

MASH DEPLOYMENT GUIDE – Yodock® 2001

The Yodock® 2001 (“2001”) is a plastic, water filled, Longitudinal Channelizing Device (“LCD”) used for traffic and pedestrian channelization, road closure, and perimeter security for vertical construction.

The 2001 has been tested pursuant to the Manual for Assessing Safety Hardware 16 (“MASH 16”) Test Level 3 (“TL-3”) as an LCD.

When assembled as an LCD, the 2001 is eligible for Federal-Aid reimbursement as a MASH 16 TL-3 LCD on the National Highway System.

Features

1. Interlocking Coupler
2. Fill Cap & Port
3. Light Box Recess
4. Drain Hole & Plug
5. Forklift Ports

Specifications

- 6' length
- 24" width
- 46" height
- Empty Weight: 130 lbs.
- Full Weight: 1500 lbs.
- Capacity: 180 gal.

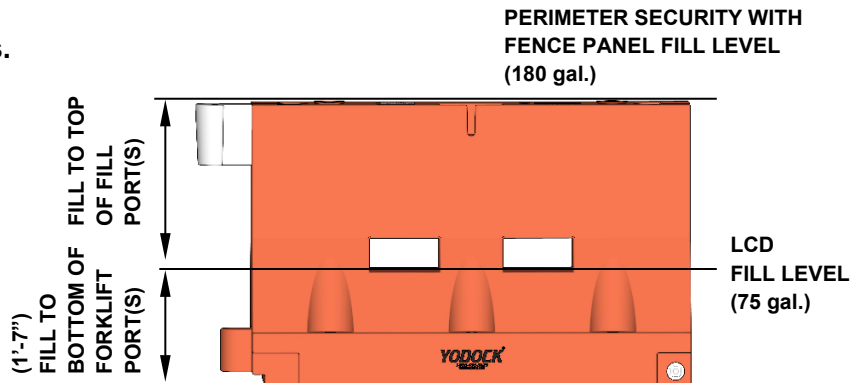
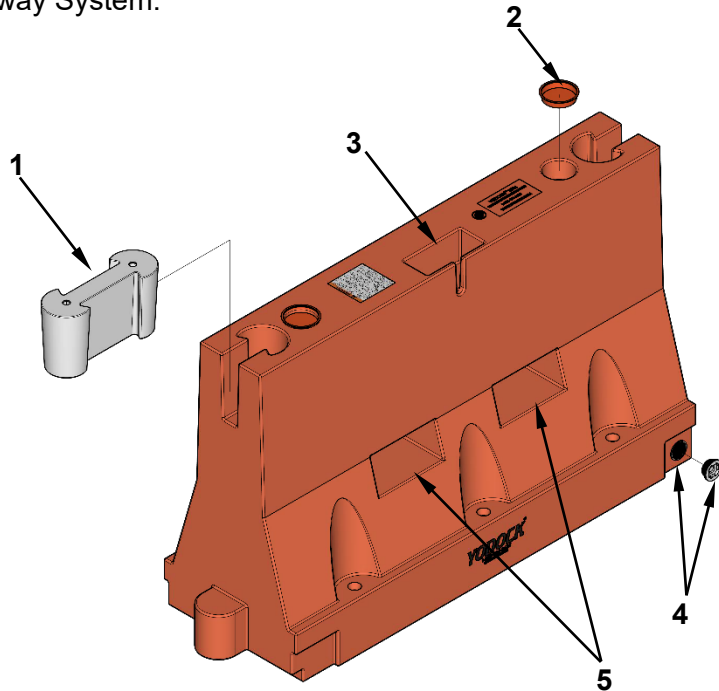
LCD

- Ballast Capacity: 75 gal.
- Ballasted Weight: 750 lbs.

Fence Assembly

- Ballast Capacity: 180 gal.
- Ballasted Weight: 1500 lbs.

Recommended Tools



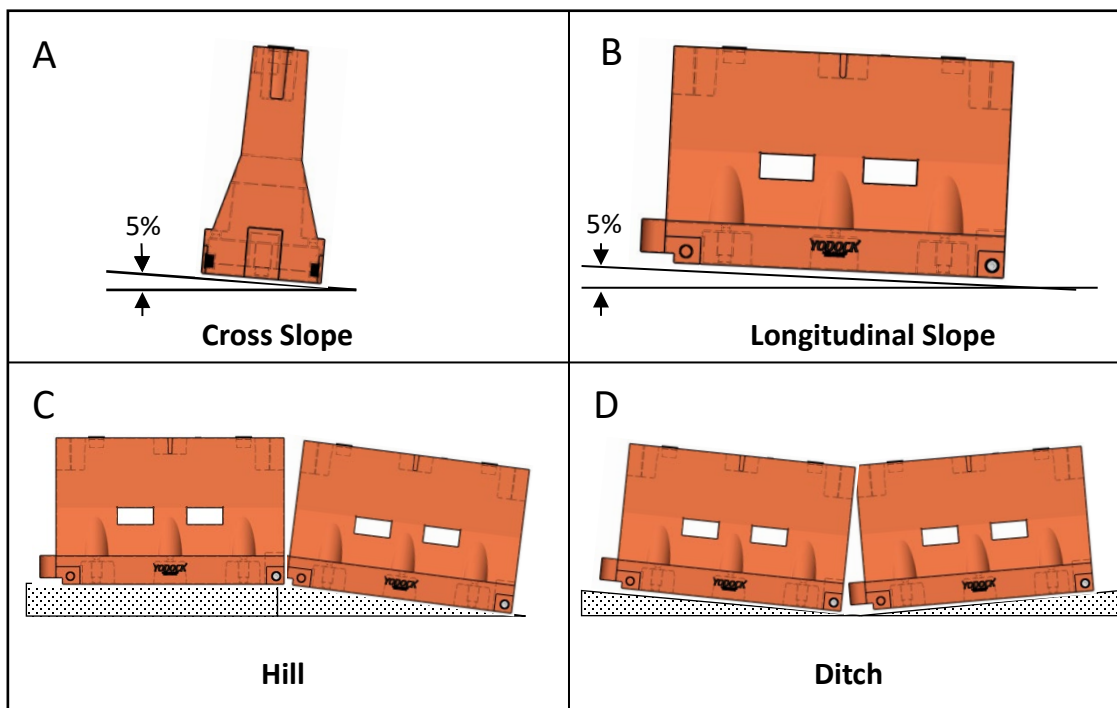
FAILURE TO FOLLOW INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE OR CAUSE SERIOUS INJURY TO PEDESTRIANS AND VEHICLE OCCUPANTS.

Longitudinal Channelizing Device (LCD) Deployment

1. Determine the deployment location of 2001 and follow instructions of highway authority or project manager (if available).
2. Deploy the empty barricades in a line and join each unit to the next using an Interlocking Coupler.
3. If a corner connection is required, use the 2001 Corner Connector and join it to the adjacent barricade run using an Interlocking Coupler. *
 - a. Ensure that Connector Pins are securely in place.
 - b. Use the Interlocking Coupler to connect each side of the Corner Connector to the separate runs of 2001 Barricades.

NOTE: It is not required to fill the Corner Connector with water.

4. Ensure that all Drain Plugs are properly secured.
5. If not already done, remove one (or both) Fill Caps.
6. Fill each 2001 with water up to the bottom of the forklift port, approximately 75 gallons.
7. Attach Fill Caps to prevent water loss and to keep debris out of the barricade.
 - 1) The LCD may be placed on cross slopes up to 5% (3°). – Figure A
 - 2) The LCD may be placed on longitudinal slopes up to 5% (3°). – Figure B
 - 3) The LCD has the ability to conform to a hill up to 5% (3°). – Figure C
 - 4) The LCD has the ability to conform to a ditch up to 5% (3°). – Figure D



Important: MASH deployment for the 2001 LCD only requires water levels to the bottom of the forklift ports.

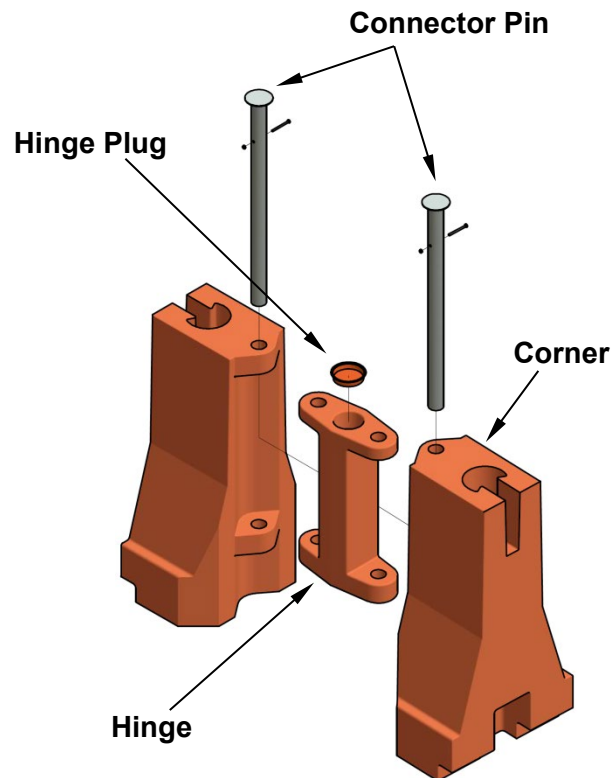
***The corner connector has not been crash tested and is not approved for MASH use.**

2001 Removal

1. Loosen Fill Caps to facilitate water removal.
2. Remove the Drain Plug at the base of the barricade and drain water completely.
3. After barricade is empty, attach Drain Plug, Fill Cap, and remove Interlocking Coupler.
4. Empty barricades can now be removed for transport and storage.

Optional Corner Connector Removal

1. Remove the Interlocking Coupler from both sides of the Corner Connector.
2. Slide the Corner Connector away from each barricade run.
3. The Corner Connector can now be removed for transport and storage.



Corner Connector

Perimeter Security with Fence Panel Deployment **(Not MASH Tested)**

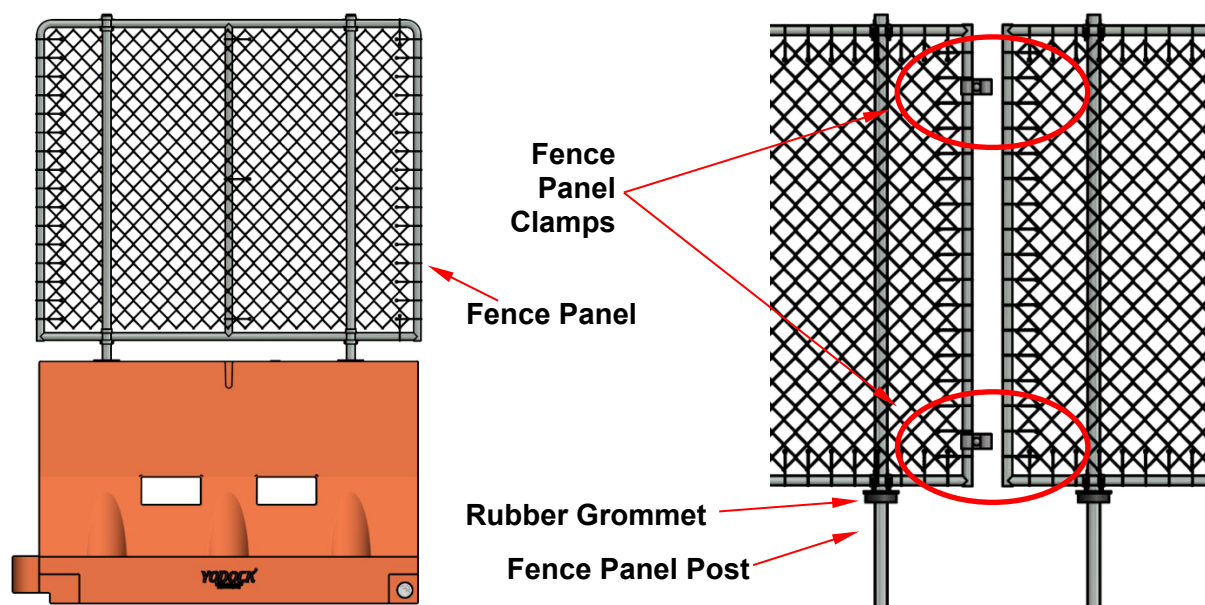


Warning: The 2001 with Fence Panels should only be deployed on level ground.

1. Position each 2001 in line with the next using an Interlocking Coupler.
2. If a connection is required to make a corner, use the 2001 Corner Connector and join it to the adjacent 2001 Barricade run using an Interlocking Coupler (p. 3).
3. Ensure that all Drain Plugs are properly secured.
4. Remove both Fill Caps.
5. **Completely fill each 2001 Barricade with water to the top of the fill port. Failure to completely fill the barricades could result in unwanted tipping of the system.**
6. Slide Rubber Grommets onto each Fence Panel Post. With two people, lift the Fence Panel on top of the barricade and place the Fence Panel Posts into the fill holes. The posts should seat firmly within the pockets of the base inside the barricade with the Rubber Grommets snug in the fill holes. The chain link mesh should be faced out from the barricade.
7. Interconnect the Fence Panels using two (2) Fence Panel Clamps, each one approximately 12" from the top and bottom of the Fence Panel.
8. **Valtir does not recommend the use of non-permeable panels, banners, or tarps; however, if a permeable privacy screening or debris netting is required, attach to the top and bottom of the Fence Panel Frame to secure all screen grommets.**



Danger: Do not attach privacy, debris or windscreens (or remove if already in place) if wind gusts are expected to exceed 45 mph. Failure to do so may result in the system being blown over and causing property damage, personal injury or death.



Perimeter Security with Fence Panel Removal

1. Remove privacy, wind or debris screens (if attached).
2. Remove Fence Panel Clamps.
3. With the assistance of an additional person or persons (as needed), lift the Fence Panel out of the barricade and place on the ground. Remove and retain each Rubber Grommet.
4. Remove the Drain Plug at the base of the barricade and drain water completely.
5. When barricade is empty, attach Drain Plug, Fill Caps and remove Interlocking Coupler.
6. Empty barricades and Fence Panels can now be removed for transport and storage.

Cold-Weather Environments and Anti-Freeze Recommendations

1. Choose the level of freeze point protection anticipated.
2. Choose your anti-freeze agent from the charts below.
3. Use the appropriate anti-freeze agent for your location when filling the 2001.

Chart 1 Anti-Freeze Chemicals - Mix per Barrier Section											
Yodock Barrier Model		2001									
Water Level		To Top of Fill Port					To Bottom of Forklift Port				
Required Freezepoint Protection		20° F	10° F	0° F	-10° F	-20° F	20° F	10° F	0° F	-10° F	-20° F
Dry Material [lbs]	Calcium Chloride (CaCl ₂)	140	209	251	307	335	62	93	112	137	150
	Calcium Magnesium Acetate (CMA)	223	307	377	433	461	100	137	168	193	206
	Magnesium Chloride (MgCl ₂)	126	181	223	251	279	56	81	100	112	125
	Potassium Acetate (Kac)	126	279	349	419	475	56	125	156	187	212
	Sodium Chloride (NaCl ₂)	140	168	293	N/A	N/A	62	75	131	N/A	N/A
Liquid Material [gal]	Ethylene or Propylene Glycol	28	41	55	65	74	13	18	24	29	33

Chart 2 Anti-Freeze Chemicals - Bulk Mix						
Freezepoint Protection		20° F	10° F	0° F	-10° F	-20° F
Dry Material - Lbs./Gallon	Calcium Chloride (CaCl ₂)	0.8	1.2	1.5	1.8	2.0
	Calcium Magnesium Acetate (CMA)	1.3	1.8	2.2	2.6	2.7
	Magnesium Chloride (MgCl ₂)	0.7	1.1	1.3	1.5	1.7
	Potassium Acetate (Kac)	0.7	1.7	2.1	2.5	2.8
	Sodium Chloride (NaCl ₂)	0.8	1.0	1.7	N/A	N/A
Liquid Material - Volume Mix Ratio	Ethylene or Propylene Glycol	17%	25%	33%	39%	45%

Note: The two charts are for reference only and do not guarantee freeze prevention.

1. If a spill occurs with a slick mixture, then the affected area must be hosed down with water. Additional measures may be required to prevent skidding.
2. Before an anti-freeze solution is chosen, the user should check local ordinances regarding environmental requirements.

QUESTIONS: For questions, requests, or additional copies, please contact Valtir Rentals at 888.496.3625 or visit Valtir.com.