurement scales to check the pellet weight. Note that the scales resolution must be to 100ths of a gram (0.00) or better. Alternatively find out the pellet weight from the supplier or manufacturer. To use the formula below the weight must be in grains. To change from grams to grains multiply by 15.432. i.e. 0.69 grams x 15.432 = 10.65 grains.
3. Use the formula $(FPS \times FPS \times Weight) / 450240 = \text{Muzzle Energy}$.
i.e. $(700 \times 700 \times 10.65) = 5218500$ divide by 450240 = 11.59ft/lbs.

The current legal limit is 12ft/lbs.

If the rifle is not performing as it should, get advise from the rifle supplier or AIR ARMS.





PARTS LIST - PRO-TARGET FT & TH MODELS

RN102	SCOPE MOUNT	RN305	MIDDLE SEAR BLOCK
RN102A	SCOPE MOUNT SCREW	RN310	ADJUSTER SCREW
RN103	STRIKER BUSH	RN315	TRIGGER PIVOT BLOCK
RN105	COVER PLATE	RN321	ADJUSTER SCREW
RN106	COVER PLATE SCREW	RN322	ADJUSTER SCREW
RN107	MUZZLE END (FT)	RN325	TRIGGER BAR
RN108	SOUND MODERATOR	RN328	FIXING SCREW
RN109	MUZZLE END (TH)	RN330	TRIGGER PILLAR
RN110G	BARREL (TH .22 cal)	RN350	TRIGGER SHOE
RN110H	BARREL (FT & TH .177 cal)	RN351	NUT (M3)
RN112A	BARREL TUBE INSERT	RN352	FIXING SCREW
RN113	SCREW	RN355	CHASSIS PIN
RN115	SCREW	RN356	CHASSIS PIN
RN120	BARREL SUPPORT	RN360	TRIGGER SPRING
RN125A	BREECH BLOCK	RN365	SPRING PLATE
RN128	BREECH BLOCK 'O' RING	RN370	FIXING SCREW
RN130	BREECH SHAFT	RN375	ADJUSTER SCREW
RN131	BREECH SHAFT SHIM (0.10mm)	RN380	STOCK SCREW (LOWER)
RN132	BREECH SHAFT SHIM (0.15mm)	RN385	STOCK WASHER (SIDE)
RN135	BREECH SHAFT SCREW	RN386	STOCK WASHER (LOWER)
RN140	BREECH RETURN SPRING	RN400	ADJUSTER TOP PLATE
RN142	RETURN SPRING PIN	RN405	ADJUSTER BOTTOM PLATE
RN143	RETURN SPRING RETAINER	RN410FT	ADJUSTER PILLAR
RN146	BREECH BLOCK PLUNGER	RN415	ADJUSTER LOCKING PLATE
RN150	PLUNGER SPRING	RN420	LOCKING SCREW
RN155	PLUNGER SPRING	RN425	LOCKING BUSH
RN160	BREECH RELEASE SHAFT	RN430	TOP PLATE SCREW
RN165	BREECH RELEASE LEVER	RN431	TOP PLATE WASHER
RN170	RELEASE LEVER PIN	RN435	ADJUSTER BOTTOM PLATE SCREW
RN175	RELEASE LEVER SPRING	RN440	STOCK RAIL
RN180	FIRING VALVE SEAT	RN445	RAIL SCREW
RN185	SCREW	RN450	STOCK (RIGHT HAND)
RN190	VALVE SEAT 'O' RING	RN451	STOCK (LEFT HAND)
RN192	VALVE SEAT 'O' RING	RN455	BUTT PAD
RN195	FIRING VALVE	RN457	BUTT PAD BASE
RN198FT	FIRING VALVE SPRING	RN458	BUTT PAD SPACER
RN200FT	STRIKER	RN460	SCREW
RN205	MAIN SPRING	RN460A	SPRING WASHER
RN210	MAIN SPRING ADJUSTER	RN462	LOCKING PLATE
RN215	ADJUSTER LOCKING PAD	RN465	BUTT PAD BASE
RN219FT	REGULATOR ASSEMBLY	RN471	HINGE PIN
RN232	REGULATOR 'O' RING	RN473	SLIDING NUT
RN233-1	CYLINDER END PLUG OUTER	RN474	LOCKING SCREW
RN233-2	CYLINDER END PLUG INNER	RN475	FIXING PLATE
RN234	CYLINDER 'O' RING	RN476	FIXING PLATE SCREW
RN235	CYLINDER TUBE (TH)	RN600	BI-POD FIXING LUG
RN237	LIP SEAL	RN600B	BI-POD
RN238	END PLUG 'O' RING	S335	CYLINDER TUBE (TH)
RN271	STOCK INFILL	S390	CYLINDER END PLUG (FILLING)
RN272	STOCK SCREW (FRONT)	S465	BONDED SEAL

PARTS LIST - CONTINUED

RN275FT	COCKING ARM	S470	SNAP CONNECTOR
RN280	TOP SEAR SPRING	S475	END CAP 'O' RING
RN281	COCKING ARM SPACER (INNER)	S480	END CAP
RN282	COCKING ARM SPACER (OUTER)	TX228	SCREW
RN284	TOP SEAR ASSEMBLY	TX239	PILLAR SCREW
RN295	RETURN SPRING	TX435	STOCK SCREW (REAR)
RN300	MIDDLE SEAR		

IT IS HIGHLY RECOMMENDED THAT ONLY GENUINE AIR ARMS PARTS ARE USED IN THIS RIFLE.

THE USE OF NON-GENUINE PARTS WILL INVALIDATE YOUR WARRANTY.

PLEASE QUOTE THE RIFLE NUMBER AND PART NUMBERS IN ANY CORRESPONDENCE.

THIS RIFLE WAS SET-UP AND TESTED USING AIR ARMS PELLETS AS INDICATED BELOW.

AIR ARMS HUNTER .22	16.4 grains	
AIR ARMS FIELD .22	16.4 grains	
AIR ARMS FIELD .177	8.4 grains	

USING THE CORRECT PELLET IS VERY IMPORTANT FOR ACCURACY AND PERFORMANCE OF YOUR RIFLE. AIR ARMS PELLETS ARE HIGH QUALITY PRECISION PRODUCTS AND WILL GIVE EXCELLENT RESULTS THAT WILL BE EQUAL TO OR BETTER THAN ANY OTHER PELLET CURRENTLY AVAILABLE.

IF YOU CHOOSE NOT TO USE AIR ARMS PELLETS IT IS MOST IMPORTANT THAT YOU READ PAGE 2 OF THIS HANDBOOK IN RESPECT OF CHECKING VELOCITY AND CALCULATING MUZZLE ENERGY.