

This Manual Must Be Read Before Operating The Equipment

Owner / Operator's Manual



The Commercial Turf Choice

SPRAYERS

US-500

US-1000



Warren, Michigan 48089
866-5TURFEX

CUSTOMER COPY

Protected by the following patents, #6,089,478, #6,088,865, #Des.425,915
and other pending U.S. and foreign patent applications.

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This manual has been designed for your help. It will assist you and instruct you on the proper set-up, installation and use of this sprayer product.

Refer to the table of contents for an outline of this manual.

We require that you read and understand the contents of this manual completely (especially all safety information) before attempting any procedure contained herein.



THIS SIGN SHOULD ALERT YOU:

The Society of Automotive Engineers has adopted this SAFETY ALERT SYMBOL to pinpoint characteristics that, if NOT carefully followed, can create a safety hazard. When you see this symbol in this manual or on the machine itself, BE ALERT! Your personal safety and the safety of others is involved .

Defined below are the SAFETY ALERT messages and how they will appear in this manual:



DANGER

(RED)

Information that, if not carefully followed, can cause death!



WARNING

(ORANGE)

Information that, if not carefully followed, can cause serious personal injury or death!



CAUTION

(YELLOW)

Information that, if not carefully followed, can cause minor injury or damage to equipment.

General Information



CONGRATULATIONS!

The TurfEx product you have purchased is part of a full line of professional-duty equipment for the turf and landscaping professional. TurfEx provides an innovative solution to do the job quickly effectively.

SIMPLICITY – Fewer moving parts means minimal maintenance.

RELIABILITY – High impact linear low density polyethylene hoppers and tanks, state-of-the-art electronics, powder coated frames, patented 12-volt motor/transmissions, and other high quality components make TurfEx products durable and dependable.

VERSITILITY – Multi-use capabilities allows use of a variety of materials and applications.

WARRANTY – **ONE YEAR** from the date of purchase.

TurfEx products cover your spreading, storage, sweeping, grooming and spraying needs – all from a single source . . . The Commercial Turf Choice.

Registration

Record the following information in this manual for quick reference.

Sprayer Model Number _____

Sprayer Serial Number _____

Date of Purchase _____

Dealer Where Purchased _____

When ordering parts, the above information is necessary. This will help to insure that you receive the correct parts.

At the right is a diagram of the ID tag. Please fill out the warranty card with all the necessary information to validate it. This will also give us a record so that any safety or service information may be communicated to you.


SER. NO. _____
TRYNEX INTERNATIONAL
Warren, MI 48089 (800) 725-8377



Before attempting any procedure in this book, these safety instructions must be read and understood by all workers who have any part in the preparation or use of this equipment.

For your safety warning and information decals have been placed on this product to remind the operator of safety precautions. If anything happens to mark or destroy the decals, please request new ones from Trynex, International.



Remember most accidents are preventable and caused by human error. Exercising of care and precautions must be observed to prevent the possibility of injury to operator or others!



Never operate equipment when under the influence of alcohol, drugs, or medication that might alter your judgment and/or reaction time.



Always wear safety glasses with side shields when working metal against metal. Failure to do this could result in serious injury to the eyes or other parts of the body.



Always wear safety glasses with side shields when working metal against metal. Failure to do this could result in serious injury to the eyes or other parts of the body.



Never allow children to operate or climb on equipment.
Never weld or grind on equipment without having a fire extinguisher available.
Always check areas to be swept to be sure no hazardous conditions or substances are in the area.
Always inspect unit for defects: broken, worn or bent parts, weakened areas on broom or mount.



Always shut off vehicle and power source before attempting to attach or detach or service broom unit. Be sure vehicle/power source is properly braked or chocked.



Always make sure personnel are clear of areas of danger when using equipment.



Always keep hands, feet, and clothing away from power-driven parts.



Remember it is the owner's responsibility to communicate information on safe usage and proper maintenance of all equipment.

 **CAUTION**

PREPARATION

Check area for foreign objects or obstacles that could cause personal injury. Keep other persons, children or animals out of the area to be treated.

 **WARNING**

OPERATION

Recognize company and government regulations and follow safety recommendations of both. to ignore this could mean serious injury or even death of operator or others. Safety goggles must be worn by operator at all times to prevent chemicals from injuring eyes.

 **CAUTION**

Be aware of your surroundings when operating motorized vehicles while spraying.

 **WARNING**

SERVICE

When service is necessary, perform it in a protected area. Do not use power tools in rain or snow because of danger of electrical shock or injury. Keep area well lighted, Use proper tools and keep service area clean to help avoid accidents.

Summary of Important Safety Information

Chemical accident procedures

Immediate response is necessary in the event of sprayer leaks, bodily chemical contact, poisoning, or spills. See instructions below:

Sprayer leak	If the sprayer develops a leak, immediately stop spraying. Turn off power to the sprayer and follow directions below, as applicable.
Bodily chemical contact	<p>Personal contamination can occur when chemicals splash, spill, or spray directly onto a person.</p> <ol style="list-style-type: none"> 1. Immediately follow First Aid instructions on chemical label. <ul style="list-style-type: none"> <u>General procedures can include:</u> a) Eyes – immediately flush with water. b) Skin – wash all contaminated skin surfaces with soap and water. c) Clothing – remove contaminated clothing. Dispose of heavily contaminated clothing per chemical label instructions. 2. Seek medical advice if instructed on the label or the victim experiences symptoms of harmful effects. Bring the chemical label for reference.
Poisoning by ingestion or inhalation	<p>In case of poisoning from ingestion or inhalation</p> <p>If the victim has collapsed or is not breathing, <u>call 911</u>. Otherwise:</p> <ol style="list-style-type: none"> 1. If you are the victim, immediately seek assistance from nearby personnel because you may become incapacitated. 2. Immediately follow first aid instructions on chemical label. 3. Call a poison control center for further advice. In the U.S., call 1-800-222-1222. Have the chemical label available for reference.
Chemical spills	<p>Chemical spills must quickly be contained and properly cleaned up.</p> <p>Refer to the chemical label for any specific clean-up instructions.</p> <p>General procedures include:</p> <ol style="list-style-type: none"> 1. Controlling the spill by stopping the source of the spill. 2. Containing the spill so that it does not spread and get into water sources. 3. Cleaning up the spill immediately. 4. Seeking additional advice from: <ul style="list-style-type: none"> - <u>Chemical manufacturer</u> See chemical label for contact information. - <u>State pesticide regulatory agency</u> In the U.S., call the National Pesticide Info. Ctr. at 800-858-7378 for assistance in contacting your state's agency.

Summary of Important Safety Information

LISTED BELOW is a summary of safety information of particular importance. See individual sections of this owner's manual for more details.

DURING ASSEMBLY

CHECK and **TEST** completed assembly as directed in this manual. Serious injury could result from chemical leaks if sprayer is improperly assembled.

DO NOT MODIFY SPRAYER DESIGN

DURING OPERATION

READ and **FOLLOW** each chemical label's instructions and warnings.

AVOID inhaling, ingesting, or coming into contact with any chemicals.

KNOW applicable licensing and regulatory requirements for the chemical you plan to use.

KNOW emergency procedures before handling chemicals. Carefully review "Chemical Accident Procedures" listed below and later in this manual. Also see First Aid instructions on the chemical label.

WEAR protective clothing, eye protection, and chemical resistant gloves when filling, using and cleaning the sprayer. Wear additional protective gear, such as facemask or apron, as recommended on the chemical label.

EXERCISE EXTRA CAUTION around children and pets. Pesticides are especially toxic to them. Keep sprayer and spray materials away from them at all times.

DO NOT MIX OR POUR chemicals in an enclosed, unventilated area.

DO NOT USE flammable or corrosive chemicals in the sprayer.

FLUSH the sprayer before switching chemicals in order to prevent dangerous chemical interactions.

STORE pesticides in a correctly labeled container and in a secure location.

MONITOR the health of operators frequently exposed to pesticides, as recommended by the chemical label or local/federal regulations.

BEFORE SPRAYING

INSPECT and **PREPARE** sprayer before each use as directed in this manual.

FOLLOW INSTRUCTIONS for SAFELY FUELING the engine. Gasoline is flammable and can explode. Always use caution when handling gasoline.

DO NOT START sprayer until ready to spray in order to avoid unintentional spray release.

WEAR ADDITIONAL PERSONAL PROTECTIVE EQUIPMENT if you will be spraying overhead.

You will be exposed to much more chemical fallout in these applications. Wear chemical resistant head and neck protection, full face mask or half face mask with sealed goggles, and consider using a respirator.

DO NOT SPRAY when wind speed exceeds 4 MPH in order to minimize spray drift.

KEEP sprayer and spray materials away from children/pets. Pesticides can be especially toxic to children and animals.

DO NOT ALLOW anyone younger than 16 to operate sprayer since pesticides are especially toxic to children.

Summary of Important Safety Information

During Spraying

- **DO NOT OVERAPPLY** pesticide. Apply at rate recommended by chemical manufacturer. Excess pesticide can be dangerous to humans/animals, damage desirable plants, and contaminate soil and water sources.
- **DO NOT EAT, DRINK, SMOKE, RUB YOUR EYES, or TOUCH YOUR BARE SKIN** while handling chemicals and spraying .
- **NEVER POINT THE SPRAY GUN** at people or animals.
- **DO NOT SPRAY** near open flames or sources of heat.
- **ALWAYS HOLD THE SPRAY GUN FIRMLY** when using it to spray at higher pressures in order to prevent gun from whipping. Keep good footing and balance at all times.
- **EXERCISE EXTRA CAUTION** when spraying near areas accessible to children and pets.
- **CLEAN** up spills immediately per instructions on the chemical label.
- **TURN OFF** vehicle and set brake or block wheels, **TURN OFF** sprayer, and **RELIEVE** system pressure before leaving sprayer unattended.
- **SEE** Troubleshooting section of this manual before attempting any repairs. Wear personal protective equipment and follow safety instructions.

After Spraying

CLEAN sprayer immediately after use according to the directions provided in this manual.

DECONTAMINATE yourself after you are done spraying and have cleaned the sprayer. Wash all exposed areas of the body with soap and water, and remove and launder clothing.

DISPOSE OF or **STORE** remaining chemicals in secure storage with correctly marked container.

Transporting Safety

READ safety instructions in your vehicle manual with regard to carrying heavy cargo loads.

DO NOT ALLOW drivers younger than 16 to drive the vehicle with the filled sprayer attached.

MAKE SURE SPRAYER IS SECURELY ATTACHED to vehicle.

EXERCISE CAUTION in vehicle handling when driving with filled sprayer to avoid loss of control or rollover.

- Keep speed to a minimum so you can maintain control. Reduce speed prior to turns.
- Allow for more distance to stop .
- Avoid any sudden steering maneuvers, starts, or stops that could create liquid sloshing in the sprayer and instability.

SLOW DOWN and **EXERCISE EXTRA CAUTION** on sloped or uneven terrain. Pick the most level route possible across fields--drive up and down slopes when necessary, rather than across. Use a vehicle equipped with a roll over protection system (**ROPS**) if you will be working on non-level terrain.

BE AWARE that visibility may be reduced when making turns or backing up.

DO NOT RIDE or **TRANSPORT** cargo on the sprayer.

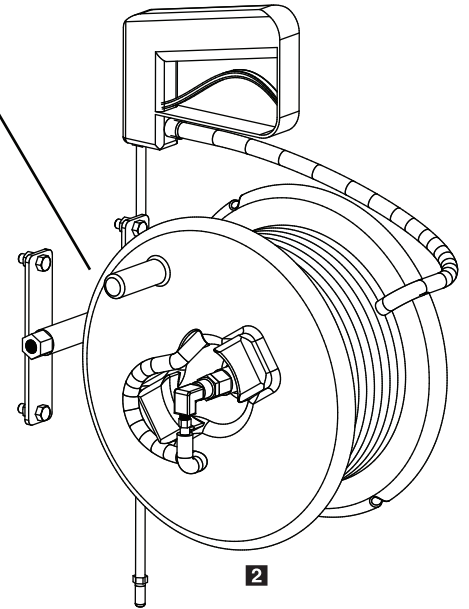
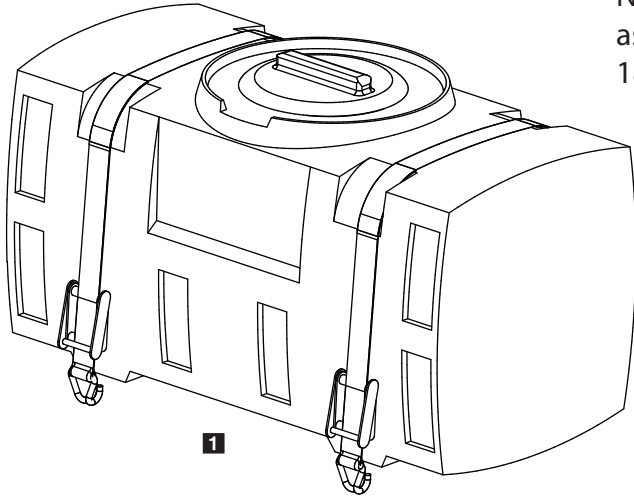
TURN OFF both sprayer and vehicle, and **SET BRAKES** before leaving unattended.

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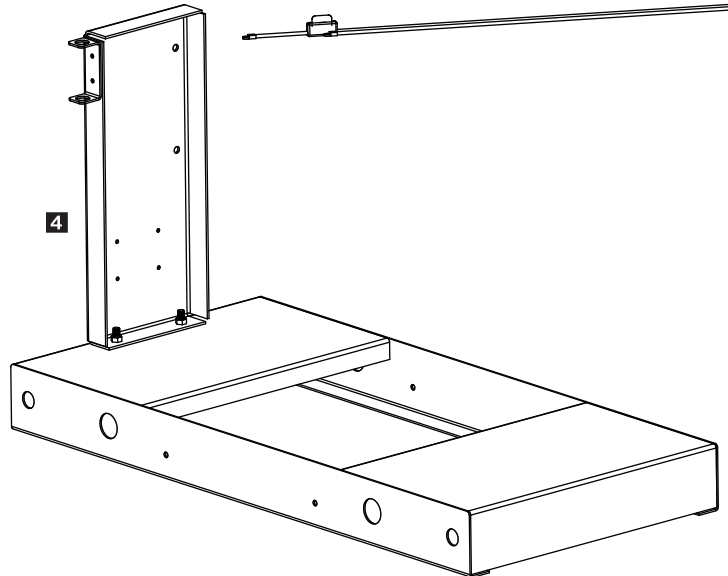
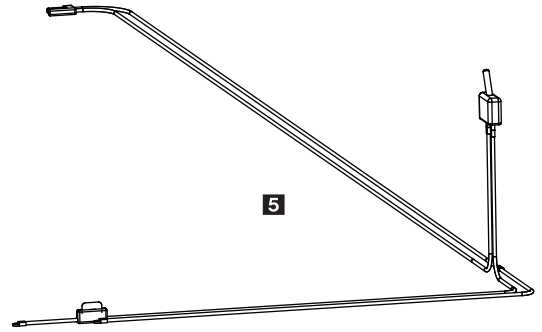
US-500 / US-1000

System Sub-Assemblies

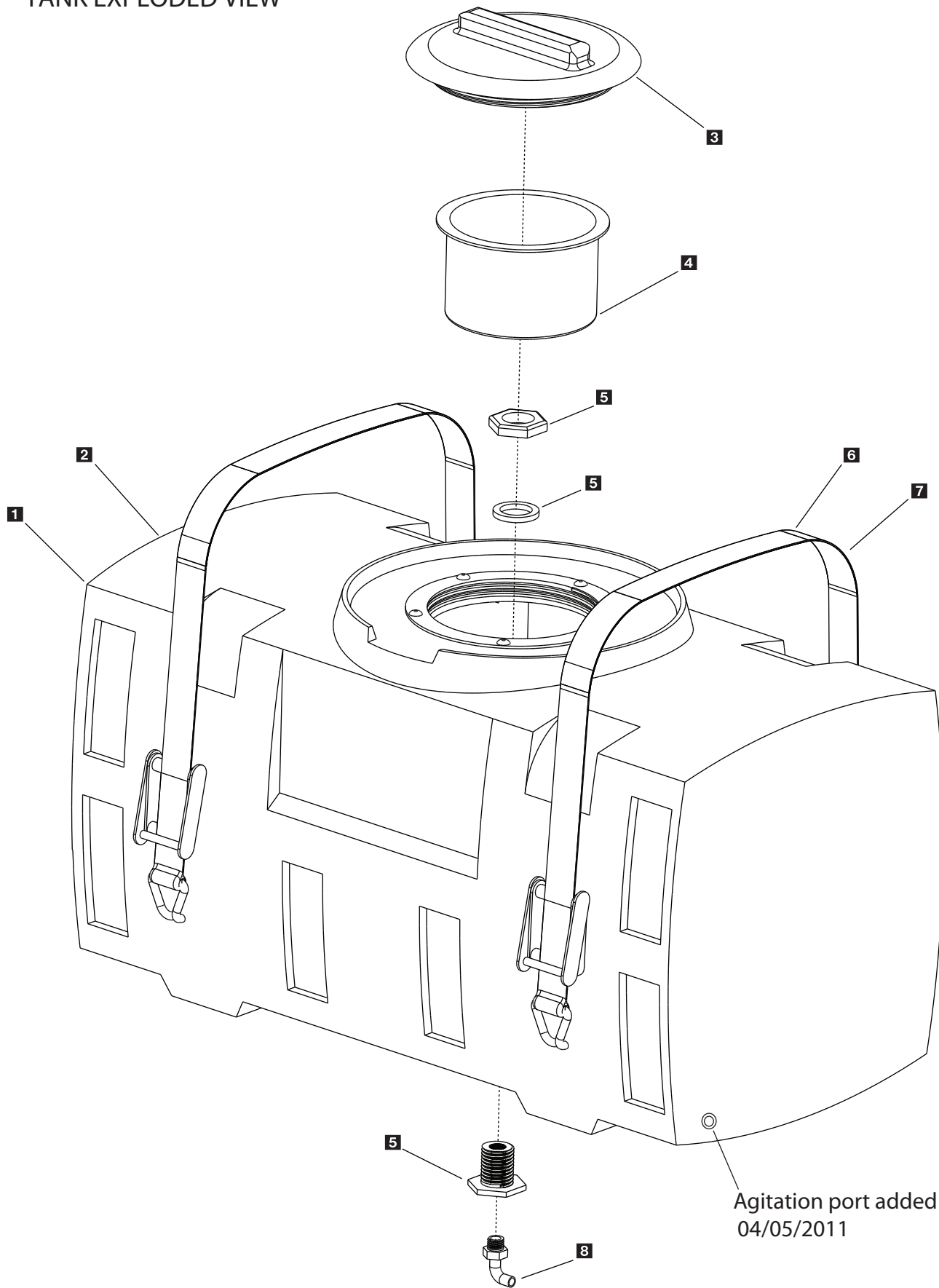
NOTE: Hose reel assembly has rotated 180 degrees as of 04/04/2011



3 Note: New for 04/2011 Production

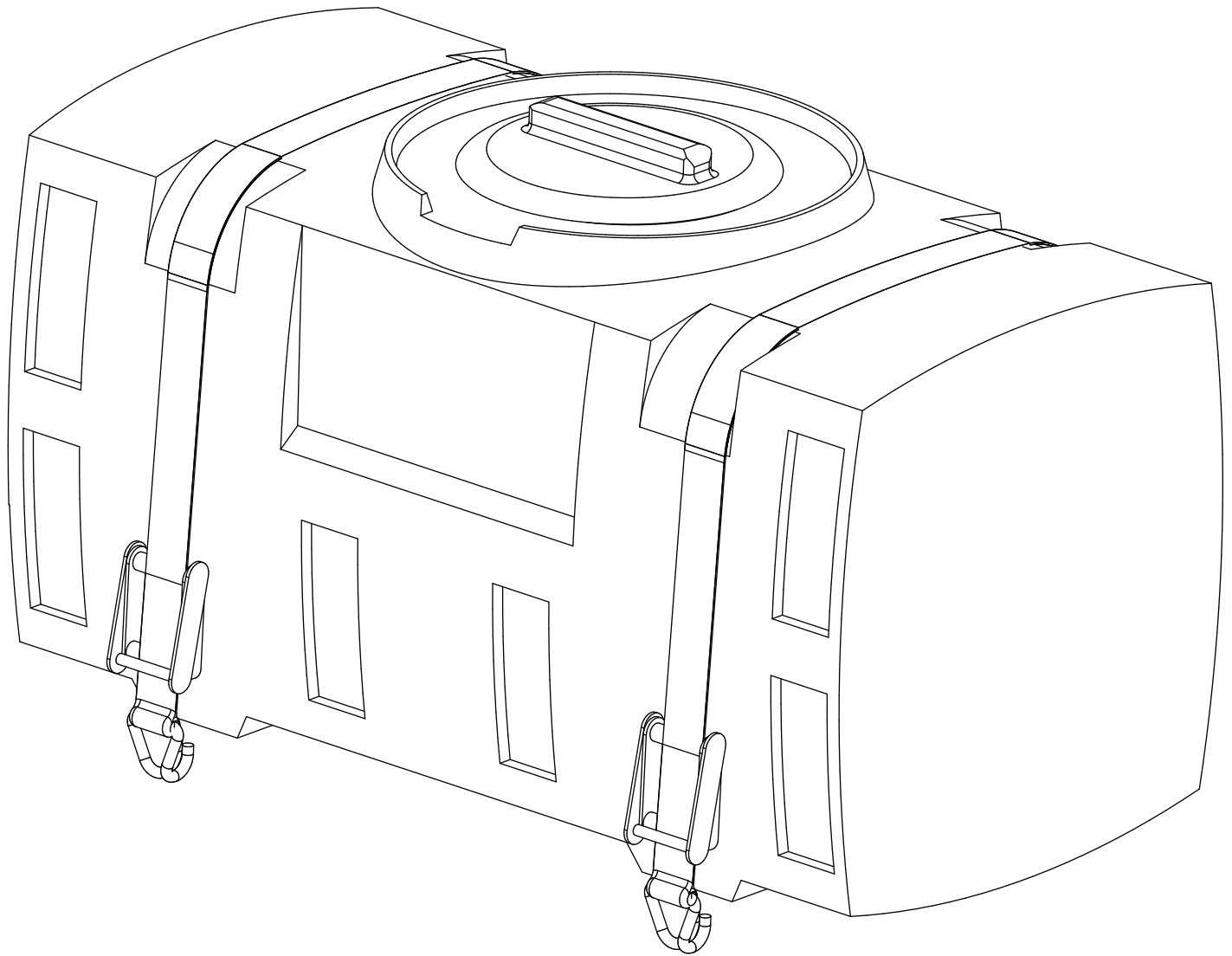


Key	Description
1	Tank Assembly
2	Reel Assembly
3	Pump & Hose Assembly With Agitation
4	Frame Assembly
5	Electrical Assembly



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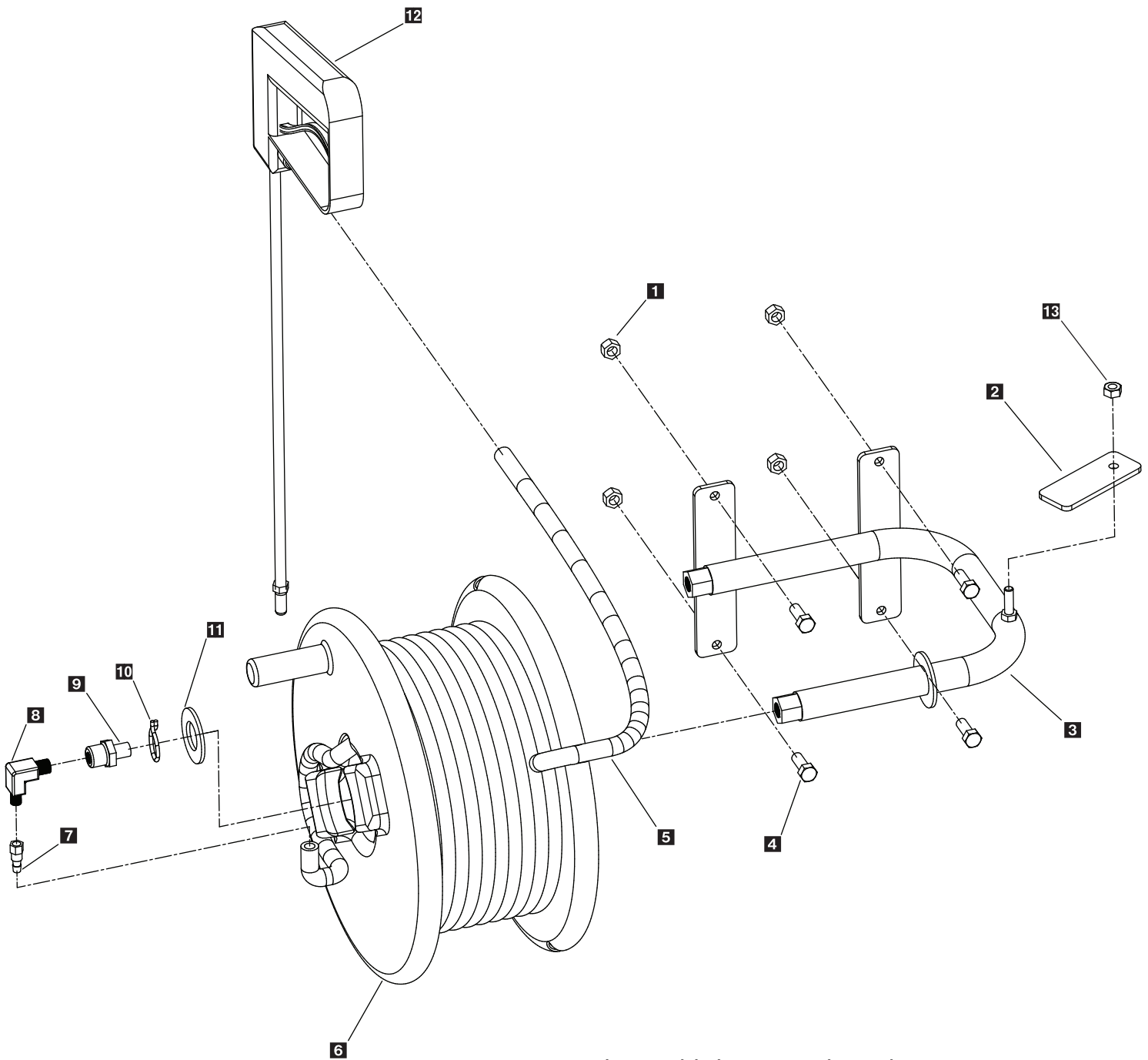
Tank Assembly View



Key	Part No.	Description	Qty.
1	T 20309	US-500 TANK (50 GAL.)	1
2	T 20300	US-1000 TANK (100 GAL.)	1
3	T 20323	TANK LID	1
4	T 20324	TANK STRAINER	1
5	D 6917	BULKHEAD FITTING ASSY	1
6	T 20304	US-500 TANK STRAP	2
7	T 20308	US-1000 TANK STRAP	2
8	T 20313	90 DEGREE FITTING	1

US-500 / US-1000

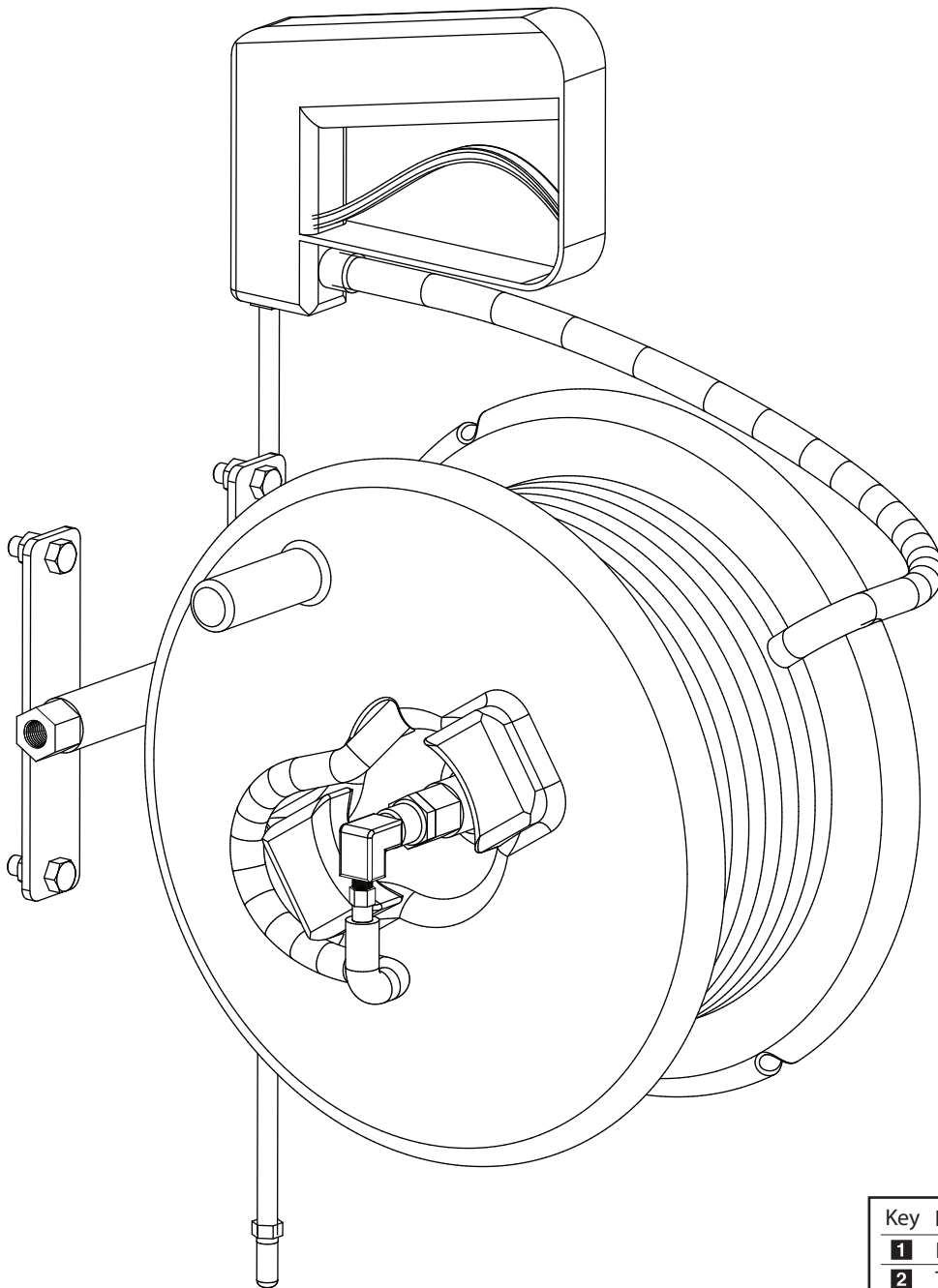
Reel exploded View



NOTE: Hose reel assembly has rotated 180 degrees as 04/05/2011 in order to accomodate new agitation system.

US-500 / US-1000

Reel Assembly View

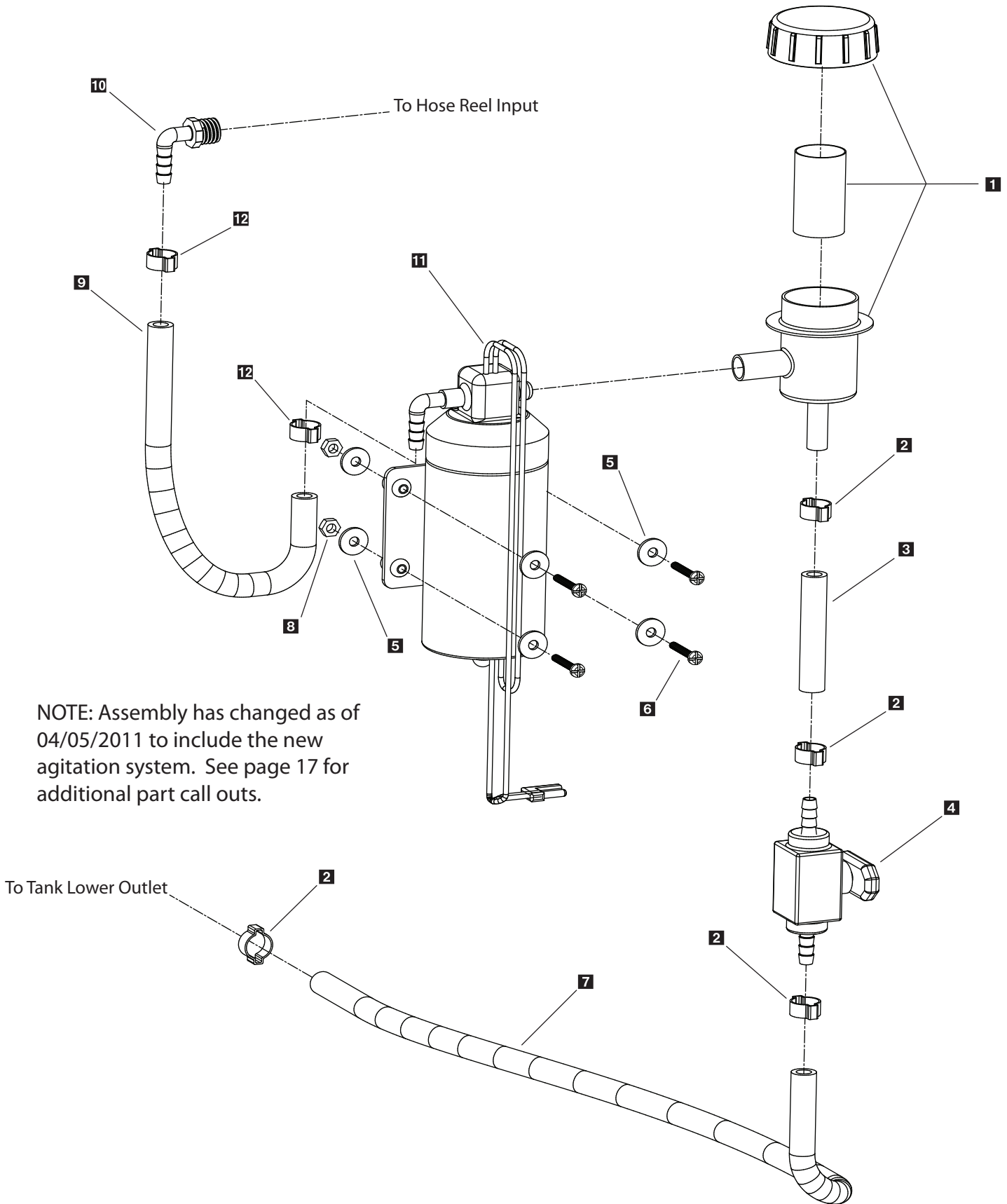


NOTE: Hose reel assembly has rotated 180 degrees as 04/05/2011 in order to accommodate new agitation system.

Key	Part No.	Description	Qty.
1	D 5706	5/8-16 Serrated Flange Nut	4
2	T 20311	Reel Stop Bracket	1
3	T 20310	Hose Reel Tube Weldment	1
4	D 6166	5/16-18 x 1 Hex Head	4
5	T 20306	Hose	1
6	T 20305	Poly Hose Reel	1
7	T 20331	Hose Barb Fitting	1
8	T 20330	Elbow	1
9	T 20316	Swivel Fitting	1
10	T 20319	Retainer Ring	1
11	T 20320	Retainer Washer	1
12	T 20307	Spray Gun	1
13	D 6138	5/16-18 Nylock Nut	1

US-500 / US-1000

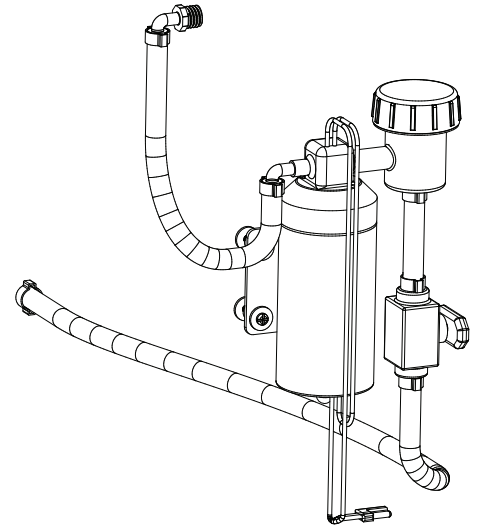
Pump Exploded View



NOTE: Assembly has changed as of 04/05/2011 to include the new agitation system. See page 17 for additional part call outs.

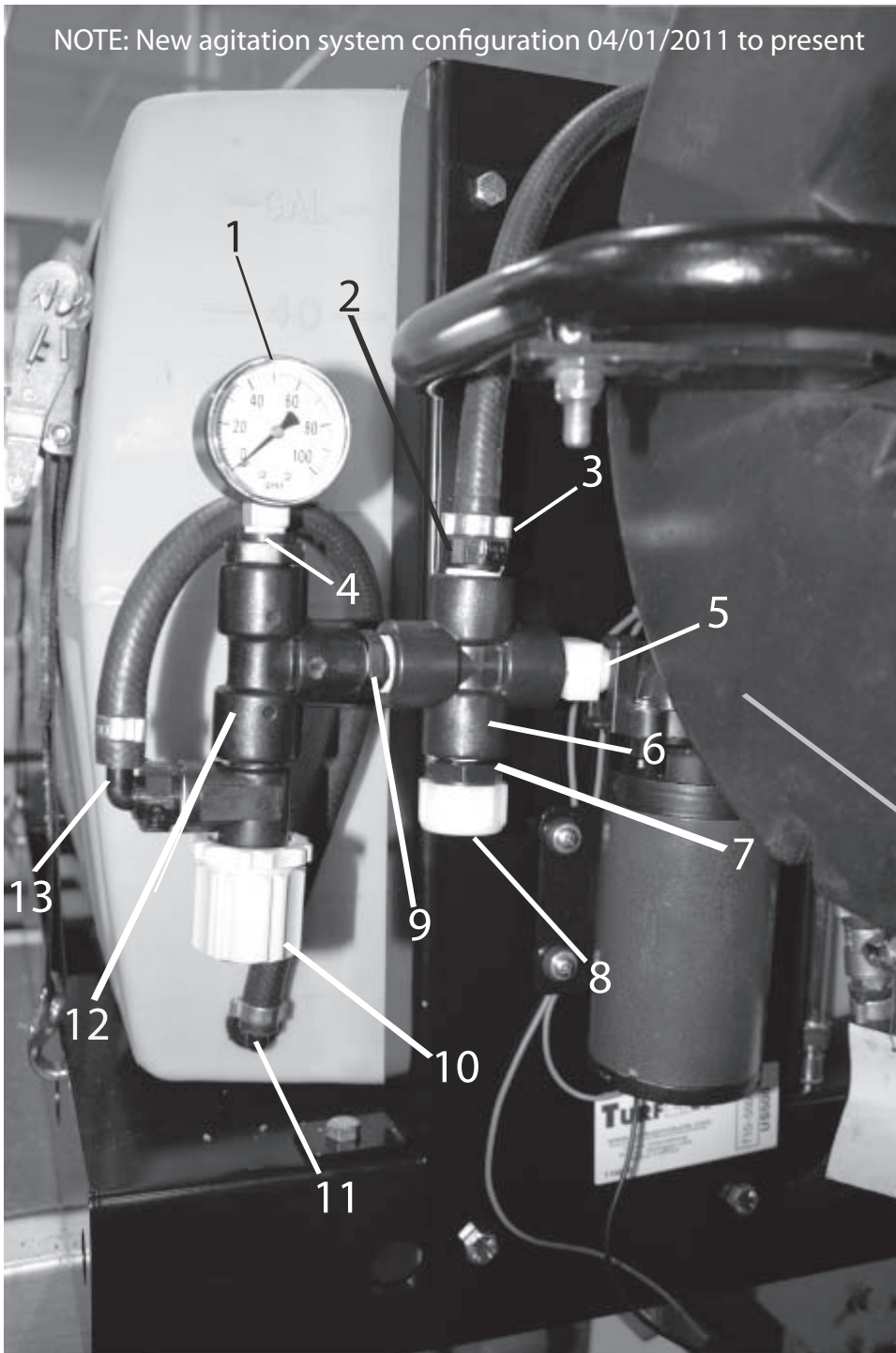
US-500 / US-1000

Pump Assembly View



Current assembly through 03/31/2011

Key	Part No.	Description	Qty.
1	D 5267	Filter Assembly	1
2	T 20327	Small Hose Clamp	4
3	T 20329	Filter Hose Segment	1
4	T 20318	Shut Off Valve	1
5	D 6157	#10 SAE Washer	8
6	D 6529	#10-32 x 1-1/4 Pan Head	4
7	T 20328	Tank Hose Segment	1
8	D 6158	#10 Hex Nut	4
9	T 20326	Reel Supply Hose Segment	1
10	T 20314	Hose Reel Input Elbow	1
11	D 5265	12 VDC Pump	1
12	T 20325	Large Hose Clamp	2

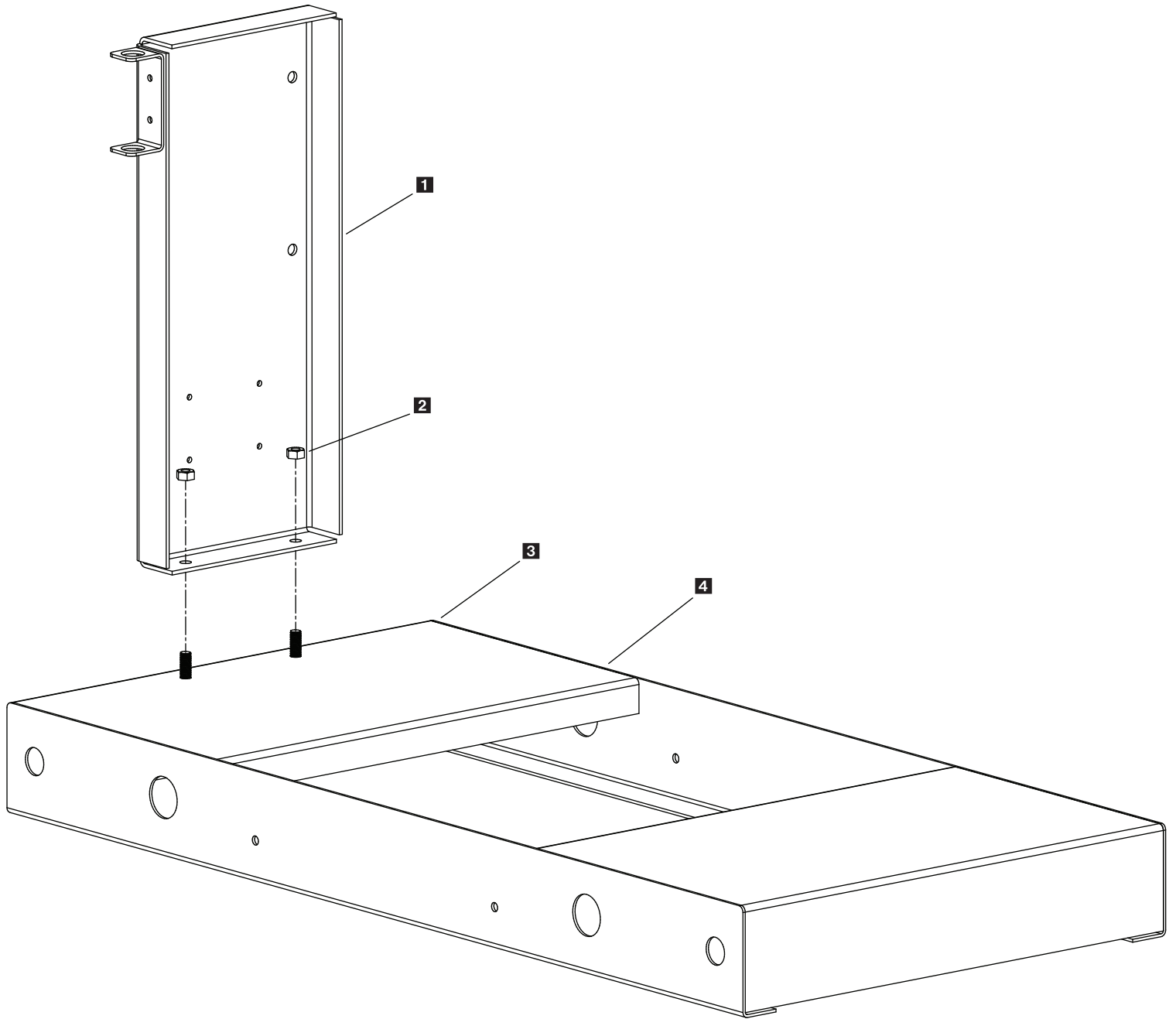


New agitation circuit 04/01/2011 to present

Key	Part No.	Description	Qty.
1	D 5213	Gauge	1
2	D 6929	1/2" To 3/8" Straight Barb	1
3	T 20325	3/8" Hose Crimp Clamp	3
4	D 5353	Reducing Bushing 1/2" x 1/4"	1
5	D 5356	Adapter 5/8" QA x 1/2" Male	1
6	D 5354	Pipe Cross 1/2"	1
7	D 5357	Pipe Adapter	1
8	T 20131	Garden Hose Clamp	1
9	D 6920	1/2" Close Nipple	1
10	D 5352	Throttle Valve 1/2"	1
11	D 6951	90 Degree Poly Nozzle Body	1
12	D 5355	Pipe Tee 1/2"	1
13	D 5377	Hose Barb 1/2" Male x 3/8" 90	1

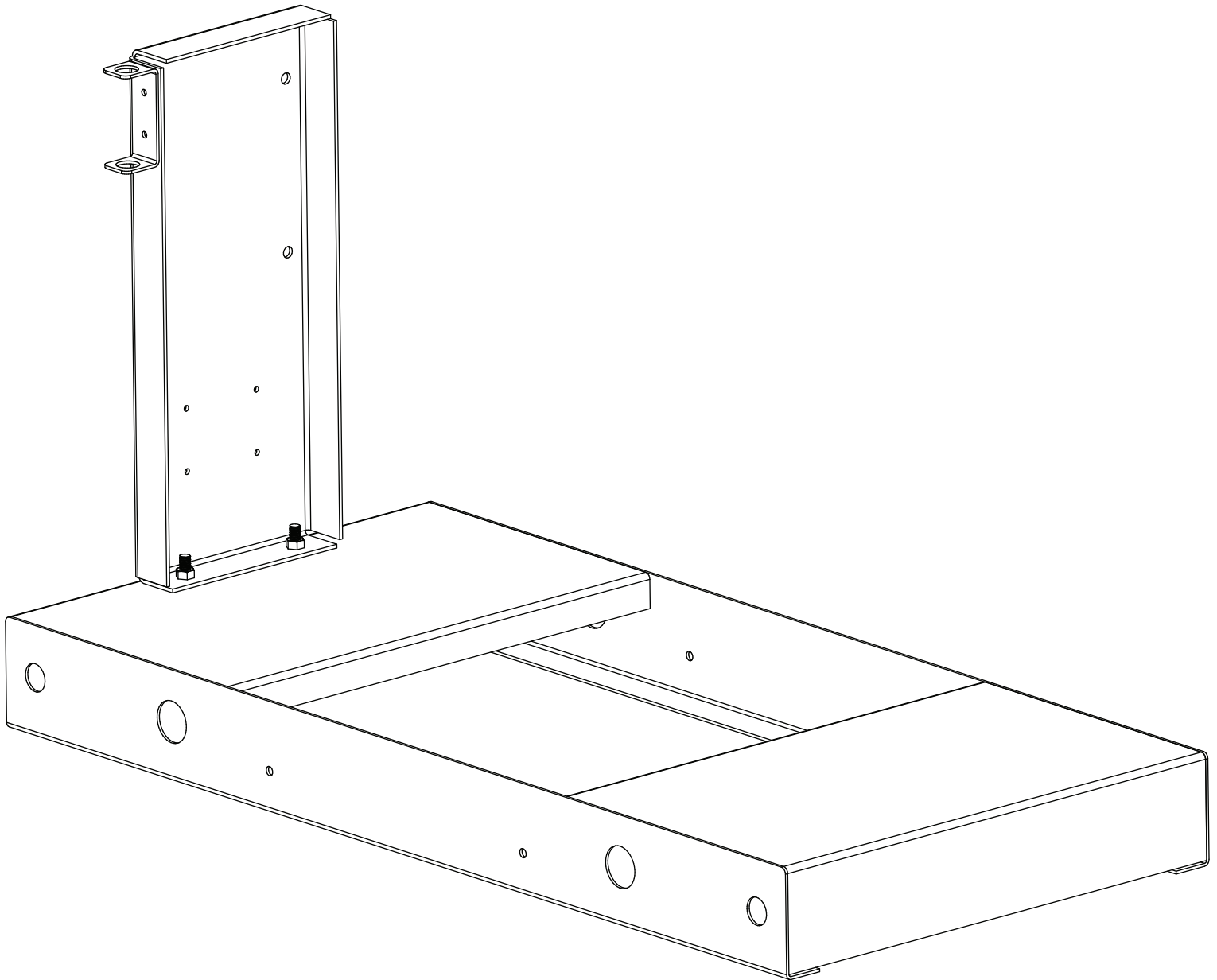
US-500 / US-1000

Frame Exploded View



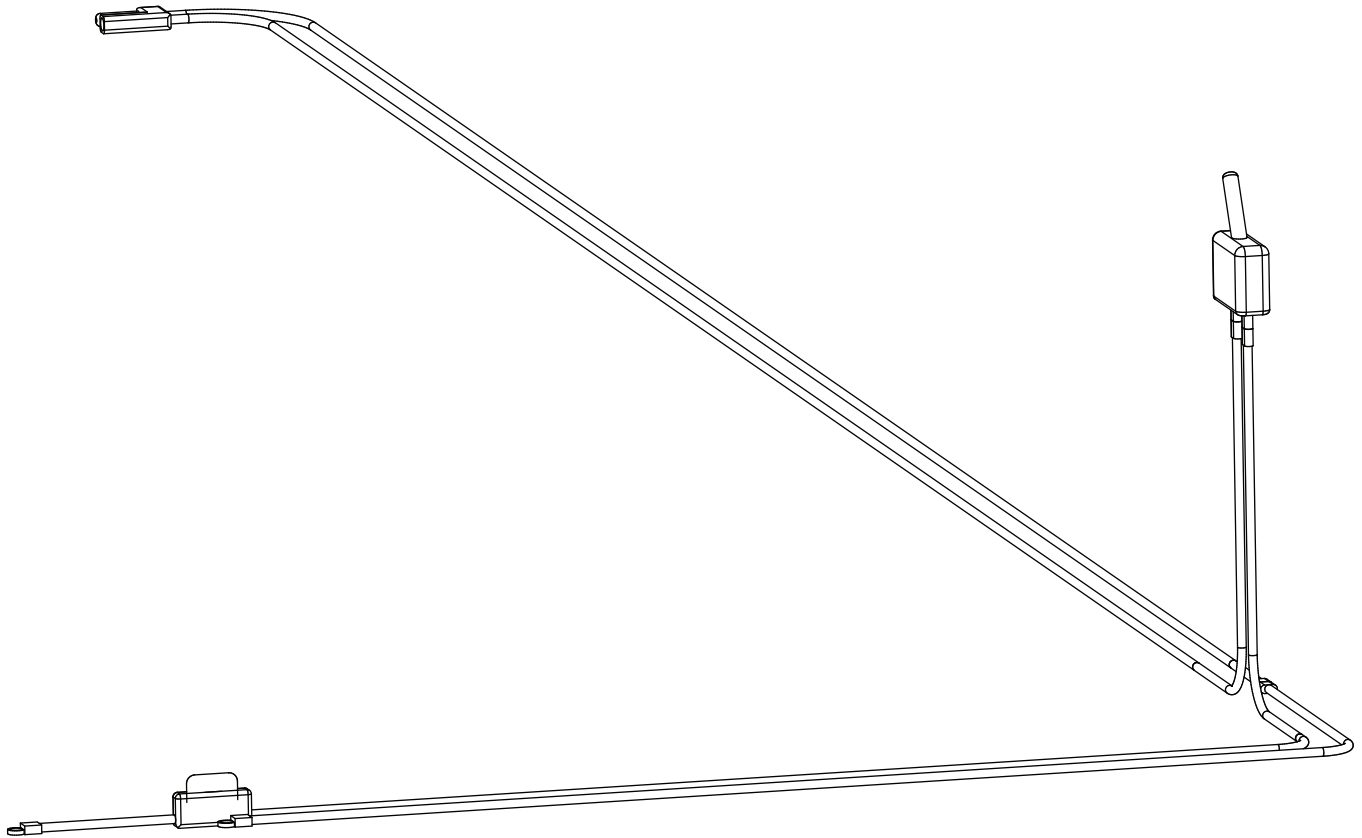
US-500 / US-1000

Frame Assembly View



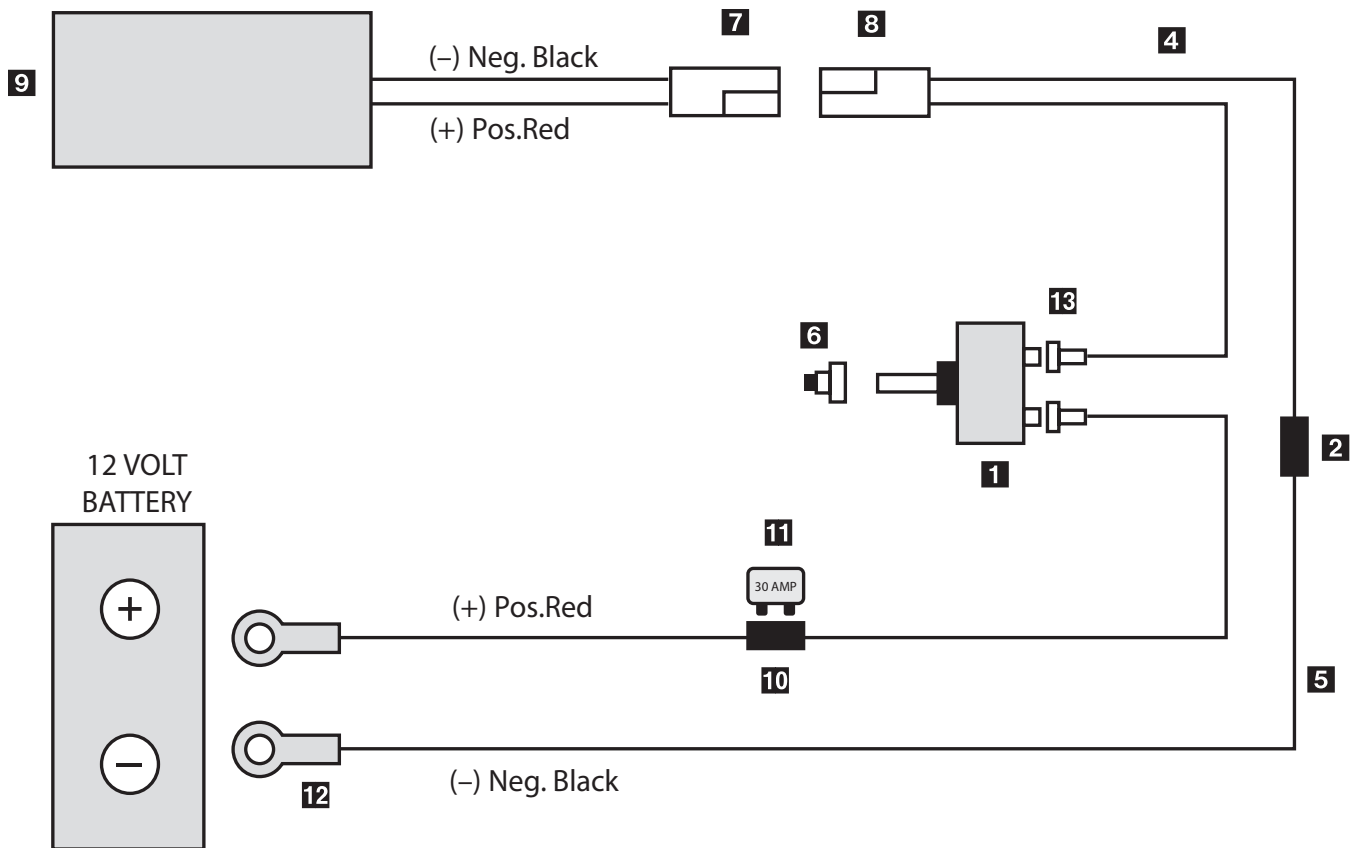
Key	Part No.	Description	Qty.
1	T 20302	Hose Reel Mountin Bracket	1
2	D 6584	3/8-16 Serrated Flange Nut	2
3	T 20301	US-500 Main Frame	1
4	T 20303	US-1000 Main Frame	1

US-500 / US-1000
Electrical Assembly View



US-500 / US-1000

Electrical Diagram and Instructions



Step 1: First, install switch at desired location. This will determine what the proper wire length should be.

Step 2: Run spreader/vehicle harness from the rear of vehicle to switch area. Remove approx. 3" of the black outer jacket exposing two single leads (red and black), strip a 1/4" off each lead. Crimp 1/4" female connector on red lead and crimp the butt connector to the black lead. Place the female spade/red wire to the on/off switch and leave the black wire for the next step.

Step 3: Route the power harness from the battery to the switch; this will determine proper length to cut wires. Repeat step #2 regarding cable jacketing and connection points to the switch and butt connector.

Step 4: Install an inline 30 amp. fuse on the positive (red) lead from the battery to the switch. Locate an easily accessible place, out of the elements, for the fuse and remove approx. 3" of the black outer jacket exposing two single leads (red and black). Cut the red lead in half and strip a 1/4" off each lead. Insert into the fuse connector and crimp. Insert 30 amp. blade fuse into connector.

Step 5: At the battery end of the power harness, remove 8" of the black outer jacket exposing two single leads (red and black) strip 1/4" off each lead. Crimp a 3/8" lug terminal to each lead and attach the red lead to the positive side of the battery and the black lead to the negative side of the battery.

Step 6: Install rubber weatherproof boot on switch before finishing installation.

Key	Part No.	Description	Qty.
1	D 6184	On/Off Switch	1
2	D 6234	Butt Connector	1
3	D 6344	Dielctric Grease	1
4	D 6403	20' Vehicle Harness	1
5	D 6404	10' Battery Harness	1
6	D 6406	Rubber Switch Boot	1
7	D 6407	Spreader Splice Cord - 10"	1
8	D 6408	Harness Splice Cord - 10"	1
9	D 6410	Motor 12 Volt DC	1
10	D 6424	30 Amp Fuse	1
11	D 6425	Fuse Holder	1
12	D 7105	Ring Terminal	2
13	D 7106	Spade Connector	2

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Limited Warranty

One year warranty on Turfex brand products against defects in material or workmanship under normal use and service, subject to limitations detailed below. Warranty period of one year begins on the date of purchase by the original retail user.

The WARRANTY REGISTRATION CARD must be returned to the manufacturer for this warranty to become effective. This warranty applies to the original retail purchaser only. This warranty does not cover damages caused by improper installation, misuse, lack of proper maintenance, alterations or repairs made by anyone other than authorized Trynex dealers or Trynex personnel. Due to the corrosive properties of the materials dispensed by spreaders, Trynex does not warrant against damage caused by corrosion. Warranty claims by the user must be made to the dealer from where the product was purchased, unless otherwise authorized by Trynex. Trynex reserves the right to determine if any part is defective and to repair or replace such parts as it elects. This warranty does not cover shipping costs of defective parts to or from the dealer.

LIMITATION OF LIABILITY

Neither Trynex, nor any company affiliated with it, makes any warranties, representations for promise as to the performance or quality other than what is herein contained. The liability of Trynex to the purchaser for damages arising out of the manufacture, sale, delivery, use or resale of this spreader shall be limited to and shall not exceed the costs of repair or replacement of defective parts. Trynex shall not be liable for loss of use, inconvenience or any other incidental, indirect or consequential damages, so the above limitations on incidental or consequential damages may not apply to you.

NO DEALER HAS AUTHORITY TO MAKE ANY REPRESENTATION OR PROMISE ON BEHALF OF TRYNEX INTERNATIONAL, OR TO ALTER OR MODIFY THE TERMS OR LIMITATIONS OF THIS WARRANTY IN ANY WAY.

Warranty Registration and Customer Survey



To initiate the warranty on your new TurfEx product and assure prompt warranty service, please complete the following warranty registration and customer survey, sign and mail it back to the factory within 30 days of purchase.

1) Date of Purchase: _____

2) Name: _____

Address: _____

Phone: _____

3) Turfex Model Purchased: _____ Serial Number: _____

4) Is this your first Turfex Product? Yes No

5) What type of vehicle are you using with your Spreader, Broom and/or Sprayer?

Make _____ Model _____ Year _____

6) What type of material are you using in your spreader and/or sprayer? _____

7) TurfEx Dealer Name: _____

TurfEx Dealer Address: _____

Turfex Dealer Phone: _____

8) Does your TurfEx Dealer stock TurfEx replacement Parts? Yes No I don't know

9) Do you feel your TurfEx Dealer sold you the correct product for your needs/application? Yes No

10) How would you rate your overall satisfaction with your Turfex Dealer?-

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very Satisfied	Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Dissatisfied		Very Dissatisfied

11) How would you rate your overall satisfaction with your Turfex Product?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very Satisfied	Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Dissatisfied		Very Dissatisfied

12) Would you purchase another TurfEx Product? Yes No

13) If you would like to receive E-Mail ALERTS for new products, bulletins or special promotions please supply address: _____

14) Please use the space below to convey your comments and/or suggestions.

NOTE: I have read the owner's manual and all safety precautions and I understand that this equipment could be dangerous if not operated with care and under the proper conditions.

15) Owner's signature: X _____

PLEASE FOLD AND SEAL WITH TRANSPARENT TAPE BEFORE MAILING.

Simply Fill Out Your
Warranty Registration and
Return It to the Factory!

From:



Postage
Required
Post Office will
not deliver
without proper
postage.



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WARREN MI 48089-2667

