

MASH DEPLOYMENT GUIDE – Yodock® 2001M

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

The 2001M has been tested pursuant to the Manual for Assessing Safety Hardware 16 (“MASH 16”) Test Level 2 (“TL-2”) as an LCD.

When assembled as an LCD, the 2001M is eligible for Federal-Aid reimbursement as a MASH 16 TL-2 LCD on the National Highway System.

Features

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

Specifications

- 6' length
- 18" width
- 32" height
- Empty Weight: 75 lbs.
- Full Weight: 750 lbs.
- Capacity: 80 gal.

LCD

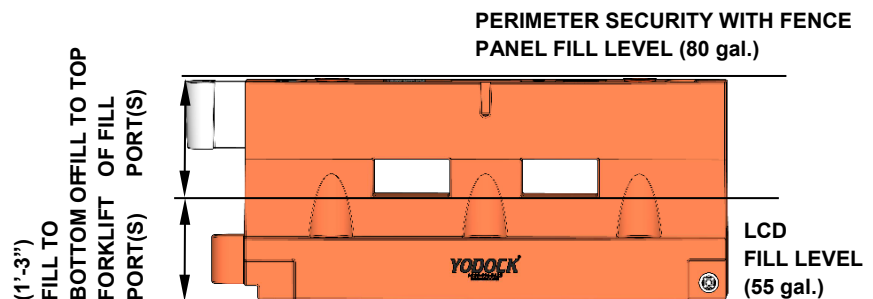
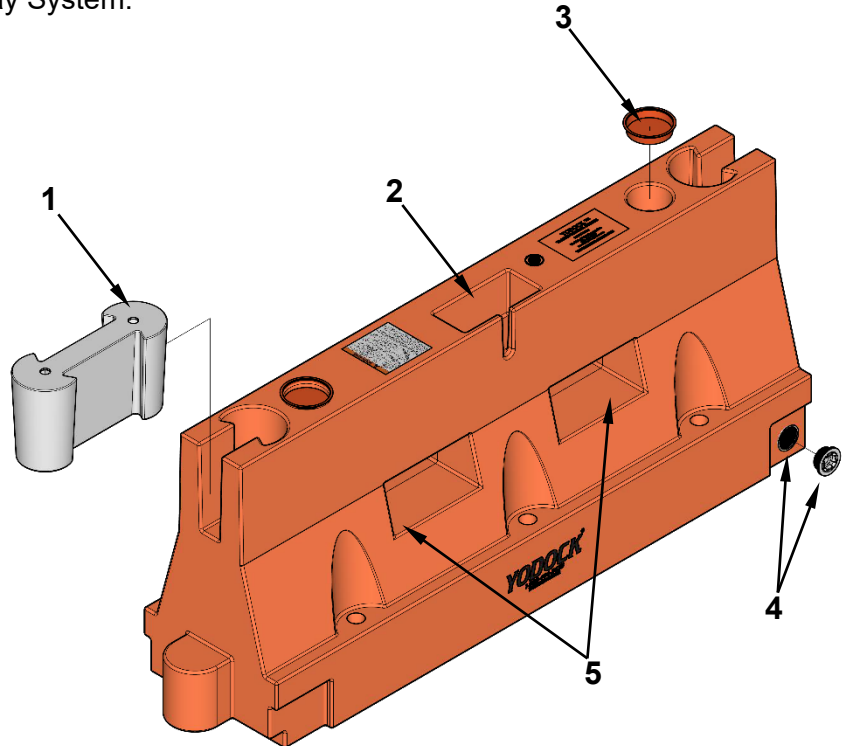
- Ballast Capacity: 55 gal.
- Ballasted Weight: 534 lbs.

Fence Assembly

- Ballast Capacity: 80 gal.
- Ballasted Weight: 750 lbs.

Recommended Tools

- Drain Wrench



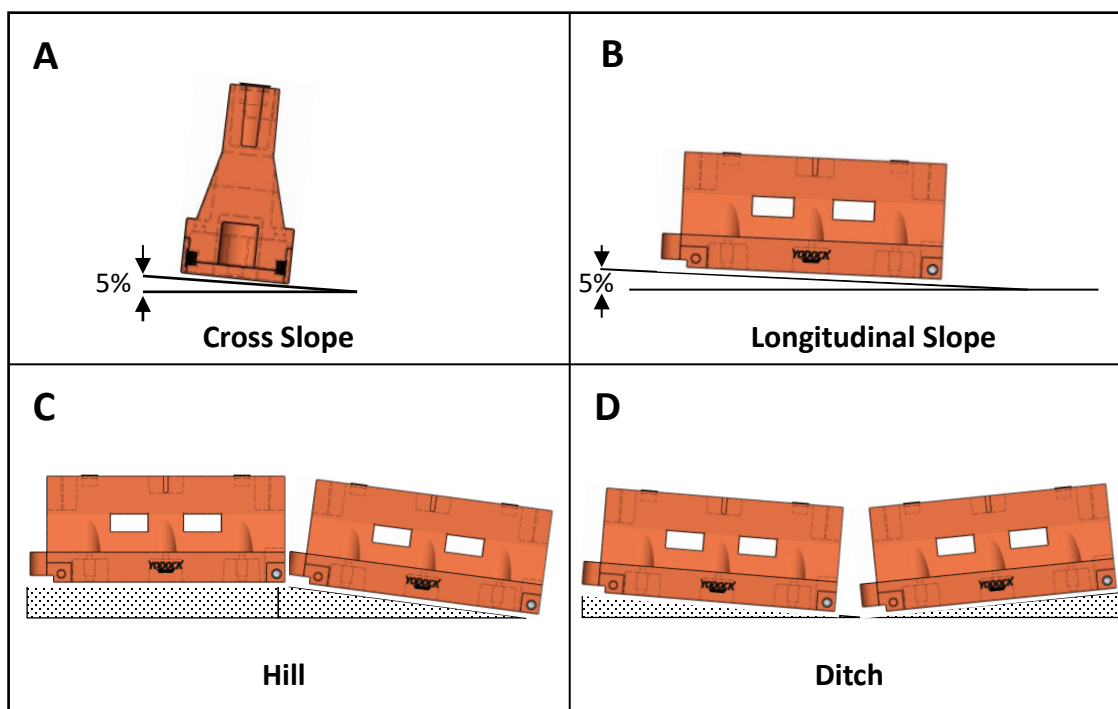
FAILURE TO FOLLOW INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE OR CAUSE SERIOUS INJURY TO PEDESTRIANS AND VEHICLE OCCUPANTS.

Longitudinal Channelizing Device (LCD) Deployment

1. Determine the deployment location of the 2001M and follow the instructions of the 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 2001M / 2001MB Corner Connector and join it to the adjacent barricade run using an Interlocking Coupler. *
 - a. Ensure that Connector Pins are securely in place (p. 3).
 - b. Use an Interlocking Coupler to connect each side of the Corner Connector to the separate runs of the 2001M 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 2001M with water to the bottom of the forklift ports, approximately 55 gallons.
7. Attach Fill Caps to prevent water loss and to keep debris out of the barricade.
 - 1) The 2001M may be placed on cross slopes up to 5% (3°). – Figure A
 - 2) The 2001M may be placed on longitudinal slopes up to 5% (3°). – Figure B
 - 3) The 2001M has the ability to conform to a hill up to 5% (3°). – Figure C
 - 4) The 2001M has the ability to conform to a ditch up to 5% (3°). – Figure D



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

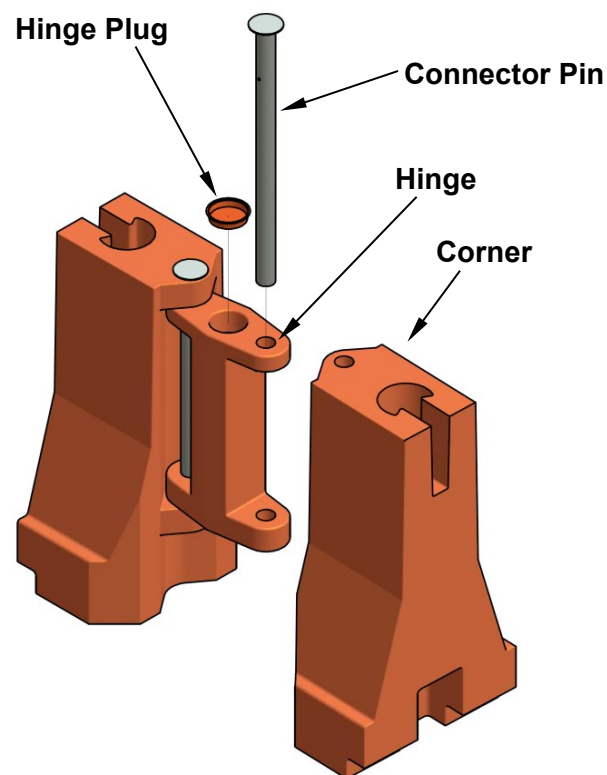
***The corner connector has not been crash tested and is not approved for MASH use.**

Yodock® 2001M 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 the 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)

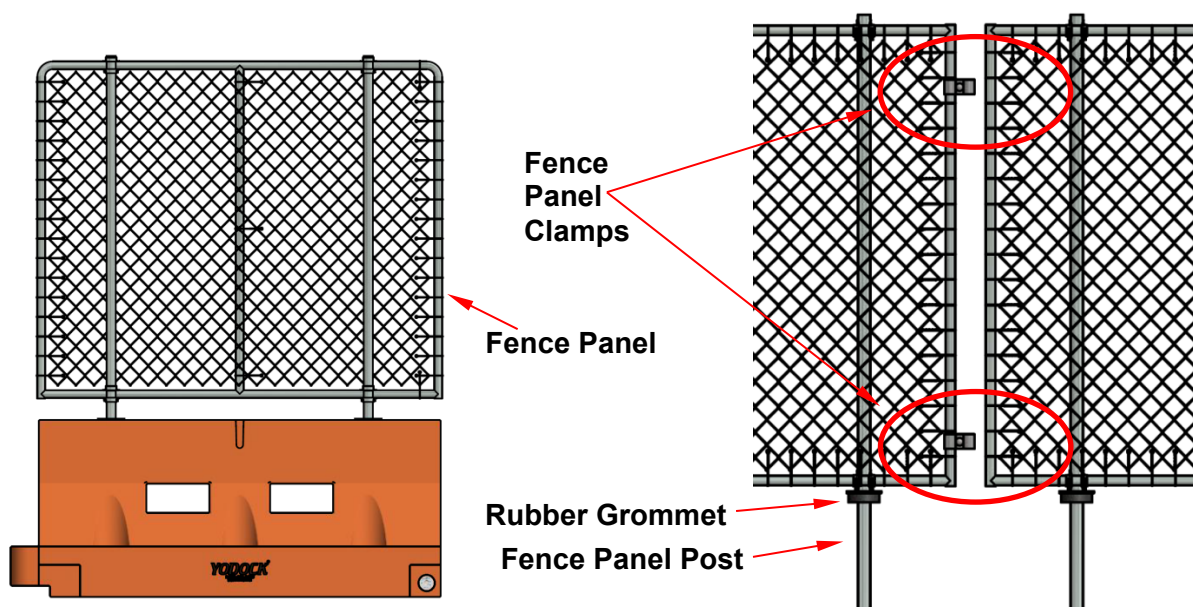


Warning: The 2001M with Fence Panels should only be deployed on level ground.

1. Line up each 2001M and connect adjoining units using Interlocking Couplers.
2. If a connection is required to make a corner, use the 2001M Corner Connector and join it to the adjacent 2001M 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 2001M 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 insert the Fence Panel Posts into the fill holes. The posts should seat firmly within the post boots at the base of the barricade with the Rubber Grommets snug in the fill holes at the top of the barricade. 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 the anti-freeze agent from the charts below.
3. Use the appropriate anti-freeze agent for your location when filling the 2001M.

Chart 1		Anti-Freeze Chemicals - Mix per Barrier Section									
Yodock Barrier Model		2001M									
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)	66	99	119	145	159	50	74	89	109	119
	Calcium Magnesium Acetate (CMA)	106	145	178	205	218	79	109	134	154	164
	Magnesium Chloride (MgCl ₂)	59	86	106	119	132	45	64	79	89	99
	Potassium Acetate (Kac)	59	132	165	198	225	45	99	124	149	169
	Sodium Chloride (NaCl ₂)	66	79	139	N/A	N/A	50	59	104	N/A	N/A
Liquid Material [gal]	Ethelyne or Propylene Glycol	14	20	26	31	35	11	15	19	23	26

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.