

WILLOUGHBY INDUSTRIES ACCESSORY IR FAUCET ASSEMBLY

INSTALLATION AND OPERATION MANUAL

LRFC PART#: 703000IR / 703000BO LIGATURE-RESISTANT IR FAUCET

STANDARD FEATURES

- Willoughby (LRFC) Ligature-resistant IR faucet is designed to allow users to wash without the use of pushbuttons.
- Specifically for mental & behavioral healthcare facility use.
- Recommended operational pressure, 35-70 PSI.

DISASSEMBLY

1. Unscrew the (2) 1/4-20 nuts on the all thread rod and take off the lock washers and centering washers.

INSTALLATION

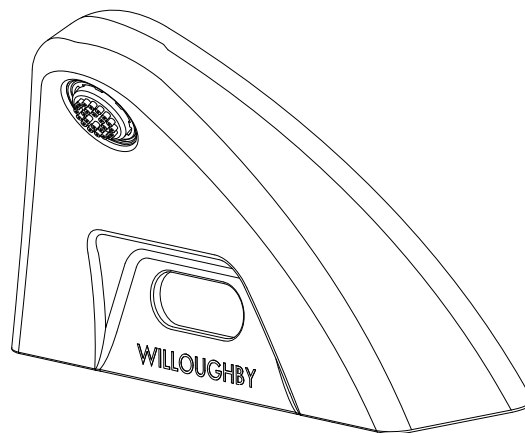
1. Make sure the deck gasket for the faucet is on the faucet and both all-thread rods, PTC fitting, and wires for the IR valve are through the gasket.

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

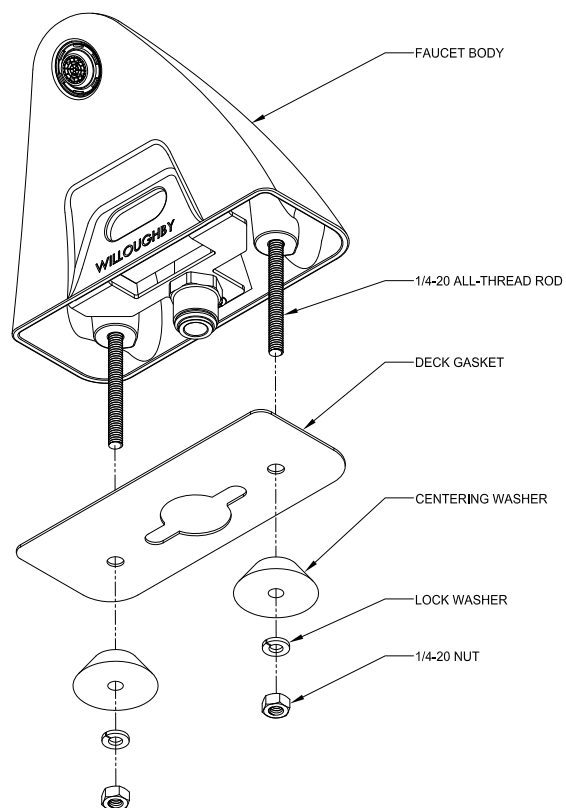
2. From the underside of the fixture, align the (2) 1/4-20 all-thread rods with the mounting holes, making sure the PTC fitting and IR sensor wires are going through the central hole.
3. Place the centering washer, lock washer and thread the nut onto the all-thread rods (all included). Tighten the nuts down.
4. After thorough flushing, connect the faucet to the water line from the valve using the 3/8" PTC Fitting (included).

If you have Plug-In infrared sensors, go to Page 2.

If you have Battery Operated infrared sensors, go to Page 3.



SEE FOLLOWING PAGES FOR FAUCET
DIMENSIONS AND PART NUMBERS



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(LRFC) FAUCET 24V AC System Infrared Sensor

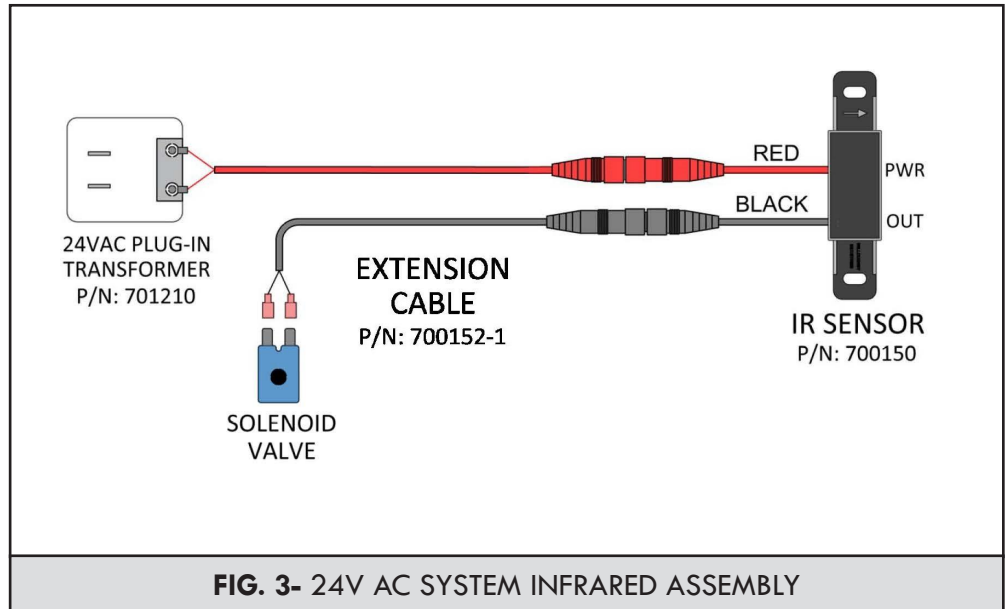
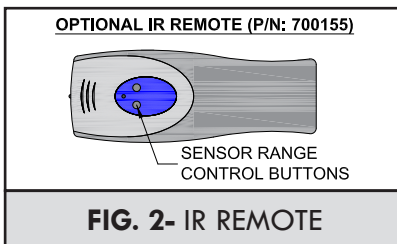
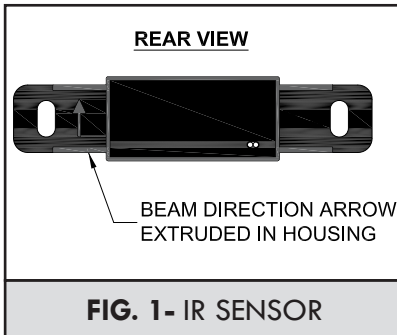
DETECTION AND ACTIVATION

- When the sensor detects a user, a slow-flashing red light appears in the sensor window.
- After 1-2 seconds of detection, the light flashes rapidly, the sensor immediately activates the solenoid valve, beginning water flow.
- The valve remains open while the user is detected.
- The valve closes when the user is no longer detected.
- The sensor is set to activate the solenoid valve for a maximum of 30 seconds before automatically shutting off.

Note: Sensor range is factory preset to 20";
Optional range adjustment remote available to adjust range from 1" min. to 30" max.
(SEE FIG. 2).

INSTALLATION AND REPLACEMENT

- 1) Disconnect the 24V AC power at either the transformer or fuse box.
- 2) Remove the faucet to expose the sensor and sensor mounting bracket.
- 3) Remove the PTC fitting and sensor mounting bracket.
- 4) Install the new sensor with arrow pointing upwards (SEE FIG. 1).
- 4) Replace the sensor mounting bracket and PTC fitting.
- 5) Remount the faucet to the fixture making sure both the red and black cables from the sensor are pushed through the center hole.
- 6) Connect the red male power cable to the female connector on the sensor (SEE FIG. 3).
- 7) Connect the black female solenoid cable to the male connector on the sensor.
- 8) Reconnect the power.



(LRFC) FAUCET Battery Operated Infrared Sensor

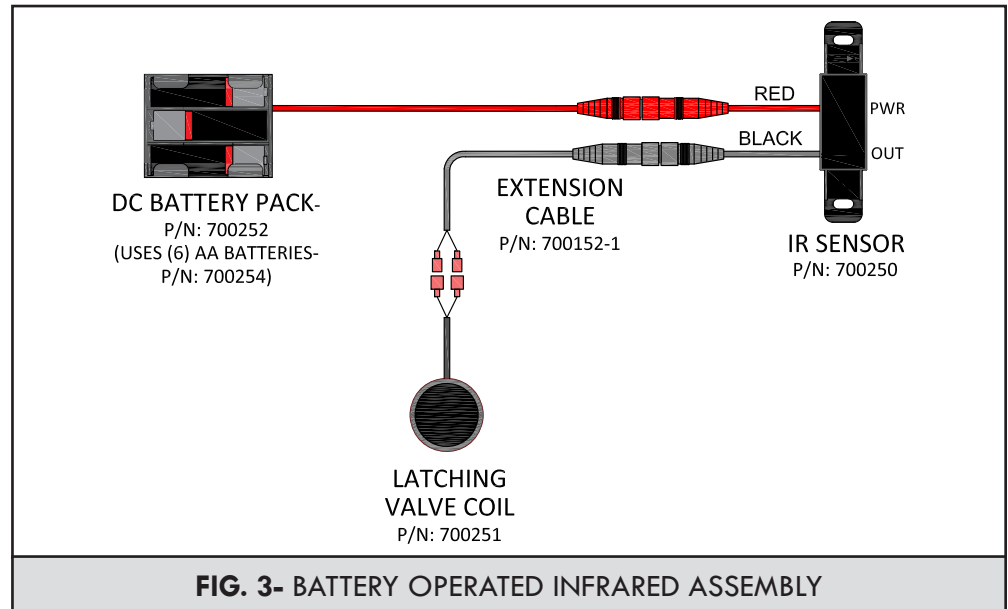
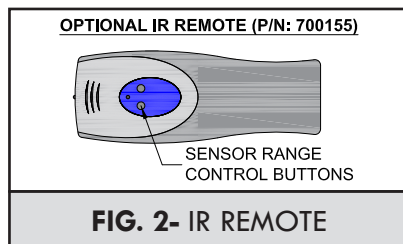
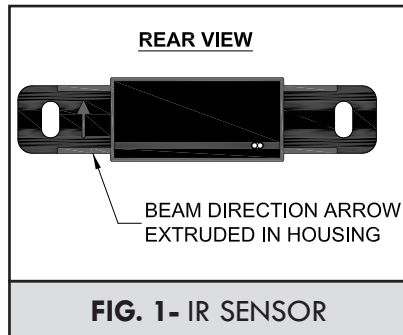
DETECTION AND ACTIVATION

- When the sensor detects a user, a slow-flashing red light appears in the sensor window.
- After 1-2 seconds of detection, the light flashes rapidly, the sensor immediately activates the latching solenoid valve, beginning water flow.
- The valve remains open while the user is detected.
- The valve closes when the user is no longer detected.
- The sensor is set to activate the latching solenoid valve for a maximum of 30 seconds before automatically shutting off.

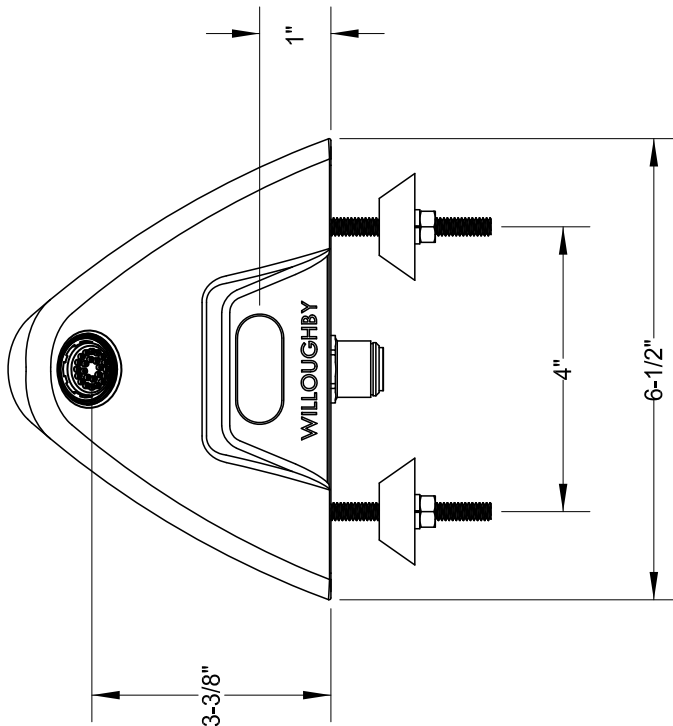
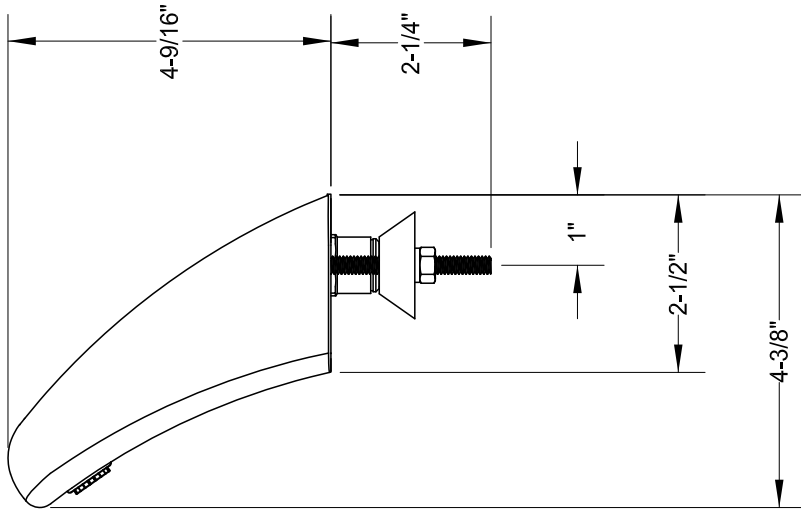
Note: Sensor range is factory preset to 20";
Optional range adjustment remote available
to adjust range from 1" min. to 30" max.
(**SEE FIG. 2**).

INSTALLATION AND REPLACEMENT

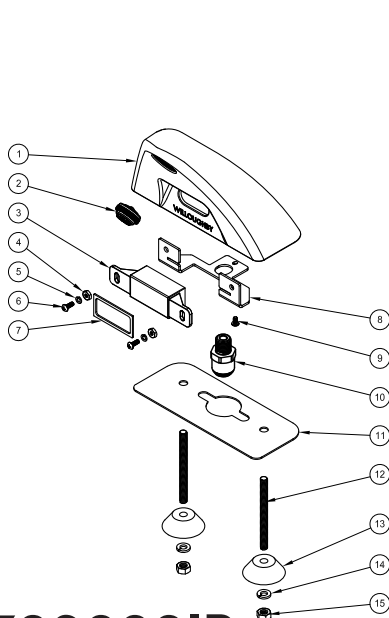
- 1) Disconnect battery pack and remove it from cradle.
- 2) Remove the faucet to expose the sensor and sensor mounting bracket.
- 3) Remove the PTC fitting and sensor mounting bracket.
- 4) Install the new sensor with arrow pointing upwards (**SEE FIG. 1**).
- 4) Replace the sensor mounting bracket and PTC fitting.
- 5) Remount the faucet to the fixture making sure both the red and black cables from the sensor are pushed through the center hole.
- 6) Connect the red male power cable to the female connector on the sensor (**SEE FIG. 3**).
- 7) Connect the black female solenoid cable to the male connector on the sensor.
- 8) Reconnect battery pack and place back into cradle.



(LRFC) FAUCET Dimensions

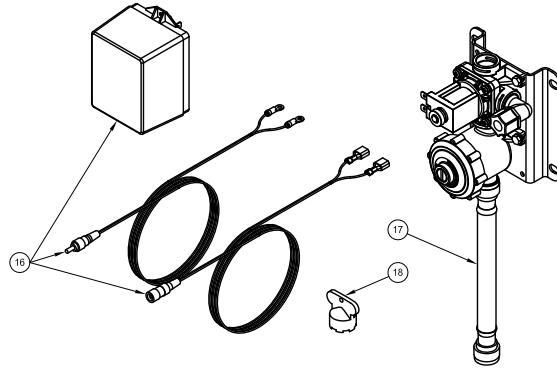


(LRFC) FAUCET Part Numbers

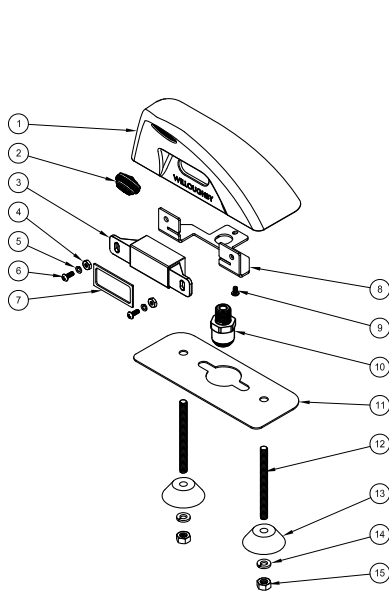


703000IR

NOTE: 600523 TUBING NOT SHOWN

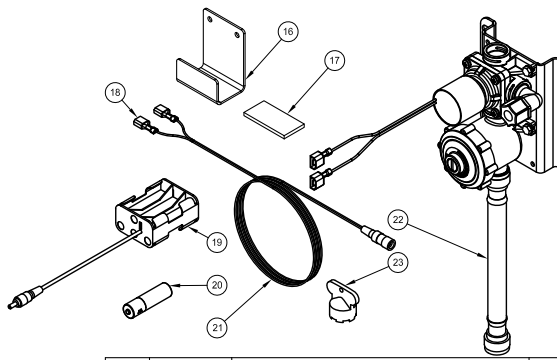


ITEM #	PART #	DESCRIPTION	QTY.
1	703000	FAUCET BODY, LRFC, IR	1
2	320173LF	SPRAY HEAD, LF, SLIM PCA, 0.5GPM	1
3	700150	IR SENSOR, 24V WILLOUGHBY VANDAL PROOF	1
4	701191	NUT, 6-32 HEX STAINLESS STEEL	2
5	600177	WASHER, SPLIT LOCK, S/S, #6	2
6	600178	SCREW, PHILLIP(PI), S/S, 6-32X X 3/8"	2
7	701555	GASKET, IR SENSOR	1
8	S301657	IR SENSOR BASKET FOR LRFC	1
9	600179	SCREW, PHILLIP(PI), 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	800191	ROD, ALL-THREAD, ZINC PLATED, 1/4-20 X 3" LONG	2
13	600450	CENTERING WASHER, LRFC	2
14	800111	WASHER, SPLIT LOCK ZINC 1/4th, S/S	2
15	600613N	HEX NUT, 1/4"-20, STAINLESS STEEL	2
16	700152-1	POWER SUPPLY, 1-1 STATION IR SENSOR, 24V, ADJUSTABLE	1
17	EBL11XXXXXE	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



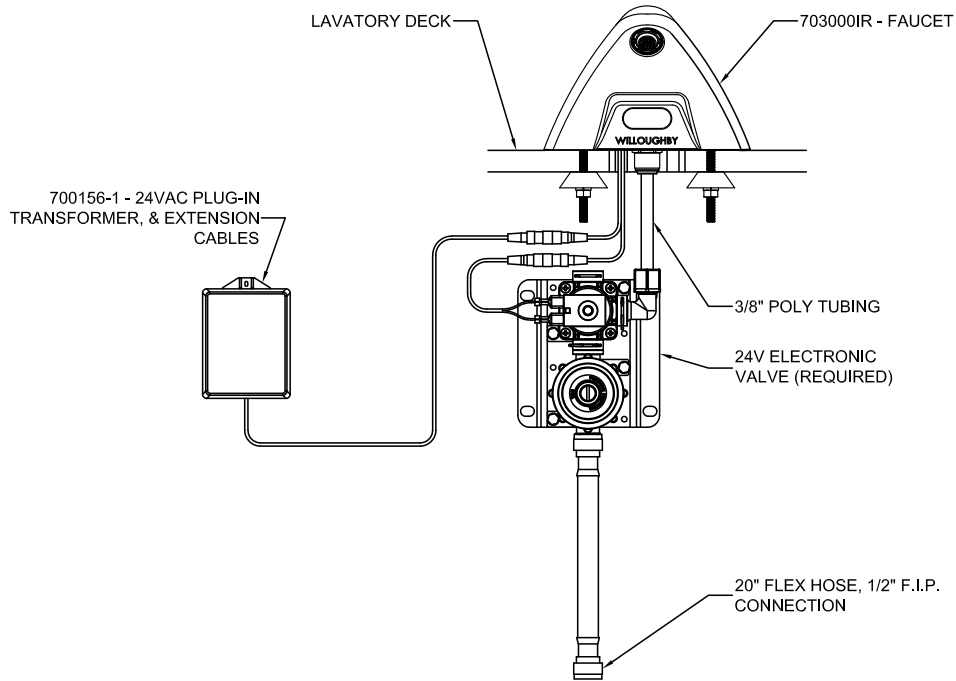
703000BO

NOTE: 600523 TUBING NOT SHOWN

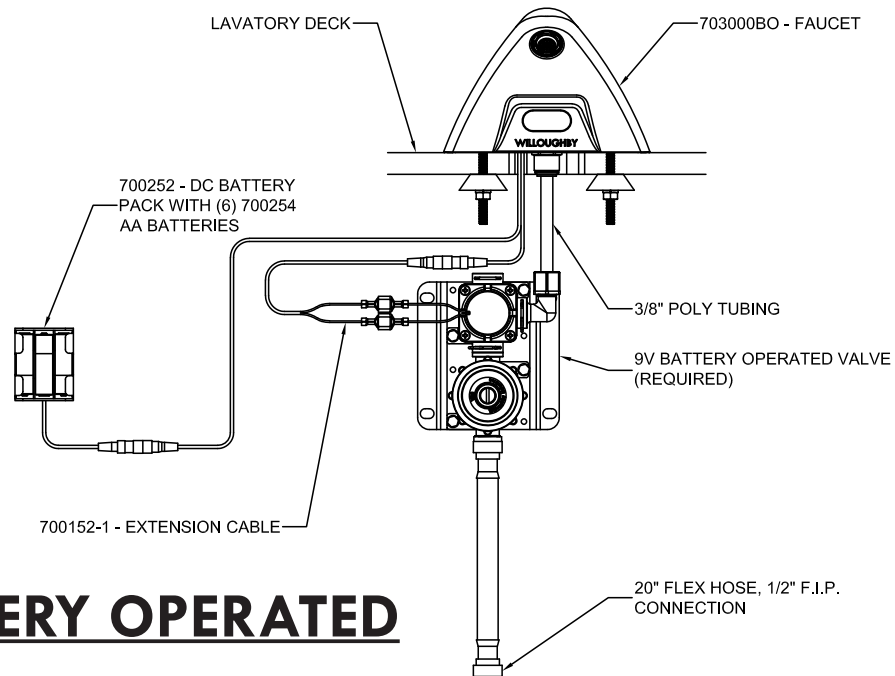


ITEM #	PART #	DESCRIPTION	QTY.
1	703000	FAUCET BODY, LRFC, IR	1
2	320167LF	SPRAY HEAD, LF, SLIM PCA, 1.5GPM	1
3	700250	IR SENSOR, BO 6V WILLOUGHBY VANDAL PROOF	1
4	701191	NUT, 6-32 HEX STAINLESS STEEL	2
5	600177	WASHER, SPLIT LOCK, S/S, #6	2
6	600178	SCREW, PHILLIP(PI), S/S, 6-32X X 3/8"	2
7	701555	GASKET, IR SENSOR	1
8	S301657	IR SENSOR BASKET FOR LRFC	1
9	600179	SCREW, PHILLIP(PI), 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	800191	ROD, ALL-THREAD, ZINC PLATED, 1/4-20 X 3" LONG	2
13	600450	CENTERING WASHER, LRFC	2
14	800111	WASHER, SPLIT LOCK ZINC 1/4th, 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	600630	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	EBL11XXXXXE	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 Part Numbers

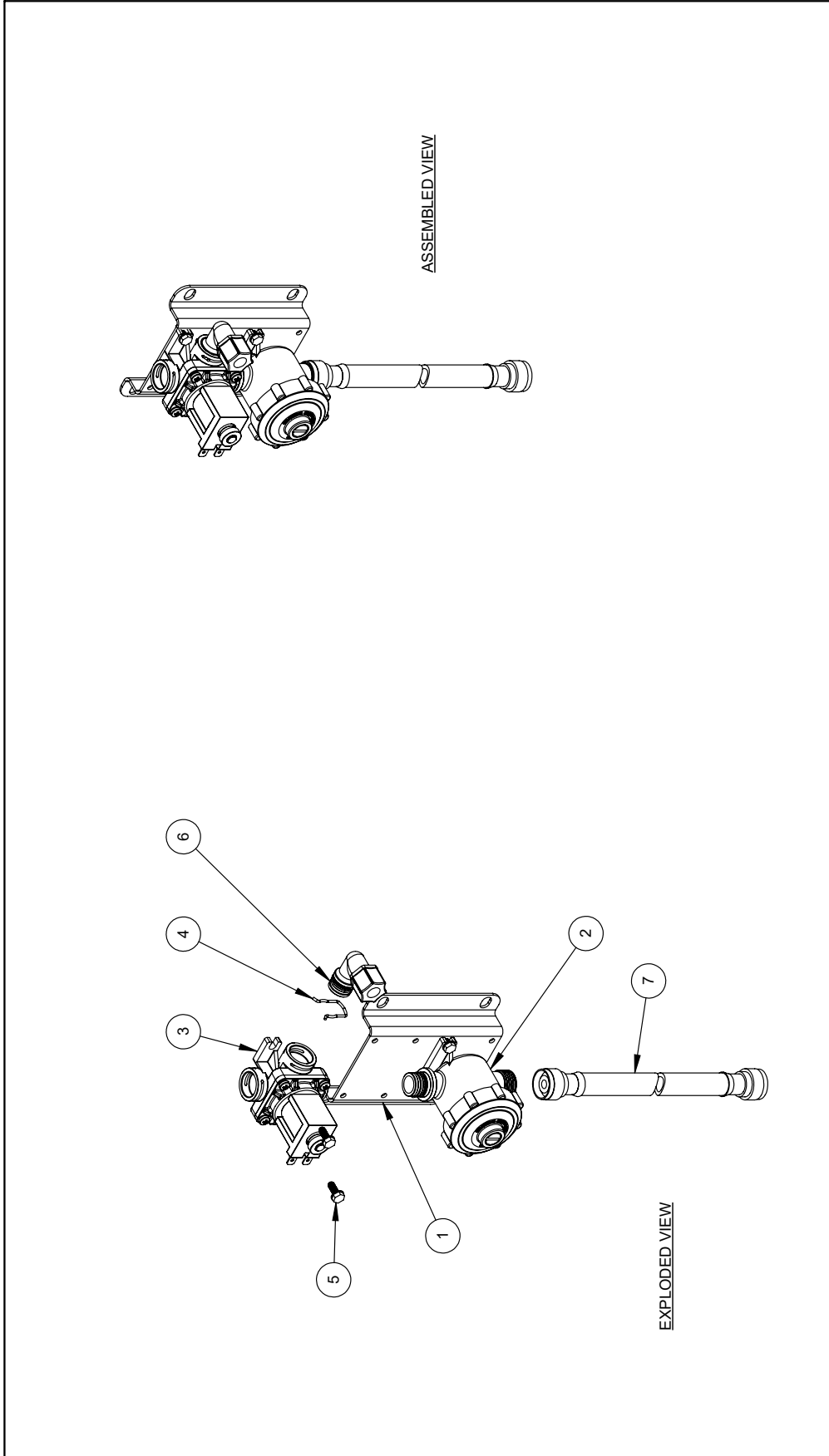


PLUG-IN



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

TITLE / DESC:		VALVE ASSY ELECTRONIC SINGLE TEMP - NFC - LEAD FREE	
MATL:	N/A	REVISION:	EEF 2/15/15
REF:		REV:	NAL 11/30/20
PART #:		E1L11XXXXX	
STANDARD:		1 OF 1	

Willoughby Industries, Inc.
 Indianapolis, Indiana

TOLERANCES EXCEPT AS NOTED

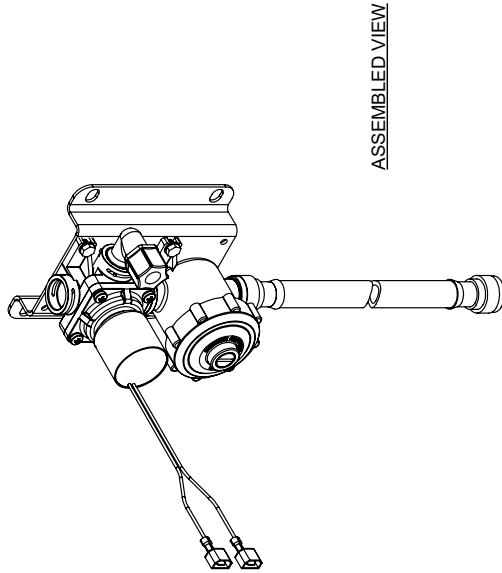
3 PLS: ±0.03
 5 PLS: ±0.015
 7 PLS: ±0.010

SCALE: 1" = 1"

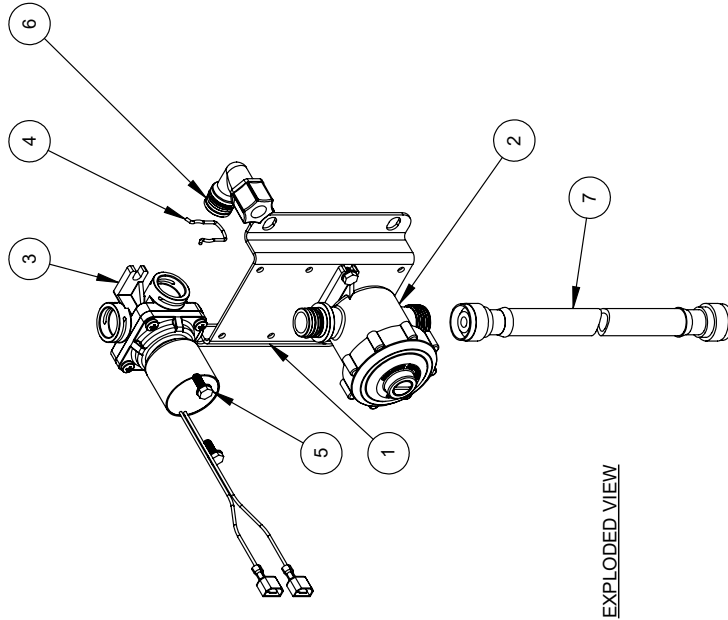
REF: 1:4

WILLOUGHBY

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

Willoughby Industries, Inc.
 Indianapolis, Indiana



TOLERANCES
 EXCEPT AS
 NOTED

2 PLS: ±0.03
 3 PLS: ±0.015
 FIN: ±0.005
 ANGLE: ±1°

SCALE: 1:4
 REF: 1:4

DATE: N/A
 REV: A

REVISION: NAL 11/30/20
 PART #: EBL11XXXX

STANDARD
 SHEET: 1 OF 1