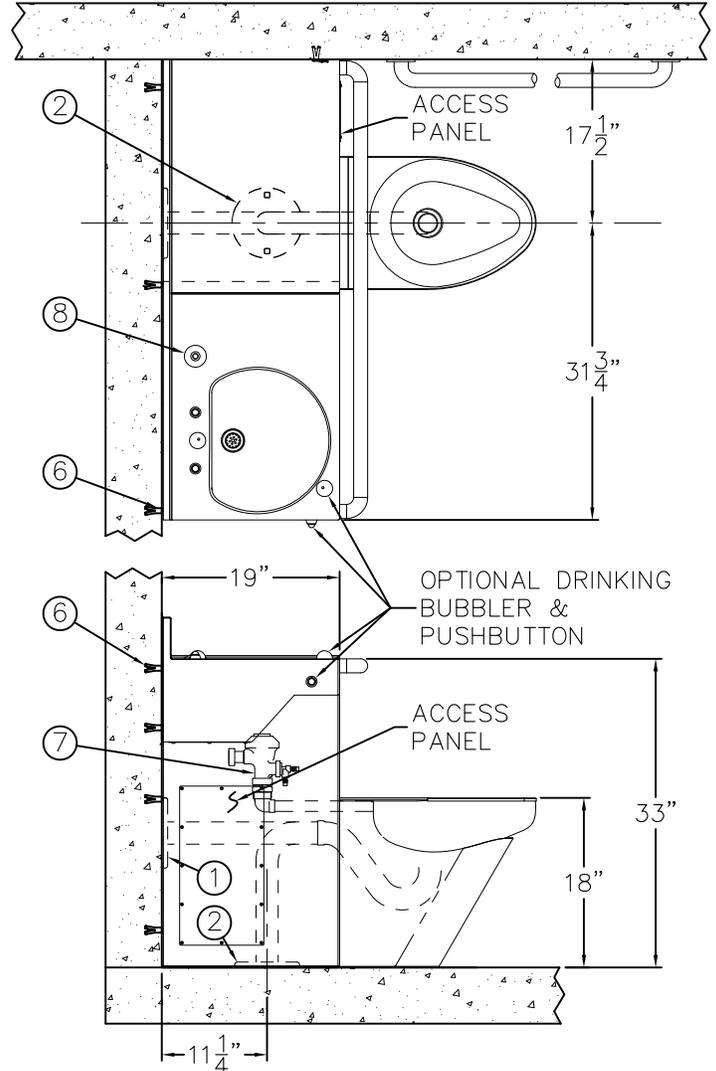
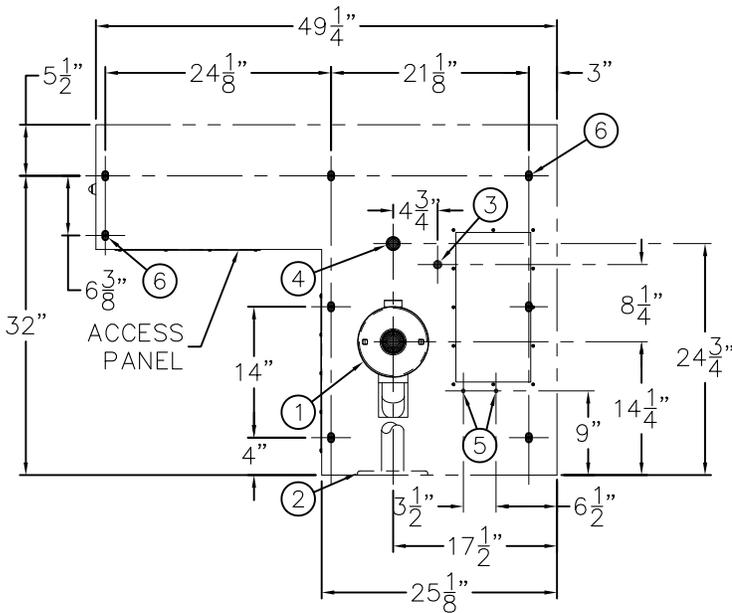




REFERENCE DRAWINGS	
ITEM	DRAWING
-04 AIR-CONTROL	9905-000-003
-03 AIR-CONTROL	9905-001-003
-SW WALL SLEEVE/-MT	9925-016-001

ROUGH-IN VIEW SHOWN FROM CELL SIDE.
-RO UNIT SHOWN, -LO UNIT OPPOSITE.



INSTALLATION INSTRUCTIONS:

A- ROUGH-IN FOR THE FOLLOWING CONNECTIONS:

- TOILET WASTE WALL OUTLET: 7-1/2" RECESSED GASKET FLANGE (1) STANDARD FOR WALL OUTLET.
- TOILET WASTE OUTLET -FLOOR: ø7-1/2" RECESSED GASKET FLANGE (2) WITH 5/16" TAPPINGS ON 6" CENTERS.
- FLUSH VALVE INLET: 1" NPTI (3).
- LAVY WASTE OUTLET: 1-1/2" OD PLAIN END (4). SUITABLE FOR COMPRESSION-SLIP JOINT TYPE.
- LAVY VALVE WALL SUPPLY CONNECTION: 1/2" NPS (5) FLEX HOSE CONNECTION.

B- LOCATE INSTALLER PROVIDED WALL ANCHORS FOR 5/8" DIA. x 1" LONG MOUNTING SLOTS (6) (8) PLACES. SECURE WITH INSTALLER PROVIDED FASTENERS. FOR UNITS WITH OPTIONAL -SW WALL SLEEVE: SECURE WITH 1/2"-13 UNC STUDS TO SLEEVE ANCHOR TAPPINGS.

C- INSTALL HYDRAULIC FLUSH VALVE (7) TO CLOSET FIXTURE AND PUSHBUTTON (8) (SHIPPED LOOSE) TO CABINET.

D- FLOOR WASTE OUTLET TYPE: BEFORE SECURING TO WALL, UNIT MUST BE PLACED ON WASTE CONNECTION (2).

E- LOCATE FIXTURE INTO PLACE & REMOVE ACCESS PANELS. SECURE FIXTURE WITH WALL ANCHORS, NUTS AND WASHERS. MAKE UP SUPPLY AND WASTE CONNECTIONS AS REQUIRED. SEE DETAIL A.

HYDRAULIC FLUSH VALVE NOTES:

1. DO NOT CUT LENGTH OF TUBING PROVIDED.
2. DO NOT TAPE OR FIX TUBING IN A STATIONARY POSITION.

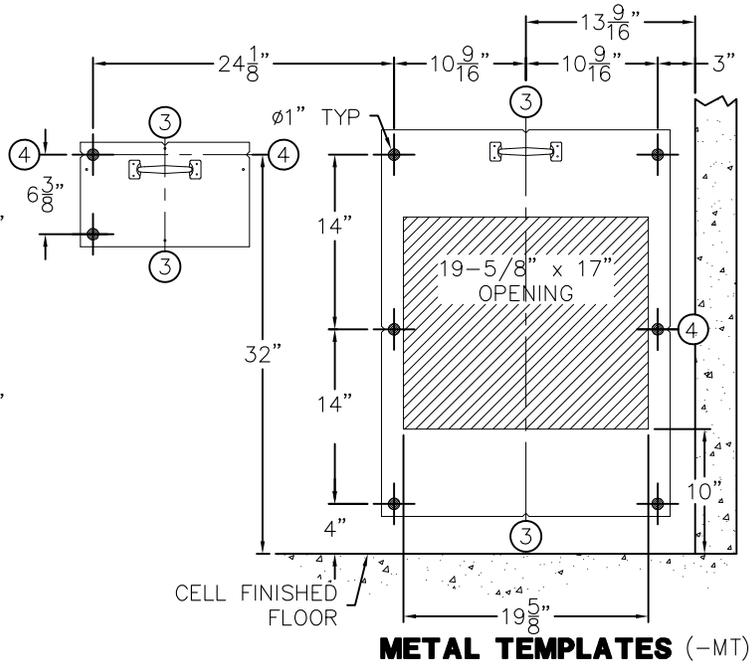
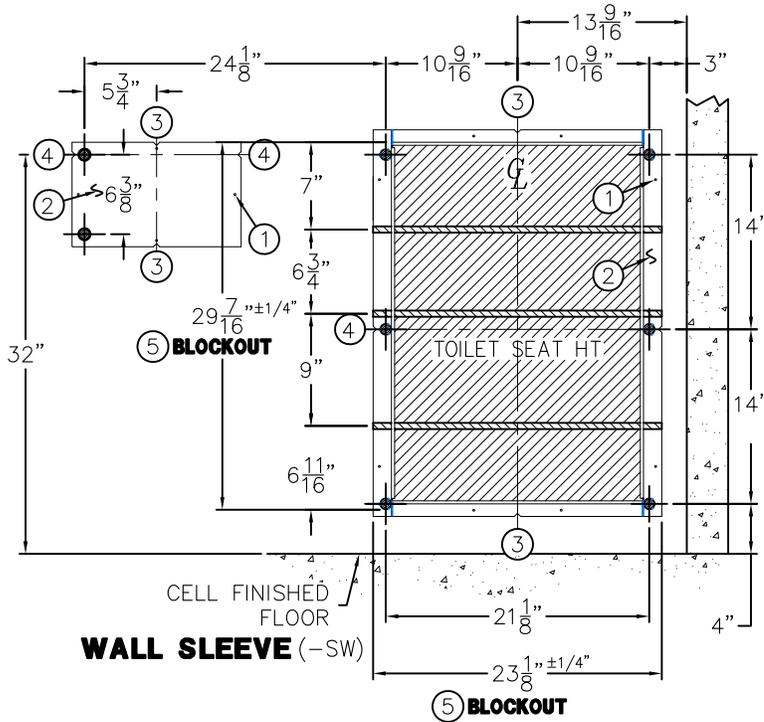


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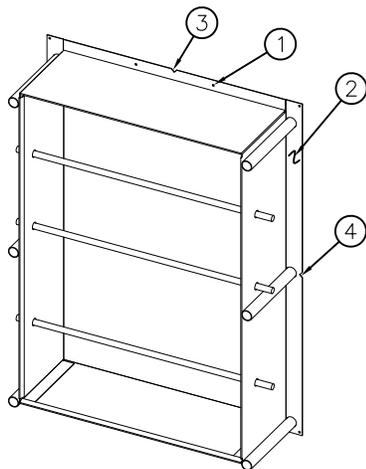
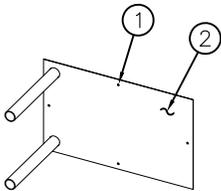
TITLE FRONT ACCESS LAV-TOILET COMBY ANCHORING *LR1449FA-LO/RO		
MANUFACTURE DATE APRIL 2017 TO PRESENT	DATE ISSUED 04/25/17	DRAWING NUMBER 9925-018-001
	DATE REVISED 11/29/21	



VIEW FROM CELL SIDE
 -RO RIGHT OFFSET FIXTURE ROUGH-IN'S SHOWN;
 -LO LEFT OFFSET FIXTURE OPPOSITE



 SHADED AREAS ARE REQUIRED WALL OPENINGS



WALL SLEEVE

SLEEVES ARE INSTALLED IN FORMS (USING NAIL HOLES (1) PROVIDED) OR GROUTED INTO BLOCK WALLS, BECOMING A PERMANENT PART OF WALL.

- A. INSTALL SLEEVE WITH FLANGE (2) ON CHASE SIDE OF WALL.
- B. LOCATE TOP AND BOTTOM NOTCHES AT VERTICAL CENTERLINE (3) OF PLUMBING FIXTURE OR CENTERLINE OF SLEEVE PLATE.
- C. LOCATE SIDE HORIZONTAL NOTCHES (4) AT DIMENSIONS SHOWN, MEASURED FROM THE FINISHED FLOOR ON CELL (FIXTURE) SIDE .

NOTES:

- 1. FOR POURED WALL CONSTRUCTION, TEMPORARY BRACING SHOULD BE INSTALLED WITHIN SLEEVE OPENING TO PREVENT DEFORMATION TO SLEEVE WHICH MAY OCCUR DURING POUR. DO NOT POUR CONCRETE DIRECTLY ON TOP OF WALL SLEEVE.
- 2. WHEN SLEEVES ARE NOT AVAILABLE BLOCKOUT FOR SLEEVE OPENING IN WALL PER DIMENSIONS SHOWN (5).

METAL TEMPLATES (-MT)

TEMPLATES ARE USED TO LAYOUT REQUIRED WALL OPENINGS FOR SUBSEQUENT FLAME CUTTING OR CORE DRILLING.

- A. STRIKE A HORIZONTAL CHALKLINES (4) ON THE WALL AT DIMENSIONS SHOWN, MEASURED FROM THE FINISHED FLOOR ON CELL (FIXTURE) SIDE. THIS WILL LOCATE CENTERLINE FOR HORIZONTAL NOTCHES ON TEMPLATES.
- B. STRIKE A VERTICAL CHALKLINE (3) ON THE WALL TO INDICATE CENTERLINE OF FIXTURE. THIS WILL LOCATE CENTERLINE FOR VERTICAL NOTCHES ON TEMPLATE.
- C. PLACE TEMPLATE AGAINST WALL. LOCATE NOTCHES ALONG CHALKLINES. MARK WALL FOR REQUIRED OPENING.

 **ACORN ENGINEERING COMPANY**
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TITLE **(-SW) WALL SLEEVE & (-MT) METAL TEMPLATE- CAT. #1449FA\LR1449FA**

MANUFACTURE DATE

**APRIL 2015
 TO PRESENT**

DATE ISSUED

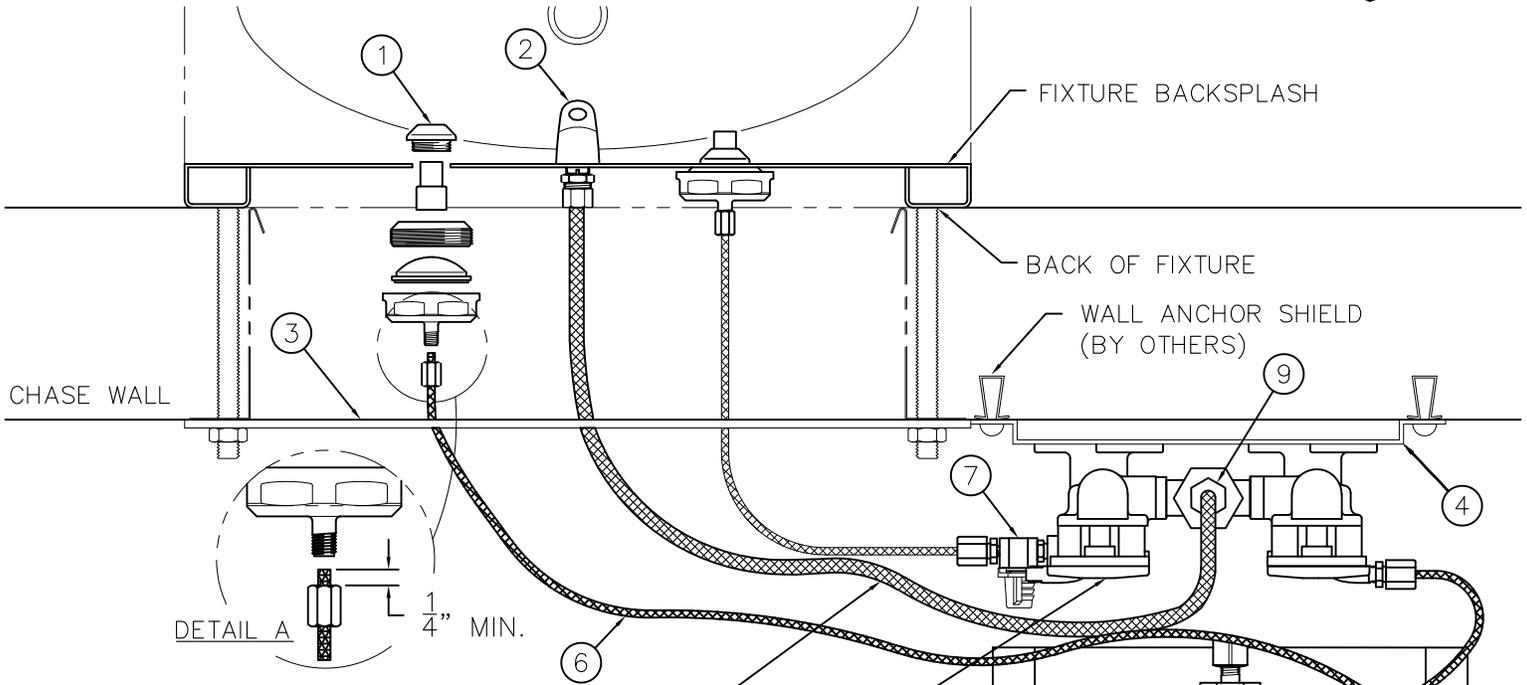
04/16/15

DATE REVISED

04/25/17 A

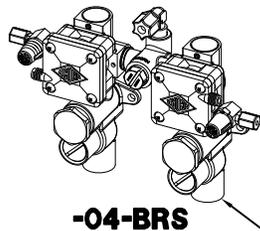
DRAWING NUMBER

9925-016-001

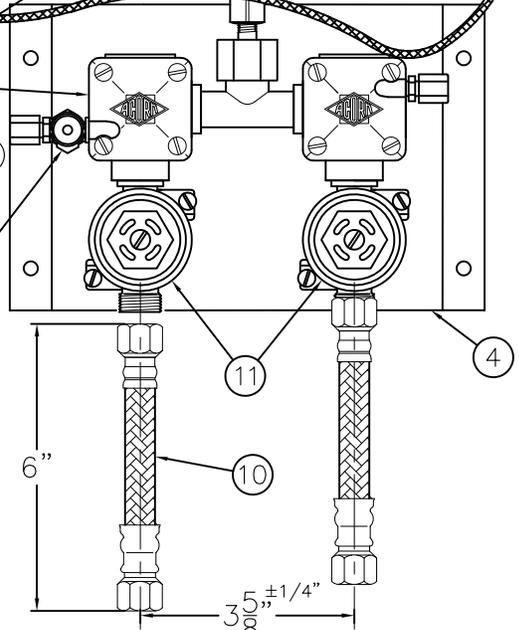


REFERENCE DRAWINGS	
ASSEMBLIES	NUMBER
VALVE BODY	9955-005-003
CHECKSTOP	9956-040-003
FIXTURE TRIM	9957-050-001
-PBH/BPH TRIM	9957-060-001
AIR-CONTROL SERVOMOTORS	
METERING	9955-000-003
NON-METERING	9955-001-003

NOTE: THIS VALVE SHOWN w/ (-MH) METERING, HOT SIDE ONLY



-04-BRS



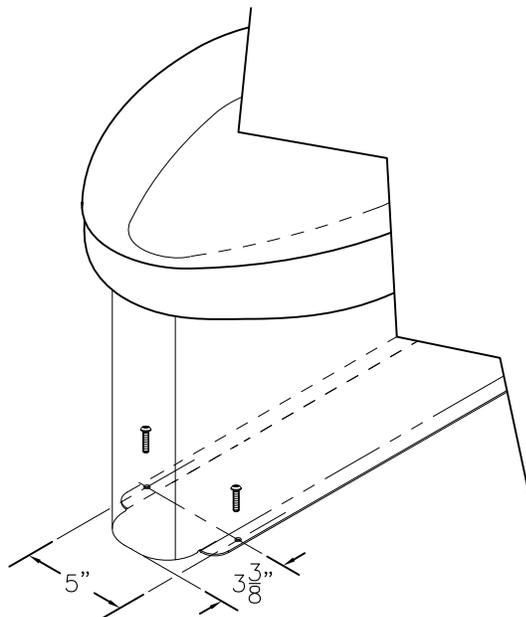
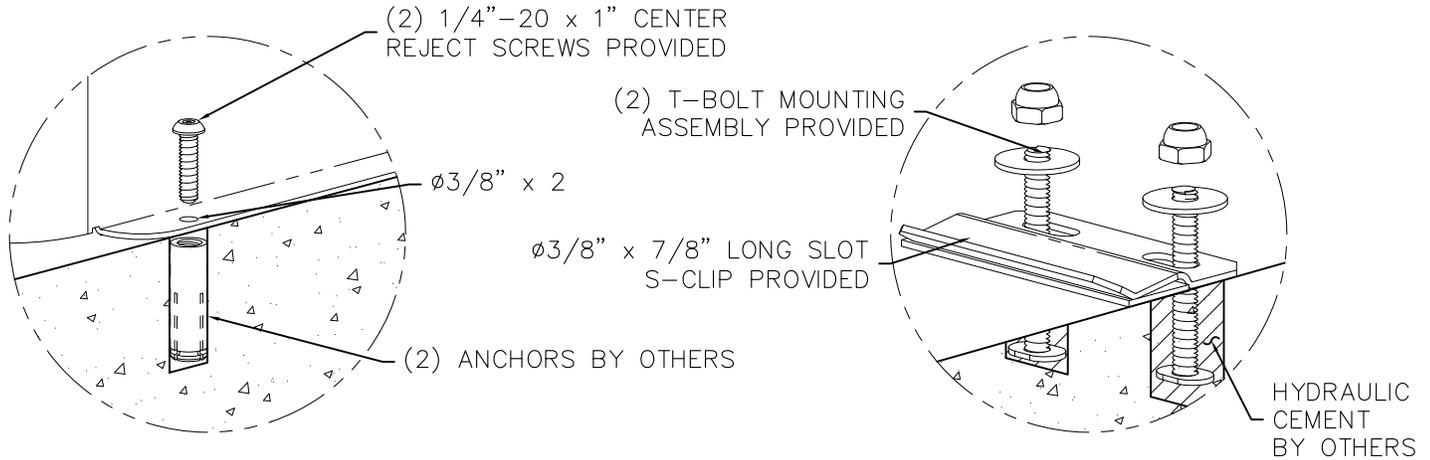
NOTE: MAXIMUM RECOMMENDED WORKING WATER PRESSURE IS 100 PSI; TEMPERATURE IS 130° F; OUTLET TEMPERATURE IS RECOMMENDED AT A MAXIMUM OF 105° F.
 WARNING: PRIOR TO MAKING INSTALLATION, SUPPLY LINES MUST BE FLUSHED OF ALL FOREIGN MATERIAL SUCH AS PIPE DOPE, CHIPS, SOLDER, ETC. VALVE MUST BE DRAINED PRIOR TO BEING SUBJECTED TO FREEZING TEMPERATURES. MAXIMUM RECOMMENDED OUTLET WATER TEMPERATURE IS 105° F.

INSTALLATION INSTRUCTIONS:

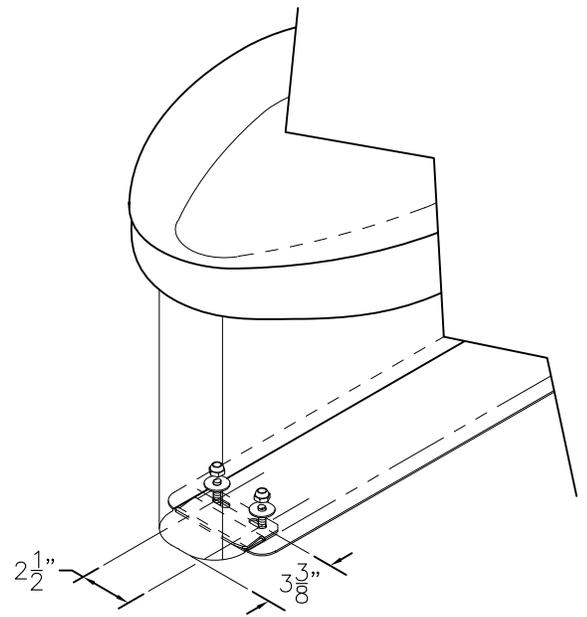
- A- PRIOR TO INSTALLATION OF THE FIXTURE, MOUNT PUSHBUTTONS ① AND BUBBLER ② TO THE BACKSPLASH.
- B- INSTALL THE PLUMBING FIXTURE TO THE WALL INCLUDING UPPER SUPPORT PLATE ③.
- C- MOUNT THE AIR-CONTROL VALVE ASSEMBLY ④. LOCATE AS REQUIRED. MAXIMUM ALLOWABLE DISTANCE BETWEEN PUSHBUTTON ① AND AIR-CONTROL SERVOMOTOR ⑤ IS 10 FEET. WALL ANCHORING HARDWARE ARE BY OTHERS.
- D- CONNECT 1/8" O.D. POLYETHYLENE AIR LINES ⑥ TO PUSHBUTTONS ① AND SERVOMOTOR ⑤. HAND TIGHTEN USING FERRULE NUTS PROVIDED. SEE DETAIL A. NOTE: WHEN METERING VALVES ARE SPECIFIED, AIR LINES CONNECT DIRECTLY TO VALVE TIMER ⑦.
- E- CONNECT 1/4" O.D. POLYETHYLENE WATER LINE ⑧ TO BUBBLER ② AND COMPRESSION NUT ⑨. HAND TIGHTEN USING FERRULE NUTS PROVIDED.

- F- AFTER THOROUGHLY FLUSHING THE SUPPLY LINES, MAKE-UP 1/2" NPS FEMALE SUPPLY CONNECTIONS. NOTE: SUPPLY INLET CONNECTION WILL ACCOMODATE 1/2" NPT MALE ADAPTER. THREAD FLEX CONNECTOR HOSE ⑩ TO CHECKSTOPS ⑪ AND TO SUPPLY STUB OUTS. FOR OPTIONAL -04-BRS BRASS BODY VALVE, MAKE UP CONNECTION TO CHECK STOPS ⑫.
- G- SEE APPROPRIATE SERVOMOTOR REFERENCE DRAWING FOR DETAILS AND TIMING INSRUCTIONS.

ACORN ENGINEERING COMPANY P.O. BOX 3527 Industry, CA 91744 15125 Proctor Ave Industry, CA 91746 (626) 336-4561 FAX (626) 961-2200	TITLE (04-SERIES) HOT & COLD AIR-CONTROL VALVE ASSEMBLY - NEW STYLE		
	MANUFACTURE DATE SEPT 1995 TO PRESENT	DATE ISSUED 11/1/95	DRAWING NUMBER 9905-000-003
		DATE REVISED 11/18/13 F	



FLANGE MOUNTING



S-CLIP MOUNTING

-SS-SPS SUICIDE RESISTANT SKIRT OPTION IS PROVIDED WITH ADDITIONAL MOUNTING POINTS NOT NORMALLY PROVIDED WITH OUR STANDARD FIXTURES AND COME IN TWO STYLES AS INDICATED BELOW.

FIXTURES w/ FLANGE MOUNTING:

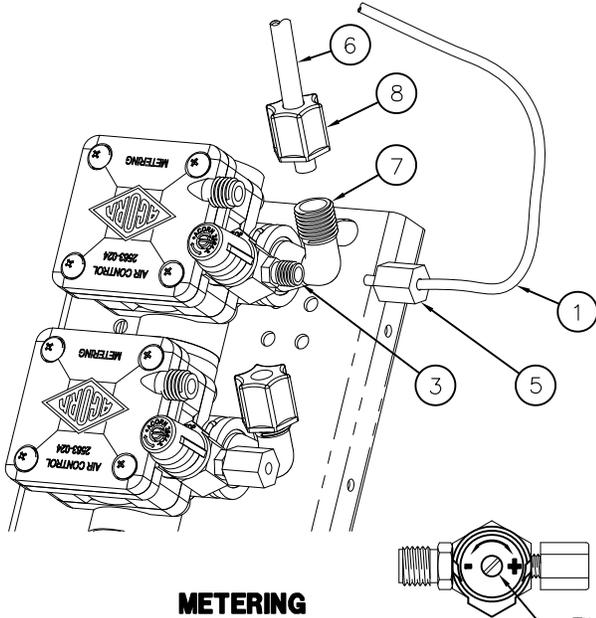
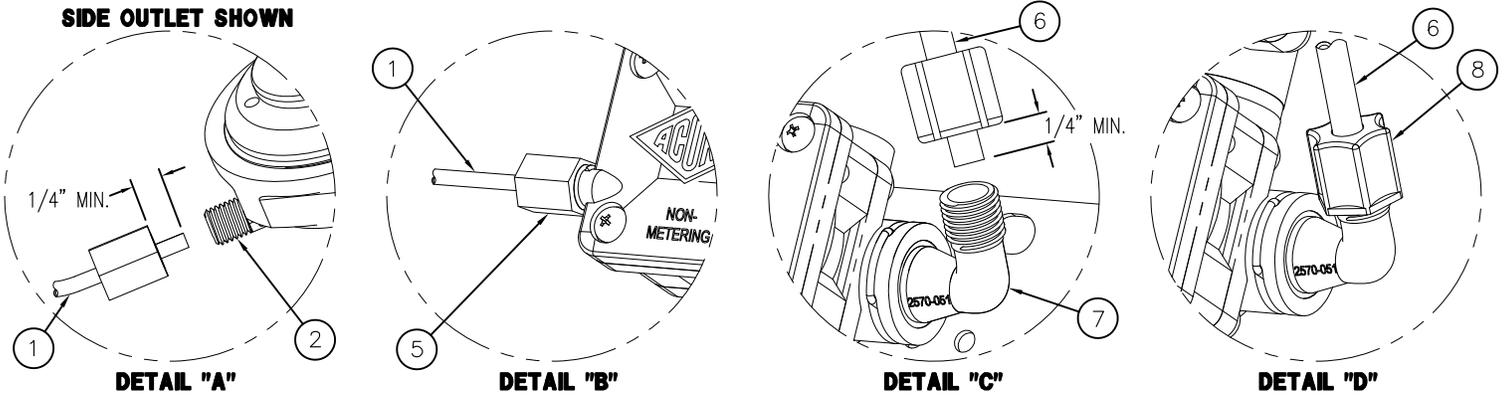
- A-AFTER ROUGHING IN AS REQUIRED, PLACE FIXTURE IN POSITION AND USE AS TEMPLATE TO LOCATE AND MARK FLANGE POINTS ON FLOOR.
- B-REMOVE FIXTURE AND INSTALL FLOOR ANCHORS BY OTHERS FOR 3/8" DIAMETER FLANGE PUNCHING.
- C-ALIGN WALL AND FLOOR ANCHORING POINTS AND COMPLETE FIXTURE INSTALLATION AS INDICATED BY THE FIXTURE INSTALLATION SHEET PROVIDED.

FIXTURES w/ S-CLIP:

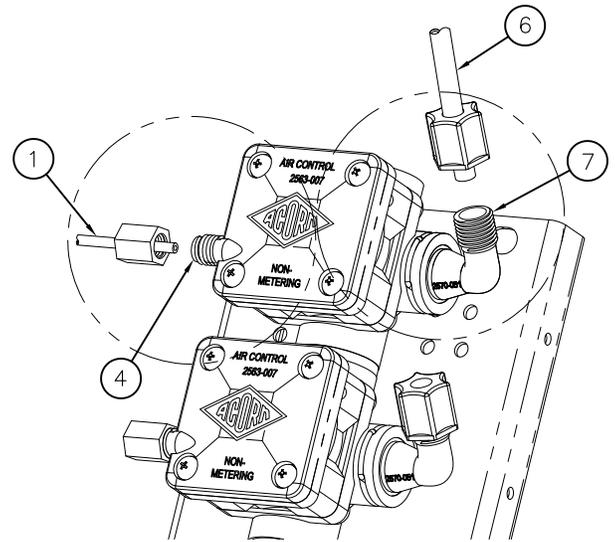
- A-AFTER ROUGHING IN AS REQUIRED, PLACE FIXTURE IN POSITION AND USE AS A TEMPLATE TO LOCATE AND MARK S-CLIP MOUNTING LOCATION ON FLOOR AS INDICATED.
- B-REMOVE FIXTURE, INSTALL T-BOLTS FOR S-CLIP 3/8" x 7/8" LONG MOUNTING SLOTS AND SECURE WITH HYDRAULIC CEMENT (BY OTHERS)
- C-INSTALL S-CLIP
- D-PLACE FIXTURE ON FLOOR POSITIONING THE "NOSE" OF THE SKIRT SEVERAL INCHES IN FRONT OF S-CLIP MOUNTING LOCATION, SLIDE FIXTURE INTO PLACE ENGAGING THE S-CLIP AND ALIGNING WALL MOUNTING LOCATIONS. COMPLETE FIXTURE INSTALLATION AS INDICATED BY THE FIXTURE INSTALLATION SHEET PROVIDED.

<p>ACORN ENGINEERING COMPANY P.O. BOX 3527 Industry, CA 91744 15125 Proctor Ave Industry, CA 91746 (626) 336-4561 FAX (626) 961-2200</p>	<p>TITLE -SPS MOUNTING DETAIL</p>		
	<p>MANUFACTURE DATE</p> <p>AUGUST 2012</p> <p>TO PRESENT</p>	<p>DATE ISSUED</p> <p>08/15/12</p>	<p>DRAWING NUMBER</p> <p>9925-007-001</p>
		<p>DATE REVISED</p> <p>11/05/13 A</p>	

SIDE OUTLET SHOWN



METERING



**NON-METERING
DIRECT ACTING**

LAVATORY VALVES ARE FACTORY PRESET WITH A 5-20 SECOND RUN TIME. THIS WILL PROVIDE LESS THAN 1/4 GALLON (1 LITER) PER CYCLE. IF IT IS NOTED THAT VALVES ARE RUNNING LONGER THAN THIS MAXIMUM RECOMMENDED CYCLE TIME PLEASE FOLLOW THESE INSTRUCTIONS TO CORRECT THE CYCLE TIME. WHEN SET, FAUCET SHOULD NOT PRODUCE MORE THAN 1/4 GALLON (1 LITER) PER CYCLE.

TIMING IS ADJUSTABLE FROM 5 TO 60 SECONDS AND IS ACCOMPLISHED BY ROTATING TIMING SCREW. TURNING THE SCREW CLOCKWISE INCREASES TIMING WHILE COUNTERCLOCKWISE DECREASES TIMING.

INSTALLATION INSTRUCTIONS:

- A- MOUNT FIXTURE IN ACCORDANCE TO MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- B- ASSEMBLE SPOUTS AND PUSHBUTTONS TO FIXTURE.
- C- CONNECT 1/8" O.D. POLYETHYLENE AIR LINE ① TO PUSHBUTTON ②, AND VALVE TIMER ASSEMBLY ③ SEE DETAIL "A". NOTE: FOR DIRECT ACTING: ASSEMBLE TO AIR PORT ④, SEE DETAIL "B". HAND TIGHTEN FERRULE NUT ⑤ PROVIDED.
- D- CONNECT 1/4" O.D. POLYETHYLENE WATER LINES ⑥ TO VALVE ASSEMBLY ELBOW ⑦ SEE DETAILS "C", AND "D". HAND TIGHTEN FERRULE NUT ⑧ PROVIDED.
- E- AFTER THOROUGHLY FLUSHING SUPPLY LINES MAKE UP CONNECTIONS TO VALVE ASSEMBLY INLET(S) 1/2" NPT OR 1/2" NPS FLEX HOSE AS REQUIRED.

REFERENCE DRAWINGS	
ASSEMBLIES	DRAWING
VALVE BODY	9955-006-003
CHECKSTOP	9956-040-003
FIXTURE TRIM	9957-051-001
FIXTURE TRIM -DMS	9957-055-001
AIR-CONTROL SERVOMOTORS	
METERING	9955-000-003
NON-METERING	9955-001-003

NOTE:
 1) ALL TUBING SHOULD BE CUT SQUARE AND BE FREE OF BURRS OR DEFORMITIES TO ENSURE A WATER TIGHT CONNECTION.
 2) EXTEND TUBING AT LEAST 1/4" BEYOND FERRULE NUT BEFORE INSERTING TUBING INTO CONNECTION OPENING BEFORE TIGHTENING.
 3) TUBING SHOULD BE FREE OF KINKS FOR PROPER OPERATION
 4) 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. MAXIMUM RECOMMENDED OUTLET WATER TEMPERATURE IS 105° F.

<p>MORRIS GROUP INTL P.O. BOX 3527 Industry, CA 91744 MORRIS GROUP 15125 Proctor Ave Industry, CA 91746 INTERNATIONAL (626) 336-4561 FAX (626) 961-2200</p>	<p>TITLE HAND OPERATED, LAVATORY AIR-CONTROL VALVE CONNECTIONS</p>		
	<p>MANUFACTURE DATE</p> <p>JANUARY 1999 TO PRESENT</p>	<p>DATE ISSUED</p> <p>04/22/10</p>	<p>DRAWING NUMBER</p> <p>9905-006-001</p>
		<p>DATE REVISED</p> <p>11/18/15</p>	