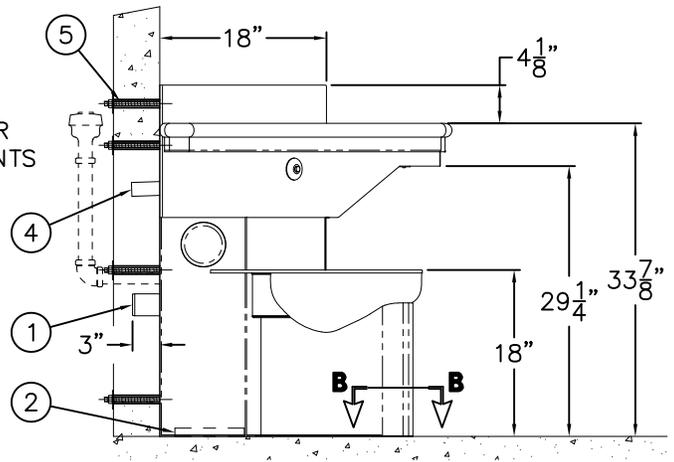
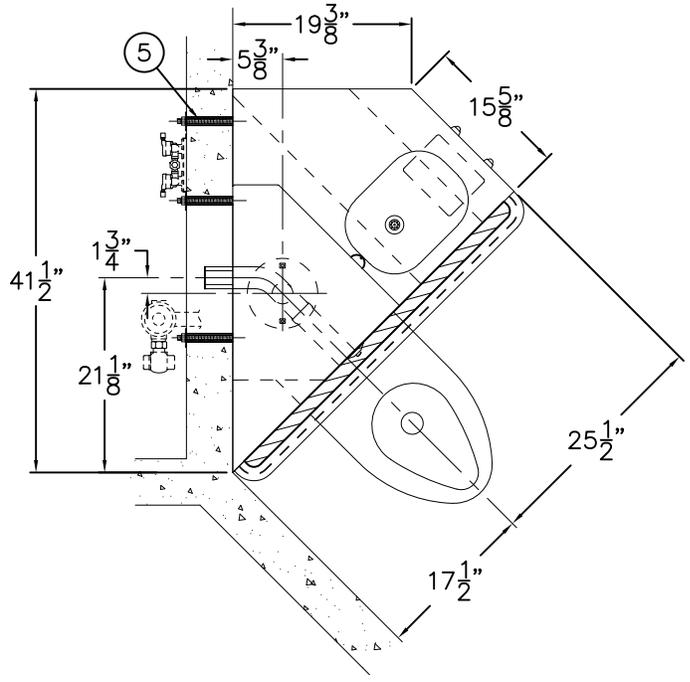
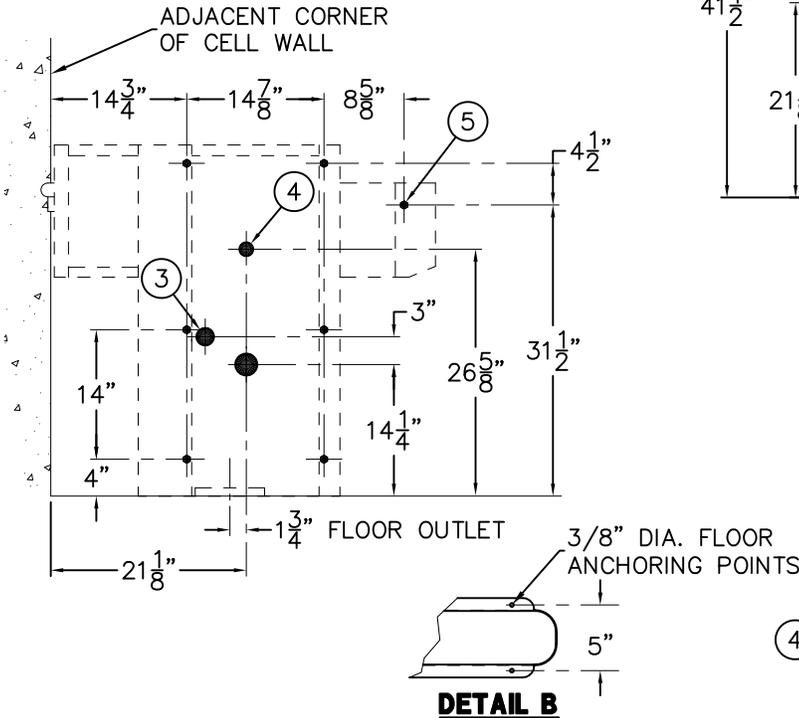




| REFERENCE DRAWINGS        |              |
|---------------------------|--------------|
| ITEM                      | INSTALLATION |
| WALL SLEEVE               | 9925-259-001 |
| AIR CONTROL (HOT & COLD)  | 9905-000-003 |
| AIR CONTROL (SINGLE TEMP) | 9905-001-003 |

**ROUGH-IN VIEW SHOWN FROM FIXTURE/CELL SIDE**

-AL ANGLED LEFT ROUGH-INS SHOWN  
-AR ANGLED RIGHT MODEL OPPOSITE



**IMPORTANT:** SOME OPTIONS MAY SLIGHTLY ALTER INSTALLATION PROCEDURES. READ ALL SUPPLEMENTAL DRAWINGS BEFORE INSTALLATION OF FIXTURE. ALL FASTENERS, PLATES, AND NUTS ARE ESSENTIAL IN PROPERLY ANCHORING THE FIXTURE. ACORN CANNOT ASSUME ANY RESPONSIBILITY FOR UNITS IMPROPERLY INSTALLED.

- A- ROUGH-IN PLUMBING FOR THE FOLLOWING CONNECTIONS:
  - TOILET WALL WASTE OUTLET: 2-3/8" O.D. PLAIN END ①. FOR SUFFIX OPTION (-WO3), 3" O.D. PLAIN END IS PROVIDED.
  - TOILET FLOOR WASTE CONNECTION: 7-1/2" DIA. RECESSED GASKET FLANGE WITH 5/16" TAPPINGS AT 6" O/C ②.
  - FLUSHING INLET CONNECTION: 1-1/2" NPT FEMALE ③.
  - LAVY WASTE CONNECTION: 1-1/2" O.D. PLAIN END ④.
  - SEE INDIVIDUAL VALVE SHEET FOR LAVY VALVE ROUGH-IN.
- B- INSTALL HYDRAULIC FLUSH VALVE AND PUSHBUTTON (SHIPPED LOOSE) TO CABINET.
- C- BEFORE FASTENING FIXTURE TO WALL, FLOOR OUTLET TYPE FIXTURE MUST BE SET IN PLACE ON WASTE CONNECTION.

- D- SCREW IN 1/2"-13 UNC STUDS ⑤ INTO BACK OF FIXTURE. STUDS MUST HAVE MINIMUM 1/2" ENGAGEMENT. THREAD IN FLUSH VALVE SUPPLY NIPPLE (1" NPT) ③. MAKE UP LAVY WASTE CONNECTION, 1-1/2" O.D. PLAIN END (SUITABLE FOR COMPRESSION CONNECTION).
  - E- LOCATE FIXTURE INTO PLACE, SLIDING STUDS AND PIPES THROUGH WALL OPENINGS.
  - F- SECURE FIXTURE TO WALL USING WASHERS AND/OR PLATES AND NUTS. TORQUE (6) NUTS TO 60 FT-LBS.
1. DO NOT CUT LENGTH OF TUBING PROVIDED.
  2. DO NOT TAPE OR FIX TUBING IN A STATIONARY POSITION.

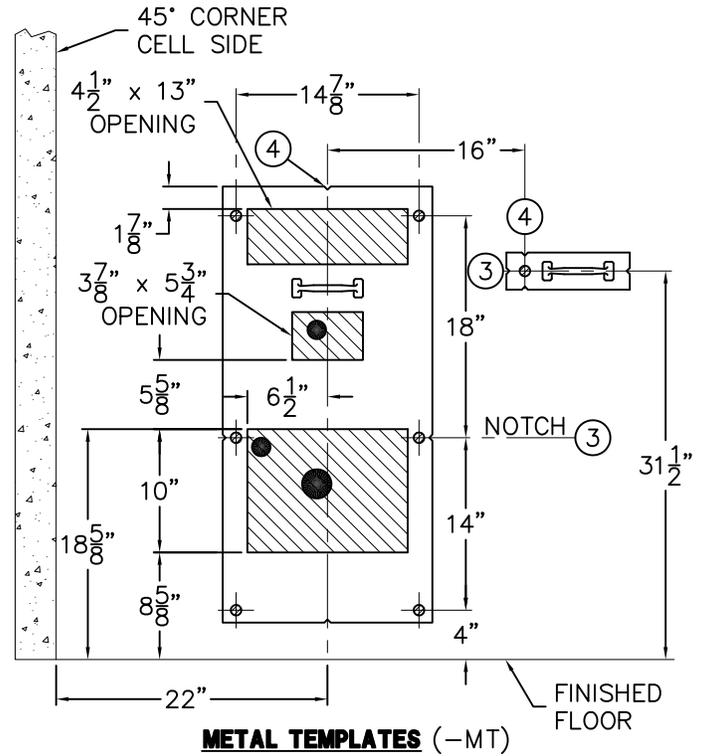
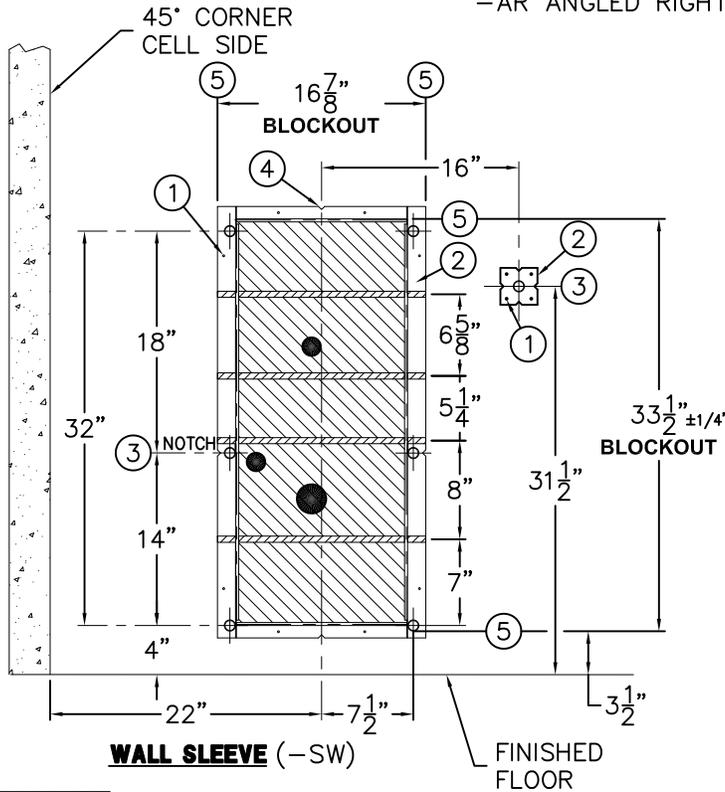
**NOTE: REFER TO A.D.A. ACCESSIBILITY GUIDELINES FOR COMPLETE INSTALLATION REQUIREMENTS.**

|                                                                                                                                            |                                                                     |                                |                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------|---------------------------------------|
| ACORN ENGINEERING COMPANY<br>P.O. BOX 3527 Industry, CA 91744<br>15125 Proctor Ave Industry, CA 91746<br>(626) 336-4561 FAX (626) 961-2200 | TITLE <b>ADA COMPLIANT LAV-TOILET COMBY ANCHORING INST ~ LR1432</b> |                                |                                       |
|                                                                                                                                            | MANUFACTURE DATE<br><b>SEPTEMBER 2022</b><br><b>TO PRESENT</b>      | DATE ISSUED<br><b>09/21/22</b> | DRAWING NUMBER<br><b>9925-019-001</b> |
|                                                                                                                                            | DATE REVISED<br><b>02/08/24 B</b>                                   |                                |                                       |



**VIEW FROM FIXTURE / CELL SIDE**

-AL ANGLED LEFT MODEL ROUGH-IN'S SHOWN  
-AR ANGLED RIGHT IS OPPOSITE



SHADED AREAS ARE REQUIRED WALL OPENINGS

**-SW WALL SLEEVE**

**WALL SLEEVE (-SW)**

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

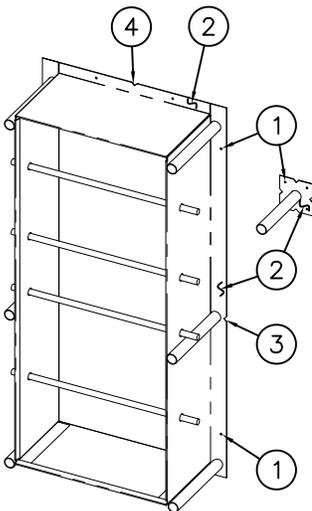
NOTE: FOR POURED WALL CONSTRUCTION, TEMPORARY BRACING SHOULD BE INSTALLED WITHIN OPENING TO PREVENT DEFORMATION TO SLEEVE WHICH MAY OCCUR DURING POUR. DO NOT POUR CONCRETE DIRECTLY ON TOP OF WALL SLEEVE.

- A- INSTALL SLEEVE WITH FLANGE (2) ON CHASE SIDE OF WALL.
- B- SIDE NOTCHES (3) INDICATE INTEGRAL TOILET SEAT HEIGHT LOCATED 18" ABOVE FINISHED FLOOR ON CELL SIDE.
- C- VERTICAL OR TOP AND BOTTOM NOTCHES (4) INDICATE CENTERLINE OF SLEEVE.
- D- USE BLOCKOUT DIMENSIONS (5) SHOWN WHEN SLEEVES ARE NOT AVAILABLE.

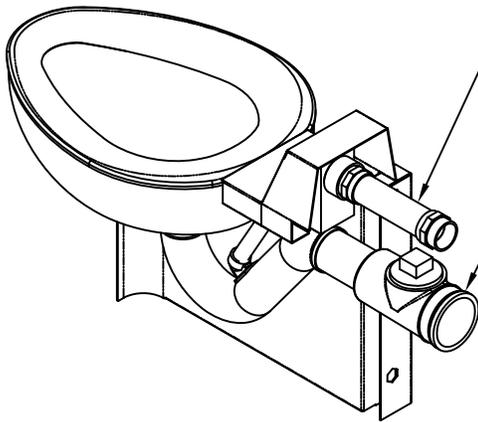
**-MT METAL TEMPLATES**

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

- A- MEASURE FROM THE FINISHED FLOOR ON CELL SIDE AND STRIKE A HORIZONTAL CHALK LINE ON THE WALL AT DIMENSIONS SHOWN FOR SIDE NOTCHES (3) INDICATING TOILET SEAT HEIGHT 18" ABOVE FINISHED FLOOR ON CELL SIDE.
- B- STRIKE A VERTICAL CHALK LINE AT DIMENSIONS SHOWN FOR VERTICAL OR TOP AND BOTTOM NOTCHES (4) INDICATING CENTERLINE OF SLEEVE.
- C- PLACE TEMPLATE AGAINST WALL ALIGNING VERTICAL AND HORIZONTAL NOTCHES AND MARK REQUIRED WALL OPENINGS.



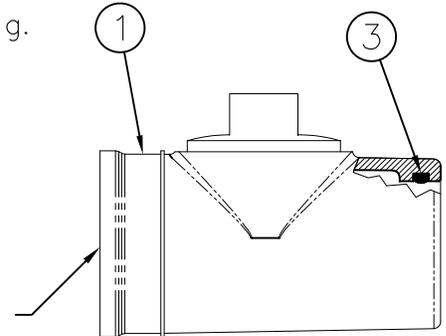
|                                                                                                                                                      |                                                                                    |                                           |                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------------------|
| <p>ACORN ENGINEERING COMPANY<br/>P.O. BOX 3527 Industry, CA 91744<br/>15125 Proctor Ave Industry, CA 91746<br/>(626) 336-4561 FAX (626) 961-2200</p> | <p>TITLE <b>(-SW) WALL SLEEVE &amp; (-MT) METAL TEMPLATE LR1432AL/AR COMBY</b></p> |                                           |                                               |
|                                                                                                                                                      | <p>MANUFACTURE DATE<br/><b>SEPTEMBER 2022</b><br/><b>TO PRESENT</b></p>            | <p>DATE ISSUED<br/><b>09/21/22</b></p>    | <p>DRAWING NUMBER<br/><b>9925-259-001</b></p> |
|                                                                                                                                                      |                                                                                    | <p>DATE REVISED<br/><b>02/08/24 B</b></p> |                                               |



Optional -FVT Flush Valve Thru Wall Connection. Shown For Reference.

Optional -CO1 Waste Fitting. Shown For Reference.

| <b>REFERENCE DRAWING</b>            |              |
|-------------------------------------|--------------|
| WASTE CONNECTION WITH CLEANOUT -CO1 | 9985-125-002 |

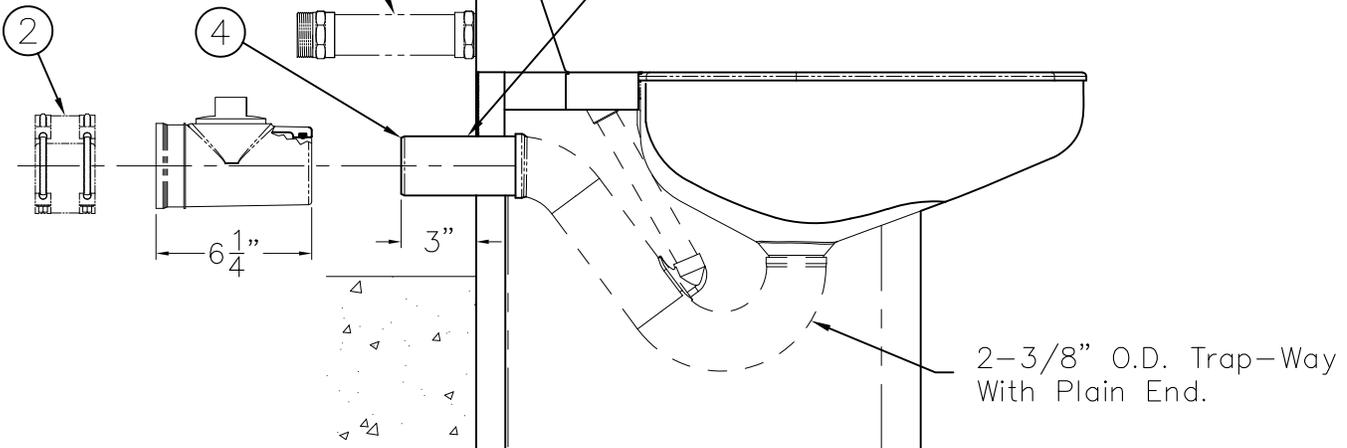


NOTE: Optional -CO1 Waste Fitting Available With 3" or 4" No-Hub

*Scaled: X 2*

Optional -FVT Flush Valve Thru Wall Connection Shown For Reference

Plain End Extends 3" Beyond Back Of Fixture. Optional Extended Waste Is Available -TWE



**MODEL #1685 SHOWN FOR REFERENCE**

**INSTALLATION INSTRUCTIONS**

A-INSERT O-RING ③ INTO GROOVE OF WASTE FITTING ①. LUBRICATE THE O-RING ③ WITH O-RING LUBRICANT.

B-INSTALL WASTE FITTING ① TO FIXTURE P-TRAP WASTE EXTENSION ④. ENGAGEMENT IS APPROXIMATELY 1-1/4". NOTE: TOILET WASTE

EXTENSION ④ IS 3" BEYOND BACK OF FIXTURE. LONGER WASTE EXTENSION IS AVAILABLE.

C-MAKE UP WASTE FITTING CONNECTION TO WASTE PIPING USING NO-HUB (BAND) CONNECTOR ② BY OTHERS.

**ACORN ENGINEERING COMPANY**  
P.O. BOX 3527 INDUSTRY, CA. 91744  
(626) 336-4561 FAX (626) 961-2200

TITLE **NO-HUB WASTE CONNECTION WITH CLEANOUT -CO1**

MANUFACTURE DATE

**JULY 1975**  
**PRESENT**

DATE ISSUED

**1/29/96**

DATE REVISED

**11/08/13 D**

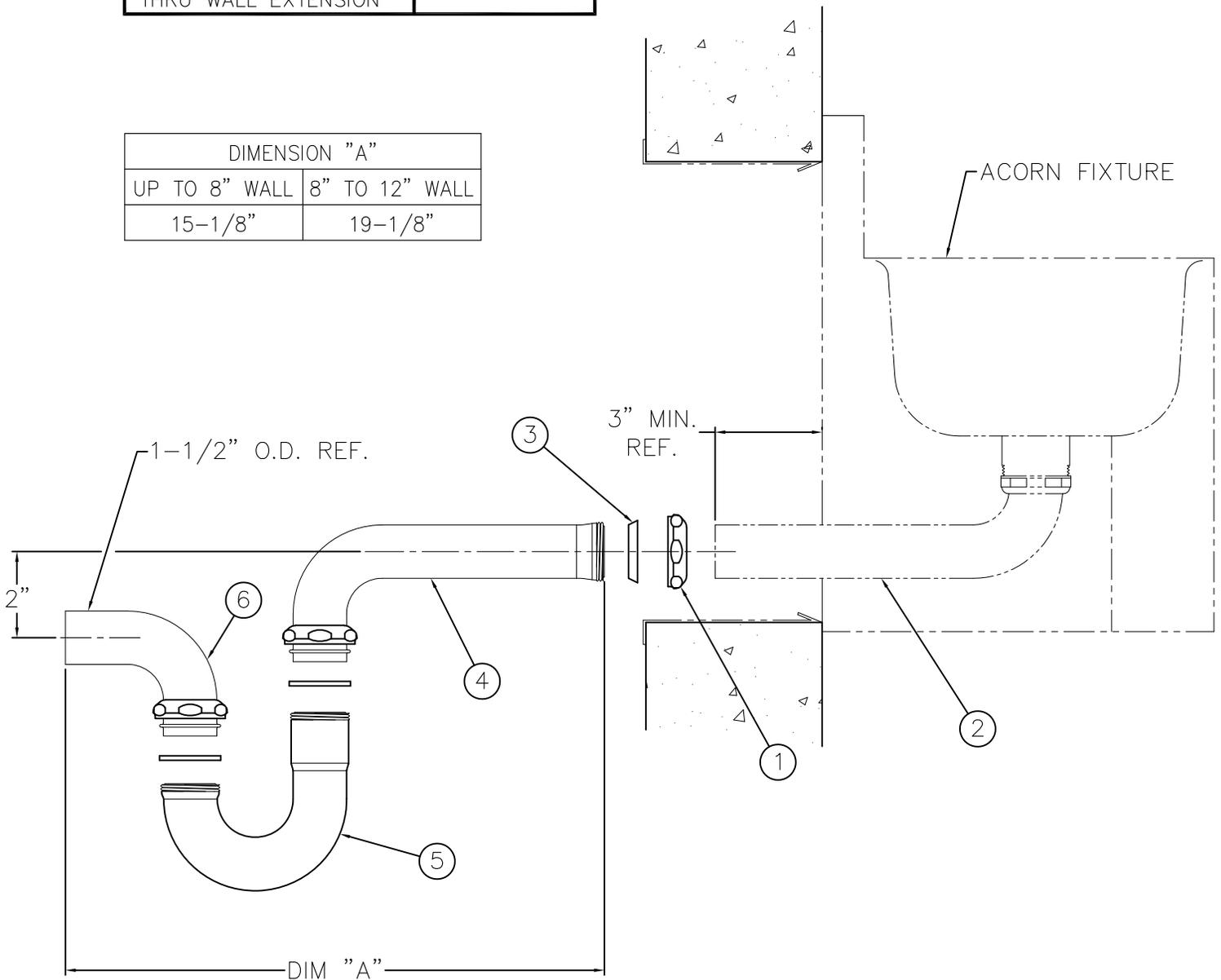
DRAWING NUMBER

**9925-054-001**



| REFERENCE DRAWINGS                  |              |
|-------------------------------------|--------------|
| ASSEMBLIES                          | NUMBER       |
| -LW1 LAVY WASTE THRU WALL EXTENSION | 9985-300-002 |

| DIMENSION "A" |                |
|---------------|----------------|
| UP TO 8" WALL | 8" TO 12" WALL |
| 15-1/8"       | 19-1/8"        |



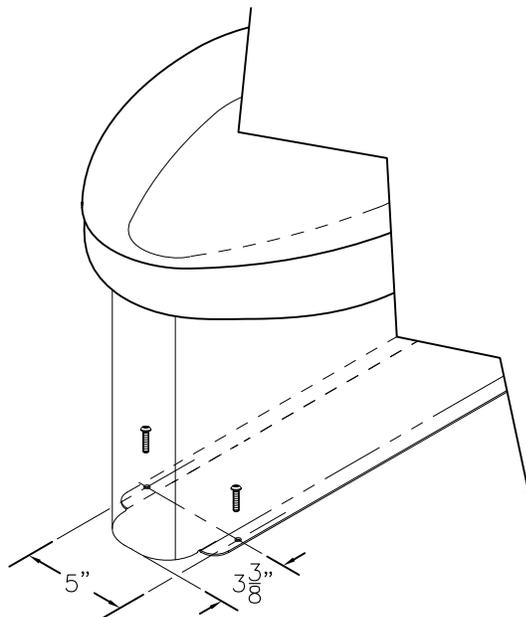
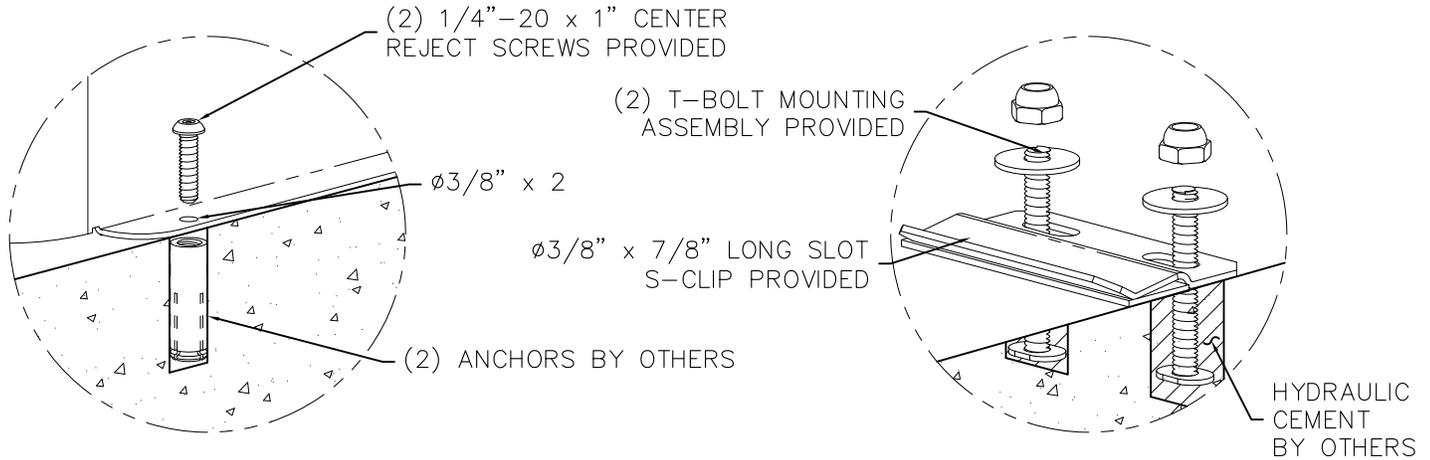
**INSTALLATION INSTRUCTIONS:**

A- AFTER INSTALLING ACORN UNIT ON FINISHED WALL, SLIP COMPRESSION NUT ① OVER 1-1/2" O.D. PLAIN END WASTE ②. USING COMPRESSION GASKET ③, AND NUT ① MAKE-UP COMPRESSION CONNECTION WITH SLIP JOINT ELBOW ④.

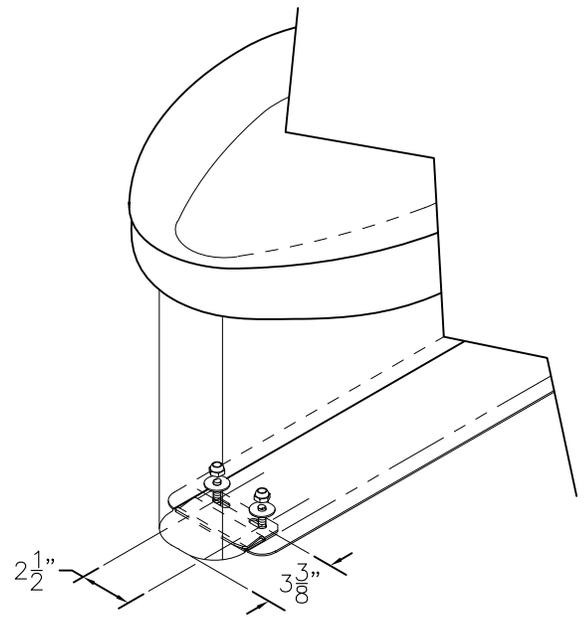
B- REMOVABLE TUBULAR P-TRAP ⑤ CONNECTS TO SLIP JOINT ELBOW ④ AND PLAIN END ELBOW ⑥ WITH COMPRESSION CONNECTIONS AS SHOWN.

NOTE: TUBULAR P-TRAP IS REMOVABLE IN ORDER TO ALLOW FOR WASTE CLEANOUT.

|                                                                                                                                                      |                                                                                                  |                                         |                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------------|
| <p>ACORN ENGINEERING COMPANY<br/>P.O. BOX 3527 Industry, CA 91744<br/>15125 Proctor Ave Industry, CA 91746<br/>(626) 336-4561 FAX (626) 961-2200</p> | <p>TITLE<br/><b>LAVATORY THRU-WALL WASTE CONNECTION w/ P-TRAP &amp; CLEANOUT CAT. # -LW1</b></p> |                                         |                                               |
|                                                                                                                                                      | <p>MANUFACTURE DATE<br/><b>APRIL 30, 1998</b><br/><b>TO PRESENT</b></p>                          | <p>DATE ISSUED<br/><b>3/19/98</b></p>   | <p>DRAWING NUMBER<br/><b>9925-065-002</b></p> |
|                                                                                                                                                      |                                                                                                  | <p>DATE REVISED<br/><b>04/26/23</b></p> |                                               |



**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.



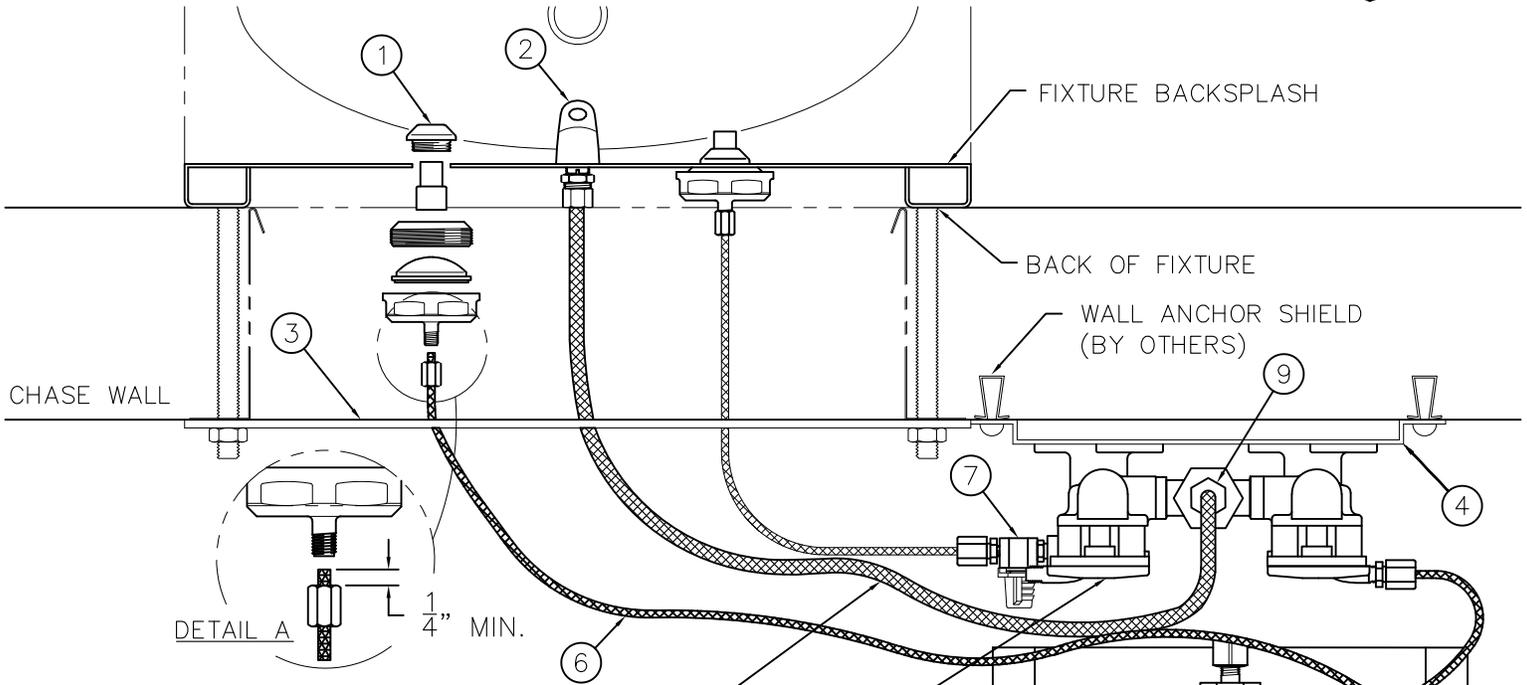
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P.O. BOX 3527 Industry, CA 91744  
15125 Proctor Ave Industry, CA 91746  
(626) 336-4561 FAX (626) 961-2200

TITLE **-SPS MOUNTING DETAIL**

MANUFACTURE DATE  
**AUGUST 2012**  
**TO PRESENT**

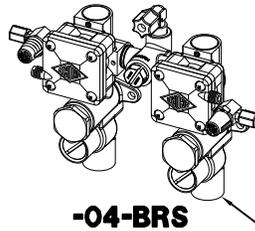
DATE ISSUED  
**08/15/12**  
DATE REVISED  
**11/05/13 A**

DRAWING NUMBER  
**9925-007-001**

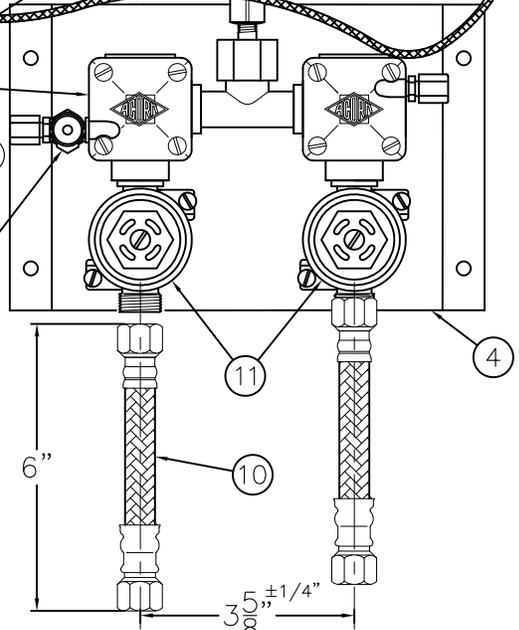


| REFERENCE DRAWINGS      |              |
|-------------------------|--------------|
| ASSEMBLIES              | NUMBER       |
| VALVE BODY              | 9955-005-003 |
| CHECKSTOP               | 9956-040-003 |
| FIXTURE TRIM            | 9957-050-001 |
| -PBH/BPH TRIM           | 9957-060-001 |
| 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.

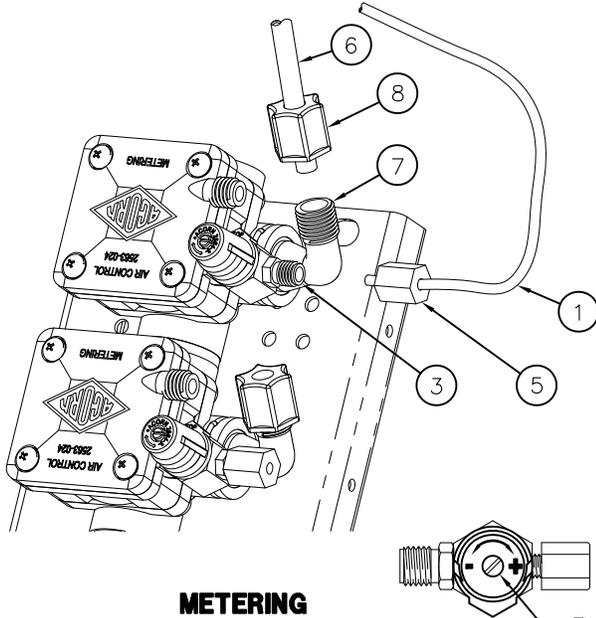
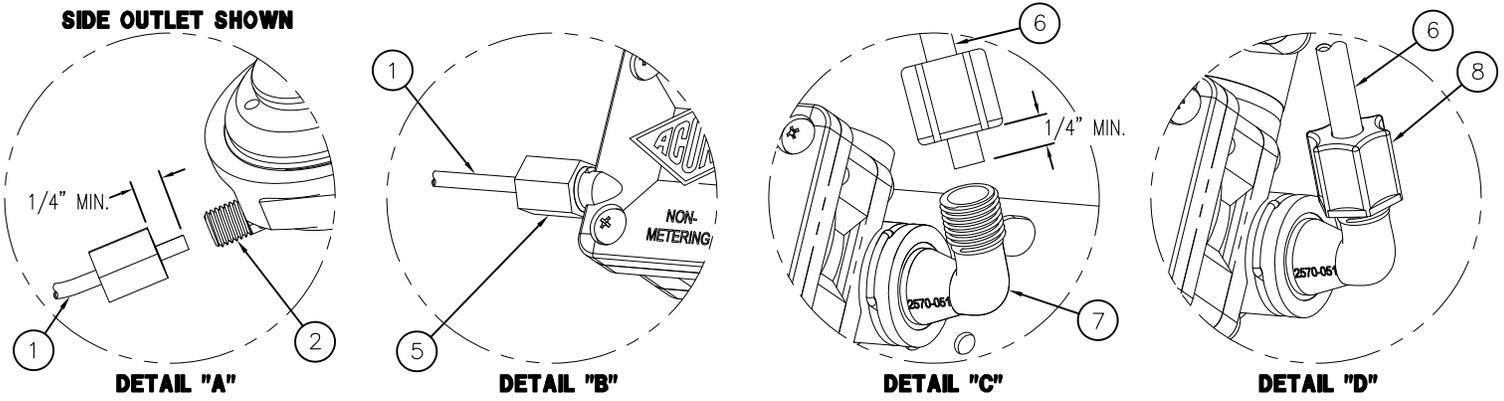


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 15125 Proctor Ave Industry, CA 91746  
 (626) 336-4561 FAX (626) 961-2200

TITLE **(04-SERIES) HOT & COLD AIR-CONTROL VALVE ASSEMBLY - NEW STYLE**

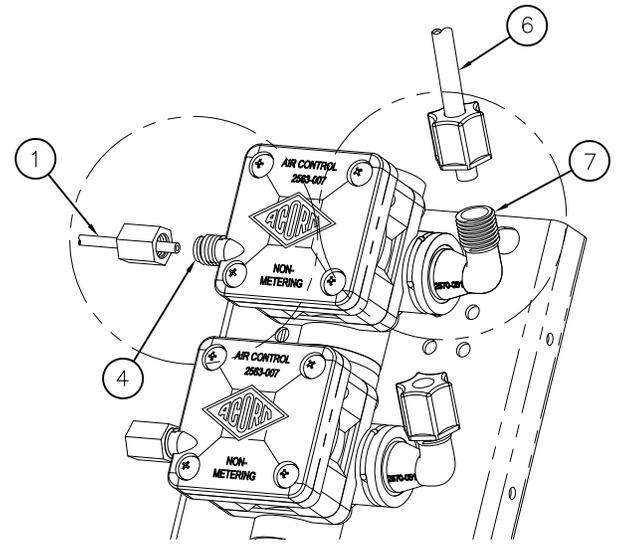
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|-------------------|-------------------|---------------------|
| MANUFACTURE DATE  | DATE ISSUED       | DRAWING NUMBER      |
| <b>SEPT 1995</b>  | <b>11/1/95</b>    | <b>9905-000-003</b> |
| <b>TO PRESENT</b> | DATE REVISED      |                     |
|                   | <b>11/18/13 F</b> |                     |

**SIDE OUTLET SHOWN**



**METERING**

TIMING SCREW



**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.