



H1SQ USER MANUAL

***WELCOME TO THE BDH RACE SIM HARDWARE
FAMILY***

***RACE ENGINEERING COMPETING IN A
VIRTUAL WORLD***

HAND BUILT IN YORKSHIRE, ENGLAND

Introduction

Congratulations and thank you for buying your BDH H1SQ Shifter. To get the most out of your purchase please review all the content in this document.

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Help Videos

Register at www.bdhracesim.com to access our support video series

Contact Us

If you need to contact us at any point, email info@bdhracesim.com

Setup

Let's get you going!

Setting Up the H1SQ

To increase efficiency our shifters are packed tightly. The shifter is heavy, so please be careful removing it from the packaging, we advise using the enclosed rubber top mat, putting that on a table and gently tipping the shifter on the mat.

Our shifters may look like bright and well-polished show ponies, but that's a byproduct of what the shifter is all about, each one is built, crafted and setup by hand- no shifter is alike, and they all have their own minor signs of build and test- so if you find any minor scuffs- don't worry- it's as it's meant to be!

Please take care when setting up, read the guide and we should get you set up smoothly.

Remove the Gear Stick, nuts/bolts/thumb wheel and USB cable and set away the box.

Mounting the shifter

There are a number of shifter mounting options (see Mounting section). Typically, customers will mount the shifter with the gear stick end facing to their seat with the body facing away:



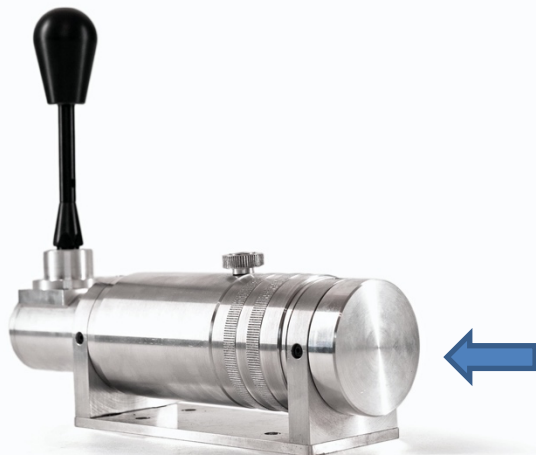
The shifter is generally mounted directly to aluminum profile, BDH can provide a mounting plate for rigs such as Advanced Sim Racing and Trakracer chassis, sold separately.

Insert the nuts into the profile slots and mount the shifter to

the aluminum profile. Once the holes on the base of the shifter are aligned to the bolts, insert the bolts and tighten the shifter to the simulator chassis. Adjust the shifter as necessary by loosening, moving and re-tightening the shifter as desired.

Your shifter comes with the USB cable attached for ease, to relocate the cable entry hole to suit your needs, remove the larger end cap by loosening the grub screw with a 2mm Allen Key.

This reveals the end of the shifter chassis and the USB connection, is visible:



You can rotate the end cap to your choosing, make sure to re-attach the grub screw. Attach the other end of the USB lead into your PC.

Now it's time to attach the Thumb Wheel

The Thumb Wheel is the tensioning mechanism for the shifter



Insert the Thumb Wheel into the top hole, you will see a yellow spring that the Wheel mounts upon, screw the wheel in to about halfway. Once the shifter is mounted you can use the Thumb Wheel tensioner to establish the right feel for your drive in either H or SQ modes.

Now it is time to attach the Gear stick and Knob.

1. Hand tighten the gear stick to the lower gear housing, DO NOT OVER TIGHTEN. Once it is hand tight, it's time to get two spanners.

2. You will need a 10mm spanner and a 19mm spanner.

Use the 19mm spanner to hold the lower gear stick part and the 10mm on the flats of the gear stick. Keep the lower spanner still and tighten with the upper spanner on the gear stick.

3. It is important that you DO NOT twist the lower gear stick part, or you may damage the shifter.

If you ever wish to change the gear knob, the knob uses an M10 x 1.5mm thread.

1. To remove the knob, use the 10mm spanner and hold down the flats in the gear stick to ensure you don't twist it as you unscrew the gear knob.

2. Reverse this process when attaching your new knob always ensuring that you do not twist the gear stick. Any gear knob in excess of 250g will void the warranty of the shifter. Contact us if unsure.



Good to go!

Switch on your PC and once Windows is loaded:

- 1. Wait for Windows to recognise and install driver**
- 2. You will see "BDH SHIFTER"**
- 3. Go to "SETUP USB GAME CONTROLLERS"**
- 4. You will see "BDH SHIFTER"**
- 5. Select the shifter and use the windows software to run through the gears, here you will be able to select all 8 gear options.**
- 6. Note two of the gears, 7&8 are through the far tension gate, so to access these you need to apply force (all the way right or left depending on the way the shifter is mounted) and then selecting up or down.**
***Do not lift the shifter stick as this may damage the mechanism.**



TO CHANGE MODE

To change from H Pattern to Sequential, it's simple.

- 1. Make sure the shifter is in neutral**
- 2. Rotate the knurled collar fully from its current position until it clicks**

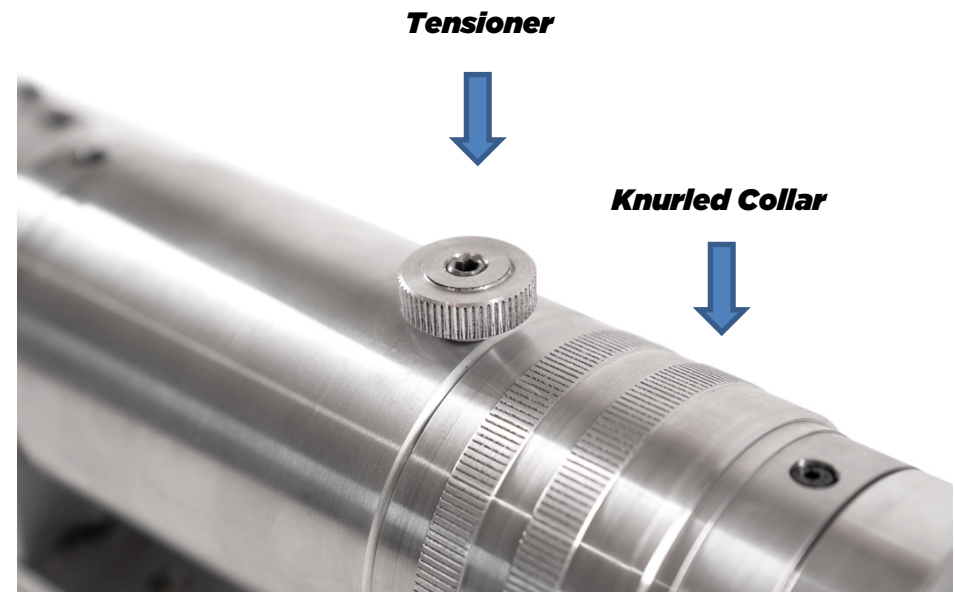
CONFIGURE IN GAME

Now you have the shifter mounted, it has been recognised by Windows, you can now get it going within your game.

- 1. Make sure the Shifter is in H Pattern Mode**
- 2. Go into your chosen game**
- 3. Access Game Controllers**
- 4. Setup Gear Shifter**
- 5. Within the game configure each gear by selecting the 8 within the H Pattern shifter.**
- 6. Switch to Sequential Mode and select appropriate up and down configuration, noting gears 9 and 10 for Sequential.**

Tensioner

Our tensioning technology enables our customers to simulate their favorite gearboxes.



Tensioner

Knurled Collar

- 1. Move the barrel clockwise to tighten the shifter feel**
- 2. Move the barrel anti-clockwise to loosen the shifter feel**

You may find that H and SQ modes require different tolerances that you can adjust to suit

***Please note over tightening of the Tensioner may result in excessive wear of the shifter**

Mounting

The shifter can be mounted in numerous ways to adapt to the driver's style.

There are typically 4 mounting options on the right or left of your chassis:

- 1. Top of profile stick nearer driver***
- 2. Top of profile body nearer driver***
- 3. Side of profile stick nearer driver***
- 4. Side of profile body nearer driver***

The shifter chassis can be rotated independently of the clamps allowing the shifter to be side mounted or top mounted.

1. Release the 3 grub screws with an 3mm Alan Key on each of the two clamps

2. Rotate the shifter body to your desired alignment

3. Re-tighten the grub screws.

Once the shifter is in position, you can amend the configuration in the larger end cap to suit your USB wiring configuration.

The shifter chassis can be rotated independently of the clamps and therefore you only need to release the grub screws within the two clamps to move the shifter to your desired positioning.



Maintenance

The shifter is built for speed and durability, but like any car it can perish if abused or not looked after.

The shifter comes pre lubricated, although we would recommend adding some a lithium based grease into the top of the ball joint in the lower gear stick housing.



If it looks like the lubrication has dried, the ball joint feels rough or it has been over a year since last adding lubrication after regular use, we recommend smearing a tiny amount (half a pea) lithium-based grease onto the top of the joint and moving through the gears so the parts all get a coating.

We'd recommend regular dusting and cleaning of the shifter

Do not lift the gear lever upwards, this can cause issues with the mechanism.

Re tighten all the bolts on your sim rig, including the shifter bolts mounting your shifter regularly.

DIMENSIONS:

