

This Manual Must Be Read Before Operating The Equipment

Owner / Operator's Manual



The Commercial Turf Choice

SPREADERS
TS-200



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.

Introduction	3
General Information and Registration	4
Safety Information	5-7
TS-200 Main Assembly and Instructions	8-11
Blank Page	12
Electrical information	13
Adjustable Spinner Information	14
Spreader Calibration Charts	15
Calibration Speed Chart	16
Calibration Disclaimer	17
Side Deflector Kit Instructions	18
Spreader Maintenance	19
Troubleshooting Information	20-21
Warranty & Warranty Registration	22-23

Have a question or need assistance?
TurfEx Customer Service
(866) 5TURFEX

or (586) 756-6555

Monday through Friday 8:00 AM to 4:30 PM EST

Fax: (586) 427-0552

E-Mail: customercare@trynexfactory.com

Website: www.turfexproducts.com

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 spreader.

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 an example of turf management product at its finest! Your Turfex product's, self contained design is a trademark of all Turfex products. Here's why...

SIMPLICITY: Fewer moving parts manufactured of higher quality means minimal maintenance for your Turfex product.

RELIABILITY: High impact linear low density polyethylene hopper, state-of-the-art electronic dual variable speed control, custom engineered powder coated frame, maximum torque 12 volt motor coupled to a custom engineered transmission found only on Turfex products.

VERSATILITY: Multi-use capabilities allows spreading of a variety of materials.

WARRANTY: Two years parts and labor from date of installation.

The benefits you are about to recognize are that of time, money and effort.
We welcome you to the world of Turfex Performance.

Registration

Record the following information in this manual for quick reference.

Spreader Model Number _____

Serial Number _____ Controller 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. This tag is located on the frame (where applicable).


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

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 can be communicated to you.



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.



Unit must be strapped down and locked into position before operating vehicle.



Never exceed the Gross Vehicle Weight Rating of vehicle. Failure to do so may limit a vehicles handling characteristics.



Never attempt to take a unit off with material in it.



Do not drive at excessive speeds when loaded spreader is attached to vehicle. Braking distances may be decreased and handling characteristics may be impaired at higher speeds.



Never allow children to operate or climb on equipment.
Always check areas to be spread 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 spreader or mount.



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



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.



Always make sure personnel are clear of areas of danger when using equipment. Maintain 60' distance from all bystanders when operating the spreader.



Inspect the unit periodically for defects. Parts that are broken, missing, or worn out must be replaced immediately. The unit, or any part of it should not be altered without prior written permission from the manufacturer.



Never use with foreign debris in the spreader. These units are designed to handle clean, free-flowing material. Note: Can not spread water softner salt.



WARNING

Always inspect pins and latches whenever attaching or detaching spreader, and before traveling.



CAUTION

Never leave material in hopper for long periods of time. Be aware that all ice melters and fertilizers are hygroscopic and will attract atmospheric moisture and harden up.



WARNING

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!



WARNING

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



WARNING

Before working with the spreader, secure all loose fitting clothing and unrestrained hair.



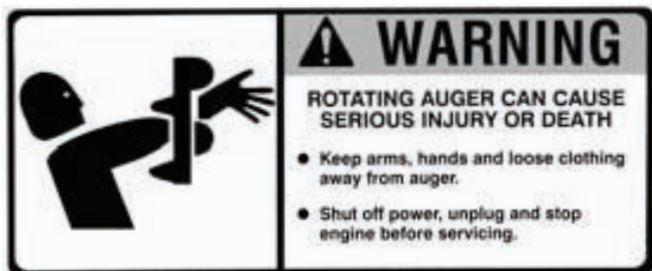
WARNING

Always wear safety glasses with side shields when servicing spreader. Failure to do this could result in serious injury to the eyes.

All Turfex products have warning labels instructing you about certain safety issues you should be aware of. Below are examples of what to look for and familiarize yourself with. In the event that a label is lost or removed for refinishing reasons, you may obtain new ones from Turfex.



D 6859



D 6335



D 6545

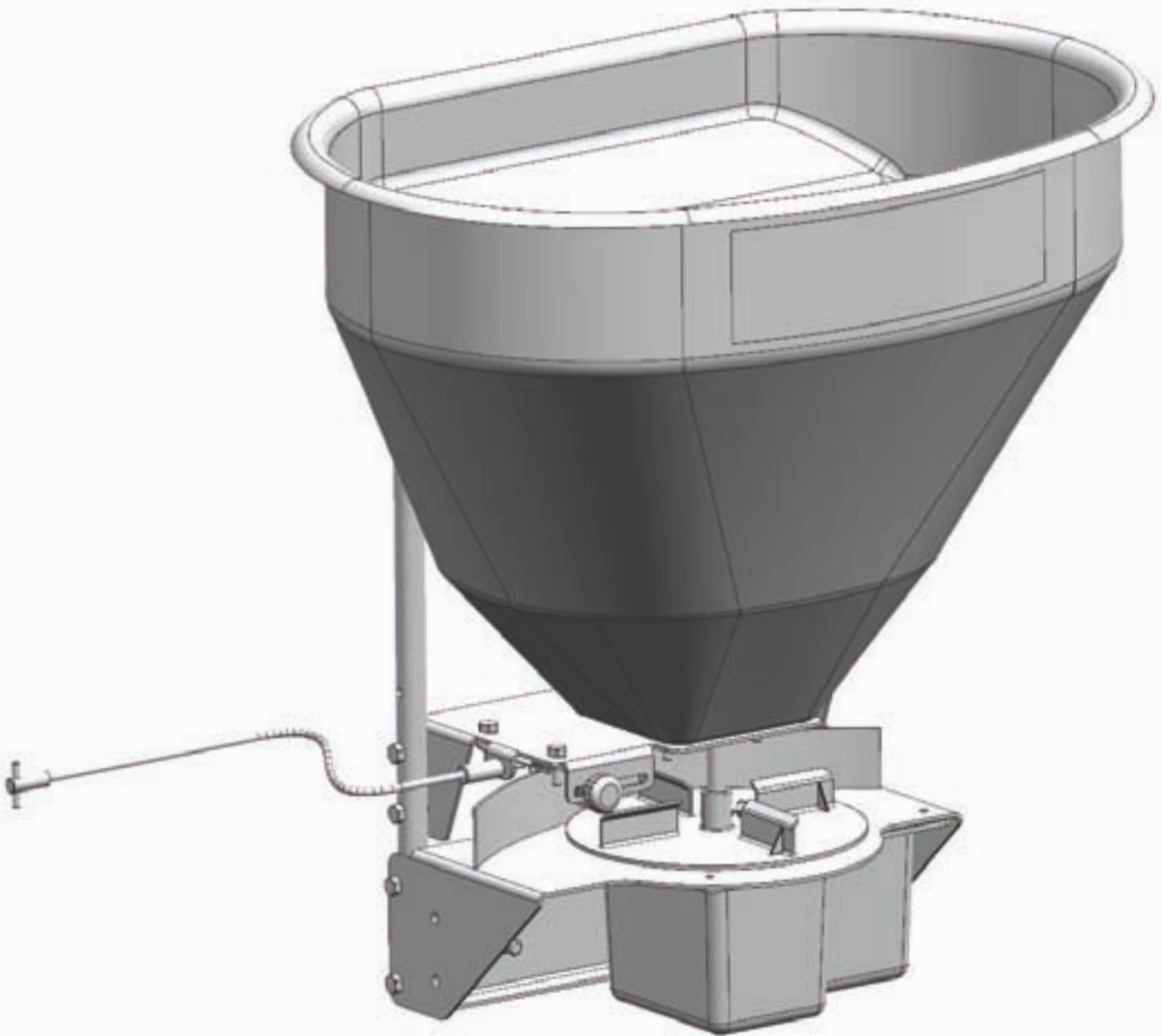


D 6544



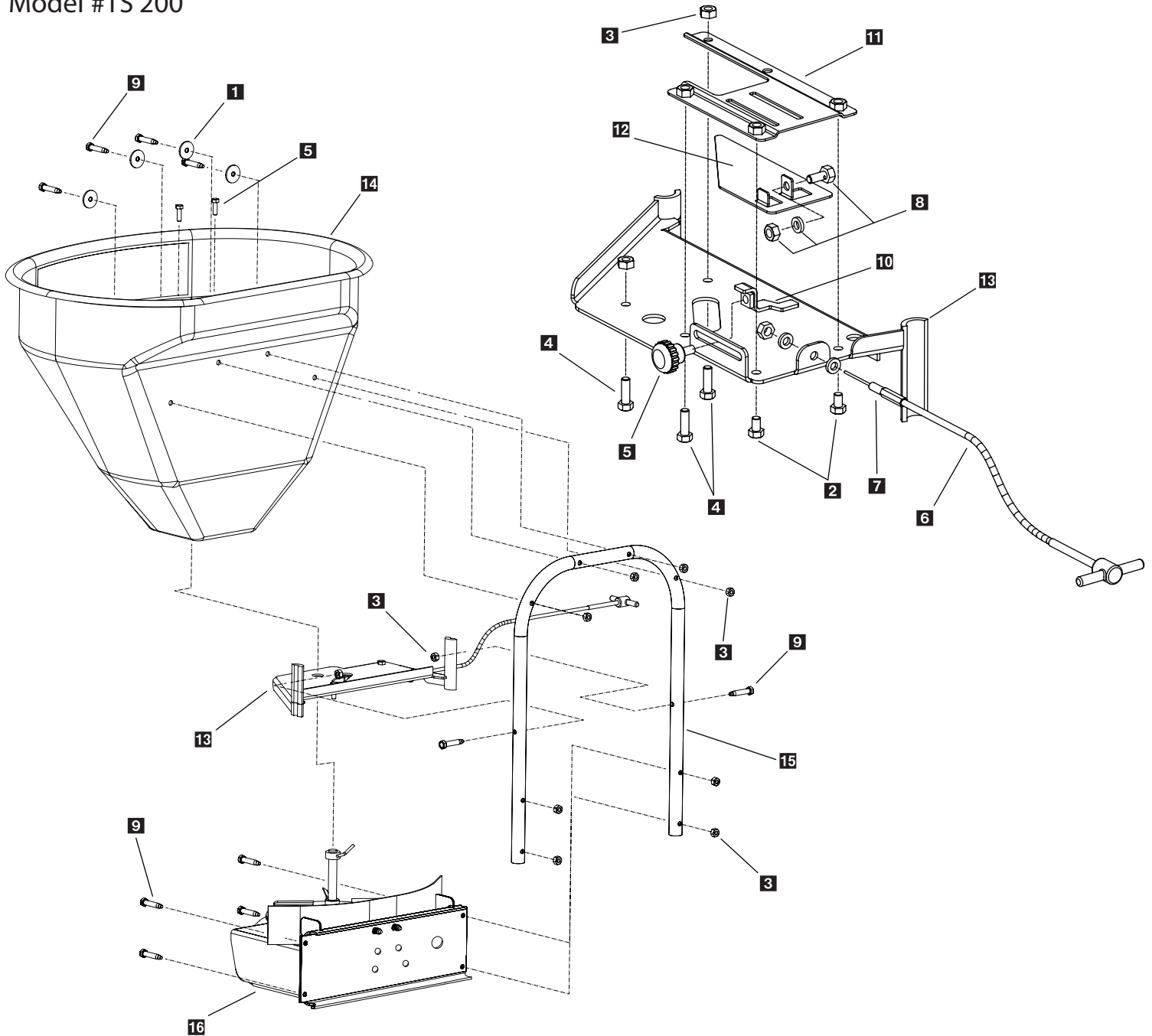
D 6548

TS-200
Main Assembly View



Parts Breakdown

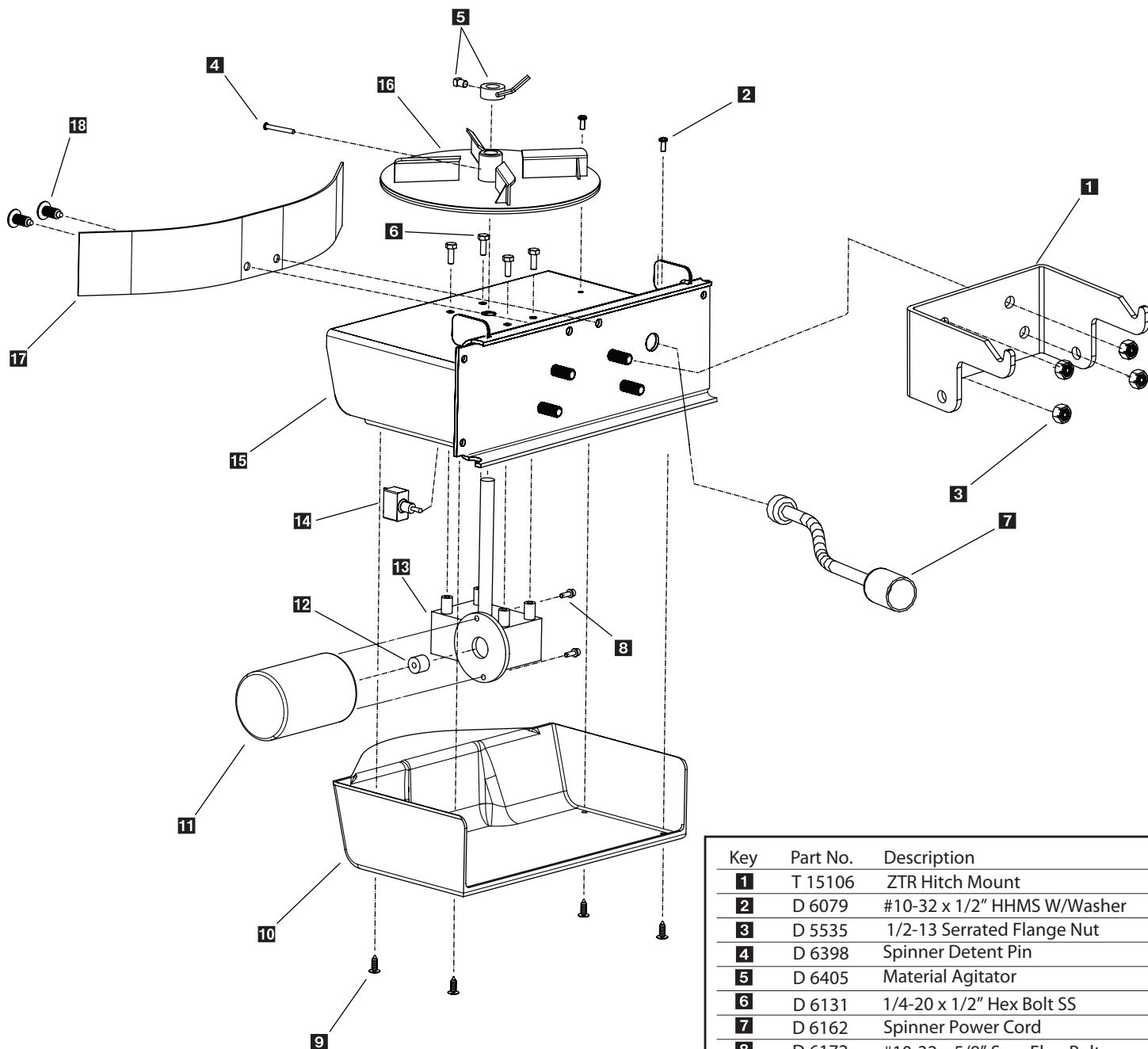
Model #TS 200



Key	Part No.	Description	Qty.	Key	Part No.	Description	Qty.
1	D 6081	5/16" Fender Washer	4	11	D 6704	Seeder Gate Track	1
2	D 6133	5/16" - 18 x 1/2" Hex Bolt	2	12	D 6705	Seeder Gate Slide	1
3	D 6138	5/16" Locknut	14	13	D 6077	Seeder Gate Deck	1
4	D 6166	5/16" - 18 x 1" Hex Bolt	3	14	T 15109	2.0 Cu/Ft Hopper	1
5	D 6302	Gate Knob	1	15	D 6065	Hopper Tube Support	1
6	D 6072	T-Handle Cable - 5'	1	16	D 6063	Wireless Drive Enclosure	1
7	D 6305	Bulkhead Cable Fitting Assembly	1				
8	D 6308	5/16" - 16 x 3/4" Bolt Assy. w/Hole	1				
9	D 6462	5/16" - 18 x 1-3/4" HHCS	12				
10	D 6703	Gate Indicator / Stop	1				

Complete Drive Assembly Parts Breakdown

Model # TS 200



Key	Part No.	Description	Qty.
1	T 15106	ZTR Hitch Mount	1
2	D 6079	#10-32 x 1/2" HHMS W/Washer	2
3	D 5535	1/2-13 Serrated Flange Nut	4
4	D 6398	Spinner Detent Pin	1
5	D 6405	Material Agitator	1
6	D 6131	1/4-20 x 1/2" Hex Bolt SS	4
7	D 6162	Spinner Power Cord	1
8	D 6172	#10-32 x 5/8" Serr. Flng.Bolt	2
9	D 6467	Plastic Push Pin	4
10	D 6064	Motor Cover Enclosure	1
11	D 6078	Spinner Motor	1
12	D 6232	Motor Drive Coupler	1
13	D 6715	Spinner Transmission	1
14	D 6071	Switch Assembly	1
15	D 6063	Spinner Drive Enclosure	1
16	D 6750	Plastic Spinner	1
17	D 6110	Material Deflector	1
18	D 6463	Plastic Push Pin	2

Assembly Instructions (refer to digram on page 1-9)

Step 1: Attach hopper tube support (D 6712) **17** to complete drive assembly using (4) 5/16"-18 x 1-3/4" hex bolt (D 6462) **11** and (4) 5/16" lock nut (D 6138) **3** (2) holes at bottom end of tube.

Step 2: Place spreader gate deck (D 6706) **15** upside down on table.

Step 3: Assemble gate indicator/stop (D 6703) **12** on stop slide with gate knob (D6302) **7**. Gate stop must be on the inside of deck where it will stop the track.

Step 4: Insert (1) 5/16 bolt with hole (D 6308) **10** through gate slide (D 6705) **12**. Finger tighten (1) 5/16" locknut (D 6138) **3** on bolt.

Step 5: Take bulkhead cable fitting (D 6305) **9** and screw it onto T-handle cable - 10' (D 6304) **8** rubber coating.

Step 6: Place assembly through tab on gate deck. Tighten down with supplied washer and nuts. NOTE: There should be a nut on either side of tab.

Step 7: Lower gate assembly over spinner shaft. Spinner shaft must go through 5/8" hole on deck. Shaft to be centered in hole.

Step 8: Fasten deck to hopper tube using (4) 5/16" hex bolts (D 6462) **11** and (4) 5/16" locknuts (D 6138) **3** NOTE: You must first tighten bottom bolts, pull front of deck up, then tighten top set of bolts.

Step 9: Place hopper (D 6709) **16** on deck. 5/8" hole must be used for spinner shaft.

Step 10: Finger tighten (2) 5/16 x 1" bolts (D 6166) **5** through bottom of hopper.

Step 11: Place (4) flat washers (D 4318) **1** over hex bolts (D 6462). Place bolts through hopper back and in through tube support. Tighten with (4) 5/16" locknuts.

Step 12: Tighten bolts in bottom of hopper.

Step 13: Place agitator (D 6405) on spinner shaft. Tighten to middle of flat with short allen key.

Step 14: Attach receiver mount (D 6485) to transmission weldment (D 6480) using (4) 1/2" hex bolts (D 4116) and (4) 1/2" lock nuts (D 4120).

CABLE INSTALLATION

Step 1: Place unit on vehicle where it will be permanently used. Place hitch pin in hitch so unit does not move.

Step 2: Route T-handle to desired operating location. There cannot be any bends or sharp corners.

Step 3: Take T-handle out of sleeve. Take nuts and washer off of sleeve.

Step 4: Drill holes to mount T-handle mounting bracket. Mount T-Handle to bracket.

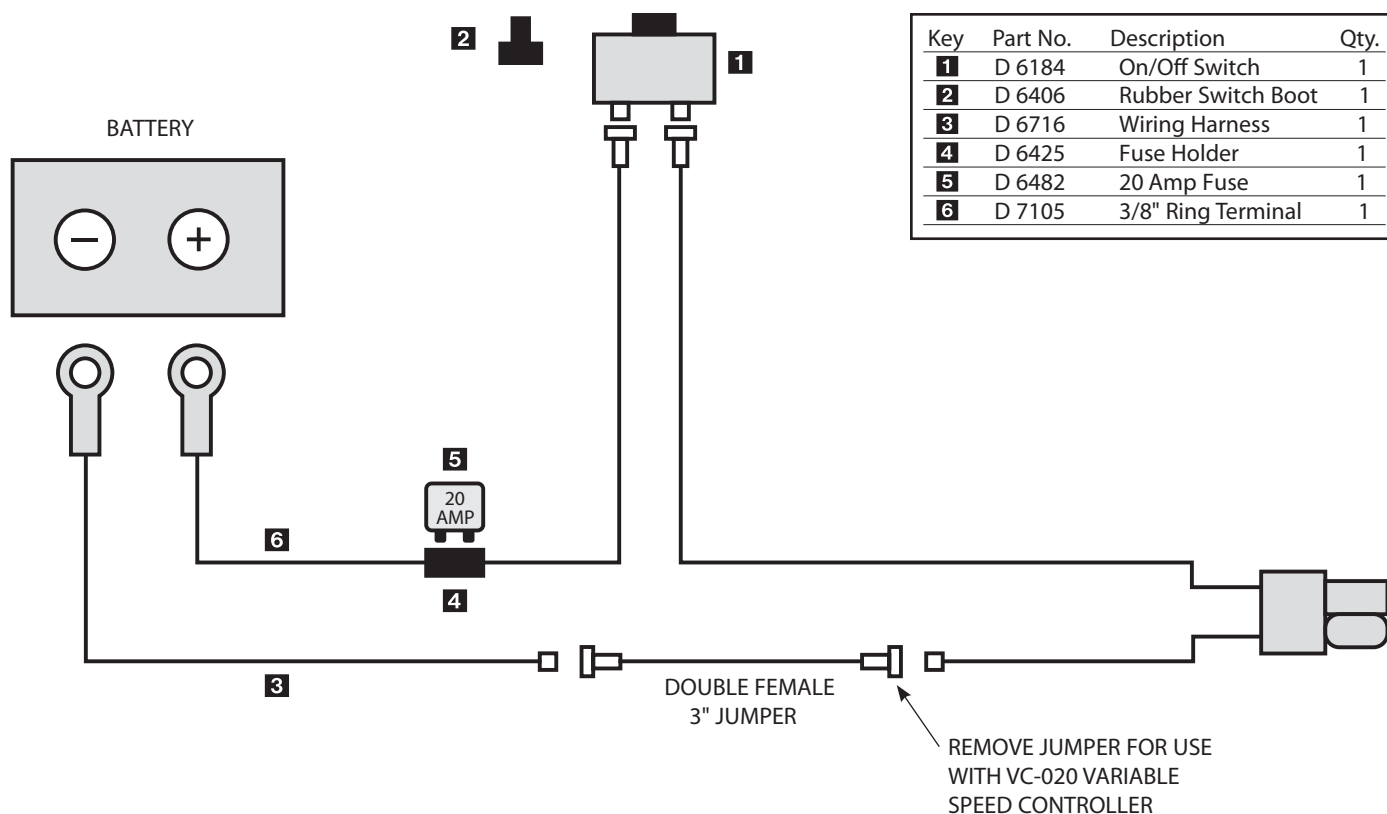
Step 5: Close gate slide all the way.

Step 6: Re-insert cable handle and wire all the way. Aim through bolt with hole and tighten bolt.

THIS PAGE INTENTIONALLY LEFT BLANK

TS-200

Wiring Diagram



TS-200 Wiring Instructions

Step 1: First, install switch at desired location.

Step 2: Run spreader/vehicle harness from the rear of vehicle to switch area. Attach the female spade red wire to the switch. Leave the black wire for Step 5.

Step 3: Route the power harness from the battery to the switch/control.

Step 4: Attach the red lead to the positive side of the battery and the black lead to the negative side of the battery.

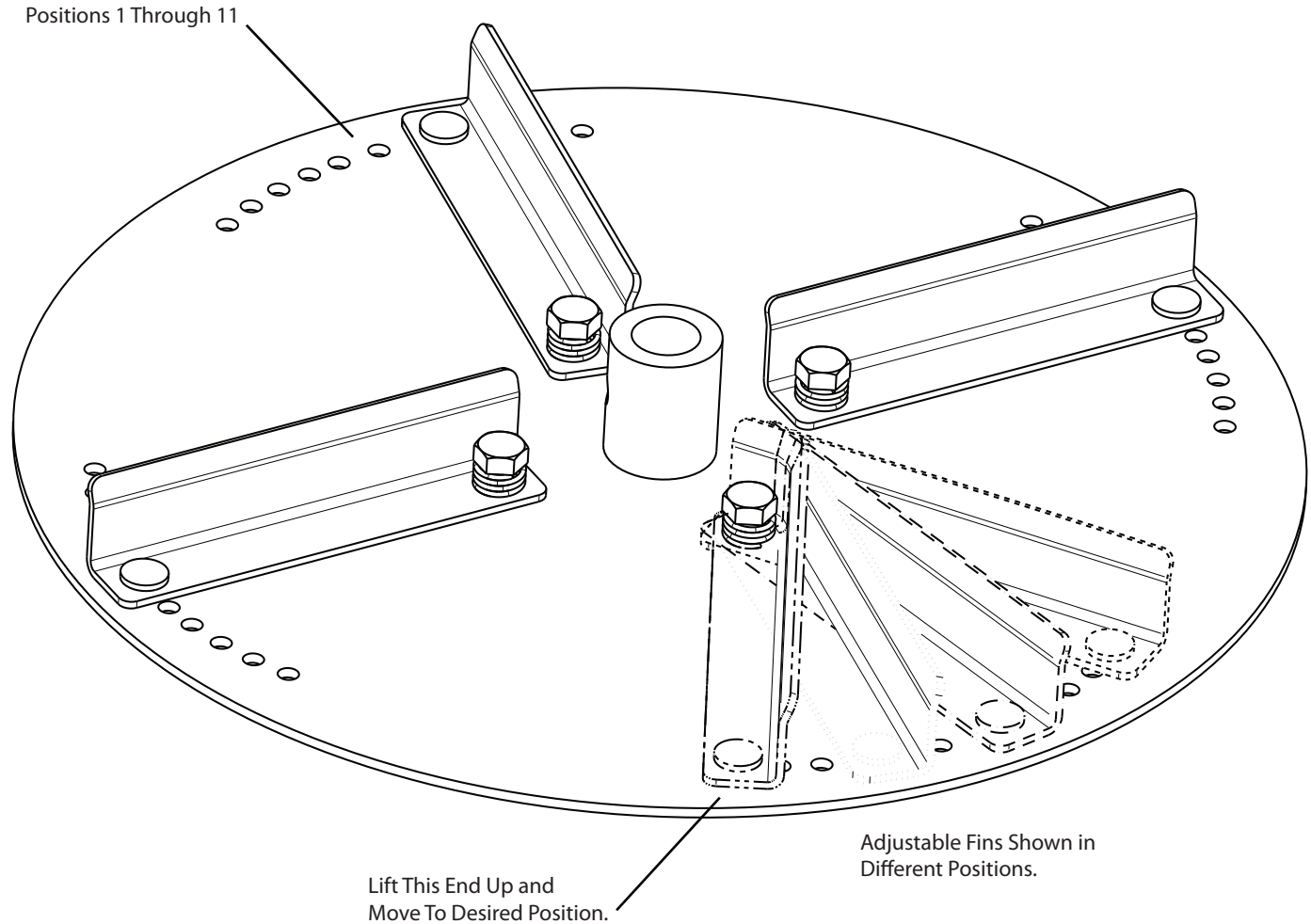
Step 5: Attach the female spade red wire on switch terminal. Using 3" double female black wire jumper attach the black wire from the power harness to the black wire of the vehicle harness.

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

Step 7: Insert dielectric grease on terminals of SAE plug at rear of vehicle.

Adjustable Spinner Assembly

Model # TS-200



The purpose of the adjustable fin is to provide a way to adjust spread patterns with different materials. You can select the desired position by simply lifting up on the outside top edge. You will notice that different materials act in different ways in relation to spinner speed. By moving the fins you will be able to correct most pattern issues without having to sacrifice spinner speed. All adjustments should be made on pavement and positions noted for future reference, this process should be incorporated into your normal calibration process.

Calibration Chart



Model # TS 200

TURFEX KEY SETTING	GATE SETTING	UREA 46-0-0	LESCO TURFACE	LESCO SHADE MIX	LESCO FERT 30-0-10	LESCO INSECTICIDE
	1	X	X	X	X	0.57
	2	1.39	0.83	X	0.39	5.28
	3	7.15	2.11	X	3.84	14.38
	4	10.54	X	0.18	8.79	18.06
	5	15.97	X	0.40	13.55	30.24
	6	24.66	X	0.51	17.07	35.04
	7	31.36	14.70	0.66	23.94	50.32
	8	35.70	X	0.98	29.74	56.22
	9	47.70	X	1.78	39.38	64.56
	10	55.29	X	5.59	45.20	76.47
	11	63.39	37.95	7.27	53.22	82.59
	12	73.59	X	8.72	64.64	106.49
	13	78.60	X	10.00	69.06	122.64
	14	83.08	X	11.81	73.80	133.72
	15	93.52	57.32	11.94	91.32	145.00
FLOW RATES ARE CALCULATED AT POUNDS PER MINUTE						

NOTE:

Calibration Data Is For Reference Only



Calibration Index Key

Calibration Speed-Time-Distance Chart



TIME REQUIRED IN SECONDS TO TRAVEL A DISTANCE OF				SPEED-DISTANCE	
GROUND SPEED MPH	100 FEET	200 FEET	300 FEET	GROUND SPEED IN MPH	FEET TRAVELED PER MIN
.05	136	272	408	0.5	44
1.0	68	136	204	1.0	88
1.5	45	91	192	1.5	132
2.0	34	68	136	2.0	176
2.5	27	54	82	2.5	220
3.0	23	45	68	3.0	264
3.5	20	39	58	3.5	308
4.0	17	34	51	4.0	352
4.5	15	30	45		
5.0	14	27	41		
6.0	11	23	34		
7.0	9.7	19	29		
8.0	8.5	17	26		
9.0	7.6	15	23		
10.0	6.8	14	20		
12.0	5.7	11	17		
15.0	4.5	9	13.6		
20.0	3.4	6.8	10.2		

It is the responsibility of the person using this equipment to make sure that every type of material is properly calibrated to perform as expected. This process should take place on a solid flat surface away from drains and livestock areas in order to achieve a safe and accurate reading for proper material distribution. Failure to do so may cause an over/under application that could damage turf areas or give an ineffective pest control treatment. Any calibration charts contained in this manual are given as a reference point only and should not be used as an absolute condition. Spending a few extra minutes to properly calibrate will not only save on wasted materials and time but also protect turf and other vegetation. Below are several points to be aware of before operating your spreader in the field.

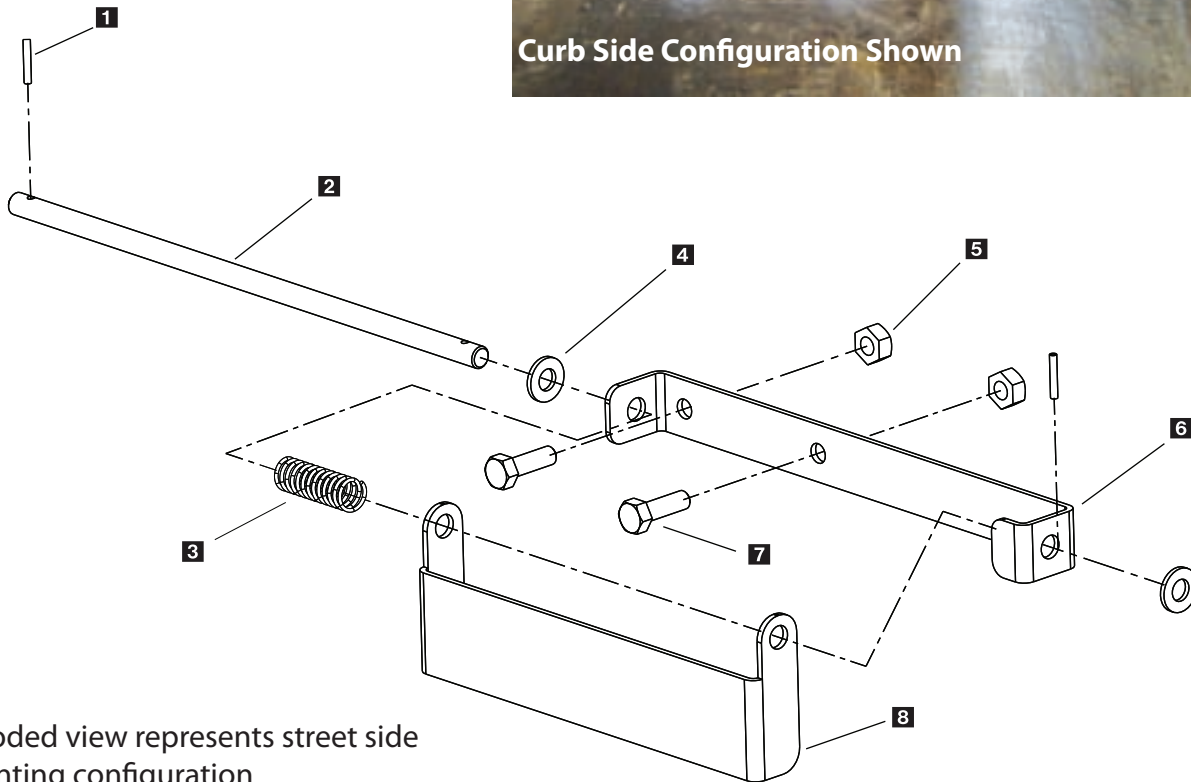
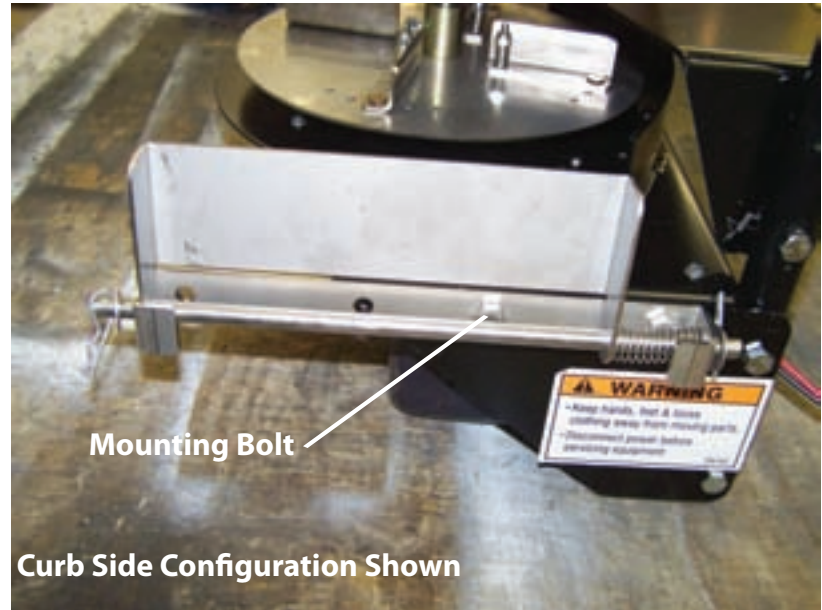
- Flow rates of chemicals can change for many reasons
 1. Formulations vary within the same brand or even between brands
 2. Formulations vary between batches or dates of manufacture
 3. Humidity can cause the material to clump and flow poorly
 4. Poor spreader maintenance can cause flow changes
 5. Slide stop has moved or calibrated to another type of material
 6. Human error can cause rate miscalculation
- Items needed for calibration
 1. A way to catch the material for weighing
 2. A device to measure distance
 3. A scale to weigh your product
 4. A stop watch or other means to time
- Conversion
 1. To convert pounds per 1000 square feet to pounds per acre, multiply your rate by 43.6
- Other important information
 1. 1 acre is equal to 43,600 Square Feet
 2. Ground speed is very important to keep in mind when doing calculations, you will want to convert mph to feet per minute

Set the spreader stop at mid point on it's travel length as a starting point. Fill the hopper with enough material to cover a known area of 1000 square feet. Open the gate and make note of the start/stop time, this is very important. Next weigh the material on a scale, divide the weight by the known area to establish an application rate. You may have to adjust the gate stop for more or less material depending on your results.

Parts Breakdown

SDK-020 Deflector Kit

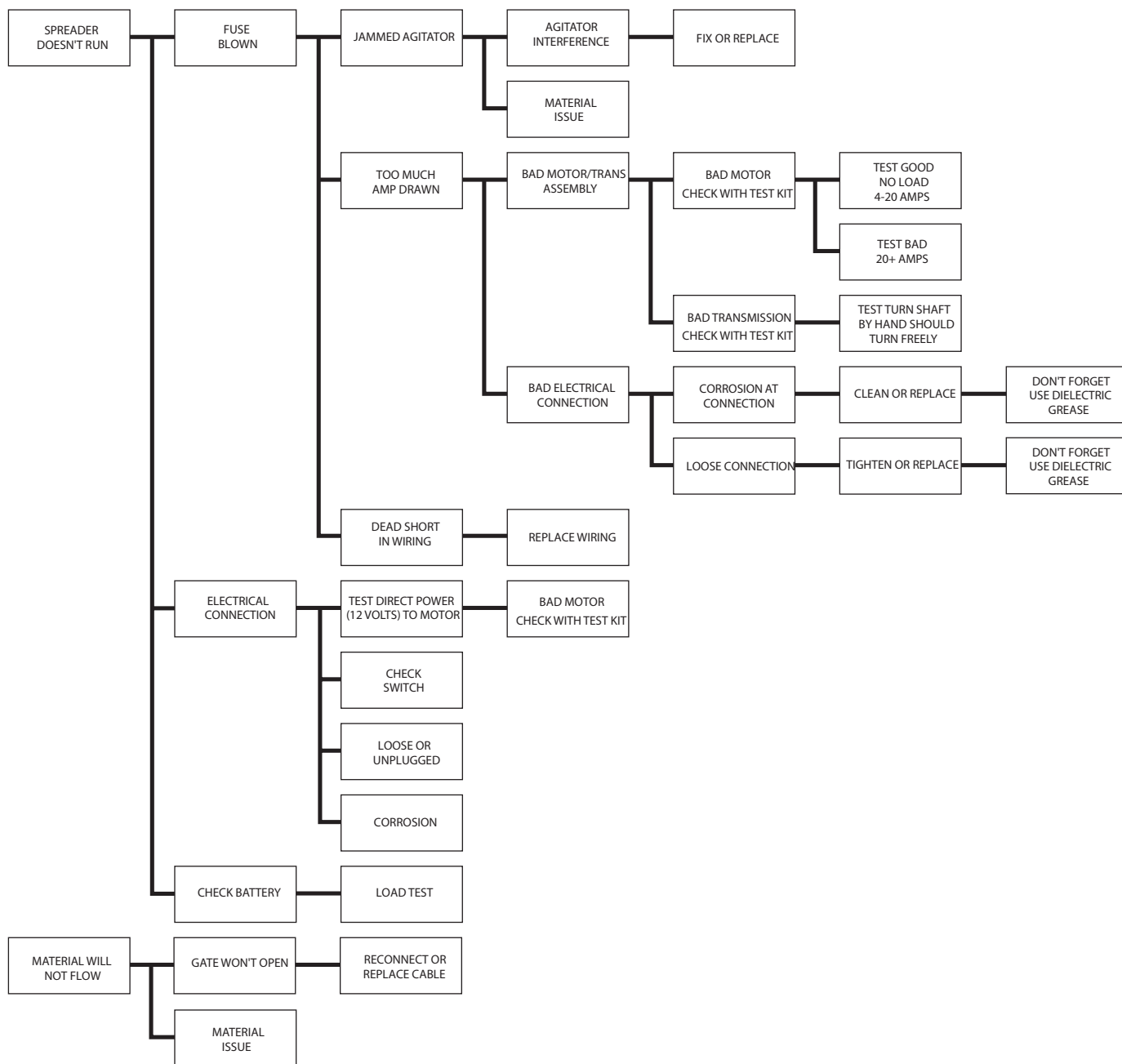
Step 1: Mount deflector to either right or left side of spreader as shown in picture.

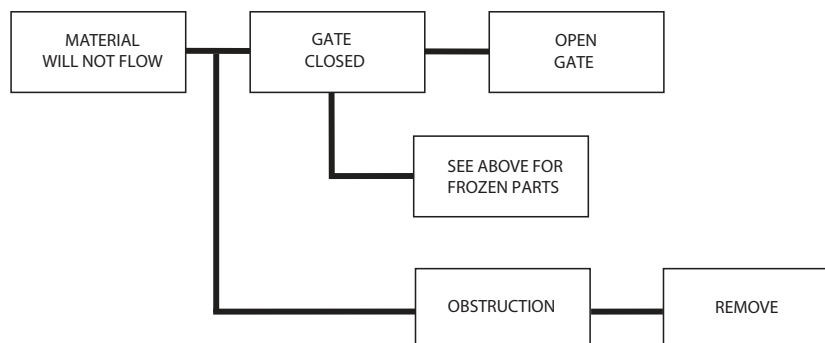
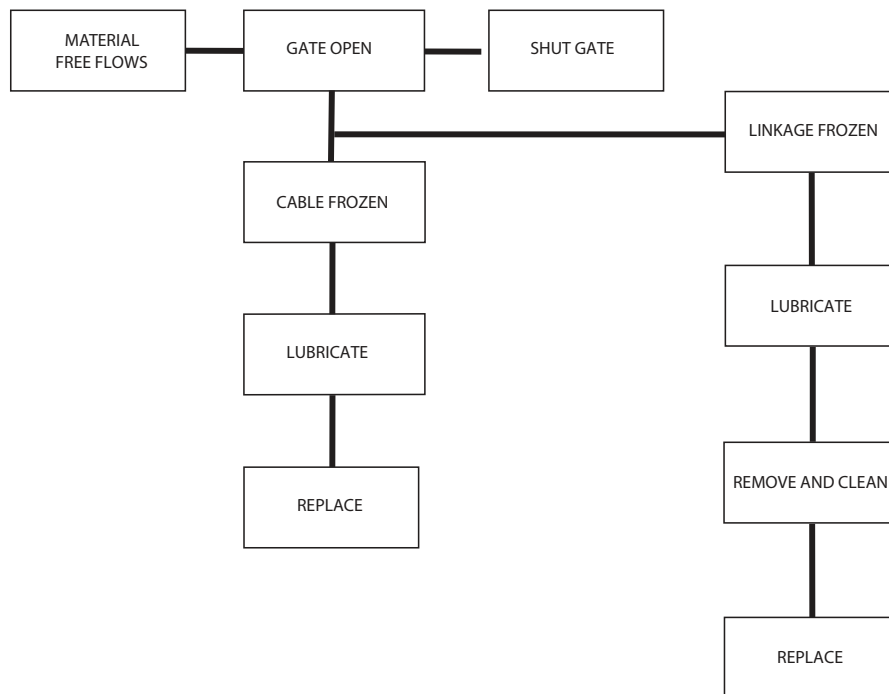


Exploded view represents street side mounting configuration

Key	Part No.	Description	Qty.
1	D - 6853	Cotter Pin	2
2	T-15055	Side Deflector Hinge Pin	1
3	T-15056	Compression Spring	1
4	D - 6169	3/8 Flat Washer SS	2
5	T-15018	5/16 Nylock Nut SS	2
6	T-15054	Deflector Mounting Bracket	1
7	D - 6418	5/16 - 18 x 1 Hex Bolt ss	2
8	T-15053	Side Deflector	1

- **WARNING** – When servicing 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. Keep the area of service clean to help avoid accidents.
- **WARNING** – Disconnect electricity to spreader before servicing.
- **CAUTION** – The controller is a solid state electronic unit and is not serviceable. Any attempt to service will void warranty.
- **CAUTION** – There are no serviceable parts in the motor/transmission assembly. Any attempt to service will void warranty.
- **CAUTION** – When replacing parts use only original manufacturer's parts. Failure to do so will void warranty.
- Use dielectric grease on all electrical connections to prevent corrosion at the beginning and end of the season and each Time plugs are disconnected.
- Gently wash unit after each use to prevent material build-up and corrosion.
- **CAUTION** – When pressure washing motor enclosure area stay at least 36" away from all electrical items.
- Paint or oil all bare metal surfaces at the end of the season.
- Keep gate cable lubricated with a graphite type lubricant (non-tacky) after each use.
- If motor cover is removed for any reason, use silicone sealant to ensure weather proofing of enclosure.
- Grease bearings after every 20 hours use.
- After first use, tighten all nuts and bolts on spreader and mount.
- **WARNING:** Never remove spreader with material in hopper.
- Store controller in safe dry spot during the off season.





Limited Warranty

Two 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 two years 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.



23455 REGENCY PARK DR.
WARREN MI 48089-2667

