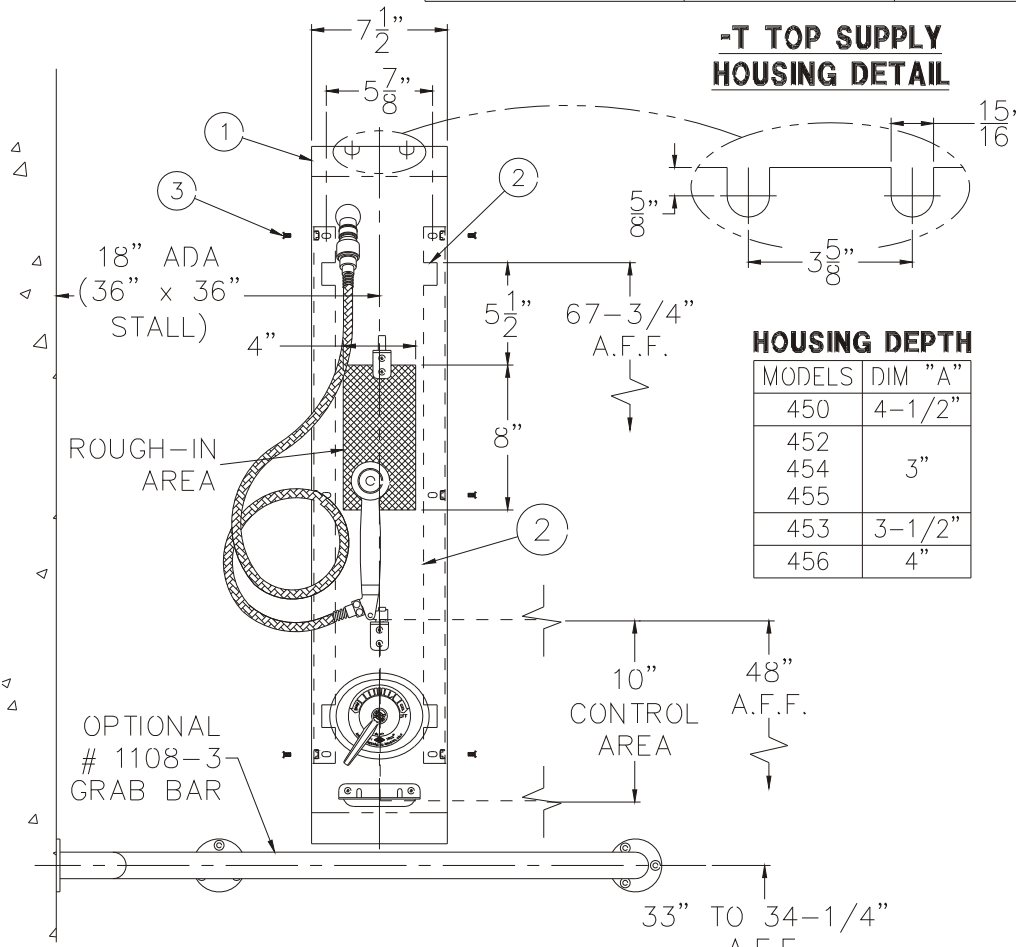




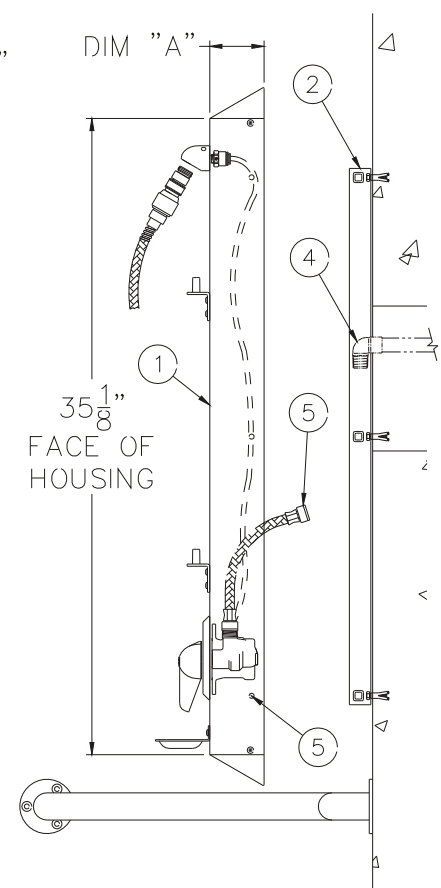
NOTE:
REFER TO ADA ACCESSIBILITY
GUIDELINES FOR COMPLETE
INSTALLATION REQUIREMENTS.

REFERENCE DRAWINGS		AIR-CONTROL VALVE	
FLEX SHOWERHEAD	9970-102-003	VALVE BODY	9975-090-001
SAFTI-TROL VALVE	9975-032-001	METERING SERVOMOTOR	9955-000-002
CARTRIDGES		CHECKSTOP/STRAINER	9956-040-003
SAFTI-TROL	9975-030-001	PUSHBUTTON/ESCUTCHEON	9957-300-001
FLO-CLOZ	9975-000-001		



HOUSING DEPTH

MODELS	DIM "A"
450	4-1/2"
452	3"
454	3"
455	3"
453	3-1/2"
456	4"



INSTALLATION INSTRUCTIONS:

- A-DISASSEMBLE SHOWER HOUSING ASSEMBLY ① FROM WALL MOUNTING ANGLES ② BY REMOVING VANDAL-RESISTANT SCREWS ③ FROM HOUSING SIDES. DO NOT REMOVE VALVES AND OTHER ACCESSORIES.
- B-INSTALL MOUNTING ANGLES ②. TOP ANGLE NOTCH MUST BE AT 67-3/4" ABOVE THE FINISHED FLOOR. ANGLES MUST BE PLUMB & TRUE TO WALL.
- C-PROVIDE SUPPLY ROUGH-IN(S) ④ IN THE AREA INDICATED. THOROUGHLY FLUSH SUPPLY LINES.
- D-MAKE-UP SUPPLY CONNECTIONS TO 1/2" NPS FLEX HOSE FEMALE ENDS ⑤ WHILE SUPPORTING HOUSING OFF THE FLOOR. (NOTE: SUPPLY INLET CONNECTION WILL ACCOMMODATE 1/2" NPT MALE ADAPTER.)

*** NOTE:** INSTALLER MUST PROVIDE CHECKSTOPS WITH SAFTI-THERM VALVES IF OPTIONAL -GX CHECKSTOPS NOT ORDERED FROM ACORN.

- E- ASSEMBLE SHOWER HOUSING ① TO MOUNTING ANGLES ② USING SCREWS ③ PROVIDED.
- NOTE:**
MAXIMUM RECOMMENDED WORKING PRESSURE IS 100PSI; TEMPERATURE IS 130°F; OUTLET TEMPERATURE IS RECOMMENDED AT A MAXIMUM OF 105°F.
- WARNING:**
PRIOR TO MAKING INSTALLATION, SUPPLY LINES MUST BE FLUSHED OF ALL FOREIGN MATERIAL SUCH AS PIPE DOPE, CHIPS, SOLDER, ETC. VALVE MUST BE DRAINED PRIOR TO BEING SUBJECTED TO FREEZING TEMPERATURES.

<p>ACORN ENGINEERING COMPANY P.O. BOX 3527 INDUSTRY, CA. 91744 (626) 336-4561 FAX (626) 961-2200</p>	<p>TITLE APEX SURFACE MOUNTED ADA SHOWER - CAT. #450ADA-A SERIES</p>	
	<p>MANUFACTURE DATE JANUARY 2002 TO PRESENT</p>	<p>DATE ISSUED 07/01/03</p> <p>DATE REVISED</p>

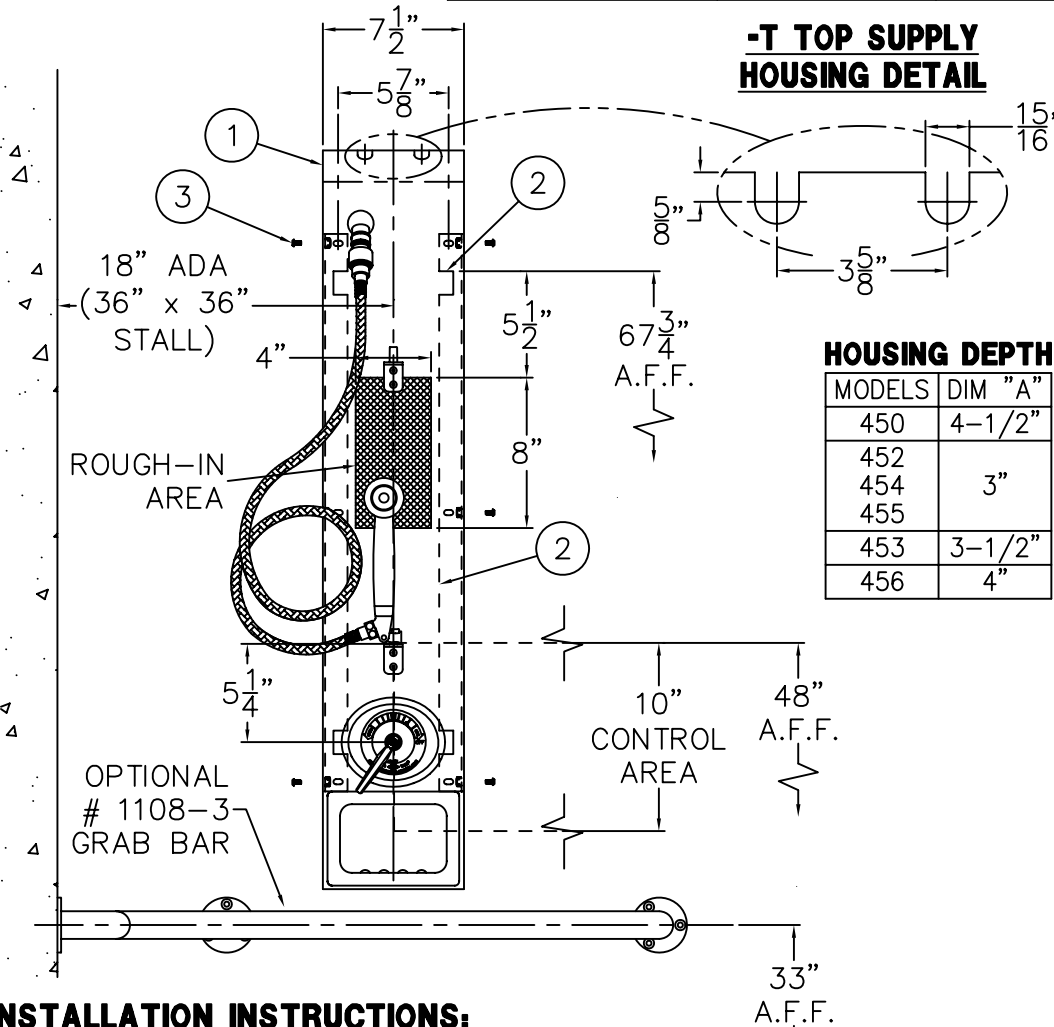


NOTE:
REFER TO ADA ACCESSIBILITY
GUIDELINES FOR COMPLETE
INSTALLATION REQUIREMENTS.

REFERENCE DRAWINGS

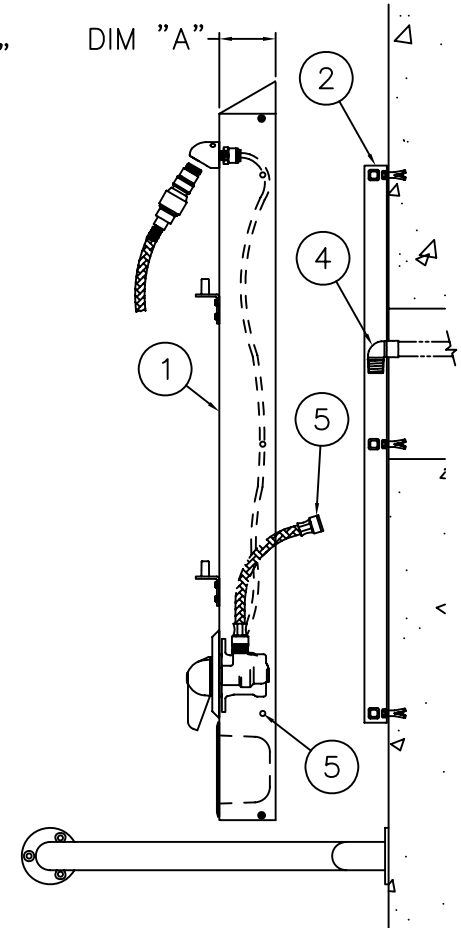
FLEX SHOWERHEAD	9970-102-003	AIR-CONTROL VALVE	
SAFTI-TROL VALVE	9975-032-001	VALVE BODY	9975-090-001
CARTRIDGES		METERING SERVOMOTOR	9955-000-002
SAFTI-TROL	9975-030-001	CHECKSTOP/STRAINER	9956-040-003
FLO-CLOZ	9975-000-001	PUSHBUTTON/ESCUTCHEON	9957-300-001

**-T TOP SUPPLY
HOUSING DETAIL**



HOUSING DEPTH

MODELS	DIM "A"
450	4-1/2"
452	3"
454	
455	
453	3-1/2"
456	4"



INSTALLATION INSTRUCTIONS:

- A—DISASSEMBLE SHOWER HOUSING ASSEMBLY ① FROM WALL MOUNTING ANGLES ② BY REMOVING VANDAL-RESISTANT SCREWS ③ FROM HOUSING SIDES. DO NOT REMOVE VALVES AND OTHER ACCESSORIES.
- B—INSTALL MOUNTING ANGLES ②. TOP ANGLE NOTCH MUST BE AT 67-3/4" ABOVE THE FINISHED FLOOR. ANGLES MUST BE PLUMB & TRUE TO WALL.
- C—PROVIDE SUPPLY ROUGH-IN(S) ④ IN THE AREA INDICATED. THOROUGHLY FLUSH SUPPLY LINES.
- D—MAKE-UP SUPPLY CONNECTIONS TO 1/2" NPS FLEX HOSE FEMALE ENDS ⑤ WHILE SUPPORTING HOUSING OFF THE FLOOR. (NOTE: SUPPLY INLET CONNECTION WILL ACCOMMODATE 1/2" NPT MALE ADAPTER).

*** NOTE:** INSTALLER MUST PROVIDE CHECKSTOPS WITH SAFTI-THERM VALVES IF OPTIONAL -GX CHECKSTOPS NOT ORDERED FROM ACORN.

- E—ASSEMBLE SHOWER HOUSING ① TO MOUNTING ANGLES ② USING SCREWS ③ PROVIDED.

NOTE:

MAXIMUM RECOMMENDED WORKING PRESSURE IS 100PSI; TEMPERATURE IS 130°F; OUTLET TEMPERATURE IS RECOMMENDED AT A MAXIMUM OF 105°F.

WARNING:

PRIOR TO MAKING INSTALLATION, SUPPLY LINES MUST BE FLUSHED OF ALL FOREIGN MATERIAL SUCH AS PIPE DOPE, CHIPS, SOLDER, ETC. VALVE MUST BE DRAINED PRIOR TO BEING SUBJECTED TO FREEZING TEMPERATURES.

ACORN ENGINEERING COMPANY
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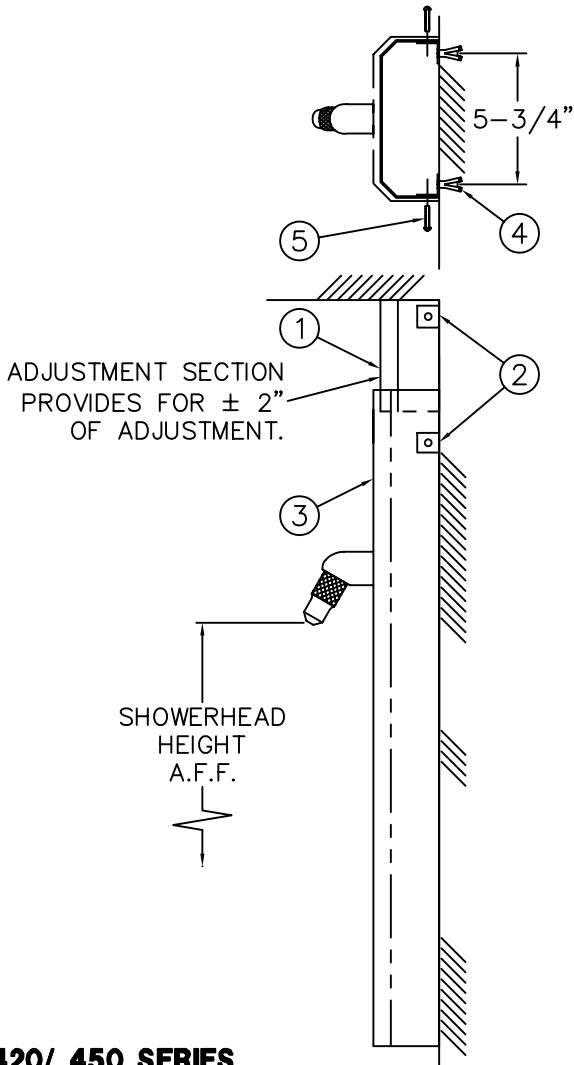
TITLE **APEX SURFACE MOUNTED ADA SHOWER - CAT. #450ADA-A-RD SERIES**

MANUFACTURE DATE	DATE ISSUED	DRAWING NUMBER
JANUARY 2002 TO PRESENT	09/15/08	
	DATE REVISED	9900-047-001



IMPORTANT!

WALL ANCHORS AND ANCHORING HARDWARE ARE BY OTHERS.



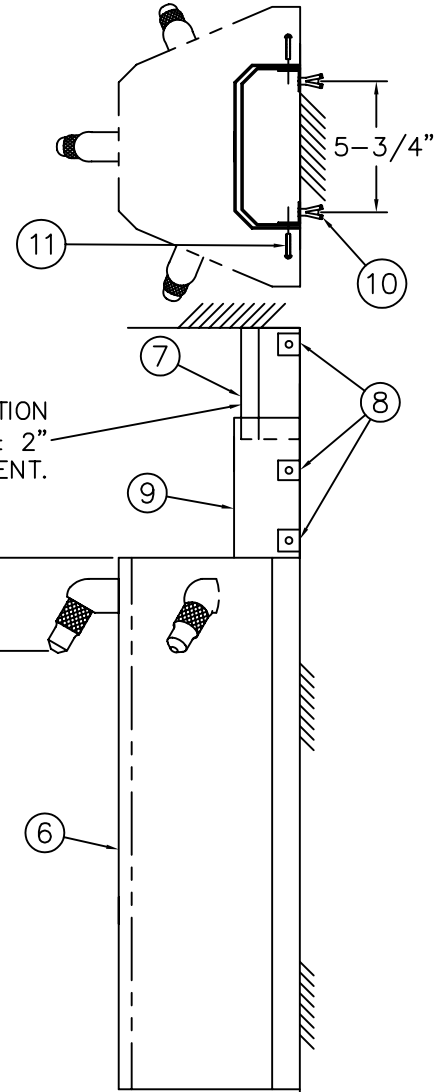
420/ 450 SERIES

INSTALLATION INSTRUCTIONS (420/450 SERIES)

AFTER COMPLETION OF TOP SUPPLY ROUGH-INS:

- A- POSITION ADJUSTMENT SECTION ① UP TO CEILING. USING ADJUSTMENT SECTION AS A TEMPLATE, MARK POSITION FOR L-CLIPS ②.
- B- FOLLOWING THE APPROPRIATE FIXTURE INSTALLATION INSTRUCTIONS, USE EXTENDED HOUSING ③ AS A TEMPLATE TO MARK POSITIONS FOR L-CLIPS ②.
- C- INSTALL WALL ANCHORS ④ (BY OTHERS) FOR L-CLIPS. POSITION L-CLIPS ② WITH CAGE NUT FACING OUTWARD FOR ATTACHMENT OF HOUSING AND FASTEN TO WALL (WALL FASTENERS BY OTHERS).
- D- ASSEMBLE ADJUSTMENT SECTION ① TO L-CLIPS USING #10-32 SCREWS ⑤ PROVIDED.
- E- COMPLETE FIXTURE INSTALLATION WITH HOUSING ② OVER ADJUSTMENT SECTION ①.

NOTE: FOR 420 SERIES SHOWERS (NOT SHOWN), CEILING ADJUSTMENT SECTION ASSEMBLES OVER HOUSING.



460/ 470 SERIES

INSTALLATION INSTRUCTIONS (460/470 SERIES)

AFTER COMPLETION OF TOP SUPPLY ROUGH-INS:

- A- MOUNT HOUSING ⑥ TO WALL PER APPROPRIATE FIXTURE INSTALLATION INSTRUCTIONS.
- B- POSITION ADJUSTMENT SECTION ⑦ UP TO CEILING. USING ADJUSTMENT SECTION AS A TEMPLATE, MARK POSITION FOR L-CLIPS ⑧.
- C- POSITION SUPPLY COVER ⑨ AND USE AS A TEMPLATE TO MARK POSITION FOR L-CLIPS ⑧.
- D- INSTALL WALL ANCHORS ⑩ (BY OTHERS) FOR L-CLIPS. POSITION L-CLIPS ⑧ WITH CAGE NUT FACING OUTWARD FOR ATTACHMENT OF HOUSING AND FASTEN TO WALL (WALL FASTENERS BY OTHERS).
- E- ASSEMBLE ADJUSTMENT SECTION ⑦ TO L-CLIPS USING #10-32 SCREWS ⑪ PROVIDED.
- F- ASSEMBLE SUPPLY COVER ⑨ TO L-CLIPS USING #10-32 SCREWS ⑪ PROVIDED.

<p>ACORN ENGINEERING COMPANY P.O. BOX 3527 INDUSTRY, CA. 91744 (626) 336-4561 FAX (626) 961-2200</p>	<p>TITLE APEX OPTION -SC SUPPLY COVER for MODEL #420, #450, #460 & #470</p>	
	<p>MANUFACTURE DATE</p> <p>JULY 1969</p> <p>TO PRESENT</p>	<p>DATE ISSUED</p> <p>10/05/92</p> <p>DATE REVISED</p> <p>06/22/04</p>