SmartScreen Motorized
5 ½" and 7" Housing
Measuring and Installation Instructions

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5 ½" & 7" Housing SmartScreen Motorized Measuring

These measuring instructions cover both the 5 ½" and the 7" housing SmartScreen Motorized
Minimum width of the SmartScreen Motorized is 3' wide (necessary to accommodate the motor within the roll tube)
Maximum width is 30' wide
(25' max width with Vinyl)
Maximum height is 23' tall
(16' max height with Vinyl)

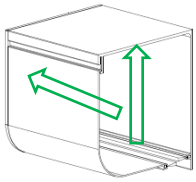
1. Please read before going to site to measure

2. Bookmark the measuring and installation instructions, or print a copy to take with you on the install – www.wizardscreens.com/technical

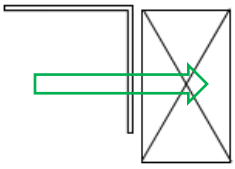
3. Call to schedule a training session on installations before going to site

4. When installing, if you have questions, call us before leaving the site

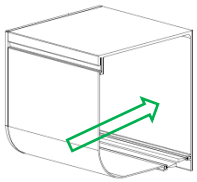
5. Determine the installation type
    a. IUH (Inside Under Header)
        i. Housing is mounted inside the opening, under the header
            i. The housing can be attached through the top in to the header and/or through the end caps in to the jamb



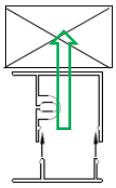
        ii. Tracks are mounted inside the opening between the jams
            i. You will need to order 2" x 2" angle to accommodate installing the tracks on the inside of the opening
            ii. The 2" x 2" angle runs from the bottom of the housing to where the slide bar will stop at the lowest point, or the full length of the track
            iii. The angle is attached to the jam on either side of the opening using a flat head fastener



            iv. There should be a fastener attaching the angle to the jamb at the top of the angle below the housing, 2 fasteners in the middle spaced evenly apart, and a fastener at the bottom close to the lowest point (minimum)
            v. The track will then be attached to the 2" x 2" angle
    b. OAH (Outside Above Header) or Standard Face Mount
        i. Housing is mounted to a wall above the opening
            i. The housing can be attached through the back of the housing in to the header

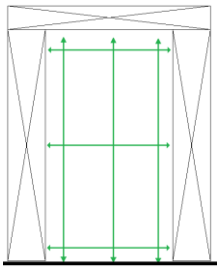


ii. Tracks are face mounted to the left and the right of the opening



6. Determine what material you will be fastening the unit to
    a. Different types of fasteners may be necessary depending what material the unit is being fastened to
    b. When fastening to a steel (or other metal) structure please take note of where the welds are that connect the posts to the header as this will affect where the housing is mounted

7. Determine the dimensions of the unit by using the 3 point measuring system **a laser measuring tool is useful*
    a. Make sure the opening is square
        i. Make note of any variances
            i. Some variances can be account for and some cannot
    b. For the housing width measure in between the posts (in the jamb) at the top, middle and at the bottom of the opening
        i. For the finished width of an IUH install, deduct 3/8” from the narrowest of those 3 measurements
        ii. For the finished width of an OAH install, add 5” to the widest of those 3 measurements
    c. For the unit height measure from the ground, or lowest point, to the top underneath the header on the extreme left side, in the middle and on the extreme right side
        i. For the finished height of an IUH install, take the tallest measurement
        ii. For the finished height of an OAH install, add the height of the housing (5 ½” or 7”) plus the height of the slide bar (2 ½”) plus the height of the bottom seal (1 ½”) to the tallest measurement
        iii. There should be a minimum of 5 ½” or 7” of header space (depending on housing size) to mount the housing to
            i. If there is not enough space on the header to accommodate the height of the housing, the slide bar and the bottom seal there may be some parts (either the bottom seal and/or the slide bar) and the customer should be made aware of this as those parts may be visible from the backside of the opening. You can use a tape measure to measure the header to see how much space there is to accommodate the housing, slide bar and bottom seal
    d. If the left or the right side is longer than the other (for a slope in a patio for example) the 1 ½” brush pile bottom seal will accommodate a 1 ½” bias. If the slope is greater than 1 ½”, up to a 2” bias can be built in to the mesh to accommodate a total difference of up to 3 ½” between the extreme left and the extreme right side of the unit



e. Crowns, moldings, humps in the floor, etc. cannot be accommodated

8. Determine the housing size (5 ½" or 7") and roll tube size (4" or 5")
    a. Units 22' and wider and/or 12' and taller will use a 7" housing and a 5" roll tube
    b. Units up to and narrower than 22' wide and 12" tall will use a 5 ½" housing and a 4" roll tube
    c. If a unit is narrower than 20' and/or shorter than 12' a 7" housing can be used if necessary
        i. If there are 2 or more screens in the same location and at least 1 of those screens must be in 7" housing due to its size, any of the screens that would normally be in a 5 ½" housing can be ordered in a 7" housing for aesthetic purposes
    d. Units wider than 250" and all units with clear vinyl screen will require the double idler system rather than the standard pivot
        i. Neither the pivot or the double idler system will affect the dimensions of the unit

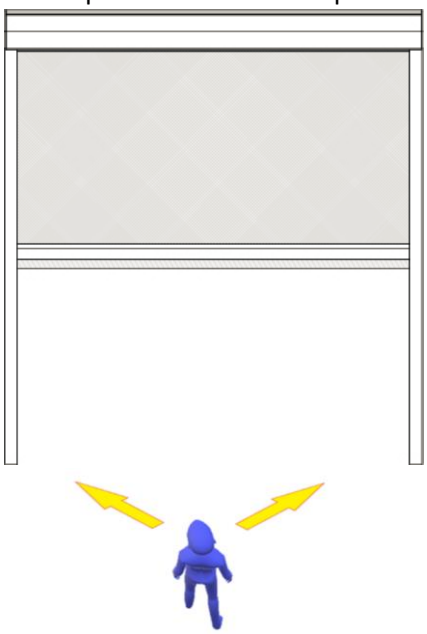
9. Determine housing, track and slide bar color (and angle if necessary)
    a. White, Black, Beige, Bronze, Ivory aluminum

10. Determine the bottom seal option for slide bar
    a. 1 ½" black brush pile or 4" grey rubber bottom seal

11. Determine the screen type
    a. Insect, solar and clear vinyl options are available
    b. A horizontal seam may be necessary for insect and solar mesh options
        i. Due to restrictions of the size of the roll width, multiple pieces of mesh may need to be welded together, causing a seam
        ii. A seam can be located at a specified point anywhere between the top of the slide bar and within the roll width dimension
            i. This is useful for the seam to line up with a railing or other obstacle to minimize the look up the seam
    c. Please see attached appendix for mesh options and roll widths
    d. Clear vinyl needs to have a colored border surrounding the clear vinyl on 4 sides
        i. The minimum dimensions of the border are 8" on the left and right side, 12" on the bottom above the slide bar and 12 " between at the top between the roll tube and the top of the clear vinyl
        ii. Border color options are black, white and beige
    e. Clear vinyl comes in 50" x 100" width rolls so several panels may need to be welded together running horizontally to accommodate a width and a vertical seam will be visible
    f. If the clear vinyl height is greater than 100" the remaining height is finished with the border material, even if it is greater than 12"
        i. The extra border material can also be added above the slide bar rather than between the roll tube and the top of the clear vinyl depending on the home owners request

g. When choosing clear vinyl a drawing showing the dimensions of the clear vinyl and the border will be sent to you for approval. Manufacturing will not start on the vinyl until your approval of the drawing has been received
h. Manufacturing clear vinyl requires an extended lead time (approximately 1 to 2 weeks)

12. Determine motor location
    a. Look at the opening where the screen will be rolling away from you
    b. Motor can be located on either the left or the right of the screen
    c. Select a side closest to where the outlet is or will be placed
        i. The units come with a 10' power cable and 24' power cables are available if necessary



    d. Motors need 110v and pull 1.6 amps per unit
    e. For an IUH install the outlet must be towards the back of the unit as the power cord can only exit the housing or track through the back of the unit

13. Determine motor size
    a. All SmartScreen Motorized come with the Somfy Maestria motor with obstacle detection
    b. 5" roll tube will use a Somfy 550 motor
    c. 4" roll tube will use a Somfy 525 motor
    d. The size of the Somfy motor will affect the speed at which the screen rolls up or down
        i. 4" roll tube with a 525 motors will roll faster than a 5" roll tube with a 550 motor
        ii. It is possible to match roll tubes and motors on a multi-unit project so that all the screens roll at the same speed **example, units that will need a 4" roll tube on a project with 5" roll tubes can be upgraded to 5" roll tubes with 550 motor*

14. Determine type and number of remotes necessary
    a. Somfy offers a 1, 5 and a 16 channel remote
        i. If there is only 1 unit a single channel remote will work
        ii. Between 2 and 5 units a 5 channel remote will work and each screen can be programmed on to a separate channel
        iii. Between 6 and 16 units a 16 cannel remote will work and each screen can be programmed on a separate channel

iv. If there is a spare channel on the multi-channel remotes, all of the screens can be added to that empty channel to allow movement of all the screens at once
v. There is a 30' max radius for remote usage
    i. If there are screens in different areas of the home multiple remotes may be necessary

15. Determine accessories
    a. Somfy myLink
        i. Converts the homes Wi-Fi to RTS that the motors can read
        ii. Allows for control of the screen through an app on a smartphone
        iii. Allows for third party home automation integration
        iv. The myLink must be located within the Wi-Fi hot zone and within 30' of the motorized screen
    b. Somfy Repeater
        i. Increases the distance a remote signal can reach by another 30'
    c. Somfy Sun Control
        i. Can be set to control the motorized screens based on how much sun it detects
    d. Somfy Wind Control
        i. Can be set to control the motorized screens based on how much wind it detects

    **Please note for Somfy wind and sun control options – using these accessories can cause the screen to be in motion without it being checked for debris or damage prior to the screen being in motion, which can lead to new or further damage. Customer would have to use at own risk*

16. Place the order using the information gathered during the measuring process through Wizard's online ordering system
    a. Please ensure to make a note of any and all special requests
        i. Examples:
            i. Seam location
            ii. Extra remotes
            iii. Accessories
            iv. Bottom seal option
            v. Variances in height between the left and right side

5 ½" & 7" Housing SmartScreen Motorized Installing

These installation instructions cover both the 5 ½" and the 7" housing SmartScreen Motorized

*Motorized screen installations require at least 2 people, more may be necessary for wider screens. Please plan accordingly

Before installing the SmartScreen Motorized units

1. Tools Required:
    a. 3/8" cordless drill
    b. ¼" hex driver bit
    c. #2 Phillips driver bit
    d. 3/8" drill bit (10"-14" long)
    e. 3/16" drill bit
    f. 1/8" drill bit
    g. 3/8" hammer drill
    h. 3/8" concrete drill bit (10"-14" long)
    i. Concrete drill bits for 3/16" or ¼" concrete screws
    j. Small flat and Phillips head screwdrivers
    k. 2' level
    l. 25' tape measure
    m. Scissors
    n. Needle nose pliers
    o. Duct tape
    p. Silicone spray for side tracks
    q. 3 prong electrical plug (1 per motor)
    r. Caulking gun with desired color caulk
    s. Chop saw with non-ferrous blade
    t. Concrete, metal or wood fasteners (minimum 2" long)
    u. 1" tek fasteners

    **drill and fastener bits may be adjusted depending which types and sizes of fasteners are being used*

2. Contents of Shipment **contents may vary depending on type or style ordered*
    a. Housing front, housing back and end caps (attached to each other)
    b. Roll tube, motor, pivot (or double idler system) and screen option
        i. Screen option will be wrapped around the tube and placed inside the housing for shipping
        ii. Motor and pivot will be in the tube
        iii. Power cord will be attached to the motor
    c. Slide bar with bottom seal attached
    d. Tracks with track covers (x2 of each piece)
    e. Remote, usually packaged with the tracks and the slide bar (if ordered)
        i. With multiple units the remote will be packaged with the tracks and slide bar in one of the units
    f. Probes (x2)
    g. 2" x 2" angle (x2 of each piece if ordered)

3. Inspect packaging for damage
    a. If packaging is damaged the unit may still be free of damage
    b. Take care opening the packages to ensure unit is not damaged while opening
    c. Inspect unit and pieces and if there is any damage report to Wizard immediately with pictures

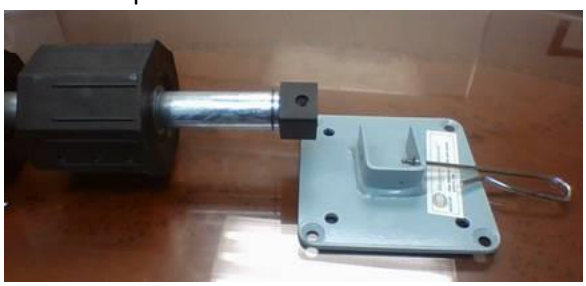
4. Remove the units from packaging
    a. Place the packages on a flat surface
    b. Careful open up and remove packaging
    c. Remove the housing, slide bar and tracks (and 2” x 2” angle if included) from each package
    d. Cut the tape that holds the packaging material that is wrapped around the housing
    e. Remove the plastic tubing from the housing package
    f. Remove hex head screws that attach the housing cover to the housing
        i. Save these screws
    g. Remove housing cover and place it on a flat surface in a safe place
    h. With pliers, remove the c-ring that hold the motor to the end cap
        i. It is important you do not lose the c-ring
    i. Remove roller, screen, pivot and motor by sliding the tube towards the pivot end, compressing the pivot until the motor comes free from the crown on the end cap
        i. Be careful not to tilt the roller as the motor may easily fall out of the roller assembly
        ii. Place the roller and motor on a flat surface in a safe place
        iii. Take care not to damage the screen that is wrapped around the tube
    j. Reinstall the c-ring around the crown on the end cap
    k. Cut the tape that holds the packaging material that is wrapped around the slide bar and tracks/track covers (and 2” x 2” angle if included)
    l. Remove the plastic tubing from the slide bar and tracks/track covers (and 2” x 2” angle if included)
    m. Set slide bar, tracks, tracks covers (and 2” x 2” angle if included) aside in a safe place

Installing a OAH (Outside Above Header) Unit

1. Install the housing back
    a. Turn the housing so that the back is facing up
    b. Drill 3/ 16" mounting holes into the back of the housing. Start at the middle and every 24" toward the ends. The holes should be about ¾ " below the top of the housing. Drill 3/16" mounting holes at each end of the housing between the two pop rivets (back of housing back)
    c. Measure and mark the middle of the housing at the bottom area of the back of the housing
    d. Measure and mark on the header the location where the bottom middle area of housing should be on the header
    e. Line up the 2 marks and fasten housing to the header
    f. Level housing and fasten to the header through predrilled holes with 2" fasteners
    g. Before tightening fasteners to header, attach the front cover of the hood, ensuring the top and back hood assembly is not bowed and you are able to satisfactorily attach the front cover. Once this is done, remove front cover and tighten fasteners
    h. If the outlet is inside the room
        i. At the motor end drill a 3/8" hole through the back of the housing 1" from top and ¾" from the end for leading the motor wire out of the housing. If the motor wire does not go through the wall, drill 3 /8 " motor wire hole through the housing or end cap not more than ¾" from end of housing or in from outer edges of the end cap.
    i. If the outlet is above the housing
        i. At the motor end drill a 3/8" hole through the top of the housing 1" from top and ¾" from the end for leading the motor wire out of the housing
    j. If the outlet is to the side of the housing
        i. At the motor end drill a 3/8" hole through the end cap 1" from top and ¾" from the end for leading the motor wire out of the housing

2. Install the roll tube
    a. Insert the pivot in to the end cap and compress
    b. Move the motor end of the tube to line up with the crown on the end cap
        i. Ensure the power cord coming out of the motor is facing down
        ii. This is to ensure water does not run in to the motor, otherwise call a drip loop
    c. Line the shape on the motor to the corresponding shape of the crown and connect the motor to the crown
        i. You must hear a distinctive clicking sound to ensure the motor is completely in place
    d. Loop the power cord around the motor and pull through the opening drilled earlier
        i. If the outlet is towards the bottom of the screen the cord can hang straight down

3. Install the roll tube using the double idler system
    a. Unroll the screen material from the tube
        i. Be careful not to damage the screen
        ii. Ensure the screen zipper does not move out of the tube
    b. Insert the pivot cap in to the end cap and pin in to the bracket using the provided cotter pin
        i. Ensure the holes line up

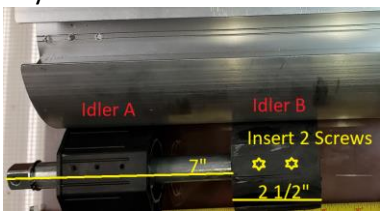


ii. Cotter pin fits upwards

c. Move the motor end of the tube to line up with the crown on the end cap making sure the idler does not come out of the tube
   i. Ensure the power cord coming out of the motor is facing down
   ii. This is to ensure water does not run in to the motor, otherwise called a drip loop

d. Line the shape on the motor to the corresponding shape of the crown and connect the motor to the crown
   i. You must hear a distinctive clicking sound to ensure the motor is completely in place

e. At the double idler end measure an install locking pins to ensure the tube does not shift
   i. Measure 7" from the front end of the shaft to find Idler B, add ½" and insert 2 screws into in any of the roller tubes 3 channels to secure Idler B to the roller tube



f. Loop the power cord around the motor and pull through the opening drilled earlier
   i. If the outlet is towards the bottom of the screen the cord can hang straight down
   ii. A 3/8" hole may need to be drilled in to the track to pull the power cord through

4. Attach the 3 prong plug to the wires at the end of the cord **plug designs may be different however below lists the basic rules for installing the plug*
   a. Excess cord may be cut if necessary

   **Important – when cutting the power cord leave a minimum of 18" of cord between the motor and the end of the power cord. The antenna for the motor is within those 18" and if cut it will limit the usage of the remote*

   b. Using a Phillips screw driver attach the white wire to the silver colored tab, the green wire to the green colored tab and the black wire to the bronze colored tab
   c. Once all the wires are secure complete plug install by tightening plug cover to plug

5. Wake up the motor and set the limits **if power is lost before this process is complete the steps will need to be repeated*
   a. Take the remote out of its box and set it to the correct channel if multiple units (remotes come with battery and are ready to use out of the box)
   b. Plug the unit in to the outlet
      i. Screen will jog up and down
   c. To wake the motor up press the up and down buttons together until the unit jogs up and down
      i. When the motor jogs the unit is woken up
   d. Ensure the motor is rolling the correct way
      i. If you press the down button the screen should move down
      ii. If you press down and the screen rolls up, press and hold the My button until the motor jogs up and down
      iii. Once the motor jogs press the down button and the screen will roll the correct way
   e. <u>If the screen is still wrapped around the tube, press the My and the down buttons together to set that point as the upper limit</u>
      i. The screen will begin to roll down
      ii. Hold the middle of the screen material at the zipper and with light pressure helps guide the screen material down
         i. This is because there is currently no weight on the screen material
   f. Once the screen gets to about 1' from the lowest point press the My button to stop the screen
   g. Press the My button and the up button together to set the bottom limit
      i. The screen will begin to roll up

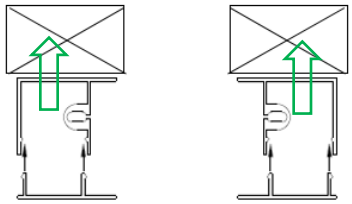
h. Press the My button to stop the screen
i. Within 6 seconds of stopping the screen press and hold the program button on the back of the remote until the motor jogs twice
j. This motor is now programed and can be unplugged if necessary
k. If the screen is not wrapped around the tube (double idler system install) press the up button to move the screen up to wrap around the tube
    i. Ensure the zipper is rolling over on itself at the tube on both sides (no telescoping)
l. When the screen reaches 1' below the housing press the My button and the down button together to set the upper limit
    i. The screen will start to roll down
m. When the screen reaches 1' from the lowest point press the My button to stop the screen
n. Press the My button and the up button together to set the lower limit
    i. The screen will start to roll up
o. Press the My button to stop the screen
p. Within 10 seconds of stopping the screen press and hold the program button on the back of the remote until the motor jogs twice
q. This motor is now programed and can be unplugged if necessary

**Once screen is programmed the My button can be pressed to stop a screen in motion at any point*

6. Install slide bar
    a. Using the up or down buttons on the remote move the screen material to a level where it is comfortable to slide the slide bar on to the zipper
        i. Use the My button to stop the screen at the desired point
    b. Pick up the slide bar and with the bottom seal facing down slide the slide bar on to the zipper by moving the screen bottom tag to the side and sliding the zipper through the rounded hole on the slide bar
    c. Continue to feed the zipper through the hole until the slide bar is fully attached to be screen
        i. If installed correctly the zipper will hold to the slide bar
    d. With a Phillips screw driver loosen the 2 screws on both probes (do not take the screws all the way out)
    e. On 1 side of the slide bar fit the probe in to the end with the screws facing out
    f. Move the screen tab in between the screws in the slot on the probe and fit so that the end of the probe is 1/16" away from the stitching on the tab
    g. Tighten both screws so that the screws puncture the tab and fully attach to the other side of the probe
    h. Repeat for the other side
    i. Line the bottom seal up with one end of the slide bar and cut off the excess material on the other end
        i. The excess material can bunch up within the tracks and cause the obstacle detection to engage
    j. Cut the remaining zipper so that it is level with the bottom seal on both ends of the slide bar
        i. The excess zipper can bunch up at the lower limit and affect where the lower limit is
    k. Press the up button on the remote to move the screen back up to the upper limit
        i. Ensure the zipper is rolling over on itself at the tube on both sides (no telescoping) and make adjustments as necessary

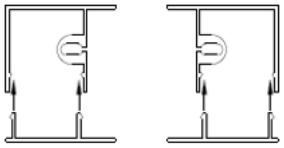
7. Install the side tracks and covers
    a. On one side of the screen (left or right) measure from the ground or the lowest point up to the bottom of the end cap. That is the length of the track
    b. Take the corresponding side track
        i. To find which track goes on which side, take 1 piece of track and face it so that the beveled end is pointing up towards the housing, the open end (where the track cover will snap on to) is facing out and the groove for the zipper is facing in towards the other post
        ii. Whichever side matches that lay out is the correct track side
    c. Measure the back side of the track below the bevel towards the bottom end
    d. Mark the length measured earlier

e. With the chop saw cut at that point
f. Take the track cover and measure the same length and cut
g. Repeat the same steps for the other track
    i. Each track may be a different length so it is important to ensure you cut the correct track for both the left and the right side
h. Take one side of tracks and feed the zipper in to the groove of the track through the beveled end of the track
    i. Use needle nose pliers to hold on the tab beside the slide bar to help guide the zipper in to the groove
i. Line the outside edge of the track with the outside edge of the end cap and install a fastener in the middle of the track through the back 2" below the housing



j. The beveled part of the track will fit inside the housing
k. Repeat step for the other track
l. Ensure the slide bar is centered between the tracks
m. Each installer holds a track (on either side of the opening) perpendicular to the ground
n. Press the down button on the remote and stop the screen when the slide bar reaches the mid-way point between the upper limit and the lower limit
o. Ensure the track is level and perpendicular to the ground and that the screen is not too tight or too lose (the screen should provide a bounce similar to a trampoline when tapped on)
p. At the point of the slide bar install a fastener in the middle through the back of the track on both tracks
q. Press the down button on the remote
    i. The screen will hit the bottom limit (about 1' above the lowest point)
r. Ensure the track is level and perpendicular to the ground and that the screen is not too tight or too lose (the screen should provide a bounce similar to a trampoline when tapped on)
s. Install a fastener in the middle through the back of the track on both tracks 2" above the lowest point
t. Press the up button on the remote and ensure the screen rolls up without being impeded
    i. The zipper must roll over on itself on both sides of the roll tube (no telescoping)
u. Spray silicone in the groove of each track on both sides of the unit from top to bottom
v. Press the down button on the remote and ensure the screen rolls down without being impeded
    i. The obstacle detection will engage is the screen is impeded
w. If the screen rolls up and down smoothly, install a fastener at the midway point between the top and middle fasteners and another between the middle and the bottom fastener
    i. In the middle of the track and through the back
    ii. If the screen does not roll down smoothly, or the obstacle detection engages
        i. check the groove in the tracks where the zipper rides at the point the screen stops to make sure there is nothing impeding the screen
        ii. If the obstacle detection engages and there is nothing impeding the zipper in the groove, ensure the tracks are level and perpendicular to the ground
        iii. If the obstacle detection still engages ensure the slide bar is not rubbing against the tracks
            - If the slide bar is rubbing against the tracks, adjust the slide bar so it is centered between the tracks
x. If the outlet is towards the bottom of the unit drill a 3/8" hole through the side of the track (opposite of the zipper groove side) and feed the power cord through the hole
    i. The plug will need to be unplugged and removed in order to feed the cable through the hole, then reattached once the plug is through the hole and plugged back in

y. Snap the track cover over the corresponding track starting at the top of the track and working your way down ensuring the cover snaps on (a distinctive snapping sound can be heard)



8. If there was a bias cut in to the screen and the slide bar is not level at the upper limit
    a. Set the screen to the lower limit
    b. Using duct tape cut 5 10" strips
    c. Stack each of the 10" strips on the roll tube (or screen if the roll tube is not visible) on the longest side of the mesh (left or right side depending which was the lowest point slopes)
        i. Strips of tape must run from the end of the roll tube in towards the other side of the tube
    d. Once all the strips are on press the up button and roll the screen to its highest limit
    e. Strips of tape may need to be added or taken off depending on how great of a bias there is in the screen
    f. Add or remove tape 1 strip at a time until the slide bar is level at the upper limit

9. Install the housing cover (hood)
    a. Slide the housing cover in to the grove on the front edge of the housing back
    b. Using the hex screws fasten the housing cover to the end cap at the point where the hex screw faces the ground
        i. Repeat for the other side
    c. Install the remaining hex screens along the top front of the housing cover (hood)

10. Adjust the upper and lower limits
    a. Press the up button on the remote to move the screen to the upper limit
    b. Press the up and down buttons on the remote and hold until the screen jogs
    c. Press the up button on the remote until the slide bar reaches the point where you want the upper limit
        i. The slide bar should be level and within 1" of the housing cover
    d. Press and hold the my button on the remote to lock in the upper limit
    e. Press the down button on the remote to move the screen to the lower limit
    f. Press the up and down buttons on the remote and hold until the screen jogs
    g. Press the down button on the remote until the slide bar reaches about 1" above the point where you want the upper limit
        i. The screen will stretch when it has been hanging down and that 1" gap will be filled by the bottom seal
    h. Press and hold the my button on the remote to lock in the lower limit

11. Repeat above steps for each OAH screens remaining on project

12. Go over usage of the screen with the home owner
    a. Show home owner how to use the remote to move the screen up and down and how to stop using the My button
    b. Use a microfiber cloth and a mild detergent to clean mesh
        i. Do not vacuum as a vacuum can catch the screen and rip it
    c. Use a clear vinyl cleaning product (IMAR or 303 for example) to clean and condition the vinyl
    d. Explain how the obstacle detection works

** Any creases and much of the puckering the may be seen after a screen is install will disappear as the screen hangs down*

** The limits may need to be adjusted once the screen has been in use and settled after install – Follow up with the customer to arrange a time to go back and review the limits*

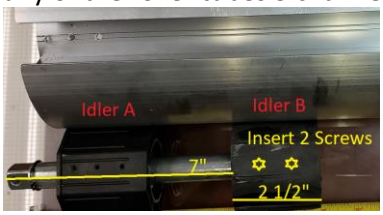
Installing a IUH (Inside Under Header) Unit

1. Install the housing back
    a. Turn the housing so that the top is facing up.
    b. Drill 3/ 16" mounting holes into the top of the housing. Start at the middle and every 24" toward the ends. The holes should be about ¾ " above the back of the housing. Drill 3/16" mounting holes at each end of the housing between the two pop rivets (top of housing back)
    c. Measure and mark the middle of the housing at the top area of the back of the housing
    d. Measure and mark on the header the location where the bottom middle area of housing should be on the header
    e. Line up the 2 marks and fasten housing to the header
    f. Level housing and fasten to the header through predrilled holes with 2" fasteners
    g. Before tightening fasteners to header, attach the front cover of the hood, ensuring the top and back hood assembly is not bowed and you are able to satisfactorily attach the front cover. Once this is done, remove front cover and tighten fasteners
    h. At the motor end drill a 3/8" hole through the back of the housing 1" from top and ¾" from the end for leading the motor wire out of the housing

2. Install the roll tube
    a. Insert the pivot in to the end cap and compress
    b. Move the motor end of the tube to line up with the crown on the end cap
        i. Ensure the power cord coming out of the motor is facing down
        ii. This is to ensure water does not run in to the motor, otherwise call a drip loop
    c. Line the shape on the motor to the corresponding shape of the crown and connect the motor to the crown
        i. You must hear a distinctive clicking sound to ensure the motor is completely in place
    d. Loop the power cord around the motor and pull through the opening drilled earlier
        i. If the outlet is towards the bottom of the screen the cord can hang straight down
3. Install the roll tube using the double idler system
    a. Unroll the screen material from the tube
        i. Be careful not to damage the screen
        ii. Ensure the screen zipper does not move out of the tube
    b. Insert the pivot cap in to the end cap and pin in to the bracket using the provided cotter pin
        i. Ensure the holes line up

        ii. Cotter pin fits upwards
    c. Move the motor end of the tube to line up with the crown on the end cap making sure the idler does not come out of the tube
        i. Ensure the power cord coming out of the motor is facing down
        ii. This is to ensure water does not run in to the motor, otherwise called a drip loop
    d. Line the shape on the motor to the corresponding shape of the crown and connect the motor to the crown
        i. You must hear a distinctive clicking sound to ensure the motor is completely in place
    e. At the double idler end measure an install locking pins to ensure the tube does not shift

i. Measure 7” from the front end of the shaft to find Idler B, add ½” and insert 2 screws into in any of the roller tubes 3 channels to secure Idler B to the roller tube



f. Loop the power cord around the motor and pull through the opening drilled earlier
   i. If the outlet is towards the bottom of the screen the cord can hang straight down
   ii. A 3/8” hole may need to be drilled in to the track to pull the power cord through

4. Attach the 3 prong plug to the wires at the end of the cord **plug designs may be different however below lists the basic rules for installing the plug*
   a. Excess cord may be cut if necessary

   **Important – when cutting the power cord leave a minimum of 18” of cord between the motor and the end of the power cord. The antenna for the motor is within those 18” and if cut it will limit the usage of the remote*

   b. Using a Phillips screw driver attach the white wire to the silver colored tab, the green wire to the green colored tab and the black wire to the bronze colored tab
   c. Once all the wires are secure complete plug install by tightening plug cover to plug

5. Wake up the motor and set the limits **if power is lost before this process is complete the steps will need to be repeated*
   a. Take the remote out of its box and set it to the correct channel if multiple units (remotes come with battery and are ready to use out of the box)
   b. Plug the unit in to the outlet
      i. Screen will jog up and down
   c. To wake the motor up press the up and down buttons together until the unit jogs up and down
      i. When the motor jogs the unit is woken up
   d. Ensure the motor is rolling the correct way
      i. If you press the down button the screen should move down
      ii. If you press down and the screen rolls up, press and hold the My button until the motor jogs up and down
      iii. Once the motor jogs press the down button and the screen will roll the correct way
   e. <u>If the screen is still wrapped around the tube, press the My and the down buttons together to set that point as the upper limit</u>
      i. The screen will begin to roll down
      ii. Hold the middle of the screen material at the zipper and with light pressure helps guide the screen material down
         i. This is because there is currently no weight on the screen material
   f. Once the screen gets to about 1’ from the lowest point press the My button to stop the screen
   g. Press the My button and the up button together to set the bottom limit
      i. The screen will begin to roll up
   h. Press the My button to stop the screen then immediately press hold the My button until the screen jogs
   i. Within 6 seconds of stopping the screen press and hold the program button on the back of the remote until the motor jogs <u>twice</u>
   j. This motor is now programed and can be unplugged if necessary
   k. <u>If the screen is not wrapped around the tube (double idler system install) press the up button to move the screen up to wrap around the tube</u>
      i. Ensure the zipper is rolling over on itself at the tube on both sides (no telescoping)
   l. When the screen reaches 1’ below the housing press the My button and the down button together to set the upper limit

   i. The screen will start to roll down
m. When the screen reaches 1' from the lowest point press the My button to stop the screen
n. Press the My button and the up button together to set the lower limit
   i. The screen will start to roll up
o. Press the My button to stop the screen then immediately press hold the My button until the screen jogs
p. Within 10 seconds of stopping the screen press and hold the program button on the back of the remote until the motor jogs twice
q. This motor is now programed and can be unplugged if necessary

**Once screen is programmed the My button can be pressed to stop a screen in motion at any point*

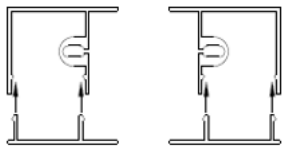
6. Install slide bar
   a. Using the up or down buttons on the remote move the screen material to a level where it is comfortable to slide the slide bar on to the zipper
      i. Use the My button to stop the screen at the desired point
   b. Pick up the slide bar and with the bottom seal facing down slide the slide bar on to the zipper by moving the screen bottom tag to the side and sliding the zipper through the rounded hole on the slide bar
   c. Continue to feed the zipper through the hole until the slide bar is fully attached to be screen
      i. If installed correctly the zipper will hold to the slide bar
   d. With a Phillips screw driver loosen the 2 screws on both probes (do not take the screws all the way out)
   e. On 1 side of the slide bar fit the probe in to the end with the screws facing out
   f. Move the screen tab in between the screws in the slot on the probe and fit so that the end of the probe is 1/16" away from the stitching on the tab
   g. Tighten both screws so that the screws puncture the tab and fully attach to the other side of the probe
   h. Repeat for the other side
   i. Line the bottom seal up with one end of the slide bar and cut off the excess material on the other end
      i. The excess material can bunch up within the tracks and cause the obstacle detection to engage
   j. Cut the remaining zipper so that it is level with the bottom seal on both ends of the slide bar
      i. The excess zipper can bunch up at the lower limit and affect where the lower limit is
   k. Press the up button on the remote to move the screen back up to the upper limit
      i. Ensure the zipper is rolling over on itself at the tube on both sides (no telescoping) and make adjustments as necessary

7. Install the 2" x 2" angle
   a. On one side of the screen (left or right) measure from the ground or the lowest point up to the bottom of the end cap. That will be the length of the 2" x 2" angle
   b. Take 1 piece of the 2" x 2" angle and measure the distance measured
   c. Mark on the angle the necessary length and cut using the chop saw
   d. Attached the 2" x 2" angle so that 2" is flush against the post on the inside of the jamb and the other 2" is flush to the back of the housing
   e. Ensure the angle is level and perpendicular to the ground
   f. Attach a flat head fastener 2" below the housing through the angle and in to the post
   g. Move to the mid-way point between the housing and the lowest point
   h. Ensure the angle is level and perpendicular to the ground
   i. Attach a flat head fastener through the angle in to the post
   j. Move to 2" above the lowest point of the angle
   k. Ensure the angle is level and perpendicular to the ground
   l. Attach a flat head fastener through the angle in to the post
   m. Repeat steps for the other side

8. Install the side tracks and covers
    a. On one side of the screen (left or right) measure from the ground or the lowest point up to the bottom of the end cap. That is the length of the track
    b. Take the corresponding side track
        i. To find which track goes on which side, take 1 piece of track and face it so that the beveled end is pointing up towards the housing, the open end (where the track cover will snap on to) is facing out and the groove for the zipper is facing in towards the other post
        ii. Whichever side matches that lay out is the correct track side
    c. Measure the back side of the track below the bevel towards the bottom end
    d. Mark the length measured earlier
    e. With the chop saw cut at that point
    f. Take the track cover and measure the same length and cut
    g. Repeat the same steps for the other track
        i. Each track may be a different length so it is important to ensure you cut the correct track for both the left and the right side
    h. Take one side of tracks and feed the zipper in to the groove of the track through the beveled end of the track
        i. Use needle nose pliers to hold on the tab beside the slide bar to help guide the zipper in to the groove
    i. Line the outside edge of the track with the outside edge of the end cap and install a fastener in the middle of the track through the angle and back of the track back 2” below the housing
        i. Ensure the screw does not extend past where the track cover will be placed (1” screws are ideal for this)

    j. The beveled part of the track will fit inside the housing
    k. Repeat step for the other track
    l. Ensure the slide bar is centered between the tracks
    m. Each installer holds a track (on either side of the opening) perpendicular to the ground
    n. Press the down button on the remote and stop the screen when the slide bar reaches the mid-way point between the upper limit and the lower limit
    o. Ensure the track is level and perpendicular to the ground and that the screen is not too tight or too lose (the screen should provide a bounce similar to a trampoline when tapped on)
    p. At the point of the slide bar install a fastener in the middle through the angle and in to the back of the track on both tracks
        i. Ensure the screw does not extend past where the track cover will be placed (1” screws are ideal for this)
    q. Press the down button on the remote
        i. The screen will hit the bottom limit (about 1’ above the lowest point)
    r. Ensure the track is level and perpendicular to the ground and that the screen is not too tight or too lose (the screen should provide a bounce similar to a trampoline when tapped on)
    s. Install a fastener in the middle through the angle in to the back of the track on both tracks 2” above the lowest point
        i. Ensure the screw does not extend past where the track cover will be placed (1” screws are ideal for this)
    t. Press the up button on the remote and ensure the screen rolls up without being impeded
        i. The zipper must roll over on itself on both sides of the roll tube (no telescoping)

u. Spray silicone in the groove of each track on both sides of the unit from top to bottom
v. Press the down button on the remote and ensure the screen rolls down without being impeded
    i. The obstacle detection will engage is the screen is impeded
w. If the screen rolls up and down smoothly, install a fastener through the angle in to the back of the track at the midway point between the top and middle fasteners and another between the middle and the bottom fastener
    i. If the screen does not roll down smoothly, or the obstacle detection engages
        i. check the groove in the tracks where the zipper rides at the point the screen stops to make sure there is nothing impeding the screen
        ii. If the obstacle detection engages and there is nothing impeding the zipper in the groove, ensure the tracks are level and perpendicular to the ground
        iii. If the obstacle detection still engages ensure the slide bar is not rubbing against the tracks
            - If the slide bar is rubbing against the tracks, adjust the slide bar so it is centered between the tracks
x. Snap the track cover over the corresponding track starting at the top of the track and working your way down ensuring the cover snaps on (a distinctive snapping sound can be heard)



9. Install the housing cover (hood)
    a. Slide the housing cover in to the grove on the front edge of the housing back
    b. Using the hex screws fasten the housing cover to the end cap at the point where the hex screw faces the ground
        i. Repeat for the other side
    c. Install the remaining hex screens along the top front of the housing cover (hood)

10. Adjust the upper and lower limits
    a. Press the up button on the remote to move the screen to the upper limit
    b. Press the up and down buttons on the remote and hold until the screen jogs
    c. Press the up button on the remote until the slide bar reaches the point where you want the upper limit
        i. The slide bar should be level and within 1” of the housing cover
    d. Press and hold the my button on the remote to lock in the upper limit
    e. Press the down button on the remote to move the screen to the lower limit
    f. Press the up and down buttons on the remote and hold until the screen jogs
    g. Press the down button on the remote until the slide bar reaches about 1” above the point where you want the upper limit
        i. The screen will stretch when it has been hanging down and that 1” gap will be filled by the bottom seal
    h. Press and hold the my button on the remote to lock in the lower limit

11. If there was a bias cut in to the screen and the slide bar is not level at the upper limit
    a. Set the screen to the lower limit
    b. Using duct tape cut 5 10” strips
    c. Stack each of the 10” strips on the roll tube (or screen if the roll tube is not visible) on the longest side of the mesh (left or right side depending which was the lowest point slopes)
        i. Strips of tape must run from the end of the roll tube in towards the other side of the tube
    d. Once all the strips are on press the up button and roll the screen to its highest limit

e. Strips of tape may need to be added or taken off depending on how great of a bias there is in the screen
f. Add or remove tape 1 strip at a time until the slide bar is level at the upper limit

12. Repeat above steps for each IUH screens remaining on project

13. Go over usage of the screen with the home owner
    a. Show home owner how to use the remote to move the screen up and down and how to stop using the My button
    b. Use a microfiber cloth and a mild detergent to clean mesh
        i. Do not vacuum as a vacuum can catch the screen and rip it
    c. Use a clear vinyl cleaning product (IMAR or 303 for example) to clean and condition the vinyl
    d. Explain how the obstacle detection works

** Any creases and much of the puckering the may be seen after a screen is install will disappear as the screen hangs down*

** The limits may need to be adjusted once the screen has been in use and settled after install – Follow up with the customer to arrange a time to go back and review the limits*