



FITTING & DEMOUNTING INSTRUCTIONS

CBR EXTREME

CBR ESCAPE

ISSUE 02-19



//FITTING CBR EXTREME & ESCAPE

Both CBR Extreme and Escape may be fitted using a normal tyre fitting machine, or by hand using tyre levers. These instructions show fitting using a tyre fitting machine. Care must be taken to follow ALL the steps shown in these instructions.

The CBR toolkit is used for both CBR Extreme and CBR Escape and includes the following items:

//CBR TOOL KIT

- // **OPTIONAL** - 3/8 drive torque wrench set to 18nM (13 lb/ft).
- // Valve retainer tool (needle nose pliers or similar can be used).
- // 3/8" drive socket.
- // 10mm wrench.
- // Crank handle. Fits 6mm allen key.
- // 6mm ball ended allen key.
- // Valve hole protection tube.
- // Allen key 3mm.
- // Valve "fishing tool".
- // "CBR fitted" warning sticker.

//INDEX

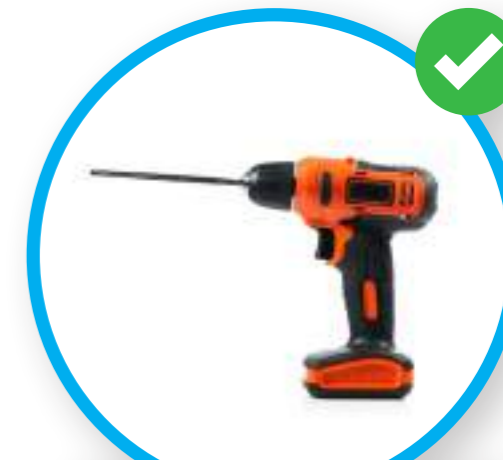
- // **1 Fitting**
Using a normal tyre fitting machine.
- // **2 Demounting**
- // **3 Refitting**
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If you change tyre make or type you need to check CBR is set at the correct width, as it is adjustable to suit different tyre bead widths.
- // **5 After a Runflat Experience - Policy**

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The quickest way to tighten the runflat onto the wheel, or untighten for dismounting, is to use a cordless or battery operated drill/screwdriver. **Never use a mains operated drill.** Set the cordless drill to LOW SPEED. Set the torque to its halfway setting.



MAINS OPERATED



CORDLESS DRILL

//FITTING CBR EXTREME & ESCAPE



//1

Begin with the tyre's 'outside' side wall upwards.

Note: Some tyres are directional.

//2

The outer roller should be positioned so the join is adjacent to the unconnected ends of the Runflat as shown (CBR Extreme only).



//3

Insert the Runflat into the tyre cavity.

Sometimes it can be made easier by lifting upwards the tyre's sidewall.

The runflat must be inserted with the gearbox input (for tightening with the Allen Key) facing uppermost.

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//4

Insert the allen key into the gearbox tightening mechanism and unscrew (anti-clockwise) the two tension rods.

Using a cordless drill/screwdriver, set at medium torque and low speed, saves time. Alternatively, you could use the winding handle supplied in the Runflat tool kit.



//5

Unscrew gently, stopping when the split pin at the end of the right-hand tension rod reaches the end of its adjustment.

Take care not to damage or force the split pin.



//6

Insert the right hand side of the turnbuckle (screw) into the right-hand barrel nut in the cable compensator. Tighten (turning clockwise).

//FITTING CBR EXTREME & ESCAPE



//7

Finally tighten the turnbuckle (screw) using a 10mm wrench.

Ensure there is an equal length of left hand and right hand thread on each side, so the adjuster nut section is centralized between the two cable compensators.

//8

Tighten until there is no slack in the cables.

//9

Ensure the wheel is clean and there is no lubricant on the inside where the runflat will sit and mount the assembly on to a tyre machine in the normal position for fitting a tyre.

//FITTING CBR EXTREME & ESCAPE



//10

Position the Runflat inside the tyre so the tightening worm gear entrance on the gearbox is adjacent to the valve hole in the wheel.

Check that none of the adjuster feet on the Runflat are dislodged.

//11

Place the wheel/tyre/Runflat on the tyre fitting machine.

Take care not to move or allow the Runflat to slip around inside the tyre (you need to keep the gearbox entry adjacent to the wheel valve hole).

Fit the inner bead of the tyre on the wheel.

Check again that none of the adjuster feet on the Runflat are dislodged.

//12

Fit the tyre's outer bead, using normal tyre fitting equipment and methods.

WARNING: Take care not to trap the Runflat or damage it, or move it around the wheel inside the tyre, with tyre levers or other equipment. The gearbox entry needs to stay opposite the valve hole.

//FITTING CBR EXTREME & ESCAPE



// 13

Check the gearbox input is still in line with the valve hole. Reposition if necessary.

Tip: Put an allen key through the valve hole and into the gearbox input and you can see when it is aligned properly - it will be in a vertical position. If the allen key is not vertical gently move the tyre round the wheel until it is.



// 14

Preparing to inflate and seat the tyre on the rim. Remove the valve core.

Using a normal rubber valve:
Push down the outer bead and insert the air valve. Hold valve in place with valve retainer tool - supplied in the CBR tool kit (can use needle nose pliers or similar). **Do not pull the valve completely into place and seat it fully. You will have to drop it back in the wheel later.**

Using a metal security valve:
Push the valve into place and secure with the securing nut.



// 15

Inflating the tyre to seat both beads.

If using rubber valve:

Pull the valve up to the valve hole, but do not pull it through into its final seating. Hold in place against the inside of the wheel with the valve retainer tool, pliers or similar. Inflate the tyre and fully seat both beads. Do not drop the valve into the wheel/tyre cavity.

If using a metal security valve:

Hold the valve in place using its securing nut. Inflate the tyre to fully seat both beads.

//FITTING CBR EXTREME & ESCAPE



// 16

Deflate the tyre and connect the 'fishing tool' (supplied in the CBR Extreme tool kit).

Do not drop the valve inside the wheel/tyre.



// 17

With the fishing tool on the valve, drop the valve into the wheel/tyre.

Note: If you prefer fitting on a workbench or floor, carefully move the wheel/tyre without tilting the wheel - so you do not move the runflat inside the tyre.



// 18

Enter the allen key through the valve hole and locate the gearbox input.

Make sure the allen key is vertical, i.e. the gearbox is in line with the valve hole. If it is not, move the runflat around inside the tyre until it is. You can use the allen key, a screwdriver, or similar.

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// 19

Slip the protection tube (provided in the CBR Extreme toolkit) over the allen key.



// 20

Tighten the runflat onto the wheel with the long allen key. To turn this you can use:

- The hand crank tool (provided in the CBR Extreme toolkit), or
- A cordless drill/screwdriver - at SLOW SPEED - with setting in 'medium screwdriver' range - and only tighten until the clutch slips, or
- By hand, using the allen key (note, this method will take much longer as many turns are required).
- Do not overtighten - see next step.



// 21

Using a cordless drill/screwdriver is the fastest way. Set to medium torque and low speed.

//FITTING CBR EXTREME & ESCAPE



// 22

Finish tightening with a torque wrench set at 12NM (or 8.85 lb/ft). DO NOT EXCEED 12NM.

CBR tool kit is available with a 3/8" drive torque wrench.



// 23

Lift valve up through wheel valve hole, hold with the valve retainer tool provided, or use pliers or similar, remove the fishing tool.

Do not drop the valve into the wheel/tyre.



// 24

Attach a normal valve puller tool for securing the valve into place.

//FITTING CBR EXTREME & ESCAPE



// 25

Remove the valve retainer tool, if you are using one, and pull the valve into place.

If using a steel security valve then tighten the sealing washer and nut.



// 26

Insert valve core and inflate to required pressure.



// 27

Clean area near the valve and affix the 'RUNFLAT FITTED' warning sticker.



//DEMOUNTING CBR EXTREME & ESCAPE



// 1

Remove valve core and deflate the tyre.



// 2

Cut off the valve.

Push bottom part of cut valve into wheel to leave the valve hole clear.

//DEMOUNTING CBR EXTREME & ESCAPE



//3

If using a metal security valve, unscrew its retaining nut and either allow the valve to fall into the wheel or drop inside the wheel connected to a fishing tool (as supplied in the CBR Toolkit).



//4

Insert Allen Key and locate gearbox input. Unscrew the runflat tightening mechanism (anti-clockwise).

You can use:

- a) The winding handle supplied in the CBR Extreme Toolkit
- b) A cordless/battery powered electric screwdriver, set at low speed
- c) A 6mm socket and ratchet



//5

Keep winding until the gear comes to a stop. When unscrewing comes to a 'stop' do not use any more force.

Note: If using an electric screwdriver or drill – use a CORDLESS/BATTERY powered device, NOT MAINS powered and set to LOW SPEED and half torque setting.

Stop immediately when you feel the screw thread bottoming out.

//DEMOUNTING CBR EXTREME & ESCAPE



//6

You can use the winding handle from the CBR Toolkit, or a 6mm socket and ratchet.



//7

Very carefully break the bead on each side of the tyre.

WARNING: Take care and do not force the bead-breaker blade too far into the tyre.

Remember there is a runflat inside the tyre quite close to the tyre's beads and you do not want to crush the runflat.

Note: If you cannot break the tyre's bead then the runflat may not be fully untightened (remember CBR is also a beadlock).



//8

Remove the top bead of the tyre.

Do not catch the runflat inside the tyre with the tyre lever.

//DEMOUNTING CBR EXTREME & ESCAPE



// 9

Remove the bottom bead and remove the tyre and runflat from the wheel.



// 10

WITH THE OUTSIDE (VALVE SIDE) OF THE TYRE UPPERMOST:

Unscrew the Turnbuckle (anti-clockwise).



// 11

You may need to use a 10mm wrench to undo until the right-hand side of the Turnbuckle releases from the right-hand connection (Barrel Nut in the Compensator).

//DEMOUNTING CBR EXTREME & ESCAPE



// 12

Remove the runflat from the tyre cavity.



// 13

Retrieve the cut-off rubber valve part from the tyre cavity (or metal valve if using one without the fishing tool).

This picture shows CBR Extreme. Both the CBR Escape and CBR Extreme demount in the same way.



CBR Escape

// 14

This is the CBR Escape demounted in the same way.



//REFITTING Before refitting you must carry out these 5 steps:



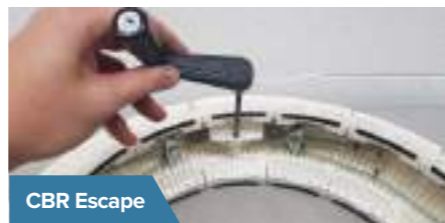
//1

If the gearbox components have been fully extended, as shown in the picture, for refitting it is best this side is closed up. The runflat can be fitted into the tyre cavity with the gearbox side extended but you may find it easier if closed.



//2

Insert the 6mm allen key and turn clockwise to close up the tension rods and segments as shown. **Do not overtighten**, this only needs to be a loose contact.



//REFITTING



//3

Much faster would be to use a cordless screwdriver, set to low speed and low torque.

Do not overtighten, this only needs to be a loose contact.



//4

Make sure the turnbuckle screw connector on the left hand side is unthreaded all the way to its stop/ split pin - so the retaining washer and split pin are up against the left-hand cable compensator. This should leave equal lengths on the left-hand and right-hand threads free on the turnbuckle.



//5

Important: When refitting CBR Extreme ensure the outer roller is moved around the ring of segments so its join is adjacent/next to the two open ends of the runflat near the turnbuckle screw connector.

This step is unnecessary with CBR Escape (as it has no roller).

Important: Before refitting check that the adjustable feet, one on each side of every segment, are fully seated.



//6

Now the runflat is prepared and ready for insertion into the tyre cavity.

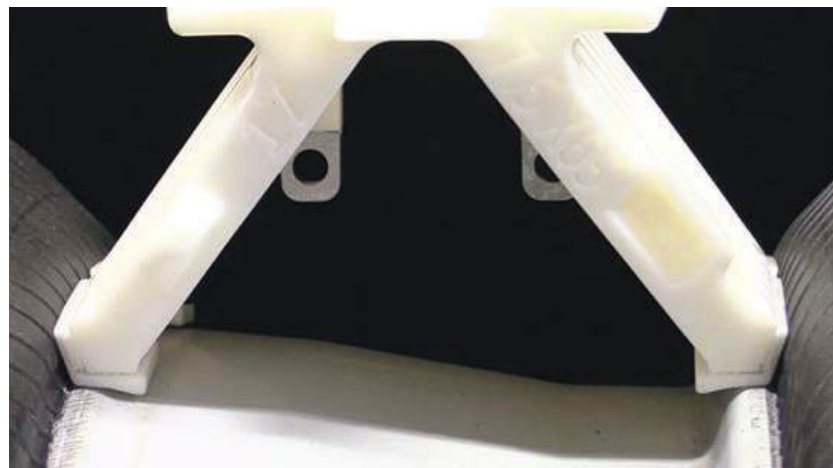
Begin the fitting process using:

//FITTING & DEMOUNTING INSTRUCTIONS CBR Extreme & CBR Escape



//IMPORTANT – WIDTH ADJUSTMENT

This shows a correct fit



The effects of incorrect adjustment may include:

Too wide

The runflat could come loose. It may not function correctly in a runflat situation.

Too narrow

Beadlock force may be reduced and the runflat insert could move on the wheel when running flat. Tyre bead width varies with different tyre manufacturers. Runflat CBR will normally be supplied adjusted to suit the tyre you specified.

//IMPORTANT – WIDTH ADJUSTMENT

WARNING If you change tyre make or type, Runflat CBR must be adjusted for optimum fit and beadlock performance.

Either contact Run Flat Systems Ltd and we will provide the adjustment information, or you can proceed as below. The width of the 'feet' on each side at the base of every segment may be increased or decreased by inserting or removing spacers, positioned between the movable 'foot' section and the main body of the segment.



Take a wheel with the appropriate tyre fitted and inflated so its beads are fully seated.

Deflate the tyre and cut away a section of tyre as shown – carefully so the beads are not dislodged or unseated.



Check the segments of the runflat are a good fit on the wheel so they sit on the wheel and between the seated beads of the tyre.

(i) The segments must not be too wide so they sit on the tyre's beads.



(ii) A maximum of 1 mm clearance each side (2mm overall) between the runflat and the tyre's beads is acceptable.



(iii) The segments can be widened or narrowed by inserting or removing spacers.

(iv) If only one spacer has to be added or removed they must be done all on the same side of the segments.

(v) If adjustment requires the addition or subtraction of two spacers make sure one spacer is fitted or removed on each side of each segment - not two on one side only.

//AFTER A RUNFLAT EXPERIENCE - POLICY

We advise the CBR Extreme should be replaced following any Runflat incident.

After a short or low speed Runflat it may be possible to re-fit Runflat CBR, after a thorough inspection of all components. However, refitting is not recommended because it requires practised inspection to ensure all components are safely reusable.

Re-fitting after a Runflat incident is solely at the user's discretion and Runflat Systems Ltd cannot accept any responsibility or liability should any Runflat CBR previously used in a Runflat situation fail in use under any circumstances.

If you refit at your own risk the segment/roller interface must be cleaned and re-greased before re-fitting. A special lubricant is available from Runflat Systems Ltd and only this should be applied - **normal or general purpose grease must not be used.**



Combined Beadlock Runflat System



3A Skypark at Doncaster Sheffield Airport, First Avenue, Doncaster DN9 3RH, United Kingdom
www.runflatcbr.com | Tel: 0114 3216536 | service@runflatcbr.com