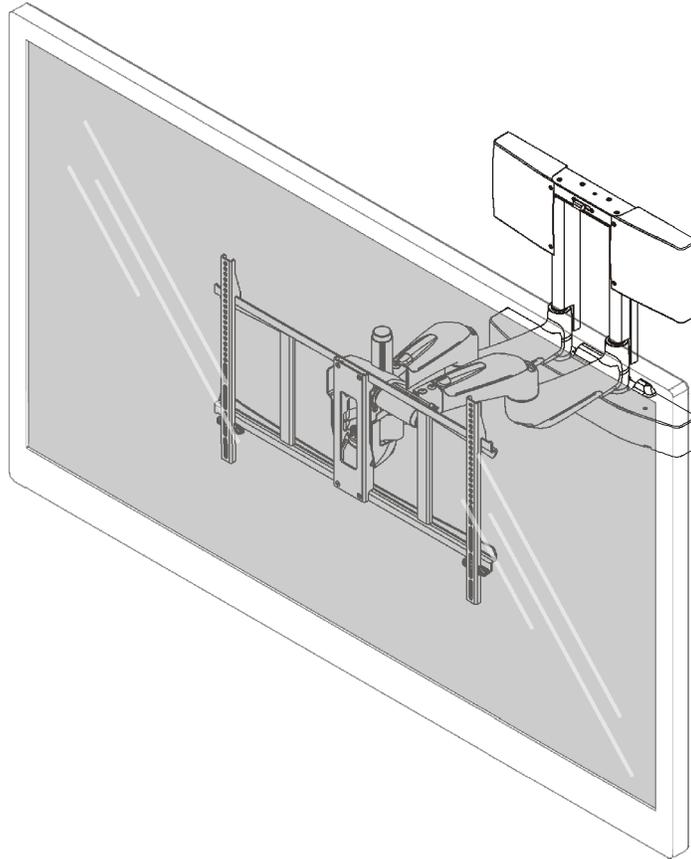


INSTALLATION INSTRUCTIONS



Automated Wall Mount

This device complies with part 15 of the FCC rules. Operation is subject to the following 2 conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio or television communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment to an outlet on a circuit other than that to which the receiver is connected

Consult the dealer or an experienced radio/TV technician for help.



Our Mounts. **Your Vision.**

PXR

DISCLAIMER

Milestone AV Technologies, and its affiliated corporations and subsidiaries (collectively, "Milestone"), intend to make this manual accurate and complete. However, Milestone makes no claim that the information contained herein covers all details, conditions or variations, nor does it provide for every possible contingency in connection with the installation or use of this product. The information contained in this document is subject to change without notice or obligation of any kind. Milestone makes no representation of warranty, expressed or implied, regarding the information contained herein. Milestone assumes no responsibility for accuracy, completeness or sufficiency of the information contained in this document.

Chief® is a registered trademark of Milestone AV Technologies. All rights reserved.



IMPORTANT SAFETY INSTRUCTIONS



WARNING alerts you to the possibility of serious injury or death if you do not follow the instructions.



CAUTION alerts you to the possibility of damage or destruction of equipment if you do not follow the corresponding instructions.



WARNING: FAILURE TO READ AND FOLLOW THE FOLLOWING INSTRUCTIONS CAN RESULT IN SERIOUS PERSONAL INJURY, DAMAGE TO EQUIPMENT OR VOIDING OF FACTORY WARRANTY. It is the installer's responsibility to make sure all components are properly assembled and installed using the instructions provided.

When using an electrical mounting system, basic precautions should always be followed, including the following:

READ ALL INSTRUCTIONS BEFORE USING THIS PRODUCT!!!!



DANGER: TO REDUCE THE RISK OF ELECTRIC SHOCK:

1. Always turn off power at source before cleaning.



WARNING: TO REDUCE THE RISK OF BURNS, FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS:

- Always turn off power at source before putting on or taking off parts.
- Use this mounting system only for its intended use as described in these instructions. Do NOT use attachments not recommended by the manufacturer.
- Never operate this mounting system if it has a damaged cord or plug. If it is not working properly during testing, return the mounting system to a service center for examination and repair.
- Keep the power cord away from heated surfaces.
- Never operate the mounting system with the air openings blocked. Keep the air openings free of lint, hair, and the like.
- Never drop or insert any object into any opening.
- Do not use outdoors unless marked for outdoor use.
- Route cords and cables as shown in the installation instructions.
- To disconnect, turn all controls to the off position, then turn off power at source.



WARNING: RISK OF ELECTRIC SHOCK!
Connect this mounting system to a properly grounded outlet only. See Grounding Instructions.



CAUTION: Changes or modifications to this unit not expressly approved by the manufacturer can void the units FCC compliance rating and make the unit illegal to operate.



WARNING: Failure to provide adequate structural strength for this component can result in serious personal injury or damage to equipment! It is the installer's responsibility to make sure the structure to which this component is attached can support five times the combined weight of all equipment. Reinforce the structure as required before installing the component.



WARNING: Exceeding the weight capacity can result in serious personal injury or damage to equipment! The weight capacity of the PXR varies based on the depth of the display (including spacers), but must not exceed 150 lbs (68.0). It is the installer's responsibility to make sure the weight of all components attached to the PXR meet this criteria.

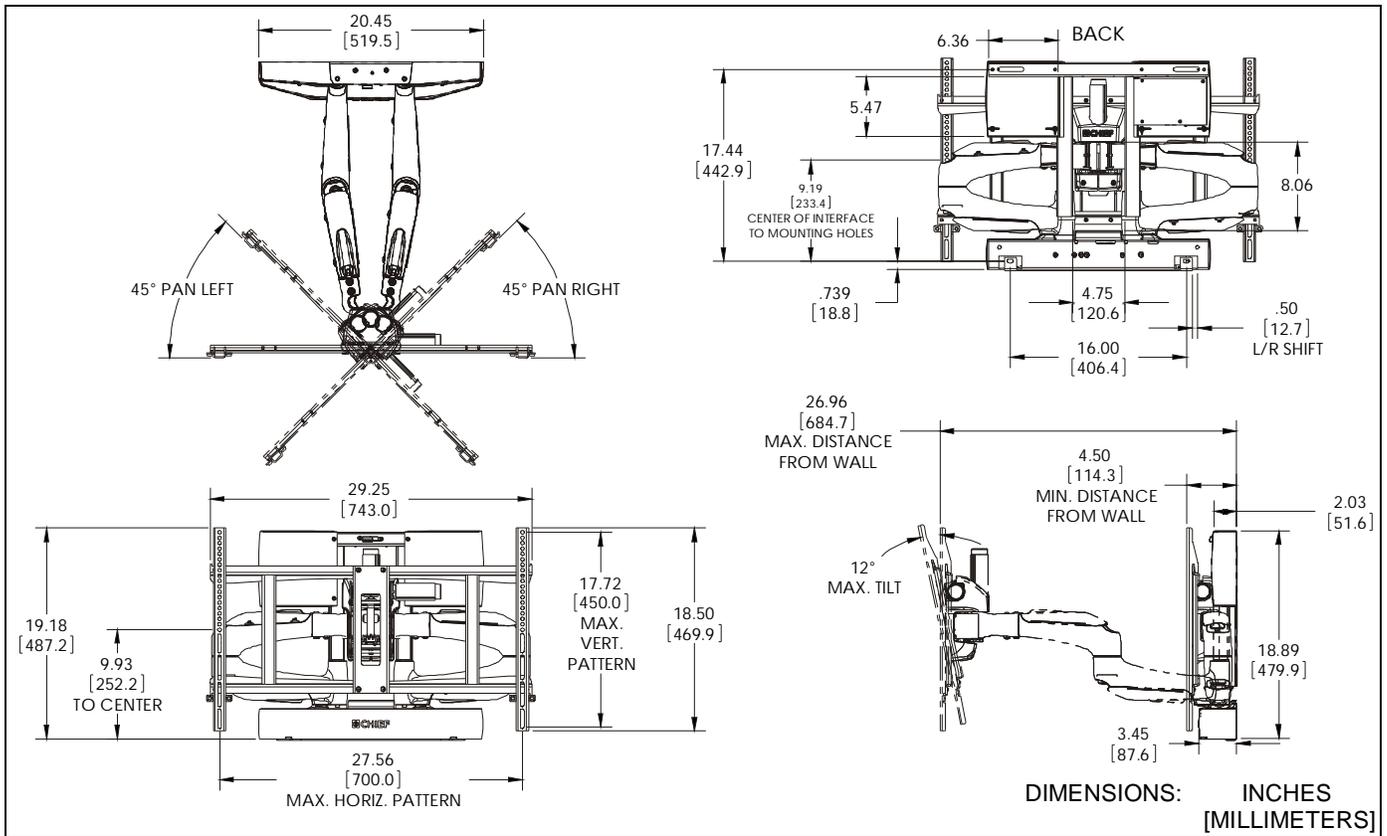
NOTE: This system has no user serviceable parts.

--SAVE THESE INSTRUCTIONS--

TABLE OF CONTENTS

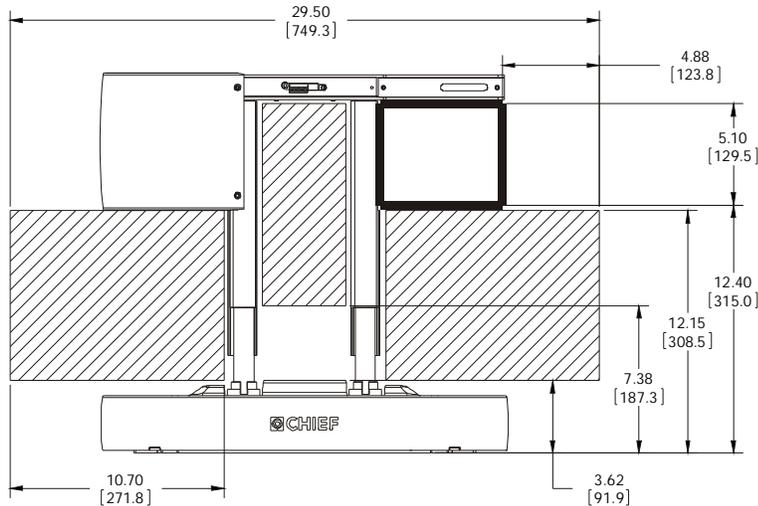
DISCLAIMER	2	SET-UP AND CONFIGURATION WITH	
TABLE OF CONTENTS	3	DISPLAY ATTACHED	21
DIMENSIONS	4	Running LEARN MODE	21
LEGEND	6	Saving a Preset	22
TOOLS REQUIRED FOR INSTALLATION ..	7	Final Attachment to Wall Mounting	
PARTS	7	Bracket	23
SITE PREPARATION	8	ADVANCED SETTINGS	23
Locating and Preparing a Mounting Site ..	8	IR Repeat Conditions	23
Power Requirements and Wiring	8	Heavy Screen Mode	23
Grounding Instructions	8	Emergency Service Extend.	23
PXR DIAGRAM	9	PROGRAMMING VIA RS485	24
INSTALLATION	9	Setting PXR Address	24
Installing to a Wood Stud Wall	10	RS-485 Commands	24
Installing to a Solid Concrete Wall	12	Calculating a Check Digit Code	24
Installing in an In-Wall Box	14	Common Commands	25
Arm Engagement	16	Get Status (0x01) Command	25
Installing IR Sensor	17	Get System Status (0x2F).	26
SET-UP AND TESTING CONFIGURATION 17		PXR Blink Codes	26
Running Learn Mode (Test)	17	Fault Conditions	26
Attach Interface Brackets to Display	18	RS-485 Terminal Block Wiring	28
Hanging Display on PXR	19	IR Receiver Pinout	28
Cable Management	20		

DIMENSIONS



DIMENSIONS...continued

PRE-INSTALL SETUP FOR WALL MOUNTING
 ARMS AND HEAD UNIT HIDDEN FOR CLARITY



KEEP THESE AREAS CLEAR. DO NOT PUT OUTLETS, CORDS, OR ANY OTHER DEVICES IN THESE AREAS
 THIS AREA IS THE RECOMMENDED LOCATION TO PLACE AN OUTLET AND FEED DATA LINES.

MECHANICAL	
MOUNTING PATTERNS:	MINIMUM (H x V) 200 X 100 MAXIMUM (H x V) 700 X 450
WEIGHT CAPACITY:	Varies dependent on depth of display--150 LB (68.0 KG) MAX
EXTENSION:	UP TO 27" AWAY FROM THE WALL MINIMUM: 4.5" FLUSH MOUNTED, 1.0" WHEN RECESSED USING A PAC 502
PAN:	UP TO 45° TO THE LEFT AND RIGHT (90° TOTAL)
TILT:	UP TO 12° DOWN (DEPENDING ON SCREEN SIZE)
NOISE LEVEL*	52 dBA @ 36" WITH MAX LOAD
MAX SPEED*	EXTEND/RETRACT: .75" / SEC PAN: 4.5° / SEC TILT: 3.0° / SEC
POWER	
MAX CONSUMPTION:	85 W
STANDBY CONSUMPTION:	<2 W
POWER SUPPLY:	100-250 VAC, 50/60 Hz
FEATURES	
	PRESET HOME POSITION
	4 PROGRAMMABLE POSITIONS
	CONTROLLABLE VIA RS485 COMMUNICATIONS
	BUILT-IN IR REPEATER (TRANSMITTER NOT INCLUDED)
	SIMULTANEOUS AXIS MOVEMENT
DIMENSIONS	
PACKAGE SIZE	36" x 24" x 7.75"
PACKAGE WEIGHT	APPROX. 80 LB
PRODUCT SIZE	29.25" x 19.2" x 4.5"
PRODUCT WEIGHT	APPROX. 65 LB

* PERFORMANCE MAY VARY

SEE PAC502 INSTRUCTIONS FOR INSTALLING IN AN IN-WALL BOX

DIMENSIONS: INCHES
 [MILLIMETERS]

TO VERIFY DISPLAY IS COMPATIBLE WITH PXR

Method 1

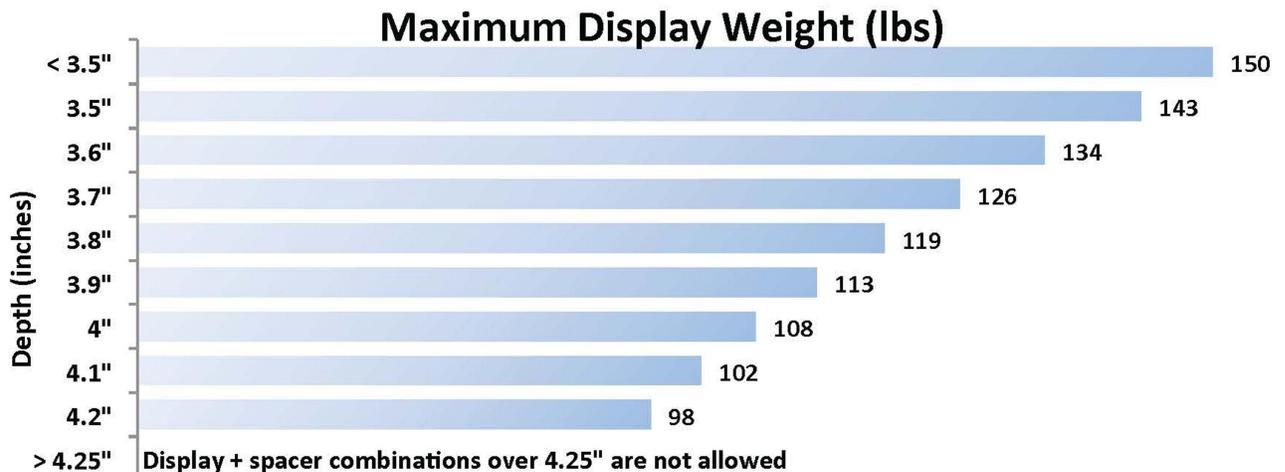
1. Go to www.chiefmfg.com.
2. Select manufacturer and model of display in MountFinder™.
3. Click "Search".

NOTE: If PXR is listed in search results, display is compatible with PXR.

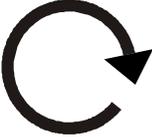
Method 2

1. If access to www.chiefmfg.com is not available, verify that the display mounting pattern is less than 700mm x 450mm, and use the chart below to determine if display is compatible.

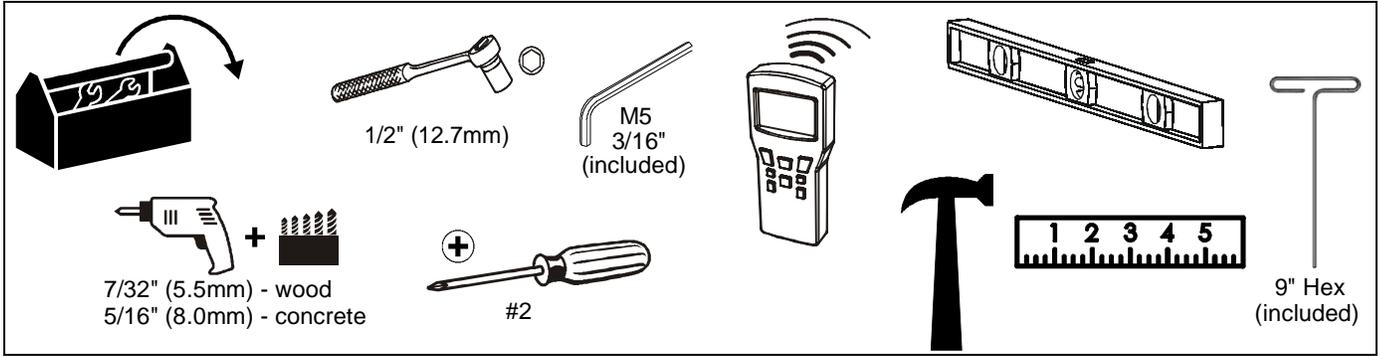
NOTE: Not all displays that meet this criteria will be compatible with the PXR.



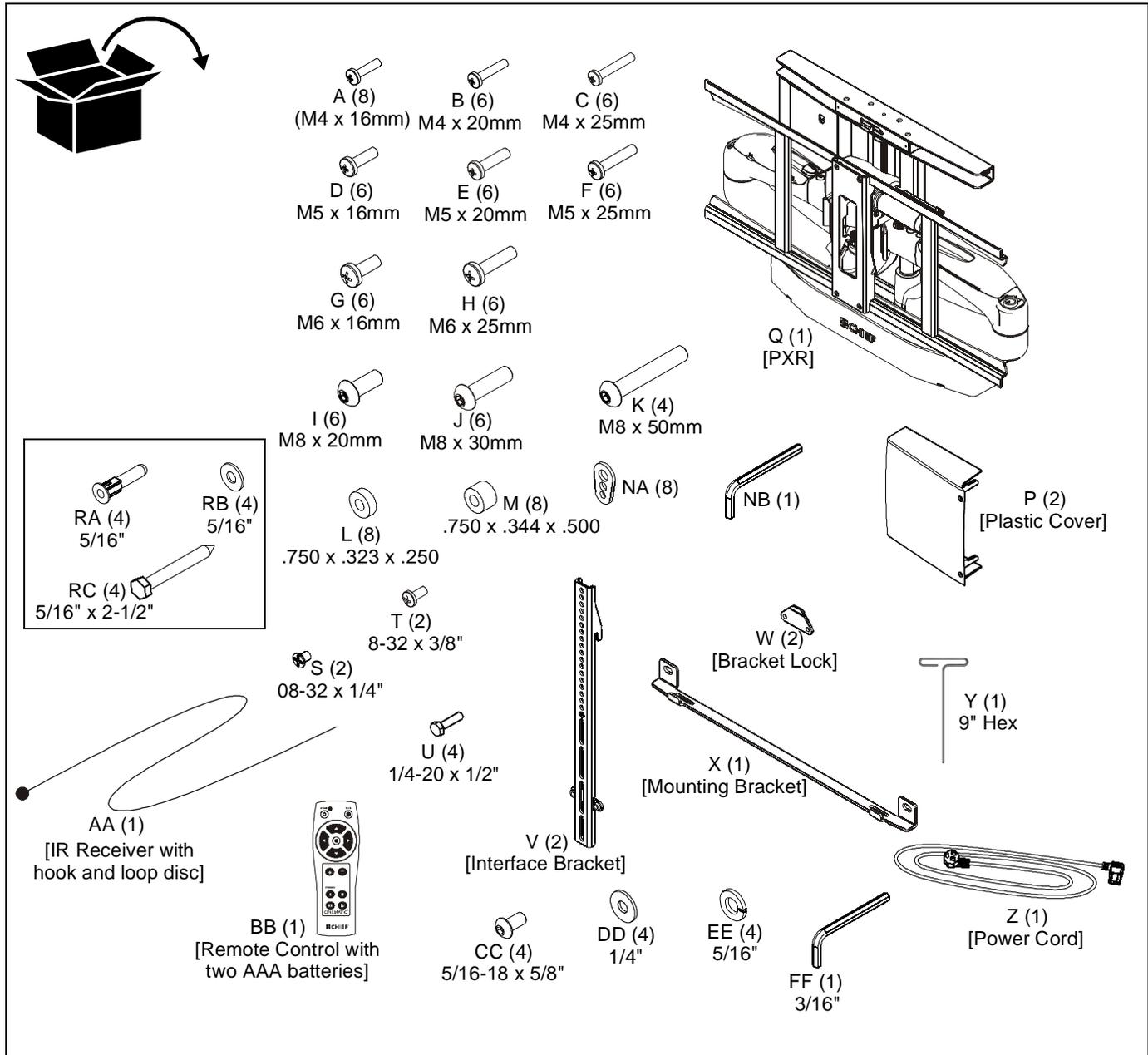
LEGEND

	Tighten Fastener Apretar elemento de fijación Befestigungsteil festziehen Apertar fixador Serrare il fissaggio Bevestiging vastdraaien Serrez les fixations		Pencil Mark Marcar con lápiz Stiftmarkierung Marcar com lápis Segno a matita Potloodmerkteken Marquage au crayon
	Loosen Fastener Aflojar elemento de fijación Befestigungsteil lösen Desapertar fixador Allentare il fissaggio Bevestiging losdraaien Desserrez les fixations		Drill Hole Perforar Bohrloch Fazer furo Praticare un foro Gat boren Percez un trou
	Phillips Screwdriver Destornillador Phillips Kreuzschlitzschraubendreher Chave de fendas Phillips Cacciavite a stella Kruiskopschroevendraaier Tournevis à pointe cruciforme		Adjust Ajustar Einstellen Ajustar Regolare Afstellen Ajuster
	Open-Ended Wrench Llave de boca Gabelschlüssel Chave de bocas Chiave a punte aperte Steeksleutel Clé à fourche		Remove Quitar Entfernen Remover Rimuovere Verwijderen Retirez
	By Hand A mano Von Hand Com a mão A mano Met de hand À la main		Optional Opcional Optional Opcional Opzionale Optie En option
	Hex-Head Wrench Llave de cabeza hexagonal Sechskantschlüssel Chave de cabeça sextavada Chiave esagonale Zeskantsleutel Clé à tête hexagonale		Security Wrench Llave de seguridad Sicherheitsschlüssel Chave de segurança Chiave di sicurezza Veiligheidssleutel Clé de sécurité

TOOLS REQUIRED FOR INSTALLATION



PARTS



SITE PREPARATION

Locating and Preparing a Mounting Site

The PXR was designed to be installed onto a 16" on center 2" x 4" wood stud or solid concrete wall; or into the PAC-502 in-wall box (not included).

⚠ WARNING: IMPROPER INSTALLATION CAN LEAD TO MOUNT FALLING CAUSING SERIOUS PERSONAL INJURY OR DAMAGE TO EQUIPMENT! It is the installer's responsibility to make sure the structure to which the PXR is being installed is capable of supporting five times the combined weight of the PXR and all attached equipment, which varies dependent on depth of display but is NOT to exceed 150 lbs (68.0 kg) maximum.

1. Identify suitable wall location for the PXR to be installed taking into consideration the outward extension (60" minimum) and right to left turning of the display (depends upon display size).

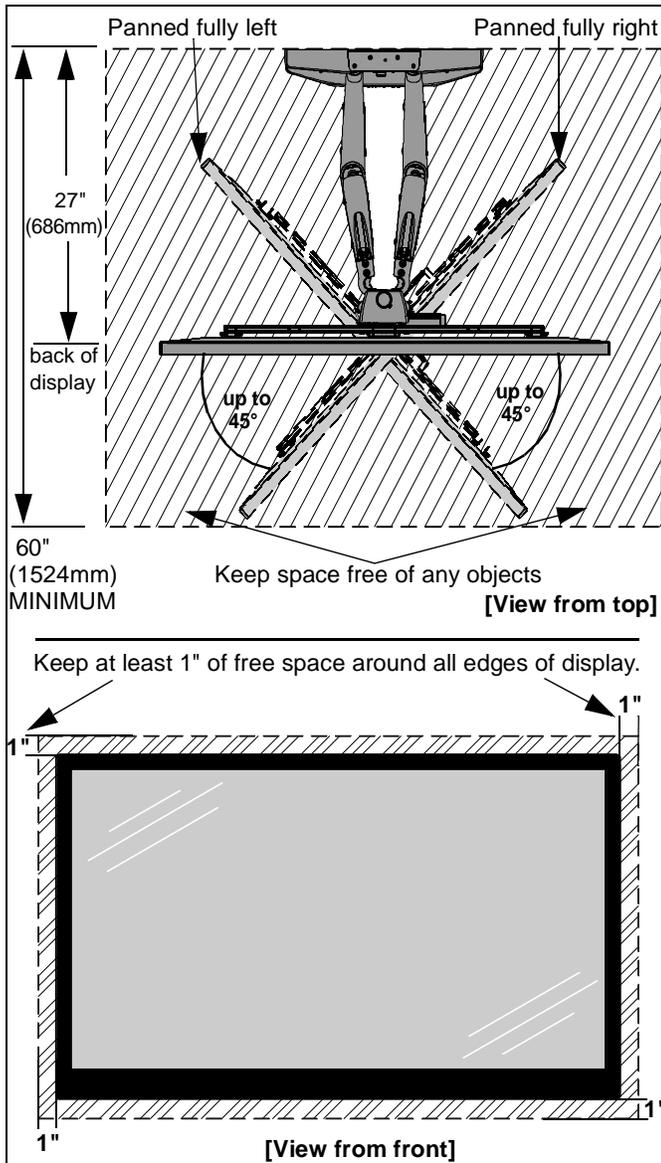


Figure 1

IMPORTANT ! : Ensure that PXR location allows required clearance around display as outlined in documentation included with display.

2. Ensure that an area from the point of PXR wall attachment outward and surrounding the PXR is left open and doesn't contain anything that may impede movement of the PXR. (See Figure 1)

IMPORTANT ! : Ensure there is ALWAYS enough space for access to remove the display from the PXR. Keep at least 1" of free space around all edges of display.

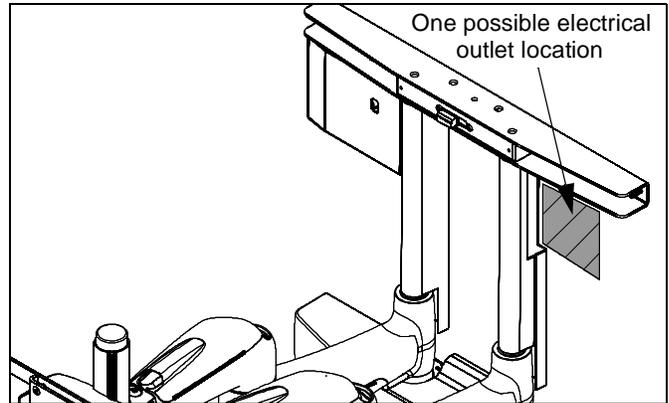


Figure 2

Power Requirements and Wiring

The PXR requires 100-250VAC, 50/60 Hz power to operate.

IMPORTANT ! : This product must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock.

Grounding Instructions

This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

⚠ WARNING: RISK OF ELECTROCUTION! All electrical wiring required for installation should be installed by a qualified electrician.

PXR DIAGRAM

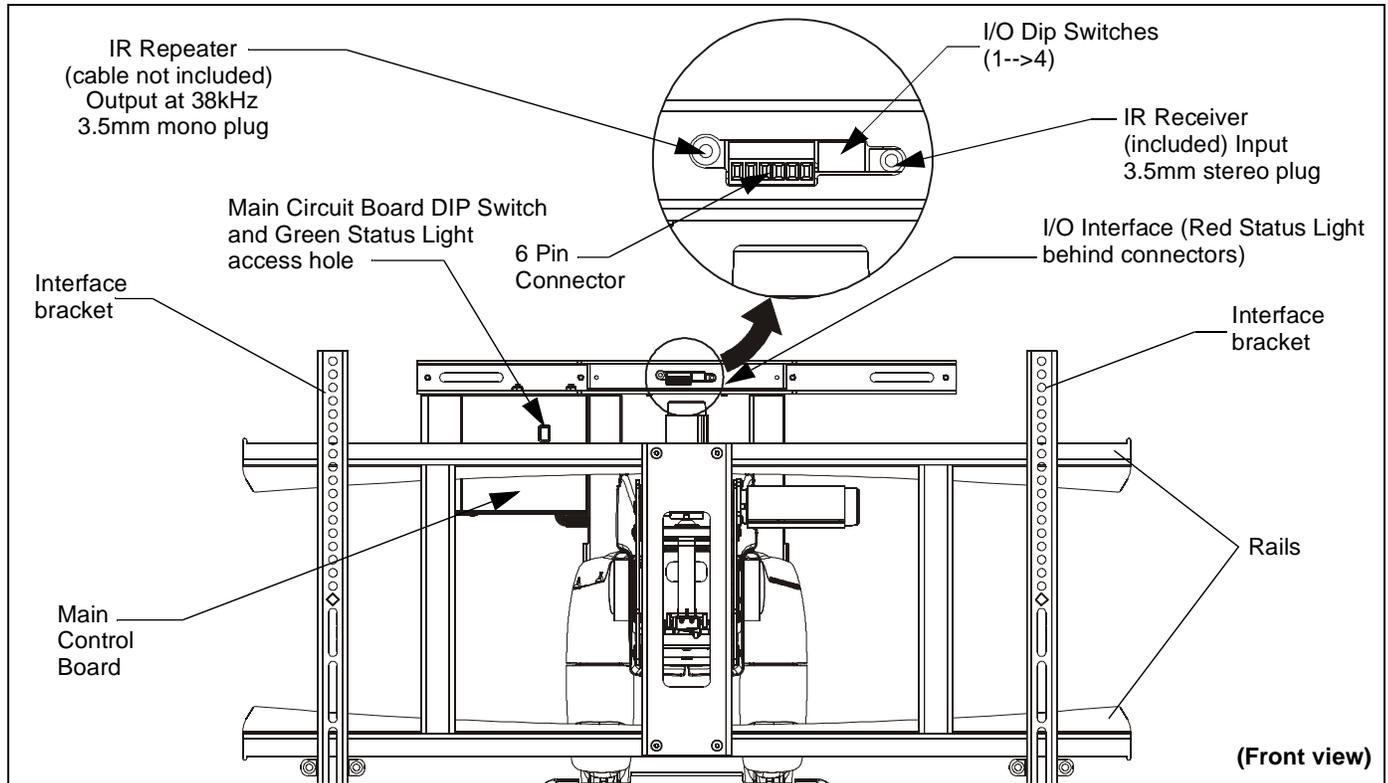


Figure 3

INSTALLATION



WARNING: AVOID PERMANENTLY DAMAGING THE PXR!! NEVER use the PXR as a vertical lift! ONLY operate the PXR when securely mounted in a vertical position! NEVER operate the PXR while it is lying down or tilting back!

IMPORTANT ! : When considering the PXR location, keep in mind that the distance from the lowest edge of the PXR assembly to the center of the interface brackets (which will also be the center of the display) is 9.93" (252mm). The distance from center of the mounting hole in the mounting bracket to the center of the display is 9.19" (233mm). (See Figure 4) and (See Figure 10)

NOTE: Proceed to either the **Installing to a Wood Stud Wall**, **Installing to a Solid Concrete Wall**, or **Installing in an In-Wall Box** section.

INSTALLING TO A WOOD STUD WALL

1. Using a stud finder, locate and mark the two 16" on center 2" x 4" wood studs to which the PXR will be mounted.
2. Determine point for lowest edge of PXR and mark studs.
3. Use a level to join the marked points and mark the lowest edge of PXR. (See Figure 4)
4. Place mounting bracket (X) along marked line on top of level, and mark location of pilot holes. (See Figure 4)
5. Drill two 7/32" x 2-3/4" (5.5mm x 69.9mm) pilot holes at locations marked in Step 4. (See Figure 4)

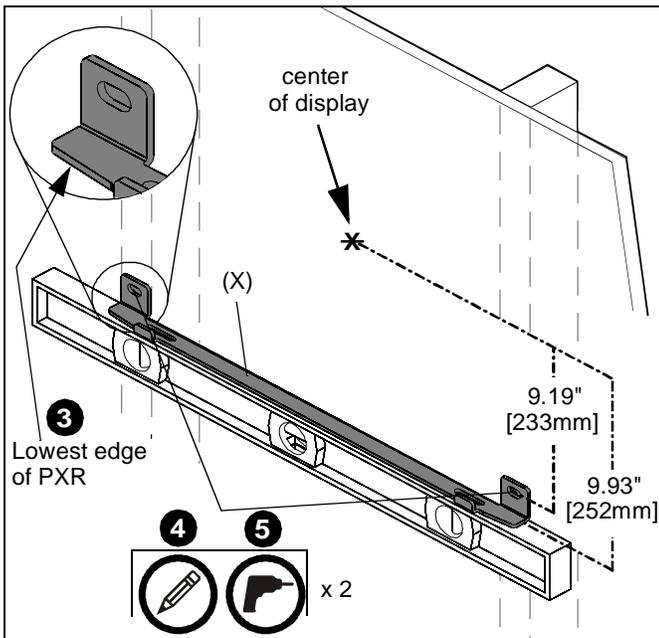


Figure 4

⚠ WARNING: ELECTRICAL SHOCK HAZARD! CUTTING OR DRILLING INTO ELECTRICAL CORDS OR CABLES CAN CAUSE DEATH OR SERIOUS PERSONAL INJURY! ALWAYS make certain area behind mounting surface is free of electrical wires and cables before cutting, drilling, or installing fasteners.

⚠ WARNING: EXPLOSION AND FIRE HAZARD! CUTTING OR DRILLING INTO GAS PLUMBING CAN CAUSE DEATH OR SERIOUS PERSONAL INJURY! ALWAYS make certain area behind mounting surface is free of gas, water, waste, or any other plumbing before cutting, drilling, or installing fasteners.

6. Attach mounting bracket (X) to wall with two 5/16 x 2-1/2" lag screws (RC) and two 5/16" flat washers (RB). (See Figure 5)

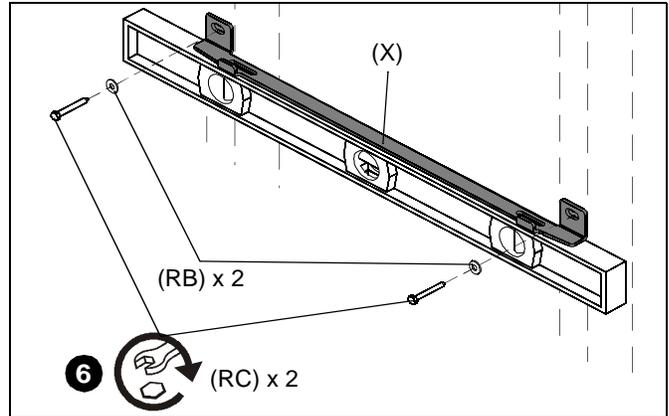


Figure 5

7. Lower PXR (Q) onto mounting bracket (X), ensuring PXR fits over mounting bracket tabs. (See Figure 6)

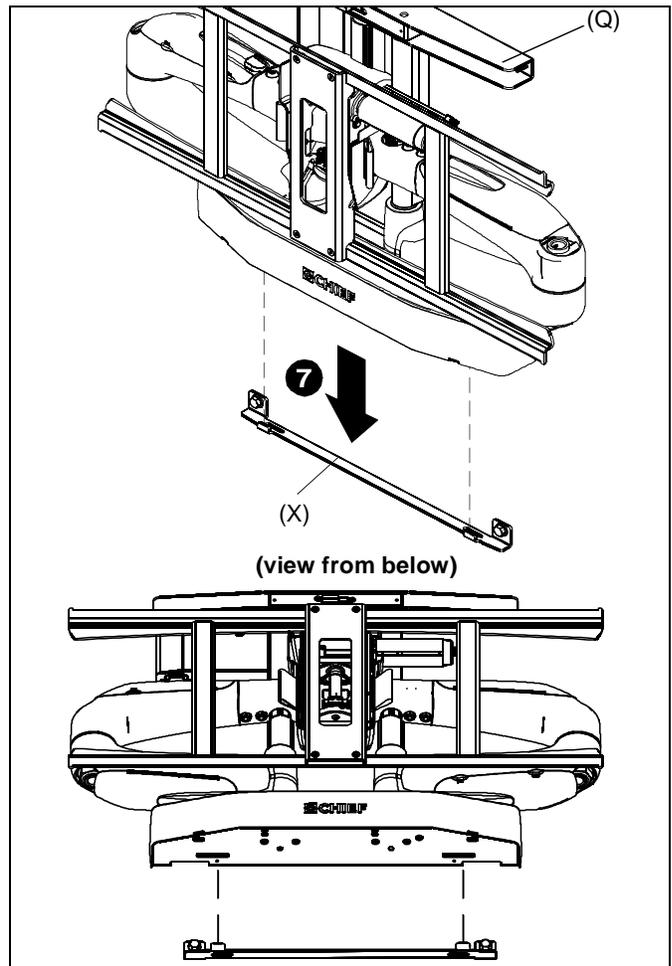


Figure 6

8. Mark the pilot holes through PXR upper bracket. (See Figure 7)
9. Carefully remove the PXR from the mounting bracket.
10. Drill two 7/32" x 2-3/4" (5.5mm x 69.9mm) pilot holes at locations marked in Step 9.
11. Return PXR to mounting bracket and fasten to wall using two 5/16 x 2-1/2" lag screws (RC) and two 5/16" flat washers (RB). (See Figure 7)

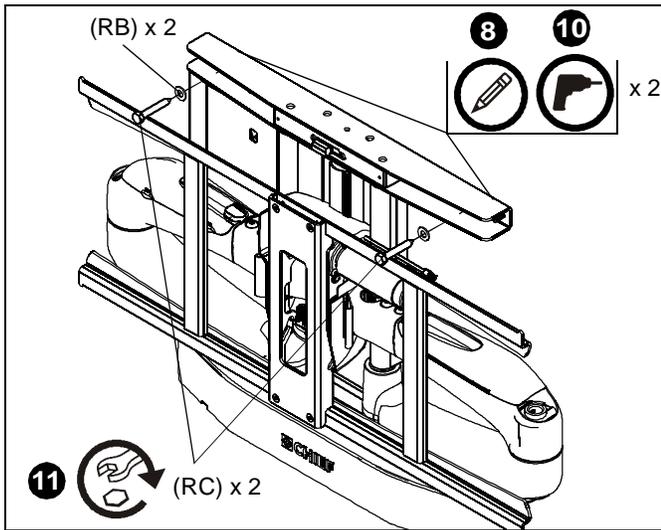


Figure 7

12. Remove two orange hook and loop straps holding PXR arms in place. (See Figure 8)

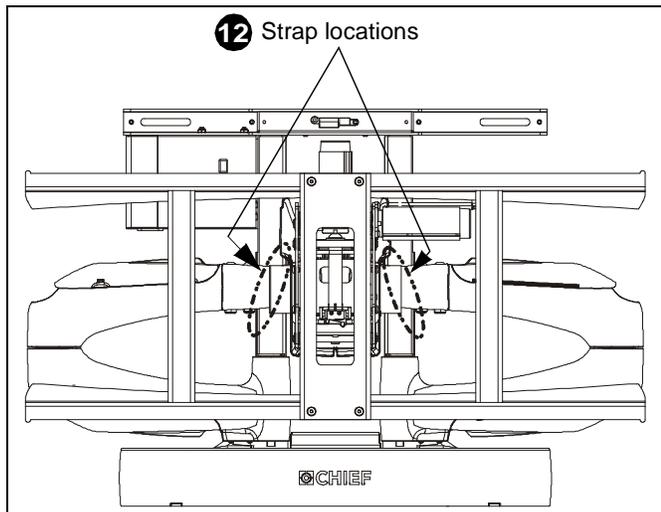


Figure 8

13. Connect and route power cord (Z) through PXR cable management areas. (See Figure 9)

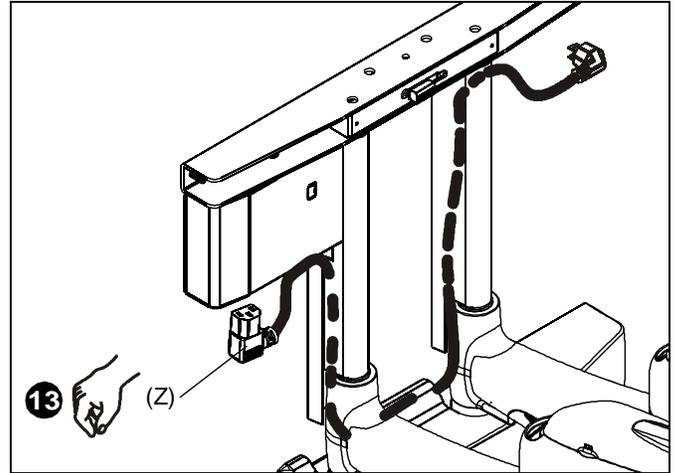


Figure 9

IMPORTANT ! : Do not power the PXR until it is ready to be tested.

NOTE: Proceed to **Arm Engagement** section.

INSTALLING TO A SOLID CONCRETE WALL

WARNING: INSTALLING THE PXR IN UNDERRATED OR DAMAGED CONCRETE CAN LEAD TO SERIOUS INJURY OR DAMAGE TO PRODUCT! When installing into concrete, only install the PXR in a solid concrete wall made of 2500 PSI (17.3 MPa) or stronger concrete. Never install the PXR into cracked, chipped or flaking concrete.

1. Determine point for lowest edge of PXR.
2. Use a level to mark the lowest edge of PXR. (See Figure 10)
3. Place mounting bracket (X) along marked line on top of level, and mark location of pilot holes. (See Figure 10)
4. Drill two 5/16" x 3-1/4" (M8 x 82.5mm) pilot holes at locations marked in Step 3. (See Figure 10)

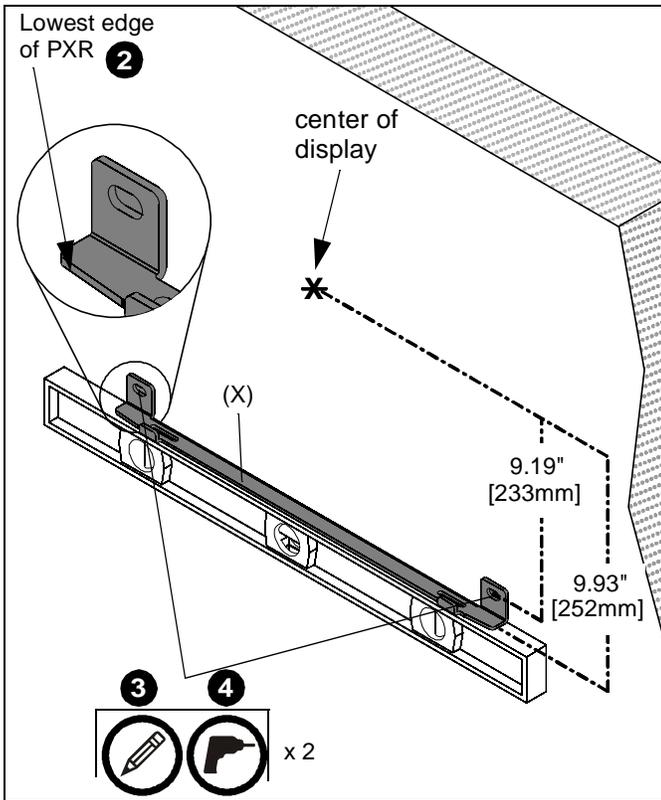


Figure 10

WARNING: ELECTRICAL SHOCK HAZARD! CUTTING OR DRILLING INTO ELECTRICAL CORDS OR CABLES CAN CAUSE DEATH OR SERIOUS PERSONAL INJURY! ALWAYS make certain area behind mounting surface is free of electrical wires and cables before cutting, drilling, or installing fasteners.

WARNING: EXPLOSION AND FIRE HAZARD! CUTTING OR DRILLING INTO GAS PLUMBING CAN CAUSE DEATH OR SERIOUS PERSONAL INJURY! ALWAYS make certain area behind mounting surface is free of gas, water, waste, or any other plumbing before cutting, drilling, or installing fasteners.

IMPORTANT ! : The anchors must be installed through any wall covering until flush with the concrete wall. (See Figure 11)

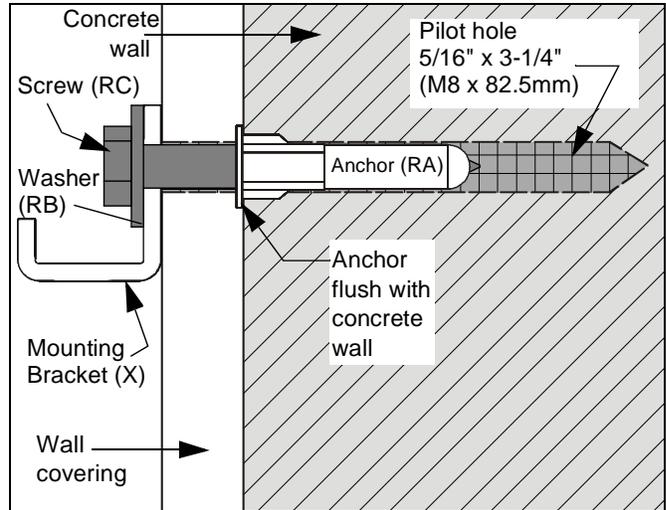


Figure 11

5. Install two anchors (RA) into pilot holes. Tap with hammer until flush with concrete surface. (See Figure 12)
6. Attach mounting bracket (X) to wall with two 5/16 x 2-1/2" lag screws (RC) and two 5/16" flat washers (RB). (See Figure 12)

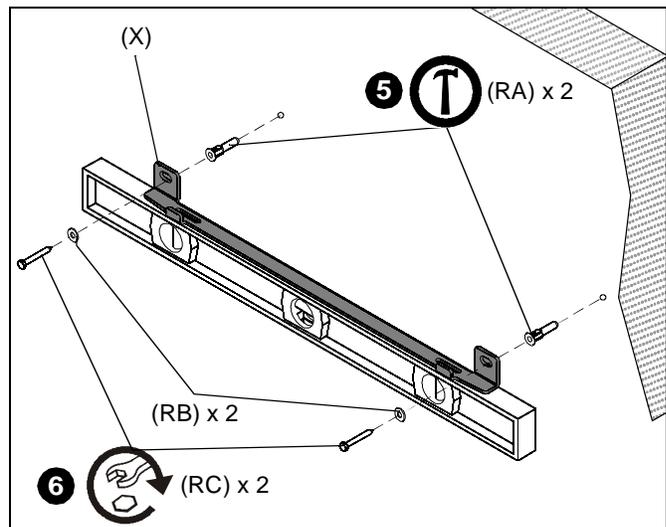


Figure 12

7. Lower PXR (Q) onto mounting bracket, ensuring PXR fits over mounting bracket (X) tabs. (See Figure 6)

8. Mark the pilot holes through PXR upper bracket. (See Figure 13)
9. Carefully remove the PXR from the mounting bracket.
10. Drill two 5/16" x 3-1/4" (M8 x 82.5mm) pilot holes at locations marked in Step 8. (See Figure 13)
11. Install two anchors (RA) into pilot holes. Tap with hammer until flush with concrete surface. (See Figure 11) and (See Figure 13)
12. Return PXR to mounting bracket.
13. Fasten PXR to wall using two 5/16 x 2-1/2" lag screws (RC) and two 5/16" flat washers (RB). (See Figure 13)

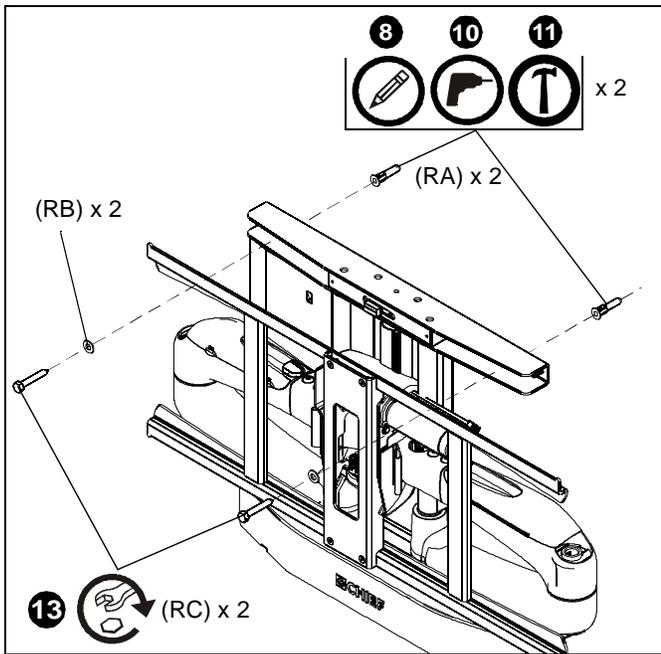


Figure 13

14. Remove two orange hook and loop straps holding PXR arms in place. (See Figure 14)

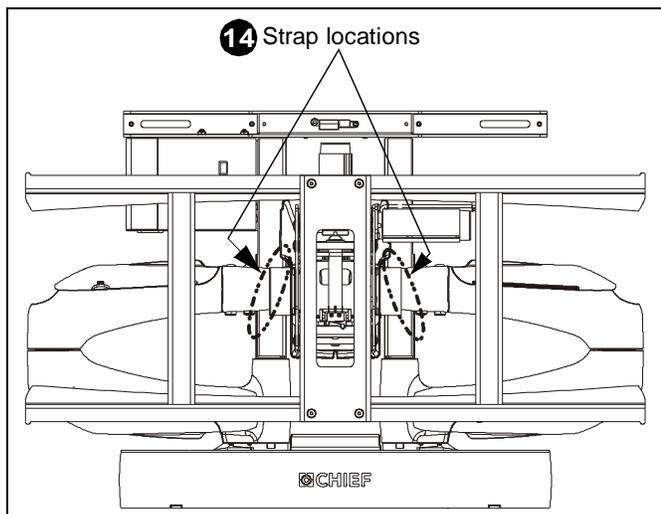


Figure 14

15. Connect and route power cord (Z) through PXR cable management areas. (See Figure 15)

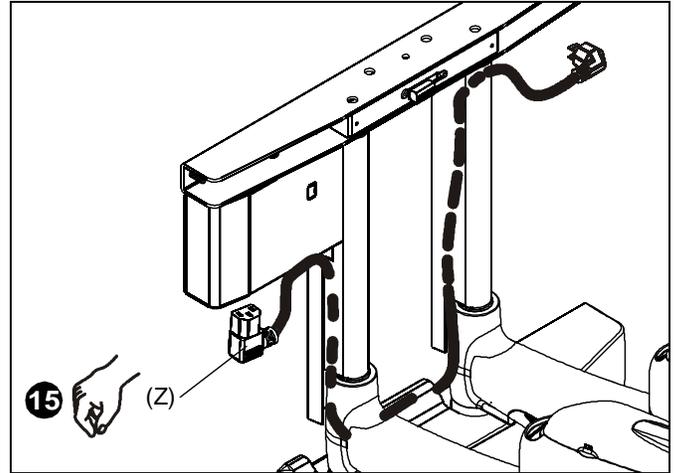


Figure 15

IMPORTANT ! : Do not power the PXR until it is ready to be tested.

NOTE: Proceed to **Arm Engagement** section.

INSTALLING IN AN IN-WALL BOX

The following procedure assumes that a Chief Listed Model PAC502 In-Wall accessory (not included) has previously been installed following the installation instructions provided with the PAC502. If a PAC502 is not installed or there are any other questions regarding the installation of this accessory, immediately contact a Chief Customer Service representative.

⚠ WARNING: IMPROPER INSTALLATION CAN LEAD TO MOUNT FALLING CAUSING SEVERE PERSONAL INJURY OR DAMAGE TO EQUIPMENT! DO NOT deviate from installation instructions provided. DO NOT substitute hardware.

1. Align mounting holes at top of PXR with two mounting holes in PAC502. (See Figure 16)

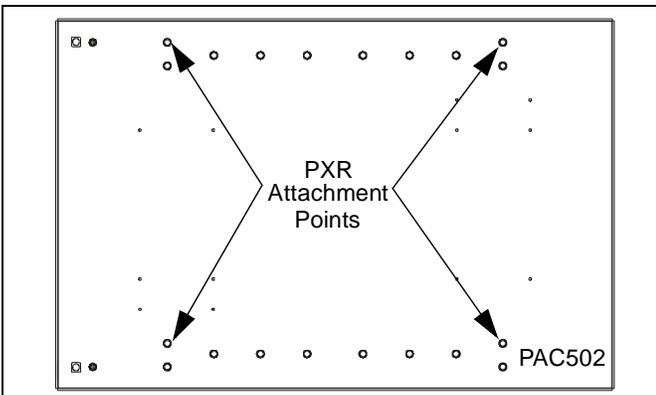


Figure 16

2. Using two 5/16-18 x 5/8" button head cap screws (CC), two 5/16" split lock washers (EE), and two 1/4" flat washers (DD) loosely secure top of PXR in PAC502. Secure screws at least three turns into PAC502. (See Figure 17)

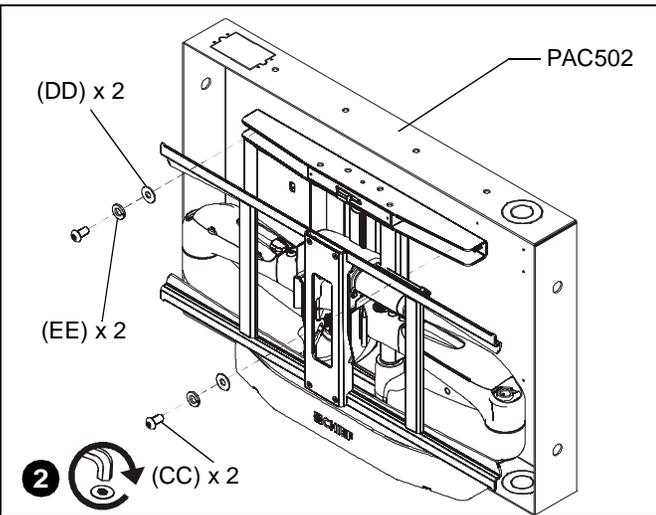


Figure 17

3. Remove two orange hook and loop straps holding PXR arms in place. (See Figure 18)

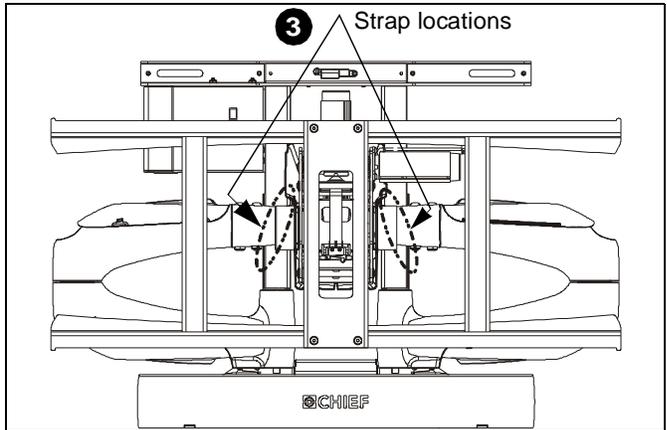


Figure 18

NOTE: The arms are not engaged in the PXR at this time.

4. Carefully pull PXR arms out from PAC502. (See Figure 19)

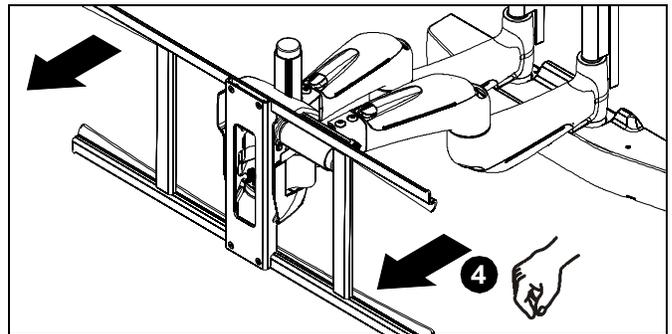


Figure 19

5. Remove and save two screws from lower cover. (See Figure 20)
6. Remove and save lower cover. (See Figure 20)

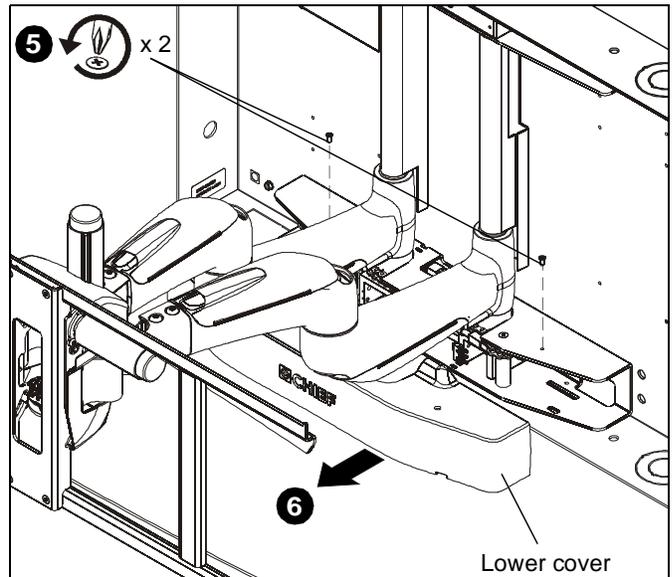


Figure 20

7. Carefully lift up and out slightly on bottom of PXR. (See Figure 21)
8. Route power cord and cables through cable management areas as noted. (See Figure 21)
9. Tighten fasteners to secure top of PXR into PAC502.

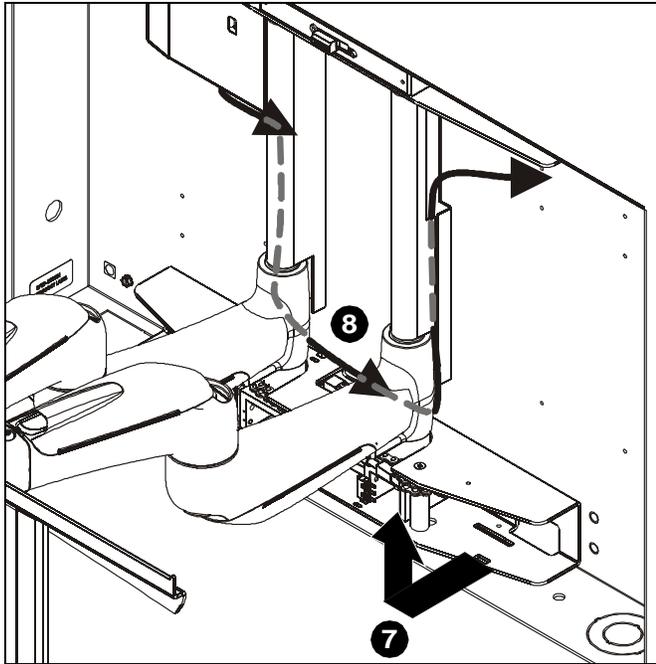


Figure 21

10. Secure bottom of PXR in PAC502 using two 5/16-18 x 5/8" button head cap screws (CC), two 5/16" split lock washers (EE), and two 1/4" flat washers (DD). (See Figure 22)

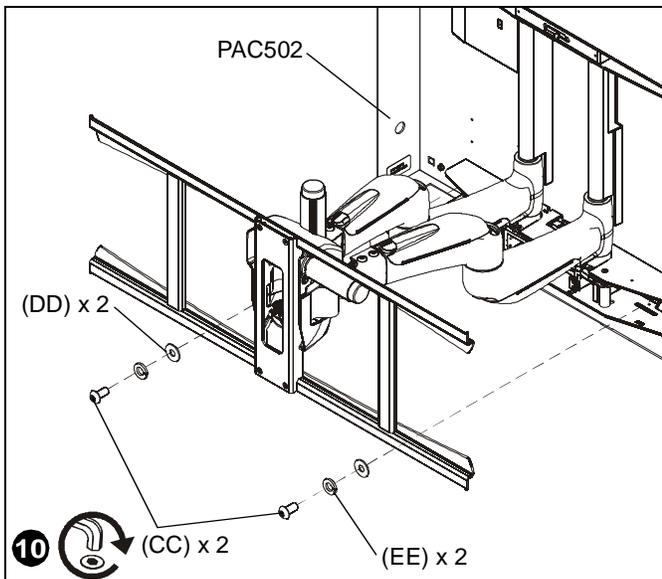


Figure 22

11. Replace lower cover and secure with two Phillips head screws removed in Step 5. (See Figure 23)

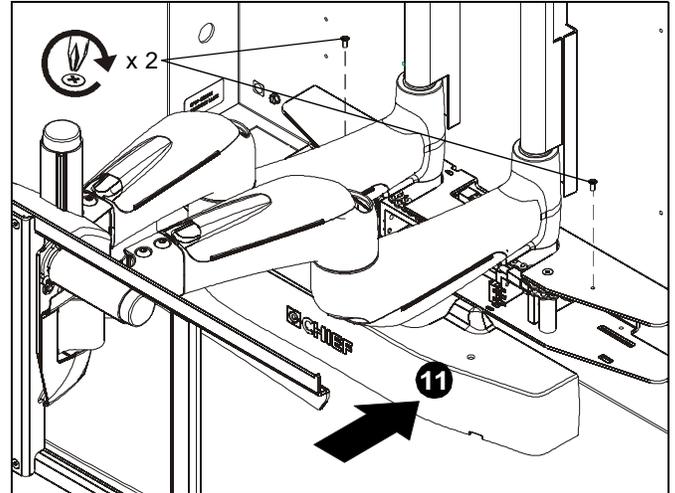


Figure 23

12. **OPTIONAL:** Install PAC502 trim following the instructions included with the PAC502 kit.

ARM ENGAGEMENT

1. Carefully pull arms out from wall. (See Figure 24)
2. Open cable management covers on bottom of PXR arms.
3. Engage PXR arms by lining up pin with opening and using 9" hex head wrench (Y) in opening on bottom of each arm. (See Figure 25)

NOTE: Engage arms by turning fastener to the LEFT.

4. Close cable management covers on bottom of PXR arms.

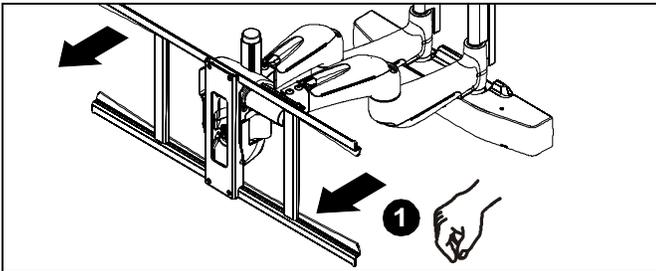


Figure 24

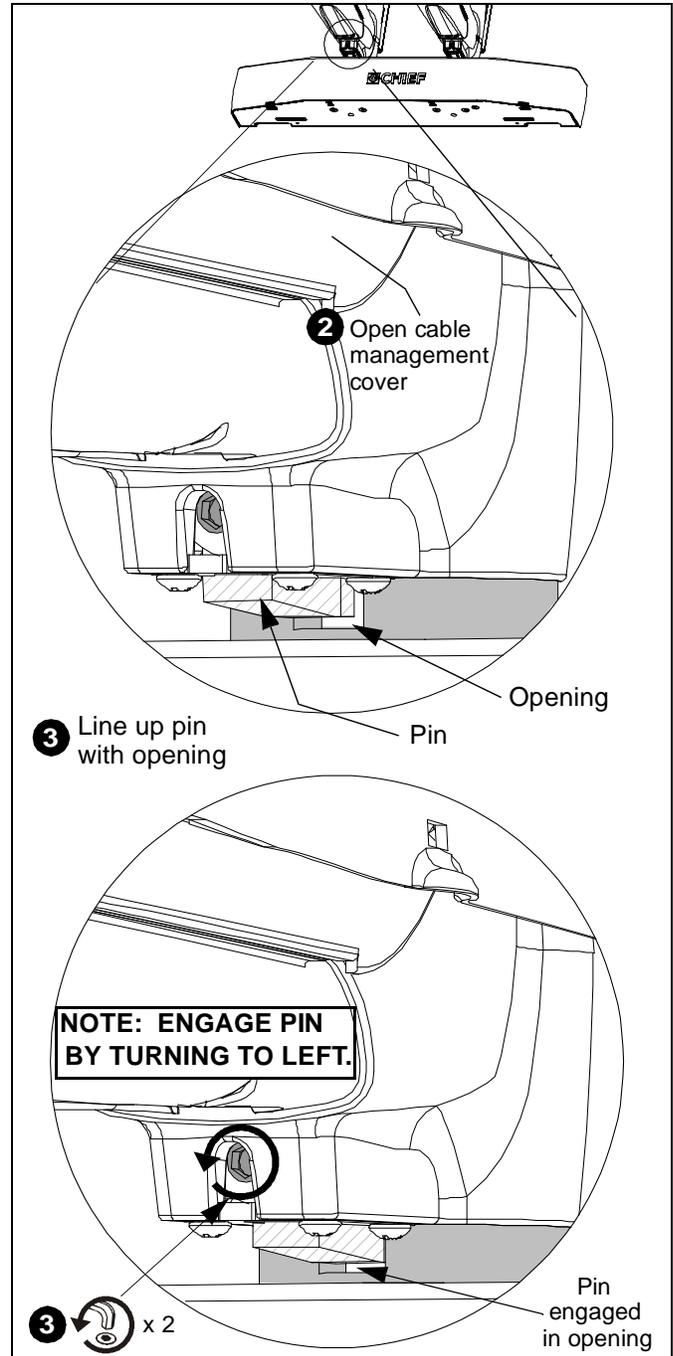


Figure 25



CAUTION: PXR SHOULD ONLY BE MOVED USING REMOTE CONTROL!! After the PXR arms have been engaged, do NOT move PXR by hand!

Installing IR Sensor

1. Plug IR receiver (AA) into PXR. (See Figure 3) and (See Figure 26)
2. Route IR receiver to desired location. The IR receiver operates best in open, unobstructed areas.

NOTE: The final location of the sensor won't be made until after installation of the display.

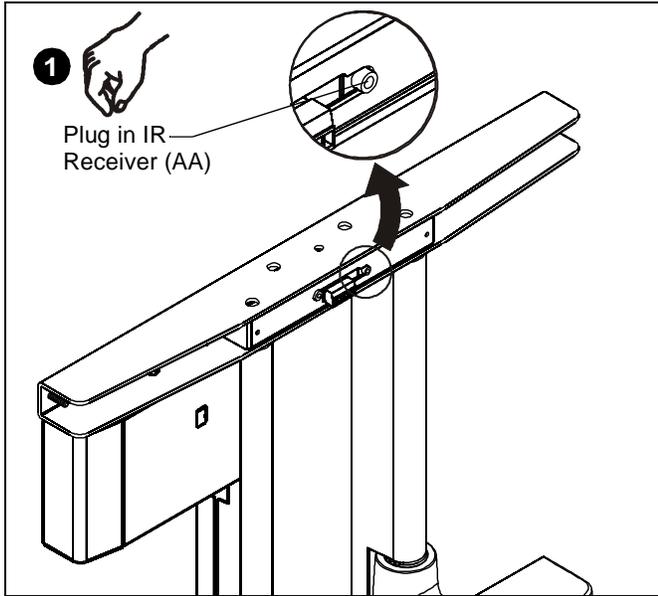


Figure 26

Set-Up and Testing Configuration



WARNING: PINCH HAZARD! FINGER OR HANDS BETWEEN MOVING PARTS CAN LEAD TO SEVERE PERSONAL INJURY! Keep fingers and hands away from PXR arms when in operation.

Setting or changing the configuration of the PXR is done through the remote control provided with the mount.

The remote control has a maximum range of 20-30 ft (6-9m), and is powered by 2 AAA batteries that are accessed from the back of the remote.

1. Place batteries into remote control (BB). (See Figure 27)

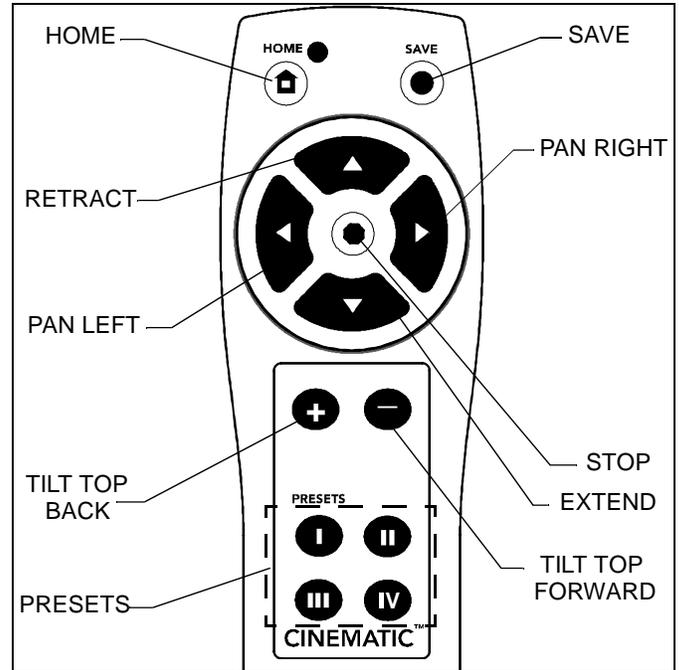


Figure 27

NOTE: The PXR is shipped with a **HOME** position already installed. This **HOME** consists of:

- Arms collapsed completely against mount
- No pan left or right
- Display tilted in the vertical position.

Running LEARN MODE (Test)

1. Plug power cord (Z) into PXR and into the nearest power source.

NOTE: Once power is applied to the unit, the indicator lights will flash 5 times. This indicates the unit needs to be calibrated.



CAUTION: PXR SHOULD ONLY BE MOVED USING REMOTE CONTROL!! After the PXR arms have been engaged, do NOT move PXR by hand!

NOTE: The **LEARN MODE** is used to calibrate the PXR.

- If the process is cancelled at any point during Phase A or B it will need to begin again from Phase A.
- To exit **LEARN MODE** at any time, press and hold **[STOP]** for 7 seconds. If no other errors are found, the unit will flash 5 times indicating it must go through the **LEARN MODE**.

• **LEARN MODE Phase A**

Phase A of the **LEARN MODE** helps the PXR "learn" the amount of resistance in the installation. **Phase A will be automatically run by the PXR.**

1. Press and hold **[SAVE]** for at least 5 seconds, followed by **[STOP]-[RETRACT]-[PAN RIGHT]-[EXTEND]-[PAN LEFT]-[RETRACT]-[EXTEND]** to begin **LEARN MODE Phase A.**

PXR moves through several cycles of extending, retracting and tilting before stopping.

End of LEARN MODE Phase A

[The PXR should be fully extended, centered, and tilted slightly at the end of **LEARN MODE Phase A.**]

• **LEARN MODE Phase B**

NOTE: During Phase B Mode only the **[PAN LEFT]** and **[PAN RIGHT]** buttons will be active.

Phase B of the **LEARN MODE** helps the PXR "learn" the dimensions of the PXR in this installation.

NOTE: The PXR will operate at a slower than normal operating speed during **LEARN MODE Phase B.**

NOTE: PXR should be fully extended and tilted slightly.

1. Pan PXR to left until the inside edge of horizontal bracket is at least 2" away from the wall. (See Figure 28)

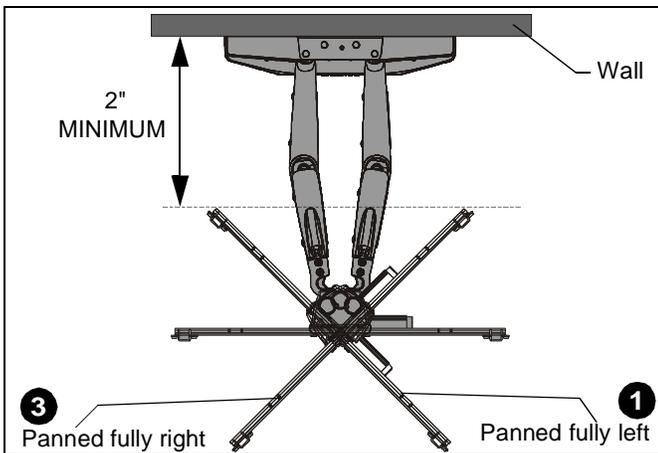


Figure 28

2. Press and hold **[SAVE]** for at least 5 seconds to save left side dimension. [PXR will now pan to center and remain tilted and extended.]
3. Pan PXR to right until the inside edge of the wall. (See Figure 28)

4. Press and hold **[SAVE]** for at least 5 seconds to save right side dimension.

The PXR pans to left limit, back to right limit, repeats, tilts up and returns to HOME position before stopping.

End of LEARN MODE Phase B

Attach Interface Brackets to Display

1. Align the center of the interface bracket (V) with center of screen. (See Figure 29)

NOTE: The diamond-shaped hole in the bracket corresponds to the center of the mount.

2. Select correct screws, spacers (if necessary) and universal washers from the hardware bag (A-N) and attach brackets (V) to back of display. (See Figure 29)

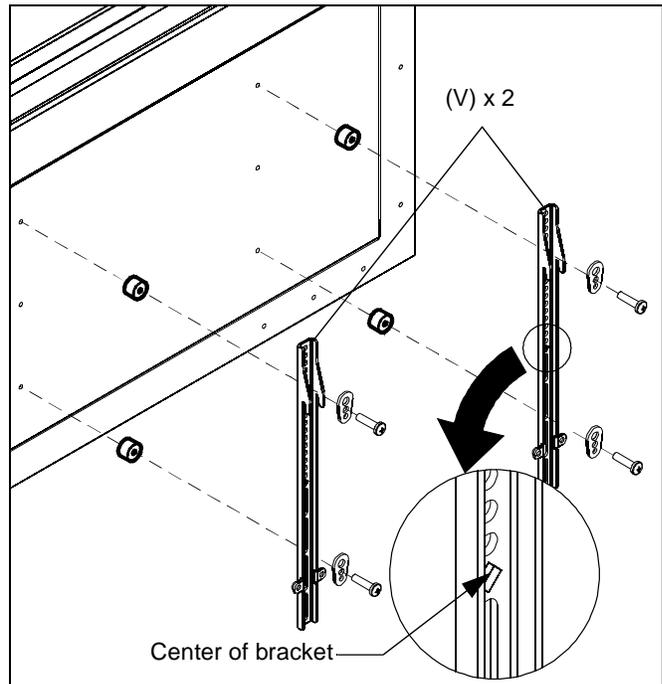


Figure 29



WARNING: IMPROPER INSTALLATION CAN LEAD TO DISPLAY FALLING CAUSING SERIOUS PERSONAL INJURY OR DAMAGE TO EQUIPMENT! Using screws of improper size may damage your display. Properly sized screws will easily and completely thread into display mounting holes. If spacers are required, be sure to use longer screws of the same diameter.



CAUTION: THE INTERFACE BRACKETS ATTACHED TO THE DISPLAY MUST BE THE FURTHEST POINT OF PROTRUSION FROM THE DISPLAY BACK. If the display has any protrusions from the back it may be necessary to add spacers during attachment to the interface brackets, so that interface brackets are furthest protrusion from back of PXR. (See Figure 30)

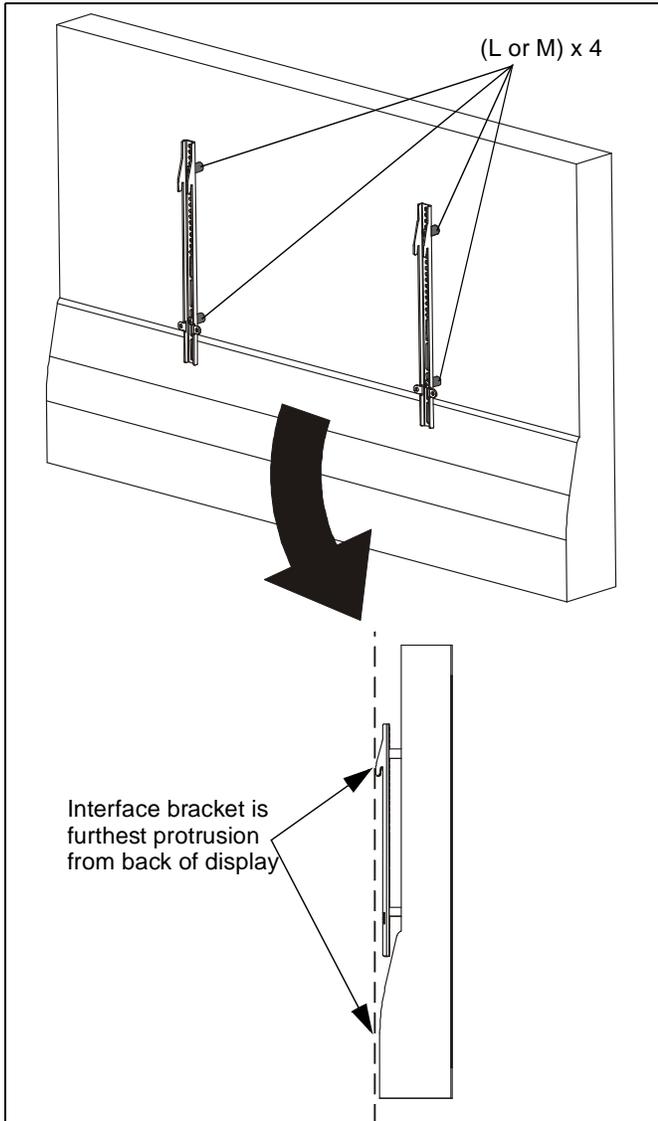


Figure 30

Hanging Display on PXR

1. Hang display onto the PXR, ensuring that top hooks of interface brackets (V) are hooked over the PXR top rail. (See Figure 31)

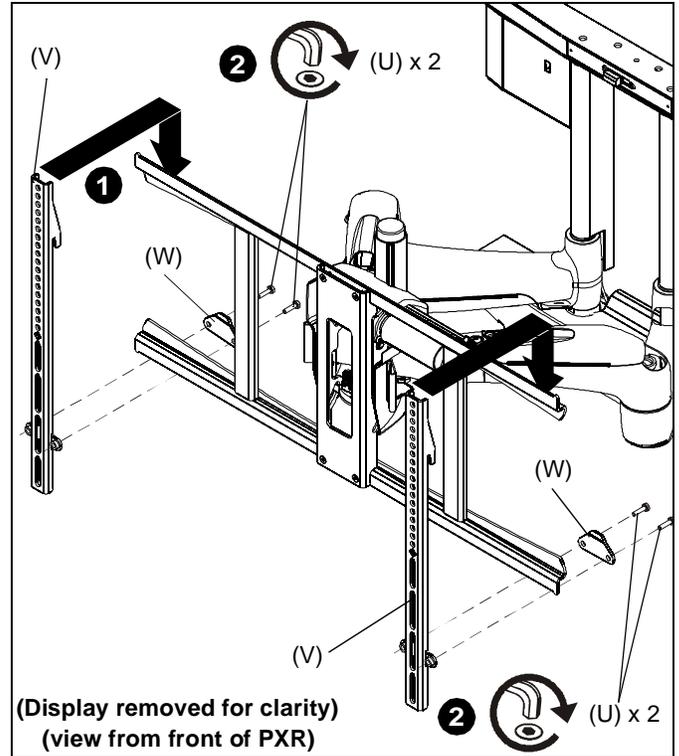


Figure 31

IMPORTANT ! : Do NOT operate PXR with display off-center. Measure to verify that display is centered on the PXR. (See Figure 32)

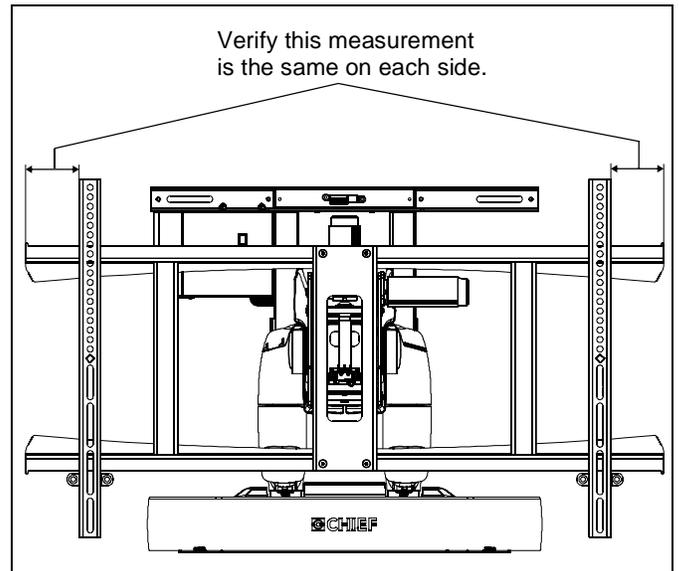


Figure 32

- Lock display with attached interface brackets to PXR using two bracket locks (W) and four 1/4-20 x 1/2" hex head cap screws (U). (See Figure 31) and (See Figure 33)

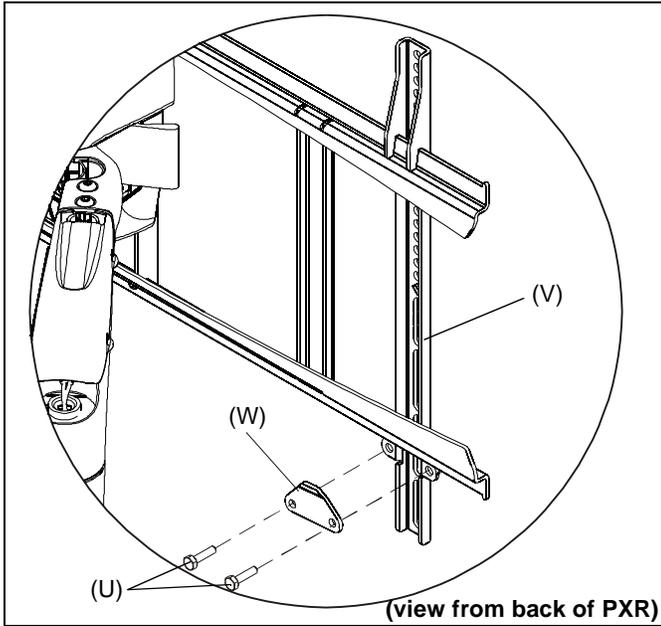


Figure 33

Cable Management

NOTE: Available points of cable management are illustrated (See Figure 34) and specifically called out in the following instructions and figures.

CAUTION: PXR SHOULD ONLY BE MOVED USING REMOTE CONTROL!! After the PXR arms have been engaged, do NOT move PXR by hand!

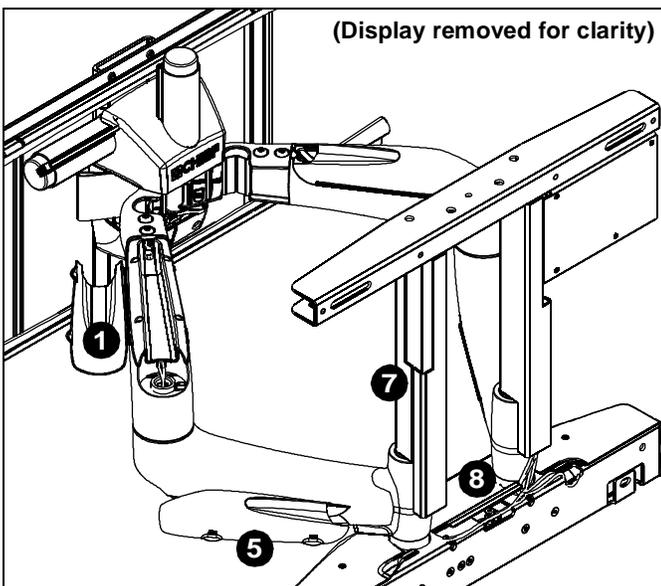


Figure 34

IMPORTANT ! : If possible, place display's power and signal cables in separate PXR arms.

- Open cable management covers on top of both PXR arms. (See Figure 34) and (See Figure 35)

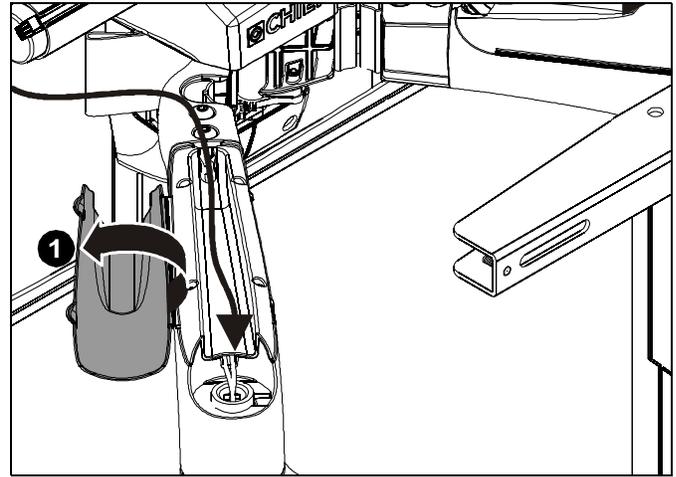


Figure 35

- Extend cables from display and lay cables within top of arms. (See Figure 36)
- Close cable management covers, being careful to not pinch cables under covers. (See Figure 36)

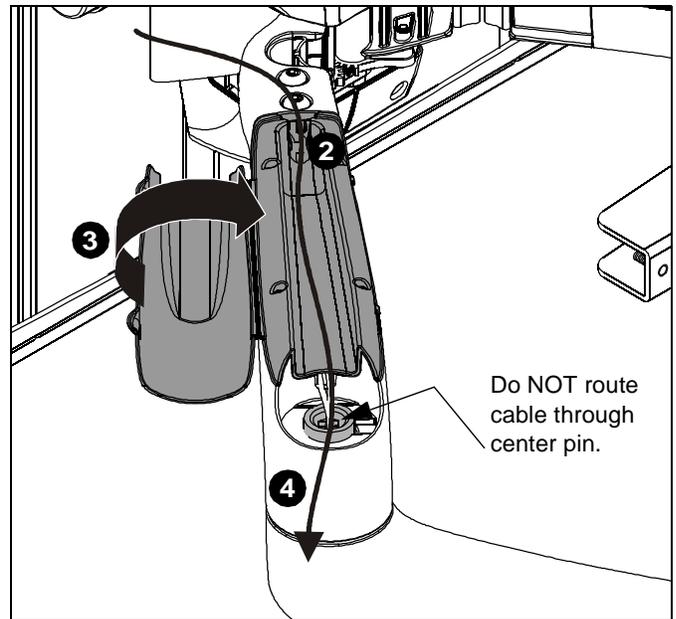


Figure 36

- Continue cable down outside of arms.
- NOTE:** Do NOT route cables through center pin. (See Figure 36)

5. Open cable management covers on bottom of both PXR arms and lay cables within arms. (See Figure 34) and (See Figure 37)
6. Close cable management covers, being careful to not pinch cables under covers. (See Figure 37)

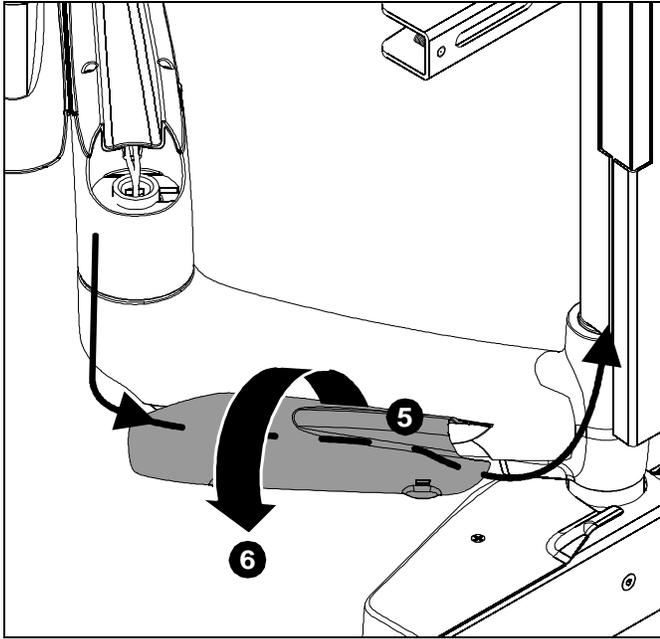


Figure 37

7. Continue to route cables through vertical cable management slots. (See Figure 38)

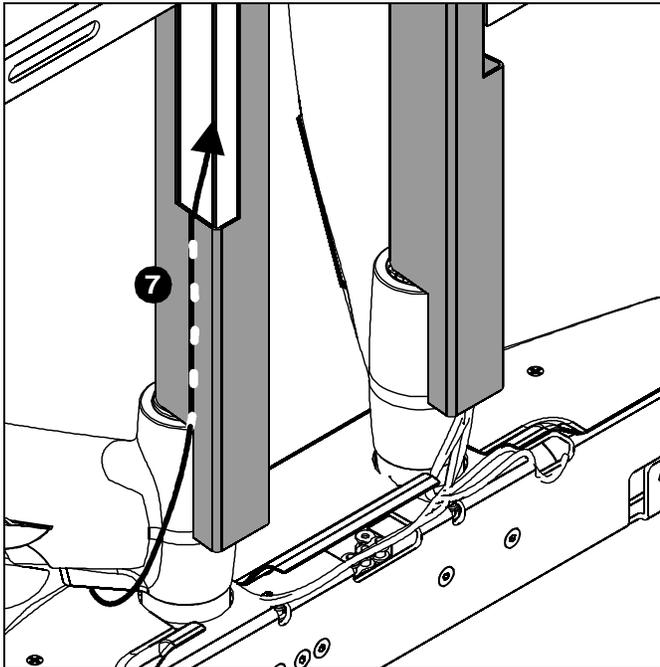


Figure 38

8. If necessary, use cable management flap on PXR base to route cables from left arm to PXR right side. (See Figure 34) and (See Figure 39)

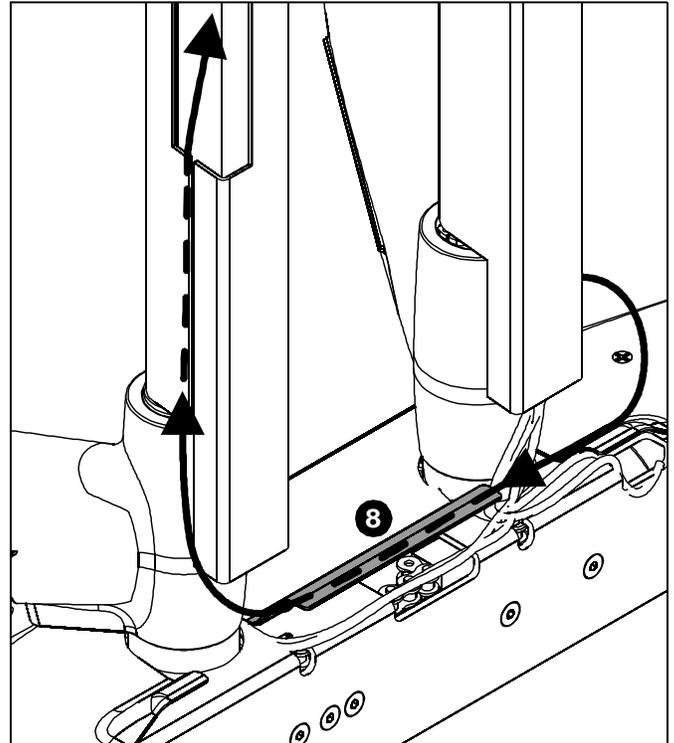


Figure 39



CAUTION: PINCH POINTS! Keep fingers, hands and cables out of pinch point areas.

Set-Up and Configuration with Display Attached



WARNING: PINCH HAZARD! FINGER OR HANDS BETWEEN MOVING PARTS CAN LEAD TO SEVERE PERSONAL INJURY! Keep fingers and hands away from PXR arms when in operation.

Setting or changing the configuration of the PXR is done using the remote control provided with the mount.

Running LEARN MODE

1. Plug power cord (Z) into PXR and into the nearest power source.

NOTE: Once power is applied to the unit, the indicator lights will flash 5 times. This indicates the unit needs to be calibrated to your specific screen.



CAUTION: PXR SHOULD ONLY BE MOVED USING REMOTE CONTROL!! After the PXR arms have been engaged, do NOT move PXR by hand!



CAUTION: ENSURE INTERFACE BRACKETS ARE LOCKED TO THE PXR RAILS BEFORE BEGINNING LEARNING MODE! The display must be centered on the PXR so that the learning mode can be completed successfully.

NOTE: The **LEARN MODE** is used to calibrate the PXR for use with the specific display which has been attached to it.

- If the process is cancelled at any point during Phase A or B it will need to begin again from Phase A.
- To exit **LEARN MODE**, press and hold **[STOP]** for 7 seconds. If no other errors are found, the unit will flash 5 times indicating it must go through the **LEARN MODE**.

• **LEARN MODE Phase A**

Phase A of the **LEARN MODE** helps the PXR "learn" the amount of resistance caused by the weight of the attached display. **Phase A will be automatically run by the PXR.**

1. Press and hold **[SAVE]** for at least 5 seconds, followed by **[STOP]-[RETRACT]-[PAN RIGHT]-[EXTEND]-[PAN LEFT]-[RETRACT]-[EXTEND]** to begin **LEARN MODE Phase A**.

PXR moves through several cycles of extending, retracting and tilting before stopping.

End of LEARN MODE Phase A

[The PXR should be fully extended, centered, and tilted slightly at the end of **LEARN MODE Phase A**.]

• **LEARN MODE Phase B**

NOTE: During Phase B Mode only the **[PAN LEFT]** and **[PAN RIGHT]** buttons will be active.

Phase B of the **LEARN MODE** helps the PXR "learn" the dimensions of the attached display.

NOTE: The PXR will operate at a slower than normal operating speed during **LEARN MODE Phase B**.

NOTE: PXR should be fully extended and tilted slightly.

1. Pan PXR to left until the inside edge of display is at least 2" away from the wall. (See Figure 40)

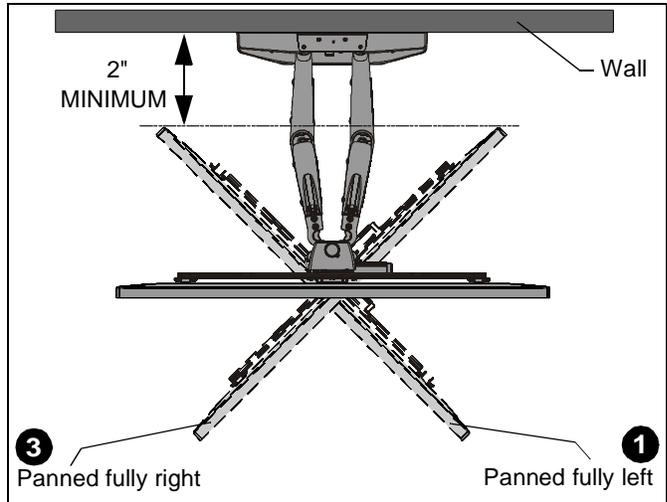


Figure 40

2. Press and hold **[SAVE]** for at least 5 seconds to save left side dimension. [PXR will now pan to center and remain tilted and extended.]
3. Pan PXR to right until the inside edge of display is at least 2" away from the wall. (See Figure 40)
4. Press and hold **[SAVE]** for at least 5 seconds to save right side dimension.

The PXR pans to left limit, back to right limit, repeats, tilts up and returns to HOME position before stopping.

End of LEARN MODE Phase B

IMPORTANT ! : The **LEARN MODE** should now be complete, and all values learned are now committed to the PXR memory.

NOTE: Each time the PXR loses power it will automatically recalibrate its position by going to the **factory-set HOME** position. Press any button on the remote control after the unit has regained power to start the automatic recalibration. **NEVER restrict the PXR from going to the HOME position.**

Saving a Preset

1. Use remote control to move PXR to desired position.
2. Press and hold **[SAVE]** for at least 5 seconds, and then the desired preset button **[I]**, **[II]**, **[III]** or **[IV]**.

3. Add plastic covers (P) to PXR, fastening with two 8-32 x 1/4" Phillips flat head screws (S). (See Figure 41)

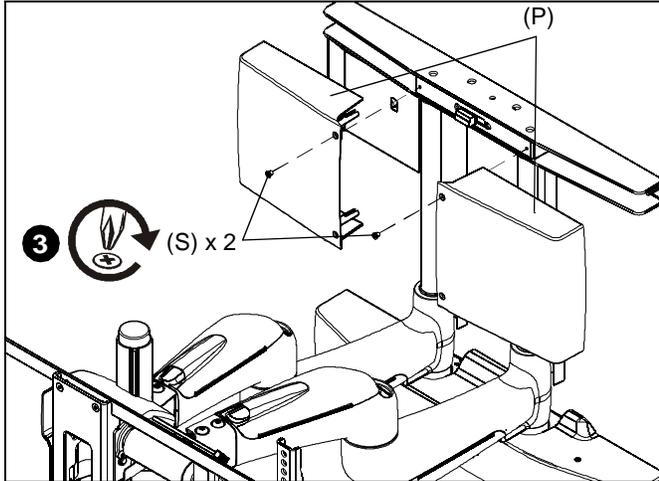


Figure 41



WARNING: If the display is changed, cables are re-routed, or an accessory is added/removed, it is best to recalibrate the PXR by going through the learn mode sequence. Failure to do so may lead to injury.

4. Use hook and loop disc (shipped with IR receiver) to attach the IR sensor (AA) in a convenient location for your installation.

IMPORTANT ! : Ensure that IR sensor "eye" has line-of-sight to the remote control signal.

Final Attachment to Wall Mounting Bracket

NOTE: For wood stud and concrete wall installations only.

1. Make final attachment of PXR to wall mounting bracket using two 8-32 x 3/8" button head cap screws (T). (See Figure 42)

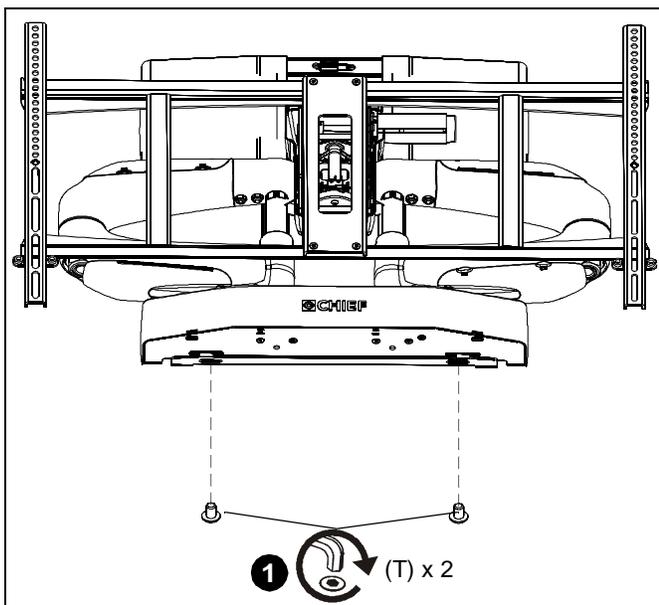


Figure 42

ADVANCED SETTINGS

NOTE: Normal operation is a green light slowly fading on/off (seen through main control board housing).

NOTE: If red light is on without blinking, the IR receiver cable may not be completely plugged in.

IR Repeat Conditions

NOTE: The PXR is equipped with a built-in IR repeater that works with most IR transmitters (38kHz).

NOTE: The IR repeater cable must have a 3.5mm Mono plug.

1. Plug an IR repeater cable (not included) into the I/O board. (See Figure 3)
2. Route IR repeater cable to the desired device.

Heavy Screen Mode

NOTE: The PXR is equipped with a "Heavy Screen Mode" that allows it to compensate for heavy or thick screens. By enabling this feature, the PXR will gain an additional 2°-3° of upward tilting.

1. Remove the plastic cover from the main circuit board. (See Figure 43)

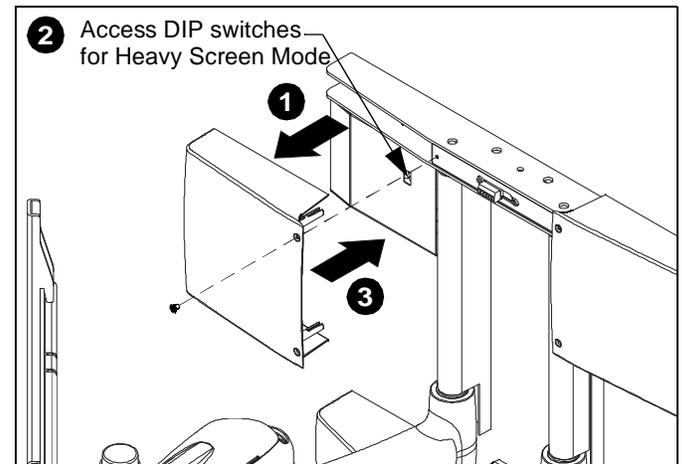


Figure 43

2. Use a small screwdriver or small pointed object to flip DIP Switch 1 on the main control board to the "off" position. (See Figure 43)
3. Replace plastic cover over main circuit board.

Emergency Service Extend

In the event the PXR needs to be serviced while inside a recessed wall, use the following command sequence to extend the unit out of the recess. This feature is only available in units with software version 40 or greater.

1. Hold save for 5 seconds, then Press Pan Right, Press Pan Left, Press and hold Extend button for up to 20 seconds of movement.
2. The speed is 1/2 the normal extend speed. At the end of the 20 seconds the unit will time out. Repeat as necessary to get the unit to the desired service position.

PROGRAMMING VIA RS485

Setting PXR Address

NOTE: If multiple PXR's or Chief automated products will be controlled in the same area **AND** need to have UNIQUE command codes, the PXR or other Chief automated product will need to have its address changed.

1. Determine what address is not used by another Chief automated product.
2. Using the DIP switches on the I/O interface (See Figure 44), set the PXR to one of the unused addresses. (See Figure 45)

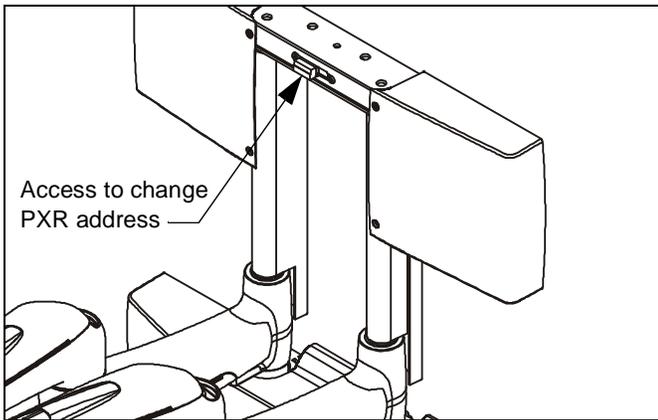


Figure 44

Address Value	Switch Number			
	1	2	3	4
0	OFF	OFF	OFF	OFF
1	ON	OFF	OFF	OFF
2	OFF	ON	OFF	OFF
3	ON	ON	OFF	OFF
4	OFF	OFF	ON	OFF
5	ON	OFF	ON	OFF
6	OFF	ON	ON	OFF
7	ON	ON	ON	OFF

Figure 45

3. If the address of the PXR is changed, the remote control and any RS-485 commands will also need to be changed to match it.

RS-485 Commands

RS-485 Command String Syntax

SOM	Product ID	Address	Command	Command Input*	Check Code	EOM
>	06	00	XX	XX	XX	<CR>

* Command Input is only required for specific commands and may not be needed.

Calculating a Check Digit Code

Steps	Example
Start by writing your command or response	Command go to home for address 00 is ">06000200"
Drop the Start and End of message character	06000200
List out the ASCII value for each unique character	0 = 48; 6 = 54; 2 = 50
Sum up the ASCII value of the command and add 85	48 + 54 + 48 + 48 + 48 + 50 + 48 + 48 + 85 = 477
Divide the total by 256. Record the remainder.	477/256 = 1 remainder 221
Convert the remainder value to a hexadecimal value	221 = "DD" in hexadecimal
The check digit for this command is the hexadecimal value	DD

Common Commands

The PXR ships with the default address of 00 (all I/O DIP switches set to "Off").

The PXR has a product ID code value of 06.

In order to move the PXR incrementally, the remote control must be used. The only way to move the PXR with RS-485 is by commanding it to go to the Home position or a predefined preset. See **Saving a Preset** section for more information.

Description	Command Input	Command with Check Sum
Cancel Move (Stop)		>0600037E
Clear Fault History		>06007385
Get Last Fault Code		>06007183
Get Product Description		>06006687
Get Next Fault Code		>06007284
Get Operations count		>06006485
Get Product Code Number		>06006B93
Get Serial Number		>06006889
Get Software Revision		>06006788
Get Switch Settings		>06006586
Get Status of Product		>06002F93
Get Status		>0600017C
Goto Home	00	>06000200DD
Goto Preset 1	01	>06000201DE
Goto Preset 2	02	>06000202DF
Goto Preset 3	03	>06000203E0
Goto Preset 4	04	>60002040E1

Communications Port Settings

When communicating with the PXR, the communications port settings should be as follows:

- Baud Rate** = 9600
- Data Bits** = 8
- Parity** = None
- Stop Bits** = 1

Get Status (0x01) Command

To use this command and others, the PXR must be connected via an RS485 line with a baud rate of 9600. (See **RS-485 Terminal Block Wiring** section.)

Command Message

SOM	Product ID	Address	Command	Check Code	EOM
>	06	XX	01	XX	<CR>

Status Response

SOM	Status	Check Code	EOM
<	XXXX	XX	<CR>

Status Response Name	Hex
STATUS_ANY_POSITION_BUT_HOME	0x0000
STATUS_IN_HOME_POSITION	0x0001
STATUS_MOVE_IN_PROGRESS	0x0002
STATUS_DEVICE_FAULTED	0x0020

If you get a STATUS_DEVICE_FAULTED response, then the unit is blinking. See **PXR Blink Codes** section for blink codes.

Example of how to call the status of the PXR (assumes product address is 00)

Send command **>0600017C**

response = **<000115**

The first 4 digits is the response in hex (0001). This would indicate that the unit is at its **HOME** position. The last two digits are the check code (used to validate the message sent).

Get System Status (0x2F)

Command Message

SOM	Product ID	Address	Command	Check Code	EOM
>	06	XX	2F	XX	<CR>

Status Response with Position Data

SOM	System Status	Check Code	EOM
<	XXXX	XX	<CR>

Example of how to get the blink code status of the PXR (assumes product address is 00)

Send command >06002F93

response = <805022

This would indicate the unit has a status of 8050 (check digits 22), blinking 5 times and that the unit has not successfully been through LEARN mode.

PXR Blink Codes

Fault Code (# of blinks)	System Status (hexadecimal)	Description	Corrective Action
0	0x0000	System is OK and working normally	None
2	0x0020	Main control board lost communication to the I/O board	Verify the ribbon cable connecting the I/O board to the Main control board has not come loose.
4	0x0040 thru 0x0049	System has stalled	Pressing [STOP] for 5 or more seconds will clear this error. It doesn't fix the problem, but will make the PXR operational again. <ul style="list-style-type: none"> • Weight of display has changed. Re-run the LEARN mode sequence. • Cables are tied too tight. Review cable management, leaving enough slack so that cables are never too tight. • PXR path is obstructed. Remove any obstructions from path of PXR. Press [STOP] for 5 or more seconds to clear error code.
5	0x8050	Not programmed (or has lost programming) to recognize size of screen	Re-run the LEARN mode sequence.
6 or 10	0x8060 thru 0x0061	Pan limit switches are not timed correctly	Contact Chief Customer Service

Fault Conditions

IMPORTANT ! : If the PXR control system sees a fault condition it will stop the operation. A green light will flash on the main control board (visible through the control housing). A red light will flash the same code on top of the unit.

NOTE: Each time the PXR receives an IR command, the red light will blink on top of the unit.

NOTE: If there are repeated faults or faults not listed in PXR Blink Codes table, please contact Chief Customer Service.

Chief Part Number: 7000-002052
 Carrier Frequency: 38KHz
 Protocol: NEC - Full Repeat
 System Code(s): 6E (Default) - Multiple codes
 selected via key-press (See Figure 46)
 Repeat Code: N/A

Key Number	Key Name	Hex Code
1	HOME	02
2	SAVE	1A
3	RETRACT	07
4	SWIVEL LEFT	09
5	STOP	0A
6	SWIVEL RIGHT	0B
7	EXTEND	0D
8	TILT UP	08
9	TILT DOWN	0E
10	N/A	N/A
11	N/A	N/A
12	PRESET 1	12
13	PRESET 2	13
14	PRESET 3	14
15	PRESET 4	15

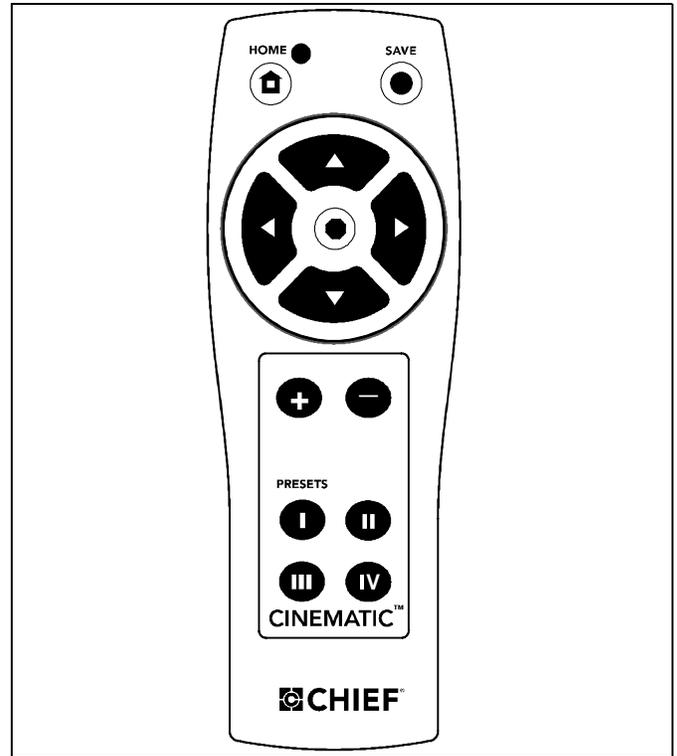


Figure 46

To change system code (must match address of unit)

Press and Release Key 3 + 7 (Enter Setup Mode) (See Figure 47)

Press and Release Key 12

Press and Release Key 13 - LED Blinks Twice <Quick>

Select System Code - See Table below

Press and Release Key 2 - LED Blinks 4 times <Quick> (Exit Setup Mode)

System Code	Press + Release	Address #
6E (Default)	12, 12	0
E0	12, 14	1
E1	12, 15	2
E2	13, 13	3
E3	13, 14	4
E4	13, 15	5
E5	14, 14	6
E6	14, 15	7

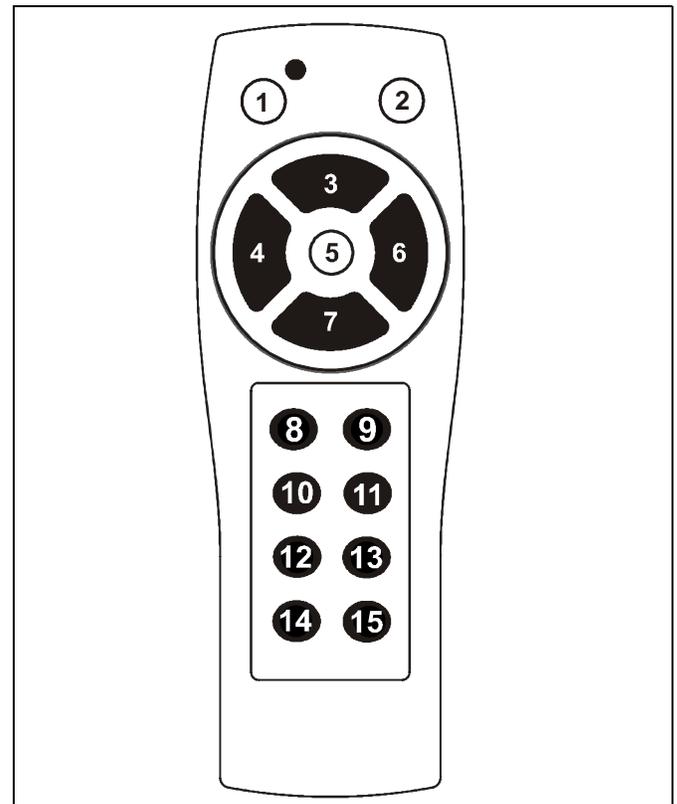


Figure 47

RS-485 Terminal Block Wiring

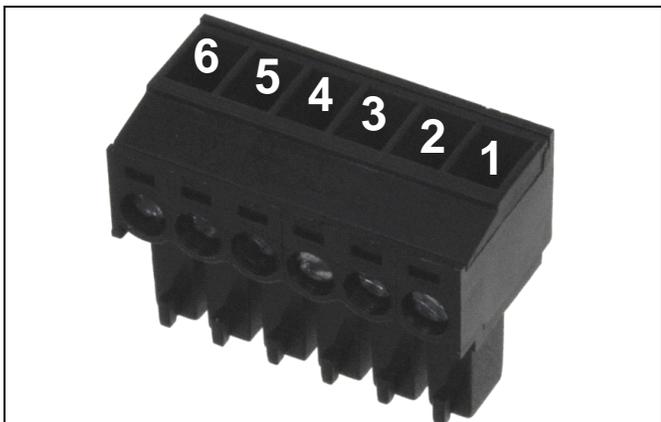


Figure 48

Terminal Block Manufacturer: Molex (See Figure 48)

- Terminal Block Manufacturer P/N: 39500-0006
- Terminal Block Pin Outs:
 1. Blank
 2. TDA (-)
 3. TDB (+)
 4. Ground
 5. Blank
 6. Blank
- Wire terminal block using 16-30AWG wire.

IR Receiver Pinout

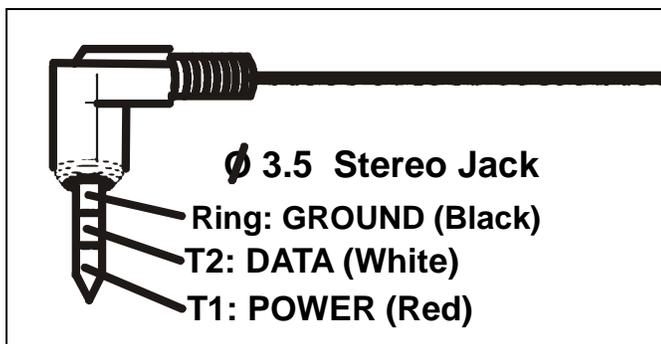


Figure 49



Our Mounts. **Your Vision.**

Chief, a products division of
Milestone AV Technologies

8800-002079 Rev01
©2015 Milestone AV Technologies
www.chiefmfg.com
02/15

USA/International	A 6436 City West Parkway, Eden Prairie, MN 55344 P 800.582.6480 / 952.225.6000 F 877.894.6918 / 952.894.6918
Europe	A Franklinstraat 14, 6003 DK Weert, Netherlands P +31 (0) 495 580 852 F +31 (0) 495 580 845
Asia Pacific	A Office No. 918 on 9/F, Shatin Galleria 18-24 Shan Mei Street Fotan, Shatin, Hong Kong P 852 2145 4099 F 852 2145 4477

