

# VPC QUALITY STANDARD MANUAL

NISSAN NORTH AMERICA QUALITY ASSURANCE	SUBJECT:	PROCEDURE NO: <b>5.1.1</b>
	<b>TIE DOWN PROCEDURES</b>	DATE: 05-25-92
		Revised: 06-27-2013
		PAGE 1 OF 33

## 1.0 PURPOSE

To ensure correct methods of securing vehicles on all rail and truck transporters.

## 2.0 APPLICATION

NISSAN AND INFINITI

ALL MODELS

## 3.0 REQUIREMENTS

Detailed vehicle tie-down procedures are provided in the attached Nissan and Infiniti Tie-Down Procedures. In addition to these procedures, all vehicle loading personnel should comply with the following:

- 3.1 Carrier equipment **should** be free of dirt, oil and grease accumulation and rust.
- 3.2 Ratchets, chains, straps, skids, ramps, trucks and hooks are free of defects.
- 3.3 All vehicles must be inspected by the driver prior to loading. Any damage that is observed should be reported to the VPC Manager and documented on the carrier load sheet.
- 3.4 Trucks transporting Nissan and Infiniti vehicles should be inspected by the load inspector for the carrier company prior to leaving the VPC facility.
- 3.5 Drivers clothing should not have any metal exposed while loading Nissan vehicles (watches, rings, chains, key chains, belt buckles, etc.)
- 3.6 Some mirrors on Nissan and Infiniti vehicles are moveable some are not. Some are also controlled by electronic buttons inside the vehicle. Care should be used when attempting to fold a mirror to assure that it is foldable and that the folding action is not handled electronically.

## 4.0 PROCEDURES

- 4.1 Refer to the **Nissan and Infiniti Tie-Down Procedures** (attached).
- 4.2 Truck away tie-down configurations are summarized on the **Quick Reference Table**. Please refer to the complete procedure for additional vehicle specific requirements.



**NISSAN NORTH AMERICA**

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**NISSAN & INFINITI**  
TIE-DOWN  
PROCEDURES  
"MY2013 - MY2014"

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## INTRODUCTION

This manual has been prepared by Nissan North America, Quality Assurance Department, to assist all distribution, transport and associated personnel in the correct methods of securing vehicles on rail and truck transporters. Information is supplied for all Nissan and Infiniti vehicles.

The procedures outlined in this manual are specific in regard to tie-down points, direction of pull, hook type and chain tension to be applied.

Tie-down methods specified in this manual are recommended by Nissan North America. In addition to these instructions, the transport personnel must always follow the procedures specified by their companies to prevent vehicle damage and to insure safety during tie-down and transport operations.

Suggestions to make this manual more useful are most welcome and should be directed to:

Nissan North America  
Quality Assurance Department  
610 Enon Springs Road E  
Smyrna, TN 37167

# GENERAL LOADING, TRANSPORTING & UNLOADING

1. All personnel loading or unloading Nissan & Infiniti vehicles must wear clean clothing. Gloves/overalls that are used during the tie-down and unloading operations, may become dirty; they must be removed or exchanged for clean articles before entering the vehicle. This will prevent soiling of interior surfaces.  
  
Clothes that have exposed buttons, zippers, belt buckles, etc., which may damage the vehicle are prohibited. Metal watches should be covered or removed and neck chains should be tucked away. Tools, such as screwdrivers and hammers, etc., can damage upholstery and paint and are not to be carried in garment pockets when entering a vehicle.
2. Smoking, eating, drinking or lounging in vehicles is prohibited.
3. Caution should be used when entering or exiting vehicles. Avoid paint damage by opening and closing doors carefully, ensuring that the door edge protector is in place. Never enter or exit a vehicle through a window.
4. Always use a vehicle's washer unit prior to using wipers.
5. All vehicles must be loaded under their own power. Never push or pull a vehicle onto a transporter. Never jump start a vehicle so that it can be loaded onto the trailer; ask VPC personnel to charge or replace the failed battery instead.
6. Prior to transporting vehicles, close all doors, trunks, hoods, windows, glove box doors and external heater vents. All lights and electrical accessories are to be turned off. Lower all antennas prior to loading and unloading vehicles.

**NOTE:** Many Nissan and Infiniti units are/will be equipped with battery saver features including Shipping Fuse and Transit Mode. This feature disables some functions that are associated with "dark current" draw when a unit is not in operation. It will not affect transit operation of the unit but you may notice the blower motor stuck in the ON position or radio display on while engine is on. Adjusting the knobs will not change this setting as it is a normal function to remind dealer prior to delivery to customer. Additionally the turn signals may stay on solid for 1 minute when IGN is placed in ON position. Finally the KEY FOBS remote door opening feature will not work if the engine is not running.

These are all normal conditions and no attempts should be made to seek repairs.

Transit Mode has recently started on US built car models and will be phased in to other model cars and trucks over time.

7. Use of in-transit vehicles for any purpose other than loading or unloading is strictly forbidden.
8. Starting procedures for automobiles and trucks are located in the owner's manual. All transport personnel should read and become thoroughly familiar with these procedures with the introduction of each new model. NOTE: LEAF has a Quick Reference guide on the shifter
9. Do not, under any circumstances, leave the engine running on an unattended vehicle.
10. All vehicles must be driven at a safe, slow speed during loading and unloading.
11. Front apron, bumpers, exhaust system or undercarriage of the vehicle should not touch the ground or the ramp during loading and unloading.
12. Gear selector and vehicle securing requirements during transport:

### TRUCK TRANSPORT (all models)

<b>Automatic trans.</b>	Chain or Strap Chock "Park"
<b>Manual trans.</b>	Strap chock or Chain- "1st" or "Rev."
<b>Drive Mode</b>	<b>2WD for loading and transport</b>
<b>Steering lock</b>	Locked
<b>Parking brake</b>	Fully Applied – exception for Bottom Rear position for JX and Pathfinder models
<b>Key location</b>	<b>Refer to Throw-In Matrix</b>
<b>Key location</b>	<b>I-Key: Refer to Throw-In Matrix</b>

### RAIL TRANSPORT (all models) Chock Restraints Only

<b>Vehicle Item</b>	<b>Setting</b>
<b>Manual Trans</b>	Neutral
<b>Automatic Trans</b>	PARK
<b>CVT Transmission</b>	Sentra, ROGUE, EX35, ALTIMA and VERSA in <b>PARK</b> Murano, Maxima, <b>QUEST and JX in NEUTRAL</b>
<b>Steering lock</b>	Locked
<b>Parking brake</b>	Applied

<b>Key locations</b>	<p><b>US and MX</b> product <u>extra keys/remotes</u> in bag</p> <p><b>Japan</b> product <u>extra keys</u> in center console</p> <p><b>Ship in Park</b></p> <ul style="list-style-type: none"> <li>- Key in center console</li> <li>- Key FOB (ALTIMA – 4 Cyl) in Docking Station Slot</li> </ul> <p><b>Ship in Neutral</b></p> <ul style="list-style-type: none"> <li>- Key in ignition turned in the CCW direction as far back as possible (“OFF” position)</li> <li>- Key FOB (ALTIMA / MAXIMA – 6 Cylinder) in Docking Station Slot</li> </ul>
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During haul-away carrier transport the key should be stored in the ashtray or glove box. It is permissible to leave the keys in the ignition, but only for short hauls (same day delivery). NOTE: I-Key should be stored in the Docking Station Slot.

All accessories and switches must be in the "OFF" position.

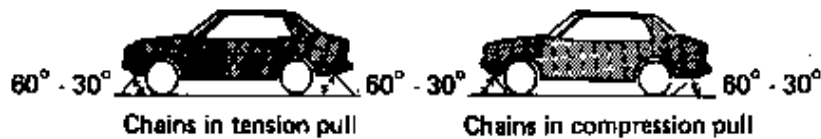
13. **Soft Strap Tie-Down RECOMMENDED.** Use of Chain Tie-Downs **MUST** be approved by WWL Logistics prior to utilization.
14. All tie-down chains or straps should be inspected periodically en-route to destination and adjusted if necessary. 4 wheel soft Tie-Down system is approved for haulaway of Nissan and Infiniti models.
15. Tire pressure must not be increased or reduced for carrier convenience. Do not drive a vehicle with a flat or partially inflated tire onto the trailer.
16. Roof rack cross bars moved by the transport driver to gain more clearance must be moved back to its original location at the point of destination.
17. Selection of an appropriate parking location for a loaded auto transporter is an important factor in preserving the paint condition of vehicles during the delivery process. Etching damage can occur in a very short period of time (sometimes minutes) when the correct combination of moisture, temperature and contaminants (organic particulate matter) are present. To minimize susceptibility to damage, drivers should take care not to park their loaded transporters near sources of metallic, organic or petroleum fallout.
18. Upon completion of loading and securing of vehicles on a haul-away carrier, **all loads must be reviewed** by the load inspector for adherence to Nissan/Infiniti tie-down procedures prior to departure from the facility.

19. All haul-away and rail equipment must be in acceptable working condition. It is not acceptable to transport Nissan/Infiniti vehicles on equipment that exposes the vehicles to damage risk in any way. This includes but is not limited to: deformed ramps/skids, leaking hydraulic lines, worn tie-down hooks, straps and bent/cracked/broken hydraulic safety pins.
21. All chains, straps and hooks not used to secure vehicles should be stored to prevent contact with tires, glass or other exterior surfaces.
22. Rail equipment, clearances and loading and unloading procedures must comply with the Association of American Railroads (AAR). Also see procedure 5.1.2 for additional information.
23. All vehicles loaded in the A1 - A5 and or B1 - B5 positions require double chocking.

**NOTE:** "it is forbidden to start the engine by pushing the vehicle, with either 1st or reverse gear engaged"

# TIE-DOWN PROCEDURES

1. ONLY attach hooks to the points specified for the vehicle.  
**Never use tie rods, control arms, brake lines, fuel lines or ANY other parts of the vehicle not specified in this manual as suitable for tie-down.**
2. Always use four (4) tie-down chains or straps for each vehicle, regardless of the distance to be transported. Rare exceptions to this requirement must be approved by Nissan Quality Assurance on a case by case basis.
3. Grab hooks, "T" hooks, "J" hooks, "R" hooks, "S" hooks and "C" hooks may be used **only as specified** for each vehicle (see "Tie-down hooks").
4. A tie-down angle of 45° is recommended by Nissan. However, certain loading conditions do not permit a 45° chain angle, therefore, a chain angle of 30° to 60° (measured from the horizontal) is permitted.



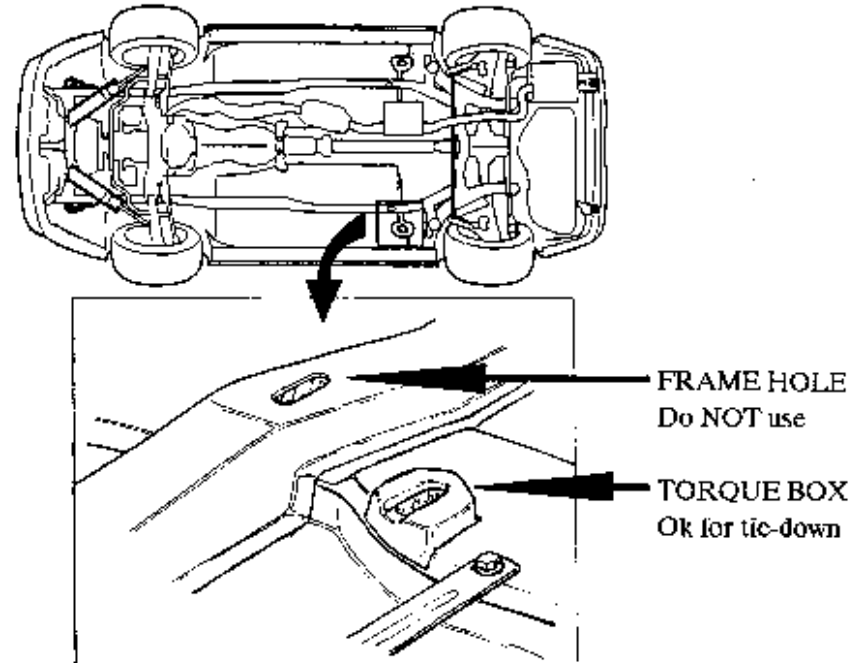
5. Front and rear chains must exert opposing forces. If the front chains slope forward, the rear chains must slope rearward at approximately the same angle.



6. Apply correct chain tension. **DO NOT OVER-TIGHTEN.** Chains which are over tightened can cause SEVERE damage to vehicles. Even chain tension must be applied to all four (4) chains.

**CAUTION:** After all the slack has been removed from the chain, vehicle pull-down should be 1.5 to 2 inches for passenger cars, 1 to 2 inches for trucks. Measure vehicle pull-down at a point near the wheel well opening. **DO NOT BOTTOM OUT SUSPENSION.**

7. When using chock tie-down locations for rail transport, the chock strap tension is seven (7) ratchet clicks after the slack has been removed.
8. Frame holes are NOT suitable as tie-down locations and must not be confused with the vehicle's "torque box" (see below).



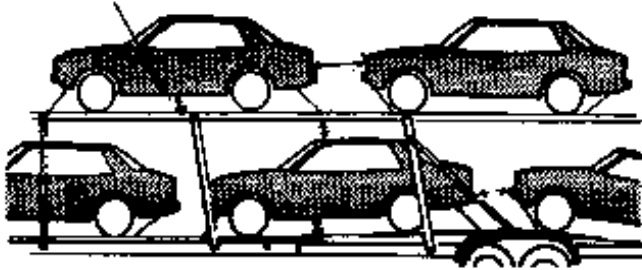
9. Vehicles must be centered on transport ramps to prevent sidewall chaffing and to permit proper engagement of the tie-down hooks.

Tires must be properly seated on each platform. It is not acceptable for tires to "overhang" beyond the edge of the platform. **At least** half of the tire must be supported.

10. Chains or straps must not contact any part of the vehicle. Use idlers or hooks to hold chains or straps away.

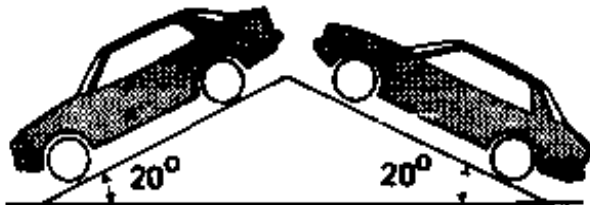
## CLEARANCES

1. Clearances (0.25" minimum) must be maintained between tie-down chains and the following: exhaust system, suspension, brake components, body, fuel lines and electrical systems.
2. Adequate clearance (2" minimum) must remain between the trailer deck and the vehicle's undercarriage. Bumper clearance and side clearance (3" minimum) and top clearance must also be provided (4" minimum).



## DECK ANGLE

Vehicles should not be transported at angles exceeding 20° from the horizontal.



## TIE-DOWN HOOKS

The figures below show the different types of hooks which have been approved for tie-down use.

**NOTE: "S" hook "C" hook can be substituted for "J" hook only.**



GRAB HOOK



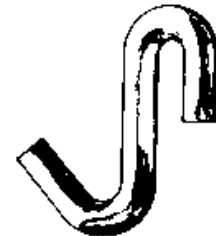
"T" HOOK



"J" HOOKS



"R" HOOK

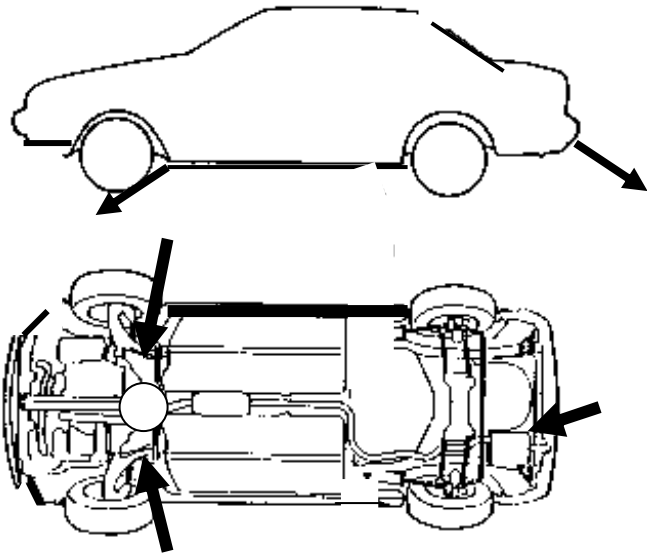


"S" HOOK



"C" HOOK

# VERSA



## RAIL TRANSPORT

1. Chock Tie-Down only
2. Maintain 3 inch min roof clearance at A1 and A5
3. Ship in **PARK** with Parking Brake fully applied.
4. Ignition switch turned to OFF position.

## TRUCK TRANSPORT – Chain Ties

Attachment Location	Behind Front Wheels	Rear
Type	Brackets w/ slots	1 Loop
Direction of Pull	Tension $\leftarrow \Rightarrow$ Only	Tension $\leftarrow \Rightarrow$ Only
Hook Type	J or S	T or S

## SPECIAL TIE-DOWN REQUIREMENTS FOR TRUCK TRANSPORT

1. **Soft Strap Tie-Down RECOMMENDED**
2. No Lasso soft straps allowed
3. Vehicle has two front attachments and one attachment point in the rear.
4. **Load vehicle with rear tie down loop aligned over chain ladder.**
5. **For deck angles greater than 5 degrees during transportation, load vehicle with front elevated.**
6. When using T hook in rear loop, install only from bottom.
7. Use **Tension pull** only.
8. No contact allowed to front lower control arms.
9. Do not attach any restraints to rear axle beam or its brackets.



## VERSA NOTE - 2014

### SPECIAL Notes and LOADING Requirements

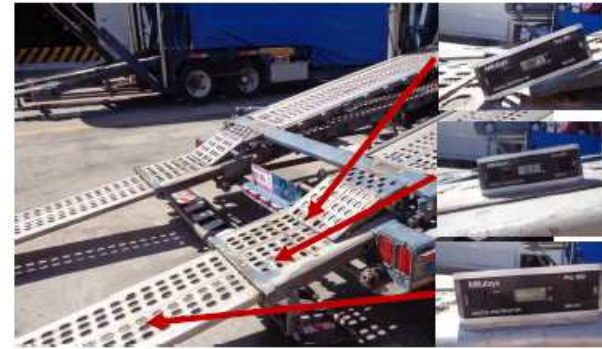
Front spoiler has increased risk for contact damage. Approach ramps at creep speed. **ONLY Soft Tie-Downs are approved.**

### Open Truck Transport

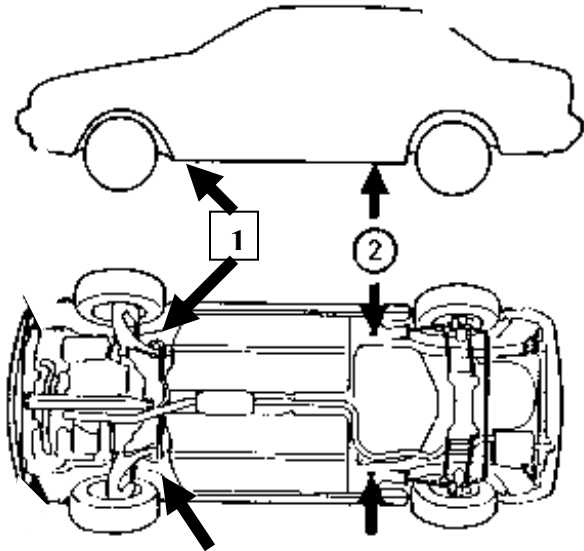
1. **Soft Strap Tie-Down ONLY**
2. No Lasso soft straps allowed
3. Ramp angle must be 16 degrees or less to avoid contact
4. Loading speed max. 5 mph.
5. Vehicle position on trailer must allow for drivers door to open without contacting trailer.
6. No exit through window
7. Spotter recommended during loading

### Rail

1. Loading speed max. 5 mph.
2. Vehicle has to be parked with wheels on 2 inch blocks
3. Railcar must be certified to have 17 inches minimum clearance from outside of chock rail to the inside wall of a railcar
4. Vehicle must be positioned relative to rail car beams to ensure door opens without contacting the beams.
5. Spotter recommend during loading and off loading
6. Fully apply parking brake and set transmission in **PARK**



# SENTRA



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## TRUCK TRANSPORT

Location	1	2
Type	Bracket w/Slot	Slot
Direction of Pull	Tension $\leftarrow \Rightarrow$ Comp. $\Rightarrow \leftarrow$	Tension $\leftarrow \Rightarrow$ Comp. $\Rightarrow \leftarrow$
Hook Type	J, S, T	J, S

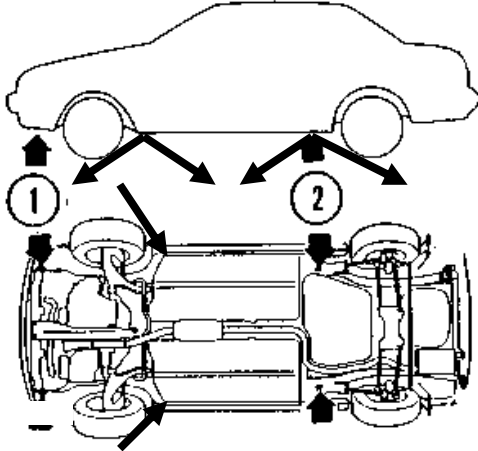
## SPECIAL TIE-DOWN REQUIREMENTS FOR Truck

- Soft Strap Tie-Down RECOMMENDED**
- No Lasso soft straps allowed
- In tension pull, adjust chain angle as necessary to assure no tie down contact to exhaust pipe or fuel tank.
- In compression pull, adjust chain angle to assure no tie down contact to underbody.
- Revised to allow pulls in both directions
- Caution when loading: Watch clearance to avoid damage to outside rear view mirrors. They are not foldable and are larger than previous model.**

## RAIL TRANSPORT

- Chock Tie-Down only
- Maintain **2.5** inch min roof clearance at A1 and A5
- Ship in **PARK** with Parking Brake fully applied.

## ALTIMA HYBRID & SEDAN COUPE & GCC HYBRID & SEDAN



### TRUCK TRANSPORT

Location	Front	Rear
Type	Slot	Slot
Direction of Pull	Tension ⇐ ⇒ Comp. ⇒ ⇐	Tension ⇐ ⇒ Comp. ⇒ ⇐
Hook Type	T or S	<b>T or S</b>

### HYBRID VEHICLE OPERATION

When loading and unloading the vehicle - The gas engine may not start when start button is pushed however the vehicle will be drivable using electric power. The gas engine may start and shut off on its own as needed to power the vehicle during the loading or unloading process.

### SPECIAL REQUIREMENTS FOR TRUCK

1. **Soft Strap Tie-Down RECOMMENDED**
2. No Lasso soft straps allowed
3. **Low vehicle**, control ramp angles and speed to avoid interference to fascia and tailpipes.
4. **Do not allow tie down or chain to contact fuel tank or underbody braces.**
5. **Creep speed over ramp height deviations more than 1 ½ inches.**

### RAIL TRANSPORT

#### SPECIAL REQUIREMENTS FOR RAIL

1. **Before loading vehicle with Auto Trans - Insert Key Fob into Key Fob Slot and start the engine**

2. **Load vehicle, apply parking brake and set auto transmission in PARK position.**
3. Push Start button to shut off engine. Confirm ON and ACCY are not lighted on switch ring.
4. Confirm dash warning goes off and alarm tone shuts off after 30 seconds, indicating system powered down.
5. Note: Start button back light may stay on but will go out after 30 minutes.
6. Max speed across bridge plates 3 mph on A deck.
7. Maintain **2.5** inch min roof clearance at A1 and A5
8. 4 degrees or less bridge plate angle.
9. Avoid chock contact to front and rear splash guards- Install chock over the rail from behind the splash guard then move into lock position. When removing chocks, release and slide to rear of splash guard
10. Ship in **PARK** with Parking Brake fully applied.

**Please confirm Window Auto Up and Sunroof Program function following Battery replacement or charging:**

#### Program Window Auto Up Function

1. Push Auto type switches down until window glass is 100% down.
2. Hold Auto equipped switches 100% Up until window glass seats in upper sash (front doors)
3. Continue holding switches 100% Up until 3-4 seconds has elapsed.
4. Check function by actuating Down then Up using Auto function.
5. If NG then repeat.

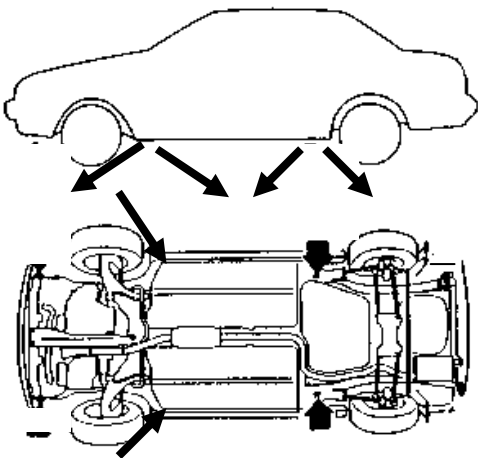
#### Program Sunroof – Hard Stop position Learning

1. Push and hold the tilt-up switch.
2. The lid moves inch by inch until it reaches the hard stop and stays for a few seconds, then reverses slightly towards the flush position.
3. Release the Tilt-up switch.

#### Program Sunroof – Sliding Friction Learning

1. Push and hold the tilt-up switch within 6 seconds of step 3
2. The lid will begin moving after 4 seconds -- Tilt-Down -- Slide-Open -- Slide Close -- Tilt-Up -- Tilt-Down
3. Release the tilt-up switch.
4. The sunroof is now initialized.

# MAXIMA



## TRUCK TRANSPORT

Location	Front	Rear
Type	Bracket	Slot
Direction of Pull	Tension $\leftarrow \Rightarrow$ Compression $\Rightarrow \leftarrow$	Tension $\leftarrow \Rightarrow$ <b>Compression <math>\Rightarrow \leftarrow</math></b>
Hook Type	T	<b>T or S</b>

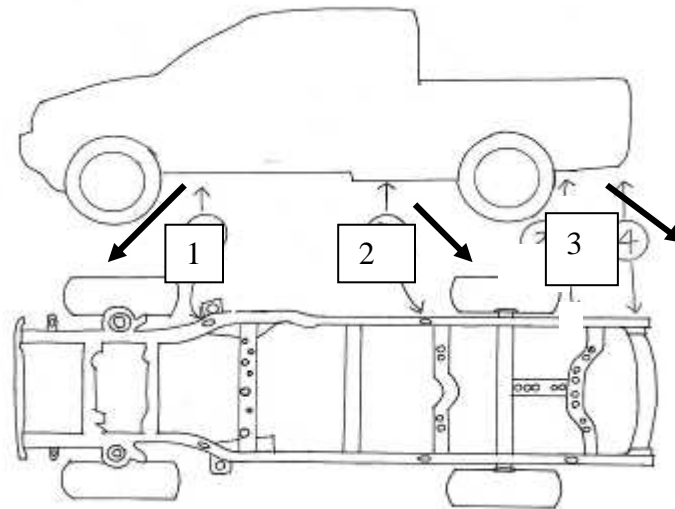
## SPECIAL REQUIREMENTS FOR TRUCK

1. **Soft Strap Tie-Down RECOMMENDED**
2. No Lasso soft straps allowed
3. Low vehicle, control ramp angles and speed, to avoid interference to fascia and tailpipes.
4. Do not allow tie down or chain to contact fuel tank or underbody braces.
5. Creep speed over ramp height deviations more than 1 ½ inches.

## RAIL TRANSPORT

1. Chock tie down
2. Apply parking brake and set auto transmission in **NEUTRAL**.
3. **I key must be inserted into dash slot**
4. Max speed across bridge plates 3 mph on A deck.
5. Maintain 3 inch min roof clearance at A1 and A5
6. 4 degrees or less bridge plate angle.

# FRONTIER



## TRUCK TRANSPORT

Location	1	2	3
Type	Slot	Slot	Hitch Bracket (Slot)
Direction of Pull	Tension $\leftarrow \Rightarrow$	Tension $\leftarrow \Rightarrow$	Tension $\leftarrow \Rightarrow$ With Slot 1
Hook Type	T or R	J or T	T or R

## SPECIAL TIE-DOWN REQUIREMENTS

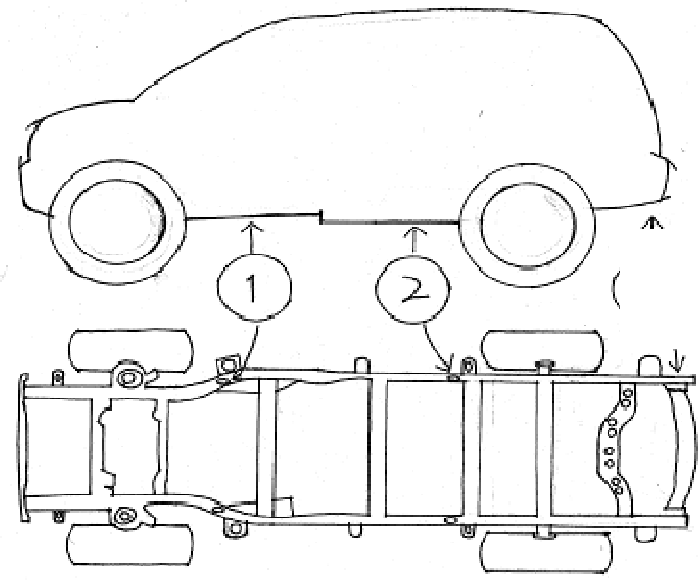
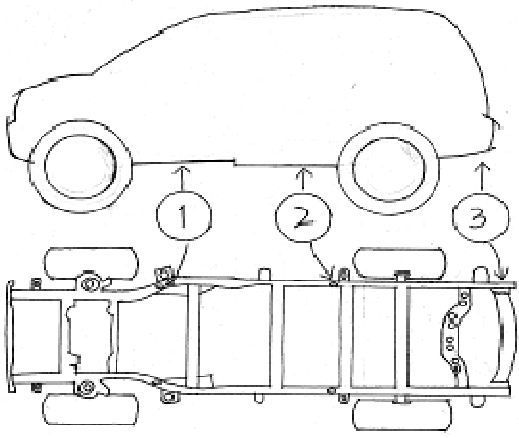
1. **Soft Strap Tie-Down RECOMMENDED**
2. No Lasso soft straps allowed
3. **Set drive selector in 2 wheel drive mode.**
4. Location 3 available only on vehicle with tow package
5. At Left Rear position 3, do not contact tow harness bracket, with chain.

## RAIL TRANSPORT (IEC Holden Grate Lock Chock)

1. At railcar end positions (A1, A5, B1, B5) front tires must be double chocked.
2. All Chocks must be set in maximum high position.
3. Automatic Trans - Apply parking brake and set transmission selector in **PARK**.
4. Manual Trans - Apply parking brake and set transmission selector in **NEUTRAL**.
5. Maintain 3 inch min roof clearance at A1 and A5.

**XTERRA & GCC**

**PATHFINDER & GCC**



**TRUCK TRANSPORT**

Location	1	2	3
Type	Slot	Slot	Hitch slot
Direction of Pull	Tension ⇐ ⇒ Only	Tension ⇐ ⇒ Only	Tension ⇐ ⇒ Only
Hook Type	T or R	T	T or R

**TRUCK TRANSPORT**

Location	1	2	
Type	Slot	Slot	
Direction of Pull	Tension ⇐ ⇒	Tension ⇐ ⇒	
Hook Type	R or T	T	

**SPECIAL TIE-DOWN REQUIREMENTS**

- Soft Strap Tie-Down RECOMMENDED**
- No Lasso soft straps allowed
- Set drive selector in 2 wheel drive mode.
- Location 3 available only on vehicle with tow package
- At Left Rear position 3, do not contact tow harness bracket with chain.

**SPECIAL TIE-DOWN REQUIREMENTS**

**All 4 wheel drive vehicles must be set in 2 wheel drive for loading and transportation.**

- Soft Strap Tie-Down RECOMMENDED**
- No Lasso soft straps allowed
- Unit cannot be loaded in position 1 (top front spot over cab) facing backwards**

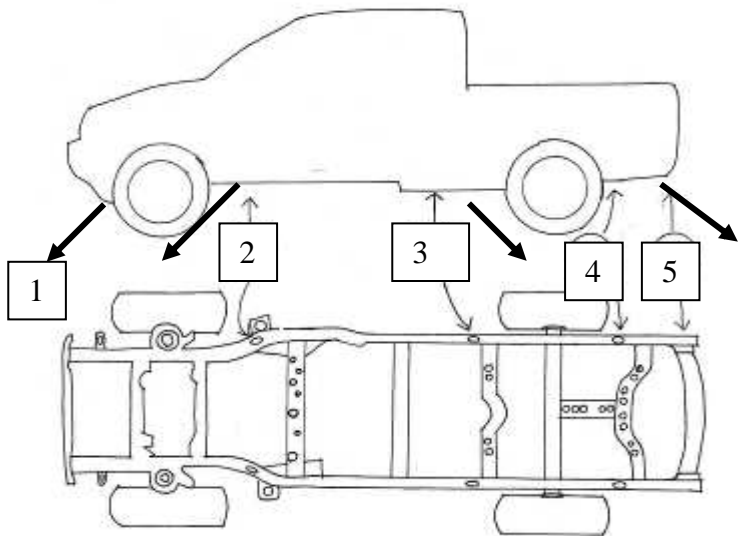
**RAIL TRANSPORT (IEC Holden Grate Lock Chock)**

- At railcar end positions (A1, A5, B1, B5) front tires must be double hocked.
- All Chocks must be set in maximum high position.
- Automatic Trans - Apply parking brake and set transmission selector in **PARK**.
- Manual Trans - Apply parking brake and set transmission selector in **NEUTRAL**.
- Maintain 3 inch min roof clearance at A1 and A5

**RAIL TRANSPORT (IEC Holden Grate Lock Chock)**

- At railcar end positions (A1, A5, B1, B5) front tires must be double hocked.
- All Chocks must be set in maximum high position.
- Vehicles must be shipped with gear selector in **PARK** position and parking brake fully applied.
- Maintain 3 inch min roof clearance at A1 and A5

# TITAN



## RAIL TRANSPORT (IEC Holden Grate Lock Chock)

1. At railcar end positions (A1, A5, B1, B5) front tires must be double chocked.
2. All Chocks must be set in maximum high position.
3. Vehicles must be shipped with gear selector in **PARK** position and parking brake fully applied.

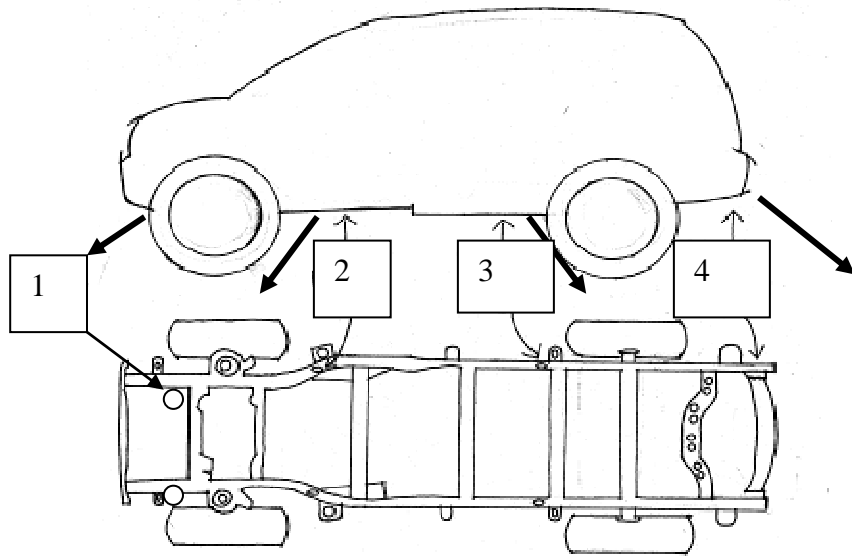
## TRUCK TRANSPORT

Location	1	2	3	4	5	5*
Type	Slot	Slot	Slot	Slot	Hitch Bracket (Slot)	Non-Hitch Bracket
Direction of Pull	Tension ⇐ ⇒	Tension ⇐ ⇒	Tension ⇐ ⇒ With Slot 1 or 2	Do not use	Tension ⇐ ⇒ With Slot 1 or 2	Tension ⇐ ⇒ With Slot 1 or 2
Hook Type	J T R*	J	J		J or R	<b>J</b> Hook only

**Caution:** All 4 wheel drive vehicles must be set in 2 wheel drive for loading and transportation.

1. **Soft Strap Tie-Down RECOMMENDED**
2. No Lasso soft straps allowed
3. Attach hooks from inboard side of hitch bracket when using hitch tie down slot.
4. Slot at location 4 will be covered or eliminated. Do not use this slot.
5. Slot at location 1 ok to use providing no chain contact to any vehicle parts.

# ARMADA and QX56



## RAIL TRANSPORT (IEC Holden Grate Lock Chock)

1. At railcar end positions (A1, A5, B1, B5) front tires must be double chocked.
2. All chocks must be set at maximum height.
3. Vehicles must be shipped with transmission selector in **PARK** and parking brake fully applied.
4. **\*\*Mirrors are powered folding.** Must use the switch on the driver's door panel to fold mirrors.

## TRUCK TRANSPORT

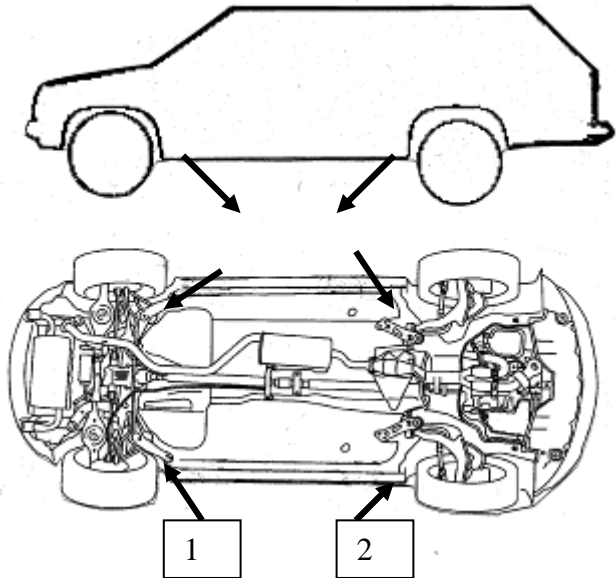
Location	1	2	3	4	5*
Type	Slot	Slot	Slot	Tow Hitch Slot	Non-Hitch Bracket
Direction of Pull	Tension ⇐⇒ Only	Tension ⇐⇒ Only	Tension ⇐⇒ Only	Tension ⇐⇒ Only	Tension ⇐⇒ With Slot 1 or 2
Hook Type	J or R	J *	J *	J or R	J or R Only

## SPECIAL TIE-DOWN REQUIREMENTS

**Caution** – 4 wheel drive units must be set in 2wd mode for loading and during transport

1. **Soft Strap Tie-Down RECOMMENDED**
2. No Lasso soft straps allowed
3. At position 4, tow hitch bracket), insert hook from inboard side of hitch brackets
4. At position 1, chain must not contact fascia or any vehicle components
5. At positions 2 and 3: do not use T and R hooks
6. R and J hooks should be inserted on the inside of the bracket.
7. Position 5\* affects GCC Armada and GCC QX-56 only.
8. **\*\*Mirrors are powered folding.** Must use the switch on the driver's door panel to fold mirrors.

# ROGUE



## RAIL TRANSPORT (IEC Holden Grate Lock Chock)

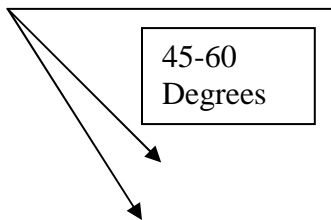
1. Chock Tie-Down only
2. At railcar end positions (A1, A5, B1, B5) front tires must be double chocked ON Bi-level.
3. Maintain 3 inch min roof clearance at A1 and A5
4. ROGUE Ship in **PARK**.

## TRUCK TRANSPORT

Location	1	2	
Type	Bracket	Slot	
Direction of Pull	Comp. ⇒ ⇐	Comp. ⇒ ⇐	
Hook Type	J	T or J	

## SPECIAL TIE-DOWN CAUTIONS

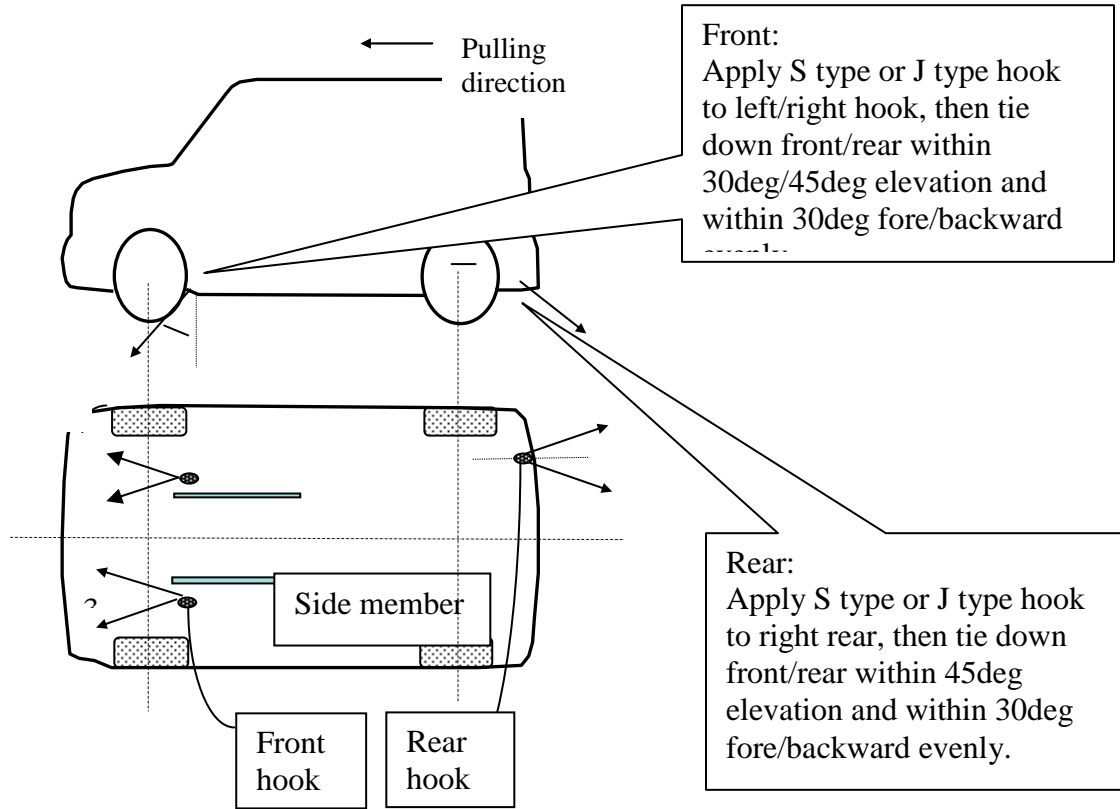
1. **Soft Strap Tie-Down RECOMMENDED**
2. No Lasso soft straps allowed
3. Outbound / Tension Pull is Not Acceptable
4. On 4WD vehicles set in 2 wheel drive for loading and transport
5. Chain Angle is Limited to 45 degrees to 60 degrees from Horizontal.





# CUBE

7. Front load only on upper level head rack. All other positions can be front or rear load.



Note: No loading trial on Autech version Cube

## TRUCK TRANSPORT

Location	Front	Rear
Type	Slot	Slot
Direction of Pull	Tension $\leftarrow \Rightarrow$	Tension $\leftarrow \Rightarrow$
Hook Type	S or J	<b>S or J</b>

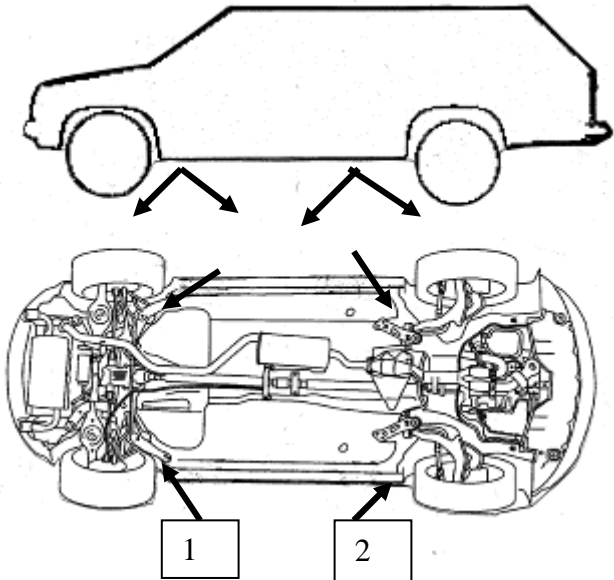
## SPECIAL REQUIREMENTS FOR TRUCK

1. **Soft Strap Tie-Down RECOMMENDED**
2. No Lasso soft straps allowed
3. Low vehicle, control ramp to 8 degrees angles and creep speed, to avoid interference to fascia and tailpipes.
4. Do not allow tie down or chain to contact fuel tank or underbody braces.
5. Creep speed over ramp height deviations more than 1 1/2 inches.
6. Before loading make sure side mirrors are folded.

## RAIL TRANSPORT

1. Chock tie down in medium position
2. Apply parking brake and set auto transmission in **PARK** position.
3. Max speed across bridge plates 3 mph on A deck.
4. Maintain 3 inch min roof clearance at A1 and A5
5. 4 degrees or less bridge plate angle.
6. Load vehicle only on Bi Level.
7. Before loading make sure side mirrors are folded.

# MURANO - CONVERTIBLE



## TRUCK TRANSPORT

Location	1	2	
Type	Bracket	Slot	
Direction of Pull	Comp. ⇒ ⇐ *Tension ⇐ ⇒	Comp. ⇒ ⇐ *Tension ⇐ ⇒	
Hook Type	J	T or J *S	

## SPECIAL TIE-DOWN CAUTIONS

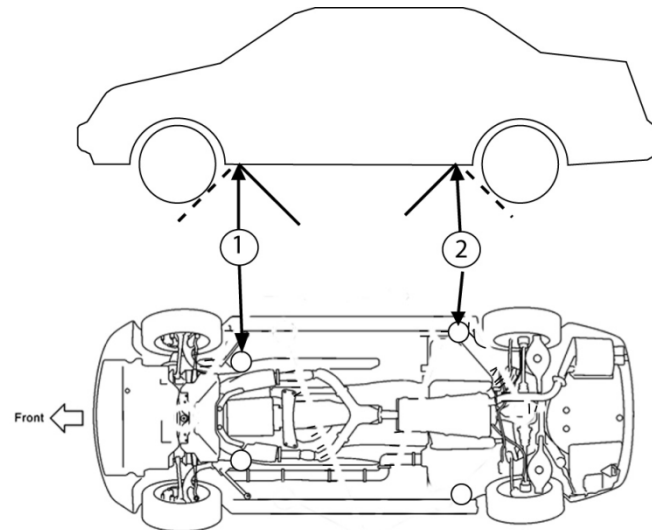
### New Requirement

1. **Soft Strap Tie-Down RECOMMENDED**
2. No Lasso soft straps allowed
3. **\*Outbound / Tension Pull is acceptable if used with single S hook inserted into the slot before attaching hook bundle. Attachments must not contact underbody structure.**
4. On 4 WD vehicles set in 2 WD for loading and transport

## RAIL TRANSPORT (IEC Holden Grate Lock Chock)

1. Chock Tie-Down only
2. Maintain 3 inch min roof clearance at A1 and A5
3. Murano Ship in **NEUTRAL** with Parking Brake fully applied. Ignition switch turned to OFF position.

# EX35



## TRUCK TRANSPORT

Location	1	2
Type	Body Slot	Slot
Direction of Pull	Tension ⇐ ⇒ Comp. ⇒ ⇐	Tension ⇐ ⇒ Comp. ⇒ ⇐
Hook Type	J	T or J

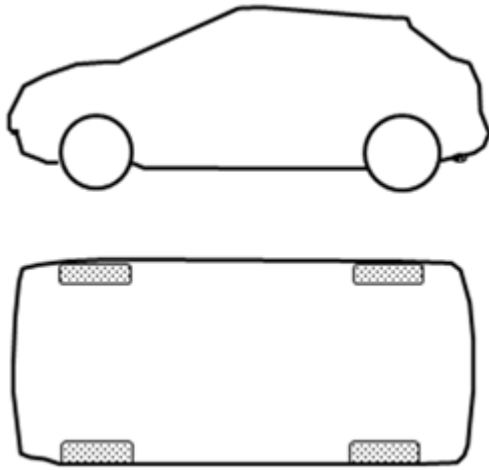
## SPECIAL TIE-DOWN REQUIREMENTS

1. **Soft Strap Tie-Down RECOMMENDED**
2. No Lasso soft straps allowed
3. **On 4WD vehicles set in 2 WD for loading and transport**
4. "T" hooks in rear slots, OK to touch Rubber air deflectors in front of rear tires during tension pull.
5. Front tie down slot is located in body flange behind the front wheels.

## RAIL TRANSPORT

1. Chock tie-down only
2. Assure push to start switch is set in lock mode.
3. EX35 Ship in **PARK**.

# JUKE



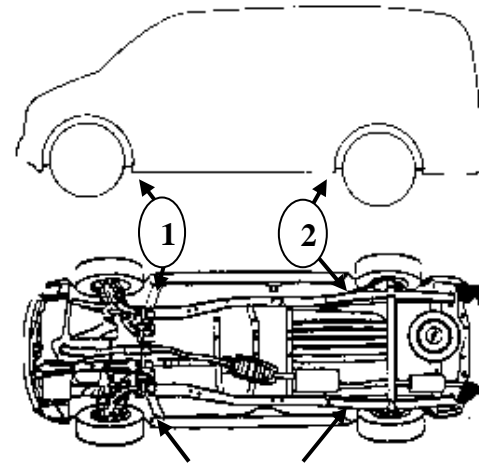
## SPECIAL TIE-DOWN REQUIREMENTS FOR TRUCK TRANSPORT

1. **Soft Strap Tie-Down ONLY**
2. No Lasso soft straps allowed
3. **NO Chain Tie-Downs allowed**
4. No contact allowed with any under body component.

## RAIL TRANSPORT

1. Do NOT load on A or B decks on Tri-levels
2. Chock Tie-Down only
3. Maintain 3 inch min roof clearance at A1 and A5
4. Ship in **PARK** with Parking Brake fully applied.
5. Ignition switch turned to OFF position.

# QUEST



## TRUCK TRANSPORT

Location	1	2
Type	Bracket	Slot
Direction of Pull	Comp. ⇒ ⇐	Comp. ⇒ ⇐
Hook Type	S or T	R

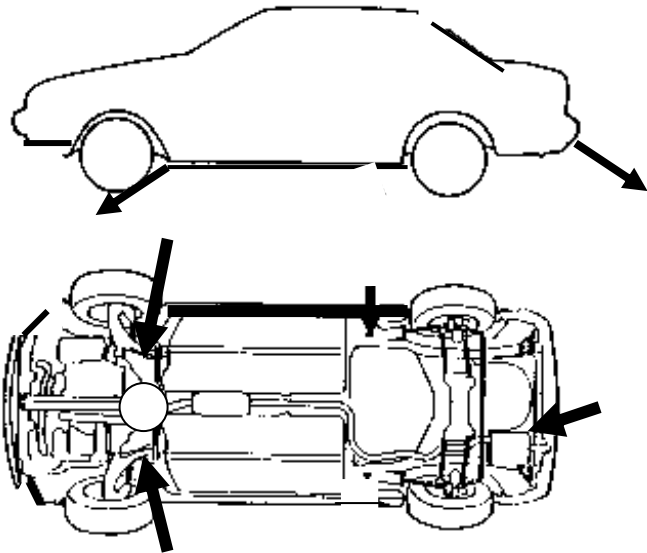
## Special Requirements/ Cautions

1. **Soft Strap Tie-Down RECOMMENDED**
2. No Lasso soft straps allowed
3. Long wheel base and Low clearance to exhaust system – watch break over angles
4. Avoid chain contact to underbody braces at rear tie down slots
5. Do NOT use “S” hook in rear slot or “R” hook in front bracket

## RAIL TRANSPORT Bi Level only

1. Set chocks at High position for all vehicles except Vehicles with Splash guards.
2. Vehicles at positions (A1, A5, B1, B5) must be double chocked on the front wheels.
3. For vehicles with splash guards
  - a. Behind the front tires, chocks must set in lowest position.
  - b. Behind the rear tires, chocks must be set in middle position
4. Maintain 3 inch min roof clearance at A1 and A5
5. Ship in **NEUTRAL** with Parking Brake fully applied.

## LEAF – ELECTRIC VEHICLE



### RAIL TRANSPORT

1. Chock Tie-Down only
2. Can't load in A1 and A5 position.
3. Ship in **PARK** with Parking Brake fully applied.
4. Ignition switch turned to OFF position.

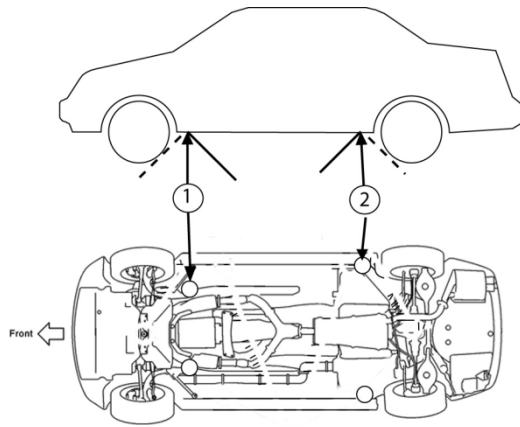
### TRUCK TRANSPORT – Chain Ties

Attachment Location	Behind Front Wheels	Rear
Type	Brackets w/ slots	1 Loop
Direction of Pull	Tension $\leftarrow \Rightarrow$	Tension $\leftarrow \Rightarrow$
Hook Type	S	R or S

### SPECIAL TIE-DOWN REQUIREMENTS FOR TRUCK TRANSPORT

1. **Soft Strap Tie-Down RECOMMENDED**
2. No Lasso soft straps allowed
3. Vehicle has two front attachments and one attachment point in the rear.
4. **Load vehicle with rear tie down loop aligned over chain ladder.**
5. **For deck angles greater than 5 degrees during transportation, load vehicle with front elevated.**
6. No contact allowed with any under body component.
7. Do not attach any restraints to rear axle beam or its brackets.
8. Rear Facing **ONLY** on bottom front position.

## Q50



### TRUCK TRANSPORT

Location	1	2
Type	Body Slot	Slot
Direction of Pull	Tension ⇐⇒ Comp. ⇒⇐	Tension ⇐⇒ Comp. ⇒⇐
Hook Type	J	T or J

**Caution** –Low front air dam and rear muffler clearance

### SPECIAL TIE-DOWN REQUIREMENTS

1. **Soft Strap Tie-Down RECOMMENDED**
2. No Lasso soft straps allowed
3. New front tie down slot location in body flange behind the front wheels
4. Normal loading speeds should be utilized.
5. Ramp angle must be 7 degrees or less to avoid contact
6. Ramp must be fully extended and lowered to lowest pint
7. **See critical point**

### RAIL TRANSPORT

1. **Chock tie-down only**
2. Maintain 3 inch min roof clearance at A1 and A5
3. Fully apply parking brake and set transmission selector in **PARK** position
4. Wood blocks required under tire to load vehicles with Splash guards

**Caution** - Front splash guards will not pass over chocks, install and remove chocks directly between tire and splash guard.

### Critical Point:

Bottom rear ramp needs to be extended to reduce angle at the top of the transition.



Clearance before ramp extension=0"

Clearance after ramp extension=0.5"

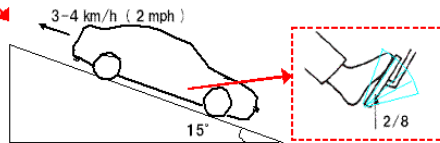
When normal loading speeds were observed the vehicle undercarrage maintained better clearance. Drivers still need to be very cautious when loading and make sure above mentioned adjustments are made.



# Q50 SPECIAL HANDLING FOR HEV

## <Loading operations when climbing up carrier car slope>

1. Forward loading with shift selector in "D" (Drive) position onto carrier car is recommended for Y51 HEV (Less risk due to faster speed and lower gear ratio for the transmission).
2. Following procedures are recommended when loading HEV upward with shift selector lever in the "R" (Reverse) position : backward loading.
  - 1) Idling operation (※) with working engine until engine automatically stops.
  - 2) Uploading smoothly by common speed with fixed amount of depressed acceleration pedals. (Climbing speed 3-4 km/h with 2/8 depression volume of accelerator pedal is available in case of ordinal inclination (26% :15 degrees) slope)

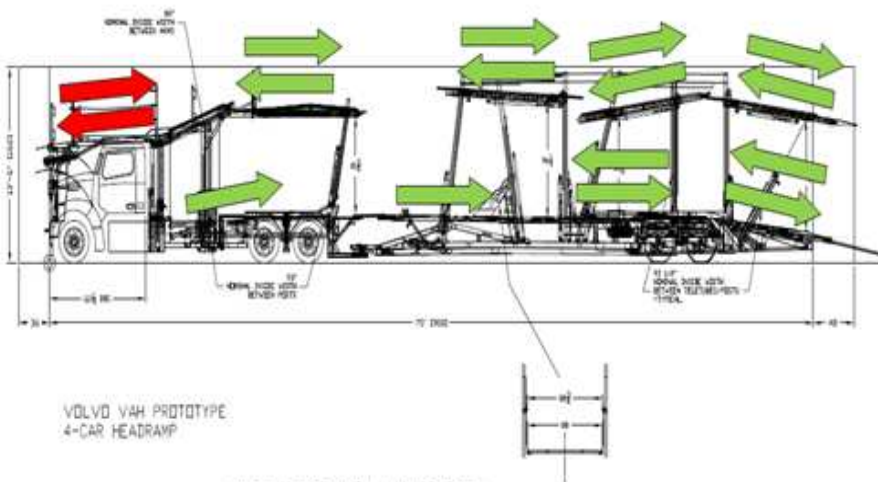


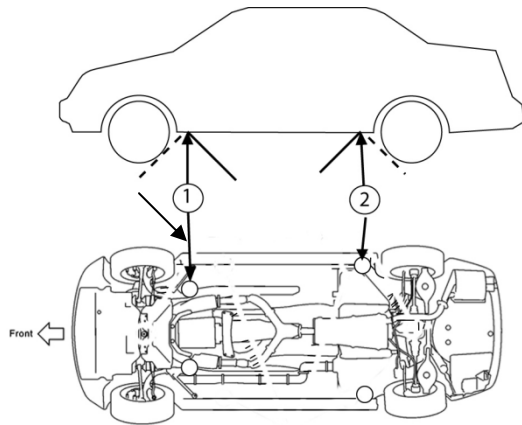
### ※) About idling operation

Y51 HEV engine is worked regardless of SOC value of Li-ion battery when making the power ON (READY) started with cold state engine (In case temperature of the coolant water is less than 50 degrees in C).

Idling operation this case means engine run until engine stopping automatically due to detecting increased temperature of the coolant.

It will take 2-3 min. in summer and 10 min. in winter season until engine automatically stops.





**TRUCK TRANSPORT**

Location	Front	Rear
Type	Slot	Slot
Direction of Pull	Tension ⇒ ⇐	Tension ⇐ ⇒
Hook Type	J - Tension	T - Tension

**Cautions**

1. Watch front fascia clearance to ramps adjust ramp position to avoid contact.
2. In reverse mode, avoid load (stress) to transmission for more than 30 seconds.
3. Transmission clutch overheat could occur.
4. Dash display will note “HV System Overheat”

**SPECIAL TIE-DOWN REQUIREMENTS**

1. Soft Strap Tie-Down **RECOMMENDED**
2. No Lasso soft straps allowed
3. **No contact allowed on any underbody braces.**
4. 3 mph maximum load and unload speed, (Low clearances).
5. Adjust ramp angles to 6 degrees maximum
6. Confirm vehicle switch is set to “Lock” Position before exiting vehicle.

7. \*\*Mirrors are powered folding. Must use the switch on the driver’s door panel to fold mirrors.

**RAIL TRANSPORT**

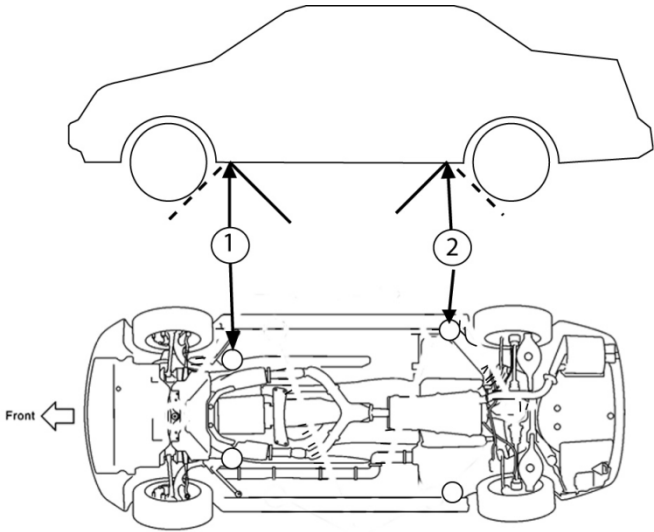
1. Chock tie-down only
2. Maintain 3 inch min roof clearance at A1 and A5
3. **In A1 & A5 position chock setting on rear of front tire MUST be set in medium position.**
4. After positioning vehicle, shift to PARK, shut off the engine, set parking brake.
5. Confirm start switch shows “Lock” Position. If not, push switch until lock position is lighted.
6. \*\*Mirrors are powered folding. Must use the switch on the driver’s door panel to fold mirrors.
7. M’s are **NOT** to be shipped on the “B” deck of a tri-level.

**Notice to All Loading and Unloading Drivers**

**Avoid Dead Batteries**

Before exiting the vehicle, confirm the engine start button is set to “Lock” position. Lock will be illuminated on the ignition switch. Battery will drain in 2 - 3 hrs if this in not done.

## FX35 and FX45



### TRUCK TRANSPORT

Location	1	2
Type	Body Slot	Slot
Direction of Pull	Tension ← ⇒ Comp. ⇒ ←	Tension ← ⇒ Comp. ⇒ ←
Hook Type	J	T or J

### SPECIAL TIE-DOWN REQUIREMENTS

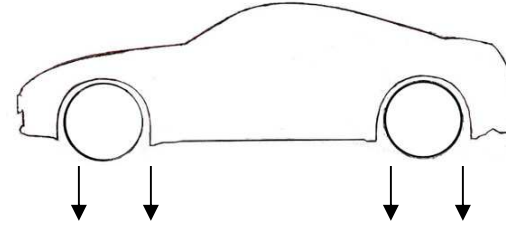
1. **Soft Strap Tie-Down RECOMMENDED**
2. No Lasso soft straps allowed
3. **On 4WD vehicles set in 2 wheel drive for loading and transport**
4. "T" hooks in rear slots, OK to touch Rubber air deflectors in front of rear tires during tension pull.
5. Front tie down slot is located in body flange behind the front wheels.

### RAIL TRANSPORT

1. **Chock tie-down only**
2. See special procedure for positioning inteli-key
3. Fully apply parking brake and set transmission selector in **PARK**

## G37 CONVERTIBLE

### TRUCK AND RAIL TIE-DOWN INSTRUCTIONS



**Note:** Soft Tie down on all 4 Tires & Wheel assembly

### SPECIAL Notes and LOADING Requirements

1. **Vehicle should be tied down only with soft straps.** Approach ramps at creep speed.
2. **No Lasso soft straps allowed**
3. **Vehicle must be shipped in backward position if shipped on upper deck**

### Open Truck Transport

1. Ramp angle must be 8 degrees or less to avoid contact / damage.
2. Maximum creep 3 mph speed to load and unload speed.
3. Use only Soft straps over tire / wheel assembly for tie down.
4. Must be secure with Nissan approved soft tie down only on 4 wheels. **Chain ties (hook) are not approved due to interferences.**
5. Spotter recommended for ramp break over loading and unloading.
6. Load on second deck if possible backed on only. Care should be taken for any damage to the vehicle.

### Rail Transport

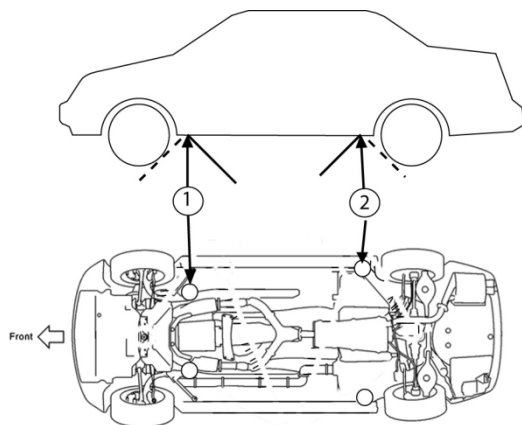
1. Loading ramps must rest on deck, not on chock rails.
2. Inboard side rails on the loading ramps must be 1" inch max height
3. Load only on B and C decks on Tri-Levels or use Bi-levels.
4. Use 2x10x13 blocks under chocked wheels when shipping on tri levels.
5. Fully apply parking brake and set transmission in **PARK**.
6. Vehicle must be positioned relative to rail car support beams to prevent vehicle door to open without contacting the beams.

**Caution:** Front splash guards will not pass over chocks, install & remove chocks directly between tire and splash guard.

Note: This was not confirmed if Tri level / Bi-level have any loading/unloading concerns.



## G37 Sedan Only



### TRUCK TRANSPORT

Location	1	2
Type	Body Slot	Slot
Direction of Pull	Tension $\Leftarrow \Rightarrow$ Comp. $\Rightarrow \Leftarrow$	Tension $\Leftarrow \Rightarrow$ Comp. $\Rightarrow \Leftarrow$
Hook Type	J	T

**Caution** –Low front air dam and rear muffler clearance

### SPECIAL TIE-DOWN REQUIREMENTS

1. **Soft Strap Tie-Down RECOMMENDED**
2. No Lasso soft straps allowed
3. **“T” hooks in rear slots OK to touch Rubber parts.**
4. New front tie down slot location in body flange behind the front wheels
5. 3 mph maximum load and unload speed, (Low clearances).
6. Adjust ramp angles to 12 degrees maximum

### RAIL TRANSPORT

1. **Chock tie-down only**
2. Maintain 3 inch min roof clearance at A1 and A5
3. Fully apply parking brake and set transmission selector in **PARK** position

**Caution** - Front splash guards will not pass over chocks, install and remove chocks directly between tire and splash guard.

## G37 Sedan with Aero Kit

### TRUCK TRANSPORT

Location	1	2
Type	Body Slot	Slot
Direction of Pull	Tension $\Leftarrow \Rightarrow$ Comp. $\Rightarrow \Leftarrow$	Tension $\Leftarrow \Rightarrow$ Comp. $\Rightarrow \Leftarrow$
Hook Type	J	T

**Caution** –Low front air dam and rear muffler clearance

### SPECIAL TIE-DOWN REQUIREMENTS

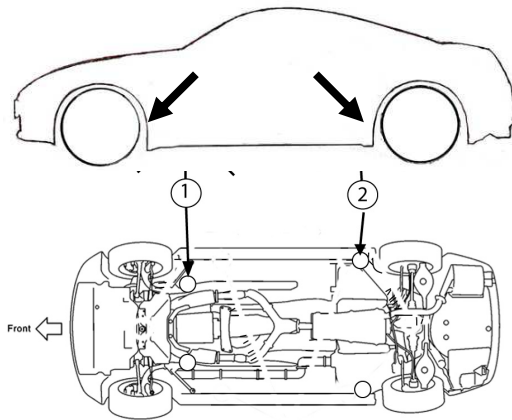
1. **Soft Strap Tie-Down RECOMMENDED**
2. No Lasso soft straps allowed
3. **“T”** hooks in rear slots OK to touch Rubber parts.
4. Front tie down slot location in body flange behind the front wheels
5. 3 mph maximum load and unload speed
6. Adjust ramp angles to 6 degrees maximum ramp to ramp angle.

### RAIL TRANSPORT

1. Chock tie-down only
2. Maintain 3 inch min roof clearance at A1 and A5
3. Fully apply parking brake and set transmission selector in **PARK** position

**Caution** - Front splash guards will not pass over chocks, install and remove chocks directly between tire and splash guard.

# G37 COUPE / IPL



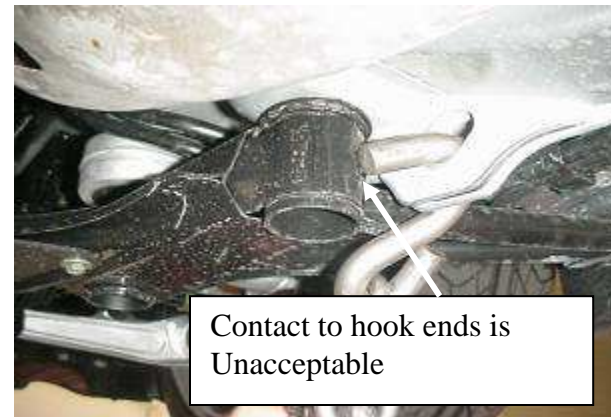
## TRUCK TRANSPORT

Location	1	2
Type	Body Slot	Slot
Direction of Pull	Tension $\leftarrow \Rightarrow$ Only	Tension $\leftarrow \Rightarrow$ Only
Hook Type	J	T or J

**Caution: Very Low - 5 inch Clearance to Front Fascia and undercarriage**

## SPECIAL LOADING and TIE-DOWN REQUIREMENTS

1. Soft Strap Tie-Down **RECOMMENDED**
2. No Lasso soft straps allowed
3. Maximum ramp angle 8 degrees or less to avoid contact to front spoiler and Lower front fenders forward of tires.
4. Spotter recommended for ramp breakovers loading and unloading.
5. Tension pull only. Compression pull may contact to gas tank.
6. Front tie down hook shank surface contact to front body braces ok. Contact by hook ends is not acceptable, See photos.
7. Rear T hook contact to rubber spoiler in front of rear tire is ok.
8. 3 mph maximum load and unload speed.
9. Upper deck recommended.



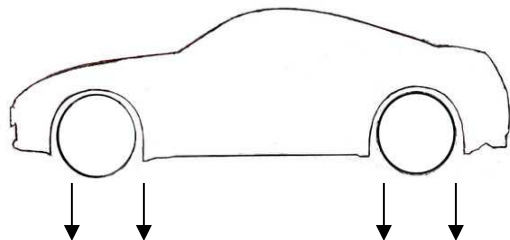
## RAIL TRANSPORT

- **Critical** - Loading ramps must rest on deck, not on chock rails.
- Inboard side rails on the loading ramps must be 1 inch max height
- **Do Not Load on C Deck of Tri-Level**
- **Use 2x10x13 blocks under chocked wheels when shipping on tri levels.**
- **Fully apply parking brake and set transmission in PARK**

**Caution** - Front splash guards will not pass over chocks, install and remove chocks directly between tire and splash guard.

## 370Z COUPE / ROADSTER

### TRUCK AND RAIL TIE-DOWN INSTRUCTIONS



**Caution:** Very Low - 5 inch Clearance to Front Fascia and undercarriage

#### SPECIAL LOADING and TIE-DOWN REQUIREMENTS

1. **Soft Strap Tie-Down ONLY**
2. No Lasso soft straps allowed
3. Maximum ramp angle 8 degrees or less to avoid contact to front spoiler and lower front fenders forward of tires.
4. Spotter recommended for ramp breakovers loading and unloading.
5. 3 mph maximum load and unload speed.
6. Second deck recommended.

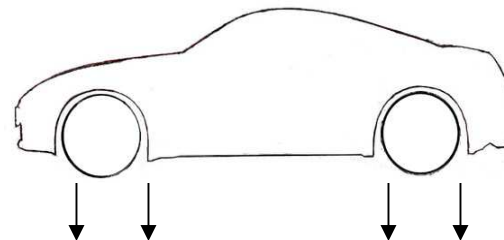
#### RAIL TRANSPORT

1. **Critical** - Loading ramps must rest on deck, not on chock rails.
2. Inboard side rails on the loading ramps must be 1 inch max height
3. Load only on B and C decks on Tri-levels or use Bi-levels
4. **Use 2x10x13 blocks under chocked wheels when shipping on tri levels.**
5. **Fully apply parking brake and set transmission in PARK**

**Caution** - Front splash guards will not pass over chocks, install and remove chocks directly between tire and splash guard.

## 370Z CONVERTIBLE

### TRUCK AND RAIL TIE-DOWN INSTRUCTIONS



Otherwise Same Specifications and cautions as the Coupe

#### SPECIAL LOADING TIE DOWN REQUIREMENTS for shipping Convertible by Truck Transport

1. **Soft Strap Tie-Down ONLY**
2. No Lasso soft straps allowed
3. Vehicle must be shipped in backward position if shipped on upper deck
4. Flap for rear window must be closed. Wind effects on the plastic protective cover in forward position, on upper deck, may result in damage to convertible top mechanism

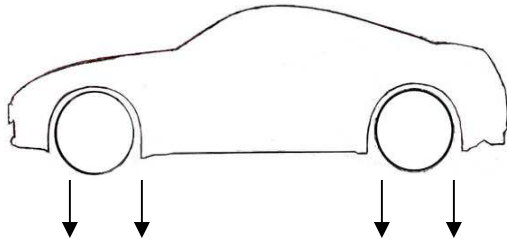
#### RAIL TRANSPORT

1. **Critical** - Loading ramps must rest on deck, not on chock rails.
2. Inboard side rails on the loading ramps must be 1 inch max height
3. Load only on B and C decks on Tri-levels or use Bi-levels
4. **Use 2x10x13 blocks under chocked wheels when shipping on tri levels.**
5. **Fully apply parking brake and set transmission in PARK**

**Caution** - Front splash guards will not pass over chocks, install and remove chocks directly between tire and splash guard.

## NISMO 370Z

### TRUCK AND RAIL TIE-DOWN INSTRUCTIONS



**Caution – Reduced ramp clearances to front fascia compared to standard 370Z**

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#### SPECIAL LOADING and TIE-DOWN REQUIREMENTS

1. **Soft Strap Tie-Down ONLY**
2. No Lasso soft straps allowed
3. Maximum ramp angle 7 degrees or less to avoid contact to front spoiler and Lower front fenders forward of tires.
4. Creep speed to load and unload.
5. Recommend loading only on rear 2 positions on lower deck, units **MUST** be backed on. Additional positions may be available on carriers that can provide flat decks. Use extra care over deck transitions to prevent damage to fascia or under carriage. Confirm optional loading positions on trailers using a spotter.

#### RAIL TRANSPORT

1. Transport only on B deck on Tri level rail cars.
2. Drive at creep speed on ramp transitions and over bridge plates.
3. Must use loading blocks
4. Fully apply parking brake and set transmission in **PARK**

## SPECIAL Notes and LOADING Requirements

Front spoiler has increased risk for contact damage. Approach ramps at creep speed. **ONLY Soft Tie-Downs are approved.**

### Open Truck Transport

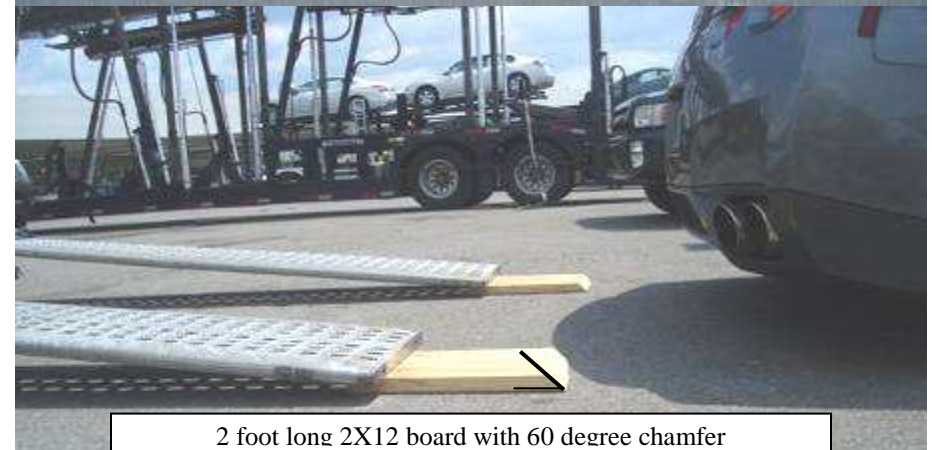
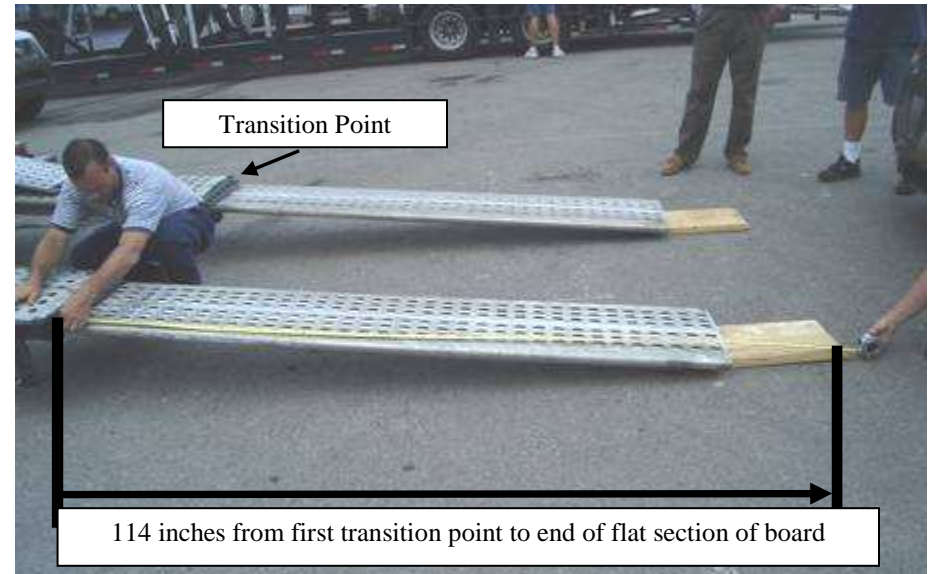
1. Soft Strap Tie-Down **ONLY**
2. No Lasso soft straps allowed
3. Ramp angle must be 7 degrees or less to avoid contact
4. Vehicle must be back onto trailer
5. Creeping speed at all times while loading
6. Soft tie down use only on all 4 wheels
7. Load on bottom rear position only
8. Vehicle position on trailer must allow for drivers door to open without contacting trailer.
9. No exit through window
10. Spotter recommended during loading

### Closed Carrier

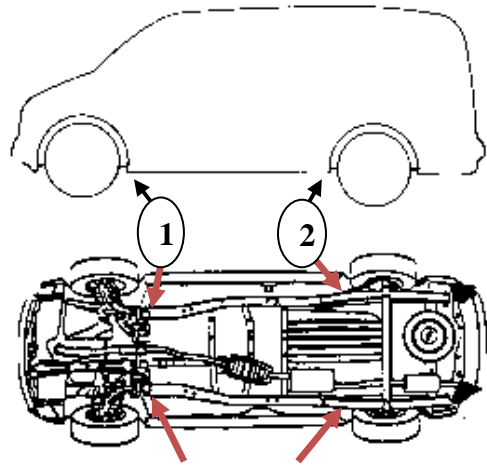
1. Same as Open transport requirements for loading and tie down.
2. Carrier must have vehicle protection for entering and exiting driver windows if trailer does not allow access for door opening.

### Rail

1. Creeping speed when driving on and off the buck loader and at all times in a railcar. (spotter recommended)
2. Only B Deck of tri level to be utilized for rail transportation
3. Vehicle has to be parked with wheels on 2 inch blocks
4. Railcar must be certified to have 17 inches minimum clearance from outside of chock rail to the inside wall of a railcar
5. Vehicle must be positioned relative to rail car beams to ensure door opens without contacting the beams.
6. Spotter recommend during loading and off loading
7. 2" rubber mat to be placed on the loading ramp and ground to improve clearance and avoid damage if contact is made. Instructions on use will be provided by WWL.
8. Fully apply parking brake and set transmission in **PARK**



**NV – Standard Roof and Bus**



**TRUCK TRANSPORT**

Location	1	2
Type	Bracket	Slot
Direction of Pull	Comp. → ← or Tension ← →	Comp. → ← or Tension ← →
Hook Type	No restriction	No restriction

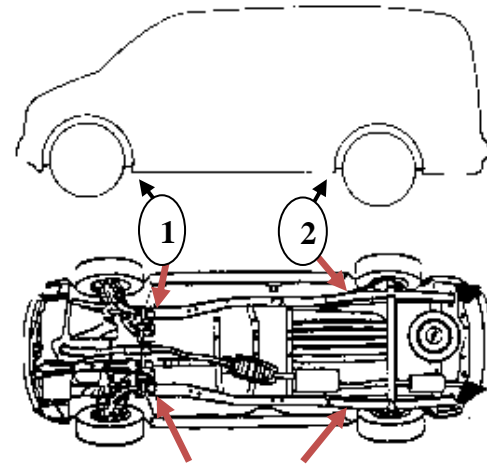
**Special Requirements/ Cautions**

1. Soft Strap Tie-Down RECOMMENDED
2. No Lasso soft straps allowed
3. Long wheel base and Low clearance to exhaust system – watch break over angles
4. Avoid chain contact to underbody braces at rear tie down slots
5. Loading ramp angle should be limited to 15 degrees to prevent interference.
6. For sea transit, only wheel lashing is allowed.

**RAIL TRANSPORT Bi Level only**

1. Set chocks at High position for all vehicles except Vehicles with Splash guards.
2. Vehicles at positions (A1, A5, B1, B5) must be double chocked on the front wheels.
3. For vehicles with splash guards
  - a. Behind the front tires, chocks must set in lowest position.
  - b. Behind the rear tires, chocks must be set in middle position
4. Maintain 3 inch min roof clearance at A1 and A5
5. Vehicles must be shipped with gear selector in PARK position and parking brake fully applied.

**NV – High Roof**



**TRUCK TRANSPORT**

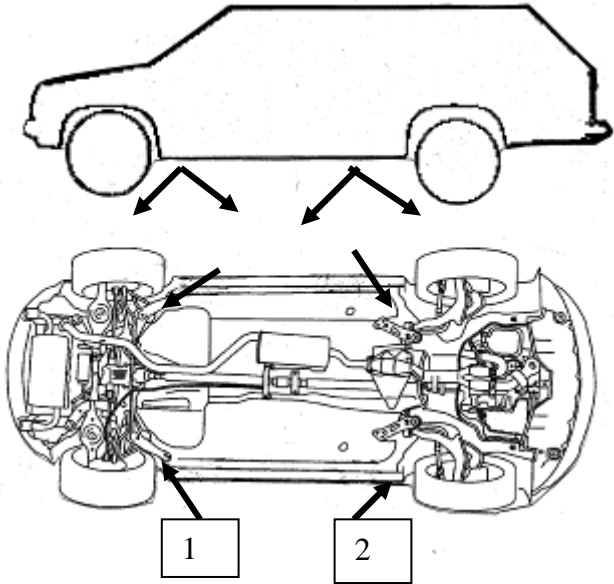
Location	1	2
Type	Bracket	Slot
Direction of Pull	Comp. → ← or Tension ← →	Comp. → ← or Tension ← →
Hook Type	No restriction	No restriction

**Special Requirements/ Cautions**

1. Soft Strap Tie-Down RECOMMENDED
2. No Lasso soft straps allowed
3. Long wheelbase and Low clearance to exhaust system – watch break over angles
4. Avoid chain contact to underbody braces at rear tie down slots
5. Shipment via Flat Bed Truck
6. Standard carrier can be used can be used TOP DECK REAR ONLY
7. Loading ramp angle should be limited to 15 degrees to prevent interference.
8. For sea transit, only wheel lashing is allowed.
9. Caution: Height clearance and overhang off end of trailer.

**RAIL TRANSPORT Automax only**

1. Chock tie down
2. For vehicles with splash guards
  - a. Behind the front tires, chocks must set in lowest position.
  - b. Behind the rear tires, chocks must be set in middle position
3. Maintain 3 inch min roof clearance at A1 and A5
4. Vehicles must be shipped with gear selector in PARK position and parking brake fully applied.
5. Caution: Contact with upper corner of driver door with railcar.



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**TRUCK TRANSPORT**

Location	1	2	
Type	Slot	Slot	
Direction of Pull	Comp. ⇒ ⇐ *Tension ⇐ ⇒	Comp. ⇒ ⇐ *Tension ⇐ ⇒	
Hook Type	J	J *S	

**SPECIAL TIE-DOWN CAUTIONS**

**New Requirement**

1. **Soft Strap Tie-Down RECOMMENDED**
2. No Lasso soft straps allowed
3. **\*Outbound / Tension Pull is acceptable if used with single S or J hook inserted into the slot before attaching hook bundle. Attachments must not contact underbody structure.**
4. On 4 WD vehicles set in 2 WD for loading and transport
5. **Unit cannot be loaded in position 1 (top front spot over cab) facing backwards**
6. Do not load behind cab if door opening clearance is not available

**RAIL TRANSPORT**

1. Chock Tie-Down only
2. Maintain 3 inch min roof clearance
3. JX Ship in **NEUTRAL** with Parking Brake fully applied. Ignition switch turned to OFF position.

**VEHICLE DIMENSIONS**

Changes in Red

MODEL	MAX. OVERALL LENGTH	MAX. OVERALL WIDTH	MAX. OVERALL HEIGHT	GROUND CLEARANCE (minimum)	MAX. WHEEL-BASE	MAX. CURB WEIGHT	MAX. TRACK WIDTH
350 Z	169.6	71.5	51.9	5	104.3	3247	60.8
370Z / Roadster	167.2	72.6	51.8	4.8/ 122mm	100.4	3300 / 3269lbs	62.8
ALTIMA COUPE	180.9	70.7	56.0	5.3	105.3	3416.2	60.7
ALTIMA SEDAN	190.7	70.7	58.0	5.4	109.3	3474.4	61.0
ARMADA / QX56	206.9	79.6	77.5	9.8	123.2	5873	67.9 / 68.1
CUBE	156.7	66.7	65	7.5 Krom	99.6	2884	58.3
EX35	182.3	71	62.6	5.7	110.2	3953	64.6
Frontier 2WD KC	205.9	72.8	70.1	7.6	125.9	4295	61.8
Frontier 2wd CC	205.9	72.8	74	8.6	125.9	4447	61.8
Frontier 4WD KC	205.9	72.8	70.1	8.9	125.9	4435	61.8
Frontier 4WD CC	205.9	72.8	74	8.9	125.9	4648	61.8
Frontier CC LB 2wd	219.7	72.8	74	8.9	139.9	4541	61.8
Frontier CC LB 4wd	219.7	72.8	74	8.9	139.9	4760	61.8
FX 35 / 50	191.3	75.9	66.1	7.36	113.62	4575	64.6
G35 SDN	187.0	69.8	57.8	5.3	112.2	3703	59.8
G35 C	182.2	71.5	55.1	4.84	112.2	3524	60.8
G37 C	183.1	71.8	54.9	5.1	112.2	3668	61.4
G37 Convertible	183.3	72.9	55.12	5.21	112.2	4110	62.8
GT-R	183.1	74.9	54	5.0	109.4	3836	63
JUKE	162.4	69.5	61.8	7.2 / 178.4mm	99.6	3041 / SL AWD 3210	60.0
JX	196.4	77.2	68.9	6.5	114.2	FWD 4280 / AWD 4419	65.7
LCV	240.6	86.4	106.0	8.1	146.1	6303	68.1
LEAF	175	69.7	61	6.3	106.3	3374 / ETEC 3383	60.6
M35/45	194.1	71.1	60.0	5.1	114.2	4176	61.1
M37	194.7	72.6	59.6	5.8	114.2	4063	62
M56	194.7	72.6	59.6	5.8	114.2	4028	62
MAXIMA	190.6	73.2	57.8	5.4	109.3	3691.2	61.2
MURANO	188.5	74.1	68.1	7.1	111.2	4141	63.4
NV200	186.3	68.1	73.7	S 6.5 / SV 8.3	115.2	S 3252 / SV 3255	60
PTH 2WD	197.2	77.2	75.4	6.5	114.2	4330	65.7
PATHFINDER 4WD	197.2	77.2	75.4	6.5	114.2	4471	65.7
<b>Q50</b>	<b>189.1</b>	<b>71.8</b>	<b>57.2</b>	<b>4.8</b>	<b>112.2</b>	<b>3849 / 4145 Hybrid</b>	<b>61.8</b>
QUEST	200.8	77.6	73	6.2	118.1	4469	71.5
ROGUE	182.9	70.9	66.3	8.2	105.9	3534	61
SENTRA	180.3	70.5	60.2	5.5	105.7	3136.2	60.8
TITAN KC SWB	224.6	79.6	76.6	10.2	139.8	5409	67.91
TITAN CC SWB	224.6	79.6	76.9	10.3	139.8	5662	61.91
TITAN KC LWB	244.3	79.6	76.6	10.2	159.4	5643	67.91
TITAN CC LWB	244.3	79.6	76.9	10.3	159.4	5904	67.91
VERSA H/B	169.2	66.7	61.0	6.3	102.4	2859.9	58.5
VERSA Sedan	176.1	66.7	61.0	6.3	102.4	2787.3	58.5
VERSA NOTE '14	163.7	66.7	60.5	5.5	102.4	1124	58.5
XTERRA 2WD	178.9	72.8	74.3	8.3	106.3	4239	61.8
XTERRA 4WD	178.9	72.8	75.8	9.1	106.3	4467	61.8

**NISSAN TIE-DOWN MANUAL: HAUL-AWAY CARRIER PROCEDURES QUICK REFERENCE TABLE**

Changes in Red

MODEL	TIE-DOWN TYPE AND HOOK TYPE				
	Position 1	Position 2	Position 3	Position 4	Position 5
370Z COUPE / ROADSTER	<b>SOFT TIE-DOWN ONLY</b>				
370Z NISMO	<b>SOFT TIE-DOWN ONLY</b>				
ALTIMA	Slot – T or S	Slot – T or S	None		
ARMADA	Slot J, R, T	Slot - J	Slot - J	Slot J or R	Non-Hitch Bracket J or R ONLY
CUBE	Slot S or J	Slot S or J			
EX35	Bracket – J	Slot J or T			
FRONTIER	Slot R or T	Slot J, T	Slot R or T		
FX	Body Slot - J	Slot J or T	None		
G35	Slot - J	Slot – T	None		
G37C	Body Slot - J	Slot T or J			
G37 Convertible	<b>SOFT TIE-DOWN ONLY</b>				
GT-R	<b>SOFT TIE-DOWN ONLY</b>				
JUKE	<b>SOFT TIE-DOWN ONLY – NO CHAINS ALLOWED</b>				
JX	Slot – J	Slot – R or S			
LEAF	Bracket - S	Bracket R or S			
M37 / M56	Slot J	Slot - J	None		
MAXIMA	Bracket –T	Slot T or S	None		
MURANO	Bracket – J	Slot J or T *S Tension			
PATHFINDER	Slot R or T	Slot – T	None		
<b>Q50</b>	<b>J</b>	<b>T or J</b>			
QUEST	Bracket S or T	Slot R			
QX56	Slot J, R, T	Slot - J	Slot - J	Slot J or R	Non-Hitch Bracket J or R ONLY
ROGUE	Bracket – J	Slot J or T			
SENTRA	Bracket J, S or T	Slot J or S	NA		
TITAN	Slot J, R, T	Slot - J	Slot - J	NA	Hitch Slot J,R (Non-hitch “J” ONLY)
VERSA	Bracket J or S	Loop – T or S	NA		
XTERRA	Slot T or R	Slot – T	Hitch T or R		

**NOTES:**

- All dimensions are in inches and weights are in pounds. .
- Weights listed correspond to the heaviest configuration of a particular model.
- Weights listed are curb weights. Shipping weights are curb weights less all gasoline (use 7.0 lbs / gallon for gasoline) except for 2 gallons added for NNA plus the weight of any port or dealer installed accessories. Approximate not exact.
- Overall width of the FRONTIER and XTERRA does not include mirrors.
- Overall height of the QUEST, ARMADA, TITAN, XTERRA and Crew Cab includes roof rack.
- Overall length of the FRONTIER does not include rear step bumpers.





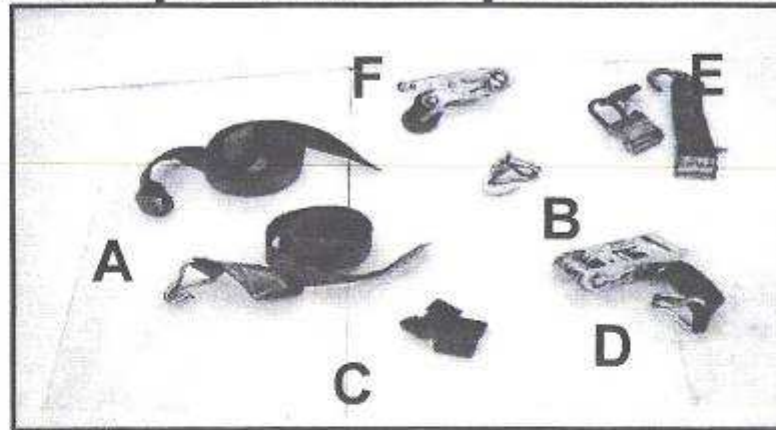
# Soft Tie Down System

The truck transport tie down procedures outlined in the following pages have been approved for use on Nissan and Infiniti vehicles.

## **General Cautions and Instructions**

1. Straps and tie down hardware must not contact any vehicle components other than the tire
2. Straps and tie down hardware must not contact cosmetic surfaces of wheels or wheel covers.
3. All 4 wheel drive vehicles must be set in 2 wheel drive mode for loading and during transport.
4. Loading and transportation must also comply with applicable requirements in VPC Quality Standards Manual 5.1.1 updated on 2/18/04

## Soft Tie Down Components & Specifications



Following are common components used in conjunction with soft tie down systems:

- A. **2" webbing** with different end variations for different tie down techniques
- B. **5/16" wire hook** for soft tie down securement
- C. **Tire cleats** (keeps proper strap to tire alignment and acts as a bearing when tightening the strap)
- D. Standard **ratchet** with attached leader and hook
- E. **Cam buckle** with different end variations for different tie down techniques
- F. Modified **ratchet** for use with a chain / strap combination

COMPONENTS	BREAKING STRENGTH	WORKING LOAD LIMIT
Strap material	6,000 lbs	2,000 lbs
Stitching	12 spi / 10,000 lbs	12 spi / 3,000 lbs
Cam buckle	4,200 lbs	1,250 lbs
2 wire hook	5,000 lbs	1,666 lbs
2" ratchet	10,000 lbs	3,330 lbs
Grab hook	16,000 lbs	5,400 lbs
Hook clusters	16,000 lbs	5,400 lbs

## Over the Wheel Tie Down with Hooks

1. This technique will provide an over-the-wheel tie down, using the loop end of the strap in conjunction with the chain.
2. Start by sliding the loop end of the strap through the cluster hook ring.



3. Slide the strap loop over the "T" hook
4. Pull on the strap, securing "T" hook with the strap against the ring.



5. Install the idler hook at the other end of the strap as close as possible to the front of the tire.



6. Install 2 tire cleats on the strap.



7. The slit on the cleats should be even when installed.
8. Place the cleat "feet" into the grooves on the tire.



9. Slide the tire cleats to the 10 and 2 o'clock positions on the tire.



10. Place the sliding hook into the deck at the other end as close to the tire as possible.



11. For final securement, secure loose ends of straps that may contact the vehicle. Use an extra idler hook to handle excess strap length.

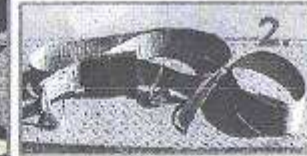
12. Strap ends should end up as shown.



Always place the loop end of the strap through the cluster hook ring and around the "T" hook for best securement. This also helps to prevent wear and tear on the strap. Never place straps around idlers – this will cause them to break. Always use protective sleeves on straps whenever the strap touches metal.

## Over-the-Wheel Tie Down with Ratchet

1. Obtain a ratchet.
2. Obtain a strap, 2 tire cleats, and second idler hook.



3. Each of the tire cleats should have grooves facing the same way.



4. Install the first hook into the deck as close to the tire as possible.



5. Install the tire cleats on the strap. Place the cleats at 10 and 2 o'clock on the tire, inserting the cleat "feet" into the grooves of the tire.



No part of strap should touch the vehicle. When driving, the car body will move up and down & strap may scratch paint.

6. Insert the second hook into the deck as close as possible to the tire on the other end.



7. Tighten the ratchet until the tire begins to bulge.



Insert hooks as close to the tire and centered over the tire as possible.

Keep the tire cleats at 10 and 2 o'clock on the tire for best securement.