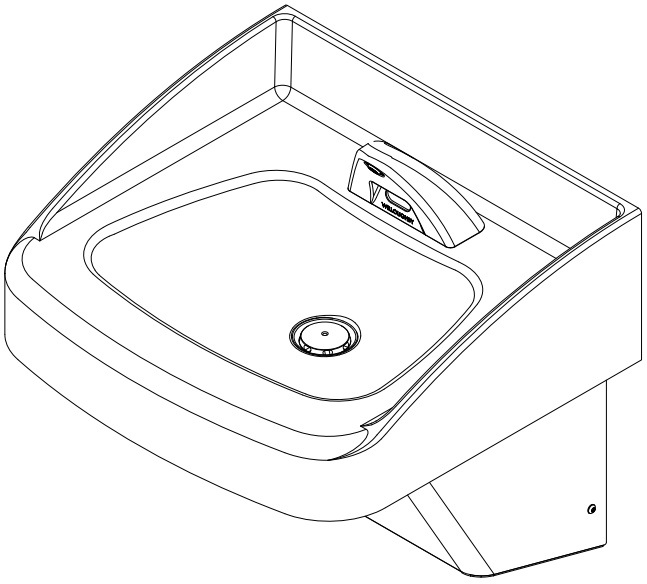
Installation & Operation Manual

LRBHL-2220 Series

Ligature Resistant Behavioral Healthcare Lavatory Infrared/Battery Operated



LRBHL-2220

IN COMPLIANCE WITH A.D.A. 2010

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PATENTED: D956,187

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WILLOUGHBY

MADE IN THE U.S.A.

Rev. 8/2024

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Pre-Installation Information

Installation notice!

Check rough-in location **PRIOR** to installation

Flush lines thoroughly **PRIOR** to hook-up

When installing the **Willoughby Industries' LRBHL-2220 Series** lavatory systems:

Before step 1 of the installation instructions, ensure that rough-ins are in the correct location.

The valve assembly, including the stray head, **MUST NOT BE** connected until *after* all lines have been flushed to remove the small particles of debris that are inherent with new construction projects and all chemicals that are used in flushing are purged from the system.

Chemicals used in flushing plumbing systems can attack the internal components of the valve and spray head and severely damage them, so any flushing of the system must be followed by a full flushing with pure water to clear any harsh chemicals remaining in the system. Debris in the system if allowed to enter the valve assembly and spray head can cause poor performance or outright failure.

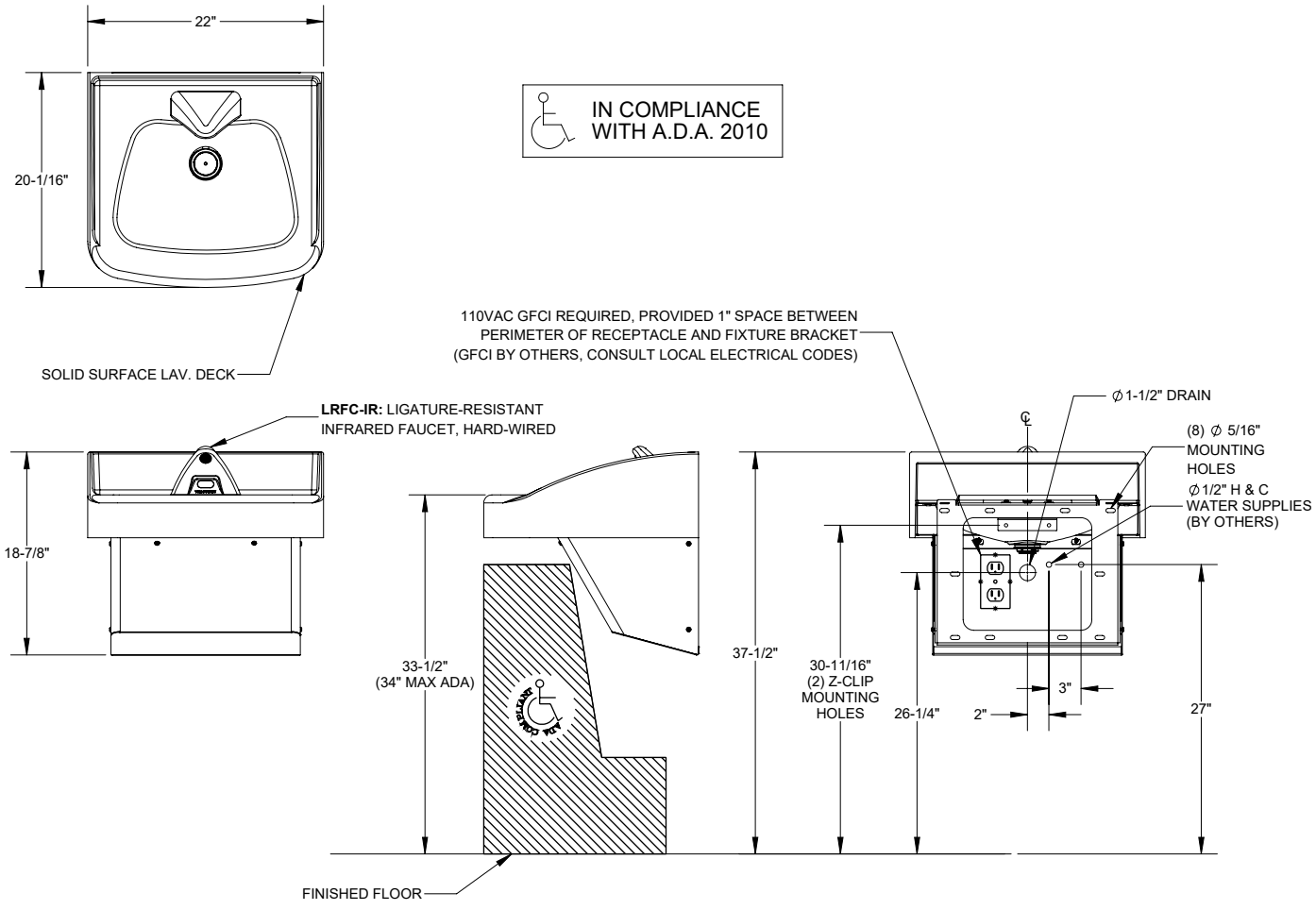
Again, **DO NOT** attempt to connect the valve assembly and spray head until *after* all flushing is complete and pure water is the only media that will be passing through the system. Damage to the valve assembly or spray head caused by harsh chemicals or debris will not be covered by the manufacturer's warranty.

Installation notice!

Check rough-in location **PRIOR** to installation

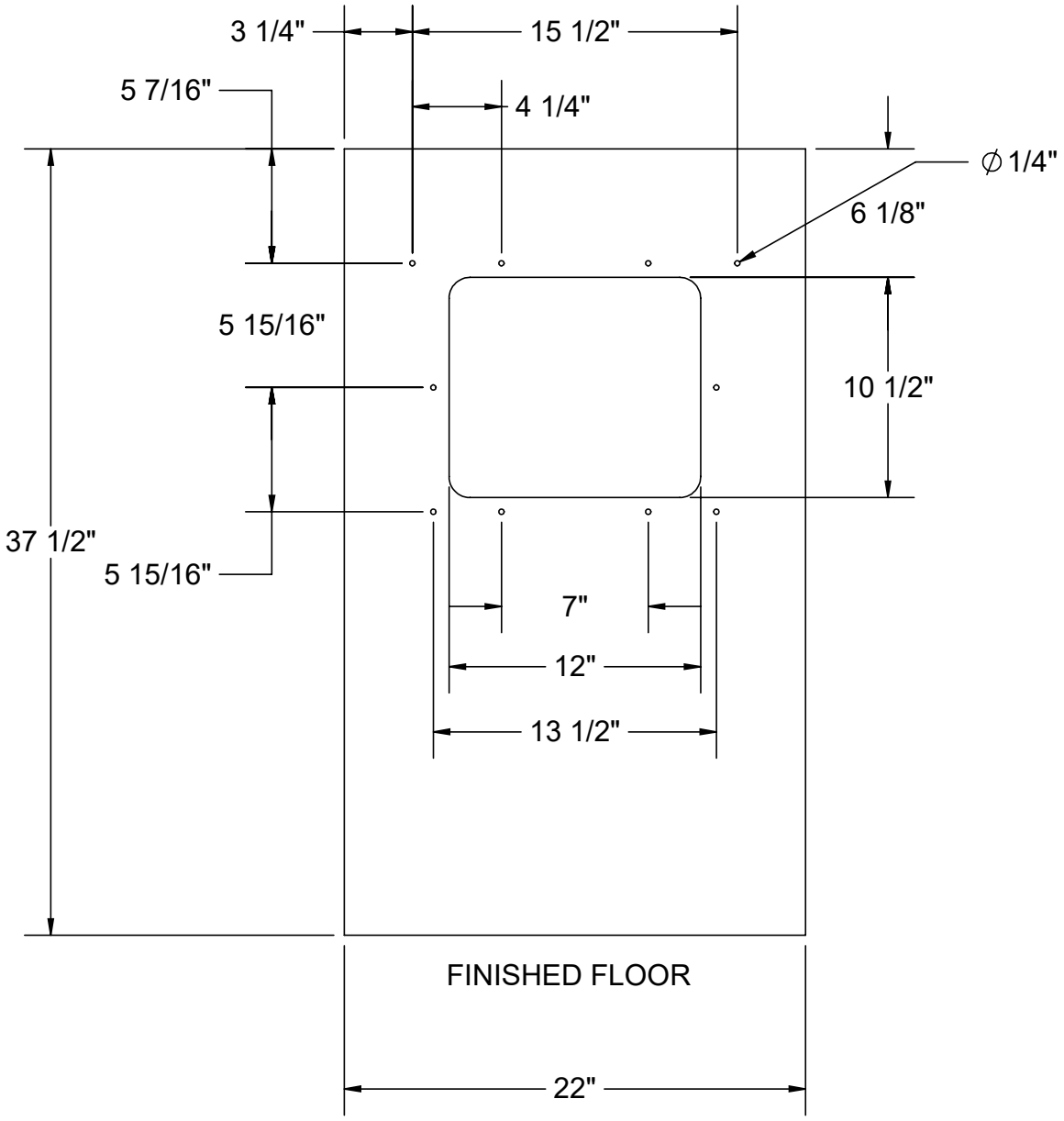
Flush lines thoroughly **PRIOR** to hook-up

Physical Dimensions- LRBHL-2220



Mounting Dimensions- LRBHL-2220

Drill Template (Ref. S301736)



Check Contents

- Separate all parts from packaging and make sure all parts are accounted for before discarding any packaging material. If any parts are missing, do not attempt to install LRBHL-2220 Behavioral Health Lavatory until you obtain the missing parts.

  NOTE: Before beginning installation, all supply, drain and waste piping for the LRBHL-2220 must be completed according to specified rough-ins. If you have not received rough-in details, please contact Willoughby Industries, Inc. (800) 428-4065

> **IMPORTANT: These installation instructions cover all of the Willoughby Industries Inc. LRBHL-2220 Behavioral Health Lavatory Series. Simply omit the steps which do not apply to the model you are installing.**
>
> **IMPORTANT: Flush all the water supply lines before making connections.**

Required Installation Supplies

- Proper mounting hardware
- Hardware for waste oulet connections
- Gasket for waste outlet connection
- Shims (for installation if necessary)
- Supply piping
- Silicone caulk

WARNING: Willoughby Industries does not assume any responsibility for personal injury or damage to equipment due to an improperly installed LRBHL-2220 Behavioral Health Lavatory.

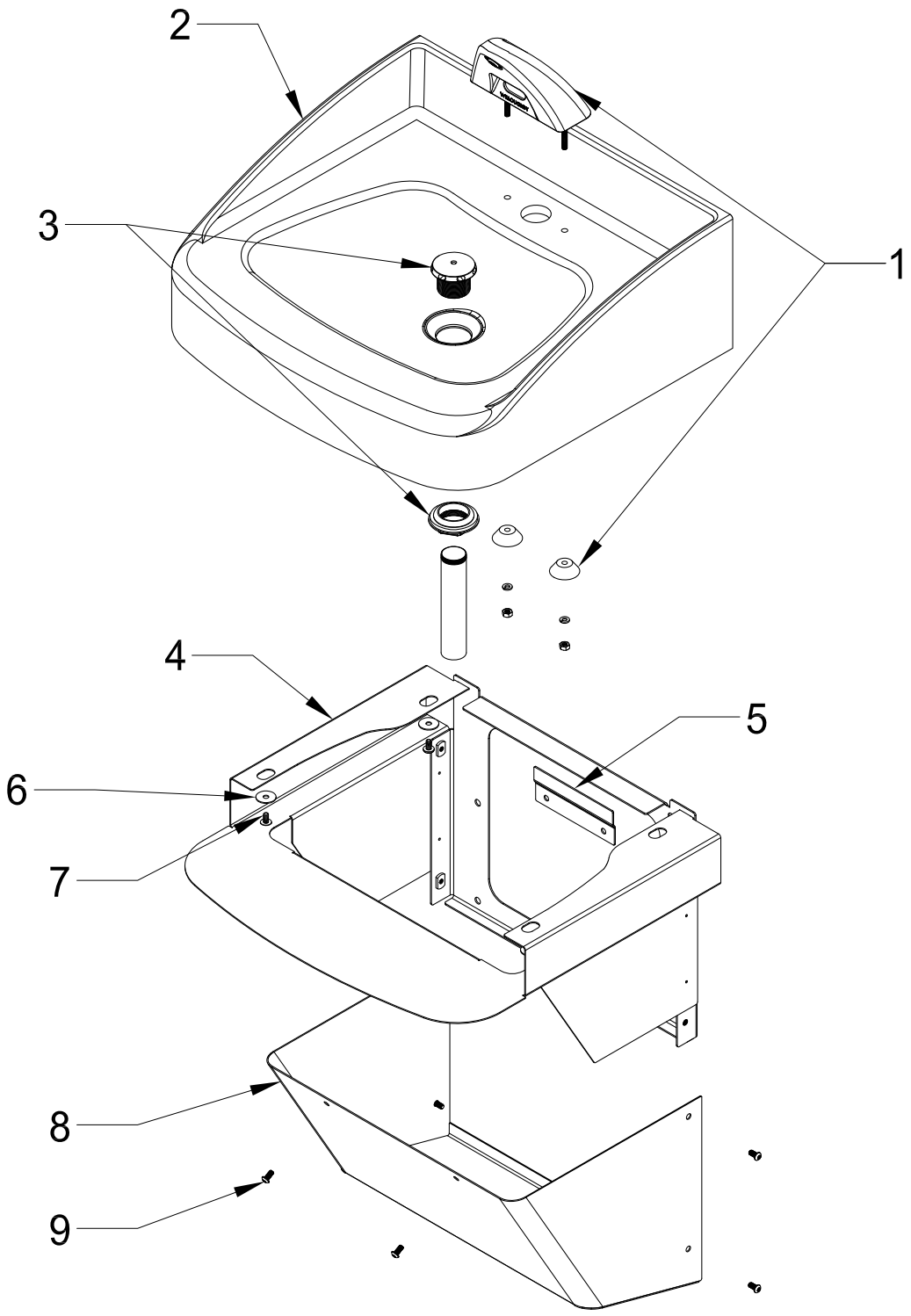
Parts List

ITEM	DESCRIPTION	LRFC-IR - PLUG-IN	LRFC-BO - BATTERY OPERATED
1	FAUCET ASSEMBLY	703000IR	703000BO
2	LAVATORY BASIN	801602-XX*	801602-XX*
3	DRAIN ASSEMBLY, LRBHL-2220	380280	380280
4	PEDESTAL ASSEMBLY, LRBHL-2220	S301499	S301499
5	6" 'Z' CLIP	800005	800005
6	1/4-20 x 7/8" FLAT WASHER	600650	600650
7	1/4-20 PHILLIPS TRUSS HEAD SCREW	800144	800144
8	TRAP COVER	S301500	S301500
9	1/4-20 x 1/2" SECURITY SCREW	4500NSS	4500NSS

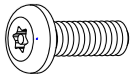
*XX REPRESENTS THE LAVATORY COLOR

BONE=BN
GLACIER WHITE=GW
GRAY GRANITE=GG
SANDSTONE=SS
WHITE GRANITE=WG
BLACK GRANITE=BG
NOCTURNAL BLUE=NB
RED CORAL=RC
SEA GREEN=SG

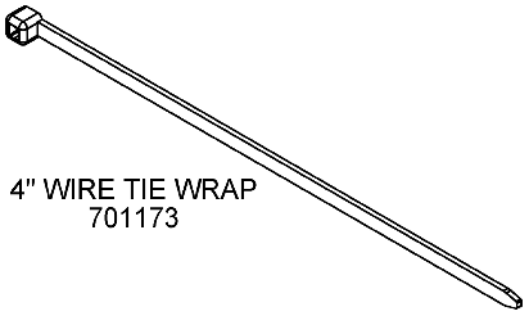
Exploded-view Drawing



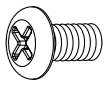
Hardware Identification



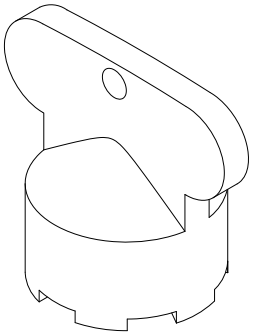
1/4-20 x 3/4"
SECURITY SCREW
4502SSN



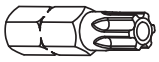
4" WIRE TIE WRAP
701173



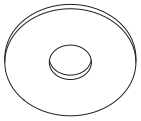
1/4-20 x 1/2"
PHILLIPS
TRUSS HEAD SCREW
800144



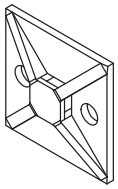
INSERT KEY
TOOL
980663



T-27
PINNED TORX BIT



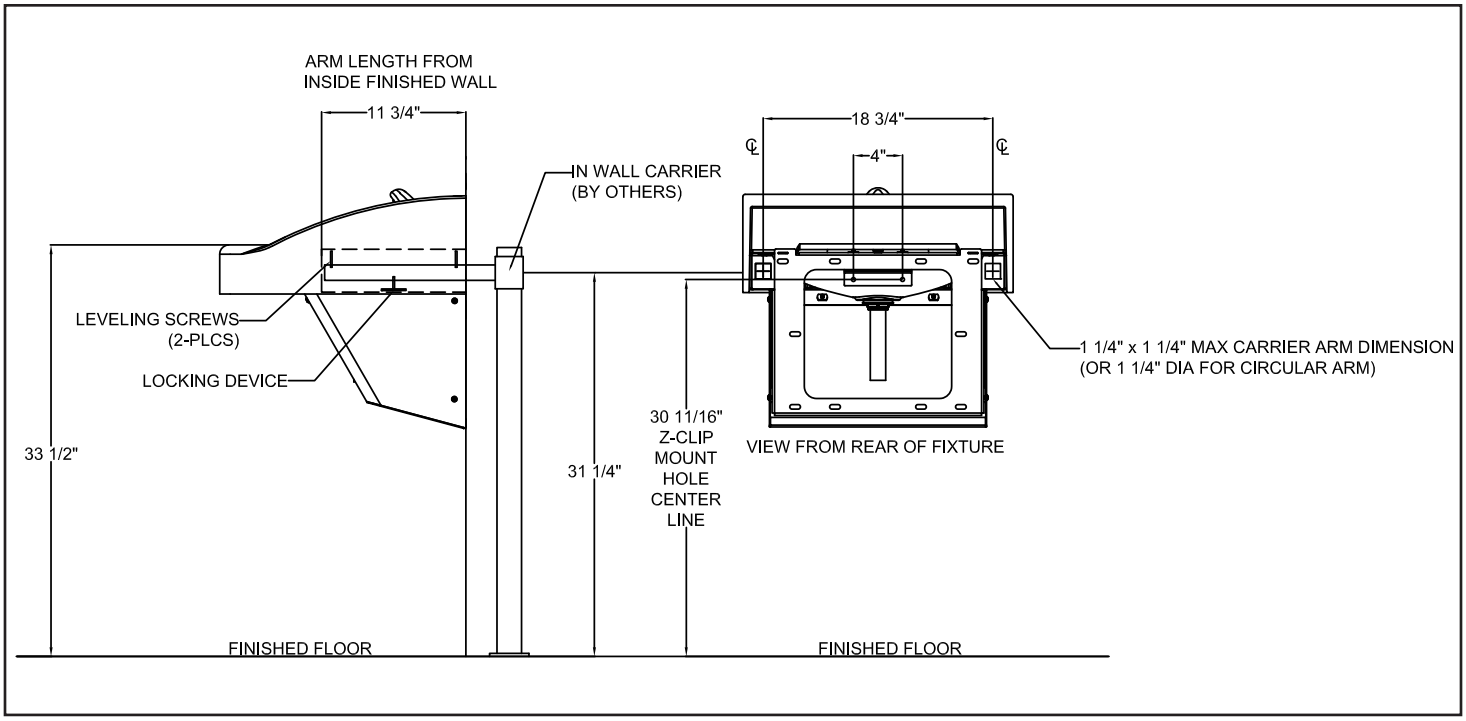
1/4-20 x 7/8"
FLAT WASHER
600650



4 WAY WIRE TIE BASE
701206

Carrier Recommendation

Note: Carrier Provided By Others.



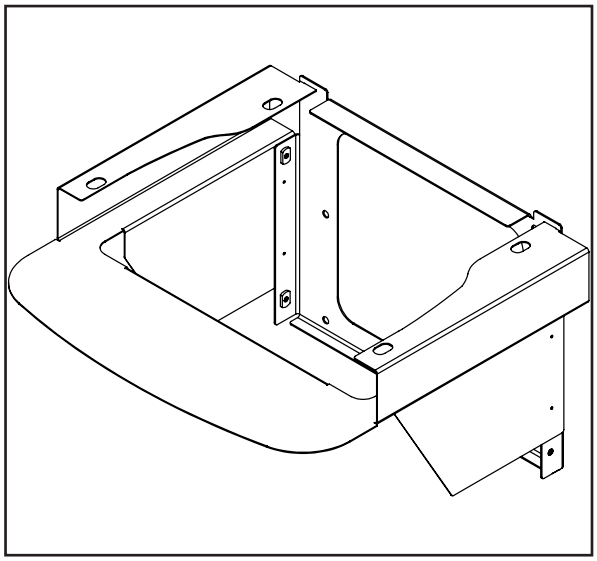
Installation Instructions

Step 1: Pedestal Mounting

Parts supplied:

- Pedestal (pre-assembled)
- Mounting Bracket

Note: Hardware for wall anchoring by others



1.) Remove plastic protective coating from all stainless parts before installation.

2.) Measure and mark the vertical centerline of the lavatory on the wall. Mark a level line at 1 inch above desired rim height: ie...place a line at 35" for a 34" rim height.

3.) Place mounting "Z" clip bracket (S300358) against the wall and align the middle mounting holes with vertical centerline marked on the wall.

4.) Secure the bracket to the wall using wall anchors that are adequate for the type of wall; drywall, concrete, metal studs, wood studs, etc. (supplied by others).

5.) Place pedestal onto the mounting bracket with upper channel support resting on the bracket.

Note: Pedestal must be level for fixture to drain properly

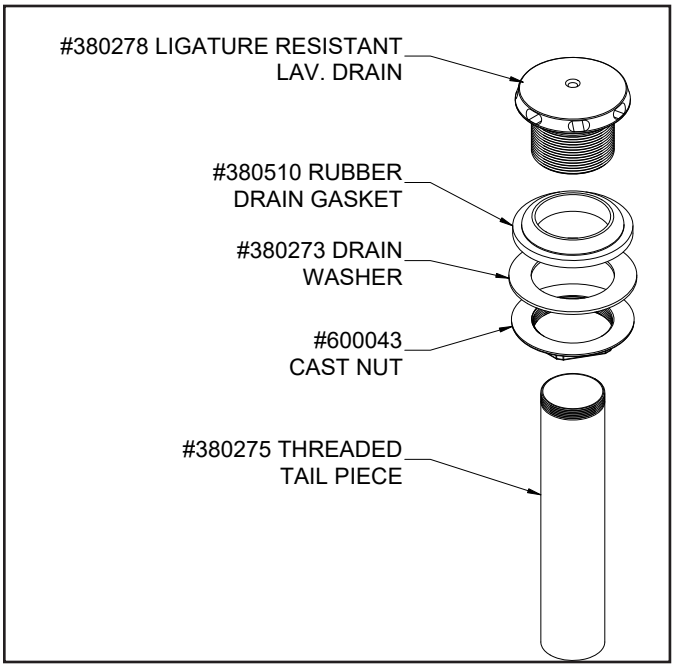
6.) Secure pedestal to the wall using ***all*** through holes for secure mounting (adequate wall anchoring hardware and support by others).

Installation Instructions (cont.)

Step 2: Drain Assembly #380280

Parts/Materials supplied:

- Solid Surface basin
- Drain assembly



1.) Insert drain spud into wash basin using silicone caulk (supplied by others).

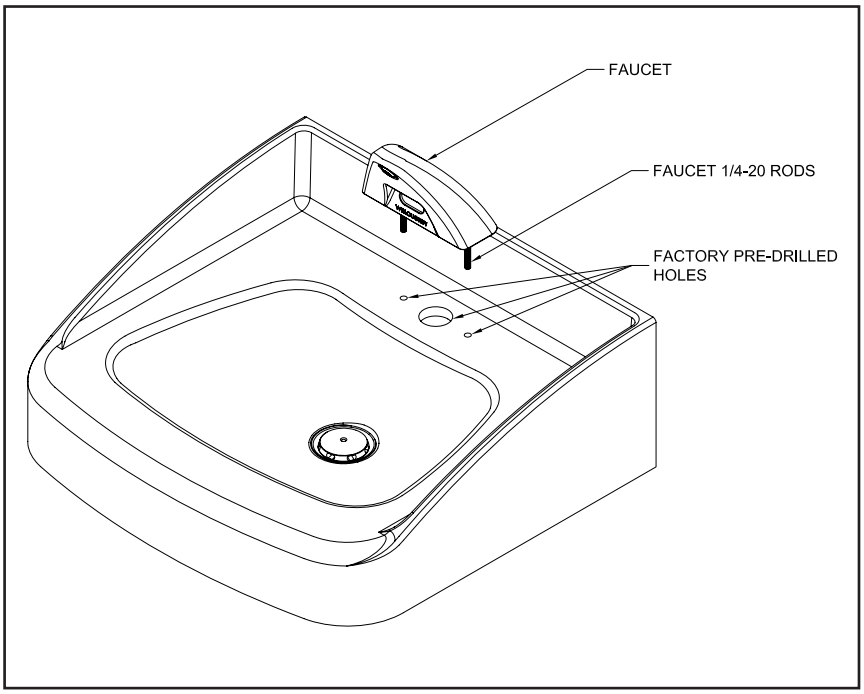
2.) From beneath basin, thread the washers & locknut onto the drain spud and secure locknut against wash basin.

2.) The wash basin is ready for plumbing and/or electrical installation.

Installation Instructions (cont.)

Step 3: Faucet Install

Caution: Do not leave bowl on the pedestal unsupported, as it may fall and cause damage or personal injury.



1.) The valves are installed at the factory.

2.) Locate the faucet, 3/8" tubing and either the 6 batteries or the plug-in transformer.

3.) Make sure the deck gasket for the faucet is on the faucet and both all-thread rods, PTC fitting, and wires for the electronic valve are through the gasket.

Note: Faucet can be mounted with or without the gasket and the bottom edge sealed with non-pick caulking.

4.) From the underside of the fixture, align the (2) 1/4-20 all-thread rods with the pre-drilled mounting holes, making sure the PTC fitting and IR sensor wires are going through the central faucet hole.

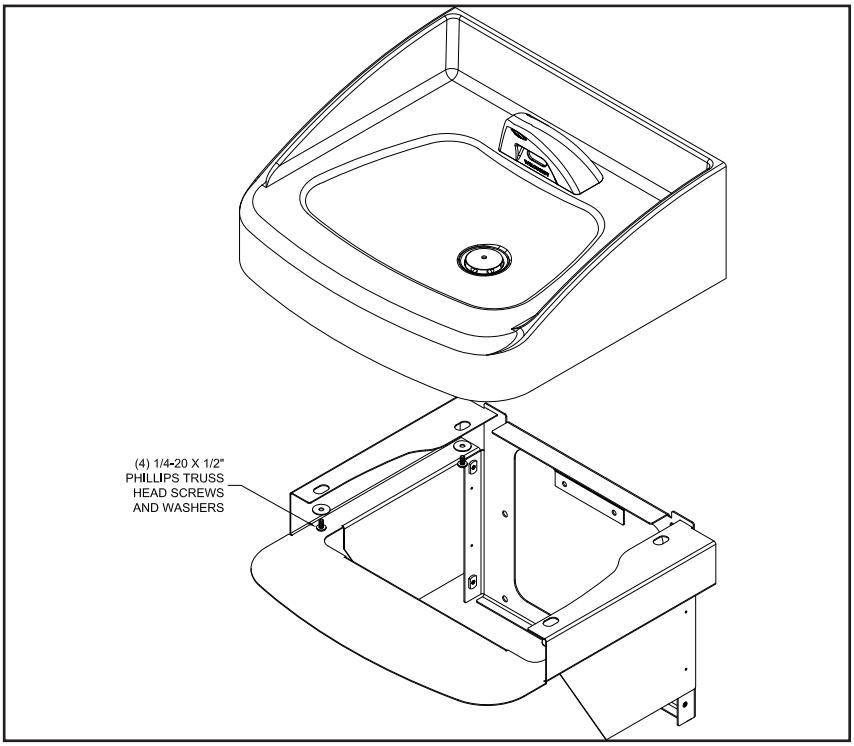
5.) Place the centering washer, lock washer and thread the nut onto the all-thread rods (all included). Tighten the nuts down.

6.) After thorough flushing of the supply lines, connect the faucet to the water line from the valve using the 3/8" PTC Fitting (included).

Installation Instructions (cont.)

Step 4: Basin and Pedestal Assembly

Caution: Do not leave bowl on the pedestal unsupported, as it may fall and cause damage or personal injury.



1.) Place the basin on to the pedestal, aligning the (4) slots to the brass threaded inserts in the basin.

2.) Thread the (4) 1/4-20 x 1/2" phillip truss head screws with the (4) 1” washers into the basin interior threaded inserts.

4.) Before tightening the screws up make sure the basin back is pushed all the way back until it is against the wall.

5.) Tighten the (4) internal phillips truss head screws first using a rachet with a phillips bit.

6.) Make sure the front of the pedestal is pulled up into the basin.

Installation Instructions (cont.)

Step 5: Final Assembly

1.) Make all final plumbing connections to the drain and valve inlets. The lavatory is supplied with flex hoses.

2.) Once all of the connections in the actuator housings are complete, locate the transformer.

NOTE: PLUG-IN TRANSFORMER (IF NEEDED) MUST BE USED WITH A GROUND FAULT INTERRUPT (GFCI) RECEPTACLE TO HELP PREVENT POSSIBLE ELECTRICAL SHOCK.

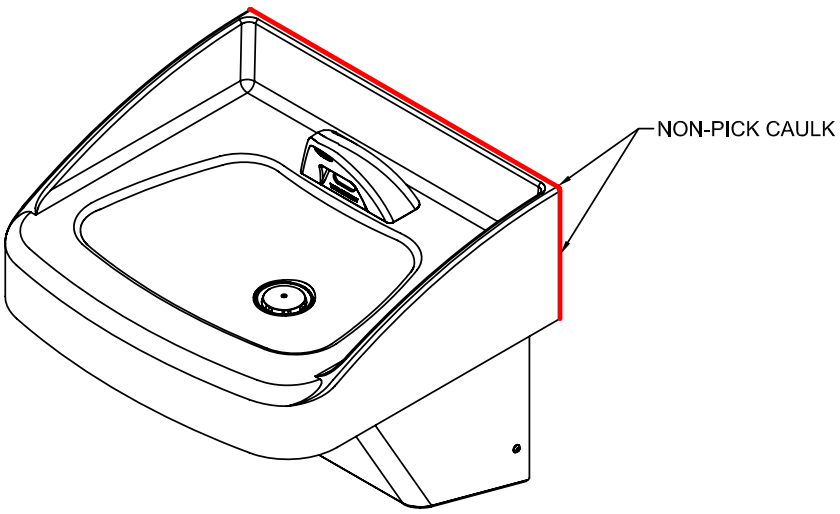
Note: For infrared systems see the start-up procedures and troubleshooting guide in the back of this manual.

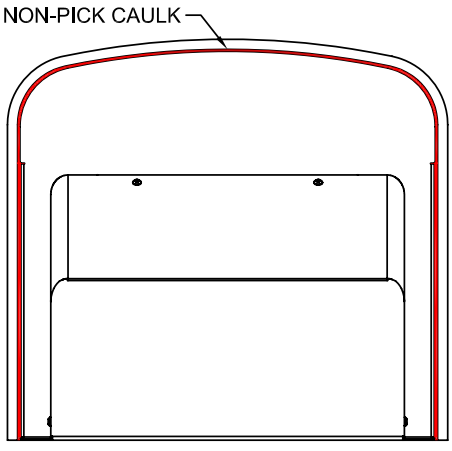
4.) Test the system for leaks (both supply and waste).

5.) Set desired temperature with the adjustable mixing valve (see instruction near the end of this manual).

6.) Attach the stainless steel shroud to the pedestal with the (6) 1/4-20 x 3/4" security screws provided.

7.) Using non-pick caulk run a bead down across the back edge and side edges of the basin and along the front under side of the basin as shown in red.

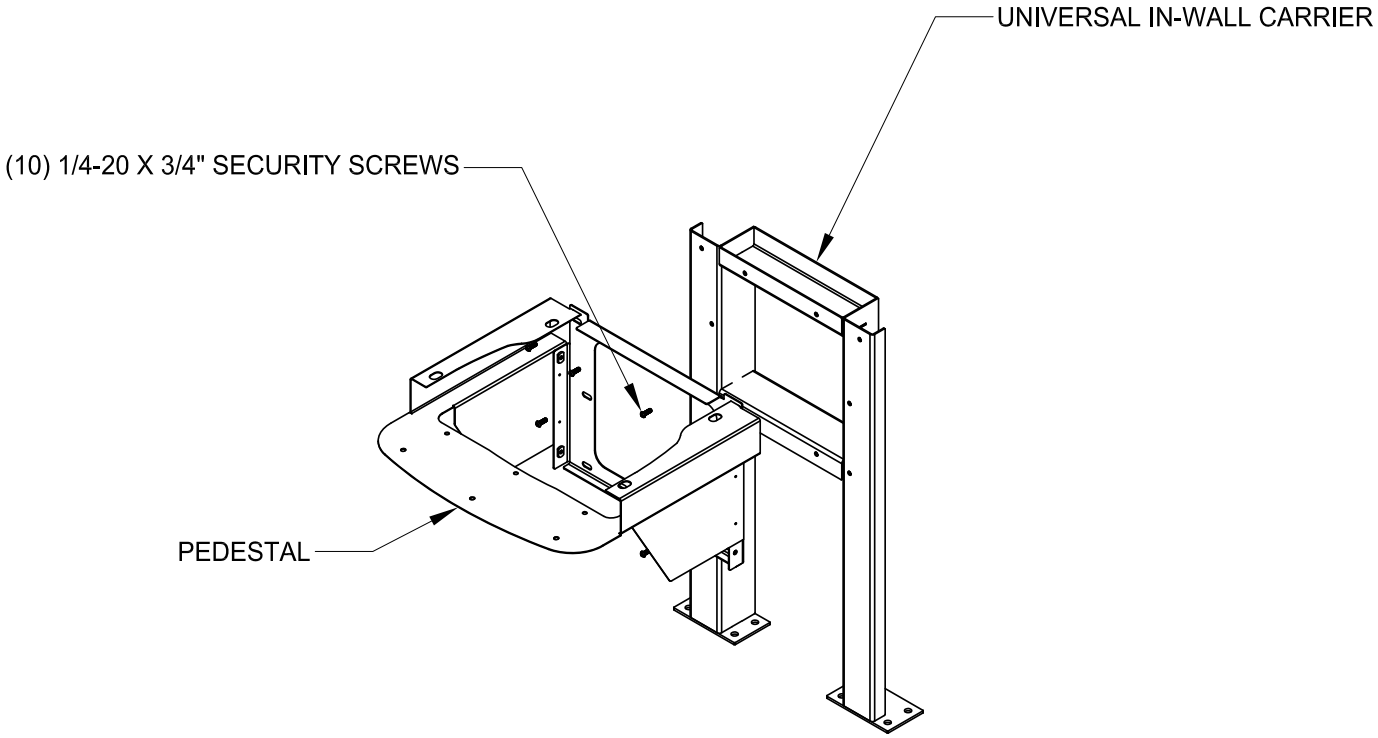




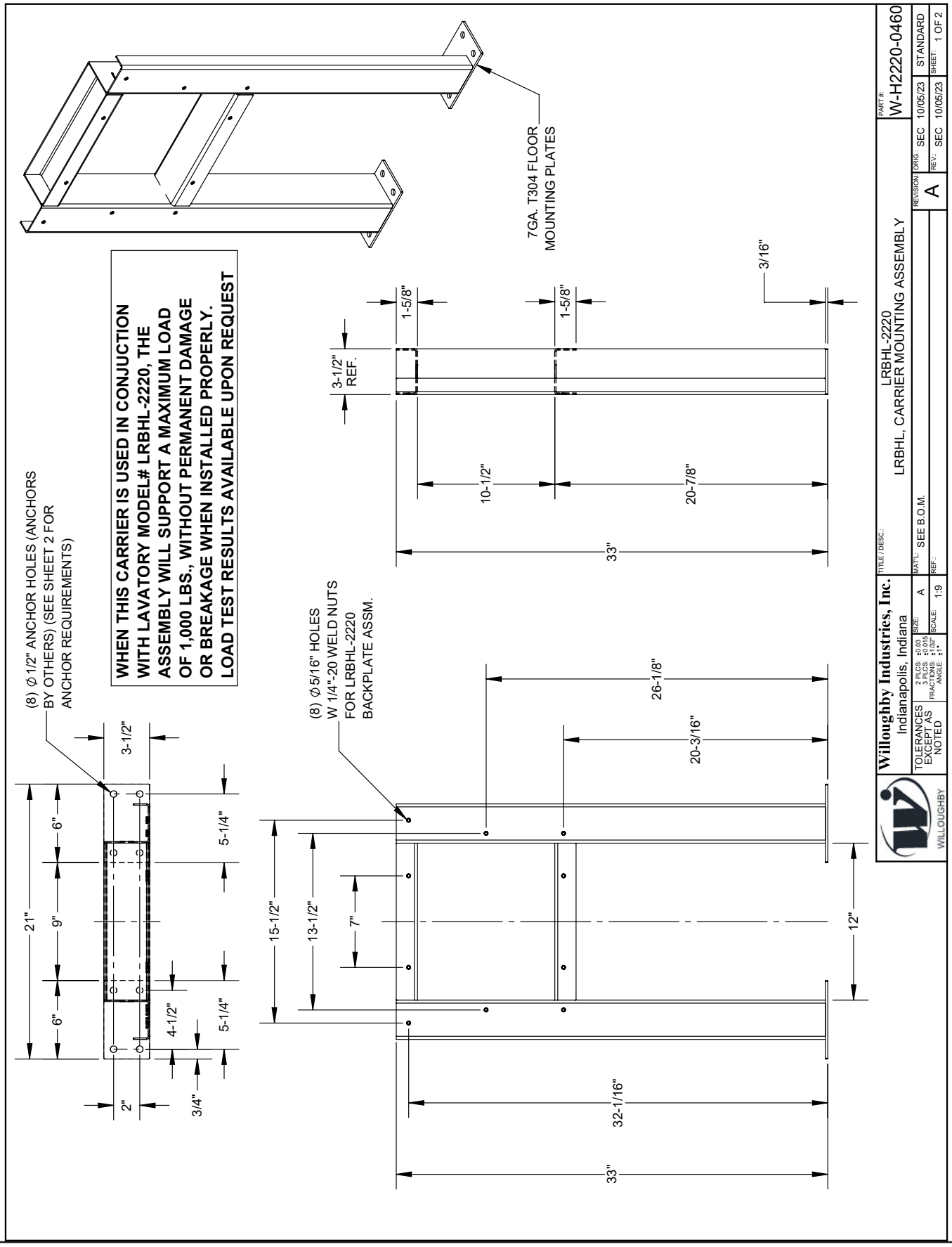
Optional In-wall Mounting Carrier Installation

1.) Secure the in-wall mounting carrier to the floor with anchors (provided by others).

2.) Using the provided 3/4" security screws secure the pedestal to the mounting carrier.



DRAWING: In-wall Mounting Carrier

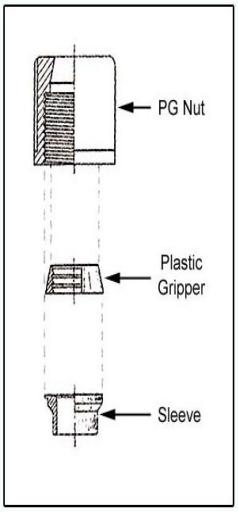


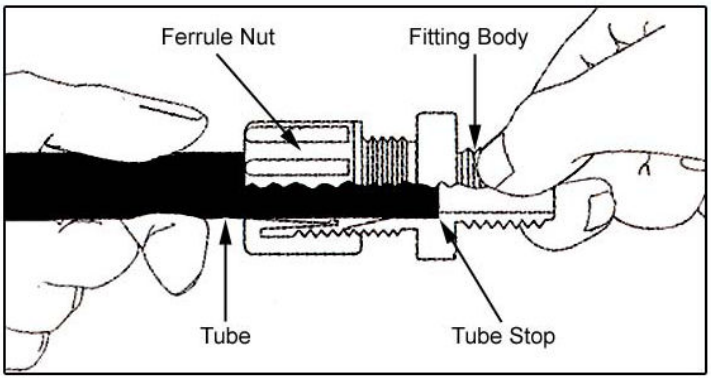
JACO Fitting Instruction

Note: It is not necessary to disassemble this fitting for application. Merely insert tubing to stop and tighten seal.

1. Cut tubing end squarely and remove the internal burrs.
2. Insert the tubing through the back of the nut all the way through the nut assembly to the tube stop in the fitting body (see illustration). If the tubing does not enter the nut easily, loosen the nut one turn and reinsert the tubing all the way to the tube stop in the fitting body.
3. Turn the nut hand tight.
4. Wrench tighten the nut 1½ - 2 turns.
5. All nuts must be retightened when the system reaches projected operating temperature.

Note: To ensure proper assembly, tubing MUST be fully inserted into the fitting body all the way to the tube stop.
Note: Squeaking sound when tightening nut is normal. For pipe threaded connections, Teflon tape must be used.





Adjustable Mixing Valve Installation

POWERS™

IS-P-e480

HydroGuard® T/P Series e480
Lavatory Combination Valve

Installation Instructions

To Install ■

NOTE: Installation should be in accordance with accepted plumbing practices. Flush all piping thoroughly before installation.

1. Locate a suitable place for the tempering valve. Valve should be accessible for service and adjustment and as close to the point-of-use as possible.
2. Connect hot and cold water to the supply valve using 1/2" NPT or 3/8" compression connections.
3. Connect outlet of tempering valve to fixture(s) using 1/2"NPT or 3/8" compression connections.
4. Turn on hot and cold water supplies. If any leaks are observed, tighten connections as necessary to stop leaks before proceeding.
5. Turn on fixture and allow water to flow for 2 minutes. Measure water temperature at outlet. If water is not at desired temperature, adjust as necessary.

Specifications ■

e480-00	1/2" NPT (Rough Bronze)
e480-01	1/2" NPT (Rough Chrome)
e480-10	3/8"Compression (Rough Bronze)
e480-11	3/8"Compression (Rough Chrome)
Capacity:	4.0 gpm (15.0 l/m)
Approach Temperature:	5°F (2.8°C) above set pt.
Max. Operating Pressure:	125psi (862 kpa)
Max. Static Pressure:	125psi (862 kpa)
Max. Hot Water Temperature:	180°F (82°C)
Temp. Adjustment Range:	
	ASSE Type T/P: 95 – 110°F (43-48°C)
	ASSE Type T: 80 – 120°F (27-49°C)
Minimum Flow:	0.5 gpm (2.2 l/m)
Checks:	Integral
Construction:	Cast Brass Body
Certified:	CSA B125
Listing	ASSE 1016-1996 (Type T/P)
	ASSE 1070

CALIFORNIA PROPOSITION 65 WARNING

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. (California law requires this warning to be given to customers in the State of California.)

For more information: www.watts.com/prop65

Figure 1

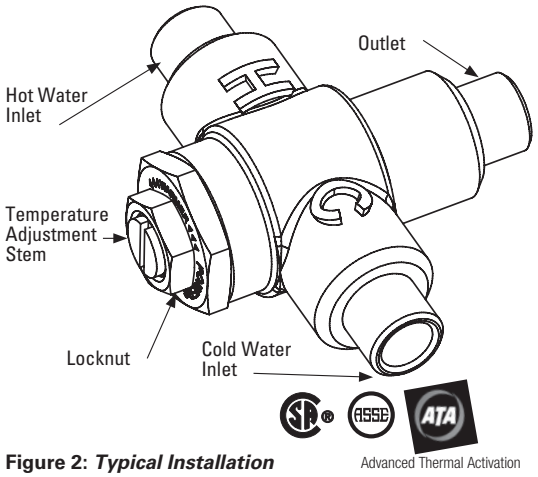
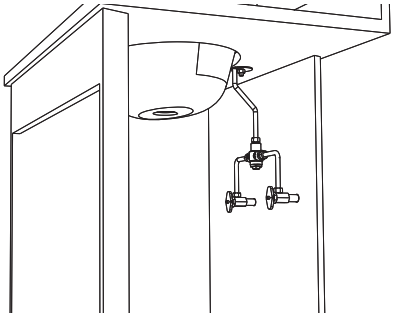


Figure 2: ***Typical Installation***



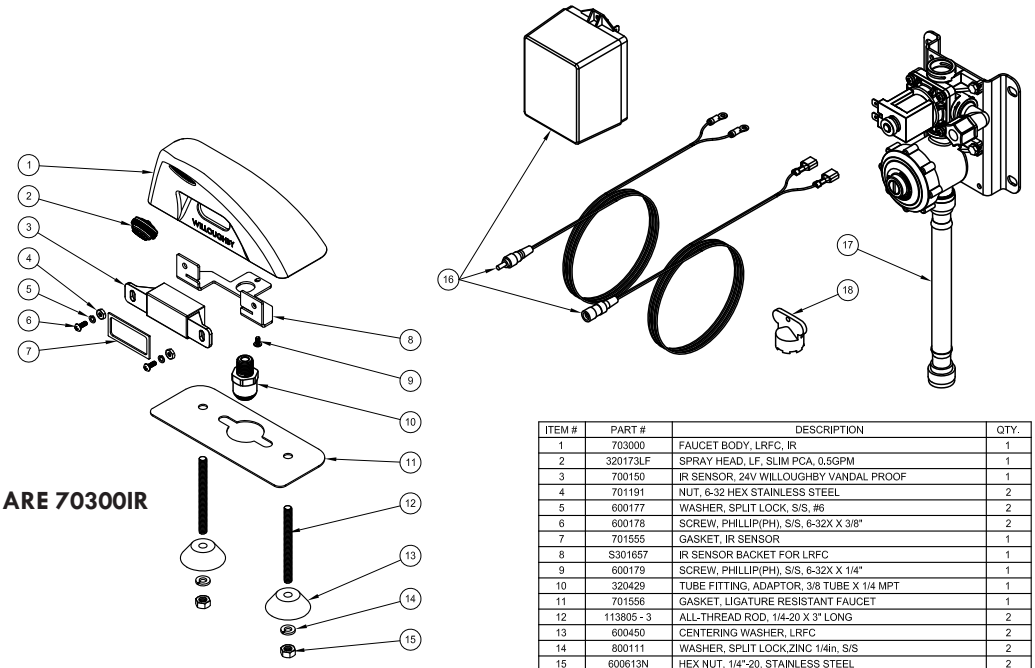
To Adjust Temperature ■

1. Loosen locknut.
2. Turn on fixture and run water for at least two (2) minutes to allow supply temperature to stabilize.
3. Turn temperature stem counter-clockwise for hotter or clockwise for colder outlet temperature.
4. Tighten locknut to prevent accidental or unauthorized temperature adjustment.
5. Re-check outlet temperature.

Repair Kit ■

Motor Repair Kit.....480-270

(LRFC) FAUCET Part Numbers

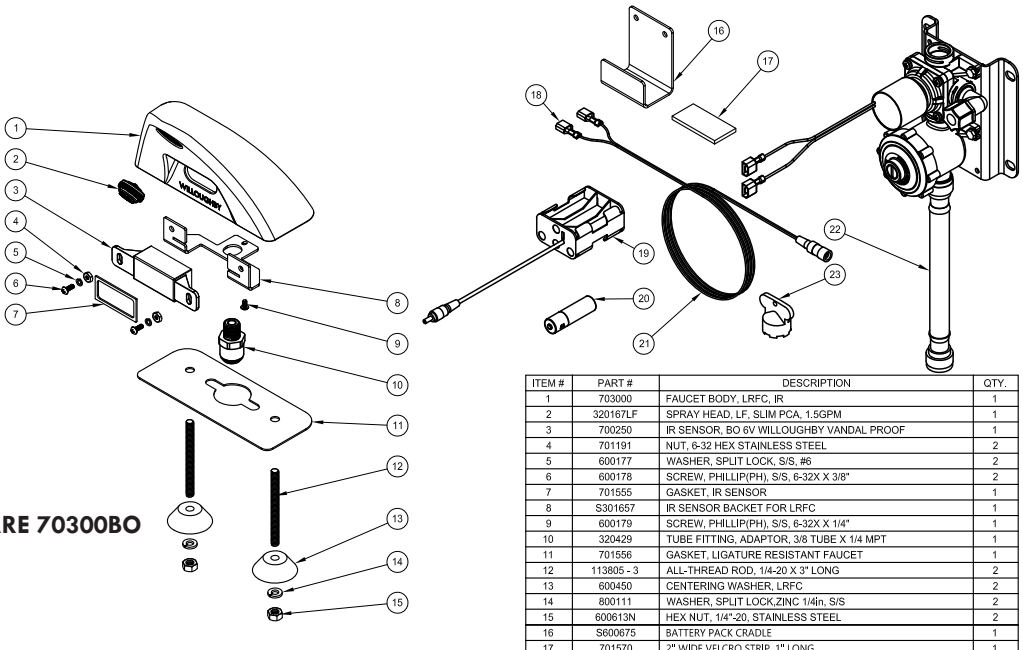


PART #'S 1-15 ARE 70300IR

LRFC-IR

NOTE: 600523 TUBING NOT SHOWN

ITEM #	PART #	DESCRIPTION	QTY.
1	703000	FAUCET BODY, LRFC, IR	1
2	320173LF	SPRAY HEAD, LF, SLIM PCA, 0.5GPM	1
3	700150	IR SENSOR, 24V WILLOUGHBY VANDAL PROOF	1
4	701191	NUT, 6-32 HEX STAINLESS STEEL	2
5	600177	WASHER, SPLIT LOCK, S/S, #6	2
6	600178	SCREW, PHILLIP(PH), S/S, 6-32X X 3/8"	2
7	701555	GASKET, IR SENSOR	1
8	S301657	IR SENSOR BACKET FOR LRFC	1
9	600179	SCREW, PHILLIP(PH), S/S, 6-32X X 1/4"	1
10	320429	TUBE FITTING, ADAPTOR, 3/8 TUBE X 1/4 MPT	1
11	701556	GASKET, LIGATURE RESISTANT FAUCET	1
12	113805 - 3	ALL-THREAD ROD, 1/4-20 X 3" LONG	2
13	600450	CENTERING WASHER, LRFC	2
14	800111	WASHER, SPLIT LOCK,ZINC 1/4in, S/S	2
15	600613N	HEX NUT, 1/4"-20, STAINLESS STEEL	2
16	700156-1	POWER SUPPLY, 1-STATION IR SENSOR, 24V, ADJUSTABLE	1
17	E1L11XXXXE	VALVE ASSY ELECTRONIC SINGLE TEMP - NFC - LEAD FREE	1
18	980676	KEY TOOL, INSERT, LRFC	1
19	600523	TUBING, 3/8" OD X 1/4" ID 20" LONG	1



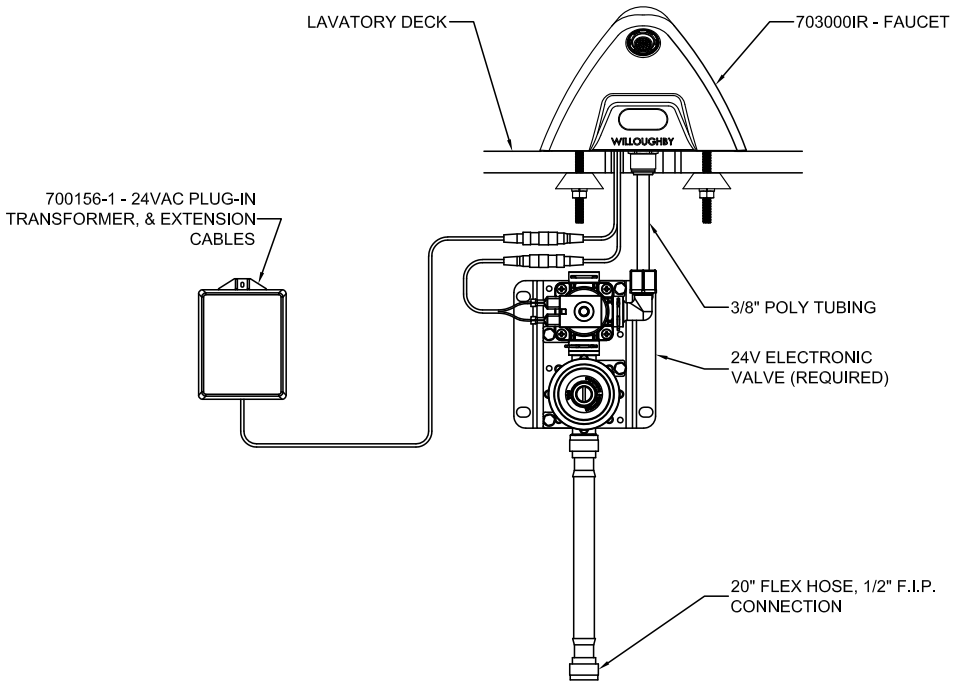
PART #'S 1-15 ARE 70300BO

LRFC-BO

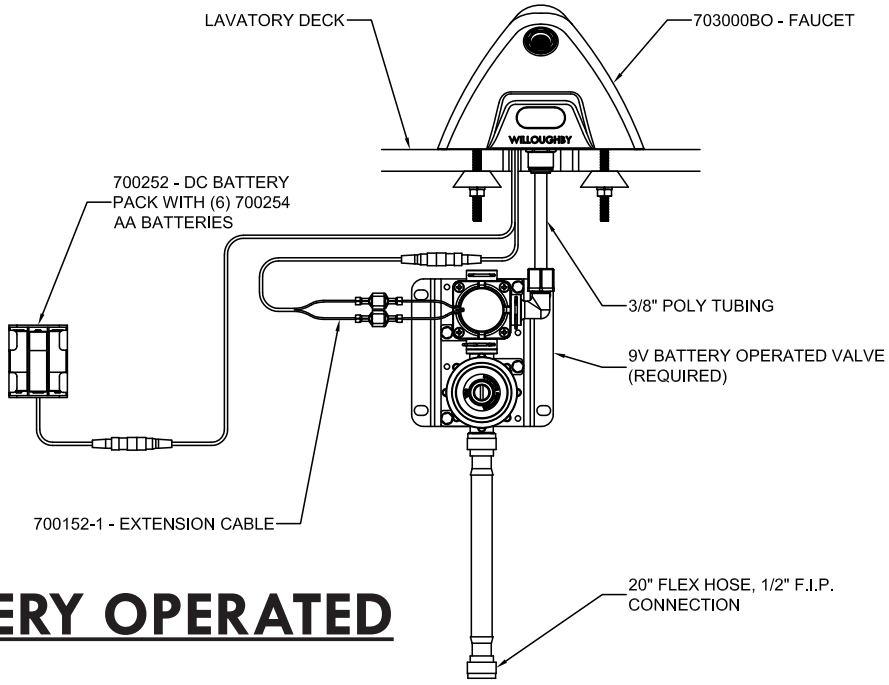
NOTE: 600523 TUBING NOT SHOWN

ITEM #	PART #	DESCRIPTION	QTY.
1	703000	FAUCET BODY, LRFC, IR	1
2	320167LF	SPRAY HEAD, LF, SLIM PCA, 1.5GPM	1
3	700250	IR SENSOR, BO 6V WILLOUGHBY VANDAL PROOF	1
4	701191	NUT, 6-32 HEX STAINLESS STEEL	2
5	600177	WASHER, SPLIT LOCK, S/S, #6	2
6	600178	SCREW, PHILLIP(PH), S/S, 6-32X X 3/8"	2
7	701555	GASKET, IR SENSOR	1
8	S301657	IR SENSOR BACKET FOR LRFC	1
9	600179	SCREW, PHILLIP(PH), S/S, 6-32X X 1/4"	1
10	320429	TUBE FITTING, ADAPTOR, 3/8 TUBE X 1/4 MPT	1
11	701556	GASKET, LIGATURE RESISTANT FAUCET	1
12	113805 - 3	ALL-THREAD ROD, 1/4-20 X 3" LONG	2
13	600450	CENTERING WASHER, LRFC	2
14	800111	WASHER, SPLIT LOCK,ZINC 1/4in, S/S	2
15	600613N	HEX NUT, 1/4"-20, STAINLESS STEEL	2
16	S600675	BATTERY PACK CRADLE	1
17	701570	2" WIDE VELCRO STRIP, 1" LONG	1
18	600830	CONNECTOR, 1/4" FEM, 18-22 AWG, FI	1
19	700252	BATTERY PACK, DC IR BO VALVE SYSTEM	1
20	700254	BATTERY, AA	6
21	700152-1	CABLE, IR, BLACK, 8', SEALED	1
22	EBL11XXXXE	VALVE ASSY, BATTERY OPERATED SINGLE TEMP - NFC - LEAD FREE	1
23	980676	KEY TOOL, INSERT, LRFC	1
24	600523	TUBING, 3/8" OD X 1/4" ID 20" LONG	1

(LRFC) FAUCET Install Details

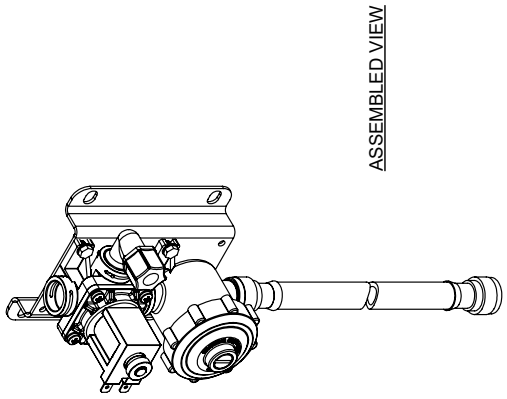


HARD-WIRED

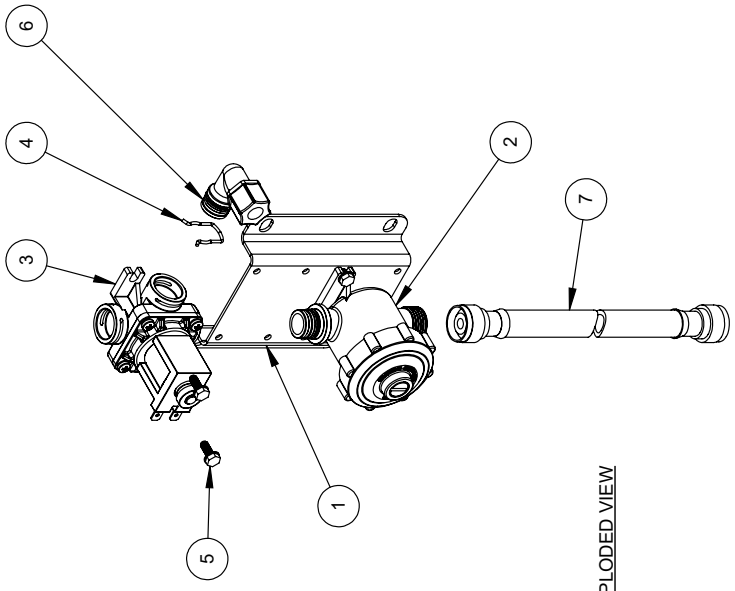


BATTERY OPERATED

DRAWING: 24V Electronic Valve Detail



ASSEMBLED VIEW



EXPLODED VIEW

ITEM #	PART #	DESCRIPTION	QTY.
1	980501	PM1 VALVE BRACKET	1
2	980183	CHECKSTOP ASSEMBLY	1
3	980408PR	E1L VALVE ASSEMBLY - RIGHT PLUGGED PORT	1
4	980140	SPRING CLIP, ROUND	2
5	800133	#10-16 SELF TAP TYPE B HEX HEAD SCREW	4
6	980600A	VALVE FITTING ASSEMBLY, 3/8" ELBOW	1
7	980520	20" FLEX HOSE, 1/2 F.I.P CONNECTION	1

Willoughby Industries, Inc.
Indianapolis, Indiana

TOLERANCES EXCEPT AS NOTED
2 PLCS: ±0.03
3 PLCS: ±0.015
FRACTIONS: ±1/32"
ANGLE: ±1°

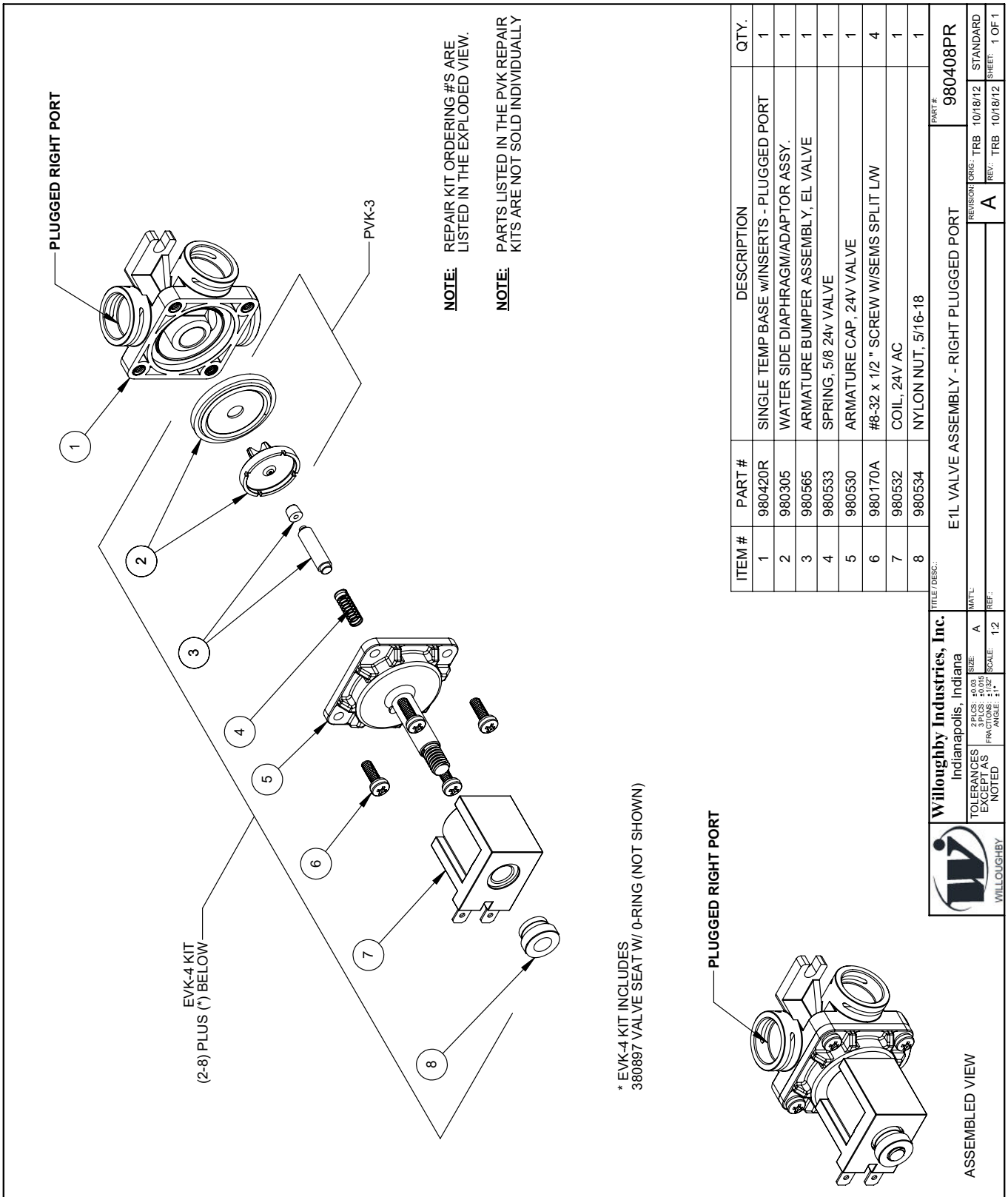
SIZE: A
SCALE: 1:4

TITLE / DESC.: VALVE ASSY ELECTRONIC SINGLE TEMP - NFC - LEAD FREE
MAT'L: N/A
REF:

REVISION: A
ORG.: EEF 2/5/15
REV.: NAL 11/30/20

PART #: E1L11XXXXE
STANDARD
SHEET: 1 OF 1

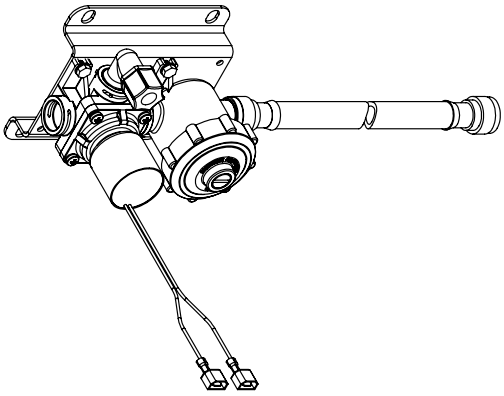
DRAWING: 24V Electronic Valve Detail



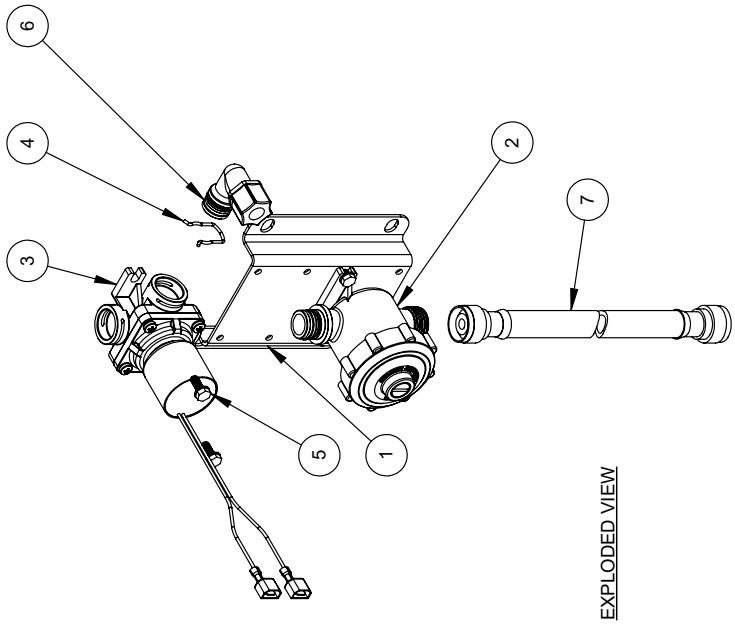
ITEM #	PART #	DESCRIPTION	QTY.
1	980420R	SINGLE TEMP BASE w/INSERTS - PLUGGED PORT	1
2	980305	WATER SIDE DIAPHRAGM/ADAPTOR ASSY.	1
3	980565	ARMATURE BUMPER ASSEMBLY, EL VALVE	1
4	980533	SPRING, 5/8 24v VALVE	1
5	980530	ARMATURE CAP, 24V VALVE	1
6	980170A	#8-32 x 1/2 " SCREW W/SEMS SPLIT L/W	4
7	980532	COIL, 24V AC	1
8	980534	NYLON NUT, 5/16-18	1

DRAWING: 9V Battery Operated Valve Detail

ASSEMBLED VIEW



EXPLODED VIEW



ITEM #	PART #	DESCRIPTION	QTY.
1	980501	PM1 VALVE BRACKET	1
2	980183	CHECKSTOP ASSEMBLY	1
3	980416PR	VALVE ASSY, BATTERY OPERATED, RH PLUGGED PORT	1
4	980140	SPRING CLIP, ROUND	2
5	800133	#10-16 SELF TAP TYPE B HEX HEAD SCREW	4
6	980600A	VALVE FITTING ASSEMBLY, 3/8" ELBOW	1
7	980520	20" FLEX HOSE, 1/2 F.I.P CONNECTION	1

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Indianapolis, Indiana

TOLERANCES EXCEPT AS NOTED
FRACTIONS: ±1/32"
2 PLCS: ±0.03
3 PLCS: ±0.015
ANGLE: ±1°

SIZE: A
SCALE: 1:4

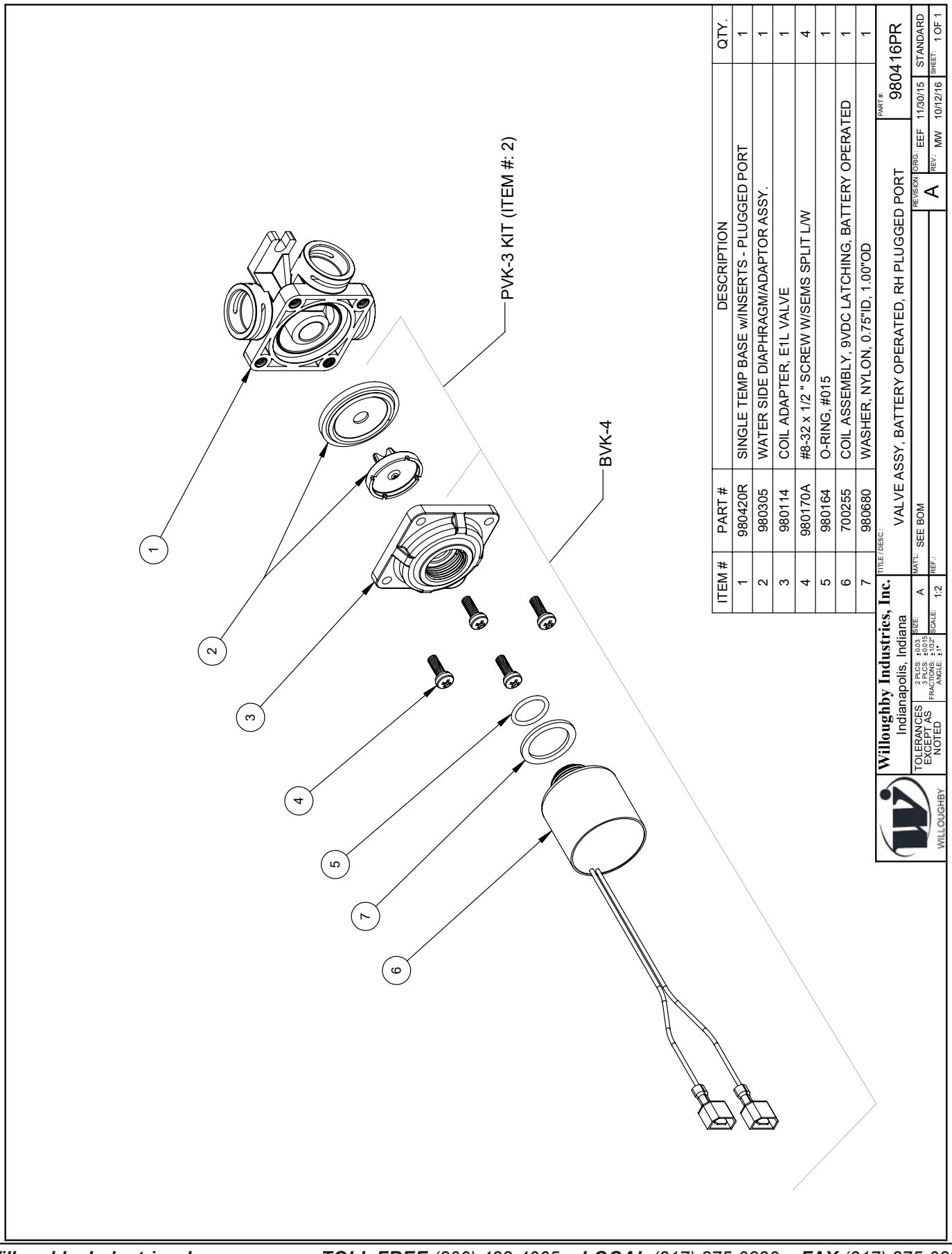
TITLE / DESC.: VALVE ASSY, BATTERY OPERATED SINGLE TEMP - NFC - LEAD FREE
MAT'L: N/A
REF:

PART #: EBL11XXXXE

REVISION: A
ORIG.: NAL 11/30/20
REV.: NAL 11/30/20

STANDARD
SHEET: 1 OF 1

DRAWING: 9V Battery Operated Valve Detail



ITEM #	PART #	DESCRIPTION	QTY.
1	980420R	SINGLE TEMP BASE w/INSERTS - PLUGGED PORT	1
2	980305	WATER SIDE DIAPHRAGM/ADAPTOR ASSY.	1
3	980114	COIL ADAPTER, E1L VALVE	1
4	980170A	#8-32 x 1/2 " SCREW W/SEMS SPLIT L/W	4
5	980164	O-RING, #015	1
6	700255	COIL ASSEMBLY, 9VDC LATCHING, BATTERY OPERATED	1
7	980680	WASHER, NYLON, 0.75"ID, 1.00"OD	1

WILLOUGHBY

Willoughby Industries, Inc.
Indianapolis, Indiana

TOLERANCES EXCEPT AS NOTED
2 PLCS: ±0.03
3 PLCS: ±0.015
FRACTIONS: ±1/32
ANGLE: ±1°

SIZE: A
SCALE: 1:2

TITLE / DESC: VALVE ASSY, BATTERY OPERATED, RH PLUGGED PORT
MAT'L: SEE BOM
REF.:

PART #: 980416PR

REVISION: A
ORIG.: EEF 11/30/15
REV.: MW 10/12/16

STANDARD
SHEET: 1 OF 1

Care and Maintenance

Solid Surface Care

Surfaces may be easily cleaned using conventional cleaning agents such as an ammonia based liquid cleaner, (glass cleaner).

Dry stains on a matte finish can be removed with a 3M Scotch-Brite gray scouring pad or a mild abrasive cleaner.

Burns or scorches can be removed by sanding with coarse grit sandpaper followed by finer grit (220) sandpaper. Follow sanding with a 3M Scotch-Brite gray pad (or equivalent) to match finish of sanding area to surrounding area. A final buffing may be required on polished surfaces. Accidental nicks or chips can be repaired with special patch kits available in all colors.

Avoid exposing surfaces to strong chemicals such as acetone's; paint removers and sulfuric acid or hydrochloric chemical cleaners. Exposure to strong chemicals may result in permanent damage to surfaces.

Stainless Steel Care

Stainless Steels are basically alloys of iron and chromium and are corrosion resistant. Stainless steel has a bright surface that is easy to clean and is free from oxides. Therefore, cleaning of stainless steel is relatively simple and easy if done on a regular basis.

Frequency of cleaning should depend on the rate at which the fixture becomes dirty. Remember that fresh (soft) deposits of all kinds are relatively easy to remove, while removing older (hard) deposits are much more difficult. Establish a cleaning SCHEDULE.

Routine cleaning should involve ordinary soap or detergent and water, applied with a sponge, brush or cloth. Baking soda, borax or any of several non-abrasive commercial cleansing agents can help hasten the cleaning action. after scrubbing, rinse THOROUGHLY and wipe dry.

DO NOT use common steel wool, scouring pads, scrapers, wire brushes, files or other steel tools to clean stainless steel. Such items will scratch the surface or leave small particles of iron imbedded in the surface, which will eventually rust and stain the surface - even appearing as if the stainless itself was rusting.

Certain chemical compounds, if used on stainless steel, can give the appearance of rust and if allowed to stand for long periods of time, can pit the surface of even stainless. Products containing hydrochloric acid, muriatic acid or potassium hydrochloride can ruin the surface.

Troubleshooting - Infrared Sensors

I. Faucet does not function (red light does not appear when user steps in front of sensor)
   A. No power to sensor. Make certain that power is on. Check transformer leads and connections. Repair or replace as necessary.
   B. Willoughby 700150 IR Sensor not operating. Replace Willoughby 700150 IR Sensor.

II. Faucet does not function (red light appears when user steps in front of sensor and solenoid does not click)
   A. Debris in solenoid; disassemble, clean, and flush.
   B. Solenoid not wired correctly; check solenoid connections.
   C. Solenoid problem; replace solenoid.

III. No water when activated (valve clicks)
   A. Make certain that water is turned on.
   B. Valve clogged. Clean or replace filter.

IV. Very low flow or slow dribble
   A. Check supply stop(s); open if closed.
   B. Debris in filter; remove, clean, and reinstall.
   C. Debris in aerator or spray head; remove, clean and reinstall.
   D. Disassemble solenoid; clean and flush.

V. Continues to run (with power on and red light flashing)
   A. Non-permanent target in range after user leaves. Remove non-permanent target. If this target is a new permanent target (i.e., a new wall or partition), turn off 24 volt power for fifteen (15) seconds. Turn power back on and let the sensor complete start-up mode.
   B. Sensor failure; replace sensor.

VI. Continues to run (even with power disconnected)
   A. Solenoid valve installed backwards.
   B. Debris in solenoid, won't close properly; remove operator and clean. Reassemble in the same manner.

Troubleshooting - Electronic Valves

The two most common reasons an electronic valve does not operate properly are: (1) lack of power or (2) lack of water pressure. The following steps should be used as a guide in identifying the problem of a malfunctioning electronic valve.

I. Lack of power
   A. Verify that the 110V GFCI outlet has power
   B. Check all connections to ensure they have been made correctly:
      1. Cable connecting the valve coil and the timer or IR sensor
      2. Cable connecting the timer and the pushbutton (Piezo only)
      3. Cable connecting the timing device and the 24VAC transformer
      4. The 24VAC transformer and the 110V GFCI outlet
   C. If the valve is wired correctly, the solenoid will make a “click” sound indicating that the valve has been actuated. The electronic valve is actuated by either the piezo pushbutton or the triggering of the infrared sensor (see the Start-Up Instructions for Infrared Sensors in this manual).

II. Lack of water pressure
   A. Check the supply to the rough-ins
   B. Make sure the screwdriver stops are in the open position
   C. Water pressure needs to be above 35psi to operate the valve
      1. If the water supply pressure is above 35psi but not exiting the valve:
         a. Clean any debris from the screen on the inlet side of the solenoid valve body
         b. Remove the screws on the valve body and clean any debris from the diaphragm

After all of the above steps have been followed, if there is still no water coming out of the spray head, there may be a damaged or defective part (see installation notice in the beginning of this manual).

Warranty

Solid surface products are a homogenous blend of resins, mineral filler and colorant manufactured for panels, molded and/or shaped products and components. Solid surface products provide a luxurious appearance with the durability of stain proof, impact resistant, burnresistant material with the ease of maintenance and cleaning.

Willoughby Industries, Inc. warrants to commercial and institutional purchasers only that each unit will be free from defects in workmanship and materials under normal use and service upon the following terms and conditions. The period during which components are warranted as follows:

1. Solid surface components are warranted for 2 years from date of shipment.

2. All other components warranted for 1 year from date of shipment.

This warranty does not cover installation or any other labor charges and does not apply to any components damaged by accident, abuse, improper installation or improper maintenance. This warranty does not cover any installation that did not comply with national, state and local building, plumbing or electrical codes. The warranty is limited to replacing or repairing at manufacturer's option, transportation charges prepaid by the purchaser, any component or part which upon our inspection shall be deemed as defective within the limitations of this warranty. The replacement or repair of defective units as stated in this warranty shall constitute the sole remedy of the purchaser and the sole liability of Willoughby Industries, Inc. Willoughby Industries, Inc. shall not otherwise be liable under any indirect damages caused by defects in the repair or replacement thereof.

This warranty only extends to commercial and industrial purchasers and does not extend to any others, including consumer customers of commercial institutional purchasers. This warranty is in lieu of all other warranties, expressed or implied, including implied warranty of merchantability or fitness for a particular purpose or otherwise.