



PARD SA45 / SA45 LRF

Product Manual



Updated December 2020

Applies to Australian supplied devices

IMPORTANT

- This device contains a visible laser. 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.
- **DO NOT** remove the battery while the unit is switched on, **even in sleep mode** as this may cause the device to fail or function abnormally.
This may require return of the unit for the software to be reinstalled by PARD Australia.
 - Ensure that the POWER ON/Sleep mode LED is not glowing 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.
 - Remove the battery when the device is not being used (storage).
- **DO NOT** power the unit from an **external USB battery source** (portable or stationary).
- **Failure to observe correct Battery -, Charging - and Power Management is not covered by PARD's warranty.**
- **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.**

Mount Notes:

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

However, if you are careful, it is quite consistent – again 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.
3. Push the Mount tightly from the nut side on to the rail – this keeps the mount square against the rail.
4. While pushing, 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.

Videos

We have made a video to assist setting up the SA45.

All our videos are recorded in Australia or New Zealand. They show real time use and actual performance of the PARD device.

Visit pardaustralia.com.au to review the 'How to videos' within the *Support* menu.

Support

If you have any questions or issues with your device, please contact us via the pardaustralia.com.au website.

Some firmware variations may exist.

Warranty

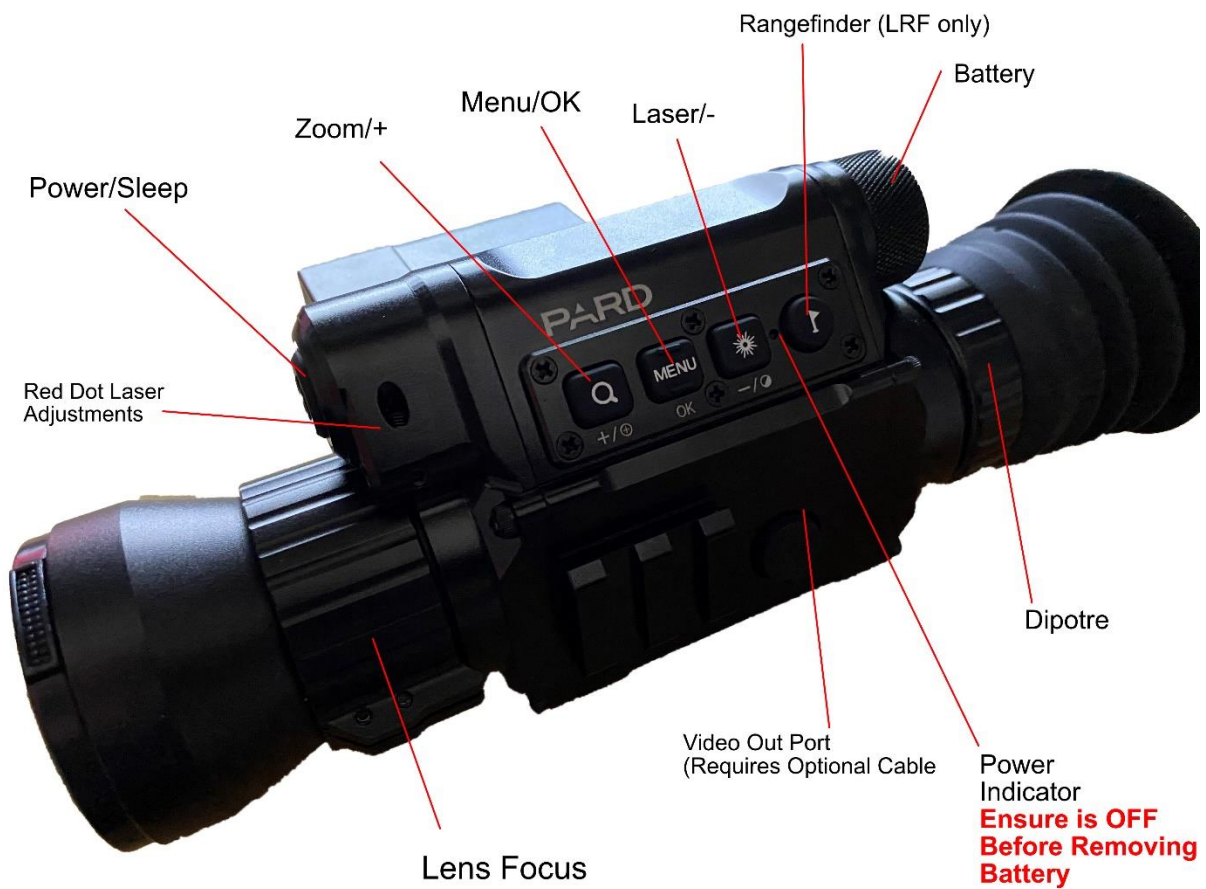
In Australia this device is warranted against defects in materials and workmanship for a period of three years from the date of purchase.

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 and environments; damage caused by failure to follow the instructions; or damage by batteries is not covered by the warranty.

Controls Overview



Main Controls

Zoom (magnifying glass)

SINGLE tap controls the zoom control.

LONG Press (-) changes the colour modes (white or black hot).

LONG Press (+) changes the menus and reticle adjustment.

Menu

SINGLE tap Menu or OK.

LONG Press will open the reticle menu.

Laser (sun)

SINGLE tap – Laser on/off

LONG Press – hot track

Rangefinder (flag) - LRF Models only

Single Tap to turn the Rangefinder on or off (**LRF Models only**)

Unit contents

Included with the SA45:

- Standard mount for Weaver or Picatinny rail.
- Shims.
- Allen Key.
- 1 x PARD 18650 battery.

Not Included

- Battery Charger or spare batteries.

Battery Installation

This device uses a single 3.7v Lithium 18650 FLAT TOP rechargeable battery – please note the words FLAT TOP.

The Battery is inserted Positive first. Ensure that the cap is closed firmly.

NOTE

For first usage remove the battery and remove the protective tape that is installed over the positive terminal.

Videos

We have made a video to assist in the units' setup and zeroing – they can be found within the Support menu of the website pardaustralia.com.au

Setup Steps

1. Install the mount – ensure that you can rotate the focus wheel on the lens.
 - a. The screws are in the plastic bag and an Allen key is provided.
 - b. Ensure they are tightened.
2. Power on the unit.
3. Press the MENU button to display the menu.
4. Adjust the Dioptre wheel on the eye piece so you can read the text clearly.
5. Close the Menu.
6. Adjust the front lens focus to suit what you are looking at.
7. You are now 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 test fire to ensure accuracy and alignment.

The best way to be consistent with the mount is:

6. Place it in the same place on the rail each time – mark it if needed.
7. Mount the scope on the rail.
8. Push the mount tightly from the nut side on to the rail – this keeps the mount square against the rail.
9. While pushing the mount evenly tighten the nuts.
10. Ensure you select the right profile letter in the reticle setup.

Alternatively we have a Return to Zero/Quick Detach Mount available – contact us or your local dealer for details.

How zero SA45

We highly recommend that you watch the videos we have prepared.

*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 process to a ‘day scope’.*

To do this you need to use the Reticle Adjustment Menu

1. Bore sight the rifle and scope – typically at 50m.
2. Access the Reticle Adjustment Menu
 - LONG press the Menu Button.
3. Select the profile letter you want to change; (use the +/- to change) Press OK.
 - If you are just changing profiles, press OK until you reach the end.
4. It will now be highlighting the X Setting.
5. Aim at the TARGET – fire 1 Shot – Can you see the bullet hole; if yes then -
6. Re-aim at the TARGET – HOLD the rifle steady – tap either the + or – button while keeping the rifle steady aiming at the TARGET.
The screen will now be “frozen”
7. Use the + and – buttons to move the reticle **TO** the bullet hole horizontally (X); once happy press the OK (MENU)
8. Use the + and – buttons to move the reticle **TO** the bullet hole vertically (Y); once happy press the OK (MENU)
The Screen will “un freeze” and move.
9. Fire a reference shot to check alignment.

10. If necessary repeat from Step 4 for any further corrections.
11. To Save – Press OK until the end of the menu – ensure that Y is displayed at the end.

Record the X and Y figures for future reference if scope is “reset”

Target

We recommend the use of a wooden board for your target – this will retain the heat from the bullet so you can see the impact via the thermal scope.

For aiming points, “lagging tape” (a metallic tape) works the best or tin foil – place square targets on the board – use a corner of the target board as the aiming point – do not aim directly at the tape (if the projectile strikes the tape it will be far less visible).

The metallic tape will reflect the sky, which is “cold” – so with White Hot Mode selected the tape will appear Black – adjust the angle of the board to improve this effect.

The best times are early morning, or later afternoon – avoid using a wooden board that has been in the sun all day as this will make seeing the bullet holes harder.

What to do if your reticle is right at the bottom of the screen after zeroing

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'. It's 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; 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.

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

Functions

Powering up / Sleep Mode

A single long press of the power button (approx 1 second) will turn the device either ON or OFF.

A single quick tap of the power button will activate SLEEP MODE, another quick tap will re-activate the device.

You can verify that the device is in sleep mode by the glowing LED light – **DO NOT** remove the battery while it is in sleep mode.

Lens Focus

The front lens can be focused by rotating the focus wheel; it is quite a short throw lens and is easy to adjust from the left side.

Digital Zoom

A tap of the magnifying glass button will activate the digital zoom – on the screen in the lower left you will see the 2x, 4x etc telling you what level of digital zoom you have set.

If you have Picture in Picture (PIP) enabled,

- 1x – The main screen will be 1x as normal, PIP will NOT appear
- 2x, 4x – The main screen will be 1x and the PIP portion will be further zoomed to either 2 or 4x

PIP will be centred around your reticle.

Red Dot Laser

This can be activated by the button marked with a sun*

This can be used for:

- Showing someone where the target is.
- A quick offhand shot on a close target.

You can adjust the aim of the dot via the 2 grub screws.

NOTE – you cannot see the laser via the scope – a Red Star will be displayed in the upper left of the screen to indicate it is on.

Rangefinder (LRF Models only)

A single tap of the Flag Button will activate the rangefinder – it is continuously scanning when active.

An aiming point will be displayed on the screen, this is NOT the same as your reticle centre.

Note – the rangefinder only works on 1x zoom; it maybe off the screen in the digital zoom mode.

The LRF measures the distance to the first reflection that it receives which is strong enough to allow it to calculate the range. This can cause ranging errors when the intended target has something that produces a stronger reflection.

MENU

Reticle Adjustment

Access the zeroing menu via a LONG Press of the MENU Button.

See above in the manual for details on how to zero your rifle.

- To move between the settings tap the OK button (Menu).
- To alter a setting use the + or – buttons.
- LONG Press of OK (Menu) to save the profile and exit.

This menu displays:

1. Profile Letter – A,B,C etc. this is the profile you are about to edit or have selected.
 - **To change a profile; simply change the letter to the correct one then press OK until you reach the end to save and Exit.**
 - Profiles can be for different rifles, ammo or even zeros.
2. X – the position horizontally of the reticle.
3. Y – the position vertically of the reticle.
4. Style – Changes the type of reticle.
5. Colour – Changes the colour of the reticle.

6. Save – select Yes to save or NO to delete.

Record these details for future reference.

Main Menu

To access the Menu – tap the MENU button.

Controls

- + = Up
- - = Down
- OK = Enter or Save

Language

Change the selected language if required.

Rangefinder

Selects the units of distance that will be displayed

M - Metres.

Y - Yards.

HOT Track

Activates the HOT Track function

This will display an indicator around the hottest pixels in the display – this is useful in areas with lots of cover – it may help you spot an animal moving inside the bush that you may miss seeing.

NEVER shoot at something you have not fully identified first!

This function may also be activated by a LONG PRESS of the Laser button.

PIP – Picture in Picture

This activates the PIP function – you use it via the zoom button.

Compass and Posture

This activates the Compass and Roll/Pitch bars on the screen

NOTE for Australia and New Zealand the compass will not calibrate correctly and by default is turned off.

Contrast/Brightness/modes

Sets the values for contrast and brightness

Adjust whilst viewing a typical scene you will use the scope in.

The ImgMode sets the colour mode for the thermal screen.

- 0 – White Hot
- 1 – Black Hot
- 2 – Red Hot
- 3 – IN Hot Colour
- 4 – SKY

We recommend selecting WHITE HOT or BLACK HOT modes for best imaging.

The imaging modes can also be selected by a LONG PRESS of the Zoom button.

Sharpness

Sets the values of display sharpness.

Adjust whilst viewing a typical scene you will use the scope in.

Blind Pixel Compensation

From time to time you may see a bright white (On White Hot) pixel, this is a dead pixel – a number may occur over the lifetime of the scope – this is NOT considered a fault unless a significant number occur (Your scope has 110,592 of them in total).

You can simply mask the pixels off, so they are no longer visible.

ENSURE THAT YOU FIT THE LENS CAP AND LEAVE IN PLACE WHILST PERFORMING THE ACTIVITY

Default Setting

Returns everything to factory default.

Time

Sets the time and if it is to be displayed.