

Fitting the B6 Screamer into the Lotus Elise/Exige using EB4 brackets

Fits cars manufactured prior to 2017 – VIN serial number 1457

The EB4 brackets are designed to allow an uncompromised seating position when fitting the B6 Screamer, B6 40 Screamer and the B6 43 XL Screamer seats into the Lotus Elise, Exige or VX220. The brackets are designed to be used on either side of the car, in both left and right hand drive versions. They also have mounting points for the hip belt on a race harness. These are designed for a race harness, and although the OEM belts will fit they are not ideal for the standard Lotus road belts as the receptor miss aligns with the bottom of the hip hole on some models. There is a difference in the available space between LHD and RHD cars because the centre console is moved around 25 mm to the right in a LHD version. This restricts the passenger side space and limits the positional possibilities. Therefore, there is a guide to advise on where to initially place the passenger seats. We have included a separate guide for each Screamer seat type to more easily enable the brackets to line up with the captive floor fittings in the Lotus floor pan.



A common problem for tall drivers can be the position of roll bars. The harness bar can restrict the amount the seat can be pushed rearwards and sometimes the seat must be shifted to one side to avoid contact with the side of an intrusive roll bar. The EB4 has an offset tab on one end of the U channel. By flipping this U channel around and using the extra mounting point to your advantage, coupled with varying the thickness of the supplied nylon spacers (A), you can move the seat freely within the available space. This ability to manipulate the seat sideways means that even the wider B6-43 XL Screamer has enough space to be fitted in either side. The version of the XL with the rolled edges left on is difficult to fit in the Lotus, therefore it is advised to use the XL 43 cut edge version. Both B6 Screamer sizes and both edge cuts are FIA homologated to 8855-1999.



The EB4 bracket allows adjustment of the leg length by having a U section channel, in which the bracket upright can be moved up to 90 mm forwards and backwards. It is important to identify this desired position before bolting the seat in. (Tip: Before you start, cover the door sill with a thick blanket to prevent damage as the seat is moved in and out.) The bracket also has multiple holes for angle adjustment. When looking at the floor without the seat in place you will see an uneven number of captive M8 threaded holes in the tub of the car. These are all suitable to be used for mounting the seat. The rear holes have a restricted depth so please use the provided 22 mm bolts (F), a longer bolt will bottom out in the rear mountings. To get a good understanding of which holes in the floor are best to pick up on, loosely place the U channels in the seating area, lining up four positions with the captive threaded holes. Then bolt the bracket uprights onto the seat, again loosely, at an average angle using the special hex bolts (E). (Using the hex bolts allows you to tighten the sides of the seat as the last job. A ratchet 10 mm spanner is advised for this task.

Tillett Racing Seats, Styles Close, Sittingbourne, Kent, ME10 3BF, England
 Telephone: 01795 420312 email - customerservice@tillett.co.uk
 www.tillett.co.uk

It is important not to scratch the powder coating on the brackets by bolting up too tightly, as you may decide to change the angle later.

The first task is to identify which of the floor holes are best to use and subsequently how many nylon spacers (A) will be needed at each mounting point between the seat and brackets. You will require more in the standard seat than the XL. You will use up to 12 mm in the standard seat and as little as 2 mm in the XL. It is desirable to use as few spacers as possible for strength.

The next step is to bolt the U channels down (Again, not tight at this stage) and then ascertain how many spacers you will require to get the uprights to the exact width of the U channels. There are slots in the U channels to help with placing them hard up against the gearbox tunnel and to allow some degree of tolerance.

Once the seat is able to rest in the U channels try to ascertain the leg length needed. Take note where each of the uprights sit in the U channel. They may not be in the same position on both sides. With the brackets possibility being slightly staggered, it is best to look at each U channel and see the gap between the back of the bracket and the bolting hole of the U channel.

With the seat sitting in the U channel you can carefully test the seat and see if the angle is to your liking. If you are happy with the angle and have taken note of the amount of gap remaining behind each upright, everything can be removed for assembly. The U channels are bolted to the uprights using the special male and female stainless fittings (B). At this point you will see that the available bolting holes change as you slide the U channel along the upright. You have adjustment possibilities every 5 mm. Don't forget to use the support spacer (C) as you put these in. These fittings are deliberately a tight tolerance so any excess powder coating might need to be removed to fit these in, Occasionally the 12.5 mm support spacer will need a very small amount filed off to make it fit inside the inner bracket.

Once the U channel and the upright are fixed together the hip point fixings for the seat belts must be fitted. They have to be attached before the bracket uprights are attached to the seat. This is more difficult with an OEM three point belt and the outside attachment point will need to be fixed and the bracket attached whilst in, or very near the car.

Sitting the seat on something like 150 mm of hard foam sheets in the cockpit space will lift it clear of the door sill and allow the belt and bracket to be fixed without damaging the surrounding car.

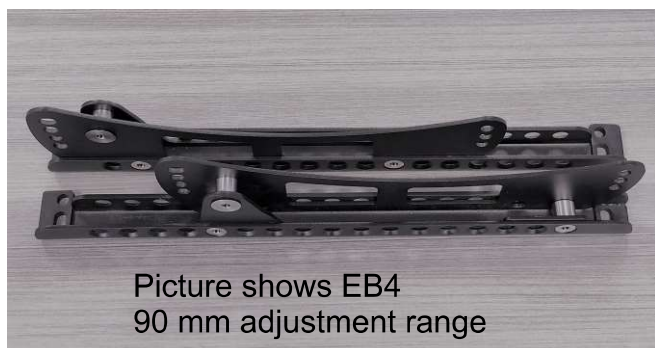
With the M8 stainless hex bolts (E) still finger tight in the sides of the seat. Use two 5 mm allen keys to fully tighten the U channel to the upright, using the special M8 stainless bolts (B) and central support spacer (C). The hip part of the race harness should also be fitted at this stage. You will need to remove the upright from the seat to do this. The belt mounting (D) is an M10 special two part stainless fitting which needs two allen keys to tighten. Use the longer half of the fitting on the inside of the bracket. Use the provided spring (G) on the inside and the Lotus buckle on the outside.



At this stage the M8 seat mounting bolts (E), should remain finger tight after fitting the completed bracket and seat belt back on the seat. Offer the whole assembly into the car and check that all the floor holes line up accurately with the holes in the U channel. Also check for the seat fouling on parts of the car. For example, the gearbox tunnel and roll bars. If they do not line up, ascertain if an upright needs to be moved further along the U channel on one side, or if spacers need to be added or subtracted to move the channel in or out.

The next stage is to wind the floor bolts (F) into the M8 captive threads, through the U channel section. Ideally these should be hand spun in. If this is not possible due to the restricted access, great care is needed not to cross thread the captive fittings. A flexible extension can help get the thread started. You are advised to spend more time making the holes align correctly, than forcing a bolt in the captive fittings at an angle, therefore ruining the delicate and difficult to replace thread. Carpets, if fitted, can also cause issues with cross threading if they partially block the hole.

Once all four bolts are comfortable in their threads they can be tightened. You will need a very long extension with a 6 mm Allen socket for the rear and a regular 6 mm allen key for the front. Make sure parts of the seat belts are not trapped under the brackets as you bolt down. Lastly using the 10 mm spanner, tighten the M8 hex bolts (E) into the side of the seat. The seat should then be rigidly mounted.



Recommended tools

- 1 x 5 mm allen keys
- 1 x 6 mm allen key
- 1 x 5 mm allen key socket
- 1 x 6 mm allen key socket
- Torque wrench
- Long 250 mm extension bar for socket wrench.
- 1 x 10 mm ratchet spanner
- Flexible extension for the 6 mm allen socket

Spacer and fitting kit for EB4 brackets

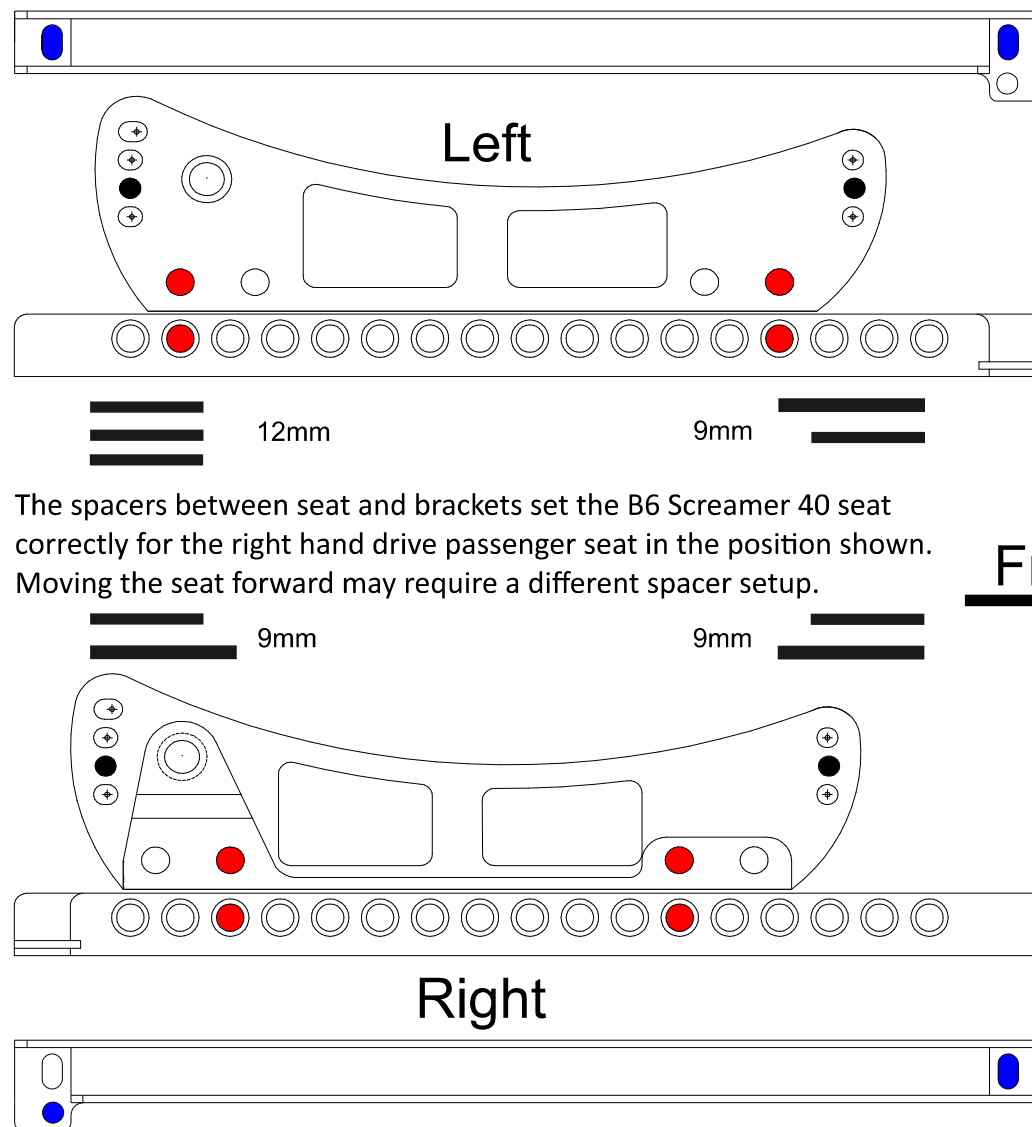
- A 4 x Nylon 40 mm diameter x 2 mm thick spacers
- A 6 x Nylon 40 mm diameter x 4 mm thick spacers
- A 4 x Nylon 51 mm diameter x 5 mm thick spacers
- B 4 x special stainless steel M8 male and female U channel fittings
- C 4 x U channel support spacers
- D 2 x special stainless steel M10 male and female seat belt hip mounting point fittings
- E 4 x special stainless steel hex bolts 30 mm long
- F 4 x 12.9 cap head bolts x 22 mm
- G 1 x seat belt buckle positioning spring



Suggested starting point for fitting the B6 40 Screamer, into the Elise/Exige passenger side **RHD** using EB4 brackets. Fits cars manufactured prior to 2017 – VIN serial number 1457

Due to the offset nature of the Elise floor mounting points it is sometimes necessary to offset the brackets. This page helps you line up the B6 40 Screamer passenger seat. This seat position relates to using the 2nd hole up on each upright for angle adjustment.

Please make sure when setting the seat in its rearmost setting that the head cannot come into contact with roll bar cover bottom edge. On some Elise/Exige models it may be necessary to either tip the seat more upright, bring the seat to a further forward, or create a thicker head pad, in order to prevent the head contacting this edge.
(See yellow cross on photo)



The spacers between seat and brackets set the B6 Screamer 40 seat correctly for the right hand drive passenger seat in the position shown. Moving the seat forward may require a different spacer setup.

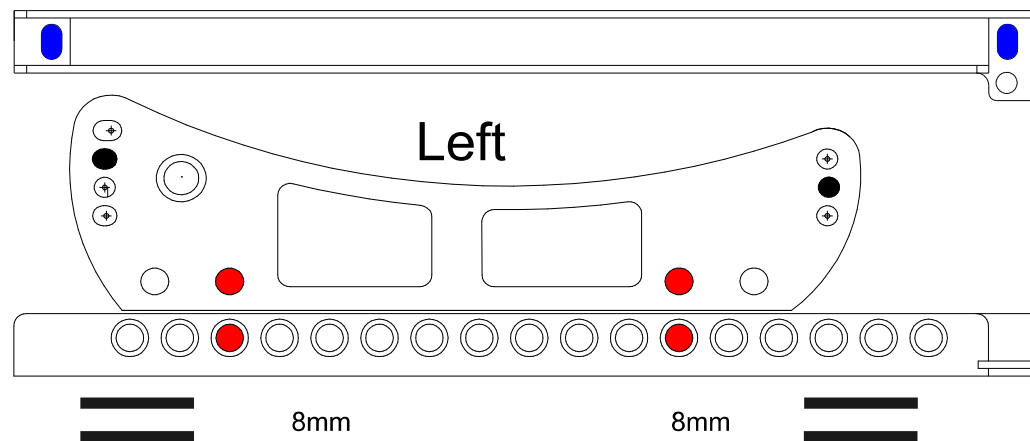
Suggested upright fixing positions are shown by red dots. Please take note of which holes are used in the floor U channels by using the blue dots as a guide.

Suggested starting point for fitting the B6 Screamer 44, with rolled edges left on, into the Elise/Exige passenger side **RHD** using EB4 brackets. Fits cars manufactured prior to 2017 – VIN serial number 1457

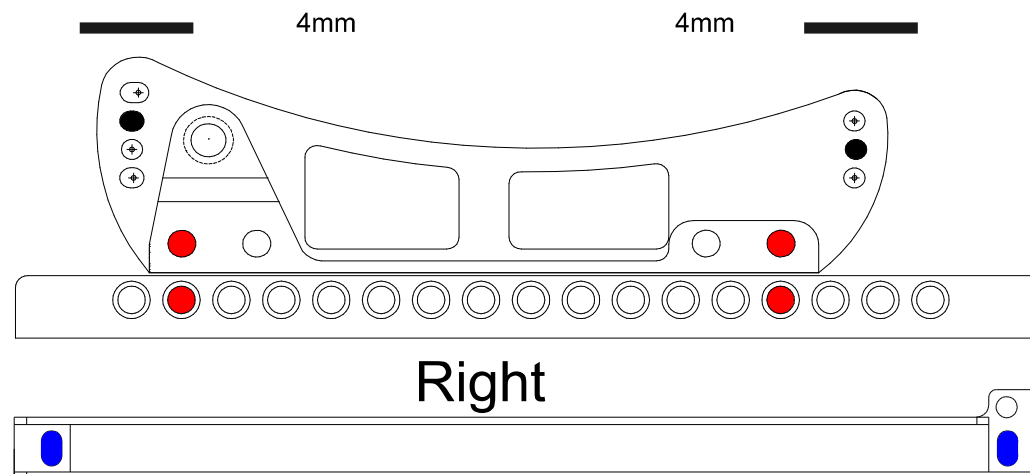
Due to the offset nature of the Elise floor mounting points it is sometimes necessary to offset the brackets. This page helps you line up the B6 44 Screamer passenger seat. This seat position relates to using the 2nd hole up on each upright for angle adjustment.

Please note that fitting the “edges on” standard 44 width Screamer into the Lotus Elise/Exige passenger side RHD is possible, but handbrake access is restricted

Please make sure when setting the seat in its rearmost setting that the head cannot come into contact with roll bar cover bottom edge. On some Elise/Exige models it may be necessary to either tip the seat more upright, bring the seat to a further forward, or create a thicker head pad, in order to prevent the head contacting this edge.
(See yellow cross on photo)



The spacers between seat and brackets set the B6 Screamer 44 seat correctly for the right hand drive passenger seat in the position shown. Moving the seat forward may require a different spacer setup.



Suggested upright fixing positions are shown by red dots. Please take note of which holes are used in the floor U channels by using the blue dots as a guide.



Suggested starting point for fitting the B6 40 Screamer, into the Elise/Exige

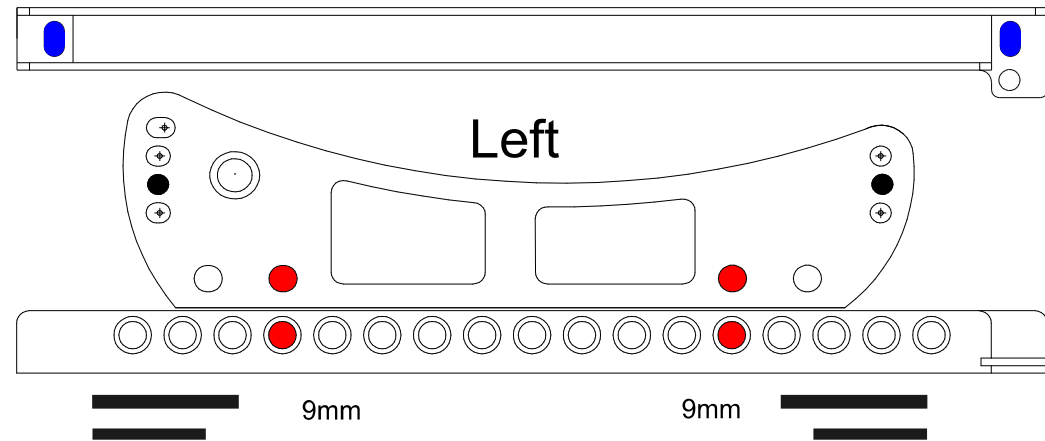
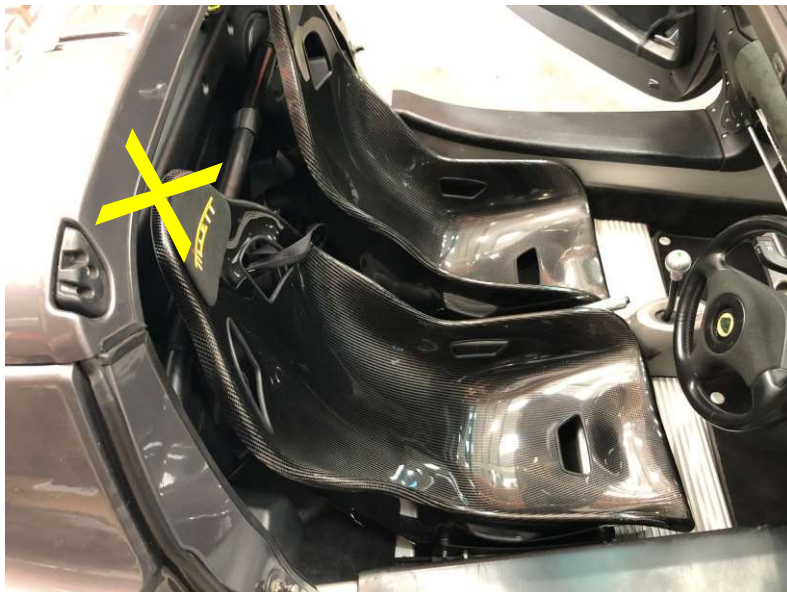


passenger side **LHD** using EB4 brackets. Fits cars manufactured prior to 2017 – VIN serial number 1457

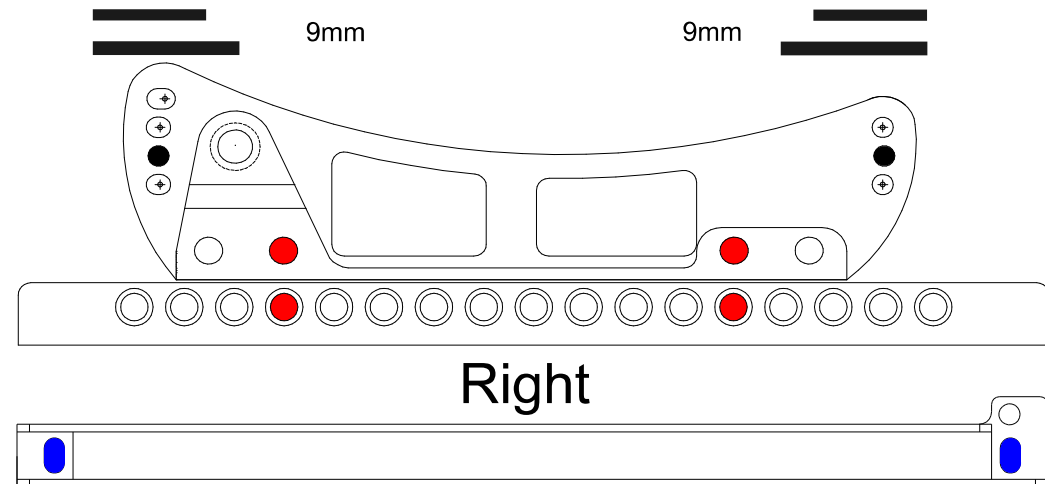
Due to the offset nature of the Elise floor mounting points it is sometimes necessary to offset the brackets. This page helps you line up the B6 40 Screamer passenger seat. This seat position relates to using the 2nd hole up on each upright for angle adjustment.

Please make sure when setting the seat in its rearmost setting that the head cannot come into contact with roll bar cover bottom edge. On some Elise/Exige models it may be necessary to either tip the seat more upright, bring the seat to a further forward, or create a thicker head pad, in order to prevent the head contacting this edge.

(See yellow cross on photo)



The spacers between seat and brackets set the B6 Screamer 40 seat correctly for the left hand drive passenger seat in the position shown. Moving the seat forward may require a different spacer setup.



Suggested upright fixing positions are shown by red dots. Please take note of which holes are used in the floor U channels by using the blue dots as a guide.

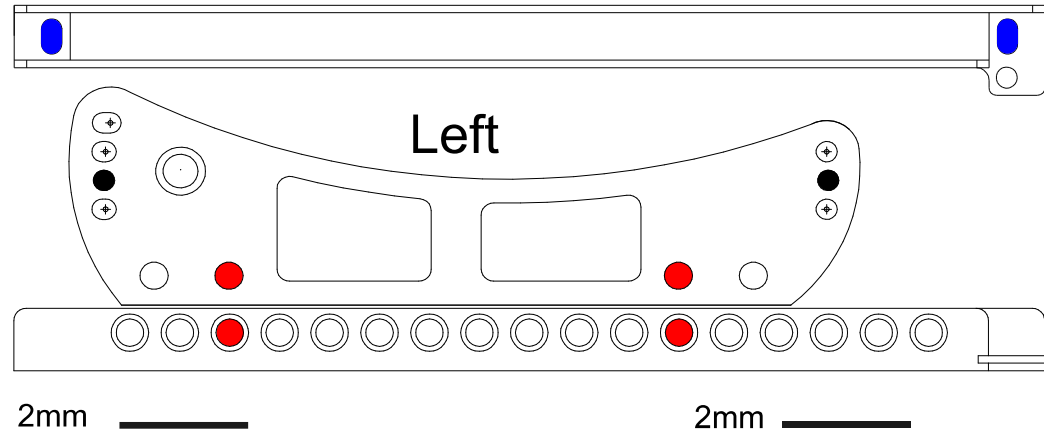
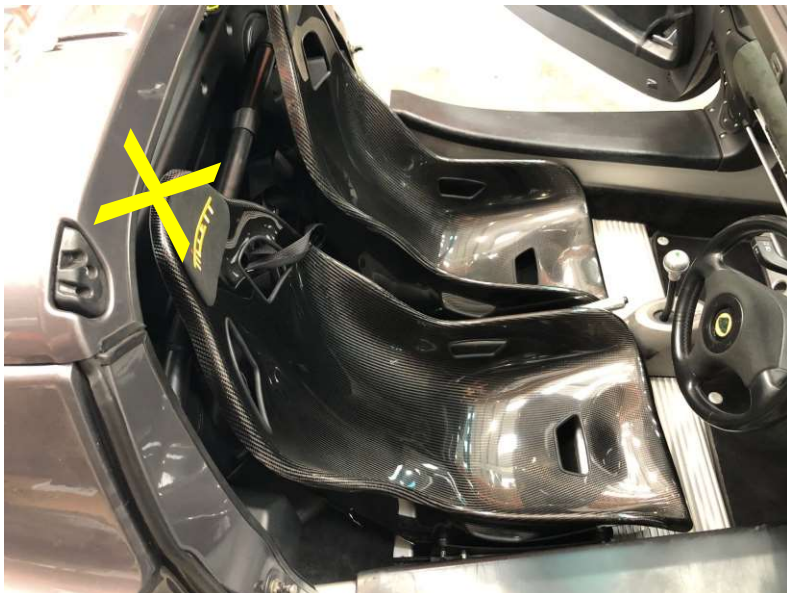
Suggested starting point for fitting the B6 43 XL Screamer, into the Elise/Exige passenger side RHD using EB4 brackets. Fits cars manufactured prior to 2017 – VIN serial number 1457



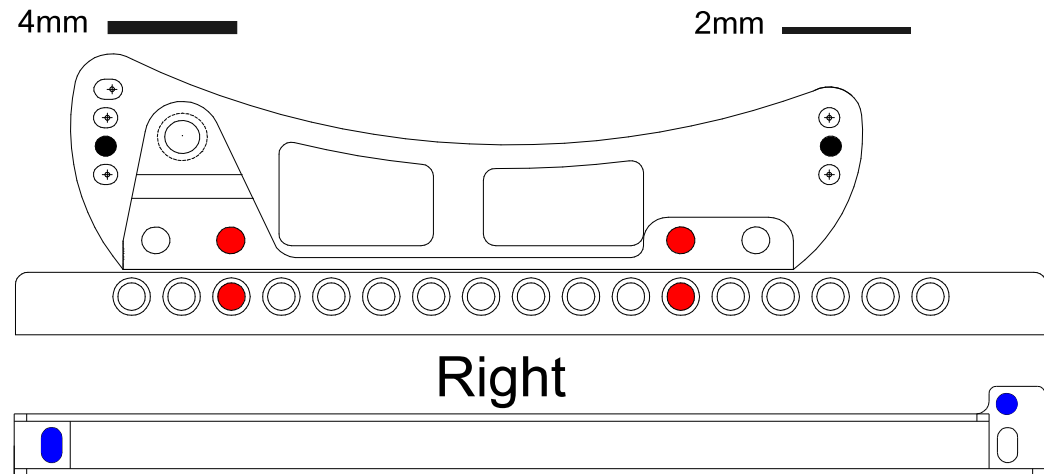
Due to the offset nature of the Elise floor mounting points it is sometimes necessary to offset the brackets. This page helps you line up the B6 43 XL Screamer passenger seat. This seat position relates to using the 2nd hole up on each upright for angle adjustment.

Please make sure when setting the seat in its rearmost setting that the head cannot come into contact with roll bar cover bottom edge. On some Elise/Exige models it may be necessary to either tip the seat more upright, bring the seat to a further forward, or create a thicker head pad, in order to prevent the head contacting this edge.

(See yellow cross on photo)



The spacers between seat and brackets set the B6 Screamer 43 XL seat correctly for the right hand drive passenger seat in the position shown. Moving the seat forward may require a different spacer setup.



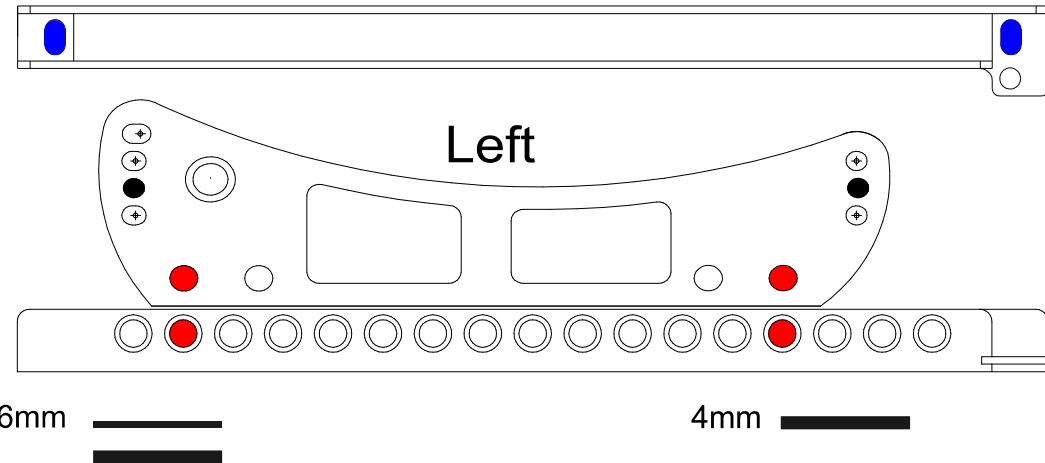
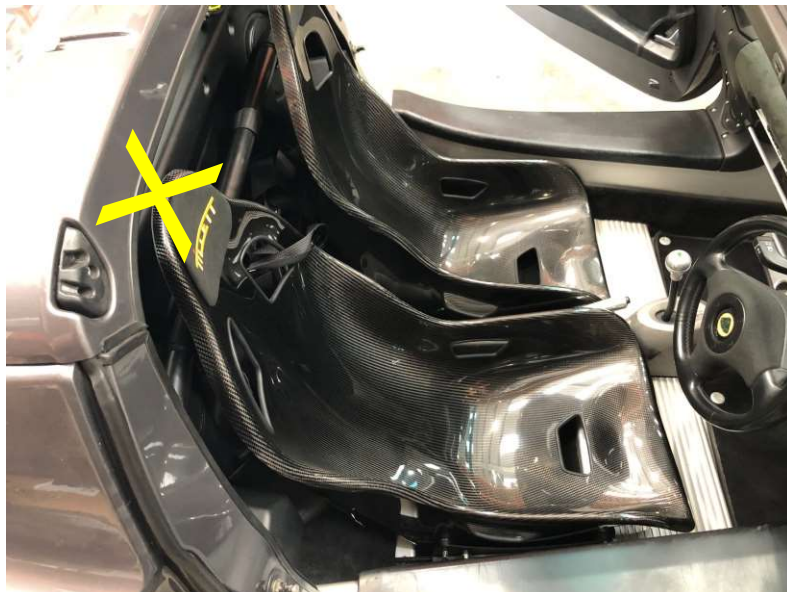
Suggested upright fixing positions are shown by red dots. Please take note of which holes are used in the floor U channels by using the blue dots as a guide.

Suggested starting point for fitting the B6 43 XL Screamer, into the Elise/Exige passenger side **LHD** using EB4 brackets. Fits cars manufactured prior to 2017 – VIN serial number 1457

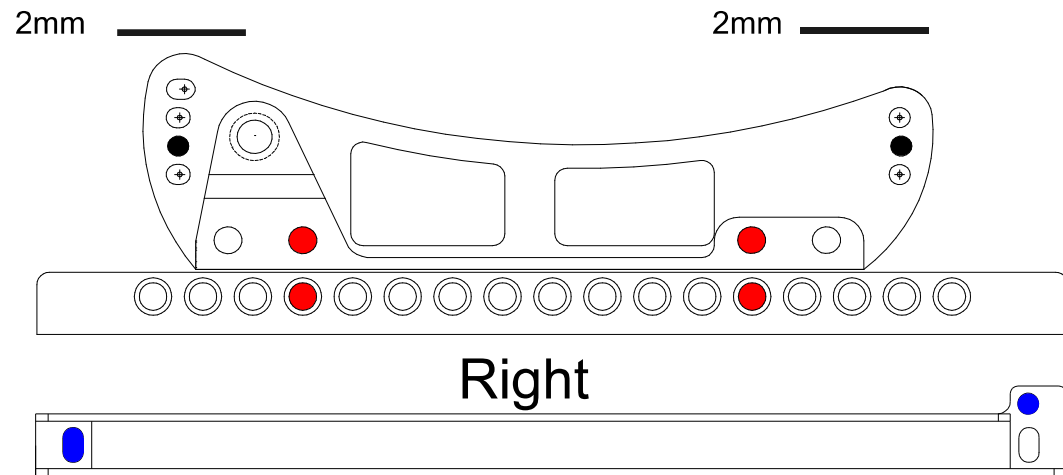
Due to the offset nature of the Elise floor mounting points it is sometimes necessary to offset the brackets. This page helps you line up the B6 43 XL Screamer passenger seat. This seat position relates to using the 2nd hole up on each upright for angle adjustment.

Please make sure when setting the seat in its rearmost setting that the head cannot come into contact with roll bar cover bottom edge. On some Elise/Exige models it may be necessary to either tip the seat more upright, bring the seat to a further forward, or create a thicker head pad, in order to prevent the head contacting this edge.

(See yellow cross on photo)



The spacers between seat and brackets set the B6 Screamer 43 XL seat correctly for the left hand drive passenger seat in the position shown. Moving the seat forward may require a different spacer setup.



Suggested upright fixing positions are shown by red dots. Please take note of which holes are used in the floor U channels by using the blue dots as a guide.