

**NIEDNER** | **ALTRA**

# ALTRA TEST INSTRUCTIONS & MAINTENANCE MANUAL



## OUR COMMITMENT

Niedner is committed to providing the highest quality of customer service! Our customer service is provided with warmth, friendliness, individual pride, and company spirit.

We acknowledge that to do well in a changing technological world, we need to work in a climate of curiosity, adaptability, initiative, and risk-taking.

We use our knowledge and experience to interpret your needs and pass on information. We are prepared to learn about your specific requirements and assist you with them to the best of our abilities. When we receive a request

that we may not be able to accommodate, we will do our best to recommend an alternative method which may be of assistance to you.

We take responsibility for what we do and how we do it. We use our resources wisely, ensuring that we provide the highest value for your investment. We acknowledge that we may make mistakes occasionally, but we will learn from them and use this additional knowledge to further enhance our service to you.

**We value principles such as honesty, courtesy, truthfulness, and equity.**

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**NIEDNER** | **ALTRA**

**NIEDNER-ALTRA.COM**

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# INTRODUCTION

NIEDNER's ALTRA TEST is the only hose tester with both patented stainless-steel manifold and automatic safety check valves. The stainless-steel material used in the manifold contributes to an extended life by not deteriorating prematurely. Unlike other hose testers that have ball valves requiring hands-on operation during tests, the ALTRA TEST hose tester has automatic check valves that create a safety margin for the operators during hose test pressurization. These check valves are fully automatic, allowing the operator to maintain a safe distance while testing the hose.

**NIEDNER's greatest concern is that personnel may be struck by a burst hose line. Creating a safety perimeter will prevent this disaster. The automatic check valves on all ALTRA TEST hose testers enhance this safety zone and minimize the chance of injury.**

ALTRA TEST HOSE TESTERS HAVE THE FOLLOWING HIGH-QUALITY FEATURES:

- Reliable top-quality oil bath pump for consistent performance, constant lubrication and long life.
- A powerful industrial motor as a power source on all the electric hose testers.
- Stainless steel construction for corrosion-free long life.
- Designed to meet or exceed NFPA 1962 guidelines.
- A one year limited warranty.

**ALTRA TEST hose testers should be used by competent, trained personnel within the prescribed guidelines, as set forth by the manufacturer and NFPA.**

Failure of an ALTRA TEST hose tester under pressure may cause serious bodily injury or property damage.

NIEDNER disclaims all liability for injury or damage to any and all persons or property that may be caused by the operation of the ALTRA TEST hose tester, whether it is a result of misunderstanding the instructions, lack of prudent safety precautions or not following the safety standards of the industry.

All questions should be directed to your NIEDNER distributor or NIEDNER Inc.

# ALTRA TEST HOSE TESTER MAINTENANCE AND CARE

(Part numbers and a visual of all accessories can be found on the last page of this manual)

**GENERAL:** The ALTRA TEST hose tester should be stored at room temperature. No water should be left sitting in the unit over long periods of time.

**INSPECTION:** Before each use, your ALTRA TEST hose tester is to be inspected as per NFPA 1962 (current edition). To inspect the check valve assemblies for possible corrosion and/or foreign matter, carefully dismantle the check valve assembly with your fingers and pull out the center disc. Visually inspect the condition of the O-ring on the center disc. If any of the O-rings are missing, cracked or damaged, they must be replaced. Replacement parts are available from your NIEDNER distributor (see parts list to obtain the part number to order).

**LUBRICATION:** ALTRA TEST hose testers have a break-in period of 50 hours of operation. After this period, the oil in the pump should be changed and thereafter be changed after every 3 to 5 months or 200 hours of operation (*whichever comes first*). The proper oil level for all ALTRA TEST hose tester models is in the middle of the “sight glass” or at the cut notch on the dipstick. **IMPROPER PUMP LUBRICATION WILL VOID THE WARRANTY.**

Part #	Source	Motor oil recommended	Pump oil recommended
CDHT1500SS	Electric	Not applicable	5W-30 Synthetic
CDHT2000SS	Electric - Upright Cart	Not applicable	5W-30 Synthetic
CDHT2000GA-SS	Gas - Upright Cart	10W-30 Synthetic	5W-30 Synthetic

For lubrication of the gasoline engine, refer to the gasoline engine manufacturer’s manual.

**FILTER CLEANING:** The ALTRA TEST hose tester is equipped with an in-line water strainer for efficient operation. To clean this filter, unscrew the filter casing and remove the strainer inside. Flush thoroughly with water, or replace the in-line water strainer unit entirely if it is damaged or corroded (*replacement parts are available from your NIEDNER distributor – see the parts list and schematic diagram to locate this part and acquire the correct part number to order*).

## CAUTIONS

**3 inch (76mm) and/or larger diameter hose:** All hoses 3" (76mm) and larger shall be tested flat on the ground with the use of lead lines. Lead lines are short, smaller diameter sections of hose placed between the tester and the sections of larger hoses being tested (*lead lines are available from your NIEDNER distributor*).

**No sections of hose larger than 2 ½" should ever be connected directly to the ALTRA TEST hose tester check valves as the weight of the filled hose may damage the manifold over time.**

**Pump Heat Build-up:** The ALTRA TEST hose tester is equipped with a positive displacement oil bath pump. An oil bath pump normally runs cooler than other types of pumps; however, care must still be taken. While the pump is operating, the pressure regulator directs water back into the inlet side of the pump, creating a closed loop re-circulating action. This causes heat to build up inside the pump. Caution must be used to prevent the pump temperature from exceeding 160°F (71°C). Once the desired test pressure is reached, the pump should be turned off, allowing the check valves to hold the pressure for the allotted time specified by NFPA. **HEAT DAMAGE WILL VOID THE WARRANTY.**

**Inlet water pressure:** Inlet water pressure should not exceed 120 PSI (827 kPa), or non-warrantied internal damage to the pump can occur.

**Safety Tie Lines:** Properly tying the hoses together at every coupling connection with the designed safety tie-line will secure the hoses together for stability and safety in case of hose failure. Per NFPA, you are allowed to test 300 feet per hose lay, which means you can test up to 1800 feet of hose at one time (6 outlets with 300 feet on each of them). All hose lays should be tied together, in groups of two, behind every set of loose couplings. This practice will increase safety and reduce the risk of whipping lines if a catastrophic failure occurs during testing. Whipping lines can injure personnel and damage equipment (*Safety tie lines are available from your NIEDNER distributor*).

**Gas Engine ALTRA TEST Hose Testers:** Running the gas model ALTRA TEST hose tester at full throttle speed is not required or recommended. The throttle setting/speed should be half speed or slightly higher. Using the sound of the engine as a guide, strive for a smooth, vibration-free operation. Excessive vibration will reduce the life expectancy of the ALTRA TEST hose tester and could cause damage/or breakage to tester parts.

**Electrical Extension Cords:** The use of an electrical extension cord with any of the electric ALTRA TEST hose tester models **is not recommended**. However, should one be required, it is essential that the extension cord is properly sized and of the appropriate amperage rating for the electric motor. Use of inappropriate amperage-rated electrical extension cord may cause non-warranty damage to the motor.

**Water: NEVER RUN THE PUMP WITHOUT AN ADEQUATE WATER SUPPLY.**

**Maximum safety:** Be sure to carefully read, understand and follow all instructions in this manual as well as the NFPA 1962 (current edition). Personnel safety is the first priority in all hose testing evolutions.

**Returns:** Any and all returns must have an authorization number approved by NIEDNER Inc. **All liquids are to be removed from the hose tester prior to shipping.** Any ALTRA TEST hose tester being shipped with flammable liquids must have the appropriate MSDS sheets included with the shipment paperwork. NIEDNER must be advised of this prior to shipment or product pick up.

## ALTRA TEST HOSE TESTER OPERATING INSTRUCTIONS

*(NOTE: become thoroughly familiar with these instructions & Maintenance Manual as well as the NFPA 1962 (current edition) PRIOR TO operating the ALTRA TEST hose tester)*

1. Position the ALTRA TEST hose tester on a hard, flat, and stable surface. If the test site has an incline, place the hose tester at the lowest part of the incline, with the hose discharge ends at the highest position. It must be placed so that it is NOT tilted more than 10 degrees off vertical. This will help all air to be expelled from the hose.

**NOTE:** All hose being tested together must be of the same Service Test Pressure.

2. Checking fluid levels:

Electric Model testers	Check the oil levels in the pump.
Gas Model testers	Check the oil levels in the pump
	Check the fuel in the gas engine
	Check the oil levels in the gas engine

3. Connect the sections(s) of hose(s) being tested to the hose tester outlets. Cap off any unused check valve outlet with the appropriate size **OPEN** bleed cap and **NOT** a **BLIND** cap. The maximum footage **PER OUTLET** should not exceed 300 feet.

**WARNING:** For more efficient time management, NIEDNER recommends attaching hose 3" or larger to the bottom outlet(s) only. Lead lines are to be used for testing hoses 3" or larger. Lead lines must have the same or greater service pressure rating than the hose(s) being tested. Large diameter hose should **NEVER** be attached directly to any ALTRA TEST hose tester check valve.

4. Attach bleed caps to all the test hose discharge ends. Make sure the petcock valve on the bleed cap is in the open position. All hoses are to be tied together, in groups of two, behind every set of loose couplings with a safety tie line per NFPA 1962 (current edition). The use of the safety tie lines is for safety reasons. Having the hoses tied together will minimize the chance of injury should a hose burst while pressurized. Whipping lines can injure personnel and damage equipment.
5. Connect the ALTRA TEST hose tester to the water supply of your choice. The inlet water pressure should not exceed 120 PSI. Surpassing this pressure could cause non-warranty internal damage to the pump.
6. For the electric model ALTRA TEST hose tester, be sure to plug the tester into a grounded 20-amp circuit. If an extension cord is required, please refer to the notation on extension cords located on page 5 of this manual.
7. Open **BOTH** ball valves on the ALTRA TEST hose tester and turn on the water supply. Allow the water to flow throughout the tester until all the air has been evacuated from the unit. When there is a steady stream of water being expelled from the sections of the hose, close the bleed caps by turning the petcock valve in the opposite direction.
8. Close the main water supply **inlet ball valve**. **DO NOT SHUT OFF THE WATER SUPPLY**. Closing the inlet ball valve redirects the water supply through the pump. A continuous supply of fresh water flowing into the pump will keep it from overheating. Shutting off the water supply during operation could damage the pump and cause non-warranty damage to your ALTRA TEST hose tester unit.
9. It is normal to see water being expelled from the thermal relief valve. **CAUTION: This water will be HOT**. The function of the thermal relief valve is to remove the heated water from the pump to allow room for the cooler water from the main water supply.
10. At this point, the hoses are filled and are completely purged/bled of air. The gauge on the hose tester should show a reading from 50 PSI to 120 PSI hydrant pressure. If the gauge needle has NOT moved from its original position, STOP the tester, as the gauge may be damaged, broken, or faulty. If the gauge is functional, skip to step 14.
11. Do not resume using the ALTRA TEST hose tester unit until it has been inspected by a trained mechanic and/or the non-functional gauge has been replaced.

(Replacement gauges are available from your NIEDNER distributor – see your tester model schematic and parts list for confirmation of which part to order).

12. Make sure the pressure regulator is set at the minimum pressure **BEFORE** starting up the ALTRA TEST hose tester. The minimum setting is achieved by turning the pressure regulator in the *counterclockwise* direction.

13. Start up the ALTRA TEST hose tester and slowly turn the handle of the pressure regulator in a clockwise direction until the desired test pressure is indicated on the gauge. **DO NOT force the handle of the pressure regulator beyond its normal resistance point.**

If the gas model ALTRA TEST hose tester is being used, the engine should be run at a smooth, consistent throttle speed (half speed or slightly higher). Use the sound of the gas engine as a guide to strive for a smooth, vibration-free operational throttle. **Excessive vibration will reduce the life expectancy of the ALTRA TEST hose tester.**

14. The pressurization time will vary, this process may take anywhere from 20 to 30 minutes or longer, depending on the size, type and quantity of hose being tested. Also, the diameter of the water supply hose may contribute to a longer fill time. However, the inlet of the water supply hose should be of the same or greater diameter size as the inlet of the hose tester.

**WARNING:** The pump should never be started or run without an adequate supply of water flowing through the pump plumbing and the ALTRA TEST hose tester manifold. Damage to equipment, personnel injury, or death may result if the pump is operated without an adequate water supply.

15. Once all lengths of hose have successfully been tested, return the handle of the pressure regulator to its original positioning (completely *counterclockwise* direction). It is **IMPORTANT** to turn off the ALTRA TEST hose tester **BEFORE** turning off the main water supply. Shutting off the water supply while the pump is still operating may result in non-warranty damage to the hose tester unit or other equipment or may cause serious personnel injury.

16. Open all the bleed caps by turning the petcock in the appropriate direction to relieve the water pressure from the hose. Remove the bleed caps, safety-tie lines, and lead lines (if applicable) and store everything in the appropriate location.

17. To remove the maximum amount of water from the ALTRA TEST hose tester prior to storage, slowly tip the hose tester unit forward until all water is removed from the manifold; the lower check valves should be blocked open during this process. Please refer to the DRAINING section on page 9.

18. ALTRA TEST hose tester units which are frequently subject to salt water or brackish water conditions should be **FLUSHED with CLEAN FRESH** water after each use.



19. Also, ALTRA TEST hose tester units which are used in salt water or brackish water conditions should be equipped with special ordered BRASS check valve assemblies. The brass check valves are available to you from your NIEDNER distributor.
20. Unless otherwise specified, the ALTRA TEST hose tester comes equipped with an Aluminum check valve assembly.

NIEDNER DISCLAIMS ALL LIABILITY FOR INJURY OR DAMAGE TO ANY AND ALL PERSONS OR PROPERTY THAT MAY BE CAUSED BY THE OPERATION OF THE ALTRA TEST HOSE TESTER, WHETHER IT IS A RESULT OF MISUNDERSTANDING OF THE INSTRUCTIONS, LACK OF PRUDENT SAFETY PRECAUTIONS, OR NOT FOLLOWING THE SAFETY STANDARDS OF THE INDUSTRY.

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## **DRAINING THE HOSE TESTER AFTER A SERVICE TEST**

**FLUSHING:** If salt water or brackish water has been used, flush the hose tester thoroughly with **FRESH** water after each use. Remove all bleed caps and store them separately.

**DRAINING:** To drain the water from the ALTRA TEST hose tester, use a small screwdriver and your fingers to carefully pull out the center disc of one of the bottom check valve outlets. Carefully insert the screwdriver behind the center disc to keep the check valve open. Then, gradually tilt the hose tester forward until all water has drained; **being very careful that oil DOES NOT leak from the dipstick opening.**

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## **SHORT-TERM AND LONG-TERM STORAGE OF THE ALTRA TEST HOSE TESTER**

SHORT-TERM STORAGE (UP TO 3 MONTHS):

In **ABOVE** freezing weather conditions: drain the water from the hose tester by following the above steps. As an additional measure, blow low-pressure compressed air through the open water inlet valve to remove the remainder of the water from the inside of the unit.

## LONG-TERM STORAGE (+ 3 MONTHS):

In **BELOW** freezing weather conditions: drain all the water from the unit using the above steps and blow low-pressure compressed air through the open water inlet valve to remove the remainder of the water from the inside of the unit. Cap the check valves to prevent the entry of foreign material.

An inspection of the in-line straining unit should be made. This can be done by unscrewing the joint of the in-line strainer (DEL-1181). If damage is found, the in-line strainer must be replaced.

## ANTI-FREEZE

In colder climates, extra steps are required. NIEDNER recommends the following steps be taken to protect and prolong the life of your ALTRA TEST hose tester: The pump's waterway should be filled with a solution made up of 50% water and 50% ethylene glycol anti-freeze. Follow these steps:

- Close the inlet ball valve.

Using bleed caps, cap off all but one of the check valves on the unit:

Recommended: If you have a 1500 model hose tester, leave the top outlet uncapped. If you have a 2000 model hose tester, leave one of the two top outlets uncapped.

- Carefully insert the head of a small screwdriver into the un-capped check valve as described previously in the DRAINING section on page 9. This will allow the air to escape as you are filling the unit with the anti-freeze mixture.
- Attach a 3-foot (0.9 m) piece of garden hose with a female GHT (garden hose thread) to the in-Line Water Strainer connection.
- With a funnel in the garden hose, slowly pour in the anti-freeze mixture (50% water and 50% ethylene glycol antifreeze) into the unit until full, at which time the anti-freeze mixture will seep out from the uncapped check valve opening.
- When the anti-freeze mixture seeps through the check valve, remove the small screwdriver and cap of the check valve.
- Remove the funnel and clamp off the open end of the garden hose so that it will not leak during storage. The water inlet can be capped off with the appropriate size fitting if the garden hose needs to be removed for storage.

ALL TESTING SHOULD BE DONE IN ACCORDANCE WITH NFPA 1962 – THE MOST CURRENT EDITION. IT IS THE USER'S RESPONSIBILITY TO ENSURE THEY ARE USING THE CORRECT VERSION PRIOR TO COMMENCING THEIR TESTING. VERIFICATION OR PURCHASE OF THE CURRENT NFPA EDITION CAN BE MADE THROUGH THE NFPA WEBSITE. SIMPLY GOOGLE: NFPA1962: STANDARD FOR THE CARE, USE, INSPECTION, SERVICE TESTING AND REPLACEMENT OF FIRE HOSES, COUPLINGS, NOZZLES, AND FIRE HOSE APPLIANCES.

# QUESTIONS & ANSWERS – ALTRA TEST HOSE TESTER TROUBLESHOOTING

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Q: WHY DOES IT TAKE SO LONG FOR THE HOSE TO PRESSURIZE?

**A:** Pressurization can be a time-consuming process and should not be rushed! It is normal for the pressurization procedure to take anywhere from 15 to 20 minutes or longer, depending on the type, diameter, and quantity of hose being tested.

However, it is also due in part to a designed safety feature. The hose is pressurized through a 1/4-inch-high-pressure hose, which leads from the pump to the manifold. This small diameter hose restricts the volume of water being transferred, thus reducing the risk of a hose whipping uncontrollably should there be a burst line or coupling separation during testing.

**Consider this:** A pump from a fire truck unit can easily deliver 250 GPM to 1000 GPM (depending on the make and model), whereas the pump from the CDHT1500SS tester delivers 3.2 GPM, and the pump on the CDHT2000SS Electric tester delivers 4.2 GPM. Because the pumps on the ALTRA TEST hose testers are significantly smaller, the pressurization time will be longer. However, by using the ALTRA TEST hose tester (in accordance with this manual and the NFPA 1962 (current edition) guidelines), the advantages are threefold: first, you have not taken a fire truck out of service to perform your annual hose testing operations; second, you are not putting extra wear on your apparatus motor, pump and valves; third, due to the mobility of the testers, hose testing can be performed at any location which has the required water supply and appropriate unobstructed space as described herein.

Q: WHY WON'T MY ALTRA TEST HOSE TESTER BUILD UP PRESSURE?

**A:** Double check the following pressurizing settings:

- The inlet ball valve is **CLOSED**.
- The water supply is **TURNED ON**.
- The water supply is not restricted and has adequate pressure.
- The 1/4" ball valve is **OPEN**.
- There are **no leaks** in the hose.
- There is **no air** remaining in the hose tester unit.

Additionally, check the following on the ALTRA TEST hose tester unit:

1. **OPEN** the 1/4" ball valve (valve is to remain open)

2. **REMOVE** all hose from the hose tester
3. **Cap off** all the check valves with the appropriately sized bleed caps.
4. Turn the water supply **ON**
5. **CLOSE** the main water supply inlet ball valve.
6. **Bleed** the air from the manifold
7. With the pressure regulator set at the minimum setting (full counter-clockwise), turn the pump on and **SLOWLY** raise the pressure.
8. Within a very few seconds, the pressure should build up to a 400 to 500 PSI range.
9. If the pressure gauge needle does not move, **STOP the pump immediately** and remove all the water from the hose tester. You must replace the gauge before resuming the use of your tester. *Replacement parts can be ordered from your NIEDNER distributor – see parts list for appropriate part number.*

#### Checking the pressure in the manifold:

- Use an in-line gauge to check if there is adequate pressure in the manifold. To do so, attach a separate pressure gauge to the appropriately sized adapter and attach this adapter to one of the **TOP** check valve outlets on the manifold of your ALTRA TEST hose tester.
- Cap off the remaining check valves with the appropriately sized bleed caps.
- Carefully repeat steps 4 through 9, and this time observe the readings from **BOTH** pressure gauges.
- If the in-line gauge shows a reading, but the gauge on the hose tester does not, it is likely that the pressure gauge on the tester is faulty. **DO NOT** continue using the hose tester until the faulty gauge has been replaced.
- If the pressure builds up on either gauge, this means that the ALTRA TEST hose tester is operating properly. There is one more step which can be taken to verify the function of the pressure gauge.

**WARNING: The step below must be performed by a trained mechanic:** Improper replacement of the poppet valves could cause irreparable damage to the pump. **It is imperative that this repair be completed by a trained mechanic.**

The pressure could be restricted due to the poppet valve located within the pump. If the poppet valves are clogged, broken or dysfunctional, they will need to be replaced before reusing the ALTRA TEST hose tester. Replacement parts can be ordered from your NIEDNER distributor – see the parts list for the appropriate part number.

#### Replacement of the Poppet Valves:

To replace a poppet valve, unscrew each brass poppet valve cap from the pump. Carefully remove the poppet valve from its socket with a pair of needle nose pliers. Each poppet valve must be visually

inspected and tested to ensure that the spring mechanism functions properly.

If the spring mechanism moves freely inside the poppet valve when pushed inwards, without applying too much force with the end of the needle nose pliers, it is functioning properly. If the spring is rusted or damaged, the entire poppet valve must be replaced.

Once all the poppet valves are inspected, repaired, or replaced, re-assemble the pump by reversing the above steps.

**Q:** WHY DOES THE OIL IN THE PUMP APPEAR TO BE WHITE/CLOUDY OR MILKY?

**A:** There are a few reasons why the oil in the pump may appear this color. The first of which may be water leaking into the oil. This is likely caused by damaged or worn packing rings.

To order a replacement packing kit from your NIEDNER distributor, you must provide the following information:

1. The ALTRA TEST hose tester serial number. This number is on a black tag located at the back and on the cart of the hose tester. The serial number begins with HT-02 . . .
2. Specify the model number and the manufacturing company of the pump. This information is usually located on the underside of the pump. This information ensures that the correct packing kit is ordered as they differ depending on the pump manufacturer.

**If you continue having problems with your ALTRA TEST hose tester, please contact NIEDNER Inc.'s Customer Service Department between 8 am to 4 pm EST.**

# NOTES

NIEDNER recommends that you write down the following information for future reference:

Niedner distributor whom you purchased your DELTA HOSE tester from:

DISTRIBUTOR TELEPHONE NUMBER:

ALTRA TEST HOSE TESTER MODEL NUMBER: CDHT

ALTRA TEST HOSE TESTER SERIAL NUMBER: HT-02

PURCHASE DATE:

# ALTRA TEST HOSE TESTER

## PARTS LIST AND SCHEMATIC DRAWINGS



CDHT1500SS



CDHT2000SS



CDHT2000GA-SS

Model	Power	Pump	Motor	Cart Style	Manifold size	Number of outlets	Inlet & Outlet size	Wheels
1500	115v Electric	3.2 GPM	1.7 HP / 60Hz	Low profile	1.5"	4	1.5"	4 x 5"
2000	115v Electric	4.3 GPM	1.7 HP / 60Hz	Upright	2.0"	6	2.5"	2 x 8"
	Gasoline	5.6 GPM	5.5 HP	Upright	2.0"	6	2.5"	2 x 8"

All ALTRA TEST hose testers are compliant with the NFPA 1962 (current edition) and come standard with:

- A one-year limited warranty
- Durable stainless-steel cart and manifold
- Industrial type motors
- Maximum pressure of 500 PSI on all electric models and 600 PSI on the gas model
- Oil bath pump with thermal protective valve
- In-line water filter system
- Fully automatic aluminum check valve assembly (brass assemblies also available at extra cost)

# DIAGRAM / SCHEMATIC

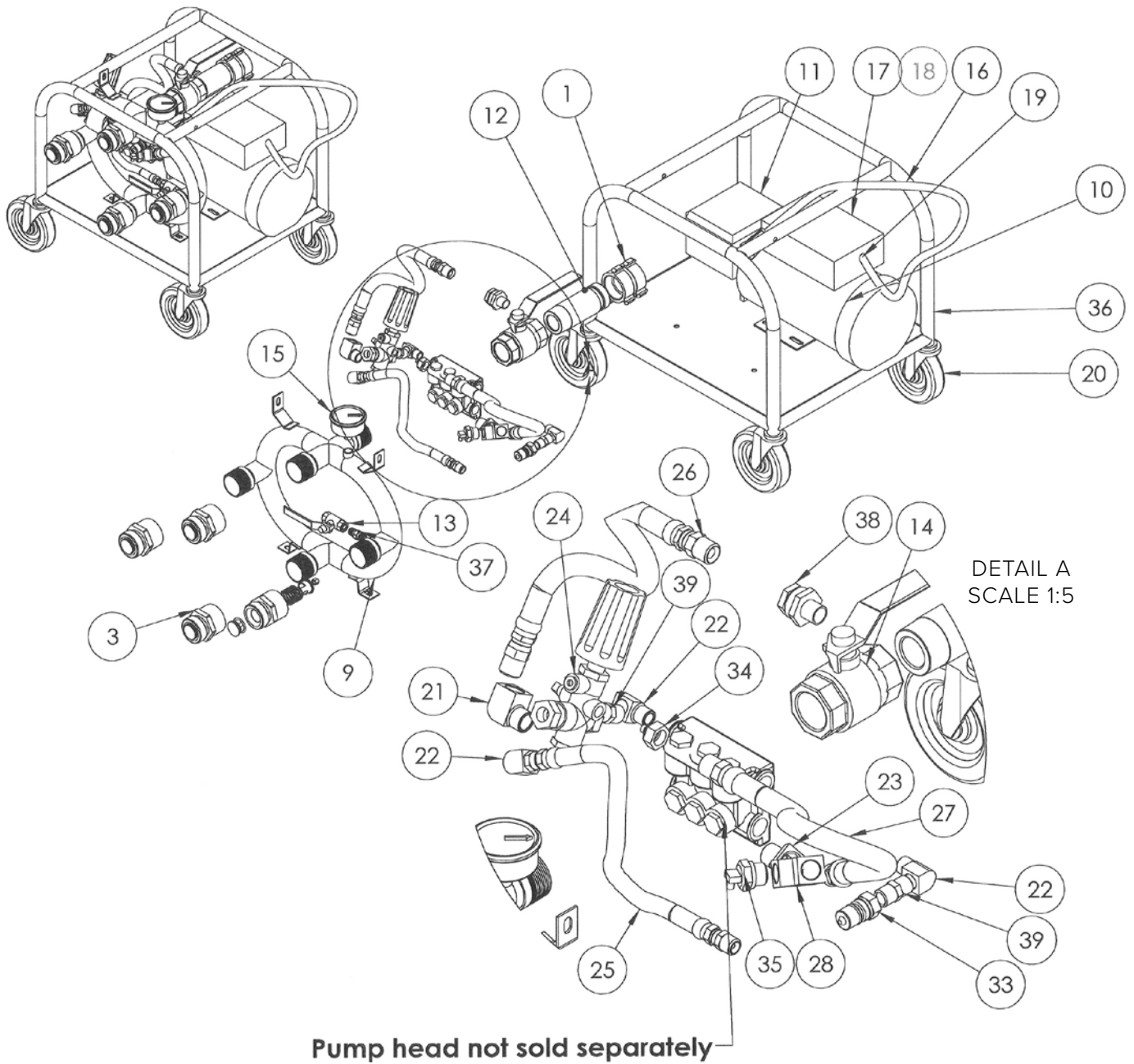
NIEDNER INC. ALTRA TEST HOSE TESTER  
MODEL #CDHT1500SS

PARTS LIST			
No.	Quantity	Part Number	Description
1	1	CA3500015B15B	1.5" NH (NST) x 1.5" NH (NST) DSW Female
3	4	DEL-51001	Check Valve Assembly 1.5NH (NST) <i>(Hose tester serial number required to purchase this part)</i>
9	1	DEL-1014	Manifold 1500 <i>(Hose tester serial number required to purchase this part)</i>
10	1	DEL-1121	Motor 1.7 HP / 60 Hz
11	1	DEL-1024	Pump 3.2 GPM
12	1	DEL-1032	Inlet Nipple 1.5" NH-NPT
13	1	DEL-1034	Ball Valve 1/4"
14	1	DEL-1037	Ball Valve 1.5"
15	1	DEL-1039-01	Gauge 1000 PSI -BACK Connection
16	1	DEL-1041/21	120 Volt electric cord
17	1	DEL-1042	Toggle Switch
18	1	DEL-1043	Toggle Switch Boot
19	1	DEL-1045-14-3	Strain Relief Connector
20	4	DEL-1049	5" Caster Wheels
21	1	DEL-1052	Street Elbow 1/4" - 90°
22	3	DEL-1055	Street Elbow 3/8" - 90°
23	1	DEL-1056	Adapter 1/2" - 45°
24	1	DEL-1062	Pressure Regulator (unloader) <i>Testers purchased prior to May 9, 2013 will also require 1 x DEL-1098. Reducer with 3/4" is no longer available</i>
25	1	DEL-1064	Hose 3/8" x 18"
26	1	DEL-1066	Hose 1/2" x 15"
27	1	DEL-1067	Hose 1/2" x 18"
28	1	DEL-1068	Brass 3 Connect Run Tee 1/2"
33	1	DEL-1087M	Quick Connect Male
34	1	DEL-1098	Reducer 1/2" Female x 3/8" Male
35	1	DEL-1120	Thermal Relief Valve
36	1	DEL-1009	Stainless Steel - Low Profile Cart
37	1	DEL-1138	1/4" Hex nipple
38	1	DEL-1181	In Line Strainer Unit
39	2	DEL-2050	Hex Pipe Nipple 3/8"
Not shown	1	DEL-1046-120V	GFCI Module 120V



# DIAGRAM / SCHEMATIC

NIEDNER INC. ALTRA TEST HOSE TESTER  
MODEL #CDHT1500SS



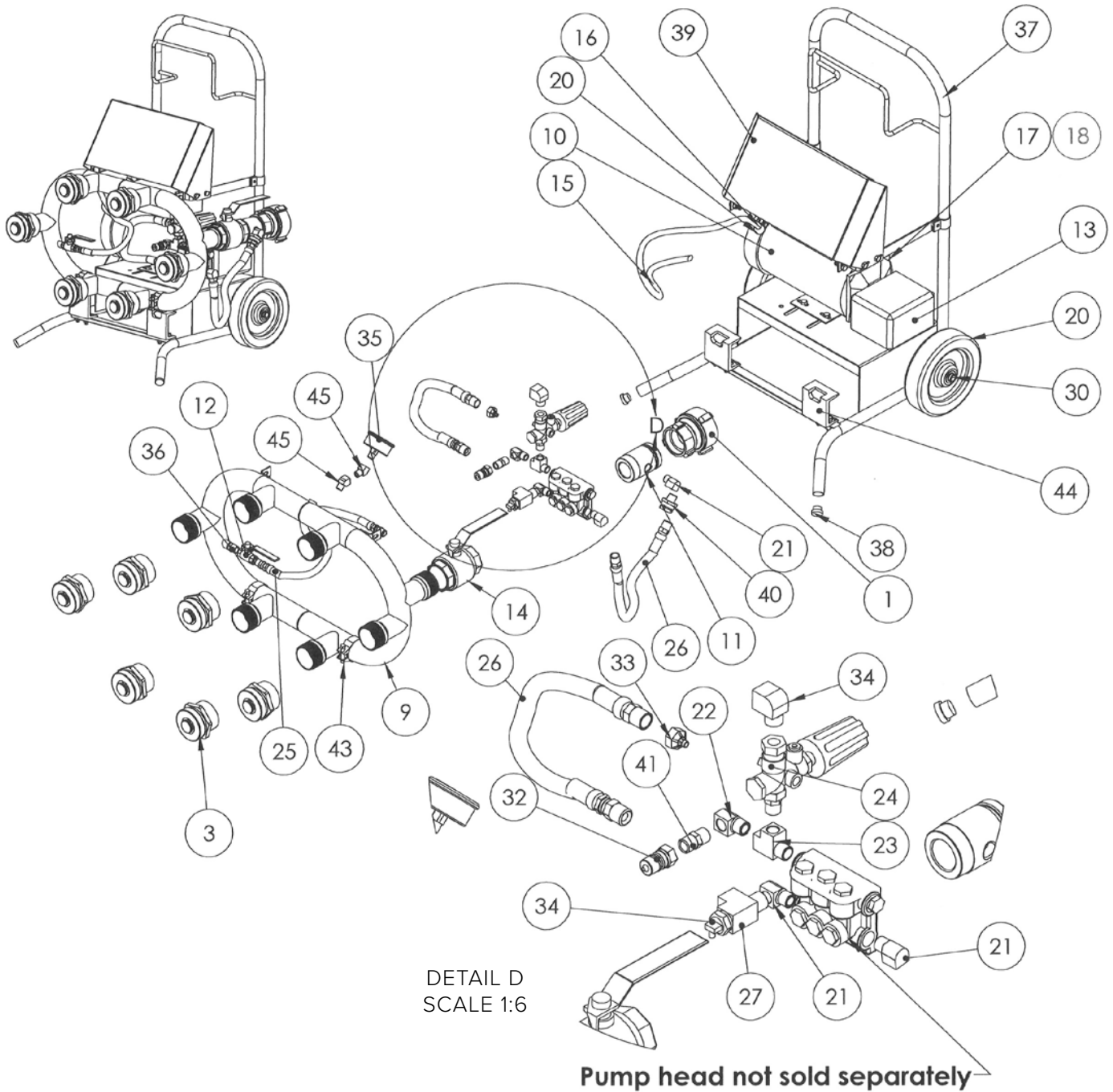
# DIAGRAM / SCHEMATIC

NIEDNER INC. ALTRA TEST HOSE TESTER  
 MODEL #CDHT2000SS (ELECTRIC – UPRIGHT CART)

PARTS LIST			
No.	Quantity	Part Number	Description
1	1	CA3500020B25B	2" NH (NST) x 2.5" NH (NST) DSW Female
3	4	DEL-52002	Check Valve Assembly 2.5NH (NST) <i>(Hose tester serial number required to purchase this part)</i>
9	1	DEL-1015	Manifold 2000 <i>(Hose tester serial number required to purchase this part)</i>
10	1	DEL-1121	Motor 1.7 HP / 60 Hz
11	1	DEL-1033	Inlet Nipple 2" NH
12	1	DEL-1034	Ball Valve 1/4"
13	1	DEL-1036	Pump 4.3 GPM
14	1	DEL-1038	Ball Valve 2"
15	1	DEL-1041/21	120 Volt electric cord
16	1	DEL-1045-14-3	Strain Relief Connector
17	1	DEL-1042	Toggle Switch
18	1	DEL-1043	Toggle Switch Boot
20	1	DEL-1051	8" Wheels
21	4	DEL-1052	Street Elbow 1/2" - 90°
22	1	DEL-1055	Street Elbow 3/8" - 90°
23	3	DEL-1058	Brass 3 Connect Tee 3/8"
24	1	DEL-1062	Pressure Regulator (unloader) <i>Testers purchased prior to May 9, 2013 will also require 1 x DEL-1098. Reducer with 3/4" is no longer available</i>
25	1	DEL-1064	Hose 3/8" x 18"
26	2	DEL-1066	Hose 1/2" x 15"
27	1	DEL-1068	Brass 3 Connect Run Tee 1/2"
30	2	DEL-1076	Wheel push cap
32	1	DEL-1087M	Quick Connect Male
33	1	DEL-1098	Reducer 1/2" Female x 3/8" Male
34	1	DEL-1120	Thermal Relief Valve
35	1	DEL-1039-01	Gauge 1000 PSI –BACK Connection
36	1	DEL-1138	1/4" Hex Nipple
37	1	DEL-1012	Stainless Steel Upright Cart
38	2	DEL-9283	Plastic cap for legs
39	1	DEL-1013-01	Stainless Steel face plate
	2	DEL-0002	Face Plate Bracket
40	1	DEL-1181	In-Line Strainer unit
41	2	DEL-2050	Hex Pipe Nipple 3/8"
43	2	DEL-1107	55-59 mm Clamp
44	2	DEL-1025	Lower Bracket
45	2	DEL-2053	45° Elbow 1/4" NPT
Not shown	1	DEL-1046-120V	GFCI Module 120V

# DIAGRAM / SCHEMATIC

NIEDNER INC. ALTRA TEST HOSE TESTER  
MODEL #CDHT2000SS (ELECTRIC – UPRIGHT CART)



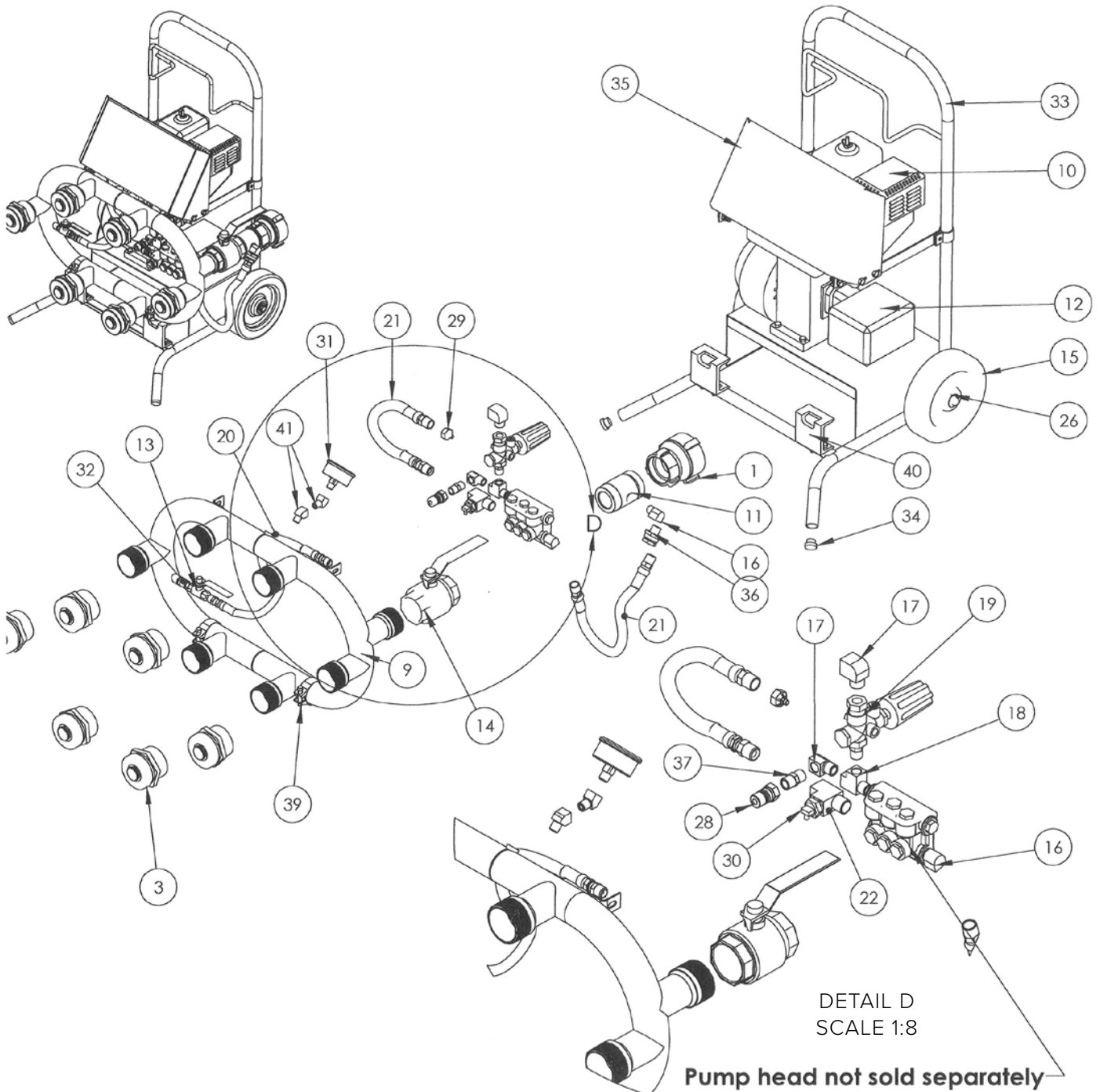
# DIAGRAM / SCHEMATIC

NIEDNER INC. ALTRA TEST HOSE TESTER  
 MODEL #CDHT2000GA-SS (GAS – UPRIGHT CART)

PARTS LIST			
No.	Quantity	Part Number	Description
1	1	CA3500020B25B	2" NH (NST) x 2.5" NH (NST) DSW Female
3	6	DEL-52002	Check Valve Assembly 2.5NH (NST) <i>(Hose tester serial number required to purchase this part)</i>
9	1	DEL-1015	Manifold 2000 <i>(Hose tester serial number required to purchase this part)</i>
10	1	DEL-1022	Motor 5.5 HP Honda
11	1	DEL-1033	Inlet Nipple 2" NH
12	1	DEL-2033-ASSEM	Pump assembly 5.6 GPM
13	1	DEL-1034	Ball Valve 1/4"
14	1	DEL-1038	Ball Valve 2"
15	2	DEL-1051	8" Wheels
16	2	DEL-1052	Street Elbow 1/2" - 90°
17	2	DEL-1055	Street Elbow 3/8" - 90°
18	1	DEL-1058	Brass 3 Connect Tee 3/8"
19	1	DEL-1062	Pressure Regulator (unloader) <i>Testers purchased prior to May 9, 2013 will also require 1 x DEL-1098. Reducer with 1/4" is no longer available</i>
20	1	DEL-1064	Hose 3/8" x 18"
21	2	DEL-1066	Hose 1/2" x 15"
22	1	DEL-1068	Brass 3 Connect Run Tee 1/2"
26	2	DEL-1076	Wheel push cap
28	1	DEL-1087M	Quick Connect Male
29	1	DEL-1098	Reducer 1/2" Female x 3/8" Male
30	1	DEL-1120	Thermal Relief Valve
31	1	DEL-1039-01	Gauge 1000 PSI –BACK Connection
32	1	DEL-1138	1/4" Hex Nipple
33	1	DEL-1012	Stainless Steel Upright Cart
34	2	DEL-9283	Plastic cap for legs
35	1 2	DEL-1013-01 DEL-0002	Stainless Steel face plate Brackets for face plate
36	1	DEL-1181	In-Line Strainer unit
37	2	DEL-2050	Hex Pipe Nipple 3/8"
39	2	DEL-1107	55-59 mm Clamp
40	2	DEL-1025	Lower Bracket
41	2	DEL-2053	45° Elbow 1/4" NPT
42	1 4	DEL-2067 DEL-2071	Flange F25 5/16" Fine Thread Bolt <i>(used to attach Flange to motor)</i>
43	1	DEL-2069	Bronze Sleeve Bearing for 3/4" Shaft 1" OD x1 3/4" length
44	1	DEL-2068	Shaft Adapter - 3/4" to 1"
Not shown	1	DEL-1046-120V	GFCI Module 120V

# DIAGRAM / SCHEMATIC

NIEDNER INC. ALTRA TEST HOSE TESTER  
MODEL #CDHT2000GA-SS (GAS – UPRIGHT CART)



# ACCESSORIES

NIEDNER INC. ALTRA TEST HOSE TESTER  
ALL MODELS

