



IRRIGATION  
COMPONENTS  
INTERNATIONAL  
*(V.I.), INCORPORATED*



# **Universal Barricade Assembly Instructions**

**(Part # 3000668-M)**

# ICII Universal Barricade Assembly Instructions

(Part#: 3000668-M)



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## I. Introduction

The Universal Center Pivot Barricade serves a twofold purpose:

1. Acts as the actuator for an “Auto Reverse from the End Tower” option (Auto Reverse).

The Auto Reverse causes an Irrigation Machine to reverse its direction of travel. It also terminates an Irrigation Machine movement at, the edge of field, or at the end, of irrigation cycle.

2. Prevents the any farther travel of the Center Pivot or Linear Irrigation machine in a particular direction. Most importantly, the barricade acts as a Safety Backup in the event, that an Auto Reverse fails to operate.

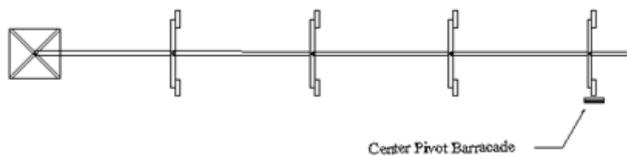


Fig. 1

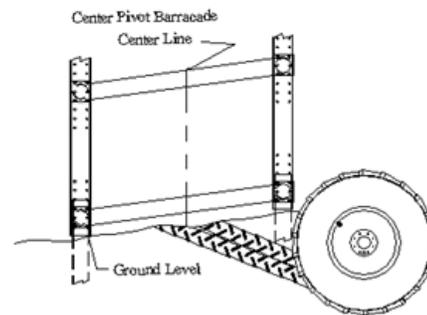


Fig. 2

## II. Placement of the Universal Center Pivot Barricade

1. The barricade is placed in line with the “last tower” wheel track of an irrigation system (Fig. 1). In this location the barricade restrains the movement of the system until the overwater shutdown, times down, and shuts the system off.
2. To insure proper function the Barricade must straddle the wet and dry wheel tracks of the irrigation system (Fig. 2).

An irrigation system will become “longer in overall length” when operating, with water in it, than when it is operating, without water in it. This difference will be considerable on irrigation machines over ¼ mile long.

The additional length, of a system, is a result of the “arched” spans having “settled”, due to the weight, of the water in it. This settling effect causes the span structure to “stretch out”, making the span structure longer. The longer distance is normally measured as a fraction of inch, but may be more than an inch, depending on the length of the span structure. By adding up the longer length of each span, when the machine is operating with water in it verse operating without water in it, will give you the difference in the two operating conditions.

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## III. Component Identification

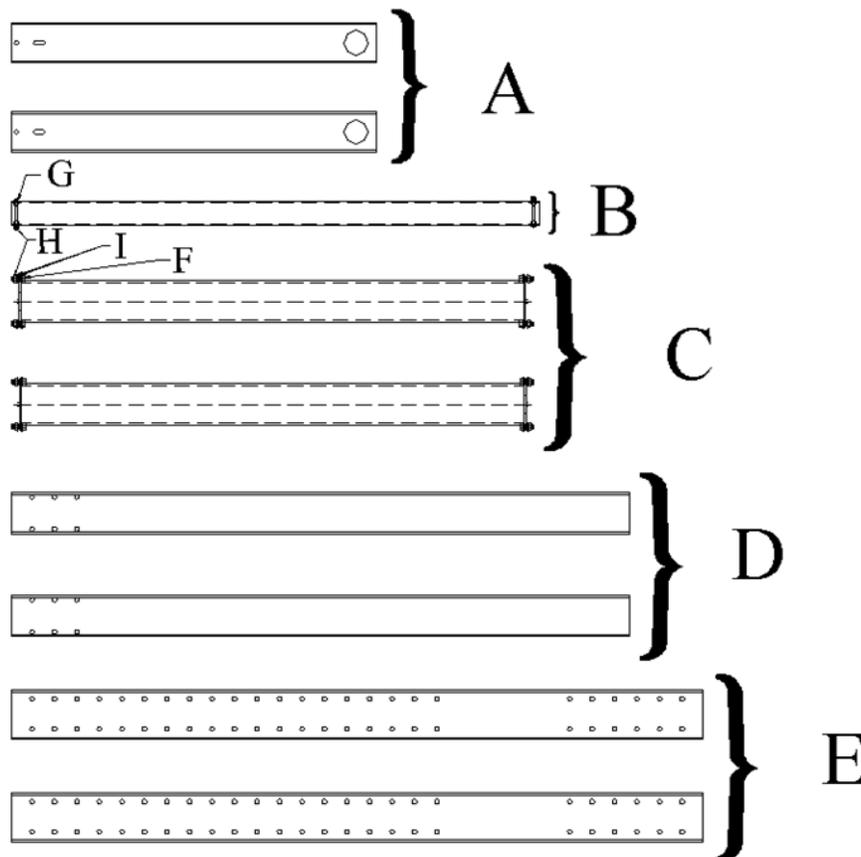


Fig. 3

Item	Part Number	Description	Qty.
A	XWZC-02	Actuator Arm, Formed Channel, 3-7/8" x 51-1/4" x 3/16"	2
B	XWZC-03	Actuator Cross Bar, Pipe, 2-3/8" x 51-1/4", 10 ga.	1
C	XWZC-04	Cross Bar Assemble, Pipe, 4" x 48-11/16", 10 ga. with 5" x 4-3/8" Plates	2
D	XWZC-05	Leg Extension, Formed Channel, 4-1/6" x 60" x 3/16"	2
E	XWZC-01	Leg, Formed Channel, 4-3/4" x 67-1/8" x 3/16"	2
F	BOL-038125CZ5	Bolt, 3/8"-16 X 1-1/4" Hex Head, Tap, Zinc Plt., Gr.5	20
G	BOL-038400CZ5	3/8" x 4" Hex Head, Cap Screw, Grade 5	2
H	NUT-038CNYLZ5	Nut, Lock, 3/8"-16, Nylon Insert, Zinc Plt., H.D.	22
I	WAS-038FLATZ5	Washer, 3/8" SAE Flat Zinc Plt., H.D.	42

- **Please Note: Do not tighten the nuts and bolts until the unit is completely assembled.**  
**All connections require 3/8" x 1 1/4" cap screws (F) and 3/8" locknut (H).**  
**Each 3/8" x 1 1/4" cap screws and each 3/8" lock nut (H) required a 3/8" flat washer (I).**

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## The exceptions are:

The Actuator Cross Bar (B) requires 2 each 3/8" x 4" cap screws (G) and 2 each 3/8" locknut (H).

When the 4"-1/16" wide leg extensions (D) are slide onto the 4-3/4" leg (E) "channel", there is not enough room for washers to fit correctly, they are not used.

## IV. Assembly

1. Place the two crossbars assemblies (C) parallel to each other. Use the guide "Tire and Wheel Assemble Dimensions" to determine the distance between them. (Fig.4)
2. Place the legs (E) perpendicular, to the crossbars assemblies, with the channel side facing out. To orientate the legs, the top, of the leg has 36 "Hole" grouping and the bottom of the leg has a 12 "Hole" grouping. (Fig.4)
3. Slide the leg extensions (D) into the bottom of each leg (E) insuring the 3 sets of holes of the leg extension align (D) with the bottom 3 sets of holes, of the leg (E). (Fig.4)

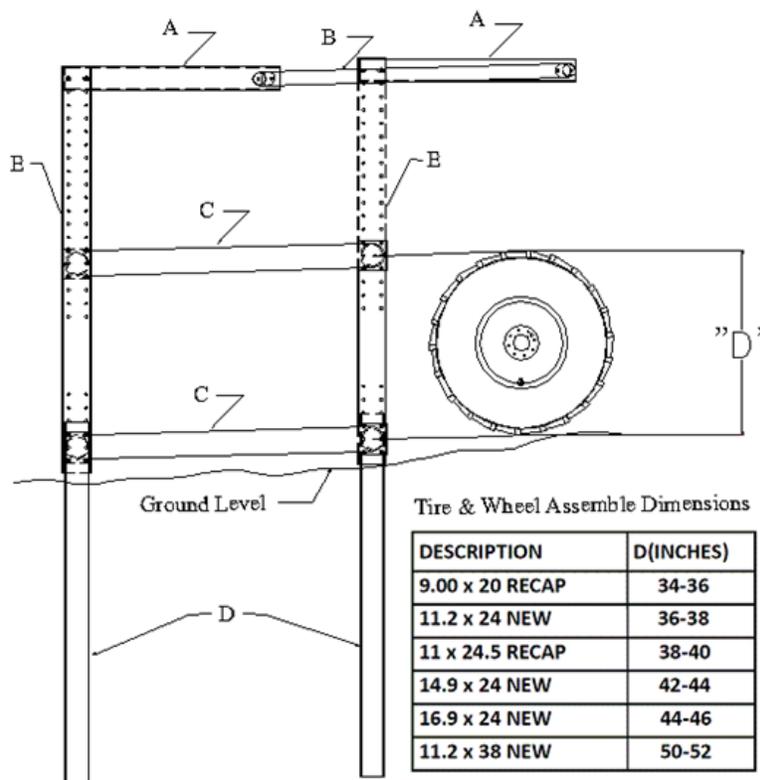
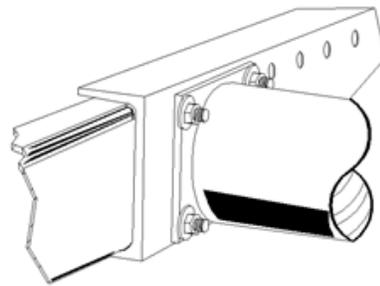


Fig. 4

4. Align one of the crossbar assemblies (C) to the bottom 3 sets of holes, of the legs (E) (Fig. 5). From the outside, of the leg extension, insert the 1 1/4" x 3/8" cap screws through the leg extension (D), leg (E) and crossbar (C). You will only be able to place one flat washer, with the lock nut, in these eight positions.

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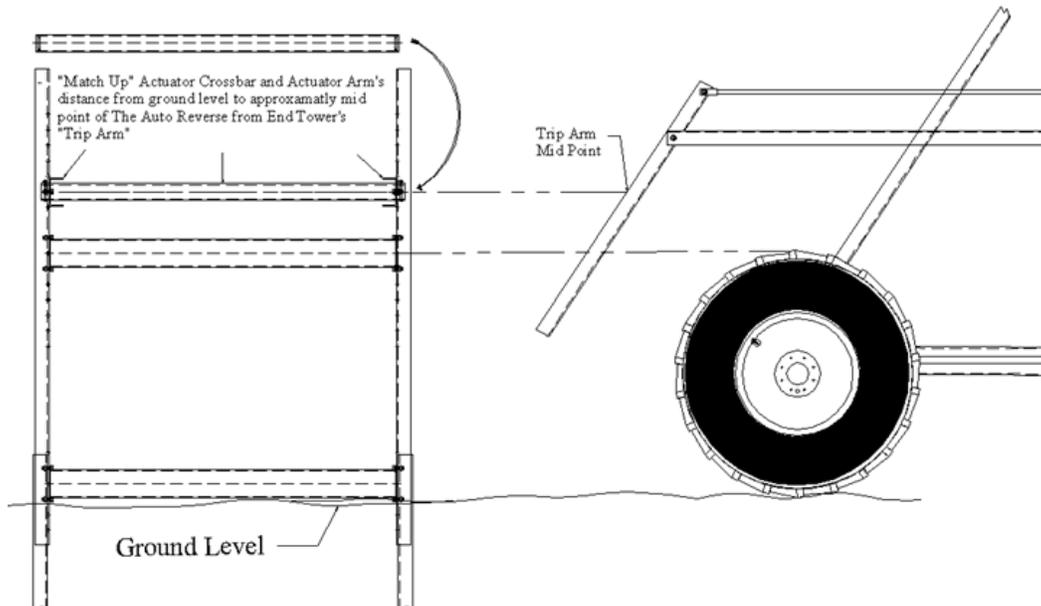


**Fig. 5**

5. Position the 2<sup>nd</sup> crossbar assemble (C) at the required distance from the 1<sup>st</sup> crossbar assemble, using the chart in Fig. 4.

6. Attach both actuator arms (A) to the inside, of the legs (E), at the “required” distance, from ground level. (Fig. 6)

●**Note:** To determine the “required” distance needed, measure for ground level, to a point that is approximately center of the trip arm, on the auto reverse from the end tower. (Fig. 6)



**Fig. 6**

7. Slide the actuator crossbar (B) through the actuator arm’s large holes Centering it so that both end protrude through the two actuator arms (A) (Fig.6)

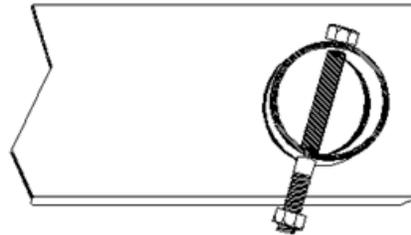
8. Insert the 4” x 3/8” cap screws into each end of the actuator crossbar (B), using a 3/8” locknut to retain it. (Fig.7)

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- **Note:** Tighten the lock nut until there is just three rows of threads passing through the lock nut. (Fig.7) Fully tighten all the remaining nuts and bolts on the barricade.

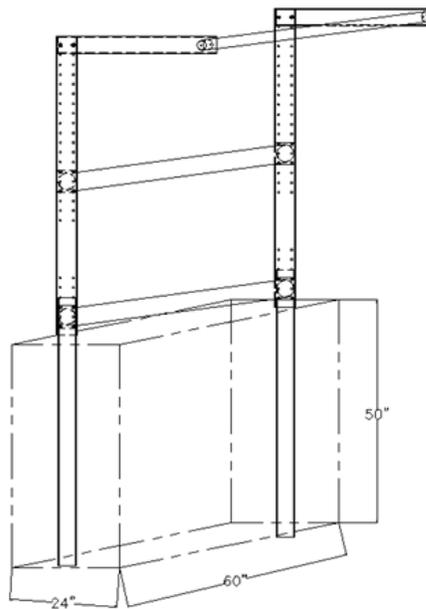


**Fig. 7**

## Field Installation

9. Dig a hole 2 feet (24") x 5 feet (60") wide and 4.1 feet (50") deep. Position the hole at the end of the wheel track as described in fig. 1 and fig. 2.

10. Frame up the hole 2' x 5', then center the assembled barricade in the hole, with the lower crossbar assemble (C) at ground level. (Fig. 8)



**Fig. 8**

- **Note:** The hole required 2 cubic yards of concrete.

To cure the concrete, cover the surface as soon as you can and keep the surface moist by sprinkling with water for five days.



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