

Installation Instructions for Edge of Dock Leveler Mounting Systems For use with Model E66WD/E72WD

READ COMPLETE INSTRUCTIONS BEFORE INSTALLING

Product may be covered by one or more patents. See **www.wayne-dalton.com/patents** for details.

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Terminology and Definitions

Important Safety Instructions

DEFINITION OF KEY WORDS USED IN THIS MANUAL:



INDICATES A HAZARDOUS SITUATION THAT, IF NOT AVOIDED, WILL RESULT IN DEATH OR SERIOUS INJURY.



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INDICATES A HAZARDOUS SITUATION THAT, IF NOT AVOIDED, COULD RESULT IN MINOR OR MODERATE INJURY.

NOTICE

INDICATES INFORMATION CONSIDERED IMPORTANT, THAT IT IS NOT RELATED TO INJURY, BUT MAY RESULT IN PROPERTY DAMAGE.

IMPORTANT: Required key information.

NOTE: Information only.

Product Information

A DANGER

AN EMBEDDED CURB ANGLE ALONE MAY BE STRUCTURALLY INADEQUATE FOR AN EDGE OF DOCK LEVELER. ALWAYS USE AN APPROACH PLATE IN CONJUNCTION WITH EMBEDDED CURB ANGLE. ENSURE EDGE OF DOCK IS WELDED ON THE TOP EDGE AS SHOWN IN THE INSTRUCTIONS BELOW. DEATH OR SERIOUS INJURY MAY OCCUR IF THE CURB ANGLE OR EDGE OF DOCK LEVELER SEPARATES FROM THE DOCK DURING USE.

A completed site survey will help your Wayne Dalton dock specialist specify the correct dock leveler solution for your application.

Table 1 lists some of the most common dock construction scenarios and the corresponding recommended installation methods for edge of dock levelers. Be sure to follow the installation instructions from the manufacturers of additional steel members, such as approach plates and ramps. Whatever the specific application is, be sure to verify with an architect or engineer of record that the dock edge construction is suitably rated for the edge of dock leveler.

| TABLE 1 - DOCK CONSTRUCTION AND CORRESPONDING INSTALLATION METHODS | | | | | |
|--|---------------------------------------|---|----------------------------|------------------------------------|--|
| DOCK EDGE CONSTRUCTION | CONDITION OF CONCRETE SUBSTRATE | DOCK HEIGHT RELATIVE TO TRANSPORT VEHICLE | MOUNT TYPE | LEVELER IS WELDED / ANCHORED | REQUIRED ADDITIONAL STEEL MEMBERS |
| Securely Anchored Steel Embed Channel (8" Tall Minimum) | - | Adequate (Within +3/-3") | Flush Mount | Welded | Optional Flat Kinked / Beveled Approach Plate |
| Securely Anchored Steel Embed Channel (8" Tall Minimum) | - | Dock Too Low Or Transport Vehicle Too High | Ramp Mount | Welded | Ramped Approach Plate (Provided By Other) |
| Securely Anchored Curb Angle | Uncracked | Adequate (Within +3 / -3") | Flush Mount | Hybrid Welded & Anchored | Flat Kinked / Beveled Approach Plate With Optional Wall Plate |
| No Steel Members Present | Cracked Or Uncracked | Adequate (Within +3 / -3") | Formed Angle Or 2-Piece | Welded | Formed Steel On Horizontal And Vertical Faces Of Dock Edge Or 2-Piece Kinked / Beveled Approach Plate + Wall Plate |
| No Steel Members Present Or Securely Anchored Curb Angle | Cracked Or Uncracked | Dock Too Low Or Transport Vehicle Too High | Ramp Mount | Welded | Ramped Approach Plate (Provided By Other) With Wall Plate |

Installation Instructions

Installation Precautions



READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING INSTALLATION. IF YOU ARE IN QUESTION ABOUT ANY OF THE PROCEDURES, DO NOT PERFORM THE WORK. INSTALLATION OR REPAIRS SHOULD ONLY BE PERFORMED BY A TRAINED DOCK SYSTEMS TECHNICIAN. FAILURE TO FOLLOW SAFETY INSTRUCTIONS WILL RESULT IN DEATH OR SERIOUS INJURY.

A DANGER

DURING INSTALLATION KEEP HANDS AND FEET CLEAR OF PINCH POINTS WHEN LIFTING, MANIPULATING, AND MOVING THE DOCK MOUNTING SYSTEM. FAILURE TO COMPLY WILL RESULT IN SERIOUS INJURY OR DEATH.

WARNING

INSTALLING THIS MOUNTING SYSTEM PROPERLY REQUIRES THE USE OF SPECIAL TOOLS AND TECHNIQUES. ALWAYS USE THE CORRECT TOOLS OR TECHNIQUES WHEN PERFORMING INSTALLATION. FAILURE TO USE PROPER TOOLS OR TECHNIQUES OR ADHERE TO SAFETY MESSAGES, COULD RESULT IN DEATH OR SERIOUS INJURY.

A WARNING

APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE) SHOULD ALWAYS BE USED. THIS INCLUDES BUT IS NOT LIMITED TO A HARD HAT WHEN WORKING BELOW OVERHEAD LOADS, APPROPRIATE EYE PROTECTION, GLOVES, AND HARD-CAPPED SLIP-RESISTANT FOOTWEAR WHEN WORKING ON OR NEAR THE DOCK AREA. APPROPRIATE PPE MAY PROTECT YOU FROM DEATH OR SERIOUS INJURY.

Required Tools And Materials List

- Lifting equipment
- Tape measure
- Welder with welding electrode or filler metal (minimum 70,000 PSI tensile strength)
- Wire brush (for cleaning weld slag and concrete splatter)
- Grinder (for cutting anchor heads and removing powder coat before welding)
- Hammer drill with drill bit suitable for concrete. (Be sure to follow anchor manufacturer recommendation for hole diameter)
- Vacuum or compressed air (for concrete anchor hole cleanout)
- Hammer or mallet (for driving concrete anchors)
- Drill driver with socket adapters (for installing anchors)
- Touch up paint
- Minimum 5/8" diameter concrete anchors are recommended

NOTICE

THE RATED STRENGTH OF A DOCK MOUNTING SYSTEM IS DEPENDENT ON A VARIETY OF FACTORS, INCLUDING BUT NOT LIMITED TO: CONCRETE GRADE AND CONDITION, WELD QUALITY, FASTENER RATING, INSTALLATION WORKMANSHIP, AND ENVIRONMENTAL FACTORS. ALWAYS CONSULT WITH THE ENGINEER OF RECORD FOR THE SITE TO ENSURE THE MOUNTING SYSTEM. CONCRETE. AND FASTENERS ARE APPROPRIATELY SPECIFIED FOR THE SITE AND FACILITY USAGE.

Installation Instructions Continued...

A WARNING

BEFORE INSTALLING THE DOCK MOUNTING SYSTEM, READ AND FOLLOW ALL INSTALLATION PRECAUTIONS. PLACE BARRICADES AROUND DOCK AND DRIVE WHILE PERFORMING INSTALLATION, MAINTENANCE, OR REPAIR IN DOCK AREA.



DO NOT INSTALL EMBEDDED CONCRETE ANCHORS IN CRACKS OR EXPANSION JOINTS IN CONCRETE. INSTALLATION IN CRACKS OR EXPANSION JOINTS MAY CAUSE THE ANCHORS TO COME LOOSE AND PULL OUT. ALL EMBEDMENT CONCRETE ANCHORS MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. IMPROPERLY INSTALLED ANCHORS COULD CAUSE SERIOUS INJURY OR DEATH.

Installation With Channel Embed – Flush Mount & Weld

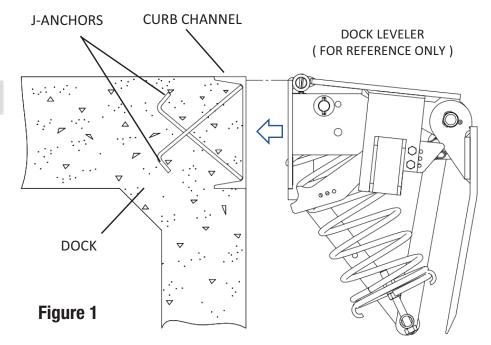
IMPORTANT: Comply with all precautions on pages 4 through 5.

A flush mount weld-on application is used with a securely anchored steel embed channel (8" tall minimum), at the dock edge and adequate dock height relative to transport vehicle. An approach plate is optional in this case, as the dock leveler will be welded to the embed channel.

If the embed channel doesn't exist, it can be installed by pouring concrete into the steel channel with welded J-anchors, as shown in **Figure 1**.

- 1. Wait until all concrete is thoroughly cured prior to installing the dock leveler.
- 2. Refer to Wayne Dalton's Installation Instructions and User Manual for Edge of Dock Levelers for installation. 851052.00XX.

IMPORTANT: CONCRETE COMPRESSIVE STRENGTH SHOULD BE SPECIFIED AND CONFIRMED BY THE ENGINEER OF RECORD FOR THE FACILITY/SITE.



Installation Instructions Continued...

Installation With Approach Plate - Flush Mount & Anchor

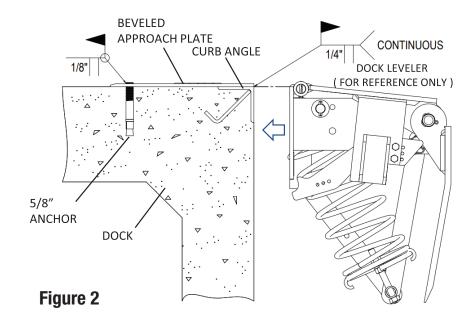
NOTICE

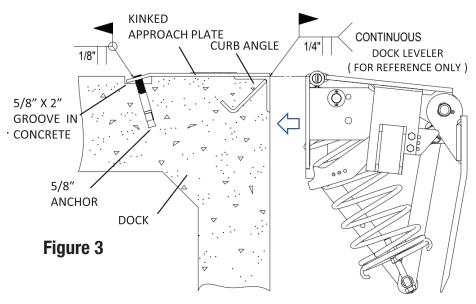
ALL CONCRETE ANCHOR LENGTHS MUST COMPLY WITH LOCAL CODES AND CONDITIONS. ANCHOR SELECTION INCLUDING LENGTH IS DETERMINED BY TYPE AND DEPTH OF CONCRETE AND IS TO BE SPECIFIED BY THE ENGINEER OF RECORD.

IMPORTANT: Comply with all precautions on pages 4 through 5.

An approach plate with anchors application is used when there is no embed channel, securely anchored curb angle exists on dock edge, the concrete is uncracked, and the dock height is adequate. An additional steel wall plate with anchors is optional with this type of dock construction.

- 1. Find the center of the space at the desired location, mark a point half of the approach plate width to the left and right.
- 2. Lift the approach plate and lay it to marked position on dock floor, ensure the plate lies flush against dock surface and curb angle face.
- 3. If beveled approach plate is used, skip to step 8. (See Figure 2)
- 4. If kinked approach plate is used, mark on dock floor along full length of kinked edge of plate. (See **Figure 3**)
- 5. Slide approach plate forward 2" and mark a second line location on dock floor along full length of kinked edge of plate.
- 6. Slide approach plate slightly away from lines and cut a 2" wide x 5/8" deep groove in the concrete between the two lines marked in steps 4 and 5.
- 7. Slide approach plate the kinked edge is recessed in the groove and the horizontal plate is flat against the top of the dock surface. The front edge should be flush against the dock face.
- 8. Install 5/8"x 4-3/4" embedment concrete anchors on top face; fasten and torque to manufacturer's specification. One at a time, remove nuts from bolts on top of dock while the adjacent nuts remain fastened, cut bolts flush with top of angle then apply a 1/8" square weld all around the top of the bolts.
- 9. Apply a 1/4" continuous butt weld between the front edge of the approach plate and the embedded steel member, then grind flush.
- 10. Refer to Wayne Dalton's Installation Instructions and User Manual for Edge of Dock Levelers for installation. 851052.00XX.





Installation Instructions Continued...

Installation With Formed Angle - Flush Mount & Weld

NOTICE

ALL CONCRETE ANCHOR LENGTHS MUST COMPLY WITH LOCAL CODES AND CONDITIONS. ANCHOR SELECTION INCLUDING LENGTH IS DETERMINED BY TYPE AND DEPTH OF CONCRETE AND IS TO BE SPECIFIED BY THE ENGINEER OF RECORD.

IMPORTANT: Comply with all precautions on pages 4 through 5.

A formed angle is used when there is no existing dock steel. The application is used if the dock height is adequate.

- 1. Find the center of the space at the desired location, mark a point half of the angle width to the left and right.
- 2. Lift the formed angle and lay it to marked position on dock floor, ensure the vertical wall of the angle lies flush against wall.
- 3. If beveled formed angle is used, skip to step 8. (See Figure 4)
- 4. If kinked formed angle is used, mark on dock floor along full length of kinked edge of angle. (See **Figure 5**)
- 5. Slide formed angle forward 2" and mark a second line location on dock floor along full length of kinked edge of angle.
- 6. Slide formed angle slightly away from lines and cut a 2" wide x 5/8" deep groove in the concrete between the two lines marked in steps 5 and 6.
- 7. Slide formed angle until the kinked edge is recessed in the groove and the horizontal leg is flat against the top and the vertical leg is tight against the face of the dock.
- 8. Install 5/8"x 4-3/4" embedment concrete anchors on top and front faces; fasten and torque to manufacturer's specification. One at a time, remove nuts from bolts on top of dock while the adjacent nuts remain fastened; cut bolts flush with top of angle, then apply 1/8" square weld all around the top of the bolts.
- 9. Install 5/8"x 4-3/4" embedment concrete anchors in dock face through holes in formed angle per manufacturers specifications.
- 10. Refer to Wayne Dalton's Installation Instructions and User Manual for Edge of Dock Levelers for installation. 851052.00XX.

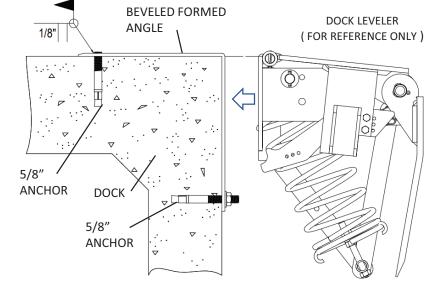
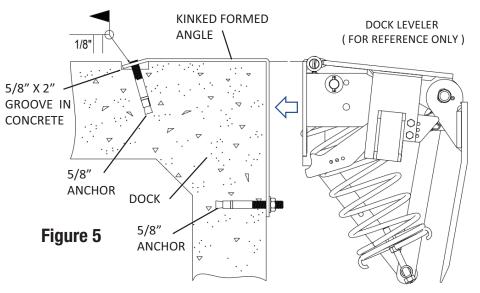


Figure 4



Installation Instructions Continued... Installation With 2-Piece Angle - Flush Mount & Weld

NOTICE

ALL CONCRETE ANCHOR LENGTHS MUST COMPLY WITH LOCAL CODES AND CONDITIONS. ANCHOR SELECTION INCLUDING LENGTH IS DETERMINED BY TYPE AND DEPTH OF CONCRETE AND IS TO BE SPECIFIED BY THE ENGINEER OF RECORD.

IMPORTANT: Comply with all precautions on pages 4 through 5.

A 2-piece angle mount requires an approach plate and a wall plate. This installation is used when there is no existing dock steel and the concrete at the dock edge is cracked or uncracked, and dock height is adequate. The plates are used to rebuild the damaged concrete edge

- 1. Find the center of the space at the desired location, mark a point half of the wall plate width to the left and right.
- 2. Lift the wall plate and position it to marked position and flush against dock face. Top of wall plate should be flush with the top of dock floor. Install 5/8"x 4-3/4" embedment concrete anchors in dock face through holes in wall plate, fasten and torque to manufacturer's specification.
- 3. Raise the approach plate and position it to match each end of the wall plate. Front edge of ramp plate should be flush with the dock face.
- 4. If beveled approach plate is used, skip to step 9. (See Figure 6)
- 5. If kinked approach plate is used, mark on dock floor along full length of kinked edge of plate. (See **Figure 7**)
- 6. Slide approach plate forward 2" and mark a second line location on dock floor along full length of edge of plate.
- 7. Slide approach plate slightly away from lines and cut a 2" wide x 5/8" deep groove in the concrete between two lines marked in steps 6 and 7.
- 8. Slide approach plate until kinked is recessed in the groove and horizontal leg is flat against top; forward edge is flush with dock face.
- 9. Install 5/8"x 4-3/4" embedment concrete anchors in dock floor through holes in approach plate, fasten and torque to manufacturer's specification. One at a time, remove the nuts from bolts on top of the dock while the adjacent nuts remain fastened; cut bolts flush with top of angle, then apply a 1/8" square weld all around the top of the bolts.
- 10. Install 5/8"x 4-3/4" embedment concrete anchors in the dock face through the holes in the wall plate per manufacturer's specifications.
- 11. Apply a ¼" continuous fillet weld at the created joint between the wall plate and approach plate. Skip welding is permitted to mitigate warping.
- 12. Refer to Wayne Dalton's Installation Instructions and User Manual for Edge of Dock Levelers for installation. 851052.00XX.

