

	REFERENCE	DRAWINGS	
ASSEMBLIES	NUMBERS	ASSEMBLIES	NUMBERS
-RP PRIVACY PANEL	9900-351-002	SHOWER HEAD	9970-120-003
FLO-CLOZ	9975-000-001	NOZZLE	9970-101-004
S/T AIR-CONTROL	9955-000-003	FLEX SHOWER HEAD	9970-102-003
S/T TIME-TROL	9955-020-002	T/P VALVE	9975-005-002
T/P VALVE ADJUST	9900-007-001	DIVERTER	9975-080-002
T/P VALVES PRIOR	9975-006-001	HANDICAP SEAT	9900-350-001
TO JUNE 2014	9975-000-001		

## **INSTALLATION INSTRUCTIONS:**

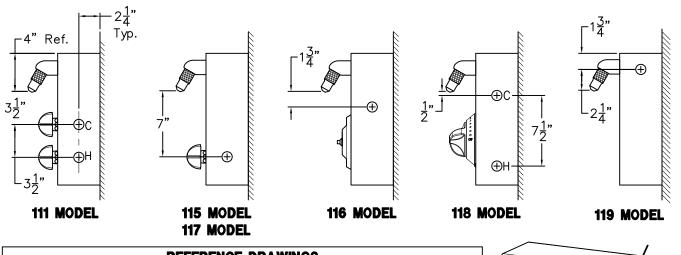
- MOUNT ACME 110 SERIES WALL SHOWER MODULES A (1) PER DRAWING 9900-100-001 AND 9900-105-001.
- B- MARK, DRILL AND INSTALL "L" BRACKETS (2) WITH WALL ANCHORS AND ANCHORING HARDWARE BY OTHERS WHERE MOUNTING HOLES ARE LOCATED.
- C- FLUSH MODULE SUPPLY LINES (3) PRIOR TO MAKING UP ADA STATION SUPPLY INLET CONNECTIONS. CONNECT 1/2" NPT FLEX HOSE (4) FROM CONTROL VALVÉ (5).
- D- CONNECT CONVENTIONAL SHOWER HEAD RISER (6) TO DIVERTER VALVE (7) 3/8" PUSH-IN FITTING PROVIDED.
- E- ASSEMBLE SHOWER HOUSING (8) TO "L" BRACKETS USING HARDWARE PROVIDED.
- F- MOUNT TWO-WALL GRAB BAR (9) AS WALL CONDITIONS REQUIRE USING SPAN-SLOT SCREWS PROVIDED.

#### NOTE:

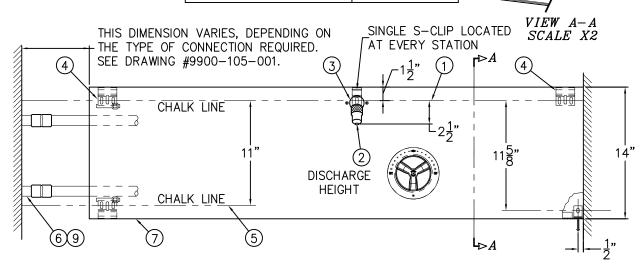
REFER TO ADA ACCESSIBILITY GUIDELINES FOR COMPLETE INSTALLATION REQUIREMENTS.

ACORN ENGINEERING COMPANY P.O. BOX 3527 Industry, CA 91744 15125 Proctor Ave Industry, CA 91746 (626) 336-4561 FAX (626) 961-2200		MOUNTED SHOWER 1	IO-ADA SERIES
	MANUFACTURE DATE	DATE ISSUED	DRAWING NUMBER
	MARCH 1980	07/27/11	
	TO PRESENT	DATE REVISED 06/01/14 D	9900-061-002





REFERENCE DRAWINGS				
ASSEMBLIES	NUMBER	ASSEMBLIES	NUMBER	
SHOWERHEAD	9970-120-003	VALVE BODY	9975-090-001	
T/P VALVE	9975-005-002	METERING SERVOMOTOR	9955-000-003	
FLO-CLOZ		CHECK STOP/STRAINER	9956-040-003	
METER-MATIC		PUSHBUTTON/ESCUTCHEON	9957-300-001	
MTG. HARDWARE	9951-007-001	T/P VALVE TEMP ADJUST	9900-007-001	
		T/P VALVES PRIOR TO JUNE 2014	9900-007-001	



#### **INSTALLATION INSTRUCTIONS:**

- A-STRIKE A CHALK LINE (1) ON THE WALL 2-1/2" ABOVE SHOWER HEAD DISCHARGE HEIGHT (2).
- B-MARK, DRILL AND INSTALL WALL ANCHORS ON CHALK LINE AT CENTERLINE OF EACH SHOWER HEAD (3) & AT OUTSIDE CORNERS OF EACH ACME SHOWER MODULE (4). ATTACH S-CLIPS TO WALL ANCHORS.
- C- STRIKE ANOTHER PARALLEL CHALK LINE 11-1/8" BELOW THE 1st CHALK LINE (5).
- D-MARK, DRILL AND INSTALL WALL ANCHORS AT BOTTOM CORNERS OF UNIT. DO NOT INSTALL S-CLIPS YET.

IF SHOWER UNIT BUTTS UP TO AN ADJACENT WALL, INSTALL AN L-BRACKET AT THAT BOTTOM CORNER 9/16" FROM ADJACENT WALL, AND 11-5/8" BELOW UPPER CHALK LINE.

= -

0 In

(3)

(8)

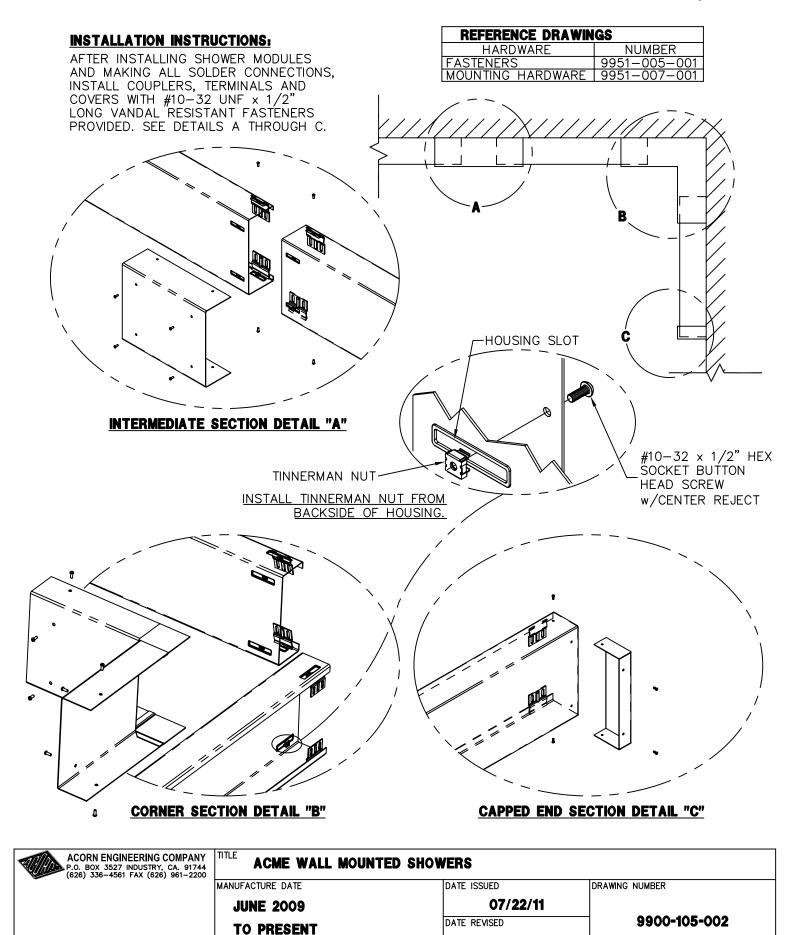
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- E- MEASURE AND CUT SUPPLY TUBING (6) BEFORE HANGING UNIT ON THE WALL.
- F-LIFT UNIT AND POSITION ONTO UPPER S-CLIPS. INSTALL S-CLIPS AT LOWER ENDS OF UNIT (7). FASTEN SHOWER TO L-BRACKET IF USED (8).
- G-SOLDER SUPPLY CONNECTIONS (9). ALL SUPPLY COUPLINGS AND FITTINGS, FURNISHED BY OTHERS.

	ACORN ENGINEERING COMPANY P.O. BOX 3527 Industry, CA 91744 15125 Proctor Ave Industry, CA 91746 (626) 336-4561 FAX (626) 961-2200	TITLE ACME WALL MOUNTED SHOW	/ERS - 110 SERIES	
		MANUFACTURE DATE	DATE ISSUED	DRAWING NUMBER
		MARCH 1982	12/01/89	
3/32		TO PRESENT	DATE REVISED 06/01/14 K	9900-100-001

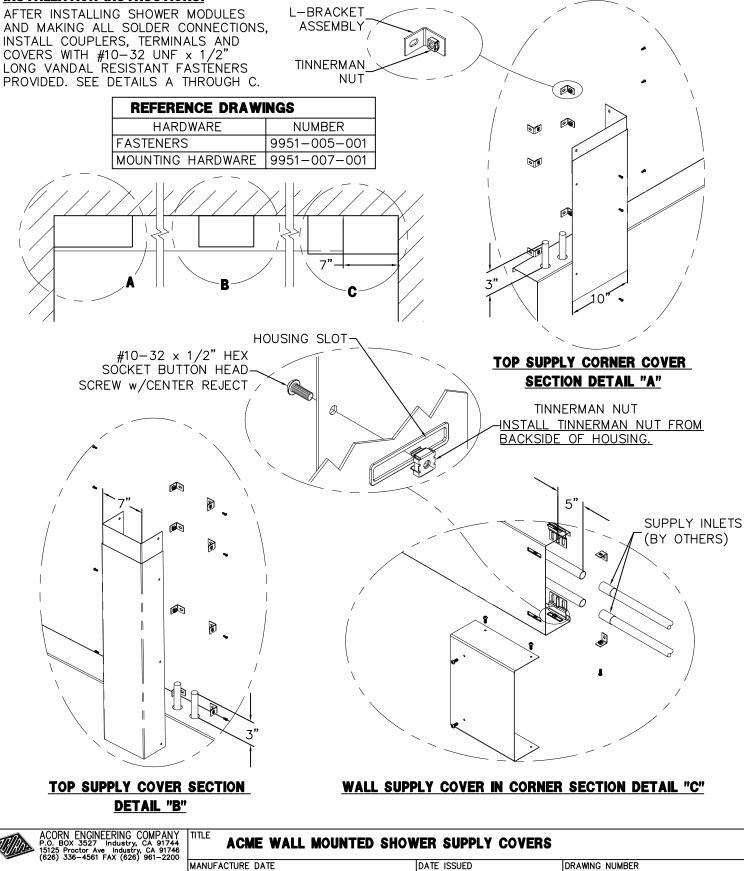








## **INSTALLATION INSTRUCTIONS:**



**JUNE 2009** 

**TO PRESENT** 

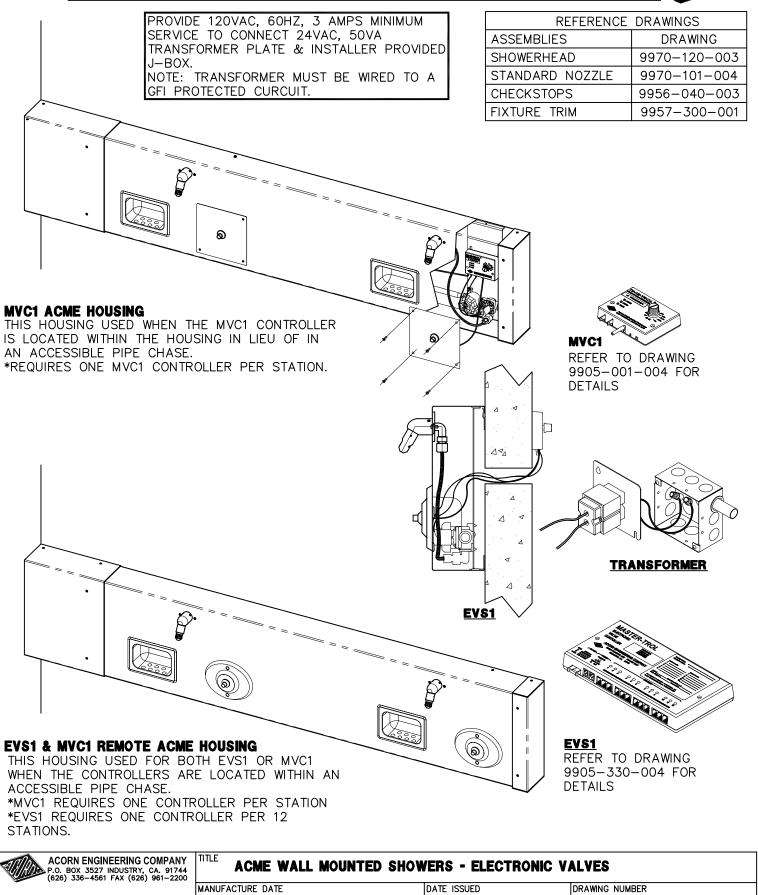
07/19/11

08/22/12

DATE REVISED

9900-106-001





08/19/11

DATE REVISED

9900-130-002

AUGUST 2011

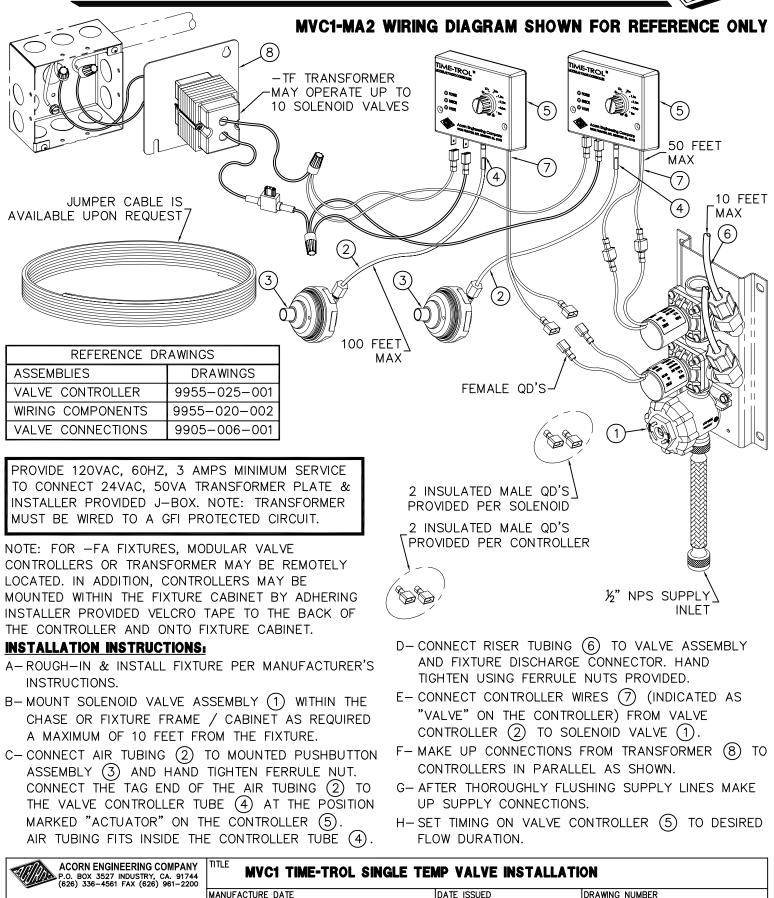
**TO PRESENT** 

08/05/10

DATE REVISED

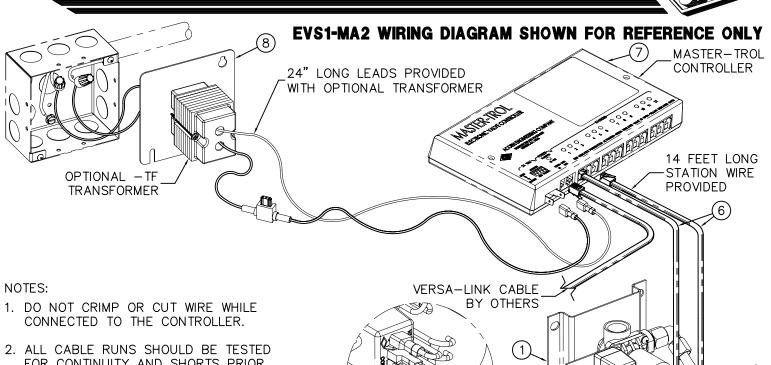
9900-001-004





**MAY 1990** 

TO PRESENT



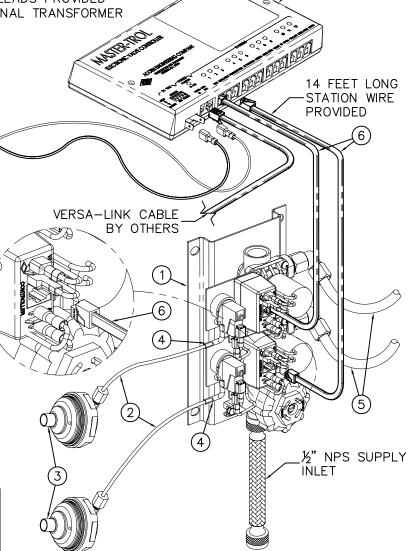
FOR CONTINUITY AND SHORTS PRIOR TO CONNECTING TO JACKS OR OTHER EQUIPMENT; THIS WILL PROVE TO BE TIME SAVING WHEN ATTEMPTING TO ISOLATE FAULTS.

REFERENCE DRAWINGS		
ASSEMBLIES	DRAWINGS	
VALVE CONTROLLER	9957-110-001	
BRANCH BOX	9955-030-003	
VALVE CONNECTIONS	9905-006-001	

PROVIDE 120VAC, 60HZ, 3 AMPS MINIMUM SERVICE TO CONNECT 24VAC, 50VA TRANSFORMER PLATE & INSTALLER PROVIDED J-BOX. NOTE: TRANSFORMER MUST BE WIRED TO A GFI PROTECTED CIRCUIT.

### **INSTALLATION INSTRUCTIONS:**

- A. ROUGH-IN & INSTALL FIXTURE PER MANUFACTURER'S INSTRUCTIONS.
- B. MOUNT SOLENOID VALVE ASSEMBLY (1) WITHIN THE CHASE OR FIXTURE FRAME / CABINET AS REQUIRED A MAXIMUM OF 10 FEET FROM THE FIXTURE.
- C. CONNECT AIR TUBING (2) TO MOUNTED PUSHBUTTON ASSEMBLY (3) AND HAND TIGHTEN FERRULE NUT. CONNECT THE TAG END OF THE AIR TUBING (2) TO THE BRANCH BOX PRESSURE SWITCH 3/16" OD TUBE (4). AIR TUBING (2) FITS INSIDE THE PRESSURE SWITCH 3/16" OD TUBE (4).

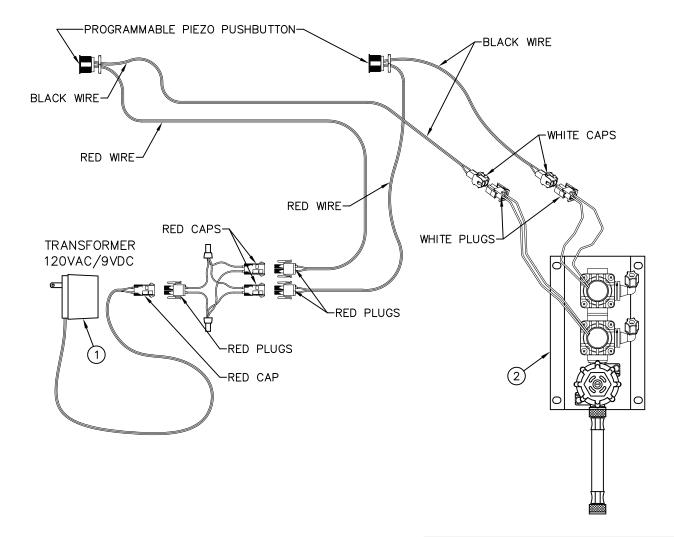


- D. CONNECT RISER TUBING (5) TO VALVE ASSEMBLY AND FIXTURE DISCHARGE CONNECTOR. HAND TIGHTEN USING FERRULE NUTS PROVIDED.
- E. CONNECT STATION WIRE (6) TO BRANCH BOX AND APPROPRIATE LOCATION ON CONTROLLER.
- F. MAKE UP CONNECTIONS FROM TRANSFORMER (8) TO CONTROLLER AS SHOWN.
- G. AFTER THOROUGHLY FLUSHING SUPPLY LINES MAKE UP SUPPLY CONNECTIONS.

ACORN ENGINEERING COMPANY P.O. BOX 3527 INDUSTRY, CA. 91744 (626) 336-4561 FAX (626) 961-2200	<b>EVS1 MASTER-TROL SINGLE TEMP VALVE INSTALLATION</b>		
	MANUFACTURE DATE	DATE ISSUED	DRAWING NUMBER
	MAY 1998	12/09/10	
	TO PRESENT	DATE REVISED	9905-330-004
<del>•/</del> /			



## TWO STATION AND ADA WIRING DIAGRAM SHOWN



## **INSTALLATION INSTRUCTIONS:**

- A- USING APPROPRIATE INSTALLATION INSTRUCTIONS, MOUNT FIXTURE TO WALL AND MAKE-UP SUPPLY CONNECTIONS. ELECTRONIC PUSHBUTTON ARE FACTORY INSTALLED. POWER SUPPLY (1) AND VALVE (2) SHIPPED LOOSE.
- B- INSTALL SOLENOID VALVE ASSEMBLY ② ON THE WALL (FASTENERS AND WALL ANCHORS BY OTHERS), MAKING SURE THAT THE VALVE WILL BE WITHIN HOUSING OR BLOCKOUT AREA.
- C- CONNECT WATER SUPPLY (AFTER FLUSHING LINES) TO VALVE, AND VALVE RISER TO SHOWERHEAD AS PER UNIT INSTALLATION INSTRUCTIONS.

REFERENCE DRAWINGS			
9VDC SENSOR & PARTS 9955-019-002			
PIEZO PB PROGRAMMING	9940-009-001		

- D-CONNECT SOLENOID VALVE, POWER SUPPLY AND SENSOR WIRING AS SHOWN ON DETAIL.
- E- COMPLETE THE INSTALLATION OF THE UNIT ACCORDING ACORDING TO THE UNITS INSTALLATION INSTRUCTIONS.

<u>NOTE:</u>

1- PLUG-IN TRANSFORMER INCLUDES BUILT-IN SECONDARY FUSE. IN THE EVENT OF POWER SURGE TRANSFORMER MAY REQUIRE REPLACEMENT.

2- ELECTRICAL RECEPTACLE MUST BE WIRED TO A GFI PROTECTED CIRCUIT. FIXTURE MUST BE EARTH GROUNDED PER N.E.C. (NATIONAL ELECTRICAL CODE).

-PPZ PIEZO ELECTRONIC PUSHBUTTON INSTALLATION		
MANUFACTURE DATE	DRAWING NUMBER	
OCTOBER 2013	10/11/13	
TO PRESENT	DATE REVISED	9927-223-001
	-PPZ PIEZO ELECTRONIC PUS MANUFACTURE DATE OCTOBER 2013	MANUFACTURE DATE DATE DATE ISSUED OCTOBER 2013 DATE REMIEED DATE REMIEED



# **INSTALLATION, OPERATIONS & MAINTENANCE MANUAL**

Please visit **www.acorneng.com** for most current specifications.

# Programable Piezo Pushbutton Programming Instructions (Flow Time Adjustment)

The Button is factory set an 8 sec. timing cycle, if an 8 sec. cycle is adequate, then **no** programming adjustment is required.

NOTE: Read the entire document before trying to program the piezo pushbutton.

## THE TIME SETTINGS PROGRAM USES 3 DIFFERENT TIMING MODES:

- <u>1 second timing mode</u>: Each push of the button adds 1 second to the total timing cycle.
- **<u>5 second timing mode</u>**: Each push of the button adds 5 seconds to the total timing cycle.
- 20 second timing mode: Each push of the button adds 20 seconds to the total timing cycle.

To program the piezo pushbutton, you will need to be able to see the back of the piezo pushbutton.

Prevision must be made to access the back of the piezo pushbutton. There is an LED on the back of the piezo pushbutton under a layer of transparent epoxy, used as a programming indicator light.

NOTE: This programming procedure moves along rapidly, there is only about 2 or 3 seconds between programming operations.

In order to start the programming the piezo pushbutton, the button must be powered down. Disconnect the red power cable and wait 20 seconds, then reconnect the red power cable.

As soon as the cable is reconnected the LED will start flashing, it will flash 4 times, then stays on for 3 seconds. During the 3 second period, push the piezo button once, the LED will go out, now you are in the **1 sec timing mode** and each time the button is pushed the LED will flash, adding 1 sec to the total timing cycle.

To move on to the **5 sec timing mode**, pause and wait for the LED to flash 2 times, now you are in the 5 sec timing mode. Each time the button is pushed the LED will flash, adding 5 sec to the total timing cycle.

To move on to the **20 sec timing mode**, pause and wait for the LED to flash 3 times, now you are in the 20 sec timing mode and each time the button is pushed the LED will flash, adding 20 sec to the total timing cycle. After programing is complete, pause and wait for the LED to flash 4 times and then 5 times, which completes the programming.

- When a **timing mode is not required** then **do not** push the button and wait for the next timing mode.
- Each timing mode (1 sec, 5 sec or 20 sec timing mode) can be sequenced up to 100 times, that is the number of times, the button can be pushed, to increase the total timing cycle in each timing mode.

Part #: 9940-009-001

ACORN ENGINEERING COMPANY

New: 10/01/13



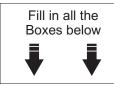
# **INSTALLATION, OPERATIONS & MAINTENANCE MANUAL**

Please visit www.acorneng.com for most current specifications.

# **Programmable Piezo Pushbutton Programming Instructions** (Flow Time Adjustment)

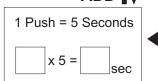
WORKSHEET

(FILL IN ALL BOXES, WHICH WILL SIMPLIFY THE PROGRAMMING PROCEDURE)

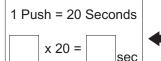


# **PROGRAMING STEPS:**

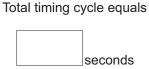
- Power down piezo button for 10 seconds.
- Determine the number of seconds per timing cycle
- 1 Push = 1 Second x 1 = sec ADD



ADD



# EQUALS



- Part #: 9940-009-001

acorn engineering company

Reconnect power.

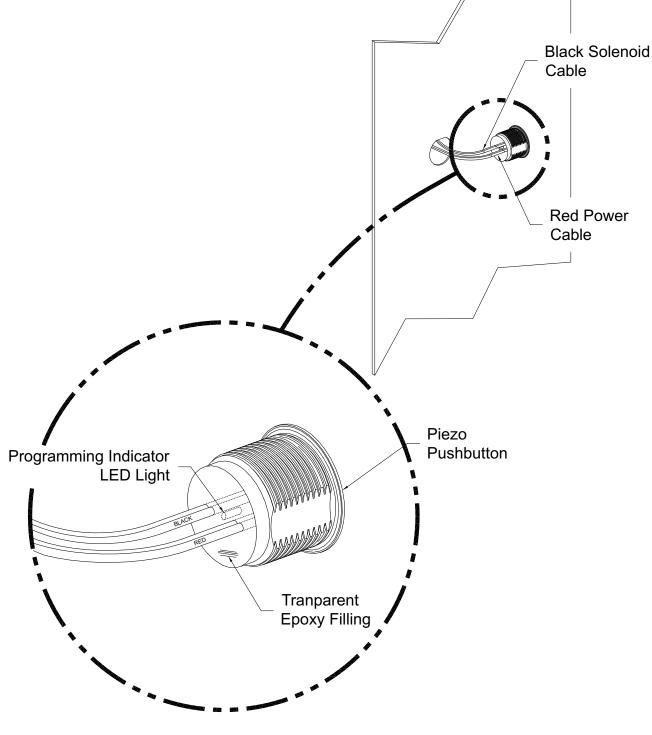
- LED flashes, then stay on.
- While the LED is steady on, push button.
- LED turns off.
- You are in the 1 sec timing mode, immediately push the button, 1 push equals 1 sec added to the total timing cycle.
- Pause and wait for the LED to flash 2 times.

You are in the 5 sec timing mode, immediately push the button, 1 push equals 5 sec added to the total timing cycle.

Pause and wait for the LED to flash 3 times.

You are in the 20 sec timing mode, immediately push the button, 1 push equals 20 sec added to the total timing cycle.

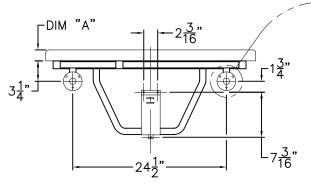


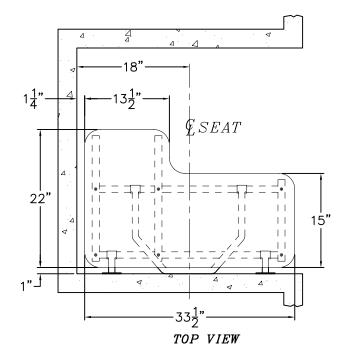


### INSTALLATION INSTRUCTIONS



BACK VIEW

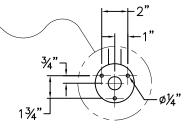




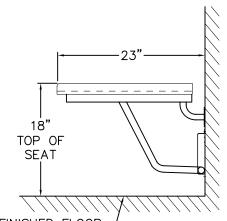
### **INSTALLATION INSTRUCTIONS:**

A- USING FOLDED SEAT FRAME AS A TEMPLATE MARK HOLES ON WALL OR REINFORCED PANEL FOR MOUNTING FLANGES AND SUPPORT LEG GUIDE BRACKET FOR WALL ANCHORS AND ANCHORING HARDWARE BY OTHERS. FOR -RP PANEL MOUNTING, #10 x 1" LONG STAINLESS STEEL PHILIPS HEAD SHEET METAL SCREWS ARE RECOMMENDED. FOR WALL MOUNTING, #10 x 2" LONG STAINLESS STEEL PHILIPS HEAD SHEET METAL SCREWS ARE RECOMMENDED.

CONSULT APPLICABLE CODES FOR SEAT HEIGHT & LOCATION REQUIREMENTS. RECOMMENDED SEAT HEIGHT IS 18" ABOVE FINISHED FLOOR.



SEAT TYPE:	DIM 'A'
#1103—11 LH, SEAT, PADDED #1103—12 RH, SEAT, PADDED	3/4"
#1103–21 LH, SEAT, PHENOLIC #1103–22 RH, SEAT, PHENOLIC	1/2"
#1103–31 LH, SEAT, SS #1103–32 RH, SEAT, RH	1/8"



FINISHED FLOOR-

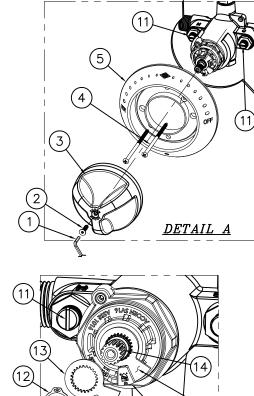
<b>REFERENCE DRAWING</b>					
-RD	-RD REINFORCED PANEL 9900-351-001				

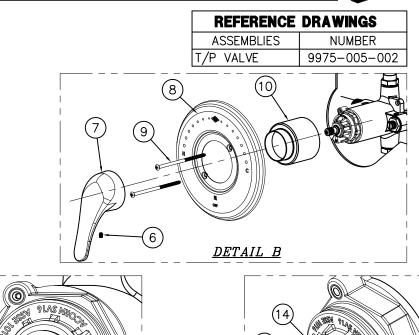
- B- SEAT SHOULD BE MOUNTED ON CENTER WITH 34" WIDE ACORN -RP REINFORCED PANEL. REFER TO PANEL DETAIL WITH JOB INSTALLATION INSTRUCTIONS FOR CUSTOM PANEL SIZE INFORMATION.
- C- THE SEAT IS PROPERLY INSTALLED IF IT FOLDS UP AND DOWN FREELY, YET STAYS IN THE UP POSITION WITHOUT ASSISTANCE.

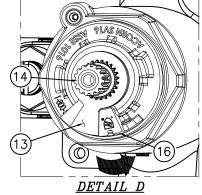
IMPORTANT: THIS SHOWER SEAT IS INTENDED TO MEET OR EXCEED CURRENT ADA CODE REQUIREMENTS. SEAT REQUIRES ADEQUATE IN-WALL, WALL BACKING OR OTHER SECURE METHOD OF ANCHORING.

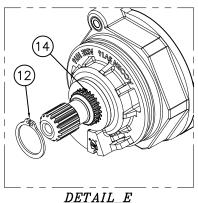
ACORN ENGINEERING COMPANY P.O. BOX 3527 INDUSTRY, CA. 91744 (626) 336-4561 FAX (626) 961-2200	<b>FOLDING PADDED SEAT CATALOG # 1103 SERIES (A.D.A.)</b>		
	MANUFACTURE DATE	DATE ISSUED	DRAWING NUMBER
	JANUARY 1, 1980	04/07/93	
76	TO PRESENT	DATE REVISED 09/13/10	9900-350-001











## **INSTRUCTIONS:**

A-REMOVE TRI-LEVER HANDLE TRIM: SEE DETAIL A

16

DETAIL C

(15)

- a-USING CENTER REJECT ALLEN WRENCH (1) REMOVE HANDLE SCREW (2) AND REMOVE HANDLE (3).
- b-REMOVE ESCUTCHEON (4) BY REMOVING SCREWS (5).

FOR OPTIONAL -LVR LEVER HANDLE TRIM: SEE DETAIL B

- a-REMOVE SET SCREW (6) AND HANDLE (7).
- b-REMOVE ESCUTCHEON (8) BY REMOVING SCREWS (9).
- c-PULL OFF VALVE SLEEVE 10.

## TEMPERATURE ADJUSTMENT:

- B-ENSURE MAIN WATER SUPPLY IS ON.
- C-ENSURE CHECK STOPS (11) ARE OPEN.
- D-ENSURE VALVE IS IN THE OFF POSTION.
- E-USING SNAP RING PLIERS REMOVE RETAINING RING
   (12) AND THE FIRST TEMPERATURE LIMIT WASHER
   (13) ONLY FROM VALVE STEM
   (14) . SEE DETAIL C.

NOTE: IF SECOND TEMPERATURE LIMIT WASHER (15) COMES OFF, RESETTING OF THE OFF STOP MAY BE REQUIRED, KEY AS CLOSE AS POSSIBLE ON THE COUNTER-CLOCKWISE SIDE OF BONNET STOP (16). USING HANDLE (3) OR (7) SLIGHTLY OPEN AND CLOSE VALVE TO ENSURE WATER WILL SHUT OFF. DETAIL C.

## TEMPERATURE ADJUSTMENT: CONTINUED:

- F-USING HANDLE ③ OR ⑦ TURN VALVE STEM ④
  COUNTER-CLOCKWISE TO INCREASE HOT, CHECKING
  OUTLET TEMPERATURE UNTIL DESIRED TEMPERATURE IS
  REACHED (RECOMMENDED 105° TO 110°). SLIDE FIRST
  TEMPERATURE LIMIT WASHER ⑨ OVER VALVE STEM
  ① AND ENSURE SIDE OF WASHER RESTS AS CLOSE
  AS POSSIBLE TO CLOCKWISE SIDE OF BONNET LIMIT
  STOP ⑥. DETAIL D.
- G-WITH VALVE IN THE "ON" POSTION AND WATER RUNNING, USING SNAP RING PLIERS INSTALL RETAINING RING 12. ENSURE RETAINING RING 12 IS INSERTED PROPERLY INTO GROOVE ON VALVE STEM 14. DETAIL E.

H-REINSTALL TRIM IN REVERSE ORDER.

ACORN ENGINEERING COMPANY P.O. BOX 3527 Industry, CA 91744 15125 Proctor Ave Industry, CA 91746 (626) 336-4561 FAX (626) 961-2200	-8 T/P TEMP/PRES	S BALANCING MIXING VALVE - 1	TEMPERATURE ADJUSTMENT
	MANUFACTURE DATE	DATE ISSUED	DRAWING NUMBER
	APRIL 2014	05/01/14	
	PRESENT	DATE REVISED 09/01/16 B	9900-007-001