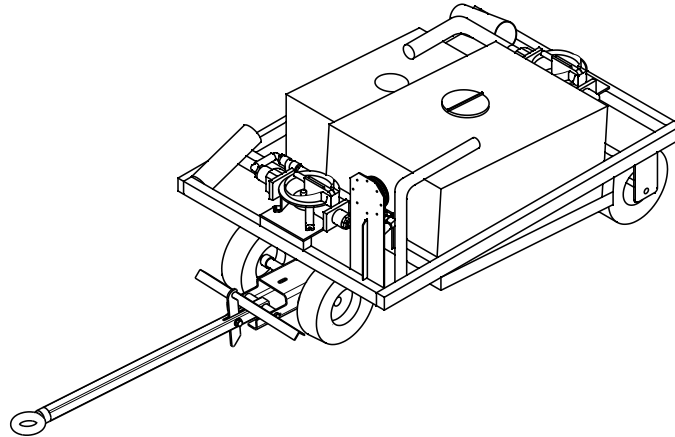




OPERATION & SERVICE MANUAL



**Model: 10-4036-0001
Lavatory Service Unit**



06/2012 – Rev. 11

REVISION	DATE	TEXT AFFECTED
09	02/2006	Modified Cover Illustration Modified Parts List
10	06/2009	Revised Pumps
11	06/2012	Modified Parts List and Illustration



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This product can not be modified without the written approval of Tronair, Inc. Any modifications done without written approval voids all warranties and releases Tronair, Inc., its suppliers, distributors, employees, or financial institutions from any liability from consequences that may occur. Only Tronair OEM replacement parts shall be used.

1.0 GENERAL DESCRIPTION

The Tronair Model 10-4036-0001 Lavatory Service Unit provides a clean, sanitary means of servicing the aircraft lavatory system and transporting the waste fluid to the dump station.

Some important features are:

- Easily maneuverable with Towbar
- Drain back system on fill hose to prevent fluid spillage
- Storage tubes for storage of fill and dump hoses
- Heavy duty fill and dump pumps
- Fill and dump tanks made of non-corroding HD polyethylene material with UV inhibitor
- Permanent connection of dump hose to dump tank

2.0 TECHNICAL SPECIFICATIONS

- Dimensions: 54 inches long x 36 inches Wide x 22 inches High
- Weight: 280 pounds

2.1 FILL (FRESH) SYSTEM

- 15 gallon tank capacity; HD polyethylene
- One (1) gallon per six (6) strokes fill pump
- Three inch tank fill port with cover
- Eight foot fill hose
- 20 psi max fill pump pressure

2.2 DUMP SYSTEM

- 31 gallon tank capacity; HD polyethylene
- 30 GPM manual diaphragm pump
- Six (6) inch tank clean out port with cover
- Four (4) inch aluminum tank flange for aircraft dump hose connection
- 10 foot dump tank hose

2.3 MECHANICAL

- Eight (8) inch pneumatic tires; 50 psi tire pressure maximum
- Roller bearings in wheels; zerk fittings
- Speed: 10 mph maximum

2.4 FACTORY INSTALLED OPTIONS & FIELD INSTALLED KITS

- Option 02: Three (3) inch dump tank flange for Shorts SD 330/360 aircraft.
- Option 03: Three (3) and four (4) inch dump tank flanges for Shorts SD 330/360 aircraft, and other aircraft using standard Wye connection.
- K-1036 Dump hose SD 330/360
- K-2029 Kit, Dump Connector
- K-2030 Kit, Dump Connector; mates with K-2412
- K-2410 Kit, Fill Connector
- K-2412 Kit, Dump Connector with five (5) foot hose
- K-3606 Kit, Hose Cap (Dump Hose)

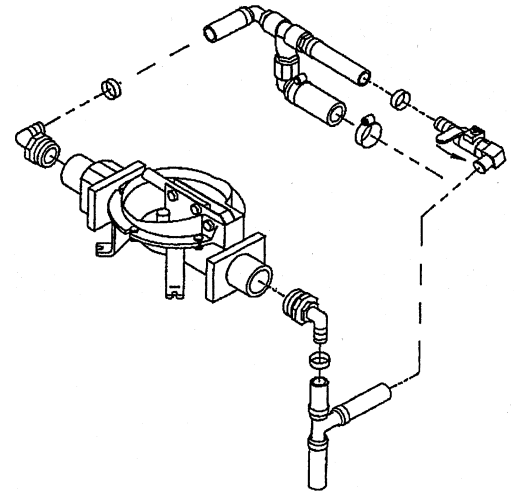
3.0 PREPARATION FOR USE

This Lavatory Service Unit has been thoroughly inspected and tested prior to packaging and shipment. The unit is shipped completely assembled and is ready for use.

You are requested to generally check over the unit to assure the tightness of all nuts, bolts and screws that may have loosened during shipment. Bolts and elastic stopnuts should be tightened to a torque not to exceed industry standards for Grade "5" bolts. Tire pressure should not exceed 50 PSI.

4.0 OPERATING INSTRUCTIONS

1. Open access panel on aircraft. Remove drain and fill coupling caps.
2. Connect dump hose assembly to aircraft drain coupling and fill hose assembly to mating aircraft coupling.
3. Follow aircraft manufacturer's instructions to drain sewage from aircraft into dump tank.
4. To flush aircraft toilet, the three way ball valve on the fill pump must have its handle towards the hand pump as shown in **Figure 1**. Follow aircraft manufacturer's requirements for flushing. Six (6) strokes of fill pump will deliver one (1) gallon.
5. After flushing, rotate three-way ball valve handle in direction shown. This allows for fill hose to be partially drained prior to disconnecting from aircraft.
6. Remove dump and fill hoses from aircraft and stow.
7. Following aircraft manufacturer's instructions, replace coupling caps on aircraft fittings. Close access panel.
8. Pump sewage into approved disposal system. Refill fill tank as required. Lavatory Service Unit is now ready for re-use.

**FIGURE 1**

5.0 MAINTENANCE

1. Lubricate wheel bearings with multi-purpose grease; every 6 months minimum.
2. Lubricate front caster swivel plate bearings with multi-purpose grease; every 6 months minimum.
3. Periodically check for leaks at hose connections and tighten hose clamps, as required.
4. Regularly wash tanks and hoses with a mild detergent according to local procedures and regulations.

6.0 TROUBLE SHOOTING

1. If fill pump fails during use, refer to Illustrated Parts List for WC-1053 Fill Pump Assembly and disassemble for inspection of pump internals. Clean inside of pump. Replace any damaged parts. Failure to pump liquid may be caused by the following reasons:
Pump Will Not Prime: Clogged Suction; check that suction tubes are clear.
Not Enough Flow: Check suction and discharge hoses for clogging or pinching. Verify that nozzle is not clogged.
2. If dump pump fails during use, refer to Illustrated Parts List for WC-1054 Discharge Pump Assembly and disassemble for inspection of pump internals. Clean inside of pump. Replace any damaged parts.

6.0 GUARANTEES/LIMITATION OF LIABILITY

Tronair products are warranted to be free of manufacturing or material defects for a period of one year after shipment to the original customer. This is solely limited to the repair or replacement of defective components. This warranty does not cover the following items:

- a) Parts required for normal maintenance
- b) Parts covered by a component manufacturers warranty
- c) Replacement parts have a 90-day warranty from date of shipment

If you have a problem that may require service, contact Tronair immediately. Do not attempt to repair or disassemble a product without first contacting Tronair, any action may affect warranty coverage. When you contact Tronair be prepared to provide the following information:

- a) Product Model Number
- b) Product Serial Number
- c) Description of the problem

If warranty coverage is approved, either replacement parts will be sent or the product will have to be returned to Tronair for repairs. If the product is to be returned, a Return Material Authorization (RMA) number will be issued for reference purposes on any shipping documents. Failure to obtain a RMA in advance of returning an item will result in a service fee. A decision on the extent of warranty coverage on returned products is reserved pending inspection at Tronair. Any shipments to Tronair must be shipped freight prepaid. Freight costs on shipments to customers will be paid by Tronair on any warranty claims only. Any unauthorized modification of the Tronair products or use of the Tronair products in violation of cautions and warnings in any manual (including updates) or safety bulletins published or delivered by Tronair will immediately void any warranty, express or implied.

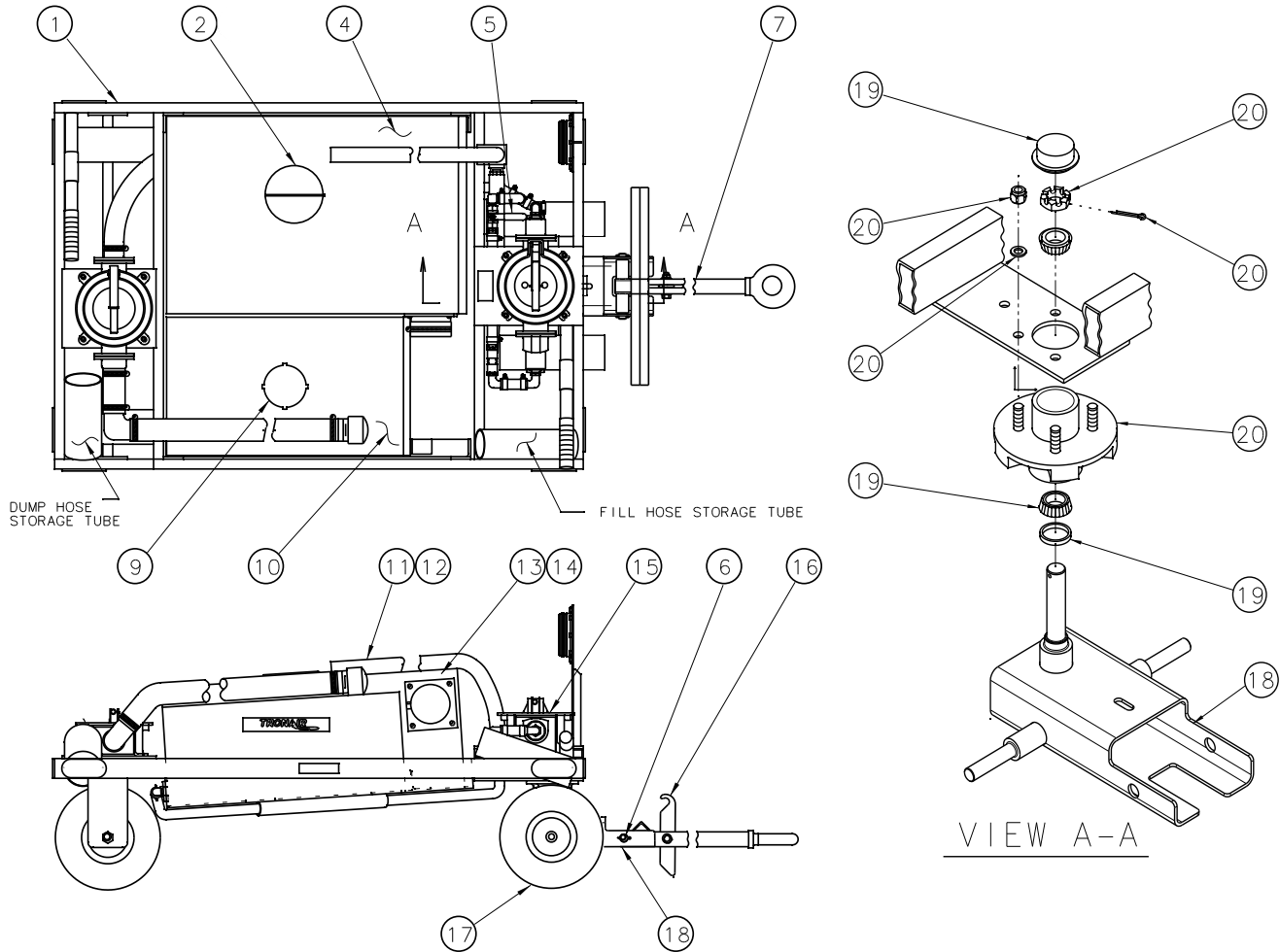
The obligations of Tronair expressly stated herein are in lieu of all other warranties or conditions expressed or implied. **Any unauthorized modification of the Tronair products or use of the Tronair products in violations of cautions and warnings in any manual (including updates) or safety bulletins published or delivered by Tronair will immediately void any warranty, express or implied and Tronair disclaims any and all liability for injury (WITHOUT LIMITATION and including DEATH), loss or damage arising from or relating to such misuse.**

7.0 APPENDICES

APPENDIX I Declaration of Conformity

Parts List

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

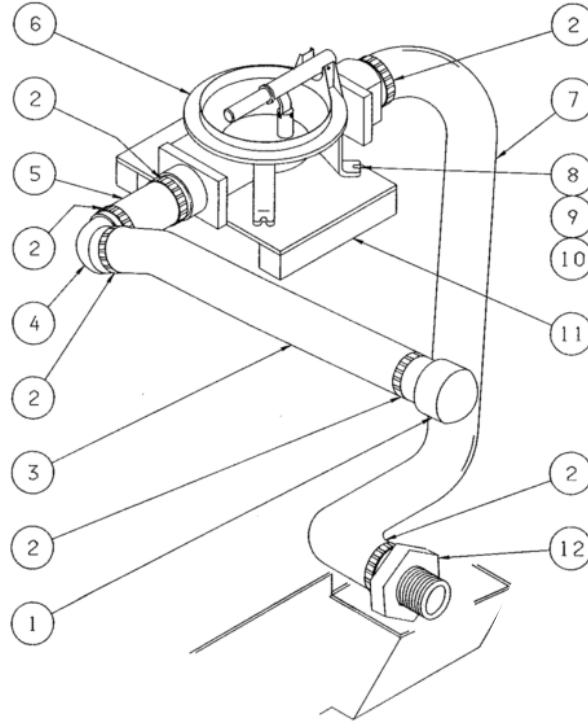


Item	Part Number	Description	Qty
1	Z-1797-02	Sub-Assembly, Lavatory Service Unit	1
2	K-4916	Kit, Fillwell Replacement	1
5	HC-1137	Valve, Ball	1
7	Z-5584-01	Weldment, Tongue	1
10	C-191	Tank, 15 gallon Fill	1
11	TF-1005*96.0	Hose, Fill 96" Long	1
18	G-1301-02	Pin, Cotter	2
22	Z-6182-01	Weldment, Steering Axle	1
Not Shown	H-2449	Nipple Coupling Stowage	1
Not Shown	G-1350-13	Rivet, Closed End	8
4	K-1209	Kit, Dump Tank Replacement; consists of:	
	C-190-01	Tank, Dump	1
	G-1100-105010	Bolt, Hex Head, Grade 5, 1/4-20 x 1" long	4
	G-1178-103006	Screw, #10 Pan Head, Cross Recess Tapping	6
	G-1251-1050R	Lockwasher, 1/4 Regular	4
	H-1286	Cap, Plastic	1
	H-1426-16	Clamp Hose	1
	J-1403-02	Flange, Inner	1
	N-1505	Adapter, Male 2 PVC	1
	Z-1462	Weldment, Flanged Adapter, 4"	1

Parts List

Item	Part Number	Description	Qty
6	K-3970	Kit, Pin Replacement; consists of:	
	G-1301-02	Pin, 1/8" diameter x 1" long	2
	R-2096	Pin	1
9	K-1688	Kit, Lid Replacement; consists of:	
	H-1626	Cover	1
	H-1627	Gasket	1
12	K-2410	Kit, Fill Connector Replacement; consists of:	
	G-1351-04	Rivet, 1/8 Open-End Stl	1
	H-1424*12.0	Assembly, Lanyard	1
	H-1426-05	Clamp, Hose	1
	H-1954	Coupling, Fill	1
	N-2440-04-A	Plug, Coupling	1
13	K-1210	Kit, 4" Flange Replacement; consists of:	
	G-1100-105010	Bolt, Hex Head, Grade 5, 1/4-20 x 1" long	4
	G-1251-1050R	Lockwasher, 1/4 Regular	4
	H-1426-16	Clamp, Hose	2
	J-1403-02	Flange, Inner	1
	Z-1462	Weldment, 4" Flanged Adapter	1
14	K-2029	Kit, Wye Coupling, 5' hose Replacement; consists of:	
	H-1426-16	Clamp, Hose	1
	H-1768	Coupling, LSU Wye (Hose)	1
	TF-1001*60.0	Hose, 4" I.D. Dump	1
	V-1003	Label, Serial Number	1
15	K-1702	Kit, Pump Replacement; consists of:	
	G-1100-105006	Bolt, Hex Head, Grade 5, 1/4-20 x 3/4" long	4
	G-1202-1050	Stopnut, 1/4-20 Elastic	4
	G-1250-1050N	Flatwasher, 1/4 Narrow	8
	WC-1053	Pump, Hand (See Page 7)	1
16	K-3971	Kit, Lever Replacement; consists of:	
	G-1100-109522	Bolt, Hex Head, Grade 5, 1/2-20 x 2 1/4" long	1
	G-1203-1095	Stopnut, 1/2-20 Elastic	1
	G-1250-1090N	Flatwasher, 1/2 Narrow	2
	J-3427	Lever	1
17	K-1775	Kit, Wheel Replacement; consists of:	
	G-1203-1115	Jamnut, 3/4-16 Elastic	1
	G-1250-1110N	Flatwasher, 3/4 Narrow	1
	U-1033	Wheel	1
19	K-1253	Kit, Bearing/Seal Replacement; consists of:	
	G-1301-03	Pin, 1/8 x 1 1/2" long, Cotter	1
	H-1155-01	Cap, Dust	1
	H-1559-01	Bearing	2
	H-1561-05	Seal, Grease	1
20	K-1254	Kit, Hub Mounting Replacement; consists of:	
	G-1100-109514	Bolt, Hex Head, Grade 5, 1/2-20 x 1-1/2" long	4
	G-1202-1095	Stopnut, 1/2-20 Elastic	4
	G-1250-1090N	Flatwasher, 1/2 Narrow	4
	G-1251-1090R	Lockwasher, 1/2 Regular	4
21	K-1255	Kit, Hub Replacement; consists of:	
	G-1202-1095	Stopnut, 1/2-20 Elastic	4
	G-1230-01	Nut, Axle (1"-14 UNS Thread)	1
	G-1250-1090N	Flatwasher, 1/2 Narrow	4
	G-1301-03	Pin, 1/8 x 1-1/2" long, Cotter	1
	H-1335	Hub, Idler	1

Parts List - Discharge Pump Plumbing



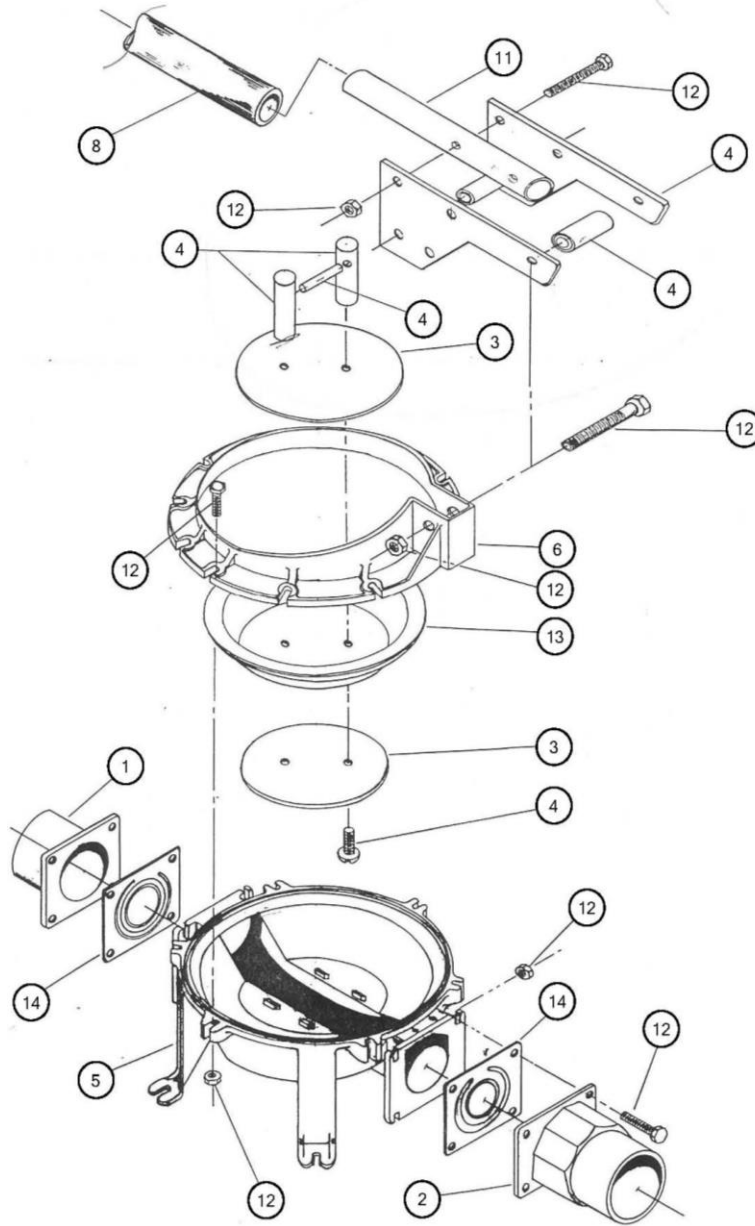
Item	Part Number	Description	Qty
1	N-1503-06	Cap, 2 FPT	1
2	H-1426-09	Clamp, Hose, 2 inch	6
3	TF-1018-02*120	Hose, Discharge, 10 ft. long	1
4	N-1502	Elbow	1
5	TF-1006*04.5	Hose, 4½" long	1
7	TF-1018-02*21.0	Hose, 2" I.D.	1
8	G-1100-105010	Bolt, Hex Head, Grade 5, ¼-20 x 1" long	4
9	G-1202-1050	Stopnut, ¼-20 Elastic	4
10	G-1250-1050N	Flatwasher, ¼ Narrow	4
11	Z-1794	Weldment, Frame	REF
12	N-1505	Adapter, Male	2
6	K-4285	Kit, Discharge Pump Replacement; consists of:	
	WC-1054	Pump, Guzzler	1
	G-1100-105010	Bolt, Hex Head, Grade 5, 1/4-20 x 1" long	4
	G-1202-1050	Stopnut, 1/4-20 Elastic	4
	G-1250-1050N	Flatwasher, 1/4 Narrow	4

NOTES: 1. Kits contain all hardware necessary for installation.
2. Unless otherwise stated, all replacement bolts should be Grade 5 or better.



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Parts List - Pump Assembly Component



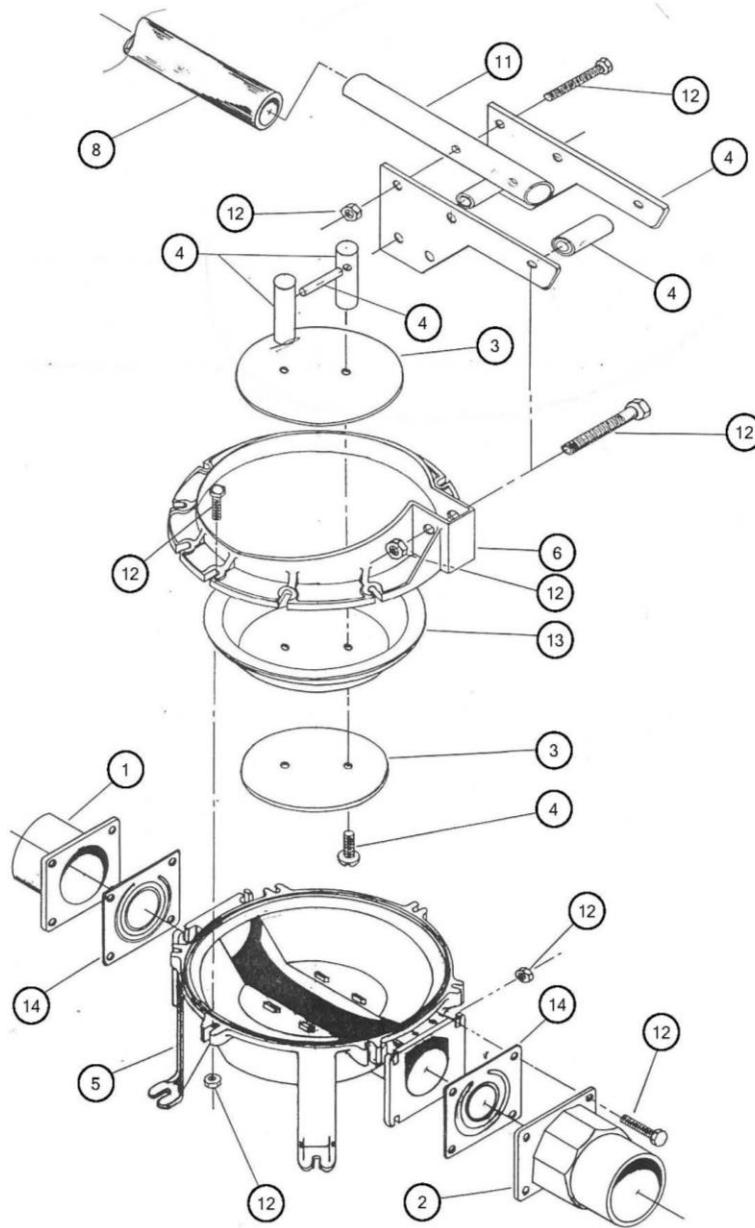
Item	Part Number	Description	Qty
	WC-1053	Pump Assembly	REF
1	WC-1053-01	Inlet Flange	1
2	WC-1053-02	Outlet Flange	1
3	WC-1053-03	Button	2
4	WC-1053-04	Clevis Assembly; <i>consists of:</i>	
	WC-1053-05	Clevis Pin	1
	WC-1053-06	Clevis Supports	2
	WC-1053-07	Side Plates	2
	WC-1053-08	Bushings A & B	2
	WC-1053-09	O-Rings #111	2
	WC-1053-10	SS Washers	2
	WC-1053-11	TH ¼ - 20 x 5/8	2



Parts List - Pump Assembly Component

Item	Part Number	Description	Qty
5	WC-1053-12	Body	1
6	WC-1053-13	Clamp Ring	1
8	WC-1053-14	Handle With Grip	1
11	WC-1053-15	Actuator Extension	1
12	WC-1053-16	Hardware Set; <i>Consists of:</i>	
	WC-1053-17	HH ¼ - 20 x 7/8 (Inlet/Outlet)	8
	WC-1053-18	HH ¼ - 20 x 1 (Clamp Ring)	6
	WC-1053-19	HN ¼ - 20	14
	WC-1053-20	HH 5/16 – 18 x 1 ¼ (Actuator)	2
	WC-1053-21	HN 5/16 – 18 (Actuator)	2
	WC-1053-22	HH 3/8 – 16 x 2 (Actuator)	1
	WC-1053-23	HN 3/8 – 16 (Actuator)	1
13	WC-1053-24	Diaphragm	1
14	WC-1053-25	Flapper Valves	2

Parts List - Discharge Pump Assembly Component



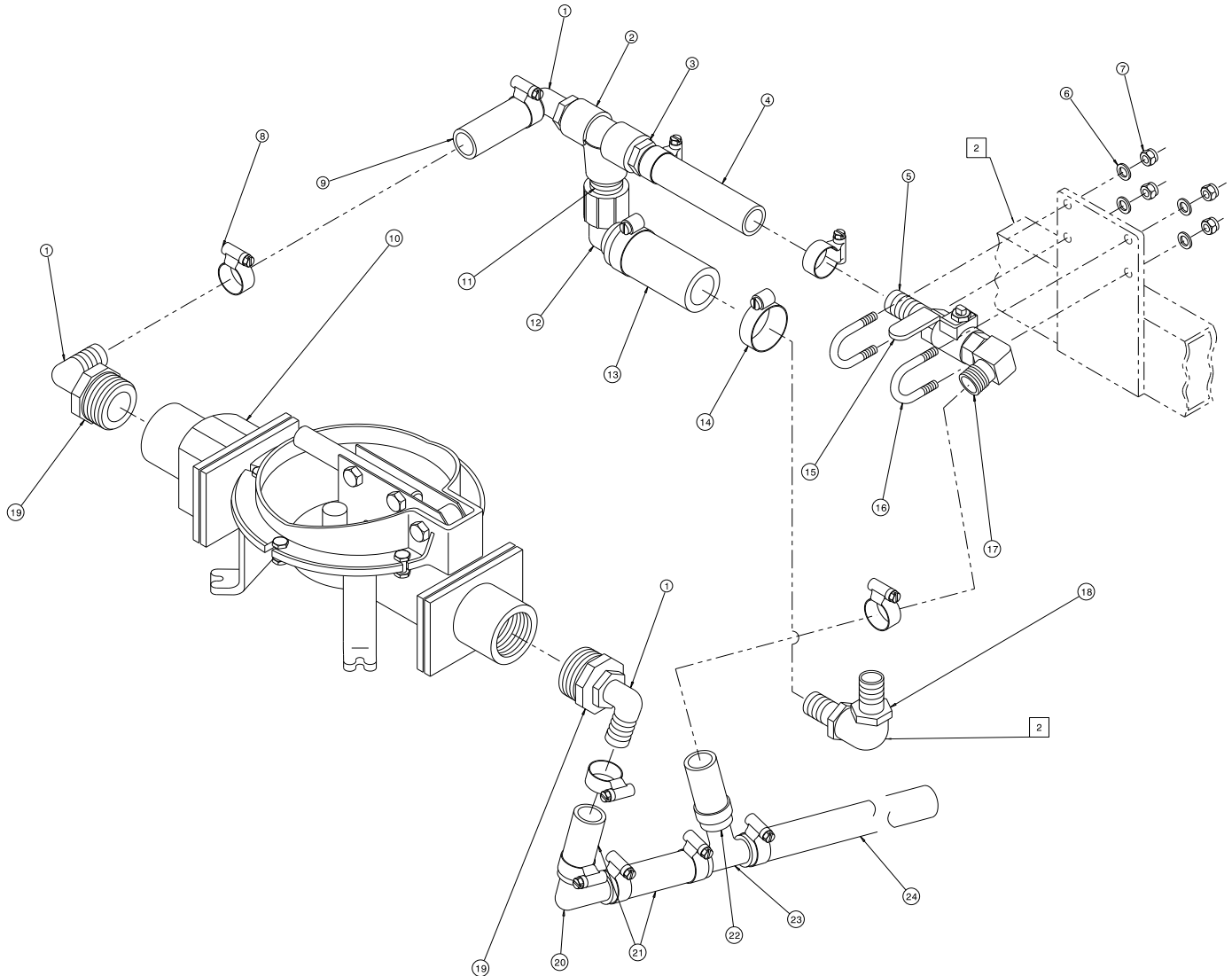
Item	Part Number	Description	Qty
	WC-1054	Pump Assembly	REF
1	WC-1054-01	Inlet Flange	1
2	WC-1054-02	Outlet Flange	1
3	WC-1054-03	Button	2
4	WC-1054-04	Clevis Assembly; <i>consists of:</i>	
	WC-1054-05	Clevis Pin	1
	WC-1054-06	Clevis Supports	2
	WC-1054-07	Side Plates	2
	WC-1054-08	Bushings A & B	2
	WC-1054-09	O-Rings #111	2
	WC-1054-10	SS Washers	2
	WC-1054-11	TH 1/4 - 20 x 5/8	2



Parts List - Pump Assembly Component

Item	Part Number	Description	Qty
5	WC-1054-12	Body	1
6	WC-1054-13	Clamp Ring	1
8	WC-1054-14	Handle With Grip	1
11	WC-1054-15	Actuator Extension	1
12	WC-1054-16	Hardware Set; <i>Consists of:</i>	
	WC-1054-17	HH ¼ - 20 x 7/8 (Inlet/Outlet)	8
	WC-1054-18	HH ¼ - 20 x 1 (Clamp Ring)	6
	WC-1054-19	HN ¼ - 20	14
	WC-1054-20	HH 5/16 – 18 x 1 ¼ (Actuator)	2
	WC-1054-21	HN 5/16 – 18 (Actuator)	2
	WC-1054-22	HH 3/8 – 16 x 2 (Actuator)	1
	WC-1054-23	HN 3/8 – 16 (Actuator)	1
13	WC-1054-24	Diaphragm	1
14	WC-1054-25	Flapper Valves	2

Parts List - LSU Pump



Item	Part Number	Description	Qty
1	N-1040-13	Elbow, 3/4 NPT to 3/4 Hose	3
2	N-1500	Tee, 3/4 NPT	1
3	N-1039-15	Connector, 3/4 NPT to 3/4 Hose	1
4	TF-1009-03*11.0	Hose, 3/4 x 11 LG	1
5	N-2412-21	Connector, 3/4 NPT to 3/4 Hose	1
6	G-1250-1050N	Flatwasher, 1/4 Narrow	4
7	G-1202-1050	ESN, 1/4 - 20	4
8	H-1426-02	Clamp, Hose	11
9	TF-1009-03*03.5	Hose, 3/4 x 3 1/2 LG	1
10	WC-1053	Pump, LSU Fill	1
11	N-1501	Connector, 3/4 to 3/4 NPT	1
12	N-1508-06	Elbow, 3/4 NPT to 1 Hose	1
13	TF-1005*18.0	Hose, 1 x 18 LG	1
14	H-1426-05	Clamp, Hose	2
15	HC-1137	Ball Valve, 1/2 NPT, Brass	1
16	G-1009-07	U-Bolt, 1/4 - 20	2



Parts List - LSU Pump

Item	Part Number	Description	Qty
17	N-2410-09	Elbow, ½ PT to ¾ Hose	2
18	N-2412-23	Connector, ¾ NPT to 1 Hose	2
19	N-1514-06	Reducer, 1 ¼ to ¾ NPT	2
20	N-1513-05	Elbow, ¾ Hose	1
21	TF-1009-03*03.0	Hose, ¾ x 3 LG	2
22	TF-1009-03*05.0	Hose, ¾ x 5 LG	1
23	N-1047-07	Tee, ¾ Hose	1
24	TF-1009-03*44.0	Hose, ¾ x 44 LG	Ref



APPENDIX II

Declaration of Conformity



DECLARATION of CONFORMITY

The design, development and manufacture is in accordance with European Community guidelines

Electric Lavatory Service Unit
10-4036-0001

Relevant provisions complied with by the machinery:
2006/42/EC

Relevant standards complied with by the machinery:
EN ISO 12100-1

Identification of person empowered to sign on behalf of the Manufacturer:

A handwritten signature in cursive script that reads "Patrick Finch". The signature is written in black ink and is positioned above a horizontal line.

Quality Assurance Representative