



Dynamic RunFlat Systems

Fitting Instructions & User Guide – 2 and 3 Segment Systems for Cars, SUVs, Vans and Light Trucks



Dynamic RunFlat systems are designed to be fitted to single-piece wheels and tubeless tyres. Fitted in accordance with these instructions, they will give good service. Carry the fitting instructions and fitting tool with the vehicle tool kit, and bring this user guide to the attention of all drivers.

IMPORTANT: The fixing-bolt locking method is a combination of Loctite thread adhesive AND double locking washers under the head of each fixing bolt. Both methods must be used. Maximum recommended speed with deflated tyres: 50 km/h.



FITTING TOOLS



Standard Fitting Tool · RFI 008



Torque Limiting Tool · RFI 009



Bead Lifting Tool · RFI 016



Thread Locking Adhesive · RFI 013



Long Life Grease · TTGR3810



Assembly Cord · RFI 020

Vehicles are fitted with RunFlat systems for two purposes: (1) to assist a driver to maintain control if a tyre should fail at speed · because the vehicle drops onto the RunFlat system instead of directly onto the wheel, a higher level of control is possible than with no RunFlat fitted; and (2) to enable a driver to continue travelling to a place of safety with a deflated tyre so that the damaged wheel can be changed. With security vehicles, it may be necessary to travel some distance to reach a place of safety.

The Dynamic RunFlat system is designed to cover run-flat distances (distances vary depending on model) at speeds up to 50 km/h with one front and one rear tyre deflated when fitted to standard-profile tyres. With two front tyres deflated, steering control should be adequate to clear an area of hazard at lower speed (typically 20 km/h). In a serious emergency, traction and control can be maintained with all four tyres deflated. This Statement of Claim is the only claim to RunFlat performance.



IMPORTANT: Underinflated and fully deflated tyres fitted with RunFlats behave differently to fully inflated tyres and the handling of the vehicle is markedly different. Do not attempt violent manoeuvres or sudden changes of direction with one or more tyres deflated. Maximum recommended speed with deflated tyres: 50 km/h.

Quality-control record: the following must be recorded in the vehicle log or service book at the time of fitting: (i) make and model of vehicle and registration number; (ii) RunFlat system batch number; (iii) date, location of fitting agency and name or quality-control stamp details of the fitter; (iv) vehicle mileage at time of fitting.

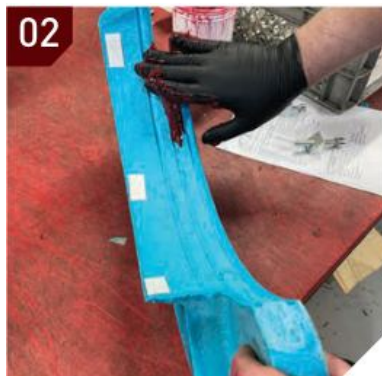
Equipment needed for fitting: tyre fitting stand; tyre levers or bead lifter; approved tyre lubricant; torque limiting tool (check the RunFlat system identification label for the correct torque setting); high temperature grease; Loctite thread adhesive; assembly cord; buffing/cleaning fluid.



FITTING INSTRUCTIONS – DYNAMIC RUNFLATS TO ALLOY WHEELS



01 Place all RunFlat segments on a stable surface ready to prepare.



02 Grease the grease slots evenly, ensuring to avoid the tape.



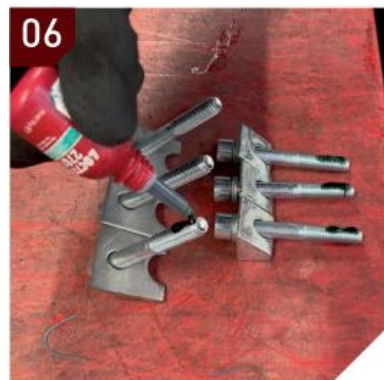
03 Each segment should look like this when greased correctly.



04 Peel off the top layer of the tape on all the segments.



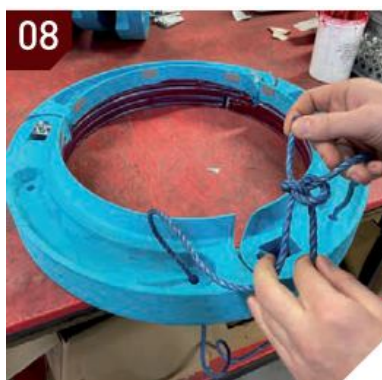
05 Slot the segments together to form a circle, ready to secure.



06 Degrease bolts and apply Loctite to the wedge and clamping plate bolts, with double locking washers under each bolt head.



07 Connect the segments, inserting each wedge bolt 4–5 threads only. Leave the final joint unconnected.



08 Pass the assembly cord through the holes adjacent to the final joint position and tie a knot in the cord.



09 Insert the metal clamp-in valve and torque to 6 Nm. Protect the top rim edge with masking tape.



FITTING INSTRUCTIONS – ALLOY WHEELS (CONTINUED)



10 Lift the top bead with a tyre fitting machine or beadspreader. Insert segments, wedge slot uppermost, wedges at the top of the wedge bolts.



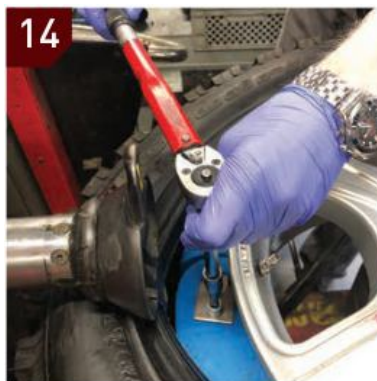
11 Using the cord, position the joint both sides of the valve, then pull the system together so the segment ends overlap.



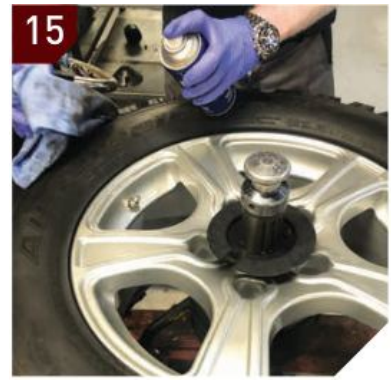
12 Pull the top bead over in the valve area. Insert the final wedge bolt 4–5 threads only; remove the assembly cord.



13 Fit a clamping plate at each joint, 4–5 threads. Torque each wedge bolt in turn to the setting on the identification label.



14 Torque each clamping bolt to the setting marked on the identification label.



15 Mount the top bead. Remove masking tape; clean bead and wheel edge with buffing fluid. Inflate and balance the assembly normally.

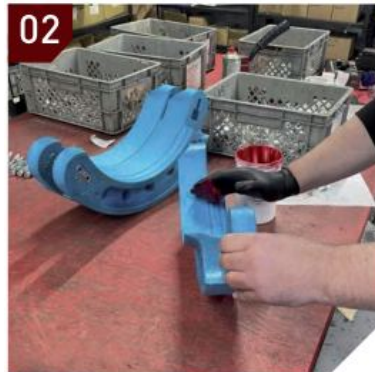
Quality control: at the time of fitting, record in the vehicle log or service book: (i) make/model and registration number; (ii) RunFlat system batch number; (iii) date, fitting agency and fitter QC details; (iv) vehicle mileage.



FITTING INSTRUCTIONS – DYNAMIC RUNFLATS TO STEEL WHEELS



01 Place all RunFlat segments on a stable surface ready to prepare.



02 Grease the underside of each segment evenly, ensuring all grease slots are full.



03 The segments should look like this when greased correctly.



04 Connect the segments to form a circle, ready to secure.

Connect the segments to form a circle, ready to secure.



05 Degrease bolts and apply Loctite to the wedge and clamping plate bolts, with double locking washers under each bolt head.

Degrease bolts and apply Loctite thread adhesive to the wedge bolts and clamping plate bolts, making sure double locking washers are under the head of each bolt.



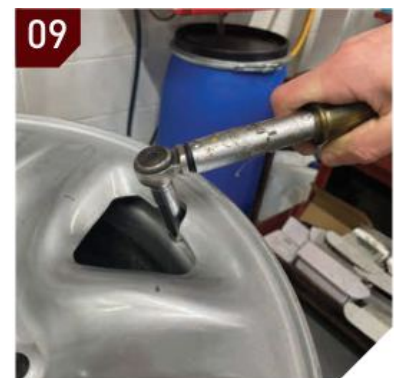
06 Connect the segments, inserting each wedge bolt 4–5 threads only. Leave the final joint unconnected.



07 Pass the assembly cord through the holes adjacent to the final joint position.



08 Tie a knot in the cord to keep the segments connected as you insert them into the tyre.



09 Insert the metal clamp-in valve and torque to 6 Nm.



FITTING INSTRUCTIONS – STEEL WHEELS (CONTINUED)



10 Lift the top bead with a tyre fitting machine or beadspreader. Insert segments, wedge slot uppermost, wedges at the top of the wedge bolts.



11 Using the cord, position the joint both sides of the valve, then pull the system together so the segment ends overlap.



12 Pull the top bead over in the valve area with the fitting machine or beadspreader.



13 Insert the final wedge bolt, 4–5 threads only. Remove the assembly cord.



14 Fit a clamping plate at each joint, 4–5 threads. Torque each wedge bolt, then each clamping bolt, to the setting on the identification label.



15 Mount the top bead. Clean bead and wheel edge with buffing fluid. Inflate and balance the assembly normally.

Quality control: at the time of fitting, record in the vehicle log or service book: (i) make/model and registration number; (ii) RunFlat system batch number; (iii) date, fitting agency and fitter QC details; (iv) vehicle mileage.



DISMOUNTING THE DYNAMIC RUNFLAT SYSTEM

Dynamic RunFlat systems are to be inspected at every tyre change, every year, or after run-flat operation – whichever comes first. It is necessary to remove the system to change a tyre. If the tyre is damaged beyond repair, cut around the sidewalls and remove the tread to expose the fixing bolts; remove them, take the RunFlat out of the wheel well, and dismount the tyre normally. If the tyre can be repaired and returned to service:

- Deflate the tyre by removing the valve core. Break the outer bead (valve side).
- Place the assembly on the tyre fitting stand, valve side uppermost. Dismount the top bead; pull it over with a tyre lever to expose a joint. Use the fitting tool to remove the clamping plate bolt and wedge bolt at the first joint, removing bolts, plate and wedge from the tyre. Repeat at all joints.
- Remove the assembly from the stand and break the inside bead. Refit, lift the top bead, and remove the segments one at a time. Dismount the tyre normally.
- At each tyre change, clean the system and remove all grease. Inspect segments for cracks and fatigue – discard the complete system if any crack is visible. Otherwise refill grease slots with new grease, renew fixing bolts and double locking washers, replace any pressure-sensitive adhesive tape, and refit per the fitting procedure.

INSPECTION & REUSE

RunFlat systems are to be inspected at every tyre change, every year, or after run-flat operation – whichever comes first. Systems are designed to be returned to service after run-flat use, subject to the following conditions:

- If the system has been subjected to any form of ballistic or explosive attack, it is recommended that the complete system is changed. Alternatively, the RunFlats may be returned to The Toota Group with an account of the incident for detailed inspection. On no account should the system be returned to service without this inspection process.
- Otherwise: the system involved in the run-flat operation must be cleaned and examined carefully for cracks, fissures, deformation, significant wear or mechanical damage. Any sign of damage – return the unit for detailed examination.
- If there is no sign of surface damage, fit the system to a bare wheel (no tyre) from the original vehicle and tighten the wedge fixing bolts to the recommended torque. If the unit can be rotated on the wheel, return it for detailed examination.
- If there is no movement on the wheel: remove it, re-grease with high-temperature grease (RFI 012), and fit to the original wheel with new fixing bolts and double locking washers. Record the fitting as for an initial fitting.



PHOTO CHECKLIST – DYNAMIC RUNFLAT FITTING

Verify each stage of the fitting procedure against the reference photos below before the wheel is returned to service:



✓ Tape covers removed (alloy wheels only)

✓ RunFlat greased



✓ Identification sticker applied (apply Loctite and torque all bolts to the value shown – e.g. 21 Nm)

✓ Loctite applied to all bolts



✓ Wedge bolts torqued and level with RunFlat segment (all 3 joints)



✓ Clamping bolts torqued and fitted (all 3 joints)



MISUSE OF RUNFLAT SYSTEMS – DRIVER GUIDANCE

- As soon as you become aware of a deflated tyre, **SLOW DOWN** immediately.
- If circumstances permit, stop immediately to establish the cause of the tyre failure.
- If an emergency requires you to continue, reduce speed to a maximum of 50 km/h and drive to the nearest point of safety. Avoid sharp turns or other violent manoeuvres.
- At the first opportunity, stop and inspect the deflated tyre for damage. If there are obvious signs of serious tyre damage, do not continue – change the wheel.
- After any run-flat use, report the occurrence to the workshop manager, who will arrange for the system to be inspected by the authorised distributor (The Toota Group).

To reduce the risk of misuse, advice sheets should be issued as follows:

VEHICLE DASHBOARD

For your safety and security the wheels on this vehicle are fitted with RunFlat systems inside the tyres. These help you to maintain control if a tyre fails at speed, or to continue with a deflated tyre to a place of safety to have the wheel changed. **DO NOT exceed 50 km/h with a deflated tyre.** Stop as soon as you can to change the wheel. Read the operating instructions in the vehicle logbook. Check tyre pressures daily.

VEHICLE LOGBOOK

The wheels on this vehicle are fitted with RunFlat systems. They give improved driver control if a tyre fails at speed and allow the vehicle to continue in an emergency with a tyre deflated. Vehicles handle differently with deflated tyres. **DO NOT swerve sharply or carry out violent manoeuvres, and DO NOT exceed 50 km/h, with a deflated tyre.** Stop as soon as possible to have the damaged wheel changed. Check tyre pressures daily and report any run-flat use to the workshop manager. Note: RunFlat systems have to be removed to change tyres.

DRIVER'S RESTROOM

This vehicle is fitted with RunFlat systems for your safety and security. These assist in controlling the vehicle after a tyre blow-out at speed and allow drivers to continue with a damaged tyre in an emergency. Sudden turns or other violent manoeuvres with underinflated tyres can cause the vehicle to become unstable. As soon as you become aware of a deflated tyre, **SLOW DOWN immediately – do not exceed 50 km/h.** RunFlat systems have to be removed to change tyres. Tyre pressures must be checked daily. Ask for more details from the workshop manager.

STORAGE & SPARES

All systems must be stored before use in: temperature between 10°C and 35°C; dry and moderately ventilated conditions; out of sunlight or strong artificial light with high UV content; not subject to water exposure (rain, floods); covered to keep systems dust- and contamination-free in low light levels.



SPARES

All of the following parts are supplied with new RunFlat systems and are available as spares when changing tyres: clamping plates (RFI 002), wedge unit (RFI 002), double locking washers (RFI 019), rivet nut insert (RFI 001), high-strength bolts (RFI 005), metal clamp-in valve (RFI 011). For specific RunFlat systems some spares may differ; when ordering, provide as much information as possible about the vehicle, wheel rims, tyres and RunFlat system. Order spares through The Toota Group.



Clamping Plates – RFI 002



Rivet Nut Insert – RFI 001



Metal Clamp-in Valve – RFI 011



Double Locking Washers – RFI 019



High Strength Bolts – RFI 005



Wedge Unit – RFI 002

WARRANTY TERMS

RunFlat International, as manufacturer, warrants that the products and solutions shall be free of defects and shall survive the intended purpose as determined, agreed and tested with the client. If the product fails to survive the intended purpose, the manufacturer shall replace it and conduct all required rework. The warranty does not extend to products not sold through authorised channels, nor does it apply to any third party. No guarantee extends beyond a first use of a system in run-flat mode. A product warranty of 12 months from the date of delivery applies, subject to the following conditions (failure to comply in full means no warranty claim can be accepted):

- All systems must be fitted exactly in accordance with the fitting and inspection instructions.
- All systems must be fitted and refitted using supplied fitting components, Loctite and grease.
- Customers must keep full and accurate records showing the complete fitting, removal and refitting history, with details of components and materials used.



- No tyre sealant or other substances inside the tyre which could damage the RunFlat product.