



## INSTRUCTIONS FOR TESTING AIR WEAPONS Using the Shooting Chrony

For best results; use outdoors in bright conditions. Set up as in the operating instructions. However, it is acceptable to have the muzzle of an air pistol or air rifle as close as 12 inches (30cm).

**Indoor use** For the Chrony to read air gun pellets a suitable source must be used. Place a 40 watt bulb just above each diffuser so that the photo sensors are illuminated. Obviously the light bulb must be protected from stray shots.

### Calculating air weapon energy

Typical example using .22 H&N FT Trophy - weight 14.3grn  
This example shows a reading just inside the legal limit.

$$\frac{\text{fps} \times \text{fps} \times \text{grains}}{450240} = \text{ft/lbs energy}$$

$$\frac{614 \times 614 \times 14.3}{450240} = 11.97 \text{ ft/lbs}$$

Typical weights<sup>1</sup> and performance of pellets in common use:

MAKE	TYPE	CAL	GRAINS	FPS	FT/LBS
Crosman	Premier	.177	7.90	820	11.8
H & N	Field Target Trophy	.177	8.30	800	11.8
Webley	Mosquito	.177	7.90	820	11.8
Bisley	Pest Control	.20	12.70	648	11.8
Bisley	Superfield	.20	10.15	725	11.8
Crosman	Premier	.20	14.30	610	11.8
Crosman	Premier	.22	14.30	610	11.8
H & N	Field Target Trophy	.22	14.30	610	11.8
Webley	Mosquito	.22	14.30	610	11.8
Bisley	Superfield	.25	24.00	470	11.8
<b>FAC RIFLES</b>					
Bisley	Pest Control	.177	8.20	900	14.8
Crosman	Premier	.177	7.90	960	16.2
Crosman	Premier	.177	10.50	920	19.7
Bisley	Pest Control	.20	12.70	980	27.1
Crosman	Premier	.20	14.30	924	27.1
Bisley	Magnum	.22	21.30	800	30.3
Crosman	Premier	.22	14.30	960	29.3
Bisley	Superfield	.25	24.00	810	35.0
H & N	Rampoint	.25	27.00	817	40.0

<sup>1</sup> Pellet weights are approximate. For a completely accurate reading it is recommended that a few pellets are weighed to get an average.

### Trouble Shooting

If Chrony will not read then there is insufficient light. If Chrony will not zero i.e. keeps counting, then check the following:

1. It is near fluorescent lights.
2. It is not receiving sufficient daylight or if indoors it is not receiving sufficient illumination from incandescent bulbs.
3. It is too close to a TV signal radio signal or other similar interference.

If Chrony continues to count and will not zero then place outside in bright conditions and will stabilise photo sensors.

**For users of H.E. Theoben Rifles** A pump is available for increasing pressure in the system, therefore increasing the performance up the legal limit. To reduce the power, gently tap the valve to release a small amount of pressure thus reducing the performance. This way the Theoben rifles can be set very precisely and remain within the legal limit.

### **WARNING**

**Changing the rifle from the manufacturers setting could take the rifle over the legal limit. This is an offence and could result in the rifle being confiscated or you being prosecuted.**

FPS – feet per second    GRAINS – measurement of weight for pellets    FT/LBS – foot pounds energy    CAL - calibre