

Cut and Shut Repair Method

Clarification on the Cut and Shut Repair Method



Supporting New Zealand's Repair Certification Industry

About RepairCert NZ Technical Bulletins

These Technical Bulletins have been developed to support Specialist Light Vehicle Repair Certifiers (Repair Certifiers) in ensuring autobody repairs are carried out safely and correctly. Repair Certifiers should, in the first instance, be guided by (if available) relevant Vehicle Manufacturer's Information and Repair Industry Information, and in the absence of such information, refer to the Best-practice Guidance provided within RepairCert NZ Technical Bulletins. These bulletins can also be used by the wider autobody repair industry.



Purpose

This Technical Bulletin clarifies that the 'cut and shut' repair method (known as 'cutting and shutting', 'full-body sectioning', or 'clipping' in overseas markets) is now an outdated and inappropriate practice, and should not be used to repair collision damage on post-1990 vehicles.

The bulletin also differentiates between the 'cut and shut' repair method, and carrying out repairs using replacement multi-panel sub-assemblies, and must be read in conjunction with *RepairCert NZ Technical Bulletin # 03-2026 Multi-panel Sub-assembly Replacement* (see Note 1 below).

Note 1	Click here to view <i>RepairCert NZ Technical Bulletin # 03-2026 Multi-panel Sub-assembly Replacement</i> on the RepairCert NZ website .
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Applicable Requirements

This Technical Bulletin combines non-mandatory Best-practice Guidance, together with the relevant mandatory legislative requirements (referred to as 'applicable requirements') to support Repair Certifiers in relation to this subject.

The applicable requirements stem from *Land Transport Rule: Vehicle Standards Compliance 2002 (Compliance Rule)*, and *Land Transport Rule: Vehicle Repair 1998 (Repair Rule)*.

The *Compliance Rule* requires that an unregistered vehicle undergoes repair certification if it has ‘significant damage or deterioration to its structure, chassis, body-to-chassis attachment, suspension, or occupant protection system’.

The *Repair Rule* specifies that ‘a repair to a vehicle, its structure, systems, components or equipment, must restore the damaged or worn vehicle, structure, system, component or equipment so that they are within safe tolerance of the state of the vehicle, structure, system, component or equipment when manufactured.’

The *Light Vehicle Repair Certification Vehicle Inspection Requirements Manual (Repair VIRM)* sets out the requirements that Repair Certifiers must meet to achieve the objectives of the *Compliance Rule* and the *Repair Rule* (see the ‘Repair VIRM Requirements’ section at the back of this Technical Bulletin).

Background

RepairCert NZ has received a number of enquiries from Repair Certifiers about using the ‘cut and shut’ repair method, and it has become evident that opinions differ within the industry about whether a ‘cut and shut’ is an acceptable repair method.

One enquiry was detailed in a *From the Help Desk* article in *RepairCert NZ Update # 16* (see *Note 2* below) where a Repair Certifier asked RepairCert NZ if a complete rear half of a vehicle could be joined onto another vehicle with major rear collision damage. RepairCert NZ’s response was that this repair constituted a cut and shut, which should not be undertaken because of the high likelihood that such a vehicle will not be restored to within a safe tolerance of its state when manufactured (as required by the *Repair Rule*).

This enquiry was discussed with the RepairCert NZ Technical Support Group (TSG) members, who confirmed that the cut and shut repair method is in conflict with best industry practice, particularly for post-1990 vehicles.

After providing guidance to Repair Certifiers on a number of similar situations, and discussion with the TSG, it became evident that a Technical Bulletin should be developed to provide a clear definition of a cut and shut repair, and to reinforce that a cut and shut is a repair method that is not best industry practice and should not be repair certified.

Note 2	Click here to view the <i>Info from the Help Desk</i> article ‘Major Body Sectioning’ in RepairCert NZ Update # 16 on the RepairCert NZ website .
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Defining a Cut and Shut

A cut and shut is a method of repair that involves linearly cutting away the entire rear or front body section (usually outside factory join locations) of a collision-damaged vehicle through both left and right inner and outer pillar structures, inner and outer sill/rocker structures, and across the floor pan (including any associated cross-members).



A corresponding second-hand replacement body section (from a salvaged vehicle), cut in the same positions, is subsequently welded in - essentially making one body structure from two vehicles (see *Image 1*).

In simplest terms, a cut and shut is a repair method that effectively joins two predominant portions of a vehicle together, at (usually) other than the vehicle manufacturer’s factory join locations.

Image 1: A cut and shut example - the major body sections of two vehicles are joined to make one body structure. Image credit ⁽¹⁾.

Cut and Shut vs Multi-panel Sub-assembly Replacement

It is vitally important to clearly distinguish between a 'cut and shut' repair, and repairing a damaged vehicle via the replacement of a 'multi-panel sub-assembly'. These are very different repair methods.

Multi-panel sub-assembly replacement is a repair method that is not only allowable but is in fact encouraged because of the many advantages this repair method has over replacing multiple individual panels separately.

Multi-panel sub-assembly replacement is explained in detail within *RepairCert NZ Technical Bulletin # 03-2026 Multi-panel Sub-assembly Replacement*, which must be read in conjunction with this Technical Bulletin (see *Note 1* on Page 1).



It is important to read and understand *Technical Bulletin # 03-2026 Multi-panel Sub-assembly Replacement*.

Prohibiting the Cut and Shut Repair Method

Why the Cut and Shut Method is Prohibited

A cut and shut repair (as defined on Page 2), is not best industry practice, and should not be approved by a Repair Certifier.

Although the cut and shut method was previously widely used by the collision repair industry for repairing major (predominantly rear-end) collision damage, it is now considered to be an outdated and completely inappropriate repair method for post-1990 vehicles. This is because all modern-day platforms incorporate a wide variety of advanced crash management technologies that have a high likelihood of being compromised (in unknown, varying degrees) by a cut and shut repair (see *Note 2* on Page 2).


Because of the presence of these complex technologies, there is a high likelihood that a vehicle repaired in this way will not meet the requirements of the *Repair Rule*, which specifies that (slightly consolidated for clarity) *a repair to a vehicle must restore it to within a safe tolerance of its state when manufactured*.

There is no practical way of being able to prove that a post-1990 vehicle, after being cut and shut, is in fact restored to within a safe tolerance of its state when manufactured.

Support from Vehicle Manufacturers and the Autobody Repair Industry

There are a substantial number of vehicle manufacturers (as well as I-CAR) that strongly recommend against or prohibit altogether, performing a cut and shut repair, with position statements and other literature stating that a cut and shut repair method (see *Images 2* and *3* on Page 4):

- is untested and not validated; and
- may decrease structural integrity and crash worthiness, or change structural load-paths; and
- may put vehicle occupants and others at greater risk in the event of a future collision; and
- requires removal techniques that may cause collateral damage to associated components or reduce performance of materials; and
- may void factory warranties, including (but not limited to) service parts, corrosion protection, extended service and protection plans; and
- may create mismatches in specifications (i.e. mid-model updates and country of origin differences between the two vehicles); and
- may create wind noise or change acoustic qualities; and
- may compromise water-tightness; and
- may compromise ADAS performance and calibration requirements.



8 September 2023

General Motors Position Statement on the Non-approval of Clipping (Sectioning of Two Vehicles) for Collision Repair

General Motors does not approve the use of "clipping" to repair collision damage to vehicles. In the collision repair industry, "clipping" refers to cutting two damaged vehicles through the windshield pillars, the rocker panels, and across the floor pan and joining the undamaged portions from these vehicles to make the repair.

The use of "clipping" voids GM's New Vehicle Limited Warranty as well as GM's new vehicle service part and corrosion warranties for each part in the clip.

GM does not sanction clipping repair because it cuts across the major load-bearing paths of a vehicle and can reduce the structural integrity of the repaired vehicle. This is extremely critical because of the increase in the use of Advance High Strength Steel (AHSS). Improper repairs can lead to vehicle performance issues related to noise, vibration and handling problems.

GM recommends replacing body components at factory seams. When applicable, GM will provide specific collision repair parts, and procedures for sectioning. These parts and procedures provide a practical and cost-effective alternative to clipping. GM provides vehicle specific parts information through the authorised parts supplier network in Australia & New Zealand.


Suitable collision repair procedures are available for a minimal cost, details available via www.qmtradeparts.com.au or www.qmtradeparts.co.nz. These repair methods have been developed to be in a location and fashion that will yield panel strength comparable to the original panel strength.

GM has not tested or validated a "clipped vehicle" repair; therefore, GM cannot endorse this type of repair or confirm the crash performance during a subsequent collision. GM recommends the use of genuine GM parts in repairs to help ensure the vehicle is returned to pre-collision condition.

Further details specifically available for each applicable vehicle model – please refer to GM Service Information Document ID # 5525750 – Collision Repair Position Statements.


Available online at www.qmtradeparts.com.au or www.qmtradeparts.co.nz

Image 2: Example of a Vehicle Manufacturer’s Position Statement on clipping (September 2023).



Full-Body Sectioning Should Not Be Done

Posted on 24 July 2017



I-CAR and subject matter experts from vehicle makers, collision repairers, insurers, and tool and equipment makers held a meeting in May, to develop, update, and publish an I-CAR best practice on Full-Body Sectioning Should Not Be Done.

Full-body sectioning (clipping) is not a safe or viable repair option and should not be done, under any circumstances. Full-body sectioning will not result in a complete, safe, and quality repair.

In the collision repair industry, full-body sectioning, often referred to as clipping, is the process of joining large assemblies cut from separate vehicles. This involves cutting through multiple panel layers in a combination of A-, B-, C-, and D-pillars, the quarter panels, the rocker panels, and across the floor pan. The undamaged portions from these vehicles are then welded to complete the "repair." This type of procedure is done without supporting documentation from the vehicle maker.

I-CAR published a statement ([Are General Sectioning Guidelines Still Applicable? \(icrn-304.html\)](#)) warning against using general sectioning guidelines on late-model vehicles. "If there are no published sectioning procedures available from the vehicle maker, do not section."

Installing large welded assemblies, such as full-front or full-rear body sections, involves making multiple joints in multiple structural panels and reinforcements. On all late model vehicles, the reinforcement panels in the vehicle side structure are made from high- and ultra-high-strength steels, aluminum, and carbon fiber that contribute to the structural integrity and occupant safety of the vehicle. Introducing a sectioning joint in any of these parts will adversely affect the performance of the vehicle structure during normal operation as well as during another collision.

In addition to the information from I-CAR, no vehicle maker allows clipping as an approved repair method. In fact, most vehicle makers have published warnings against performing full body sectioning on their vehicles.

Image 3: I-CAR RTS Portal article on full-body sectioning (2017). Click [here](#) to see the full article.

The repair certification system requires Repair Certifiers to be guided, in the first instance, by any relevant and available Vehicle Manufacturer’s Information, and where this is not available, any relevant and available Repair Industry Information. It is clear that the cut and shut repair method is in conflict with both Vehicle Manufacturers’ Information and Repair Industry Information (see Note 3 below).

<p>Note 3</p>	<p>‘Vehicle Manufacturer’s Information’ (also known as ‘OEM Information’) refers to any documentation from the vehicle manufacturer, including the Body Repair Manual (BRM), and related requirements, recommendations, and guidelines.</p> <p>‘Repair Industry Information’ means information from recognised repair industry sources such as Thatcham, I-CAR, and Ezi-methods.</p> <p>To learn more about Vehicle Manufacturers’ Information and Repair Industry Information, click here to view <i>RepairCert NZ Information Sheet # 02-2024 Repair Method Options</i> on the RepairCert NZ website.</p>
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Public Perception

An additional and compelling reason for prohibiting the cut and shut repair method that shouldn’t be overlooked is the motoring public’s widespread and strongly ingrained perception that repairing damaged vehicles by cutting and joining two vehicles together is a ‘dodgy’ and potentially dangerous practice.

Allowing the continuation of this practice risks reputational damage to the repair certification industry.

Exceptional Circumstances

For pre-1990 vehicles only, written approval to proceed with a cut and shut repair may be issued by RepairCert NZ, in consultation with the TSG and NZTA. Application for any such approval will only be considered in exceptional circumstances, strictly on a case-by-case basis, and will be subject to very specific and rigorous criteria.

Repair VIRM Requirements

Mandatory Content

While the Best-practice Guidance contained in this Technical Bulletin is provided as (non-mandatory) supporting information to help a Repair Certifier achieve the best possible outcomes, the following requirements are copied from the *Repair VIRM* and, together with the requirements from the *Compliance Rule* and *Repair Rule* on Page 2, must in all cases be applied.

Appropriate Repair Methods

Vehicle Manufacturer's Information must be applied in the first instance, and where this is not available or not relevant, then available and relevant Repair Industry Information must be applied (see Note 3 on Page 4).

It is the responsibility of the Repair Certifier to justify any departure from the relevant Vehicle Manufacturer's Information or Repair Industry Information, and prove that the vehicle is returned to within a safe tolerance of its state when manufactured.

Summary

A cut and shut repair:

- is a repair method that effectively joins two predominant portions of a vehicle together, at places other than the vehicle manufacturer's factory join locations; and
- should not be approved by a Repair Certifier except in exceptional circumstances where written approval has been issued by RepairCert NZ on a case-by-case basis.

By following the Best-practice Guidance in this Technical Bulletin, a Repair Certifier's decisions are likely to be correct, and compliant with the *Compliance Rule*, *Repair Rule*, and the *Repair VIRM*.



FOR FURTHER INFORMATION PLEASE CONTACT REPAIRCERT NZ.

Image Credits

(1) <https://www.nxtbook.com/nxtbooks/sae/19AUTP06/index.php?startid=26#/p/26>

Disclaimer

This document has been developed by subject matter experts for use by industry professionals and is based on the best available information at the time of its development. It is intended to provide general guidance and information to qualified professionals with the knowledge to interpret and apply the content appropriately. Technical standards, specifications, and Land Transport Rules and VIRM requirements are subject to change, and users are responsible for verifying the relevance and accuracy of the information with current standards and best practices.

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