

Operating Instructions for the Crusader 3000D Spotter

1. **Filling the Spotter with cleaning solution:**
 - a. Release the front and rear draw latch and lift off the upper recovery tank.
 - b. Add the water and the chemicals to the lower (solution) tank.
 - c. Replace the upper (recovery) tank on top of the lower (solution) tank and latch both the front and rear latches.

2. **To operate the Spotter:**
 - a. Attach the solution hose feed line to the female quick disconnect on the front of the spotter.
 - b. Attach the vacuum hose to the vacuum inlet on the recovery tank at the top of the spotter.
 - c. The switch at the rear of the spotter has three (3) positions. When the switch is placed in the up position both the pump and the vacuum motor will run. When the switch is placed in the center position, the entire unit is turned off. When the switch is placed in the down position, only the pump will run. This switch position (down) is typically used for pre-spraying or spotting the carpet prior to vacuuming up the solution.
 - d. When you turn the pump on, (or the pump and the vacuum on), it takes the pump a few seconds to prime and start spraying. You may have to hold the trigger on the hand tool or the wand for a few seconds before it starts to spray out the solution.
 - e. Be sure you never let the pump run when there is no solution in the tank, as the pump will burn out and this is NOT covered under warranty.

3. **Cleaning the unit and Storage:**
 - a. To empty the recovery tank, first remove the vacuum hose. Then release both the front and rear latches and lift off the top recovery tank.
 - b. Pour out the dirty solution through the vacuum inlet. This is of course after you have removed the vacuum hose from the inlet and the recovery tank from the bottom solution tank.
 - c. When you are finished using the spotter, unscrew the clear plastic access cover on the recovery tank and flush out any residual dirt and allow it to dry out. Also, be sure to empty out any extra solution from the solution tank and allow it to dry out before replacing the recovery tank on the unit and putting it in storage. Be sure to always store the unit and it's accessories in a place where it is above freezing. If the unit and/or hand tool/wands freeze, this could cause damage to the pump and other internal components.

4. **Trouble Shooting:**
 - a. If the pump doesn't spray make sure you have enough solution in the bottom tank to cover the small screen filter. This is the inlet where chemicals flow to the pump so it must be submersed in solution. Also make sure that the solution hose connector is pushed all the way into the female connector on the spotter and that the jet on the hand tool or wand is not plugged.
 - b. Place the switch in the "pump only" position and listen to see if you can hear the pump running.
 - c. Depress the trigger on the hand tool or wand so that the air can be released and the solution is allowed to flow.
 - d. If the vacuum recovery is weak:

- ⇒ Check to make sure the top tank is in the proper position and both draw latches are engaged.
 - ⇒ Check to make sure the ball float shut off inside of the recovery tank is clean.
 - ⇒ Check for blockage in hose and hand tool inlet.
 - ⇒ Check the gasket on the vacuum motor and replace both the gasket and screen if they appear to be worn or missing.
5. **Replacing the pump or vacuum motor:** Simply remove the recovery tank, after you make sure the unit is not plugged into a wall socket. Tip the unit over and remove the six (6) screws that hold on the back cover. You can change out the vacuum motor by simply removing the two (2) screws holding it onto the motor plate. If you need to change the pump remove the two (2) screws holding the front plate in place, and loosen the clamp holding the hose onto the hose barb coming out of the tank. After you change out the pump and reconnect the hoses, set the front cover in place, (do not put in the front two (2) screws yet). Set the back cover in place and insert the ¾” screw with the spaces between the 2 (two) covers in the center underneath where the two (2) covers overlap. Start these two (2) screws first, and then put the four (4) screws in the back along with the two (2) screws in the front. Then tighten all eight (8) screws securely. If you start the two (2) screws underneath with the spacers first, the unit will go back together easily.

Industrial Product Limited Warranty

The Crusader spotter is warranted to be free of defects in material and workmanship under normal use, for a period of one (1) year from the date of manufacture.

The limited warranty will not apply to pumps/products that were improperly installed, misapplied, damaged, altered, or are incompatible with fluids.

All industrial pumps/products must be flushed of any chemicals before shipping.

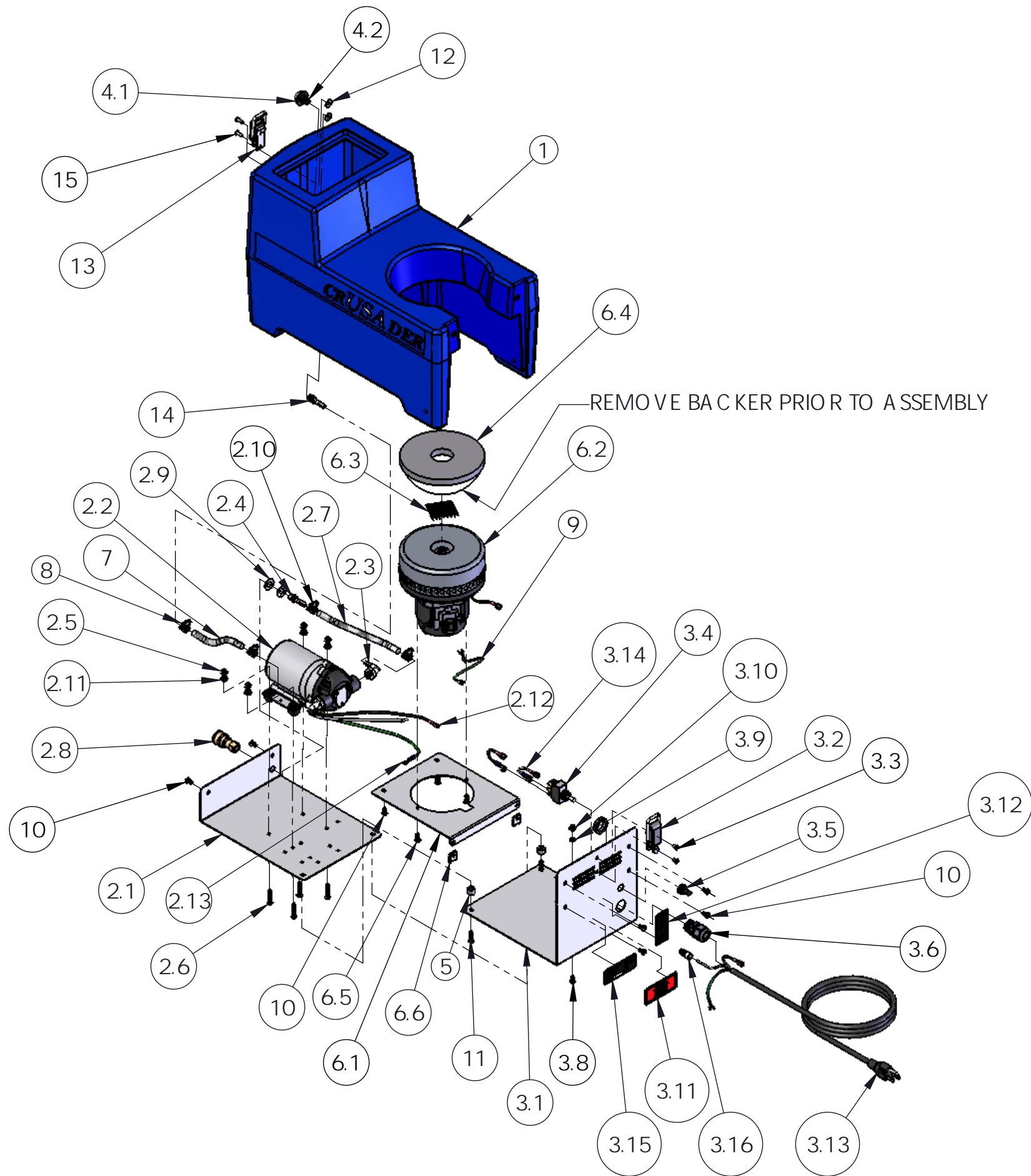
Returns are to be shipped postage prepaid to Crusader Mfg. Inc. Crusader shall not be liable for freight damage incurred during shipping. Package returns carefully.

Crusader's obligation under this warranty policy is limited to the repair or replacement of the pump/product. All returns will be tested per Crusader factory criteria.

No credit or labor allowances will be given for pumps or products returned as defective. Warranty replacement will be shipped on a freight allowed basis.

This limited warranty is in lieu of all other warranties, expressed or implied, and no other person is authorized to give any other warranty or assume obligation or liability on Crusader's behalf. Crusader shall not be liable for any labor, damage, or other expense, nor shall Crusader be liable for any indirect, incidental, or consequential damages of any kind incurred by the reason of the use or sale of any defective product or part. This limited warranty covers industrial products distributed within the United States of American and Canada.

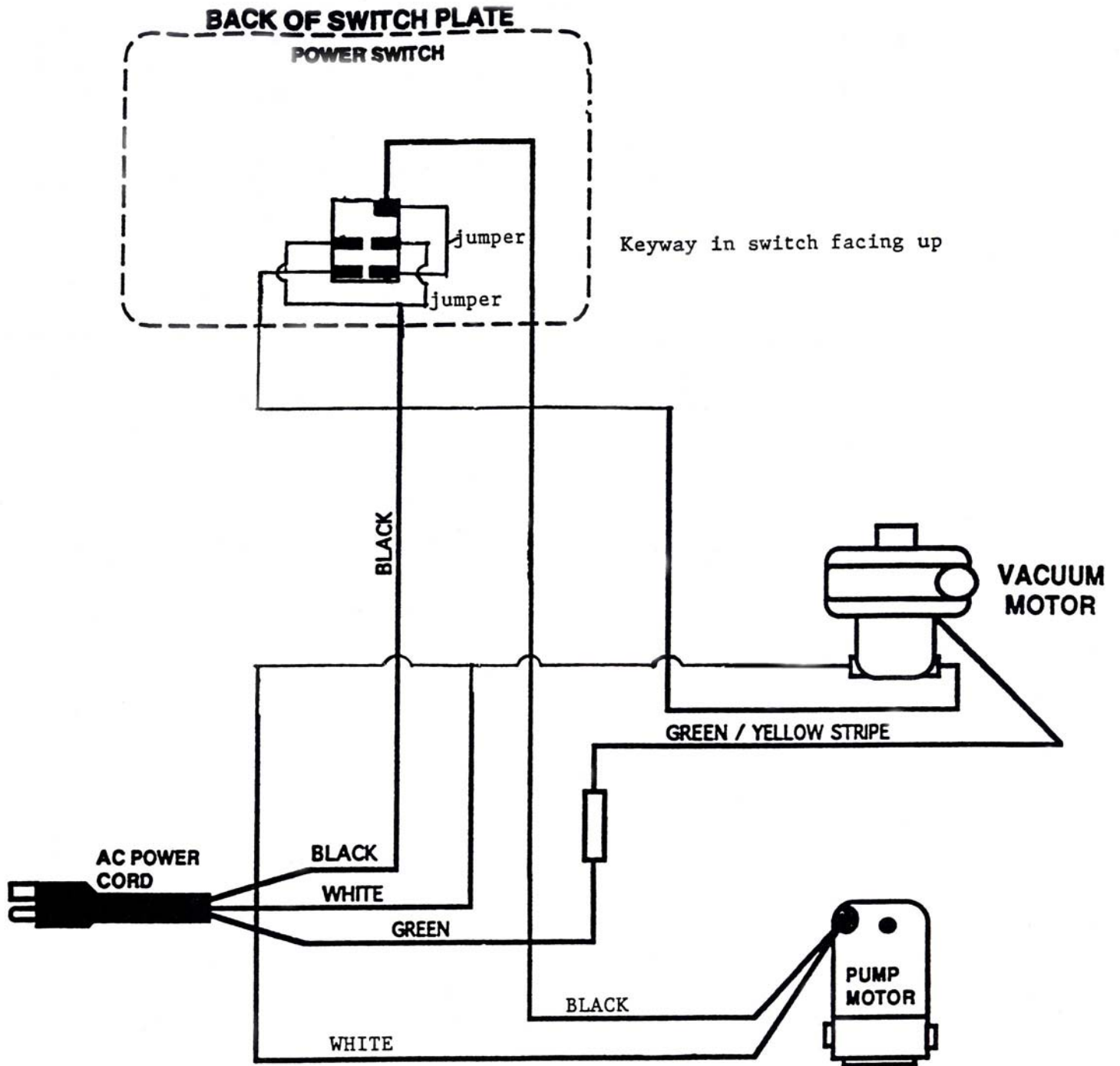
Crusader Mfg. Inc.
2955 Lone Oak Circle, #8
Eagan, MN 55121
800-597-3336
(Fax) 800-998-7311
sales@crusadermfg.com



| ITEM NO. | QTY. | UM | PART NUMBER | DESCRIPTION |
|----------|------|----|------------------------|------------------------------------|
| 1 | 1 | EA | 2900 | SOLUTION TANK |
| 2 | 1 | EA | 60 PSI PUMP GROUP | |
| 2.1 | 1 | EA | 2902 | FRONT PANEL |
| 2.2 | 1 | EA | 2950 | 60 PSI PUMP |
| 2.3 | 2 | EA | 2917 | 3/8" MPT X 1/4" RT ANGLE HOSE BARB |
| 2.4 | 1 | EA | 2460 | 1/8" MPT X 1/4" STRAIGHT HOSE BARB |
| 2.5 | 4 | EA | 1009 | # 10 NYLOK NUT |
| 2.6 | 4 | EA | 1010 | # 10-24 X 1" SS PHMS |
| 2.7 | 1 | EA | 2919A | 1/4" X 8-1/2" HOSE |
| 2.8 | 1 | EA | 2469 | 1/8" FEMALE COUPLER |
| 2.9 | 2 | EA | 1061 | 3/8" WASHER |
| 2.10 | 2 | EA | 2915 | # 16 HOSE CLAMP |
| 2.11 | 4 | EA | 1002 | 3/16" WASHER FOR RIVET |
| 2.12 | 1 | EA | 1014 | CRIMP TERMINAL |
| 2.13 | 1 | EA | 1015 | RING ROUND TERMINAL |
| 3 | 1 | EA | REAR PANEL GROUP | |
| 3.1 | 1 | EA | 2903-1 | REAR PANEL |
| 3.2 | 1 | EA | 2906 | LATCH |
| 3.3 | 2 | EA | 1001A | RIVET - OPEN END |
| 3.4 | 1 | EA | 2920 | 3 POSITION SWITCH |
| 3.5 | 1 | EA | 2922 | SWITCH BOOT |
| 3.6 | 1 | EA | 2428 | STRAIN RELIEF AND NUT |
| 3.8 | 1 | EA | 1023 | # 10-24 X 3/8" SS PHMS |
| 3.9 | 1 | EA | 1039 | GROUND WASHER |
| 3.10 | 1 | EA | 1009 | # 10 NYLOK NUT |
| 3.11 | 1 | EA | 2035 | WARNING DECAL |
| 3.12 | 1 | EA | 2921 | SWITCH DECAL |
| 3.13 | 1 | EA | 2144 | 25' POWER CORD |
| 3.14 | 2 | EA | 1074A | 3" JUMPER W/ TERMINALS |
| 3.15 | 1 | EA | 2451 | NAMEPLATE |
| 3.16 | 1 | EA | 1029 | ORANGE WIRE NUT |
| 4.1 | 1 | EA | 2908 | SMALL SUCCTION SCREEN |
| 4.2 | 1 | EA | 2916 | 1/8" MPT NIPPLE |
| 5 | 2 | EA | 1034 | 3/8" SPACER |
| 6 | 1 | EA | MOTOR GROUP - 105 INCH | |
| 6.1 | 1 | EA | 2904 B | MOTOR PLATE |
| 6.2 | 1 | EA | 2051 | 105" WATER LIFT MOTOR |
| 6.3 | 1 | EA | 1043A | MOTOR SCREEN |
| 6.4 | 1 | EA | 2453 | MOTOR GASKET W/ PSA |
| 6.5 | 2 | EA | 1012 | # 10 X 1/2" PHSMFPH-TYPE A |
| 6.6 | 2 | EA | 1006 | TINNERMAN SPEED NUT |
| 7 | 1 | EA | 2918A | 1/4" X 5" HOSE |
| 8 | 2 | EA | 2915 | # 16 HOSE CLAMP |
| 9 | 1 | EA | 1041 | GROUND LEAD |
| 10 | 8 | EA | 1023 | # 10-24 X 3/8" SS PHMS |
| 11 | 2 | EA | 1021 | # 10-24 X 3/4" SS PHMS |
| 12 | 2 | EA | 1002 | 3/16" WASHER FOR RIVET |
| 13 | 1 | EA | 2906 | LATCH |
| 14 | 1 | EA | 2460 | 1/8" MPT X 1/4" STRAIGHT HOSE BARB |
| 15 | 2 | EA | 1001 | RIVET - CLOSED END |

| | | | | | | | |
|---|--|--|------|----------------------|---|--------------|--|
| MATERIAL: | | REV | DATE | BY | REVISION | | |
| FINISH: | | UNLESS OTHERWISE SPECIFIED TOLERANCES ARE: | | | CRUSADER MANUFACTURING CORP. | | |
| THIRD ANGLE PROJECTION | | FRACTION ± 1/32 ANGLE ± 1° X ± .02 XX ± .01 XXX ± .005 | | | 2955 LONE OAK CIRCLE #8, EAGAN, MN 55121 TELEPHONE: 651-456-9100 FAX: 651-456-9191 | | |
| PROPRIETARY AND CONFIDENTIAL | | ALL DIMENSIONS IN INCHES UNLESS NOTED | | | TITLE SOLUTION TANK ASSEMBLY | | |
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| | | DATE: 11-17-07 | | | NAME: 3000D SOLUTION TANK ASSY | | |
| | | SCALE: 1:8 | | | REV: - | | |
| | | | | DO NOT SCALE DRAWING | | SHEET 2 OF 2 | |

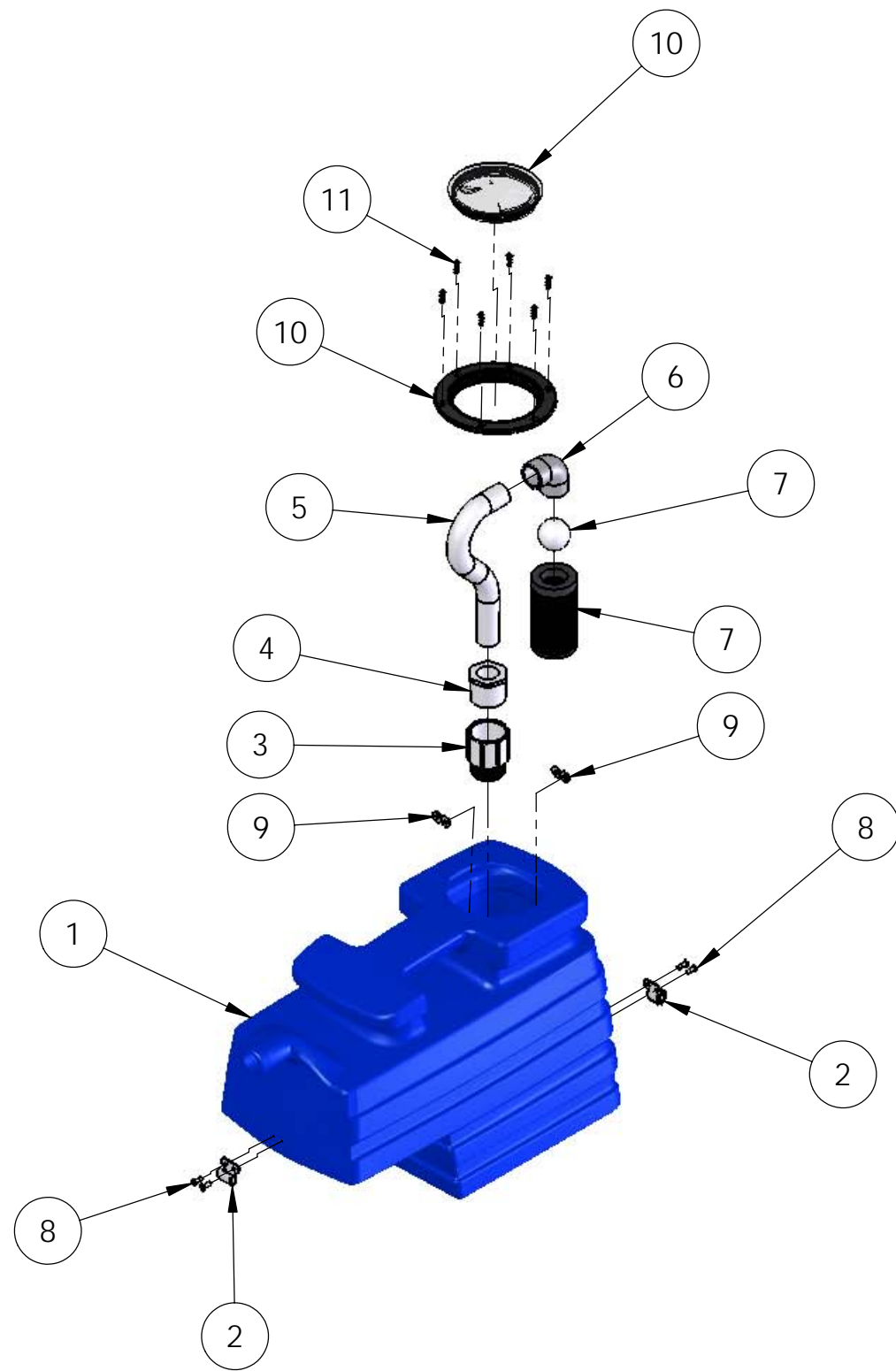
3000D Spotter Wiring Diagram



Property of:
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2955 Lone Oak Circle, #8
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800-597-3336

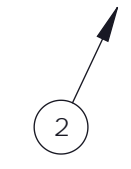
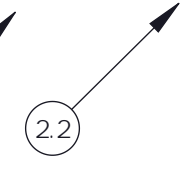
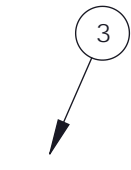
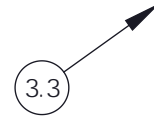
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| ITEM NO. | QTY. | UM | PART NUMBER | DESCRIPTION |
|----------|------|----|-------------|-----------------------------|
| 1 | 1 | EA | 2901 | RECOVERY TANK |
| 2 | 2 | EA | 2907 | STRIKE FOR THE LATCH |
| 3 | 1 | EA | 2912 | 1 1/4" MPT FITTING |
| 4 | 1 | EA | 2913 | 1 1/4" TO 3/4" REDUCER |
| 5 | 1 | EA | 2911 | 3/4" STAND PIPE |
| 6 | 1 | EA | 2914 | 3/4" RIGHT ANGLE ELBOW |
| 7 | 1 | EA | 2909 | BALL FLOAT SHUTOFF |
| 8 | 4 | EA | 1001 | RIVET - CLOSED END |
| 9 | 4 | EA | 1002 | 3/16" WASHER FOR RIVET |
| 10 | 1 | EA | 2910 | PORT HOLE COVER ASSY |
| 11 | 6 | EA | 1070 | #8 X 3/4" COUNTERSINK SCREW |

| | | | | | | |
|---|-------------|--|---------------------------------------|-----------------|--|----------|
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| THIRD ANGLE PROJECTION | | | | | TITLE RECOVERY TANK ASSEMBLY | |
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| DRAWN DH | APPR. AP | DO NOT SCALE DRAWING | | SHEET 2 OF 2 | | |

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|----------|-------------|--------------------------------------|------|
| 1 | 4054 | 8' VACUUM HOSE WITH CUFFS | 1 |
| 1.2 | 4056A | HOSE CUFF, 1-1/2" TO 1" | 1 |
| 1.3 | 4057A | HOSE CUFF, 1-1/4" TO 1" | 1 |
| 2 | 3059 | HAND TOOL ASSEMBLY | 1 |
| 2.2 | 2474 | HAND TOOL "A" VALVE | 1 |
| 2.3 | 2463 | 8002 SPRAY JET WITH O-RING | 1 |
| 2.4 | 2474A | HAND TOOL VALVE HANDLE | 1 |
| 2.5 | 2485 | SPRAY JET RETAINER PLATE WITH SCREWS | 1 |
| 3 | 4055 | 1/4" x 8' SOLUTION HOSE | 1 |
| 3.3 | 2468 | 1/8" MALE COUPLER | 1 |
| 4 | 1057 | 7 1/2" CABLE TIE | 4 |



MATERIAL:

FINISH:

THIRD ANGLE PROJECTION

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| | | | 2955 LO NE OAK CIR CLE # 8, EAG AN., MN 55121 TELEPHO NE: 651-456-9100 FAX: 651-456-9191 | |
| | | | TITLE H A N D T O O L W I T H H O S E A S S E M B L Y | |
| | | | SIZE B | NAME |
| | | | | 3050 |
| | | | | REV 01 |
| | | | SCALE 1:4 | DO NOT SCALE DRAWING |
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