



PWCキット-スピードタイ-フィッシュPRO (2019以降)

製品 :	Sea-Doo_watercraft
プロジェクト番号 :	487803298_rev1
インストラクションシートP/N :	487803298
改訂番号 :	1
改訂日 :	2020年10月
対象アイテム :	スピードタイ-FishPRO (2019以降)

このドキュメントでは、次の記号を使用できます。

警告

回避しないと、死亡または重傷を負う可能性のある危険な状況を示します。

▲注意： 回避しないと、軽傷または中程度の傷害を引き起こす可能性のある危険な状況を示します。

通知 従わないと、車両のコンポーネントやその他の資産に重大な損傷を与える可能性のある指示を示します。

警告

- 安全上の理由から、このキットは認定BRPディーラーが設置する必要があります。
- このキットは、特定の該当するモデル専用設計されています（認定BRPディーラーがモデルを確認します）。販売されたユニット以外のユニットにはお勧めしません。
- キットのインストールにテンプレートが必要な場合は、テンプレートが縮尺どおりであることを確認してください。
- 分解/組み立ての際にロック装置（ロックタブ、セルフロックファスナーなど）の取り外しが必要な場合は、必ず新しいものと交換してください。
- トルクレンチの締め付け仕様を厳守する必要があります。
- 電動工具を使用するときは、常に目の保護具と適切な手袋を着用してください。
- 特に指定のない限り、車両で操作を行うときはエンジンをオフにする必要があります。
- ホイール、トランスミッション部品など、動く可能性のある部品に常に注意してください。

警告

Some important safety information and/or operating instructions dedicated to the end user might be included in this instruction sheet. Make sure to give the kit part number as well as the instruction sheet included with this kit to the customer. Verify that the customer has access to all the information required for proper use of the accessory.



NOTE: USE TIGHTENING TORQUES IN THE FOLLOWING TABLE IF NOT OTHERWISE SPECIFIED.

	GRADE			
	5.8	8.8	10.9	12.9
M4	1.8 ± 0.2 N•m (16 ± 2 lbf•in)	2.8 ± 0.2 N•m (25 ± 2 lbf•in)	3.8 ± 0.2 N•m (34 ± 2 lbf•in)	4.5 ± 0.5 N•m (40 ± 4 lbf•in)
M5	3.3 ± 0.2 N•m (29 ± 2)	5 ± 0.5 N•m (44 ± 4)	7.8 ± 0.7 N•m (69 ± 6)	9 ± 1 N•m (80 ± 9)

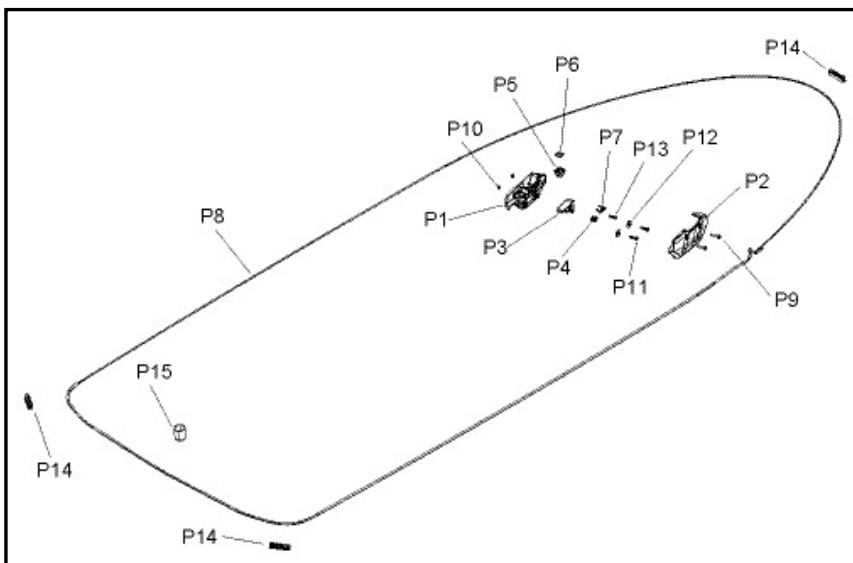
	lb•in)	lb•in)	lb•in)	lb•in)
M6	7.5 ± 1 N•m (66 ± 9 lb•in)	10 ± 2 N•m (89 ± 18 lb•in)	12.8 ± 2.2 N•m (113 ± 19 lb•in)	16 ± 2 N•m (142 ± 18 lb•in)
M8	15.3 ± 1.7 N•m (135 ± 15 lb•in)	24.5 ± 3.5 N•m (18 ± 3 lb•ft)	31.5 ± 3.5 N•m (23 ± 3 lb•ft)	40 ± 5 N•m (30 ± 4 lb•ft)
M10	29 ± 3 N•m (21 ± 2 lb•ft)	48 ± 6 N•m (35 ± 4 lb•ft)	61 ± 9 N•m (45 ± 7 lb•ft)	73 ± 7 N•m (54 ± 5 lb•ft)
M12	52 ± 6 N•m (38 ± 4 lb•ft)	85 ± 10 N•m (63 ± 7 lb•ft)	105 ± 15 N•m (77 ± 11 lb•ft)	128 ± 17 N•m (94 ± 13 lb•ft)
M14	85 ± 10 N•m (63 ± 7 lb•ft)	135 ± 15 N•m (100 ± 11 lb•ft)	170 ± 20 N•m (125 ± 15 lb•ft)	200 ± 25 N•m (148 ± 18 lb•ft)
M16	126 ± 14 N•m (93 ± 10 lb•ft)	205 ± 25 N•m (151 ± 18 lb•ft)	255 ± 30 N•m (188 ± 22 lb•ft)	305 ± 35 N•m (225 ± 26 lb•ft)
M18	170 ± 20 N•m (125 ± 15 lb•ft)	273 ± 32 N•m (201 ± 24 lb•ft)	330 ± 25 N•m (243 ± 18 lb•ft)	413 ± 47 N•m (305 ± 35 lb•ft)

The illustrations in this document show typical construction of the different assemblies and may not reproduce the full detail or exact shape of the parts; however, they represent parts that have the same or similar function. Installation time is approximately 1.3 hour.

REQUIRED TOOLS

Required Tool			Use
T1	Drill bit 5.5 mm (7/32 in)		To drill 3 holes on the upper deck
T2	Drill bit 7 mm (9/32 in)		To drill holes on the latch support

PARTS TO BE INSTALLED



ITEM	DESCRIPTION	Part number	QTY
P1	Front Latch Support	Not available separately	1
P2	Front Support Reinforcement	269800938	1

P3	Locking Cam	Service Kit 295101008	1
P4	Aluminum Insert		1
P5	Cable End Piece		1
P6	End Piece		1
P7	Clip		1
P8	Retractable Rope	269800955	1
P9	M6 X 35 Torx Screw	250000541	2
P10	Elastic Stop Nut	232561200	2
P11	M6.81 X 30 Torx Screw	250001007	2
P12	8mm Stainless Flat Washer	234082600	2
P13	M6.3 X 25 Torx Screw	250000466	1
P14	Rope Guide	269801018	3
P15	Machined Pipe	291005440	1

SERVICE PARTS

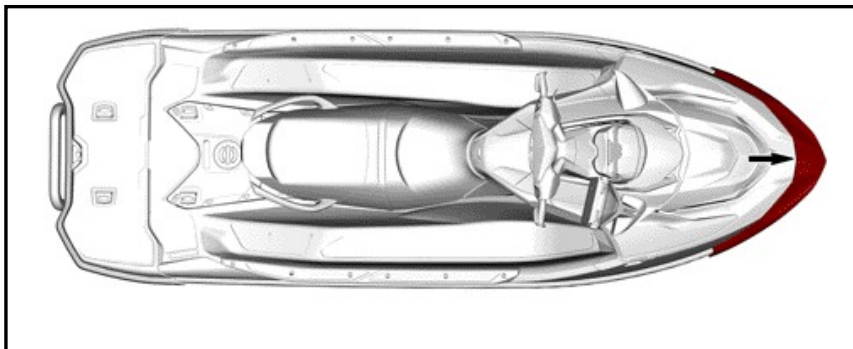
295101008 Retractable Rope Replacement Kit

ITEM	DESCRIPTION	QTY
P3	Locking Cam	1
P4	Aluminum Insert	1
P5	Cable End Piece	1
P6	End Piece	1
P7	Clip	1

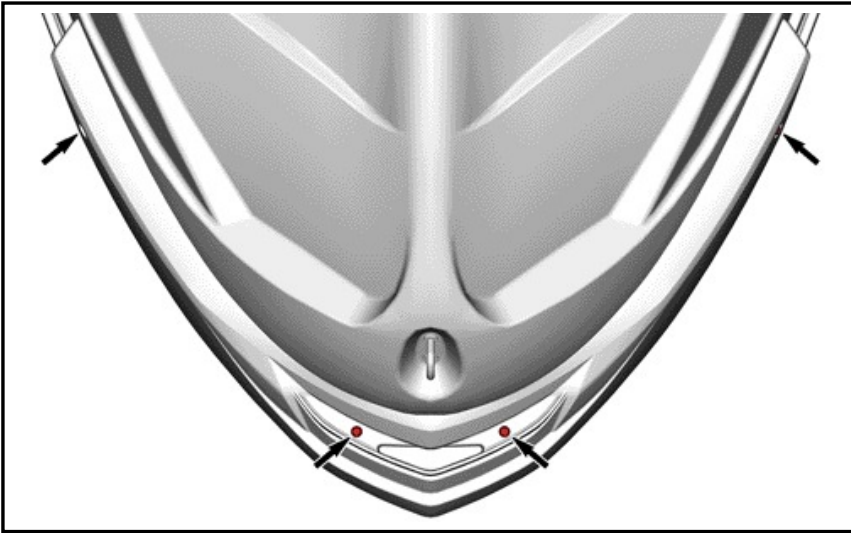
INSTRUCTIONS

Vehicle Preparation

1. Remove the front bumper.

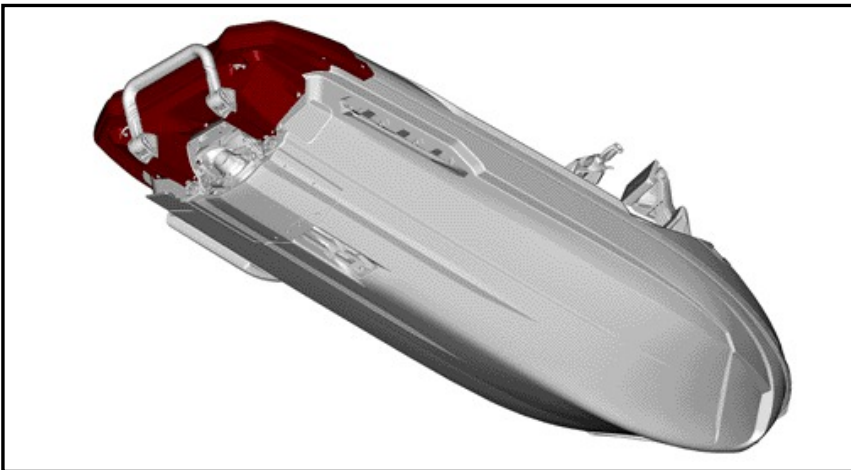
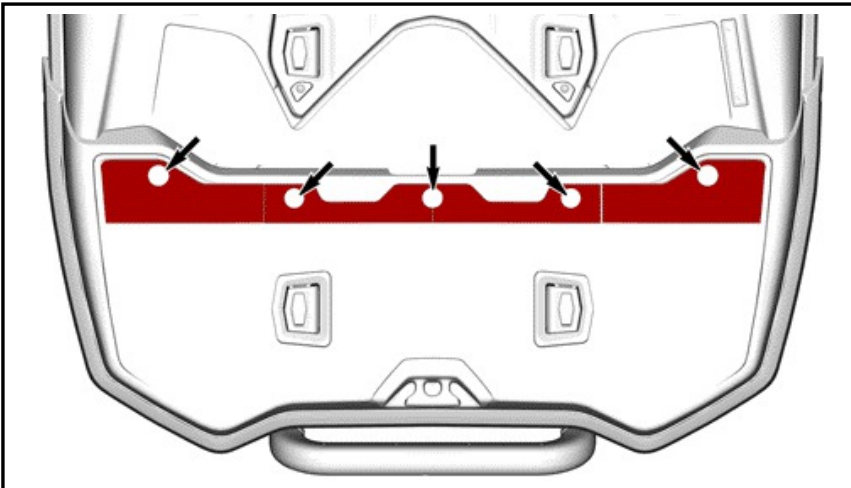


FRONT BUMPER

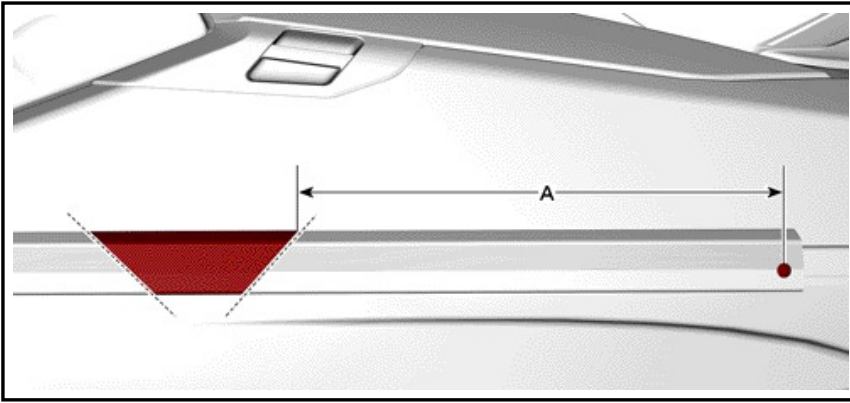


FRONT BUMPER FASTENERS

2. Using the machined pipe [P15] and the template 295100924, cut the carpet to access the rear extension screws. Remove the rear extension. Refer to *REAR EXTENSION* in the *BODY* subsection of the appropriate *SHOP MANUAL*.



3. Place the template 295100885 A on the lateral extrusion bumper as shown and mark both sides.

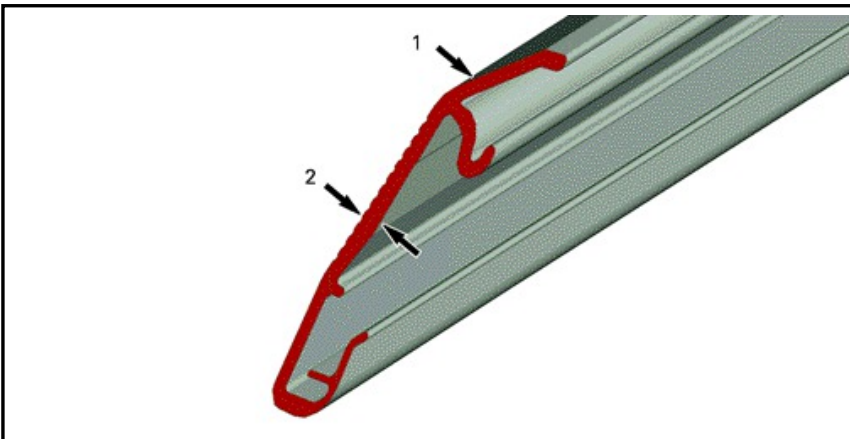


TEMPLATE A

A. 470 mm (18-1/2 in)

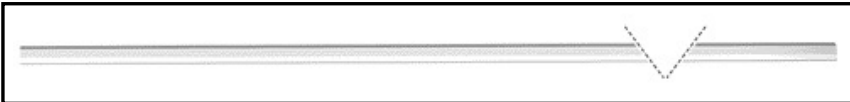
4. Remove the extrusion bumper and cut it following the marks. Remove all sharp edges and make a chamfer on both sides of each extrusion as shown.

NOTE: Use a plastic lever to detach extrusion. Make sure to not damage the deck with the tool.



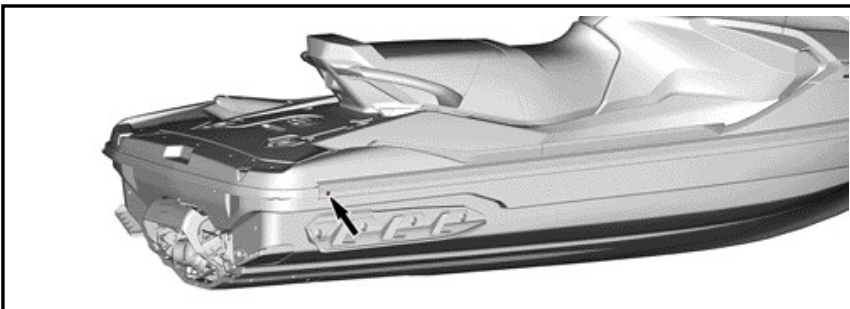
1. Chamfer

2. Remove sharp edges

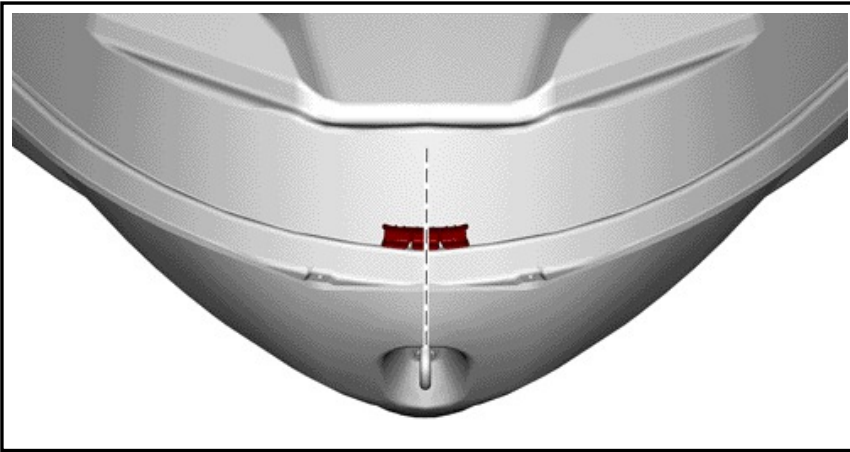


5. Clean the extrusions and make sure there is no dirt in the grooves.

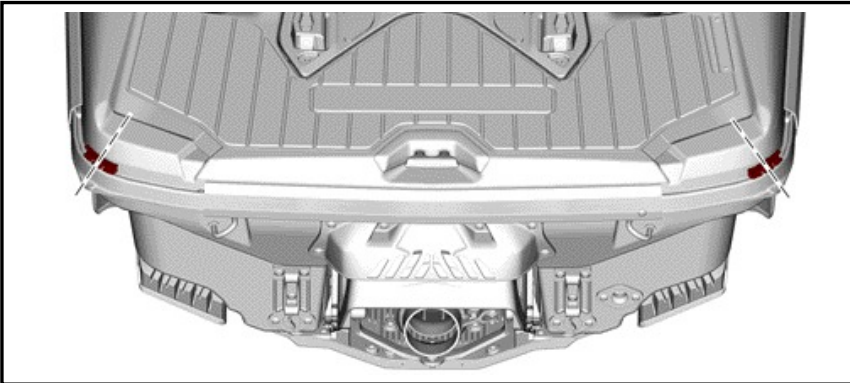
6. Install the extrusion bumper back on the vehicle by using the following hole to place them correctly.



7. Clean the surfaces shown using isopropyl alcohol. Install the 3 rope guides with double-sided tape. Apply even pressure on each rope guide for 30 seconds to let it stick in place.



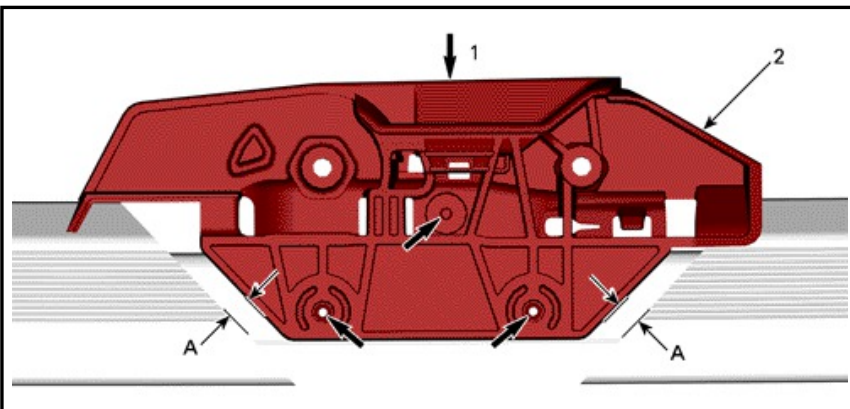
FRONT ROPE GUIDE



REAR ROPE GUIDES

NOTE: Ambient and surface temperatures must be of at least 15 degrees Celsius. Make sure to correctly press the lower part of the latch support on vehicle.

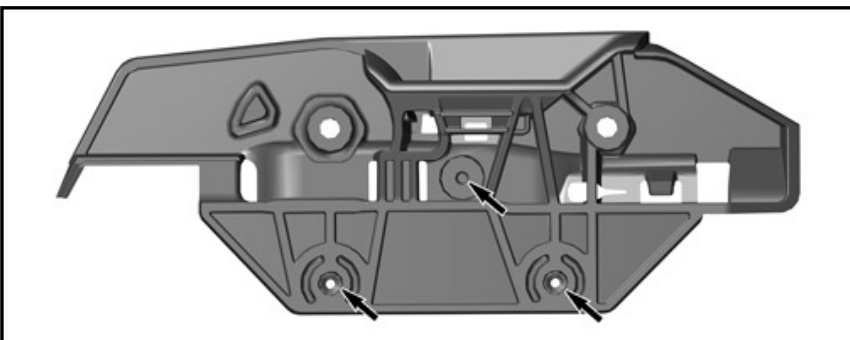
8. Use the front latch support [P1] as template to mark and drill three (3) holes using [T1] drill bit 5.5 mm (7/32 in).



- 1. Apply a little pressure when drilling
- 2. Front latch support [P1]
- A. Keep the same gap on each side

NOTE: Make sure there is no ribs behind the hull's lip before drilling.

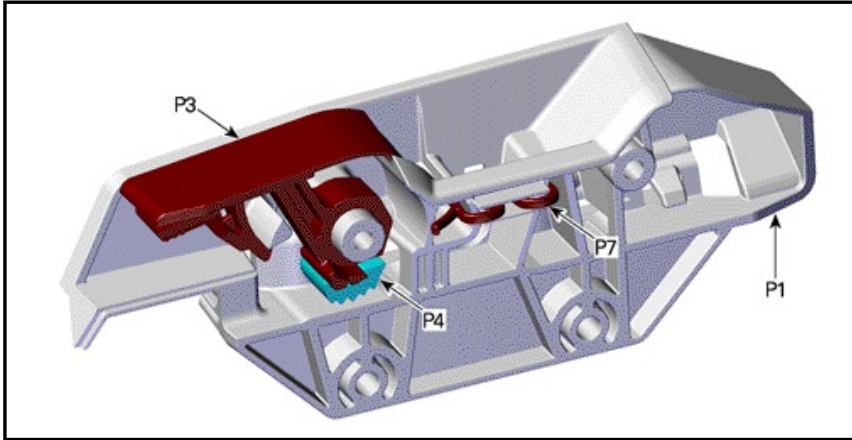
9. Use [T2] drill bit 7 mm (9/32 in) to enlarge the existing holes of the latch support.



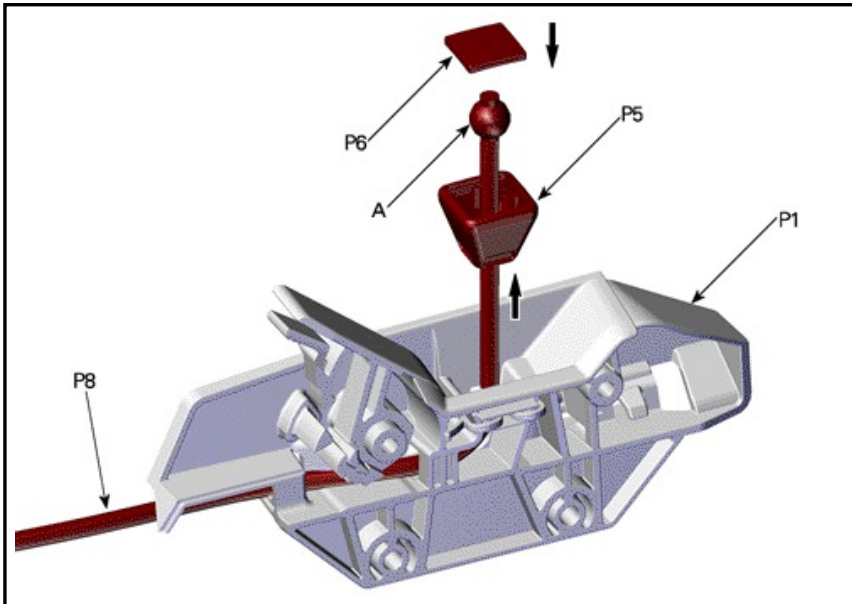
FRONT LATCH SUPPORT [P1]

Part Installation**Mounting the Front Speed-Tie on the Vehicle**

1. Mount the aluminum insert [P4] on the locking cam [P3].
2. Install the last assembly and the clip [P7] on the front latch support [P1].

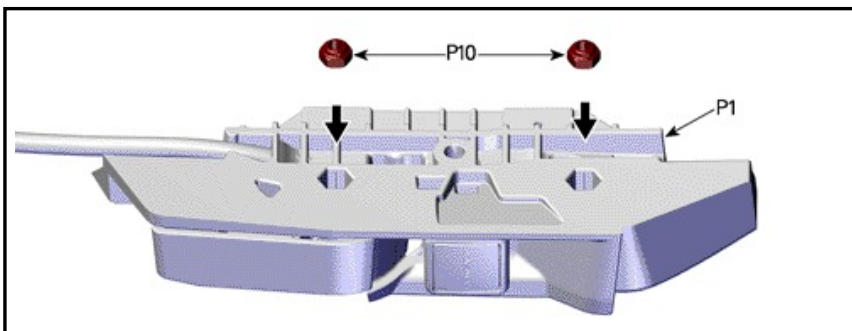


3. Route the rope into the front latch support [P1] and the cable end piece [P5]. Make a knot as shown below, mount the end piece [P6] and push on it to make sure that all the snaps are engaged.

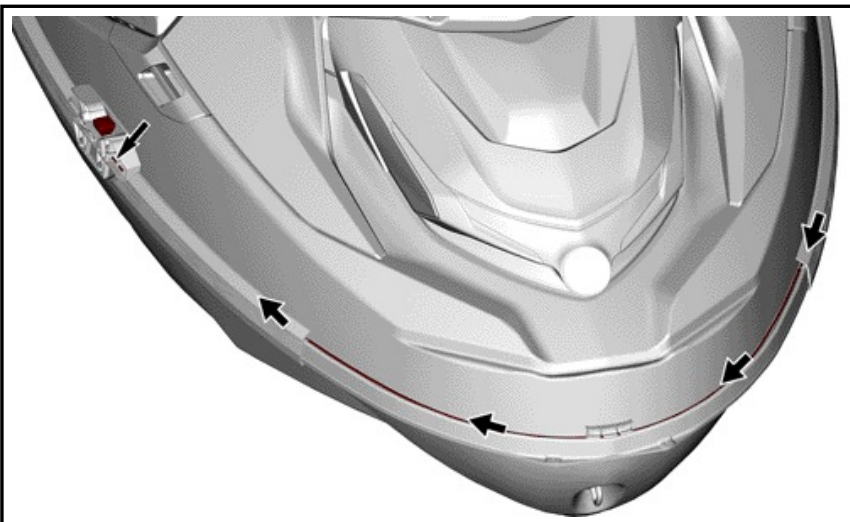
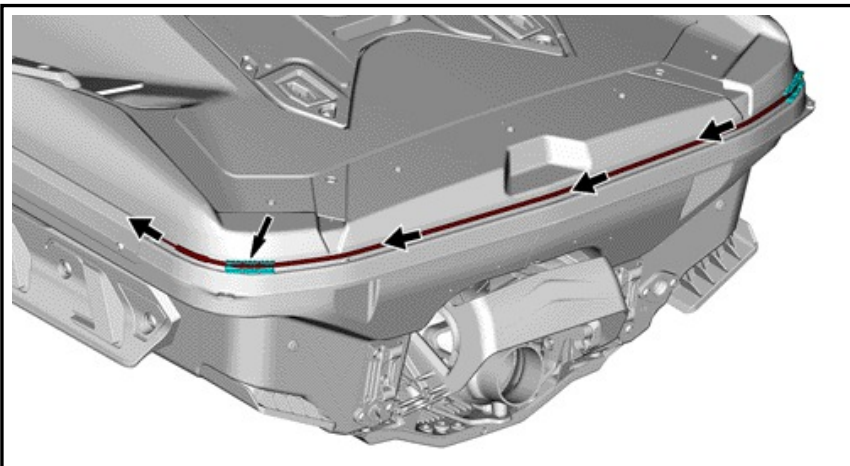
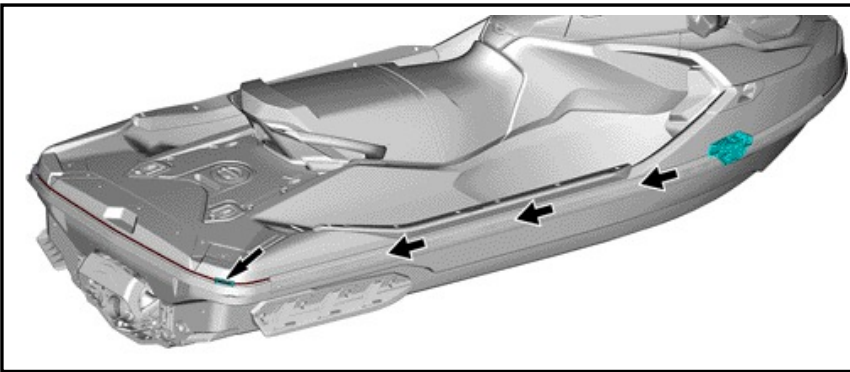
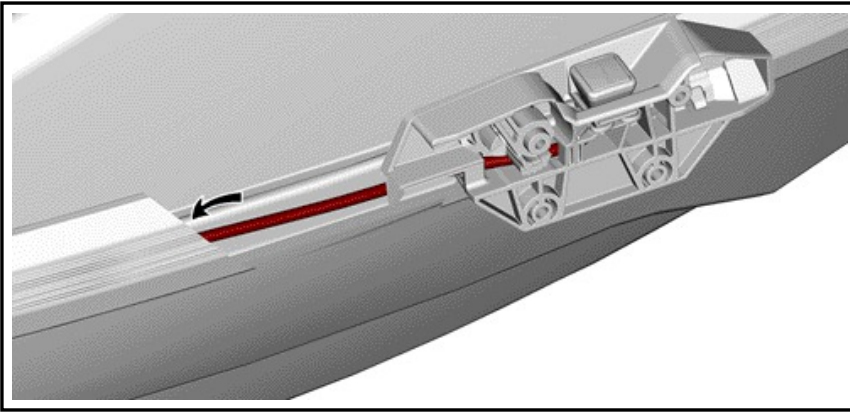


A. Knot

4. Install the elastic stop nut [P10] into the hexagonal holes in the front latch support [P1].

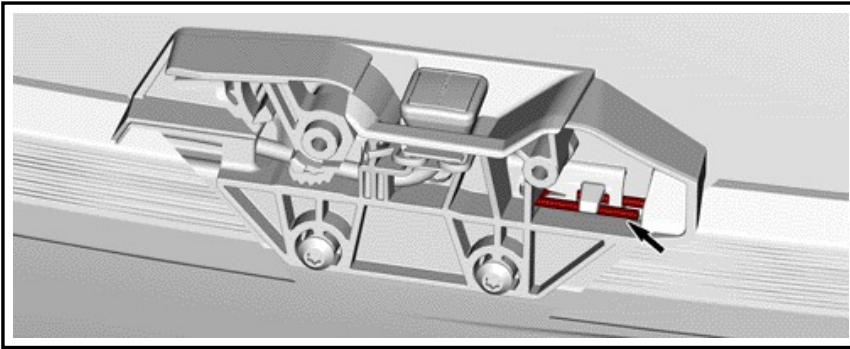


5. Use a fish tape to pass and pull the elastic side of the rope through the extrusions.



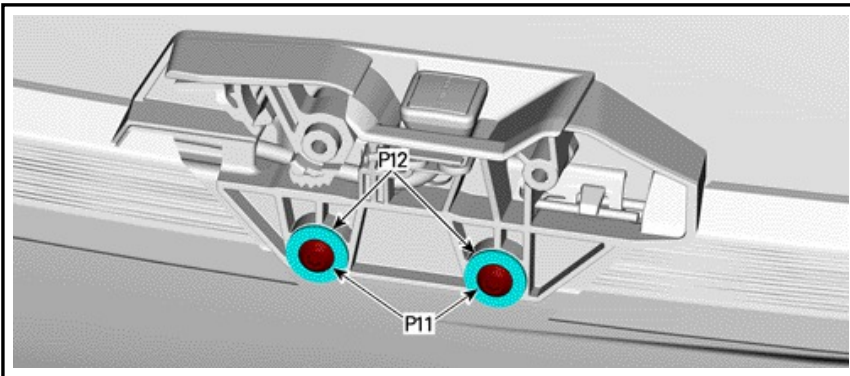
NOTE: Keep the rope in the latch support while you are passing the rope through the extrusions. Keep the lever on its lock position.

6. Lock the elastic in the front latch support [P1] and make a knot.



NOTICE Avoid putting too much preload on the elastic as it could result in premature wear of the elastic.

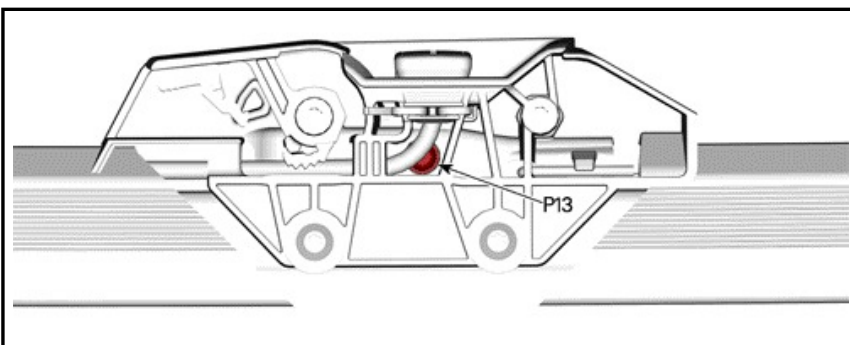
7. Hand tighten two (2) M6.81 X 35 Torx screws [P11] with two (2) 8mm stainless flat washers [P12] to secure the latch support on the vehicle. Ensure clamping is properly done on the latch support.



Tightening Torque	
M6.81 X 35 Torx screws [P11]	4 N•m (35 lbf•in)

NOTE: Do not exceed recommended torque to avoid stripping the threads. Apply a little force on top of the latch support to keep it in the groove while tightening the screws.

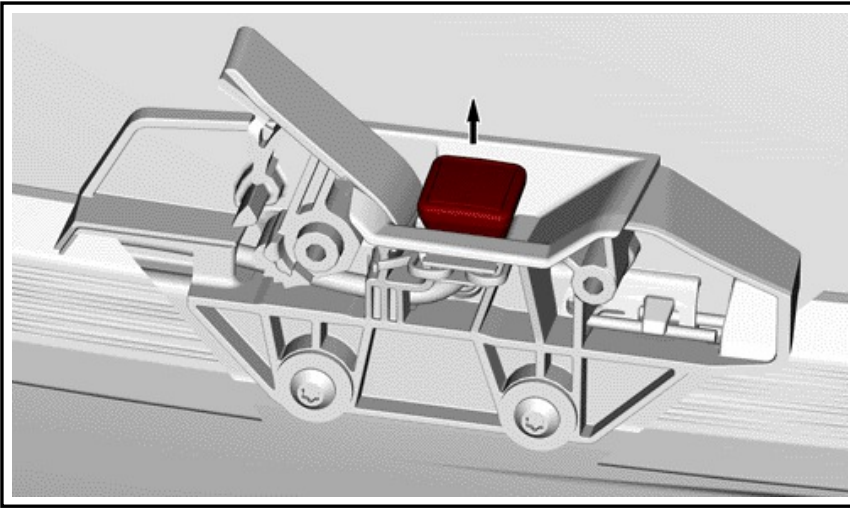
8. Hand tighten the M6.3 X 25 Torx screw [P13] as third fixing point. Pull out partially the rope to have a better access to this screw. Ensure clamping is properly done on the latch support.



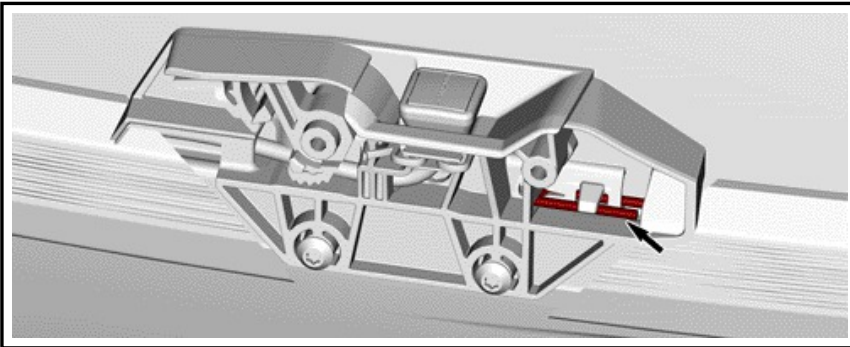
Tightening Torque	
M6.3 X 25 Torx screw [P13]	4 N•m (35 lbf•in)

NOTE: Do not exceed recommended torque to avoid stripping the threads.

9. Try to pull out a little the end cap to confirm that it gets back in position. Make sure that you have a little preload of the cord when the cap is in position.



10. If the cap is loose and does not go back to its place use the following feature to adjust the preload. Do not add more than 25 mm (1 in) of preload during the first installation.

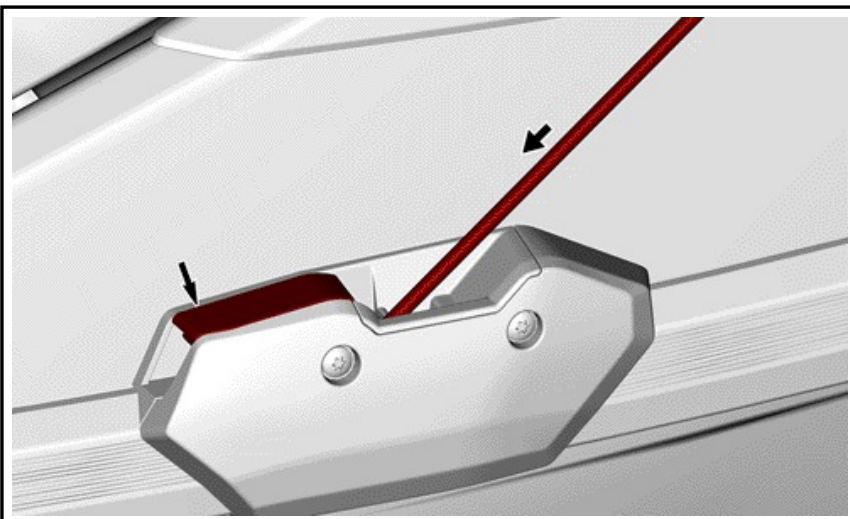


NOTICE Avoid putting too much preload on the elastic as it could result in premature wear.

NOTE: If the cap is loose, do not try to cut the rope. Adjust it as explained above.

11. After adjusting the preload, make another knot at the end of the elastic. Cut the excess length of elastic after the knot.

12. Pull the rope to the end and release it slightly to make sure it gets back in completely.



NOTE: Never lock the lever when the rope is fully extended. Release the rope a little and then lock the lever. Never fully release the rope as the end cap could hit and damage the upper deck or hurt people around the vehicle.

13. Adjust the preload again if needed.

14. Install the front bumper. Hand tighten the fasteners.

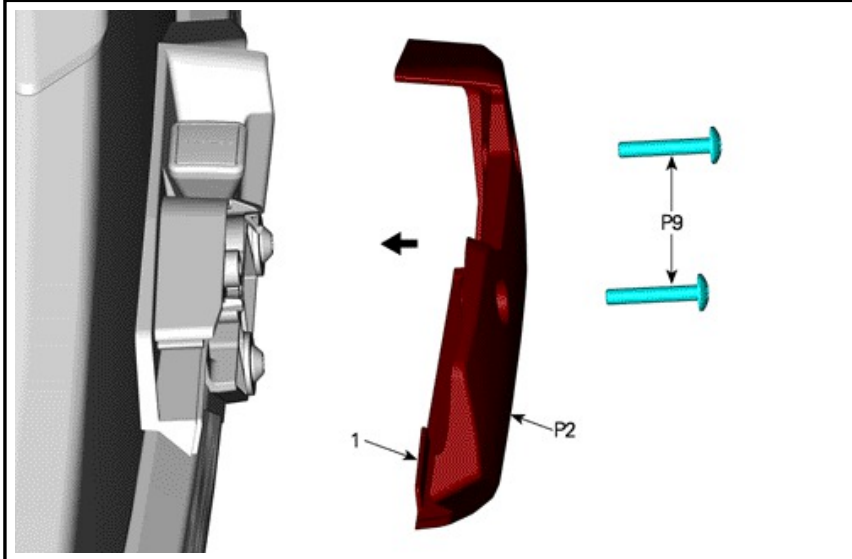
Tightening Torque

Tightening Torque	
Front bumpers fasteners	4 N•m (35 lbf•in)

NOTE: Do not exceed recommended torque to avoid stripping the threads.

15. Install the rear extension. Refer to *REAR EXTENSION* in the *BODY* subsection of the appropriate *SHOP MANUAL*.

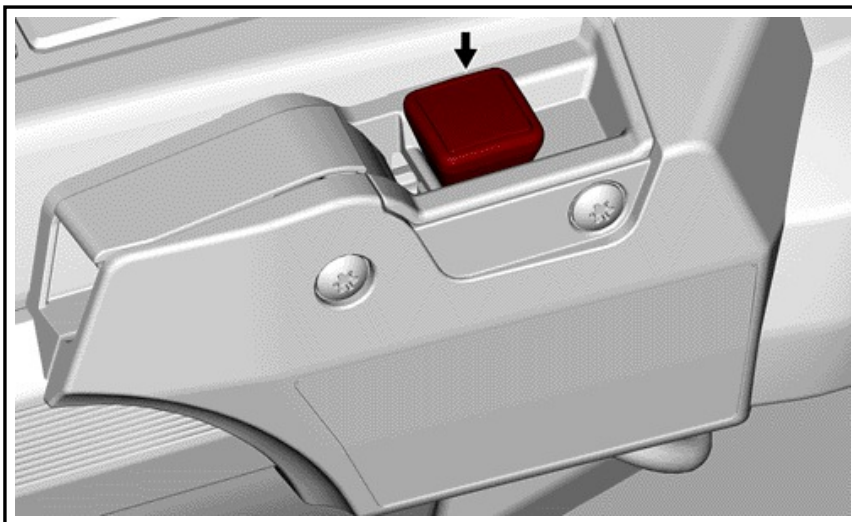
16. Install the front support reinforcement [P2] by placing the toe-in first. Secure with two (2) M6 X 35 Torx screw [P9].



1. Toe-in

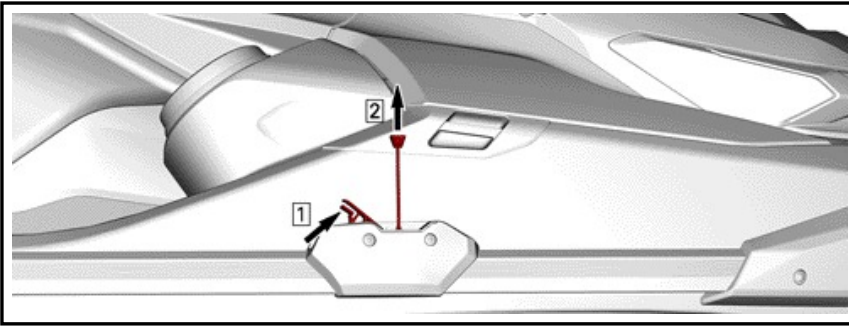
Tightening Torque	
M6 X 35 Torx screw [P9]	4.5 ± 0.5 N•m (40 ± 4 lbf•in)

17. Push on the end cap to snap and secure it in its place.



HOW TO USE THE SPEED-TIE

1. Use the front Speed-tie to attach the vehicle to the cleat.
2. Unlock the locking cam [P3] and pull out the front rope vertically as shown to reduce the friction.



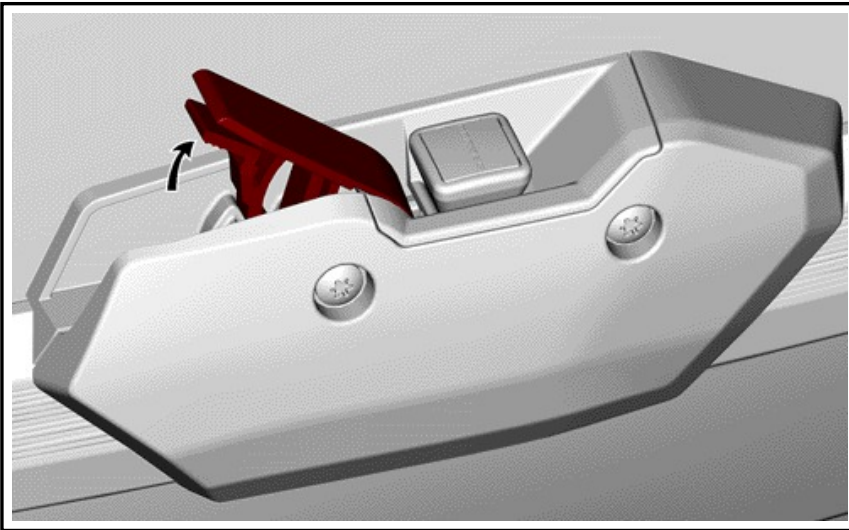
TYPICAL

Step 1.: Unlock the locking cam [P3]

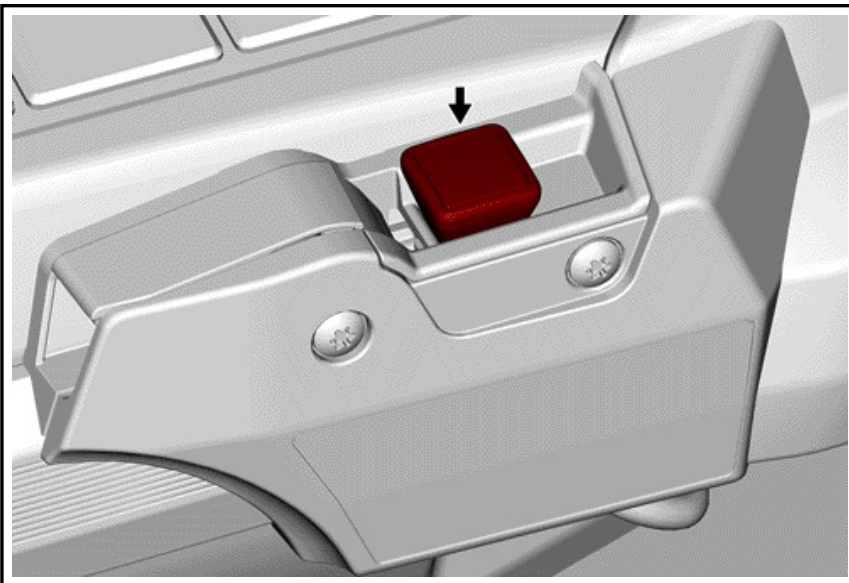
Step 2.: Pull on the cable end piece [P5]

3. Once the end of the rope is reached, release it a little (50 mm (2 in)) and lock the lever.
4. Attach the rope to the dock's cleat with a cleat hitch.
5. Unlock the locking cam [P3] to approach the dock and, once close enough, lock it again.

NOTE: To unlock the locking cam [P3], always push on the edge as shown.



6. To detach the vehicle, untie the rope from the cleat, unlock the locking cam [P3] and guide the cable end piece [P5] into its place. Push on top of the cable end piece to secure it.



⚠ CAUTION:

- Even with the use of Speed-tie, do not leave any passenger on the vehicle or the vehicle unattended
- If the weather conditions become harsh and possibly hazardous, do not board the vehicle while it is secured with Speed-tie alone. Ask for help before boarding the vehicle.
- It is not recommended to use the Speed-tie to secure the vehicle in bad weather conditions.

NOTICE

- Always use the Speed-tie for short period of time. For prolonged period of time, it is recommended to ensure the vehicle is safely secured, such as on its trailer, or a suitable boat lift. Securing the vehicle out of the water is always recommended.

- Never tow another boat using the Speed-tie.

- Never use the Speed-tie to lift the vehicle, even partially, and not even as an auxiliary means to lift.

- Avoid releasing the rope when the locking lever is open and the rope is fully extended, you might damage the upper deck and/or the Speed-tie or hurt people around the vehicle.

-エンジンを始動する前に、ロープが所定の位置に完全に収納され、キャップが所定の位置にはめ込まれていることを確認してください。緩めたままにすると、ロープがインペラに引っ掛かり、車両が損傷する可能性があります。

[Templates.pdf](#)