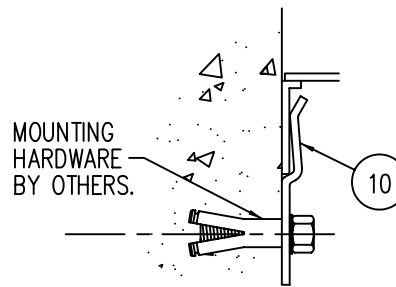
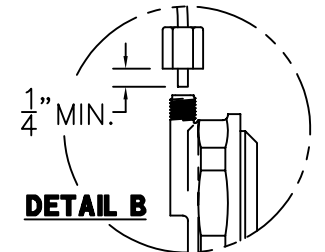


MODELS	DIM "A"
466, 466-WH 476, & 476-WH	21"
466-HC, 466-HC-WH, 476-HC, & 476-HC-WH	38-1/2"

REFERENCE DRAWINGS	
ASSEMBLIES	NUMBER
SHOWERHEAD	9970-120-003
STANDARD NOZZLE	9970-101-004
METERING SERVOMOTOR	9955-000-002
VALVE BODY	9975-090-001
CHECKSTOP/STRAINER	9956-040-003
PUSHBUTTON/ESCUTCHEON	9957-300-001



**MOUNTING BRACKET  
DETAIL A**



**DETAIL B**

**INSTALLATION INSTRUCTIONS:**

- A- FLUSH SUPPLY LINE OF ALL FOREIGN MATERIAL (1).
- B- MOUNT AIR-CONTROL VALVE ASSEMBLY (2) WITHIN REQUIRED WALL OPENING. WALL FASTENERS BY OTHERS. [NOTE: VALVE ASSEMBLY (2) MAY BE MOUNTED REMOTELY WITHIN 10 FEET OF PUSHBUTTON / SHOWER HEAD.]
- C- MAKE-UP SUPPLY CONNECTION (1/2" NPS FEMALE). THREAD FLEX CONNECTOR HOSE (3) FROM THE VALVE INLET TO WATER SUPPLY LINE (1). (NOTE: SUPPLY INLET CONNECTION WILL ACCOMODATE A 1/2" NPT MALE ADAPTER.)
- D- CONNECT 1/4" O.D. RISER TUBING (4) FROM SHOWER HEAD (5) TO VALVE ASSEMBLY (2) OUTLET. TIGHTEN THE FERRULE NUT PROVIDED WATERTIGHT.

- E- CONNECT 1/8" O.D. POLYETHYLENE AIR LINE (6) FROM PUSHBUTTON TO TIMER (7) ON VALVE (2). HAND TIGHTEN THE FERRULE NUTS PROVIDED.
- F- REMOVE TOP PLATE (8) FROM SHOWER HOUSING (9). MOUNT S-CLIPS (10) AND L-CLIPS (11) TO WALL WITH WALL ANCHORS (BY OTHERS). USE HOLES IN BOTTOM PLATE (12) AS TEMPLATE FOR LOCATING L-CLIPS.
- G- HANG SHOWER HOUSING (9) ONTO S-CLIPS (10) AND ATTACH THRU BOTTOM PLATE (12) TO L-CLIPS (11).
- I- REINSTALL TOP PLATE (8) TO SHOWER HOUSING (9).

**NOTE:** MAXIMUM RECOMMENDED WORKING WATER PRESSURE IS 100 PSI; 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  
P.O. BOX 3527 INDUSTRY, CA. 91744  
(626) 336-4561 FAX (626) 961-2200

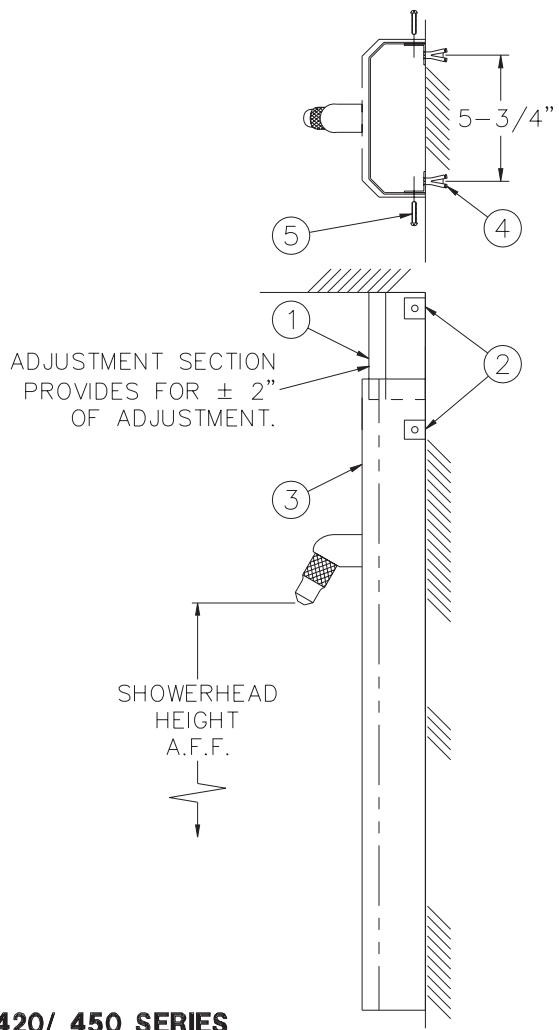
TITLE **APEX 2 OR 3 STATION WALL MOUNTED SHOWERS-INSTALLATION \* 466 & 476 SERIES**

MANUFACTURE DATE <b>DECEMBER 2000 TO PRESENT</b>	DATE ISSUED <b>11/30/00</b>	DRAWING NUMBER <b>9900-021-001</b>
	DATE REVISED <b>11/15/06</b>	



**IMPORTANT!**

WALL ANCHORS AND ANCHORING HARDWARE ARE BY OTHERS.



**420/ 450 SERIES**

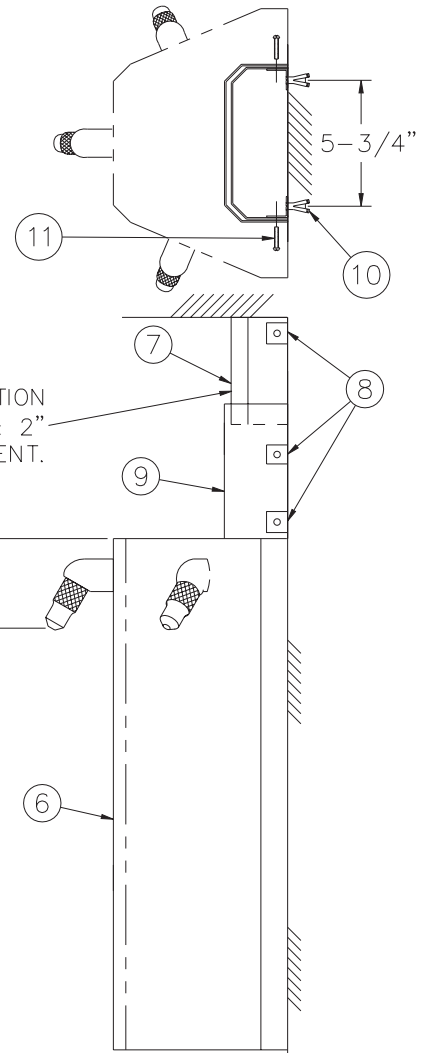
**INSTALLATION INSTRUCTIONS (420/450 SERIES)**

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.

SHOWERHEAD HEIGHT A.F.F.



**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.

4" REF

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