

PARD SA

Thermal Rifle Scope

Additional Manual

Oct 2022

Applies to AU & New Zealand  
Market

## Important

- This manual applies to all models of the SA Series (Not the older SA45 or SU45), the LRF Model contain extra features which aren't useable in the standard version – i.e. Ballistics
- This device contains a visible laser and laser IR Emitter (the IR Light). Because of the potential risk to your eyes vision do NOT look directly at either of these light sources, or point them towards other people, pets, and reflective objects
- Never remove the battery while the unit is switched on, even in sleep mode as this may cause the device to fail to start up or function abnormally. You may need to reinstall the software to correct this
  - Ensure that the LED is NOT on before removing the battery
- Always remove the Battery from the device for charging and only use a quality charging device and batteries
  - These devices use 18650 FLAT TOP batteries (3.7v)
  - Remove the battery when the device is not being used (Storage)
- DO NOT power the unit from an external USB Battery source
- **Never point the device at strong sources of light, such as the sun, welding or a laser; damaged caused by such will void the warranty**

## Videos

We have made a series of videos on setting up the PARD

All our videos are taken in New Zealand, they show the real-world results that can be achieved with the PARD. Visit [pard.co.nz](http://pard.co.nz) and look for 'How to videos' under the Support Menu

## Support

If you have any questions or issues with your device, please contact us via the [pard.co.nz](http://pard.co.nz) website

Some variations may exist due to variations in the firmware

This manual is for New Zealand Only.

If you are after after hours support, please txt or email us as we do have families – it maybe a simple fix and we can reply quickly if available

## Warranty

In New Zealand this device is warranted against defects in materials and workmanship for a period of two years from the date of purchase

This applies to the original purchaser only

Do not attempt to disassemble the device by yourself. If there are any issues please contact us.

All damage caused by misuse or accidental damage, including use in abnormal working conditions, damage caused by failure to follow the instructions or damage by batteries is not covered by the warranty

## Setup

### Videos

We have made videos of unboxing and setup/zeroing – they can be found under the Support menu of the website

**Please watch them – Especially the Zeroing Video**

### Setup Steps

1. Install the Mount – ensure that you can rotate the focus on the lens
  - a. The Screws are in the plastic bag and an Allen key is provided
  - b. Ensure they are tight
2. Turn it on
3. Press the MENU Button to bring up the menu
4. Adjust the Dioptre on the eye piece so you can read the text
5. Close the Menu
6. Adjust the front lens focus to suit what you are looking at
7. You are ready to Zero your rifle

### Mount Notes:

The mount is NOT designed as a Return to Zero / Quick Detach Mount

However if you are careful it is quite consistent – however this is NOT guaranteed and you should do some testing before shooting at animals

The best way to be consistent with the mount is to:

1. Place it in the same place on the rail each time – mark it if needed
2. Mount the scope on the rail – push it forwards
3. Push the Mount tightly from the nut side on to the rail – this keeps the mount square against the rail
4. Tighten each nut evenly to 15 inch pounds (in lbs)
5. Ensure you select the right profile Letter in the reticle setup

Checkout our video on the Support – How To Videos - for how to tension the nut if you do not have a torque wrench

Alternatively, we have a full Return to Zero/Quick Detach Mount available – See the back of this manual

## How zero SA Series

We highly recommend that you watch the video we've prepared – its under the Support Menu and How To Videos on our website.

*One key point to stress – all digital and thermal scopes are different to 'day scopes' – for these you **MOVE** the Reticle **TO** the bullet hole – this is the opposite to what you normally do in a 'day scope' – its actually very simple*

**NOTE – to Change Profiles (A,B,C,D,E) or change the reticle style or colour – you need to do this in the Reticle Adjustment Menu**

**IMPORTANT – before a LONG Press of the OK button, move to the Save tab on the right and plus or minus on that to Y (Yes Save) before these changes will be SAVED**

### **What to do if your reticle is right at the bottom of the screen**

This is often the case if you are zeroing at very close range say 20-25m – if this is the range you are going to zero for, then you can make some adjustments – however if this is just a starting point; move on to the 50/100m before you consider doing anything.

The scope is setup to be more level at a distance and the angle at closer ranges is sometimes quite steep. Also ALL digital/thermals will show up a range of issues with rifles, receivers, rails, mounts etc that you often won't see with a 'day scope'. Its quite normal for it to be around the middle, but not perfect – you can make fine adjustments with shims if you want however

If your reticle is too far to the bottom; **FIRSTLY** check how you have mounted it, it may not be on correctly; if it is what you need to do is raise the back of the scope; so the camera is looking further downwards (watch the video for exactly what we mean) – so place 1 or 2 of the shims that are included in the box on the last screw or towards the back and try again until happy.

The 2 Shims in the box are roughly 3 MOA as a guide

**Watch our zeroing video so see a screen view of what you need to do – it explains it nicely**

**This also occurs in day scopes, we have a video explaining what happens as well**

If you find the reticle is too far to the side, again check that you haven't misaligned the mount; often just release it and do it again – a common reason is tightening 1 nut and then the other, this can twist the mount on your rifle left and right.

If that isn't the case, then you can:

Place a shim on the Non Moving Left Hand Side – Same as the Nut

- Place it at the back nut to move it Left
- Place it at the front nut to move it right

Shims can be made of anything that won't compress



## White Torch

As the SA uses the same body as the 008 S series, PARD have replaced the IR lamp with a white lamp for walking – this would normally only be used if you are also using the scope as a handheld.

## Ballistics

Both models of the SA are equipped with Ballistics – the LRF version takes the data from the LRF

To use it

*Turn it on in the menu to enable it if not done so already*

- Press the LRF Button
  - A Range Marker will appear
- Place the LRF Aiming Box over the target
  - Press the LRF Button to Enter the range
- A New Aiming Point will appear with the Selected Range beside it – THIS IS YOUR NEW AIMING POINT

To adjust just repeat the process

**WE RECOMMEND THAT YOU TEST YOUR DATA ON A TARGET AT YOUR INTENDED RANGES FIRST BEFORE HUNTING**

We recommend to Register the SA on [pard.co.nz](http://pard.co.nz) under the support menu to be informed of any software updates as their will likely be updates and upgrades over time

### ***Ballistics and Range Unit Selection***

NOTE – Metric or Imperial settings are controlled from the Range Unit Menu

#### *Parameters Menu*

See Notes on How Ballistics Work

- Profile – A to E – Selectable for different rifles or Ammo (Ensure it matches the correct Profile)
- Velocity – either FPS or MS (see above)
  - This should be obtained via a Chronograph
- Bullet Weight (gr)
- Bullet BC (G1 only at this stage)
  - This should be taken from the ammunition box or maker or from your calibrations
- Altitude – Used for calculations – set this to your normal altitude
- Temperature Used for Calculations – Set this either to a normal hunting Temperature or what it actually is if shooting further
- Scope Height – Inch or MM – Height from the Bore to the centre of the lens
- Zero Range – Yards or Metres – the range you have zero'd the scope at
- Reference Point and Colour – Shows either a Line, Cross or Box for the new Aiming Point – plus Colour Options

**NOTE When changing rifles, you ONLY select the Profile in the Reticle Adjustment Menu; the scope will read the ballistics related to the Letter**

## *On and Off*

Selects if the ballistics is active or not

- NOTE this doesn't affect your zero – if you don't active the ballistics it will not affect your zero.
- At all times when using the ballistics a NEW aiming point appears – the normal reticle remains where it is

## **Range Unit Selection**

*This controls BOTH what the LRF reads and also your ballistic settings*

You can select:

- Metric – select Metres (Metres, m/s, mm)
- Imperial – select Yards (Yards, fps, inches) by selecting the RANGE

## LRF Aiming Box

*The LRF laser is fixed and cannot be moved – As thermal cannot see the laser the aiming box is calibrated by us to match the actual laser impact at 300m or so*

*There is always variation as the laser isn't exactly in the main thermal scope lens as it is offset*

*You can adjust it yourself*

*To do this you will need a device that can see the laser – say a PARD 008, DS45, 007 or a True Night Vision device*

*Aim the thermal LRF at a target at the range you want to calibrate it too.*

*The top of an obvious tree is a great choice*

*Hold it steady*

*Now look through the night vision device or have friend do this for you*

*Check if the aiming box (Thermal Scope) and the Laser itself (in the night vision scope) are pointing at the same place.*

*If it is not then this is how you move the aiming box*

1. Turn on LRF
2. Open Main Menu
3. LONG press of the + Button
4. Now you will see a X and Y
5. Use + and – with OK to move between them
6. It will just slowly move across with 1 press
7. Once happy – SHORT Press of the MENU button to save

## Optional Quick Detach and Return to Zero Mount

We have an optional Quick Detach – Return to Zero Mount available



The ARMS mounting system is very consistent – enabling you to use the profiles to change the scope from rifle to rifle without working about losing a zero

Or remove the PARD and replace it with your normal day scope – we also have Ring versions of these mounts.

They are adjustable for tension to match your rail if the specs are not exact

The screws are 5/8 and require an Allen Key (Not Included)

### **NOTE – For 2 or more rifles**

You need decent rails to do this and if you want to move the scope between rifles you need the same spec rails on both rifles – If your rails aren't the same, you will find that 1 will be correct and the other will be too loose or too tight so in this case it will not work

*Contact us as we have a supplier of quality rails for a lot of rifles*

## **This is what ARMS say about their products**

The New MK-II Lever® features a built-in precision adjustment wheel allowing finger tip (no tool) selection to desired tension to fit variations in 1913 Mil-Std Dimensions. The mounts adjustment wheel comes pre-gauged and locked to the center of the Mil-Std dovetail specs. The hash marks to the left or right of the adjustment wheels white marked indicator line, represent .002 Quick Detach Throw Lever® Mil-Std 1913 Rail MK-II Lever® mounting attachment.

### WHY THE REPEAT ZERO GUARANTEE from ARMS

The spring loaded cammed lever pulls in a downward force when the lever is pushed inward which does not disturb the windage (azimuth) normally encountered with thumbnuts, bolts, wrenches, and/or ratchet knobs, which only secure the cross force direction and varying non-repeat tension. Because the Throw Levers pull down instead of across, it means positive controlled attachment not found on any other system. No threads to strip, no cross threading, ratchet wear, over-tightening,



crushed or dented rails when using the A.R.M.S.® spring loaded attachment. A.R.M.S.® Throw Levers® will also not freeze or absorb sand and mud, like threaded and ratchet designs.

The unique force of direction and constant repeat tensions guarantee on and off repeatability. The rings snap into the same locked zero aiming position securely each and every time, and once the laser/optic has been zeroed to a quality standard mil-spec dimensioned dovetail rail which is secured to the same weapon.

Easy on and off, no tools required, once the ring caps are secured: The spring loaded feature also acts like a shock absorber which provides a shock reducing barrier to sensitive optical/laser devices for extended service life and cost savings.

All A.R.M.S.® Throw Lever® mounts are designed to fit certified Mil-Std. 1913 Rails, via pre-measured spring loaded tension. If one of our Throw Lever® mounts is too loose or too tight, the chances are you have an after market rail that is not dimensioned to the Mil-Std. dimensions.

This is why we have adjustable levers, so you can adjust the tension to suit you rail

# A.R.M.S MKII LEVER ADJUSTMENT INSTRUCTIONS



**STEP ONE: OPEN LEVER TO UNLOCK FROM RAIL.**



**STEP TWO: UNSCREW ADJUSTMENT SCREW UNTIL IT STOPS.**



**STEP THREE: TURN ADJUSTMENT WHEEL CLOCKWISE TO TIGHTEN. COUNTER CLOCKWISE TO LOOSEN. EACH CLICK IS .002" OF ADJUSTMENT. BE CAUTIOUS NOT TO OVERTIGHTEN.**



**STEP FOUR: TIGHTEN ADJUSTMENT SCREW ALL THE WAY TO LOCK ADJUSTMENT WHEEL IN PLACE.**



**STEP FIVE: CLOSE LEVER TO LOCK. EXCESSIVE FORCE SHOULD NOT BE NEEDED. IF YOU EXPERIENCE THIS, REPEAT STEPS 3-4.**

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