

PDi

Communication Systems, Inc

PDi Mounts

Mounting Guide for:

- Wall Brackets
- Arm Mounts
- Table Mounts
- Floor Mounts
- Ceiling Mounts

Document Number: PD196-264R1






 <small>Communication Systems, Inc.</small> <i>Better Solutions Are Within Reach®</i>	MODEL NUMBER:	Document Number:
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SAFETY INFORMATION

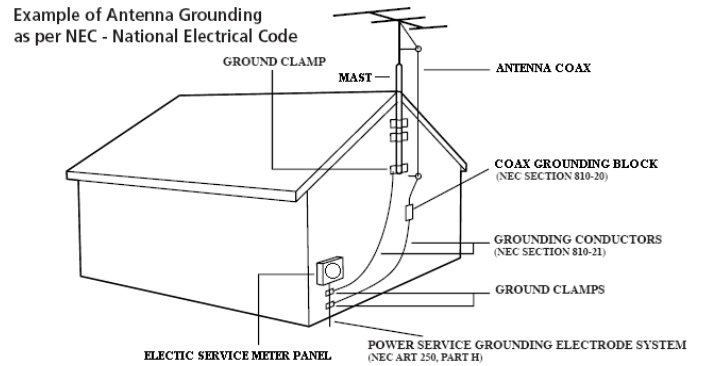
	This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.
	This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.



	CAUTION RISK OF ELECTRIC SHOCK, DO NOT OPEN!	
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL		

THESE INSTALLATIONS SHOULD BE MADE BY A QUALIFIED SERVICE PERSON AND SHOULD CONFORM TO ALL LOCAL CODES. READ AND FOLLOW THE SAFETY INSTRUCTIONS BEFORE ATTEMPTING THIS INSTALLATION.

NOTE to CATV system installer: This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

PDi Technical Support 1-800-628-9870



	Ce symbole indique qu'une tension dangereuse constituant un risque de choc électrique est présente dans cet appareil.
	Ce symbole indique qu'il existe des instructions d'utilisation et d'entretien importantes dans la documentation accompagnant cet appareil.

	AVERTISSEMENT RISQUE DE CHOC ELECTRIQUE, NE PAS OUVRIR!	
AVERTISSEMENT: AFIN DE REDUIRE LE RISQUE DE CHOC ELECTRIQUE, NE PAS RETIRER LE COUVERCLE. L'APPAREIL NE CONTIENT AUCUN COMPOSANT SUSCEPTIBLE D'ÊTRE RÉPARÉ PAR L'UTILISATEUR. CONFIER L'ENTRETIEN À DU PERSONNEL QUALIFIÉ		

CETTE INSTALLATION DOIT ÊTRE EFFECTUÉE PAR UN TECHNICIEN QUALIFIÉ ET DOIT ÊTRE CONFORME À TOUS LES CODES LOCAUX. LIRE ET SUIVRE LES CONSIGNES DE SÉCURITÉ AVANT DE PROCÉDER À L'INSTALLATION.

MINIMUM INSTALLATION REQUIREMENTS

At the time of this printing, the following configurations have been evaluated and tested by Underwriters Laboratories. **Other installation methods not specifically UL approved will be noted.**

Arm/Base Compatibility:

5/8" Base Pin Arm	Mounts				
	179C	179C-EXT	STM	886	180C
400 Series	X	X	X	X	
500 Series	X	X	X	X	
AB1000 Series	X	X	X	X	
AA 1000 Series					X

Contact PDI for complete list of compatible arm models that can be used with this wall bracket extension.

Wall construction:

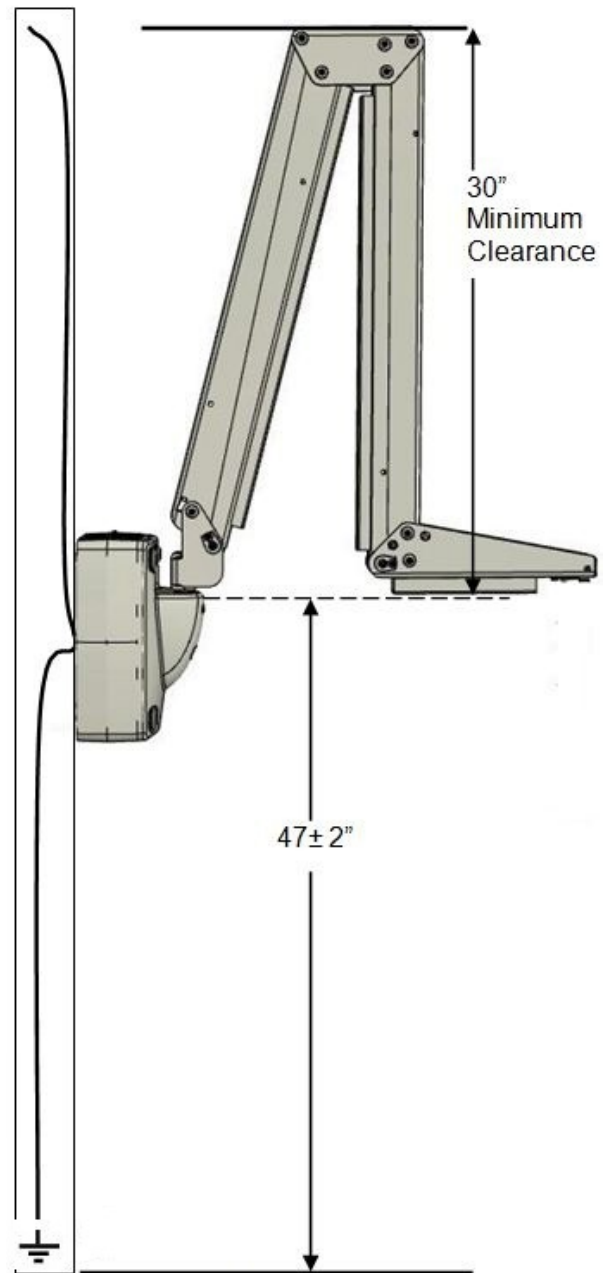
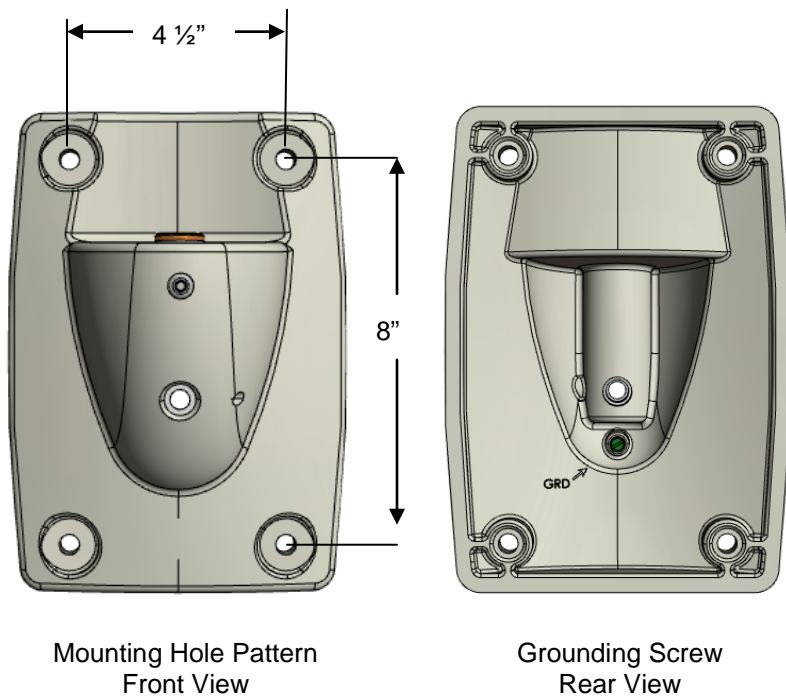
1. Wall studs are to be wood, with a 2x4 minimum size and be spaced 16" on centers.
2. Stud orientation shall be with the "4" inch dimension perpendicular to the surface plasterboard.
3. The surface plasterboard shall have a maximum thickness of 5/8".

Installation of PDI backer plates:

1. Attaching fasteners will be 1/4" lag for the wood studs that provide a minimum of 2-1/2" engagement with the wood studs.

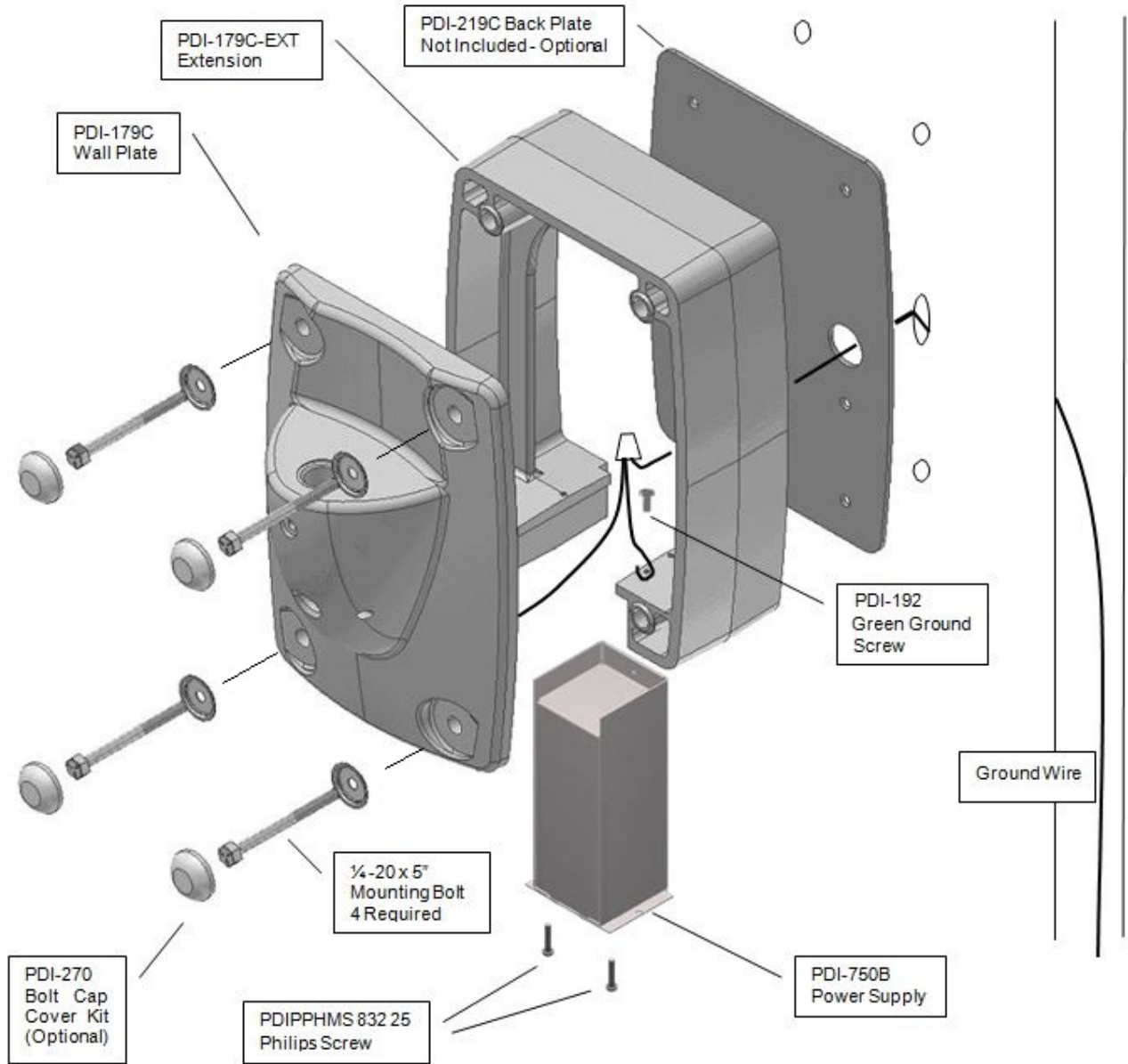
WALL BRACKET GUIDELINES

1. **LOCATION** – Make certain that the chosen wall bracket location is near enough to the connection interface so that it can be connected to it. The cables can also enter from behind the wall bracket. Also position the wall bracket at a mounting height of 47±2 inches. See Figure 1.
 2. **WALL STRENGTH** – The wall bracket mounting instructions cover the most desirable mounting method, backing plate mounting, plus some other recommended methods depending upon wall construction. **IN ALL CASES** the wall construction must be able to support a minimum compression loading of **350 PSI** applied perpendicular to the mounting locations.
 3. **HARDWARE REQUIRMENTS** – Use the following hardware for all wall bracket installations.
 - a) All threaded rods, bolts, machine screws, and anchors will be ¼”-20UNC-2A thread, grade 5 or higher equivalent. Certain installations may allow for the use of 3/8-16 fasteners.
 - b) The back-up plate is a 6-1/2” x 10”, 11 gauge metal plate with four 9/32” holes that coincide with the wall bracket. A pre-fabricated backing late, PDI-219, is available directly from PDi.
 - c) All threaded rods will be finished off with an acorn nut.
 - d) Fastening anchors should be HILTI brand or equivalent.
 4. **THE MAXIMUM TOTAL COMBINED WEIGHT** of the monitor and support arm system should be no more than 55 pounds.
 5. **GROUNDING** – Grounding is required. Grounding screws are provided on the back of the wall plate and on the back plates.
- See “Exploded View” for details.

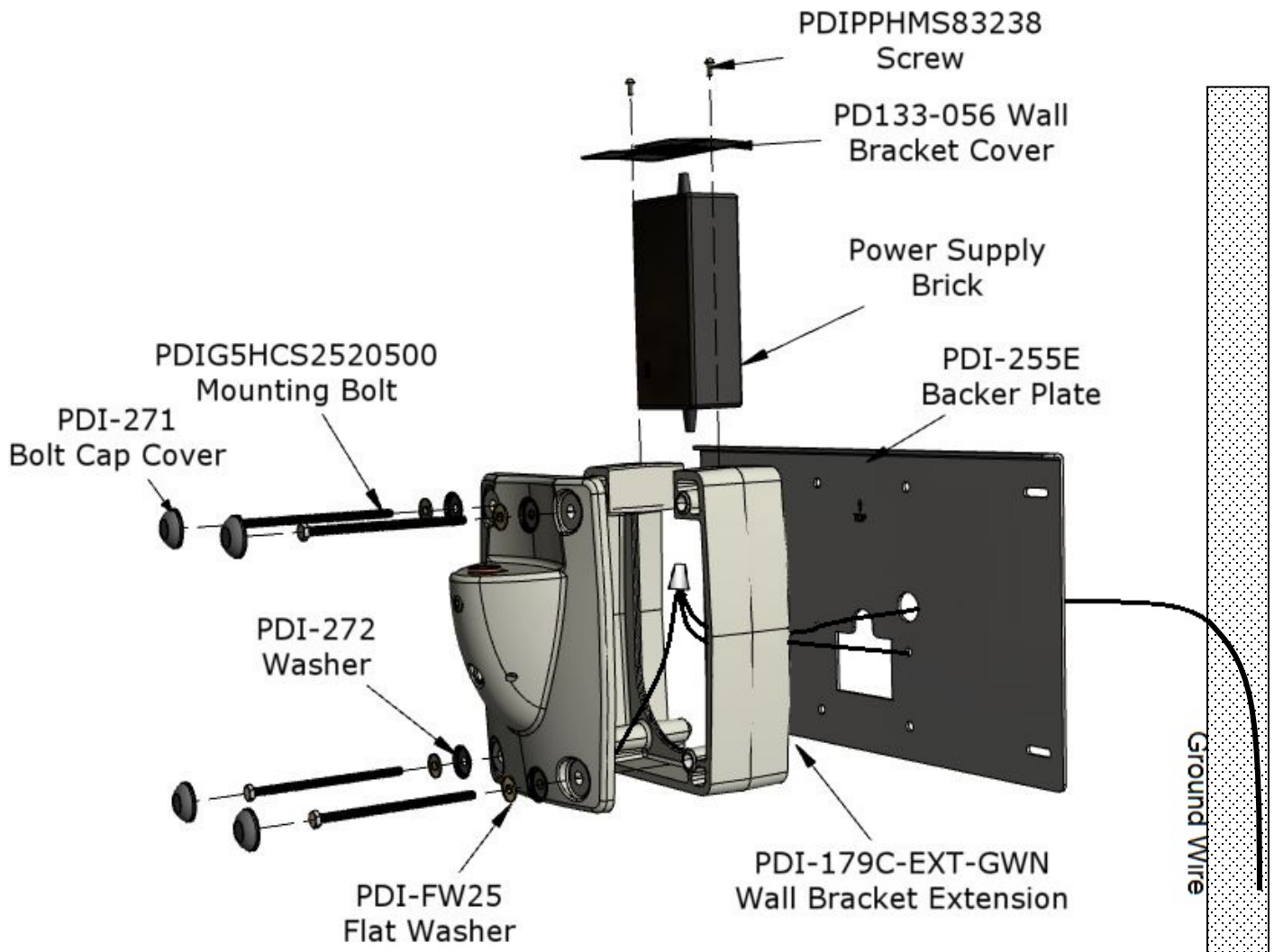


NOTE: Refer to installation instructions that accompany your specific wall plate and bracket. If you have questions, contact PDi Technical Support at 1-800-628-9870.

Exploded View:



Exploded view, GetWellNetwork specific



INSTALLATION WITH TOGGLE ANCHORS

Fastening anchors should be HILTI brand or equivalent.

1. Drill a 1/2" (13mm) hole. Hold metal channel flat alongside plastic straps and slide channel through hold. Minimum clearance behind wall 1-7/8" (48mm). Fig. 1
2. Hold ends of straps between thumb and forefinger and pull toward you until channel rests flush behind wall. Slide plastic cap along straps with other hand until flange of cap is flush with wall. Fig. 2

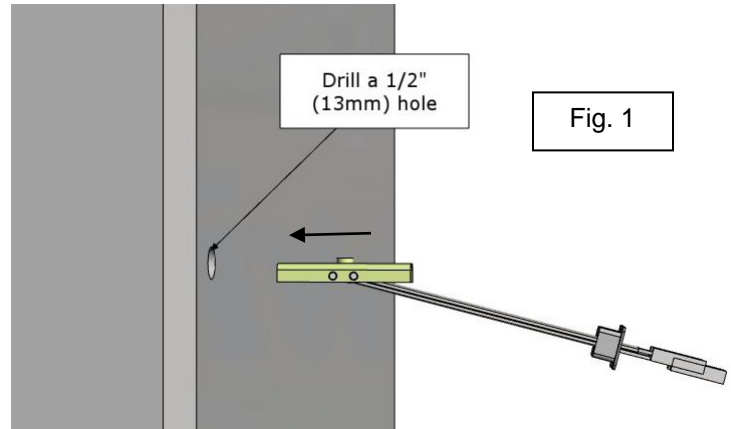


Fig. 1

Toggle should be through center of steel edge flange.

Fig. 3

3. Cut or snap straps at wall by pushing side to side, snapping off straps level with flange of cap. Fig. 4
4. Align mounting holes in backing plate with holes in toggle and install mounting hardware as shown. Fig. 5

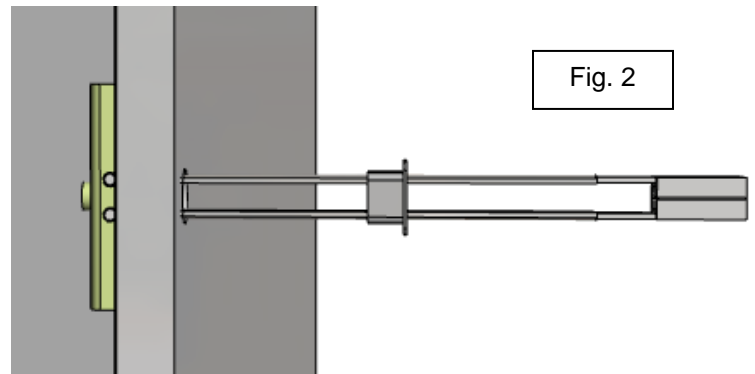


Fig. 2

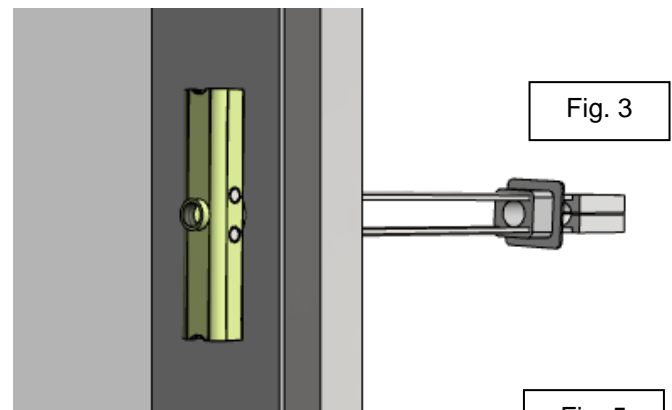


Fig. 3

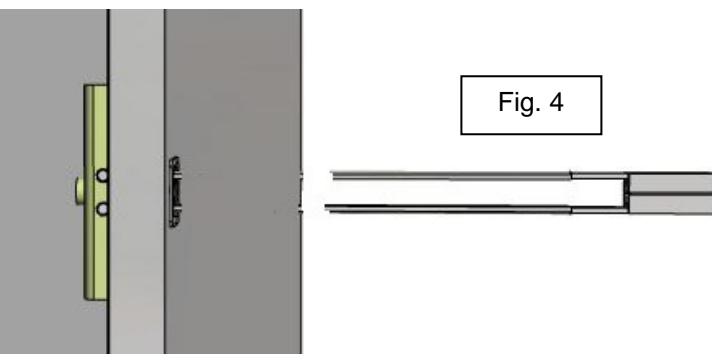


Fig. 4

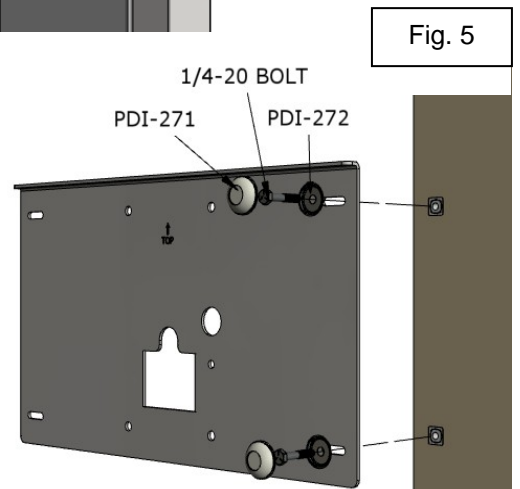


Fig. 5

OTHER MOUNTING METHODS

There are other methods to mount the wall bracket, but the PREFERRED mounting is a backing plate system as described. The mounting method used must meet the requirements as described in GENERAL GUIDELINES. The following mounting methods may be used if the previously listed precautions are adhered to.

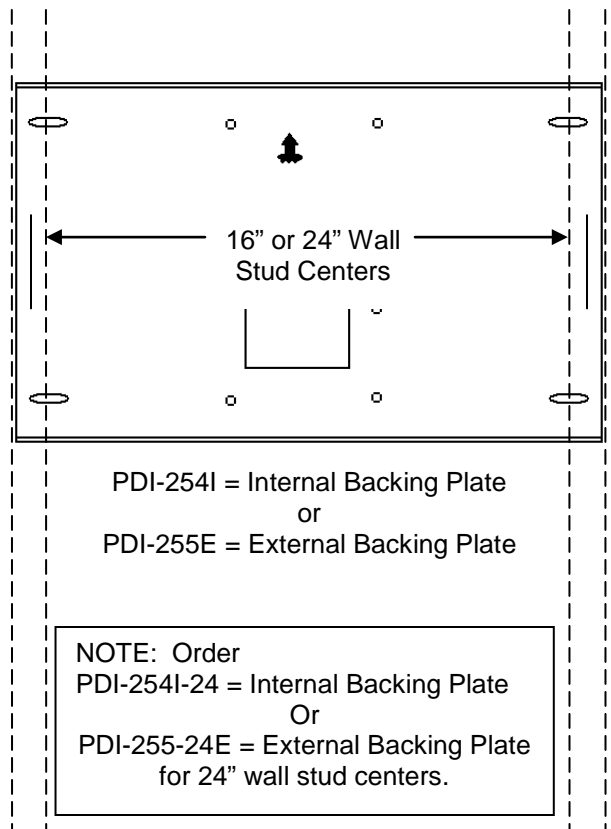
1. **SOLID CONTRUCTION WALLS** – Concrete, brick, and some types of cement block, cement expansion anchors can be used.



Special tests should be performed on the wall before installation of the expansion anchors in the area of the bracket mounting location. Proof test the load for the anchors to the manufacturer’s specifications in tension.

It is the responsibility of the architect and/or structural engineer, in charge of the project, to sign and submit the necessary calculations that show the adequacy of the wall where the TV arm and mounting bracket will be installed. Drill four holes, which correspond to the wall bracket mounting bolt pattern, to the manufacturer’s specifications of the chosen mounting fastener. Install four HILTI, or equivalent, cement anchors per the manufacturer’s installation procedure. Position the wall bracket over the exposed mounting holes/studs. Thread bolt and washer through bracket and into hole or nut and washers over studs. Tighten all bolts.

2. **FABRICATED BACKING PLATE** – A fabricated plate is used that holds welded-on or pressed-in studs. The studs (1/4”-20UNC-2A) would be located on hole centers that coincide with the wall bracket. The plate is then secured to the wall studs. Prefabricated plates PDI-254I or PDI-254I-24 and PDI-255E or PDI-255E-24 are available from PDI. Consult the backing plate instructions packed with each plate for installation details.



STATIC LOAD TESTING PROCEDURE FOR PDI WALL BRACKET INSTALLATION VALIDATION



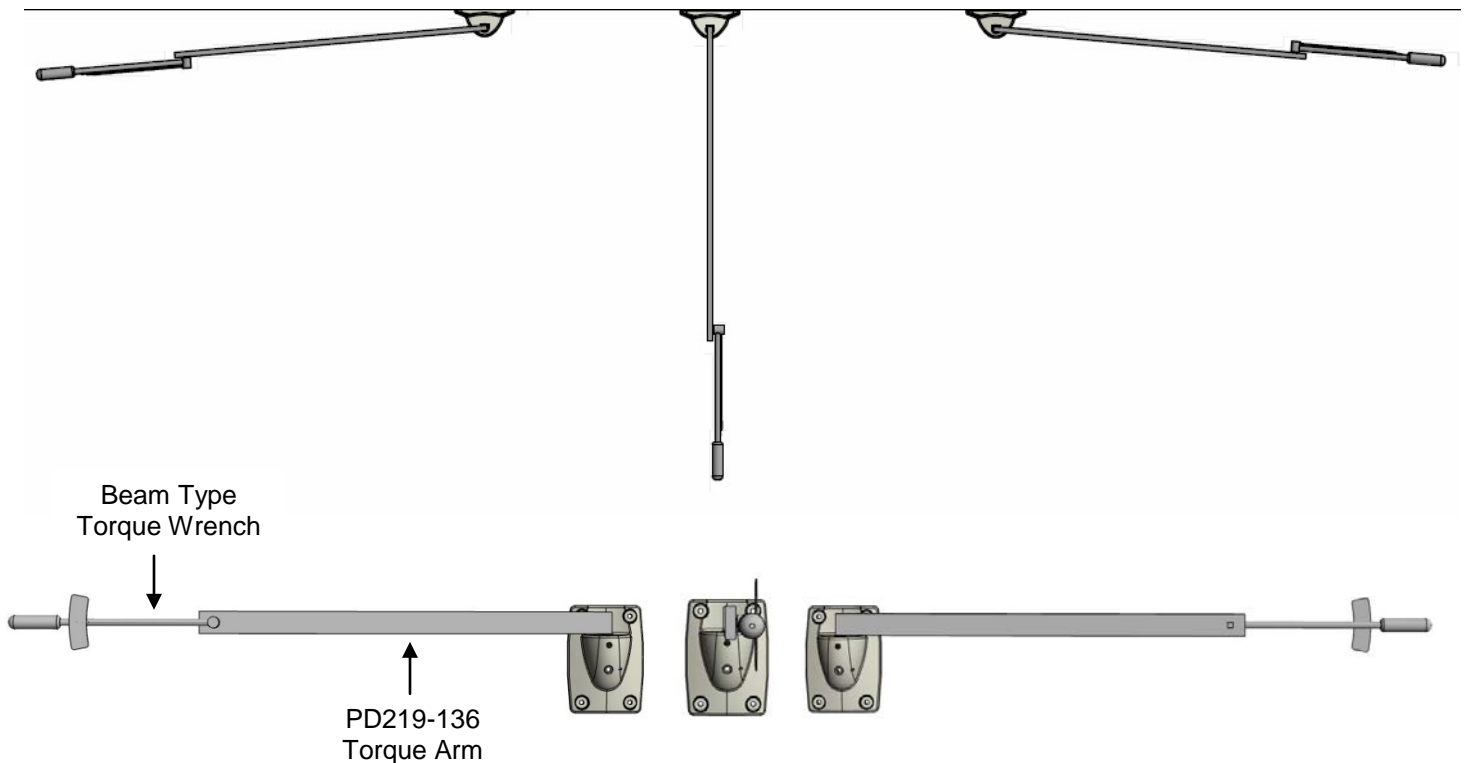
This tool (PD219-136) can be purchased from PDi and should only be used by authorized persons trained specifically for this procedure.

The loading method is as follows:

1. The load will be applied with a beam type torque wrench.
2. The applied load will be 56 pound-ft.
3. The applied loads will be held for thirty seconds.

Test procedure:

1. Insert the pin of the torque arm into the wall bracket.
2. Verify that the pin is completely seated into the wall bracket bushing.
3. Position the torque arm to be perpendicular to the wall in the horizontal plane.
4. Apply the load to the torque arm.
5. Inspect the attachment for changes. These can include a loosening of the wall bracket to wall joint. This can include any movement of the wall bracket relative to the originally installed position.
6. Repeat the load application, steps 4 and 5, with the torque bar rotated 90 degrees to the left and 90 degrees to the right of center.
7. Inspect the installation after each load test.
8. If any part of the test is not passed, the installation must be evaluated for a solution before clear for operational use.





DANGER: ARM RECOIL HAZARD. The safety brake pin must remain in the **SAFETY BRAKE PIN HOLE** whenever the television set is removed from the arm or when the arm is removed from the wall bracket to prevent the arm from springing open.



Refer to Arm Maintenance Manual (PD196-261) for full arm maintenance instructions

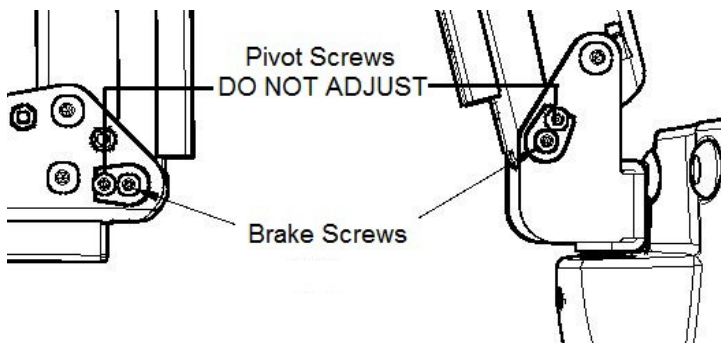
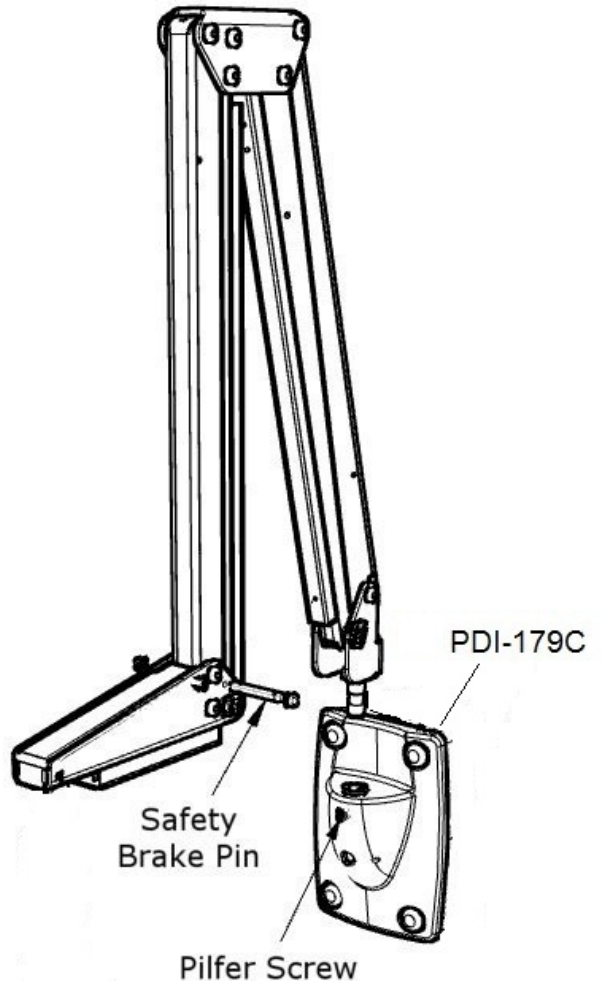
ARM INSTALLATION

400 AND 500 SERIES

The PDi arms are specifically designed and adjusted to support a certain load capacity. Use of the arm with any weight other than what is specified for your model is **NOT** recommended. The pilfer screw should be loosened before inserting arm into bracket.

1. Back out the Pilfer screw several turns to allow the base pin to load into the bushing of the wall bracket.
2. Place the arm's base pin into the wall bracket. The base pin should seat in the wall bracket bushing.
3. Tighten the wall bracket pilfer screw.
4. Attach the TV to the nose per TV installation instructions.
5. Remove the safety brake pin from the parking brake hole and install through rear mounting holes of the nose cover. Securely tighten. **DO NOT** store pin inside the nose.
6. Cycle the arm once or twice to check for free movement – if stiff, a slight loosening of the brake screws will free the movement. **DO NOT LOOSEN MORE THAN 1/16 TURN.**

Power the TV on and verify correct operation. Refer to the instructions packed with the TV for programming and operation details.



1000 SERIES ARM INSTALLATION

Procedure:

Step 1:

Remove the PDIPFHMS103238 screw from the PD216-006 base pin cover and set aside for re-installing later. Remove the PD216-006 base pin cover from the top of the wall bracket.

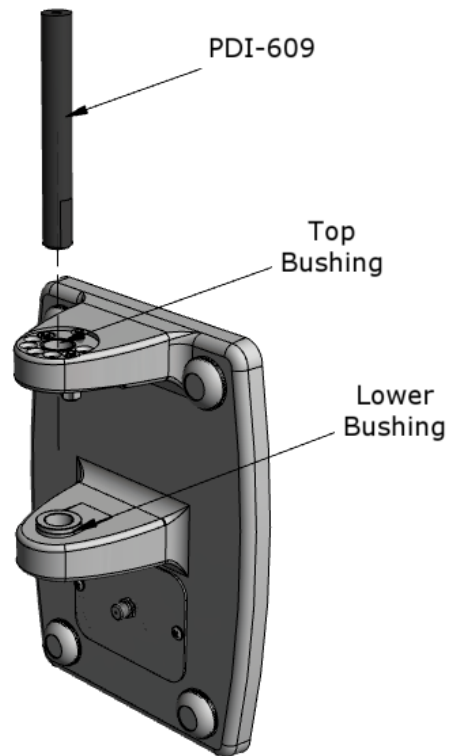
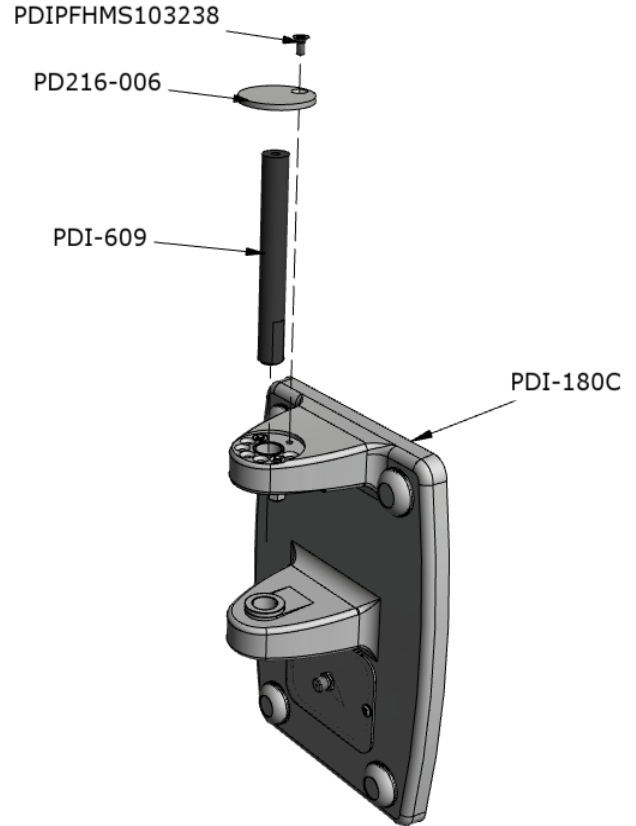
Remove the PDI-609 base pin from the wall bracket.

Step 2:

Place the base of the arm into the clevis of the wall bracket and align the 5/8" holes of the arm base with the holes of the wall bracket bushings.

Insert the PDI-609 base pin (end with flats first) thru the top bushing the arm base and the lower bushing.

The flats on the base pin must be properly aligned with the Double "D" plate in the bottom of the base for proper installation.



Step 3:

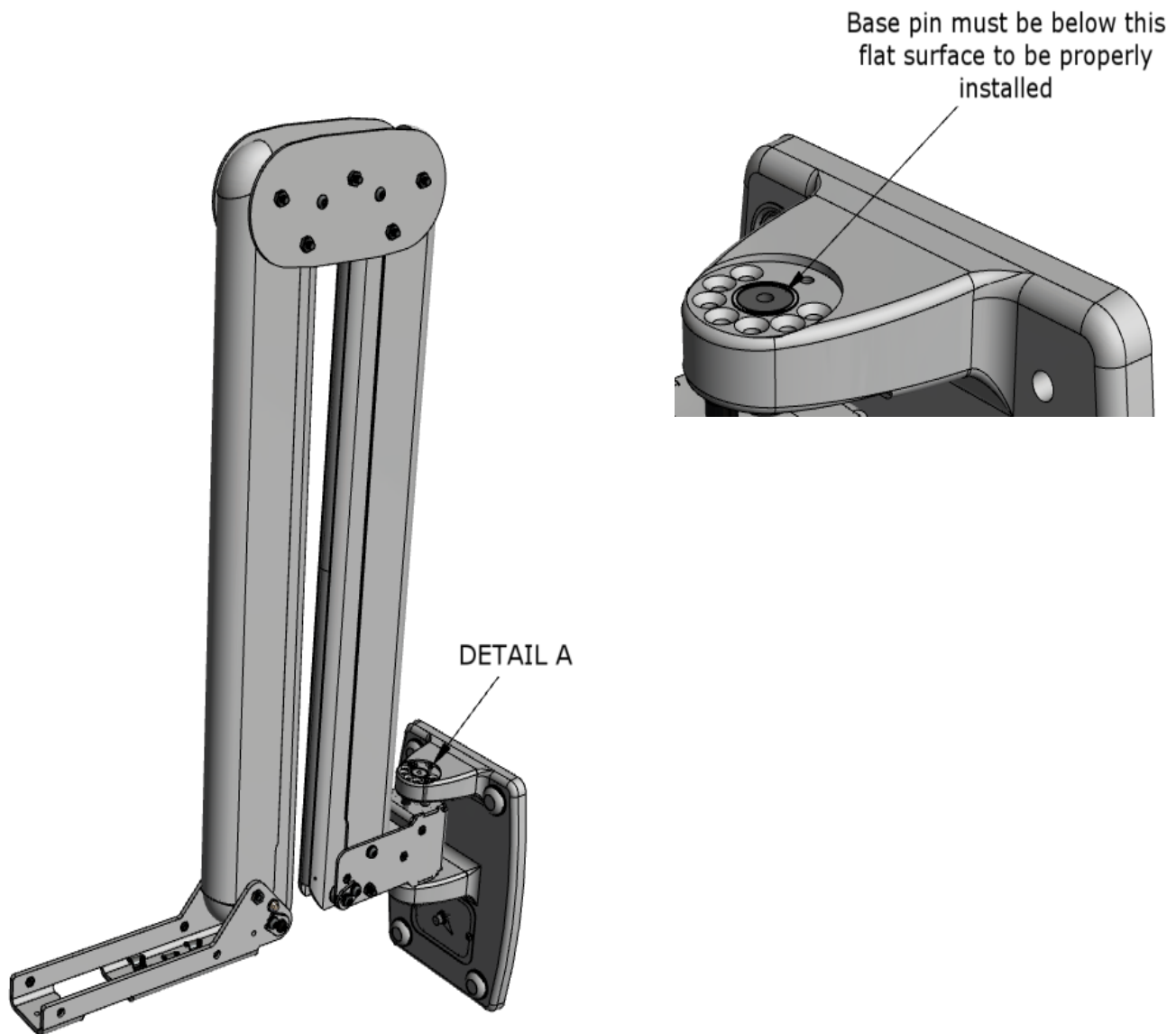
Make sure that the base pin is not sticking above the flat seat surface for the PD216-006 base pin cover.

IF THE BASE PIN IS NOT PROPERLY INSTALLED, IT CAN POSSIBLY LEAD TO FUTURE FAILURE OF THE ASSEMBLY!

Carefully rotate arm to verify there is not interference thru the horizontal range of travel.

Proceed to the next step and install the **OPTIONAL** rotational stop screws, if they are desired.

If the rotational stops are not needed, proceed to the step for installing the PD216-006 base pin cover.



Step 4: Optional Feature:

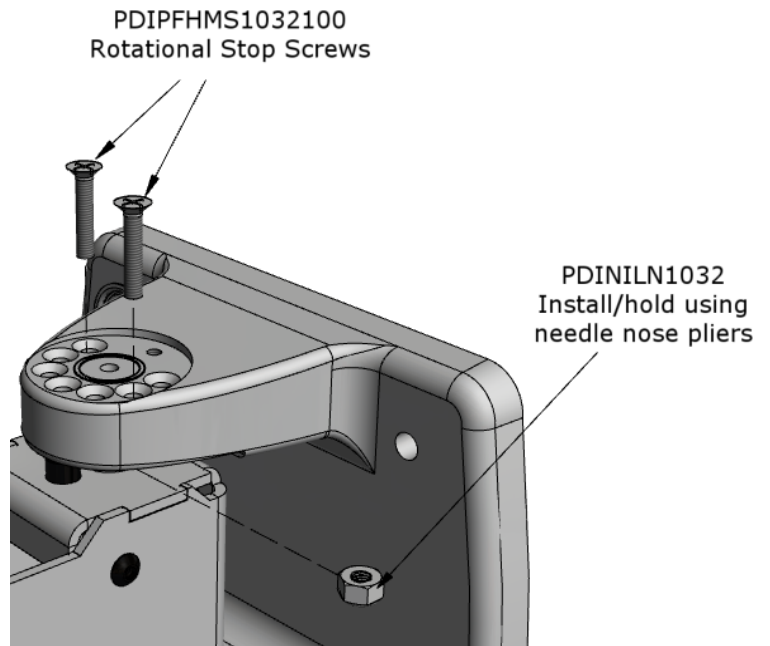
Install the rotational stop screws only if they are desired.

Rotate the arm to the desired rotating limit position.

Locate the best hole position to install the PDIPFHMS1032100 screw and PDINILN1032 lock nut.

Install the screw and nut as pictured and securely tighten. Make sure that the base pin and screw head are not sticking above the flat seat surface for the PD216-006 base pin cover.

Carefully rotate arm against stop to verify travel limit is correct.

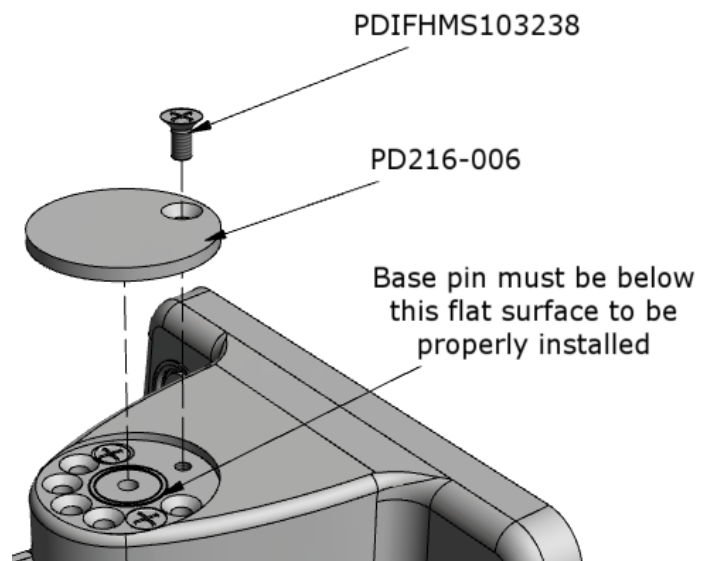


(2) PDIPFMS1032100 screws and (2) PDINILN1032 lock nuts are provided to allow a rotational stop for both left and right rotation of the arm.

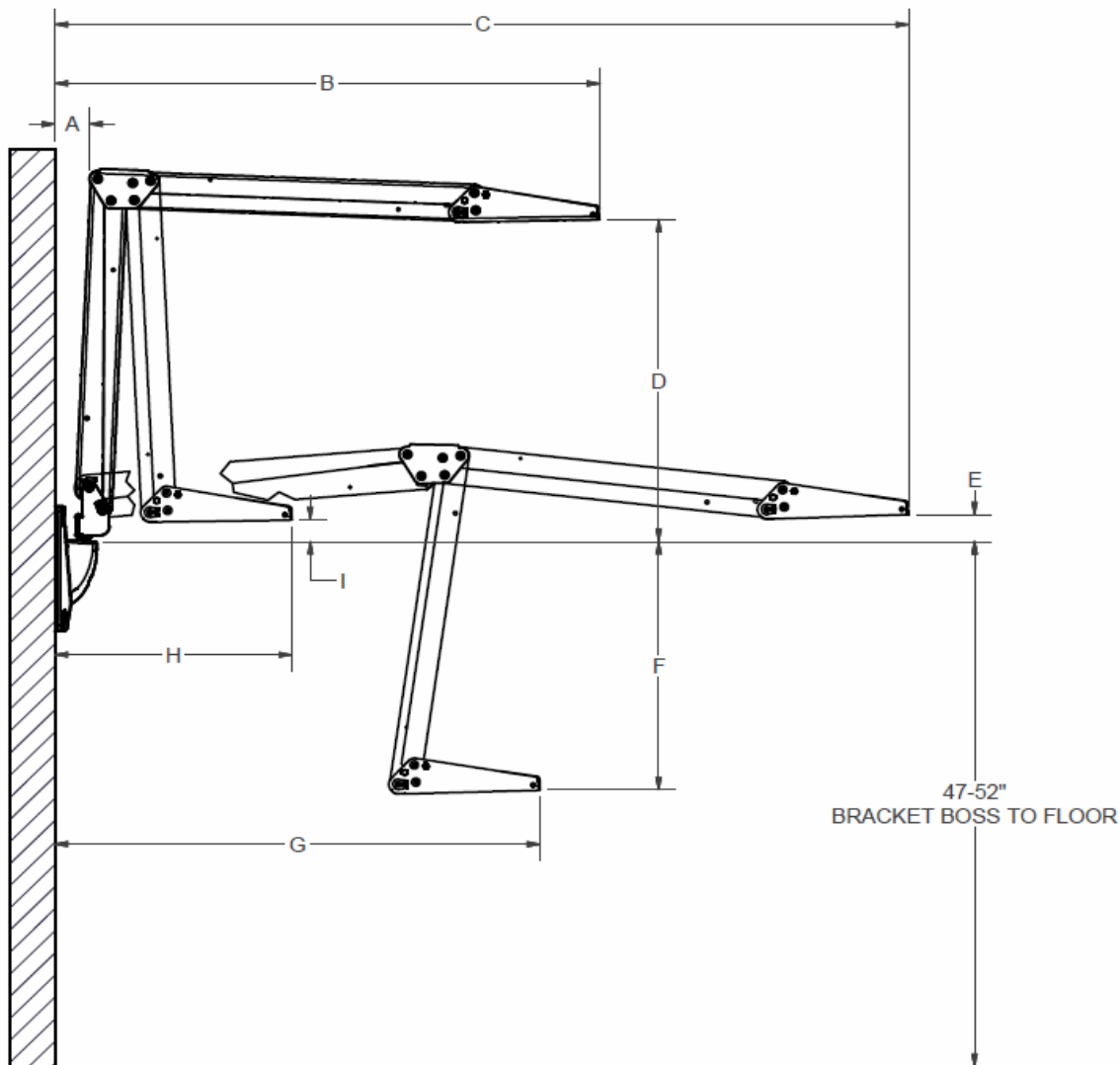
Step 5:

Re-install the PD216-006 base pin cover and secure with the PDIPFHMS103238 screw that was removed during STEP 1.

Move the arm from side to side to verify that the arm moves freely.



OPERATING ENVELOPE



PDi Series Arms support up to 22 lbs.

- Max load capacity at base pin:
 - 500 Series/Max load capacity = 19#, creates 150 FT-LB torque on base pin.
 - 400 Series/Max load capacity = 22#, creates 170 FT-LB torque on base pin.
 - 1000 Series/Max load capacity = 21#, creates 216.9 nm. Torque at base pin.

- Arm Weight:
 - 500 Series/14#
 - 400 Series/20.5#
 - 1000 Series/16.5#

- P10LCD weight = 7#
- P14W weight = 7#
- P15X = 12#
- *P15X (Touch screen and computer) = 15#
- *P15X (DVD) = 16#
- P19W weight = 17.5#

Dims.	400 Series	500 Series	405-EXT	1000 series
A	5"	4"	9.5"	4.56"
B	44"	39"	48.5"	47.20"
C	66"	56"	70.5"	71.56"
D	27"	21"	27"	30.94"
E	1"	1"	1"	0"
F	29"	20"	29"	20.50"
G	40"	36"	44.5"	47.08"
H	17"	17"	21.5"	25.50"
I	1"	1"	1"	0"

***Call PDi for part number and cabling Matrix**

PDI-STM DETAILS

Scope:

To install a PDI-STM table mount.

Notes: Mounting fasteners are customer supplied. The standard fastener requirement is a 1 / 4 - 20 diameter grade 5 or higher fastener. The optional backer plate has 1 / 4 – 20 threaded inserts.

Tool List:

1. Safety glasses/goggles
2. Drill
3. Drill bit sized for the chosen mounting fasteners
4. 1" drill bit for coax hole
5. Tools for installation of chosen mounting fasteners

Safety Steps:

1. Always wear safety glasses/goggles to prevent injury from debris.
2. Follow the installation/removal instructions for your existing products.

Procedure:

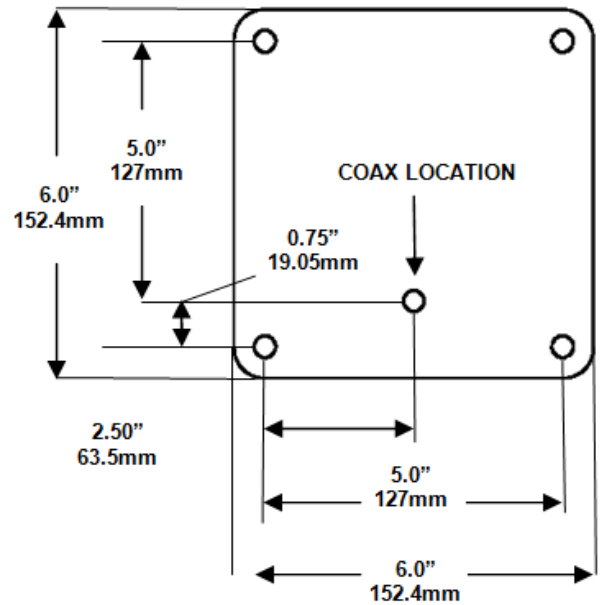
Step 1:

Locate and layout the bolt pattern for the mounting fasteners and the coax/cable hole or cutout.

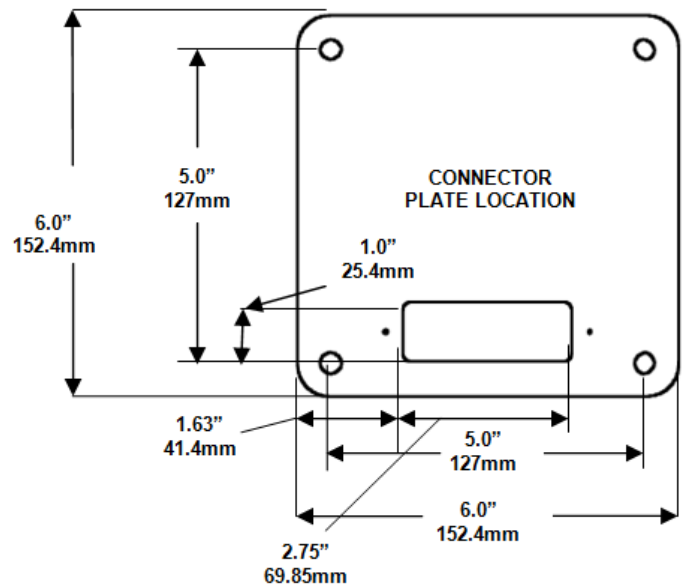
Step 2:

Follow the manufacturer’s instructions for installation of the chosen mounting fasteners. Drill the fastener holes to the manufacturer’s instructions.

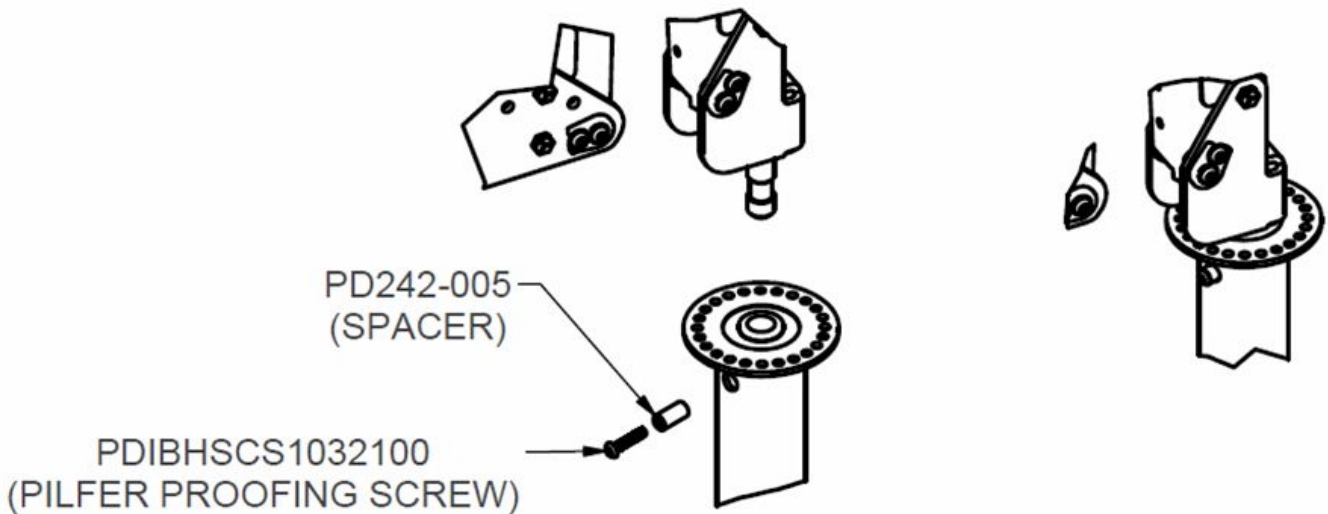
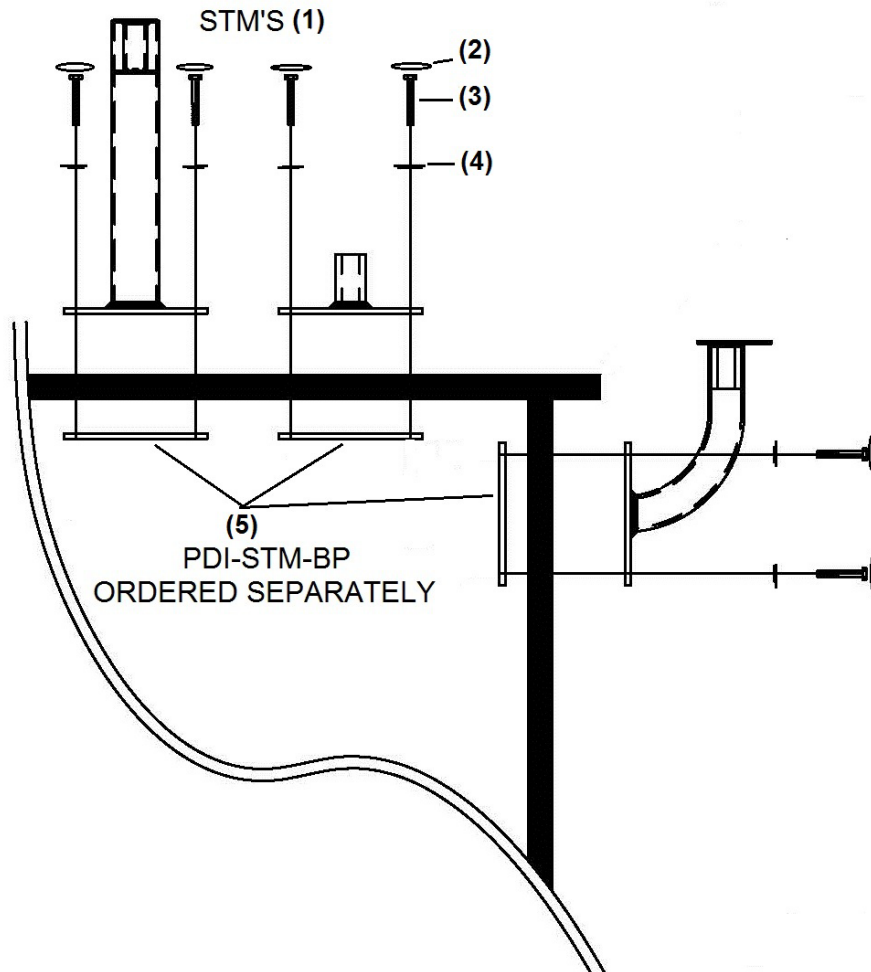
Standard Mounting Pattern



AV Mounting Pattern



ITEM	QTY.	PART NUMBER	DESCRIPTION
1	1	PDI-STM	SINGLE TABLE MOUNT
2	4	PDI-271	CAP PLUG RG-20-JN (CREAM)
3	4	BOLT	CUSTOMER SUPPLIED
4	4	WASHER	WASHER RHW-203
5	1	PDI-STM-BP	BACKER PLATE (ORDERED SEPARATELY)



PDI FLOOR MOUNTS

Scope:

Installing the PDI-886C floor mount (Basic) instructions.

For more detailed instructions, please contact PDi to request document PD196-061.

Note: The mounting anchors (3/8 diameter) are not supplied by PDi. The required mounting anchors must meet local building code requirements. The recommended anchors are 3/8" diameter Hilti KWIK Bolt anchors, or equivalent.

Tool List:

1. Safety glasses/goggles
2. 1/8" hex key (for the pilfer proofing screw).
3. Concrete drill
4. Particle mask that is rated for concrete dust.

Safety Steps:

1. Always wear safety glasses/goggles to prevent injury from debris.
2. Follow the installation/removal instructions for you existing products.

Procedure:

Step 1:

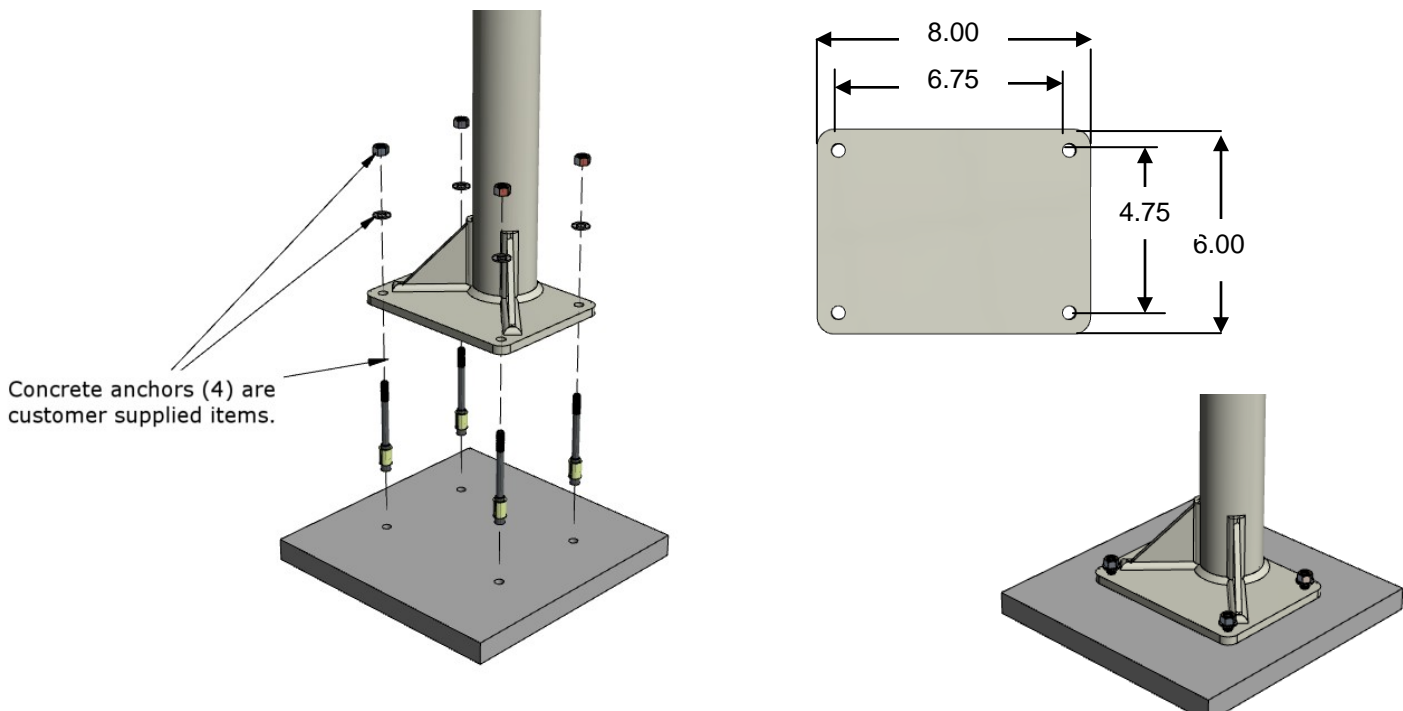
Locate and lay out the bolt pattern for the mounting anchors.

Step 2:

Follow the manufacturer's instructions for installation of the chosen mounting anchors. Drill the anchor holes to manufacturer's specification.

Tighten the anchors to the manufacturer's spec for the chosen anchor.

The anchors must be proof inspected to validate the installation.



Step 3:

The installation must be tested using the same tools and process for static load testing as a wall mounted casting.

Step 4:

Use the 1/8" hex key to remove the pilfer proofing screw and spacer.

Step 5:

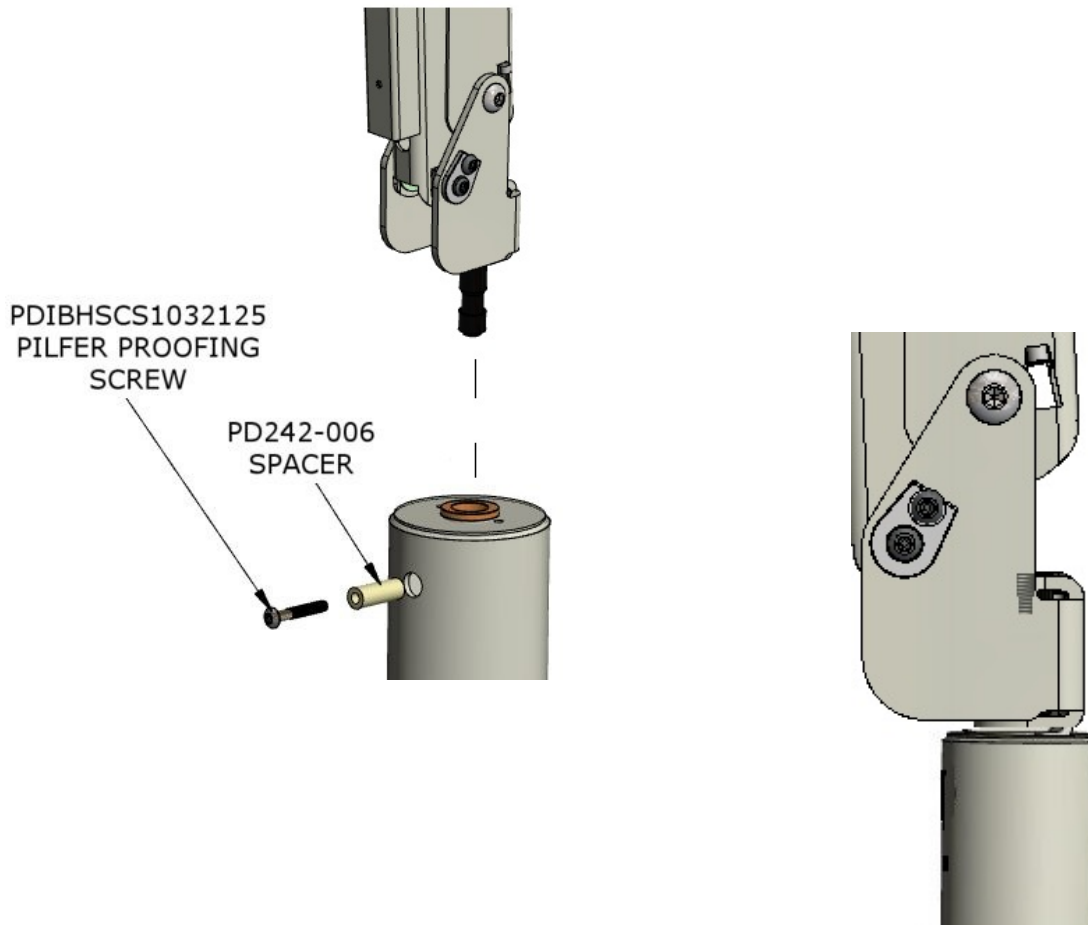
Install the arm (sold separately) into the floor mount, taking care to properly align the base pin with the bushing, to prevent damage to the bushing during installation.

Step 6:

Use the 1/8" hex key to reinstall the pilfer proofing screw and spacer.

Rotate the arm from side to side to verify that it moves smoothly and does not bind on the pilfer proofing screw.

Lift up on the arm to confirm that the arm cannot be removed while the pilfer proofing screw is installed.



PD168-055: POWER SUPPLY ENCLOSURE KIT FOR NON WALL MOUNTED ARMS

This kit provides storage for the power brick and excess cabling.

Assemble the kit as shown in Fig. 1.

Make certain that the CATV Jack is near enough to the wall bracket so the "RF IN" cable can be connected to it. The "RF IN" cable can also enter from behind the wall bracket. Distance from center of mount to enclosure should be <12". See Figure 2.

Fig.1

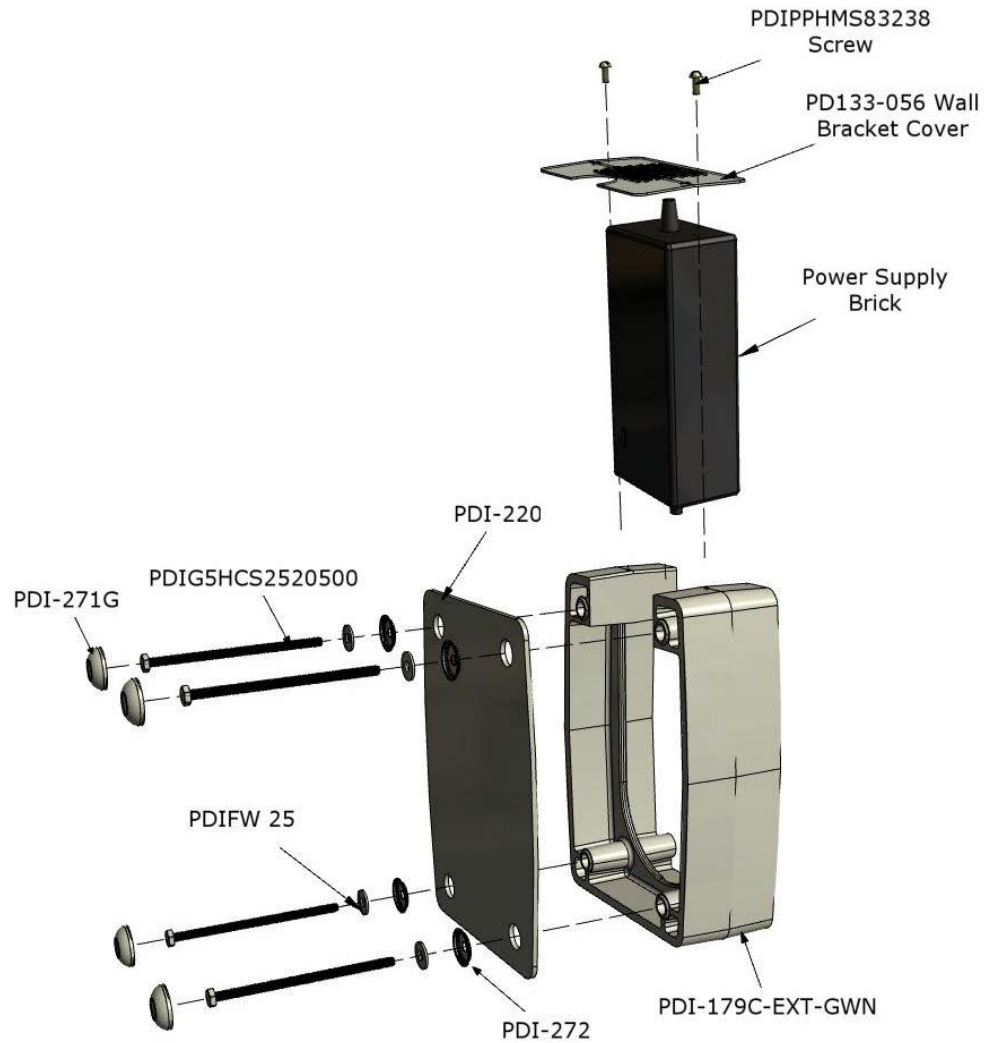
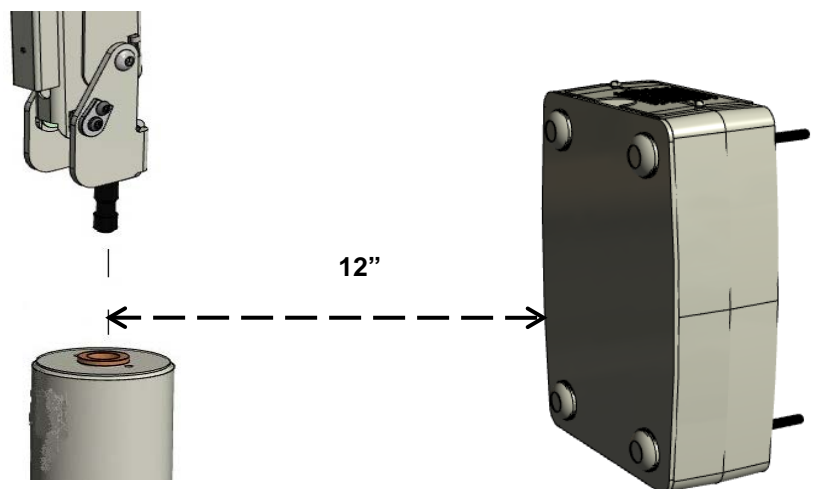


Fig.2

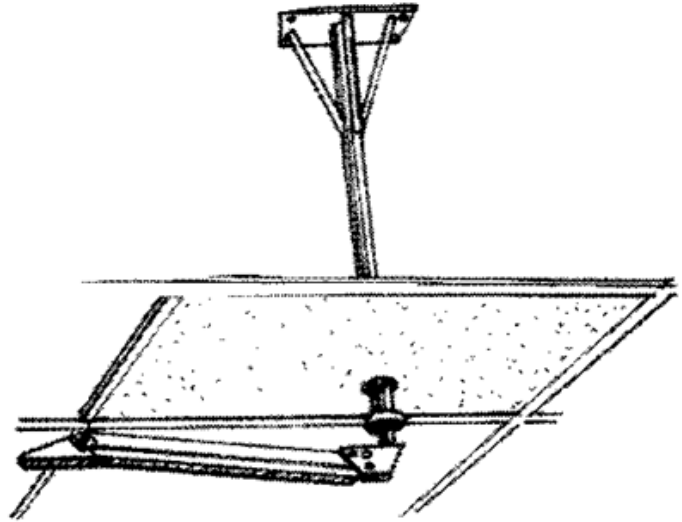


PDI STANDARD CEILING MOUNT OVERVIEW

A complete mounting system for attachment to a solid roofing structure above a suspended tile ceiling. Outer tube mounts to a solid surface, inner tube allows adjustment of height to clear the tile ceiling, and then a special arm section attaches to the bottom of the tube. Arm supports up to 22.5 pounds.

LOCATE AND MOUNT OUTER TUBE

1. Remove the ceiling tile and locate a mounting position above the patient's bed at a minimum distance of 45 inches from walls or other obstacles.
2. Mount the outer tube PDI-592 securely to the ceiling using the twelve mounting holes provided in the plate.



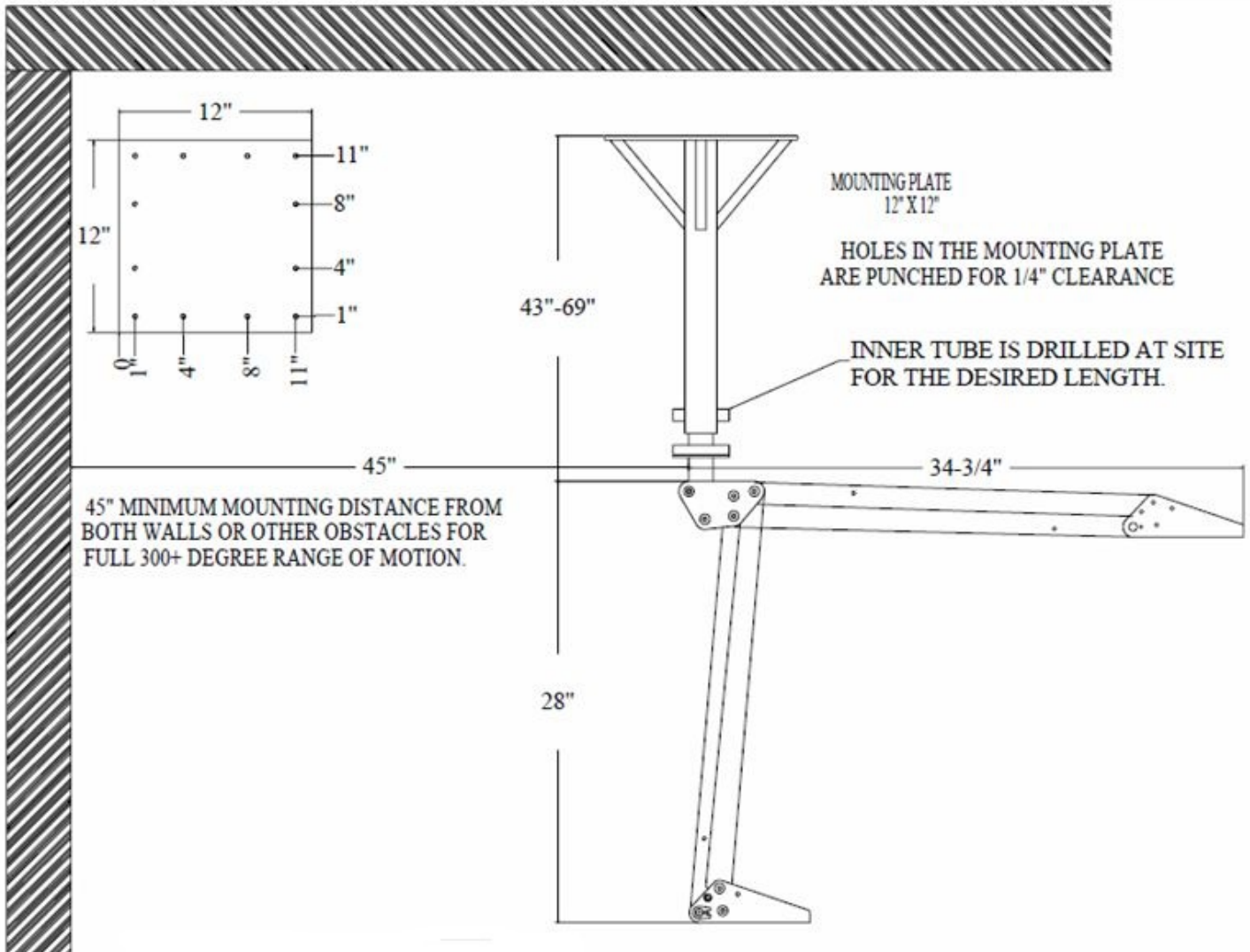
ADJUST HEIGHT AND DRILL INNER TUBE

3. Slide the inner tube PDI-591 up to the desired height (see NOTE "A"). Push the plastic sleeve PDI-590 until the shoulder is seated in the outer tube. At the cross hole near the bottom of the outer tube, drill through the plastic sleeve and the inner tube from each side. Use a 3/8" diameter drill bit. Slide the 3/8" x 2-1/2" bolt through and tighten nut. Cut hole for tube in ceiling tile and replace tile.
4. Drop a fish wire through the cable exit hole located near the base plate of the outer tube (not shown). The wire should exit the bottom of the tube. Remove the four 1/4-20 socket head bolts from the swivel collar PDI-589. Attach the fish wire to the cable pigtail(s) that exit the arm swivel cap elbow, being sure to first thread the cable(s) through the plastic shim.

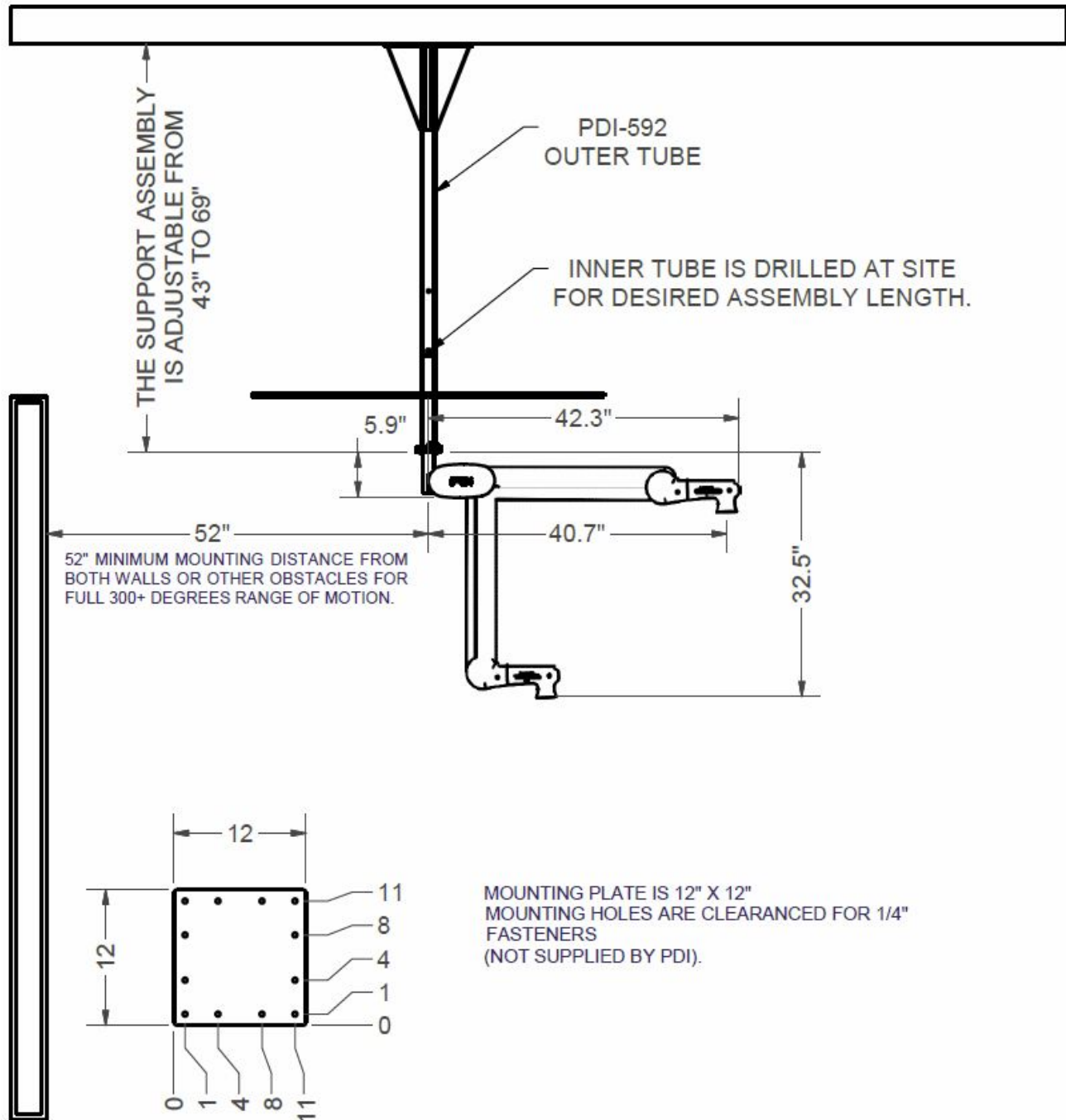
ATTACH THE ARM SECTION

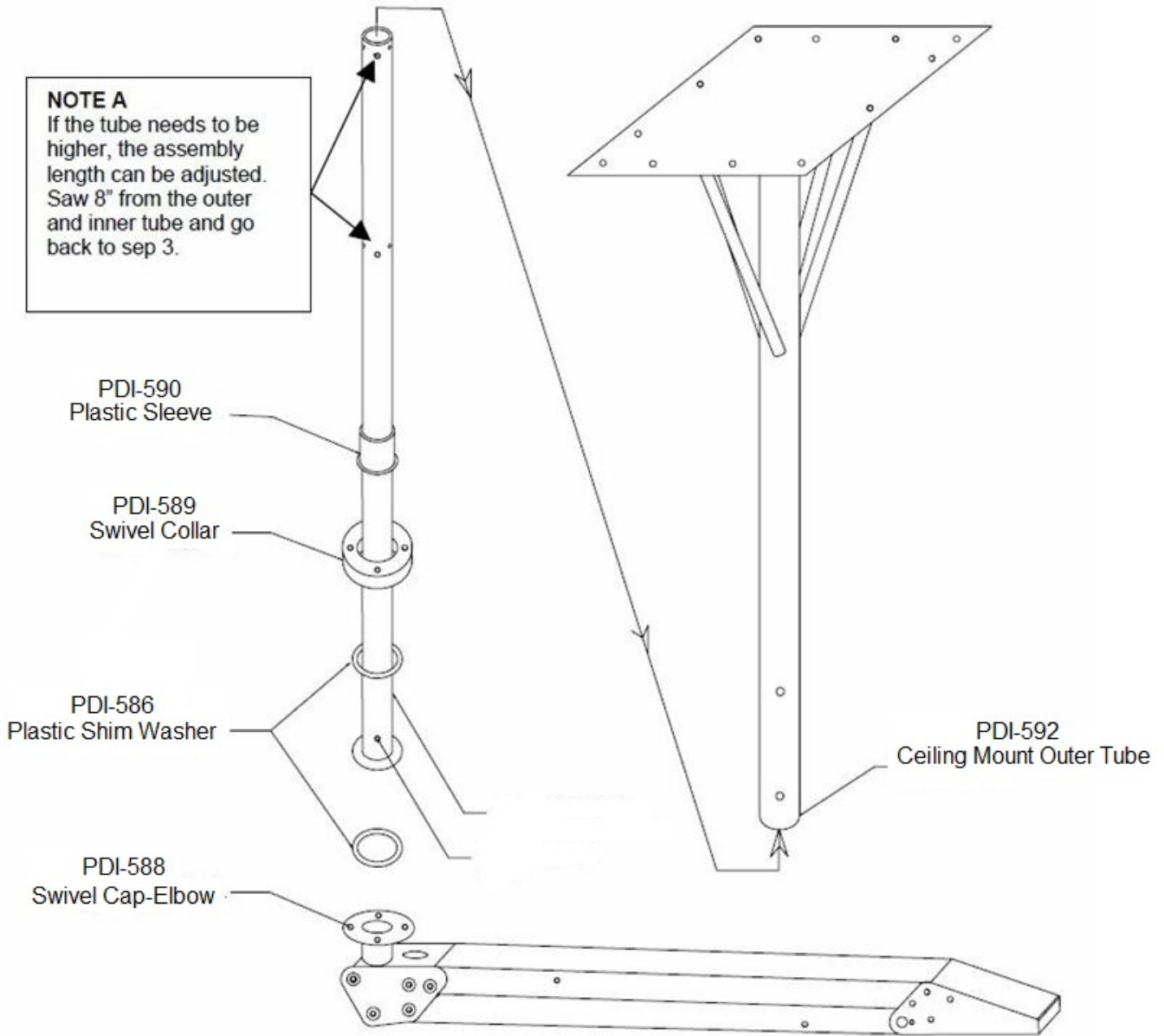
5. Pull the fish wire through the tube until the cables exit the base plate hole. Hold the plastic shim washer PDI-586 against the bottom of the inner tube PDI-591. Be sure it does not overlap the swivel collar. Hold the arm assembly against the bottom of the inner tube. Thread locking compound LOCTITE® #242 (Blue) must be used on the 1/4-20 socket head bolts. Slide the 1/4-20 socket head bolts through the swivel cap PDI-588 and thread back into the swivel collar PDI-589. Tighten the 1/4-20 socket head bolts to a torque of 10 ft-lbs.

PDi STANDARD CEILING MOUNT



PDI-CEILING MOUNT FOR 1000 SERIES OVERVIEW





APPENDIX**KWIK BOLT 3 EXPANSION ANCHOR**

Table 1 – Installation Information Strength Design

Setting Information	Units	Nominal anchor diameter	
		1/4	3/8
Effective minimum embedment	In (mm)	1-1/2 (38)	2 (51)
Min. hole depth	In (mm)	2 (51)	2-5/8 (67)
Installation torque	Ft-lb (Nm)	4 (5)	20 (27)

Table 2 – Carbon Steel KB3 Strength Design

Design Information	Units	Nominal anchor diameter	
		1/4	3/8
Effective min. embedment	In (mm)	1-1/2 (38)	2 (51)
Min. hole depth in concrete	In (mm)	2 (51)	2-5/8 (67)
Pullout strength uncracked concrete	lb (kNO)	1,575 (7.0)	NA
Pullout strength concrete on metal deck	lb (kNO)	1,750 (7.8)	2,245 (10.0)
Installation torque	ft-lb (Nm)	4 (5)	20 (27)