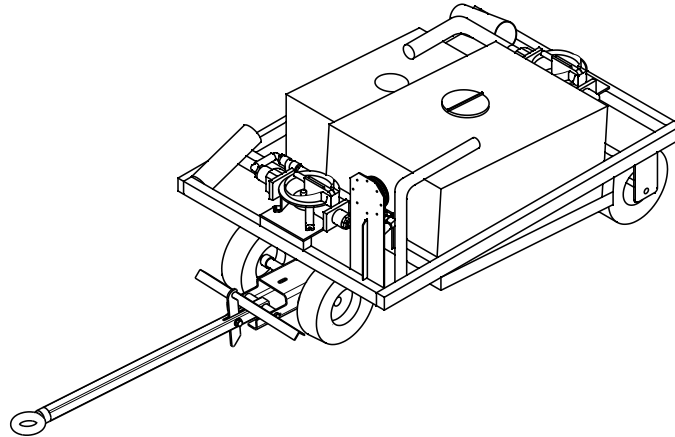




OPERATION & SERVICE MANUAL



**Model: 10-4036-0010
Lavatory Service Unit**



06/2009 – Rev. 14

REVISION	DATE	TEXT AFFECTED
11	08/2004	Revised Figure 1 Modified Parts List
12	09/2004	Modified Parts List
13	02/2006	Modified cover illustration Modified illustrations and parts lists
14	06/2009	Revised pumps



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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 10-4036-0010 Lavatory Service Unit (LSU) 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 29 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 (3) inch tank fill port with cover
- Eight (8) 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
- 10 mph maximum towing speed.

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: Kit, Dump hose SD 330/360
- K-2410: Kit, Fill Connector
- K-2412: Kit, Dump Connector with five foot hose
- K-2029: Kit, Dump Connector; mates with K-2412
- K-2030: Kit, Dump Connector
- K-3606 Kit, Hose Cap (Dump Hose)

3.0 PREPARATION FOR USE

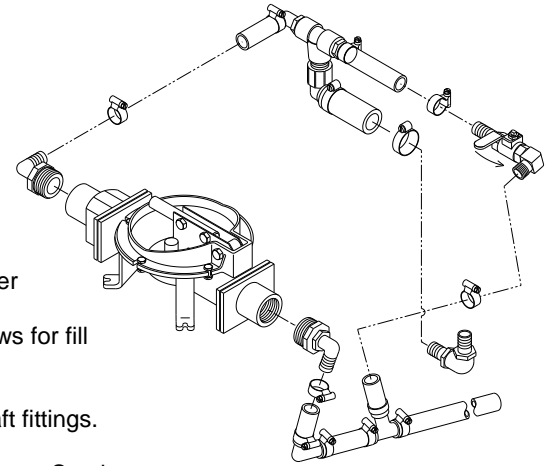
This lavatory service unit has been thoroughly inspected and tested prior to packaging and shipment. The unit is shipped completely assembled and is ready to use.

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 the dump hose assembly to the 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 toward 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 the access panel securely.
8. Pump sewage into approved disposal system. Refill fill tank as required. Lavatory Service Unit is now ready for reuse.

**FIGURE 1**

5.0 MAINTENANCE

1. Lubricate wheel bearings with multi-purpose grease a minimum of every six (6) months.
2. Lubricate front caster swivel plate bearings with multi-purpose grease every six (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

If fill pump fails during use, refer to illustration of WC-1053 Pump Assembly and disassemble for inspection of pump internals. Clean inside of pump. Replace any damaged parts.

6.1 FAILURE TO PUMP LIQUID

1. **Pump Will Not Prime:** Possible Clogged Suction; check that suction tubes are clear.
2. **Not Enough Flow:** Check suction and discharge hoses for clogging or pinching. Verify that nozzle is not clogged.

6.2 DUMP PUMP FAILS DURING USE

Refer to Illustration of WC-1054 Discharge Pump Assembly and disassemble for inspection of pump internals. Clean inside of pump. Replace any damaged parts.

7.0 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.**

8.0 APPENDICES

APPENDIX I Declaration of Conformity
06/2012 | Rev. 11



Lavatory Service Parts List

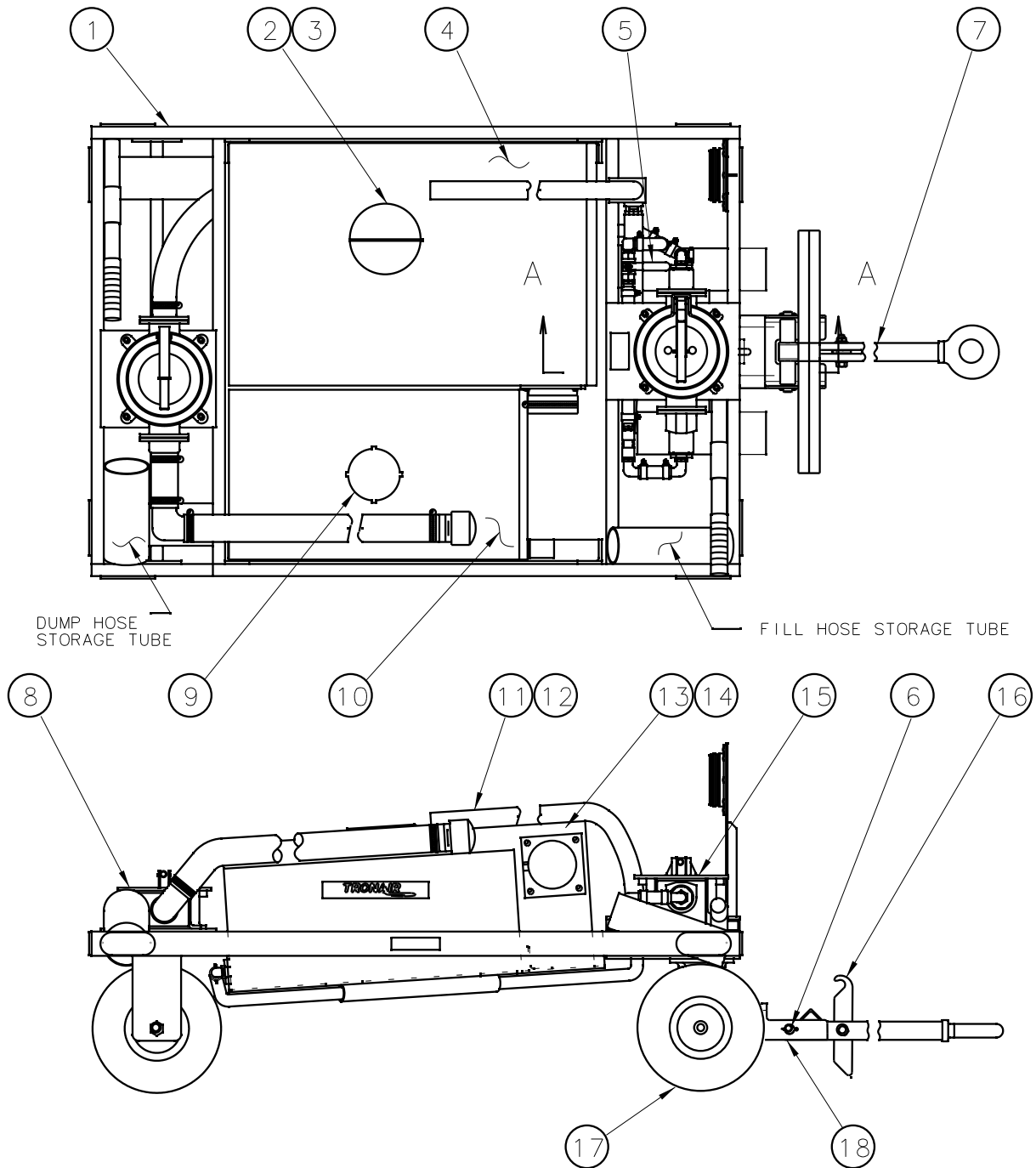
When ordering replacement parts/kits, please specify model, serial number and color of your unit.

(Reference Illustrations on following pages)

ITEM	PART NUMBER	QTY	DESCRIPTION	10-4036-0010	10-4036-0010 with Option 02 See Page Error! Bookmark not defined.	10-4036-0010 with Option 03 See Page Error! Bookmark not defined.
1	Z-1797-01	1	Sub-Assembly, LSU	•	•	•
2	K-4916	1	Kit, Fillwell Replacement	•	•	•
3	K-1209	1	Kit, Dump Tank	•	•	•
4	K-1390	1	Kit, Dump Tank	•		
	K-1390	1	Kit, Dump Tank		•	
	K-1391	1	Kit, Dump Tank			•
5	HC-1137	1	Valve, Ball	•	•	•
6	K-3970	1	Kit, Pin	•	•	•
7	Z-5584-01	1	Weldment, Tongue	•	•	•
8	K-4285	1	Kit, Discharge Pump	•	•	•
9	K-1688	1	Kit, Lid Replacement	•	•	•
10	C-191	1	Tank, Fill with Fill Port Covers	•	•	•
11	TF-1005*96.0	1	Hose, Fill (96" long)	•	•	•
12	H-1426-05	1	Clamp, Hose	•	•	•
13	K-1210	1	Kit, 4 inch Flange	•		•
	K-1233	1	Kit, 3 inch Flange		•	•
14	K-1036	1	Kit, Shorts Adapter		•	•
15	K-1702	1	Kit, Pump	•	•	•
16	K-3971	1	Kit, Lever	•	•	•
17	K-1550	1	Kit, Wheel	•	•	•
18	Z-6182-01	1	Weldment, Steering Axle	•	•	•
19	K-1253	1	Kit, Bearing/Seal	•	•	•
20	K-1255	1	Kit, Hub Replacement	•	•	•

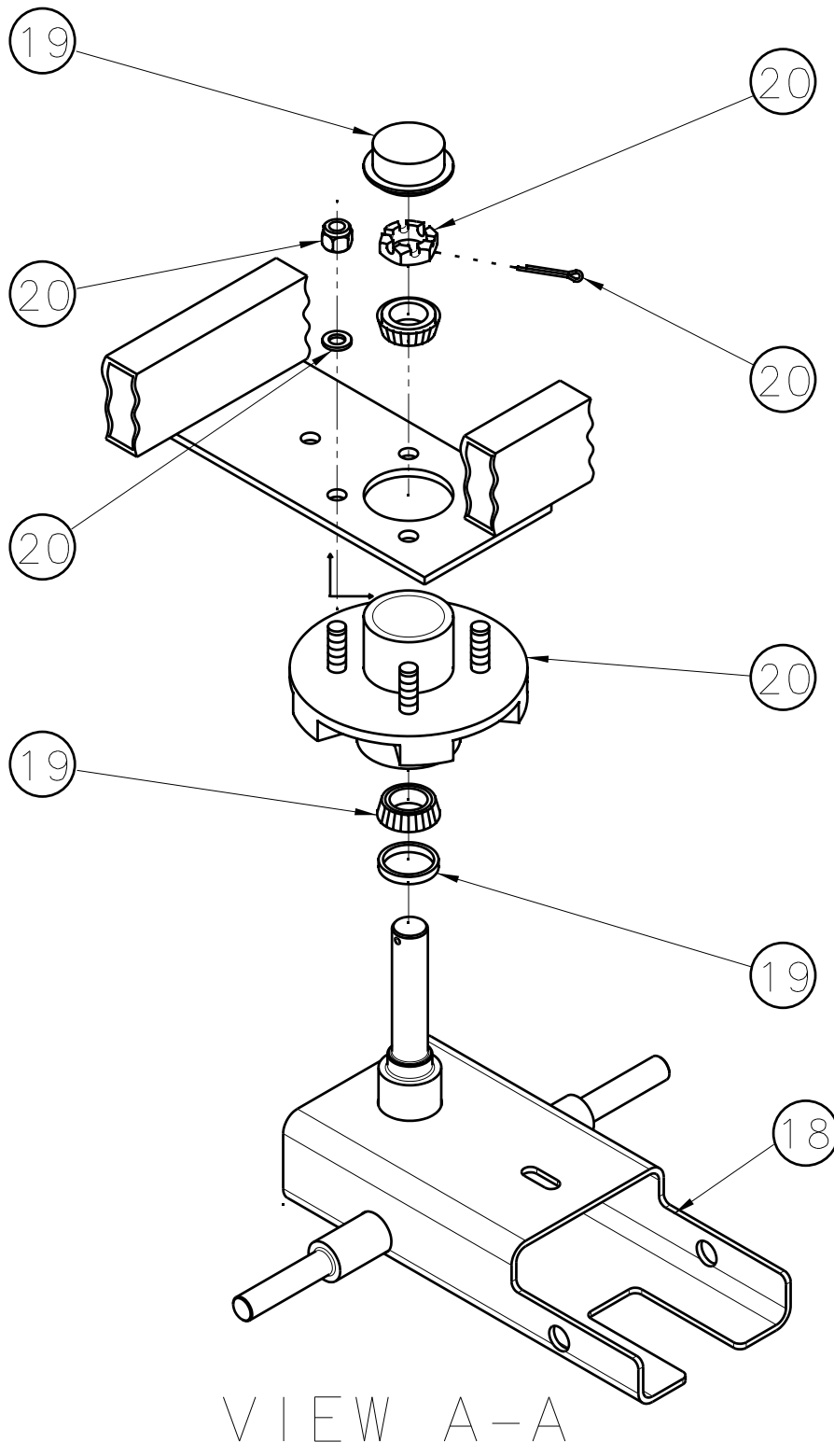
Parts List Illustrations

Reference Parts List on Page 3

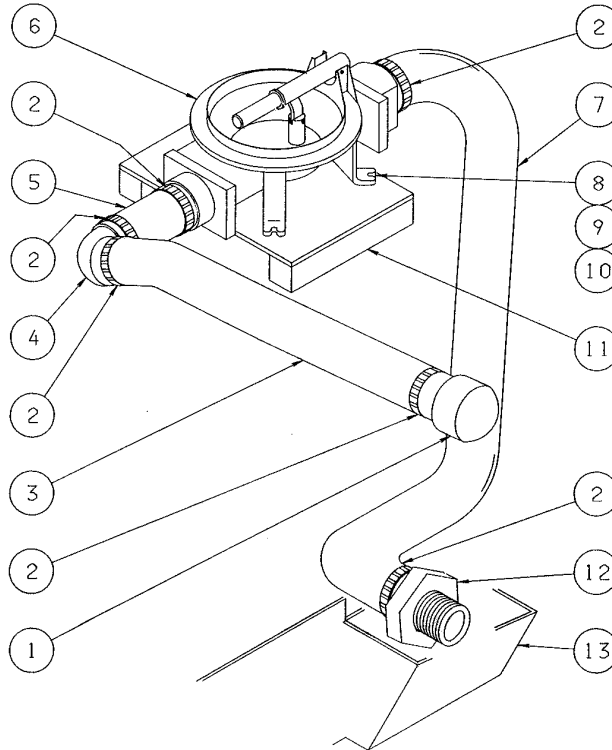


Parts List Illustrations

Reference Parts List on Page 3



Discharge Pump Plumbing Parts List

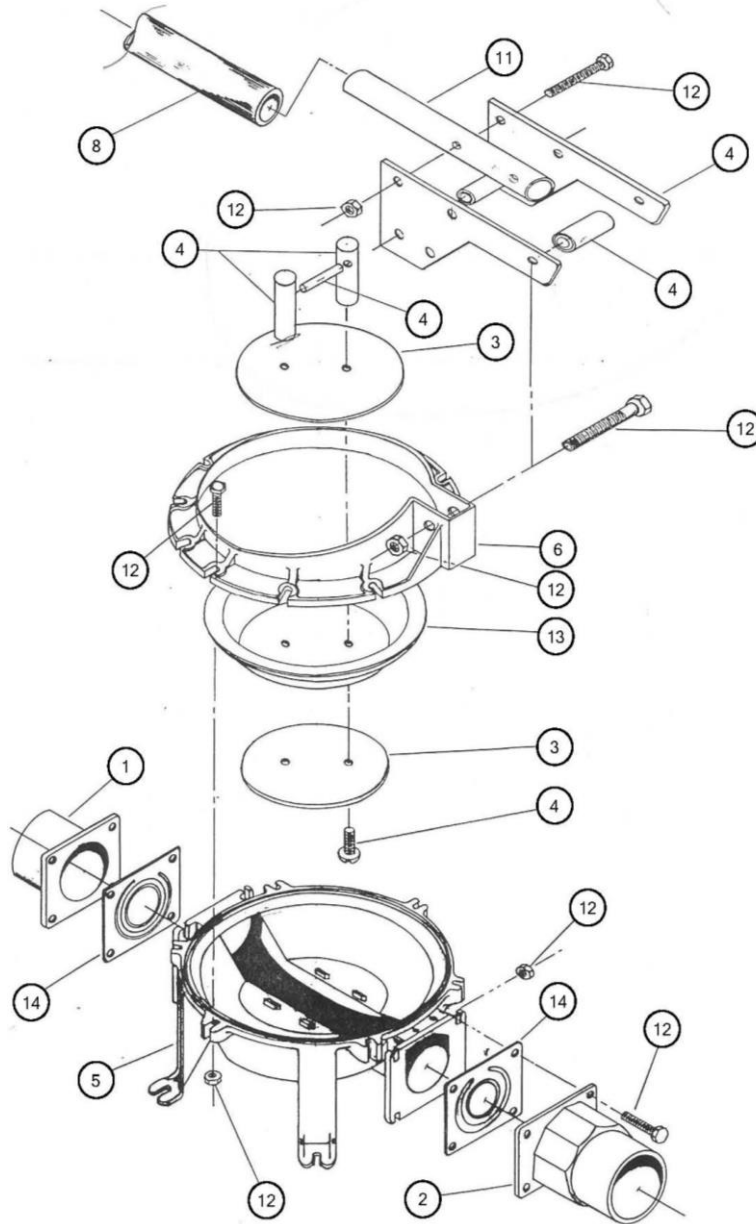


Item	Part Number	Description	Qty
1	N-1503-06	Cap	1
2	H-1426-09	Clamp, Hose, 2 inch	6
3	TF-1018-02*120	Hose, Discharge, 10 ft. long	1
4	N-1502	Elbow	1
5	TF-1006*04.5	Hose, 4½" long	1
6	K-4285	Kit, Discharge Pump WC-1054	1
7	TF-1018-02*21.0	Hose, 2" I.D.	1
8	G-1100-105010	Bolt, Hex Head, Grade 5, ¼-20 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
13	K-1209	Kit, Dump Tank	1

Notes:

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

Pump Assembly Component

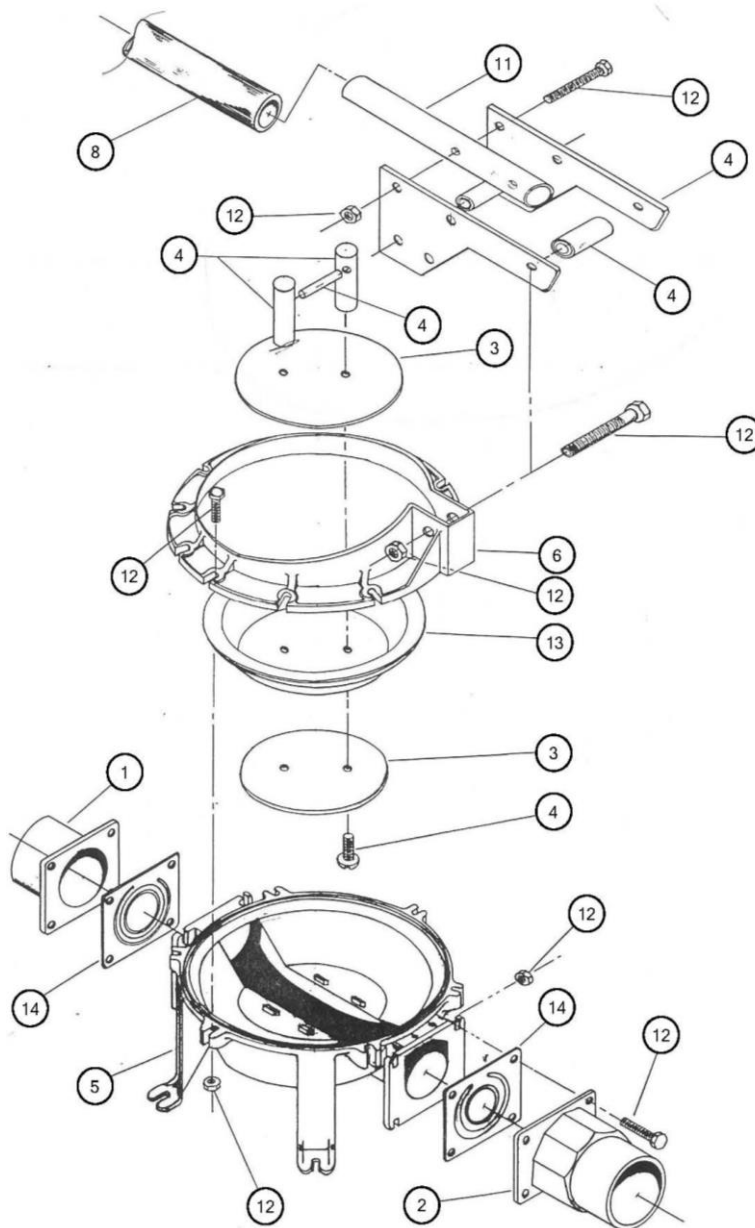


Item	Part Number	Description	Qty
	WC-1053	Pump Assembly	REF
1	WC-1053-01	Inlet Flange	1
2	WC-1053-02	Outlet Flange	1
3	WC-1053-03	Button	2
4	WC-1053-04	Clevis Assembly; <i>consists of:</i>	
	WC-1053-05	Clevis Pin	1
	WC-1053-06	Clevis Supports	2
	WC-1053-07	Side Plates	2
	WC-1053-08	Bushings A & B	2
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

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

Discharge Pump Assembly Component



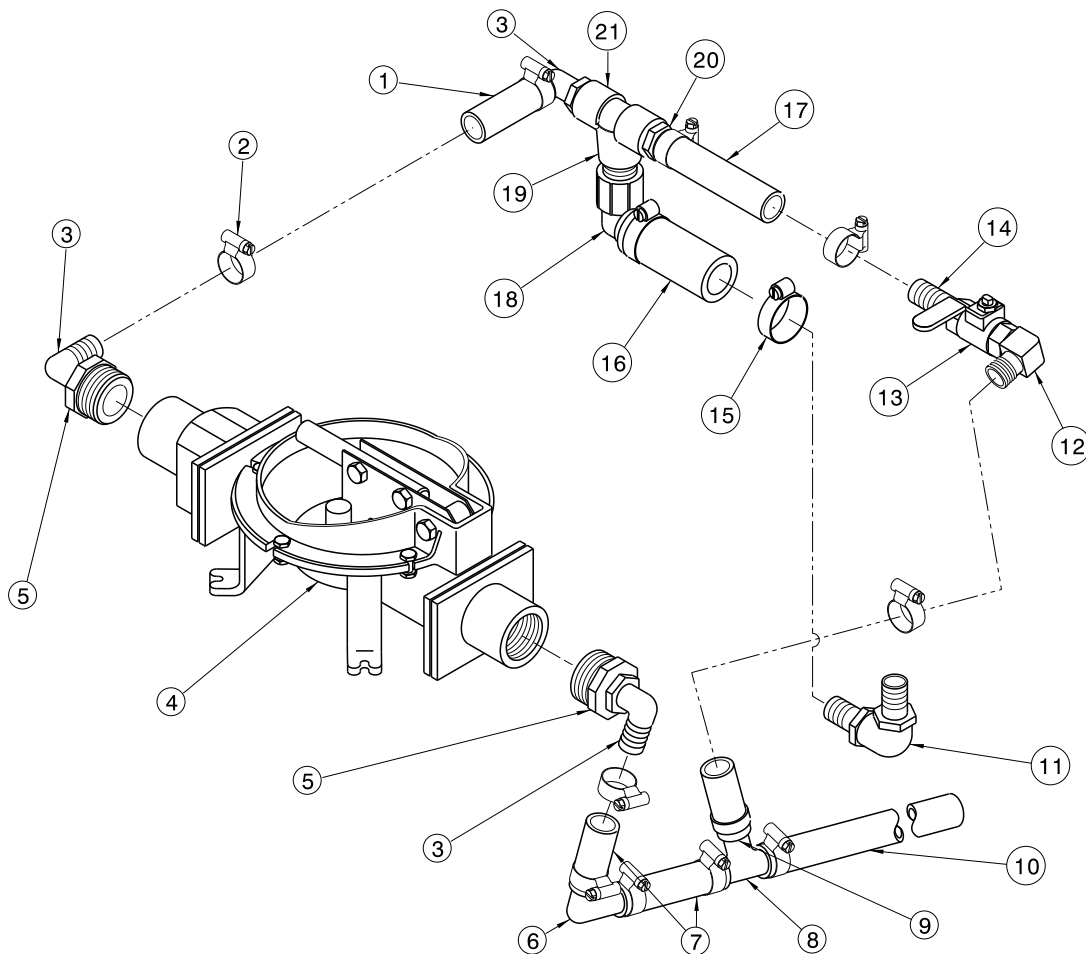
Item	Part Number	Description	Qty
	WC-1054	Pump Assembly	REF
1	WC-1054-01	Inlet Flange	1
2	WC-1054-02	Outlet Flange	1
3	WC-1054-03	Button	2
4	WC-1054-04	Clevis Assembly; <i>consists of:</i>	
	WC-1054-05	Clevis Pin	1
	WC-1054-06	Clevis Supports	2
	WC-1054-07	Side Plates	2
	WC-1054-08	Bushings A & B	2
	WC-1054-09	O-Rings #111	2
	WC-1054-10	SS Washers	2
	WC-1054-11	TH ¼ - 20 x 5/8	2



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

Parts List

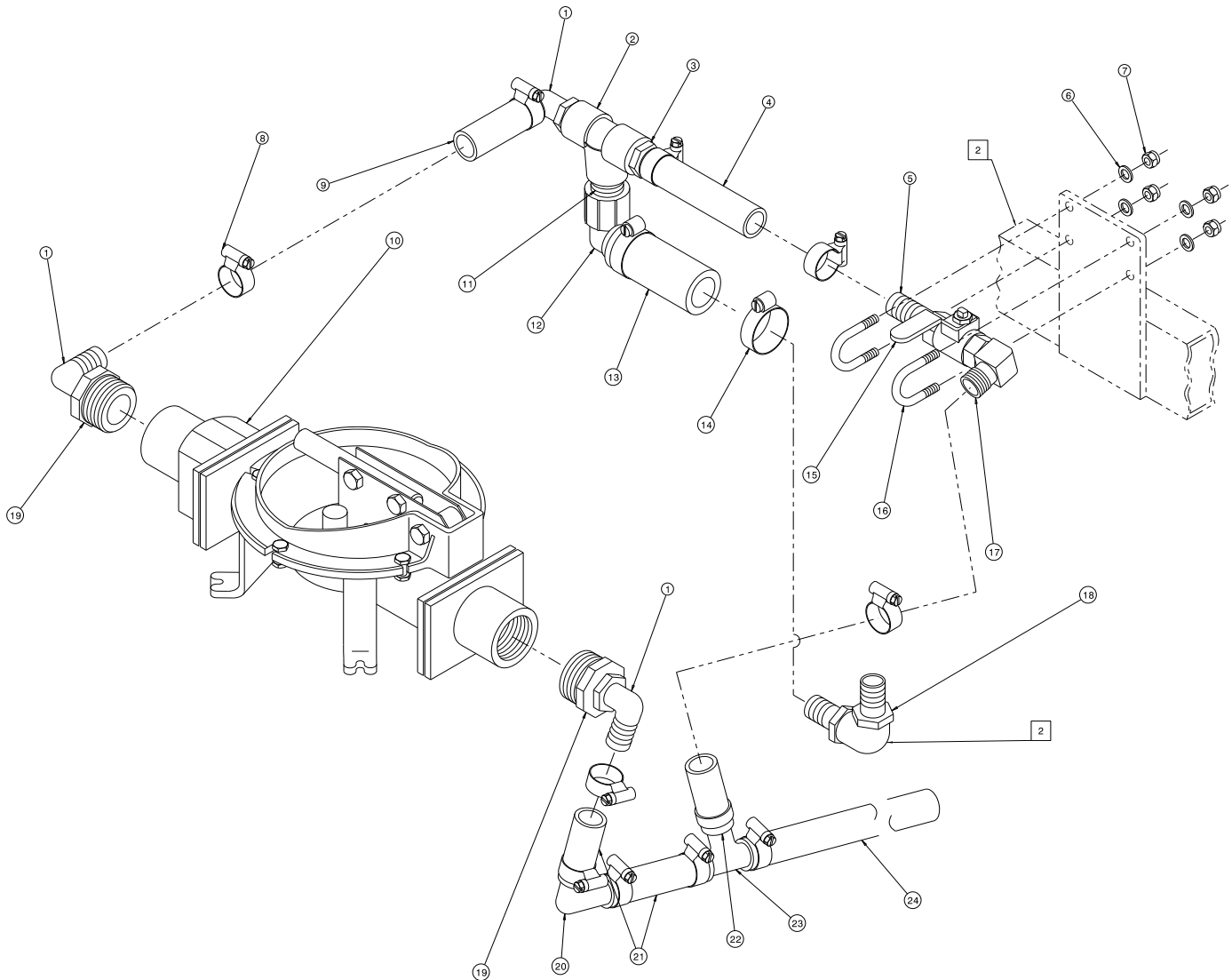


Item	Part Number	Description	Qty
1	TF-1009-03*03.5	Hose, ¼ x 3 ½ Long	1
2	H-1426-02	Clamp, Hose	11
3	N-1040-13	Elbow, ¼ NPT to ¼ Hose	3
4	WC-1053	Pump, LSU Fill	1
5	N-1514-06	Reducer, Pipe Thread	2
6	N-1513-05	Elbow	1
7	TF-1009-03*03.0	Hose, ¼ x 3 Long	1
8	N-1047-07	Tee	1
9	TF-1009-03*05.0	Hose, ¼ x 5 Long	1
10	TF-1009-03*44.0	Hose, ¼ x 44 Long	1
11	N-2412-23	Connector	2
12	N-2410-09	Elbow	1
13	HC-1137	Ball Valve, ½ NPT, Brass	1
14	N-2412-21	Connector, ¼ NPT to ¼ Hose	1
15	H-1426-05	Clamp, Hose	2
16	TF-1005*18.0	Hose, 1 x 18 Long	1
17	TF-1009-03*11.0	Hose, ¼ x 11 Long	1
18	N-1508-06	Elbow, ¼ NPT to 1 Hose	1
19	N-1501	Connector, ¼ to ¼ NPT	1
20	N-1039-15	Connector, ¼ NPT to ¼ Hose	1
21	N-1500	Tee, ¼ NPT	1



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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



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 I

Declaration of Conformity



DECLARATION of CONFORMITY

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

Electric Lavatory Service Unit
10-4036-0010

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 black ink that reads "Patrick Finch". The signature is written in a cursive, flowing style. Below the signature is a solid horizontal line that spans the width of the signature.

Quality Assurance Representative