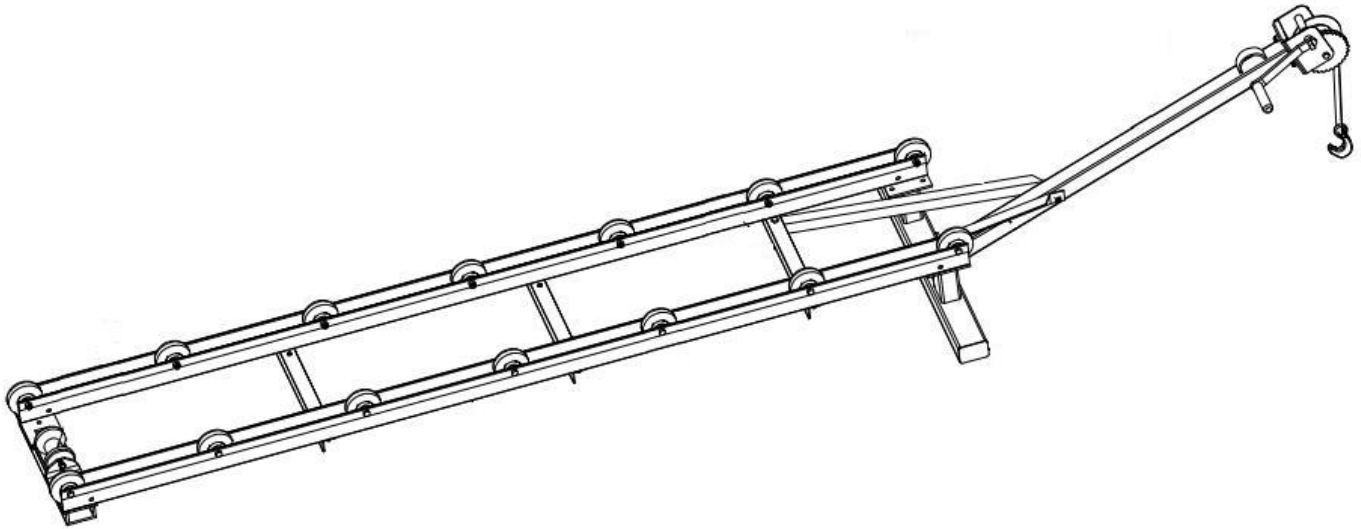


TITAN RAMPS



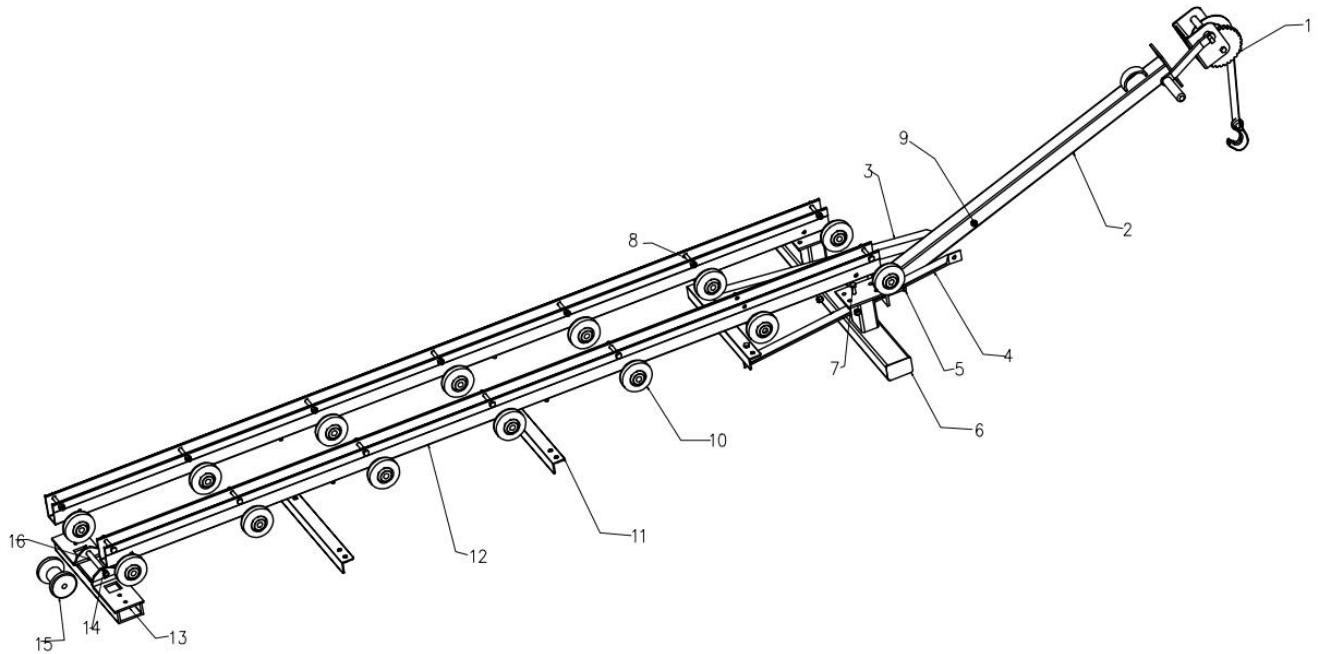
OWNER'S MANUAL

MPN(s): PWCRAMP

SKU(s): 890027

UPC(s): 840009202483

PARTS DIAGRAM / EXPLODED VIEW



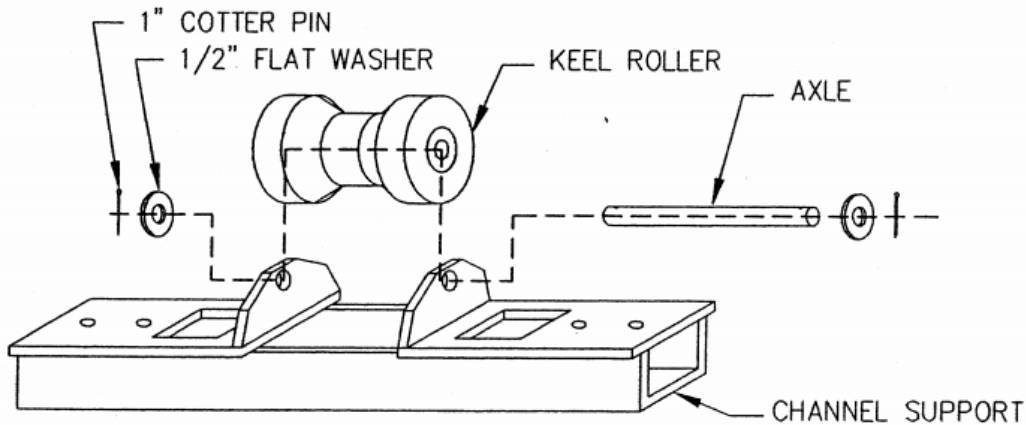
KEY	BOX	DESCRIPTION	QTY
(1)		winch	1
(2)		Winch mast	1
(3)		Left angle support	1
(4)		Right angle support	1
(5)		Hex bolt, 3/8 x 4"	2
(6)		Plastic end caps	2
(7)		Hex bolt, 3/8 x 1"	16
(8)		Hex bolt, 3/8 x 2 3/4"	14
(9)		Hex bolt, 3/8 x 2 3/4"	1
(10)		Plastic rollers	14
(11)		Cross member	3
(12)		94" channels	2

(13)		Keel channel support	1
(14)		1/8 x1" cotter pin	2
(15)		Keel roller	1
(16)		Keel roller axle	1
		3/8 nylock nut	34
		1/2 flat washer	2
		Post assembly	1
		Backing plate	1

ASSEMBLY INSTRUCTIONS

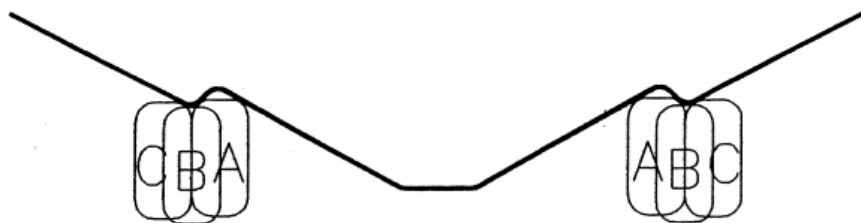
ASSEMBLY:

1. Install keel roller as shown below with 1/2" pin, (2) 1/2" washers and the (2) 1" cotter pins.



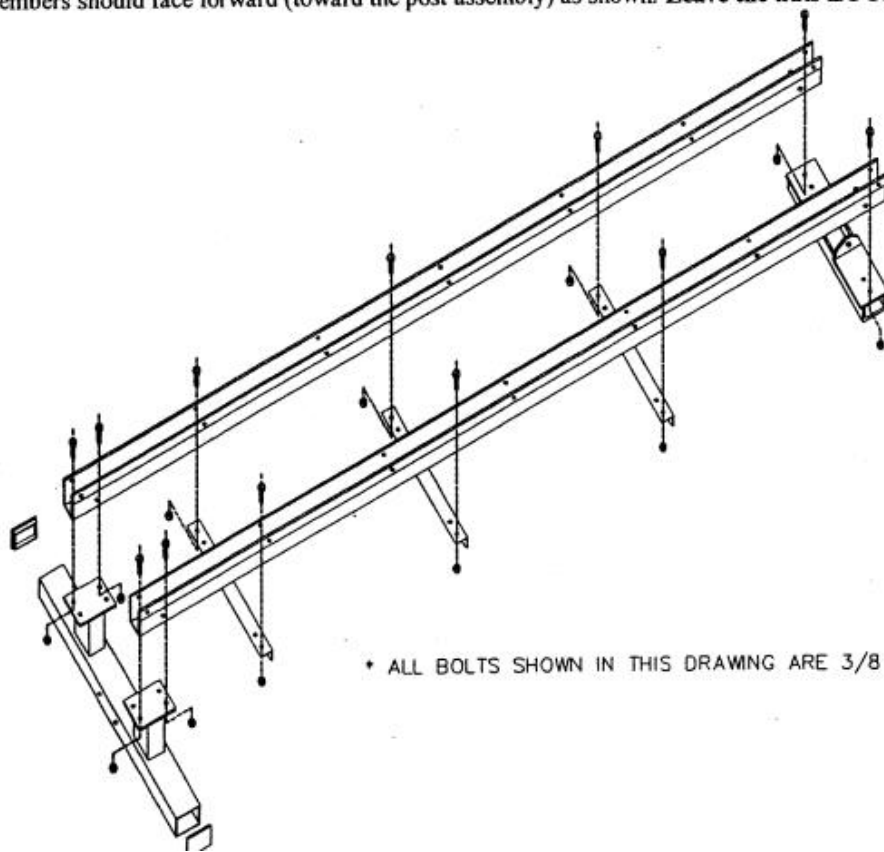
2. Determine the proper rail spacing for your PWC. There are two sets of holes on all crossmembers and supports. Measure the strakes (the longitudinal ridges along your hull) at the stern. You should choose a the widest rail spacing possible *without* duplicating the measurement at point "B" in the diagram below. Otherwise, your PWC will sit tilted on your shore ramp. Although hull styles change, at the time of this printing, most PWCs with the exception of some Kawasakis and stand-up models use the widest rail setting. The widest rail spacing is 14 1/2" on-center and the narrowest is 11 1/2".

TYPICAL PWC HULL



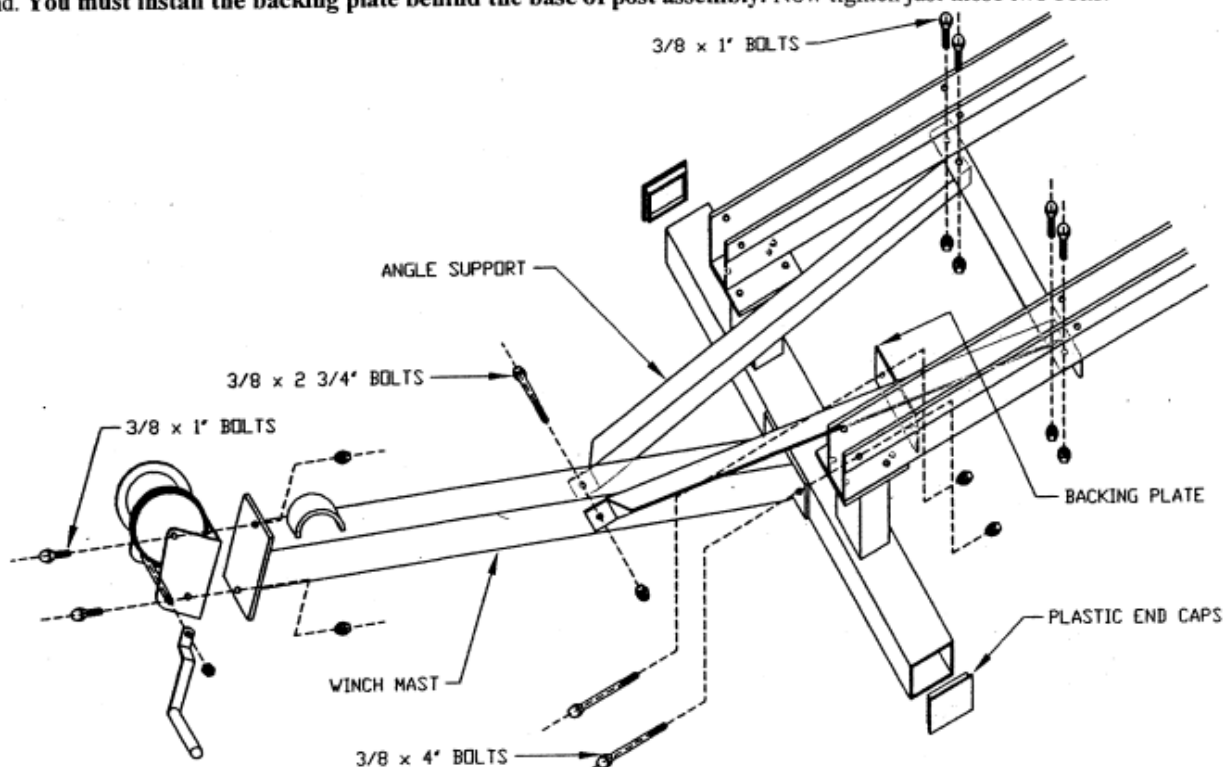
Roller spacing "A" and "C" are good.
Roller spacing "B" will result in a tilt.

3. Carefully tap the two rectangular plastic caps into the ends of the front post assembly.
4. As shown below, assemble the main rail section as shown with $3/8" \times 1"$ bolts and locknuts. Note: The two ends of the rails are not identical. Use the 2 rails, the keel roller cross member the front post assembly and the 3 cross members. The open side of those cross members should face forward (toward the post assembly) as shown. Leave the nuts **LOOSE** for now.

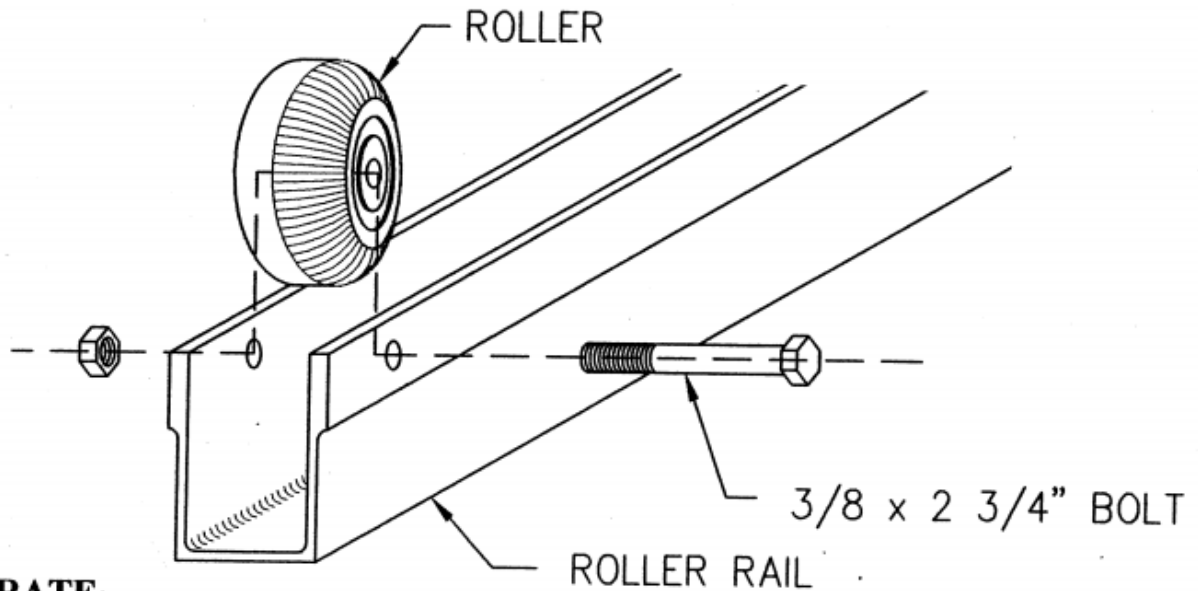


* ALL BOLTS SHOWN IN THIS DRAWING ARE $3/8 \times 1"$

5. As shown below, install the winch mast as shown by first using the (2) $3/8" \times 4"$ bolts and locknuts into the base of the rail stand. You must install the backing plate behind the base of post assembly. Now tighten just those two bolts.

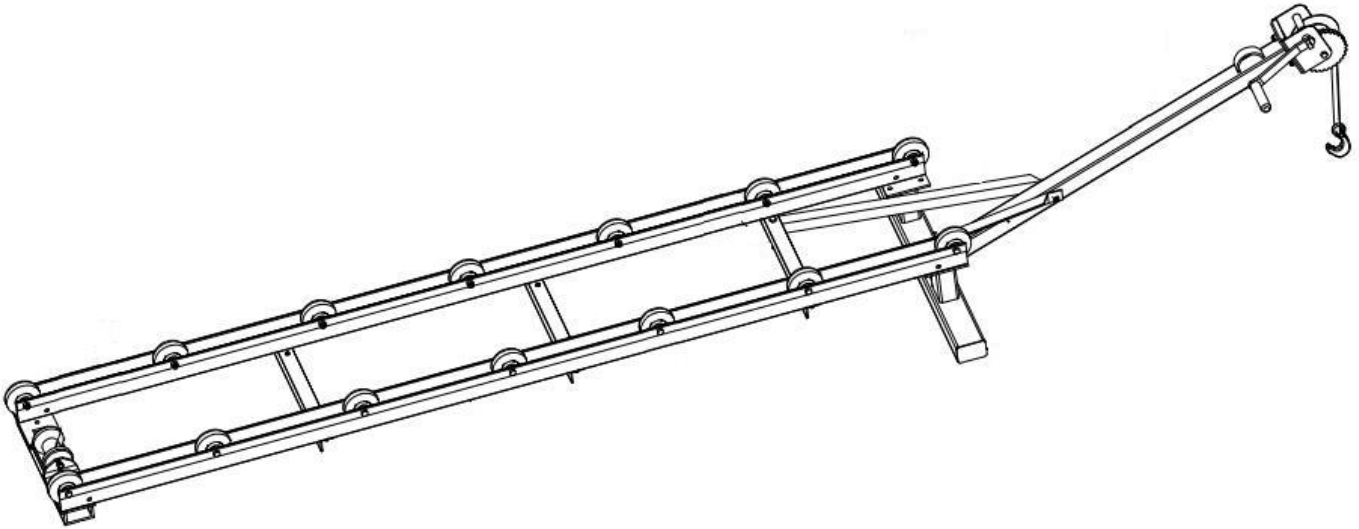


6. Next, attach the left and right mast angle supports under the rails using the same bolt and nut that are attaching the forward cross member. The aft ends of the angle supports attach to the inside holes of the cross member, regardless of the rail spacing selected. Leave nuts loose
7. Then install a $3/8" \times 2 \frac{3}{4}"$ bolt and a locknut through the left and right mast angle supports and the mast as shown.
8. Make sure the rails are square with the cross members then **TIGHTEN ALL NUTS AND BOLTS.**
9. Install the winch with two 1" bolts and locknuts. Install the winch handle
10. Install wheels as shown below. The nut and bolt should only be snug against the rail. **Do not squeeze rail in.**



TO OPERATE:

1. Position the **RAMP** on the shore so the keel roller is a few inches underwater. The best position will depend on your PWC and the slope of the shoreline.
2. The **RAMP** should be located in a stable position. **IT IS DESIGNED FOR GRADUAL SHORELINES ONLY.**
3. To dock, dismount PWC in shallow water, line up center of bow with keel roller and hook on. Engage winch ratchet and crank up.
4. To launch, grasp winch handle, unload the weight from ratchet and disengage ratchet. **ALWAYS KEEP A TIGHT GRIP ON HANDLE! NEVER TRY TO GRAB A RUNAWAY HANDLE!! SERIOUS INJURY CAN RESULT.** Crank down PWC completely into water and unhook. **THE RAMP IS NOT DESIGNED TO LET THE WATERCRAFT "FREEWHEEL" DOWN THE RAMP**
5. **NEVER ALLOW CHILDREN TO OPERATE THE RAMP .**
6. **NO PERSON SHOULD BE ABOARD A PERSONAL WATERCRAFT WHILE IT IS ON THE RAMP**



This concludes the PWC RAMP Owner's Manual.

If applicable to your product, make sure to tighten all nut-and-bolt combinations before use.

Enjoy!

DISCLAIMER

This equipment must be used with care by capable and competent individuals under supervision, if necessary.

The use of any equipment, including this one, involves the potential risk of injury. You accept and assume full responsibility for any and all injuries, damages (both economic and non-economic), and losses of any type, which may occur, and you fully and forever release and discharge Titan, its insurers, employees, officers, directors, associates, and agents from any and all claims, demands, damages, rights of action, or causes of action, present or future, whether the same be known or unknown, anticipated, or unanticipated, resulting from or arising out of the use of said equipment.

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