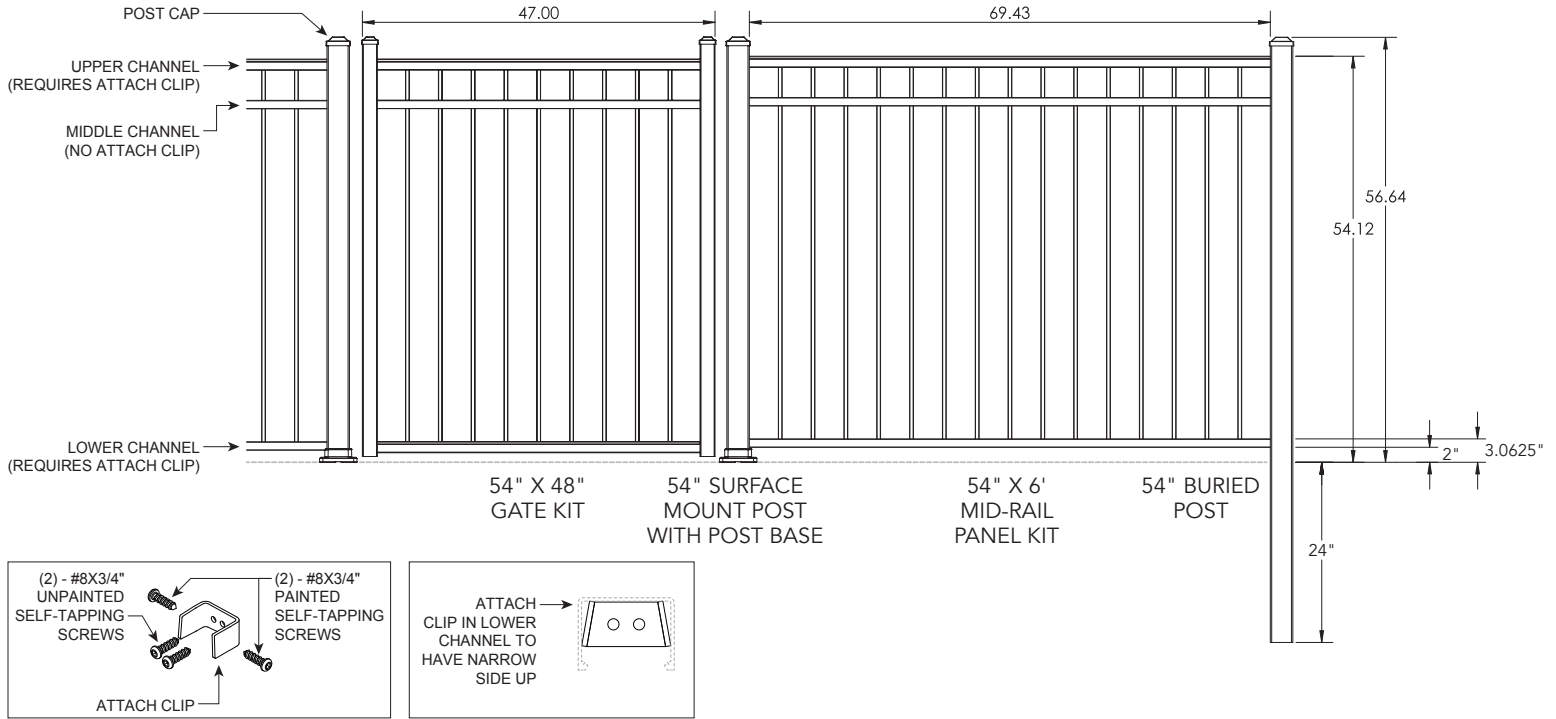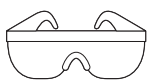# ALUMINUM FENCE INSTALLATION INSTRUCTIONS
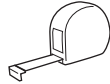
FENCE ASSEMBLY OVERVIEW

- 6' X 54" PANELS WITH MIDRAIL SHOWN
- POST AND PANEL HEIGHTS VARY BY FENCE SYSTEM
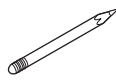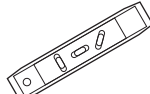- BURIED POST DEPTHS AND PANEL WIDTHS ARE CONSISTENT BETWEEN SYSTEMS

POST CAP

UPPER CHANNEL
(REQUIRES ATTACH CLIP)

MIDDLE CHANNEL
(NO ATTACH CLIP)

LOWER CHANNEL
(REQUIRES ATTACH CLIP)

47.00

69.43

56.64

54.12

2"

3.0625"

24"

54" X 48"
GATE KIT

54" SURFACE
MOUNT POST
WITH POST BASE

54" X 6'
MID-RAIL
PANEL KIT

54" BURIED
POST

(2) - #8X3/4"
UNPAINTED
SELF-TAPPING
SCREWS

(2) - #8X3/4"
PAINTED
SELF-TAPPING
SCREWS

ATTACH CLIP

ATTACH
CLIP IN LOWER
CHANNEL TO
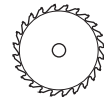HAVE NARROW
SIDE UP

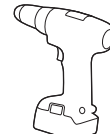### ITEMS REQUIRED FOR INSTALLATION

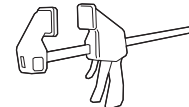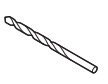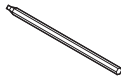SAFETY GLASSES | TAPE MEASURE | PENCIL | LEVEL | MITER SAW WITH NON-FERROUS BLADE | IMPACT DRIVER (OR CORDLESS DRILL) | 4 CLAMPS | 3/16" DRILL BIT
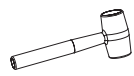
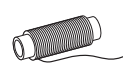CONCRETE DRILL BIT (SURFACE MOUNT POSTS) | 6" #2 SQUARE DRIVE BIT

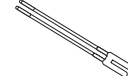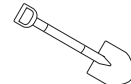**ITEMS REQUIRED FOR BURIED POSTS**

WOOD STAKES | HAMMER/MALLET FOR WOOD STAKES | MASONRY STRING | POWER AUGER OR POST HOLE DIGGER | SHOVEL | CONCRETE MIX

IMPORTANT NOTES:

- Actual fence panel widths: 6' Panels = 69.43"
- 3" posts are required to reach 6' lengths.
- Panel attach kits are included with panel kits. If panels are cut down and used as two pieces, additional panel attach kits may be purchased separately.
- Fence Panels are slightly adjustable and will accommodate sloped ground surfaces up to an 8° angle, but will reduce the distance allowed between posts. CAUTION: Over adjusting panels will cause loose and rattling pickets.
- 45° fence angles require 22.5° clips applied to each side of the post. The 22.5° clip kit is sold SEPARATELY.
- These Instructions cover installation of Aluminum Fence. Please visit Manufacturer's website for other instructions and products.
- These instructions cover installation of 6' W x 48" H panels and 6' W x 54" Mid-Rail Panels. Most illustrations are based on the 6' W x 54" H panels.
- It is the responsibility of the installer to meet all local code requirements and obtain all required building permits. The installer should determine and implement appropriate installation techniques for each installation situation. The manufacturer or its reseller shall not be held responsible for improper or unsafe installation.

BEFORE YOU BEGIN:

- Check your local zoning laws.
- Local zoning laws and Home Owners Associations may regulate the location, style and height of your fence and may require a permit signoff beforehand.
- Check local codes for frost line depth and regulations.
- Contact your local utilities companies.
- You must have the utility companies clearly mark your property for electrical, gas or water lines to avoid puncturing any unseen underground utilities.
- Check for pool equipment and utility lines. Typically, a utility company does not mark private underground lines. If you are not 100% certain, contact your pool installer for assistance and ask them to mark all underground lines.

WARNINGS:

- Improper installation of this product can result in personal injury. Always wear safety goggles when cutting, drilling and assembling the product.
- Incorrect installation may cause harm to the product or individual.
- DO NOT attempt to assemble products if parts are missing or damaged.

< PAGE 1 >

ALUMINUM FENCE INSTALLATION INSTRUCTIONS

A LAY OUT THE PERIMETER

FOR BURIED POSTS:

1. Establish your fence line by staking out the area you wish to enclose. Place a stake at all corners, then stretch a masonry string between them to provide straight guide lines. (Dia.1) TIP: Set the string at exactly 3 1/16" above the ground surface. This will help later to set posts and clips to the correct height.

2. Locate each point in which you will need an end, corner or gate post and mark it with a stake (Dia. 1). The maximum gap between end posts and a wall or other structure should be less than a 4".

3. Mark the location of all inline posts with stakes. For 6' sections using 3" posts, measure 72" between centers (Dia. 1). Actual fence panel widths: 6' Panels = 69.43". 3" posts are required to reach 6' lengths. TIP: Fence panels will allow for a MAXIMUM of 72.43" on center. It is easier to cut a panel to a shorter width than to relocate post(s) which are too far apart.
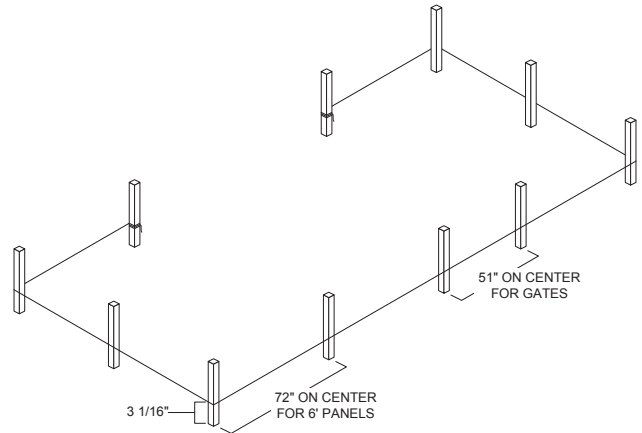
   IMPORTANT NOTE: Installing on sloped terrain will reduce distance between posts. Panels can be racked up to 8°. Over adjusting panels can cause loose and rattling pickets. On sloped terrain, it is recommended to test fit and measure panels by setting them on the ground, adjusting for level and measuring the horizontal width from end to end. Be sure to compensate for the angle as panels should be cut at an angle to align with the posts. (Dia. 2)

4. Mark the location of gate(s) by placing a stake at each post. Fence gates are 47" wide and require a space of 48" between posts, so 3" posts should measure 51" from center to center. Fence gates cannot be racked and hinges must align, so the posts on each side of gates must be plum and level with each other. (Dia. 3)

5. The maximum gap between end posts and a wall or other structure should be less than a 4".
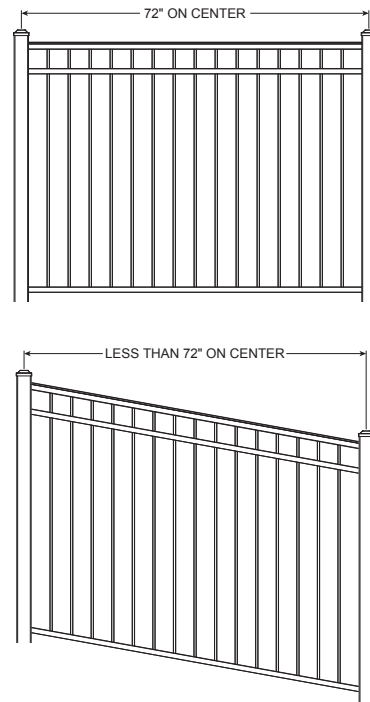
FOR SURFACE MOUNT POSTS:

1. Establish your fence line by marking each point in which you will need an end, corner or gate post. The maximum gap between end posts and a wall or other structure should be less than a 4".

2. Mark the location of all inline posts. For 6' sections using 3" posts, measure 72" between centers (Dia. 2). Actual fence panel widths: 6' Panels = 69.43". 3" posts are required to reach 6' lengths. TIP: Fence panels will allow for a MAXIMUM of 72.43" on center. It is easier to cut a panel to a shorter width than to relocate post(s) which are too far apart.

3. Mark the location of gate(s). Fence gates are 47" wide and require a space of 48" between posts, so 3" posts should measure 51" from center to center. Fence gates cannot be racked and hinges must align, so the posts on each side of gates must be plum and level with each other. (Dia. 3)
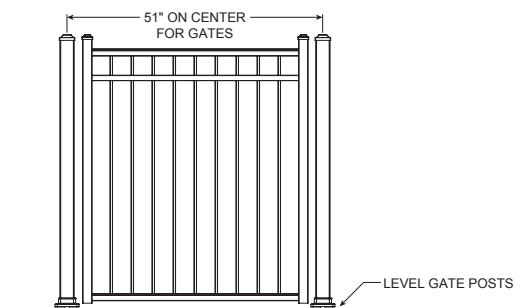
Dia. 1

51" ON CENTER FOR GATES

3 1/16"

72" ON CENTER FOR 6' PANELS

Dia. 2

72" ON CENTER

LESS THAN 72" ON CENTER

Dia. 3

51" ON CENTER FOR GATES

LEVEL GATE POSTS

< PAGE 2 >

# ALUMINUM FENCE INSTALLATION INSTRUCTIONS

B INSTALL POSTS

FOR BURIED POSTS:

1. Dig a post hole 6" in diameter and down to your specified frost line. Ideally, holes will have a mushroom shape so they are flared out near the bottom.

2. Pour mixed concrete into the hole to bring the depth to 12" below grade.

3. Align the post centered with staked/marked location and slide the post into the hole about 12" into the mixed concrete, checking to make sure it sits at exactly 24" deep. Post height varies by fence system, so it may be helpful to pre-measure and mark posts or to measure exposed portion of post. Use a level on adjacent sides to bring the post to plumb.

4. Add mixed concrete to fill the hole to 3-4" below grade while keeping the post centered and plumb. Place some dirt on top of the hole and pack it tight. This will help hold the post in place.

5. Repeat this process for all additional posts. TIP: It may be helpful to install corner posts, then stretch another masonry string between the tops of them after concrete sets. This is helps to align inline posts.
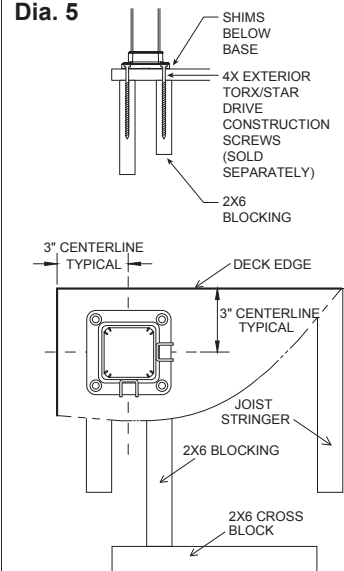
FOR SURFACE MOUNT POSTS:

1. For residential deck applications, install proper post blocking as per (Dia. 5). Use proper attachment screws or anchors as directed. (post-to-surface screws are not included with kits).

2. For residential deck applications, pre-drill through deck boards and into blocking with a 3/16" drill bit. For residential concrete applications, pre-drill and secure with concrete anchors. For all other surfaces, check local zoning and/or building codes or consult a licensed professional.

3. Level and plumb post using shims.

4. Secure posts to surface with suggested screws. (Dia. 5)

5. Do not install post caps until all fence panels are installed.
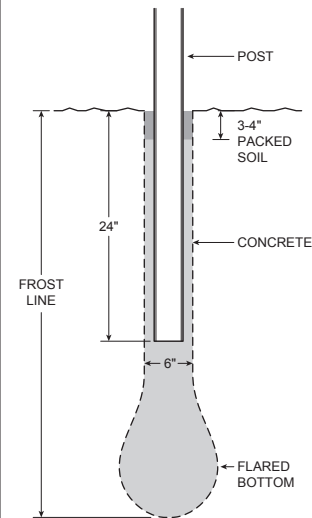
C PREPARE POSTS

1. For all sides of posts which will hold a fence panel, measure 3 1/16" from ground/surface and place a pencil mark for location of the top edge of the lower attach clip. (Dia. 6) This measurement provides a 2" gap between the lower channel and the ground/surface and this may be adjusted. NOTE: Ensure panel will fit below post caps if adjusting for larger bottom gap.

2. Center the lower attach clip with narrow side up on post and secure with (2) - #8x3/4" Unpainted Self-tapping Screws.

3. Repeat this for all sides of posts which will support a fence panel.
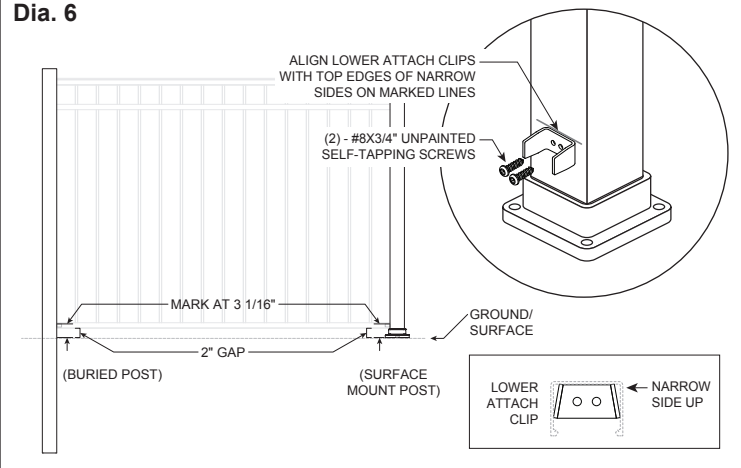
D INSTALL GATE(S)

After concrete has set, start the installation of fence panels at an end or corner post. If installing a gate, it is recommended to install the gate first and then install panels next. If you're not installing a gate, skip this section.

1. Confirm posts on both sides of gate are centered with staked/marked locations, level with each other, and measure 51" from center to center (or 48" inside measurement). (Dia. 3)

2. The tops of the gate frame may be cut down to match the height of the fence posts (Optional). (Dia. 7)

3. Install the gate hinges following the instructions provided in hinge package. Gate kits include hinges with 16 self-tapping screws. It is recommended to use (also included) (8) 10-32 x 3.5" bolts for the 3" fence posts, and (8) 10-32 x 2.5" bolts for the 2" gate frame. These also include a flat washer, split lock washer, and nut for use on the backside. When using this hardware, mark and pre-drill all holes. When installing 54" gates with the open mid-rail, the top hinge MUST be placed between the top rail and midrail to be able to access the bolts. (Dia. 7)

4. Install the gate latch following the instructions provided in latch package.

Dia. 4

POST

3-4" PACKED SOIL

24"

CONCRETE

FROST LINE

6"

FLARED BOTTOM

Dia. 5

SHIMS BELOW BASE

4X EXTERIOR TORX/STAR DRIVE CONSTRUCTION SCREWS (SOLD SEPARATELY)

2X6 BLOCKING

3" CENTERLINE TYPICAL

DECK EDGE

3" CENTERLINE TYPICAL
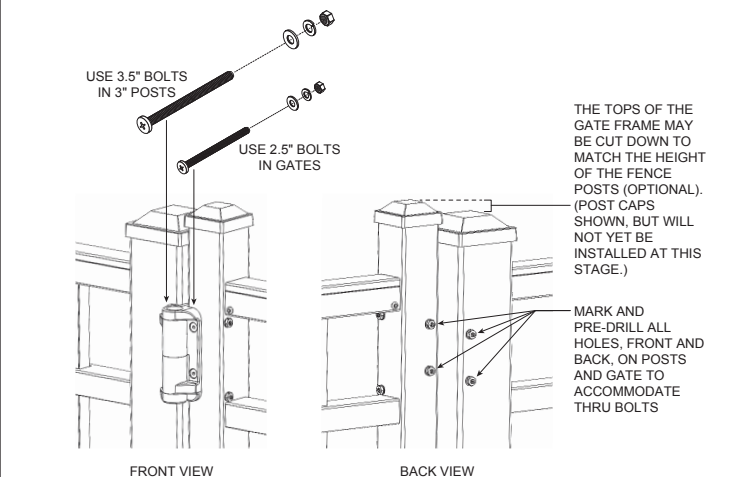
JOIST STRINGER

2X6 BLOCKING

2X6 CROSS BLOCK

POST-TO-SURFACE MOUNTING SCREWS:

RESIDENTIAL DECK APPLICATIONS – 5/16" X 6" EXTERIOR TORX/STAR DRIVE CONSTRUCTION SCREWS

RESIDENTIAL CONCRETE APPLICATIONS – TAPCON® 5/16" X 3" HEX WASHER HEAD CONCRETE ANCHOR

OTHER SURFACES – CHECK LOCAL ZONING AND/OR BUILDING CODES OR CONSULT A LICENSED PROFESSIONAL.

Dia. 6

ALIGN LOWER ATTACH CLIPS WITH TOP EDGES OF NARROW SIDES ON MARKED LINES

(2) - #8X3/4" UNPAINTED SELF-TAPPING SCREWS

MARK AT 3 1/16"

GROUND/ SURFACE

2" GAP

(BURIED POST)

(SURFACE MOUNT POST)

LOWER ATTACH CLIP

NARROW SIDE UP

Dia. 7

USE 3.5" BOLTS IN 3" POSTS

USE 2.5" BOLTS IN GATES

THE TOPS OF THE GATE FRAME MAY BE CUT DOWN TO MATCH THE HEIGHT OF THE FENCE POSTS (OPTIONAL). (POST CAPS SHOWN, BUT WILL NOT YET BE INSTALLED AT THIS STAGE.)

MARK AND PRE-DRILL ALL HOLES, FRONT AND BACK, ON POSTS AND GATE TO ACCOMMODATE THRU BOLTS

FRONT VIEW

BACK VIEW

< PAGE 3 >

ALUMINUM FENCE INSTALLATION INSTRUCTIONS

E MARK AND CUT FENCE PANELS

After concrete has set, start the installation of fence panels at an end or corner post. If installing a gate, it is recommended to install that first, then work out from there.

1. Clamp or hold fence panel against post and adjust for equal end spacing. (Dia. 8)

2. Mark the upper and lower channels.

3. Cut fence panel 1/16" less than opening size.

4. Clean cut areas and apply touch-up paint on exposed ends.

F INSTALL FENCE PANELS

1. Insert upper attach clips into upper channel of panel on each end. (Dia. 9) Upper attach clips may be placed in either orientation with the narrow side up or down.

2. Slide lower channel of pre-cut panel down onto lower attach clips (Dia. 9). TIP: Set the panel in at a slight angle, reach through the pickets and pull open up the bottom channel by hand and slide it onto the lower attach clips.

3. Using (4) - #8x3/4" Unpainted Self-tapping Screws, attach the upper two clips to the post.

4. Using (8) - #8x3/4" Painted Self-tapping Screws, secure the upper and lower attach clips to the panel.

G INSTALL FENCE CAPS (UPPER CHANNEL COVERS)

1. Measure between posts at the upper channel. (Dia. 10)

2. Cut Fence Caps 1/16" less than opening.

3. Clean cut areas and apply touch-up paint on all exposed metal.

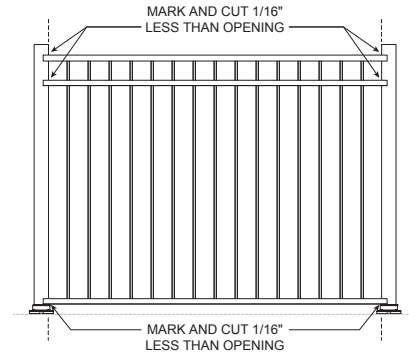4. Snap each Fence Cap over the upper fence channel until properly seated. (Dia. 10)

H INSTALL POST CAPS AND POST HOLE PLUGS

Install post caps and post hole disks. It is recommended to use silicone caulk to hold these in place. (Dia. 11)
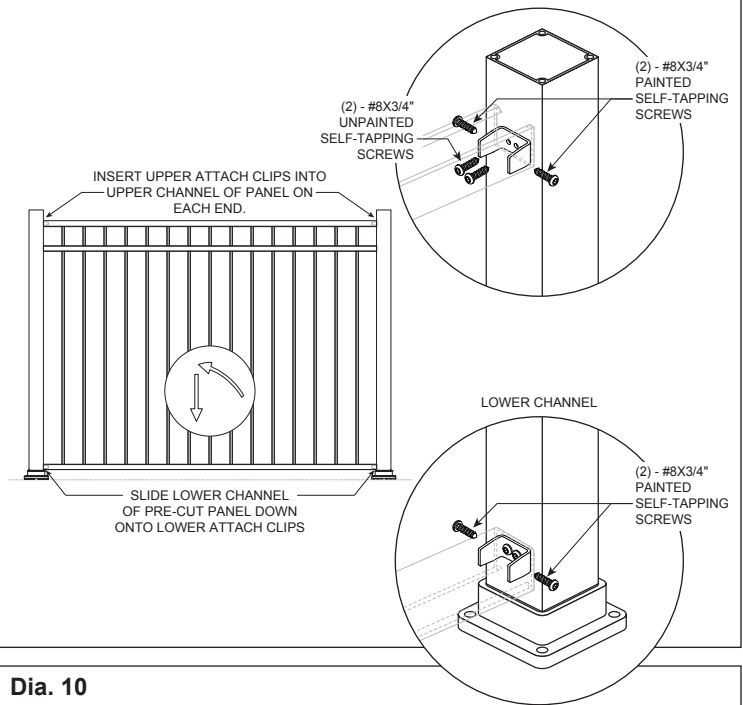
Dia. 8

MARK AND CUT 1/16" LESS THAN OPENING

MARK AND CUT 1/16" LESS THAN OPENING

Dia. 9

UPPER CHANNEL

(2) - #8X3/4" PAINTED SELF-TAPPING SCREWS

(2) - #8X3/4" UNPAINTED SELF-TAPPING SCREWS

INSERT UPPER ATTACH CLIPS INTO UPPER CHANNEL OF PANEL ON EACH END.

LOWER CHANNEL

(2) - #8X3/4" PAINTED SELF-TAPPING SCREWS

SLIDE LOWER CHANNEL OF PRE-CUT PANEL DOWN ONTO LOWER ATTACH CLIPS

Dia. 10

MARK AND CUT 1/16" LESS THAN OPENING

SNAP FENCE CAP OVER UPPER FENCE CHANNEL

Dia. 11

POST CAP

POST

POST HOLE DISKS (MAY USE SILICONE TO HOLD IN PLACE)

POST BASE

< PAGE 4 >