## **Owner / Operator's Manual**

# TURF EXTR

### The Commercial Turf Choice

### SPREADERS

TS-300 TS-300-EG TS-700-E TS-700-GR TS-700-P TS-1200-E TS-1200-GR TS-1200-P



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.

### Table of Contents



Introduction .							
General Inform	ation and Registration						
Safety Informa	afety Information						
TS-300-E / TS-30	00-EG Main Assembly						
TS-700-Е / Р М	ain Assembly 22-23						
TS-700-GR / TS	-1200 GR Main Assembly 24-25						
TS-1200-E / P N	Nain Assembly 26-27						
TS-700-E / P & 7	TS-1200-E / P Drive Assembly						
TS-700-GR & TS	5-1200-GR Drive Assembly						
TS-700-E / GR /	P & TS-1200-E / GR / P Gate Assembly						
TS-700-E & TS-1	200-E Electrical Systems						
Blank Page							
Adjustable Spi	nner Information						
Spreader Calib	ration Charts						
Calibration Spe	eed Chart						
Calibration Dis	claimer						
Blank Page							
Accssories & M	ounts						
• SDK-020	Side Deflector Kit						
• ADF-020	Adjustable Deflector Kit						
• DRM-175	Drop Mount Receiver						
• TLR-175	Trailer Mount						
• TPM-175	Three Point Mount						
• UTM-175	Utility Mount						
• VAR-020	Variable Speed Control Kit (TS-300,TS-700-E & TS-1200-E Only)						
• ZTR-175	Zero Turn Radius Mower Mount						
Spreader Main	tenance						
Troubleshootin	g Information						
Warranty & Wa	arranty Registration						

### Introduction



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:



(RED) Information that, if not carefully followed, can cause death!



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



(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 polyethelyne 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).



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.

WARNING

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.

### Safety (continued)





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.



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.





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

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 6546



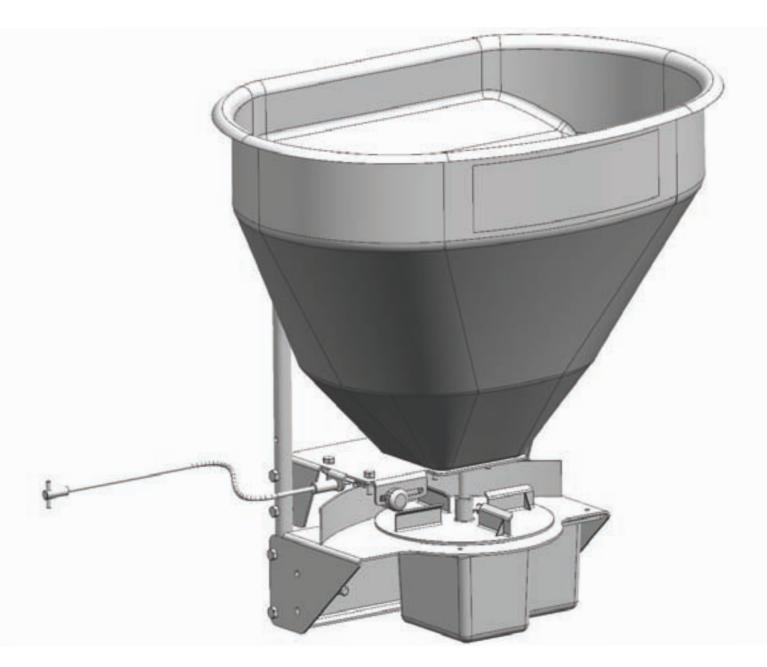




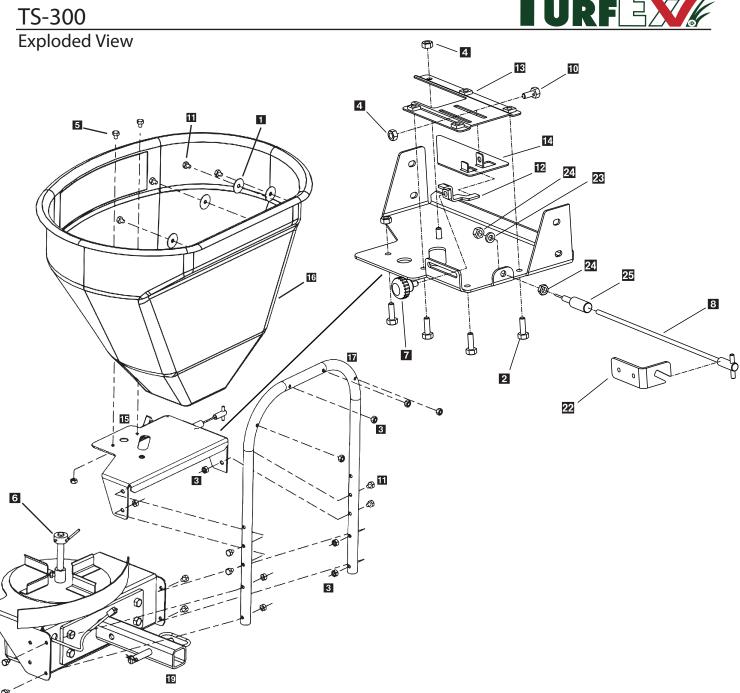












**11** <sup>(3)</sup>

Key	Part No.	Description	Qty.	Key	Part No.	Description
1	D 4318	3/8" Fender Washer	4	14	D 6705	Seeder Gate Slide
2	T 15049	5/16-18 x 1/2" Hex Bolt SS	2	15	D 6706	Seeder 400 Gate Deck
3	D 6138	5/16" Locknut	14	16	D 6709	150 Seeder Hopper
4	D 6168	5/16" - 16 Hex Nut SS	1	17	D 6712	Hopper Tube Support
5	D 6418	5/16" - 18 x 1" Hex Bolt SS	2	18	D 6480	Transmission Weldment
6	D 6705	Agitator	1	19	D 6485	Light Duty Receiver Mount
7	D 6302	Gate Knob	1	20	D 4116	1/2"-13 x 1-1/2" Hex Bolt
8	D 6304	T-Handle Cable - 10'	1	21	D 4120	1/2" Lock Nut
9	D 6305	Bulkhead Cable Fitting	1	22	T 15036	Cable Mounting Bracket
10	D 6308	5/16" - 16 x 3/4" Bolt w/Hole SS	1	23	T 15051	3/8 Internal Star Lock Washer
11	D 6462	5/16" - 18 x 1-3/4" HHCS	12	24	T 15052	3/8-24 Jam Nut SS
12	D 6703	Gate Indicator / Stop	1	25	T 15050	Cable Fitting
13	D 6704	Seeder Gate Track	1			-



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

Step 1: Attach hopper tube support (D 6712) **1** to complete drive assembly using (4) 5/16"-18 x 1-3/4" hex bolt (D 6462) **1** and (4) 5/16" lock nut (D 6138) **3**. Use (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. Tighen 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.

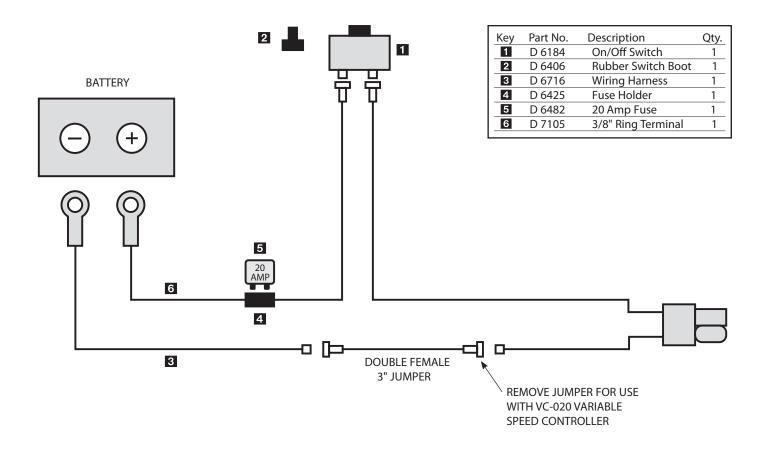
Step 2: Route T-handle to desired operating location. There cannot be any bends or sharp corners.

- 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.

### TS-300 Wiring Diagram



### TS-300 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.

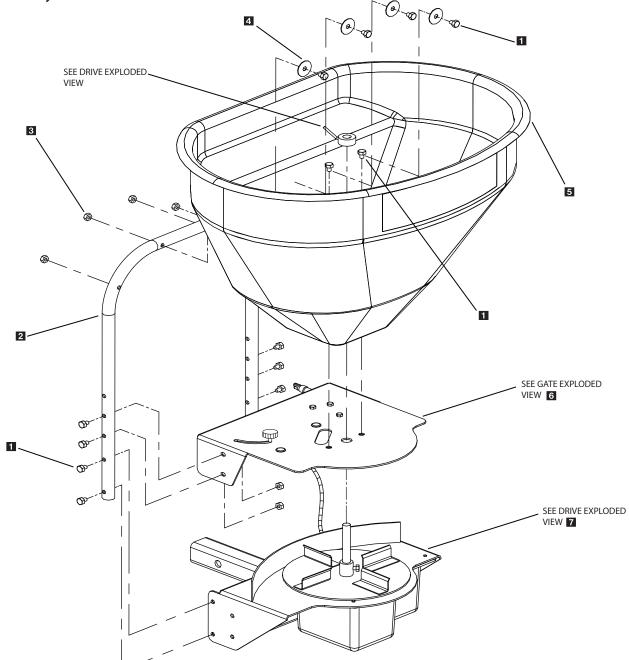
Step 5: Attach the female spade red wire on switch terminal. Using 3" double female black wire jumper attach the black wire from the power harness to the black wire of the vehicle harness.

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

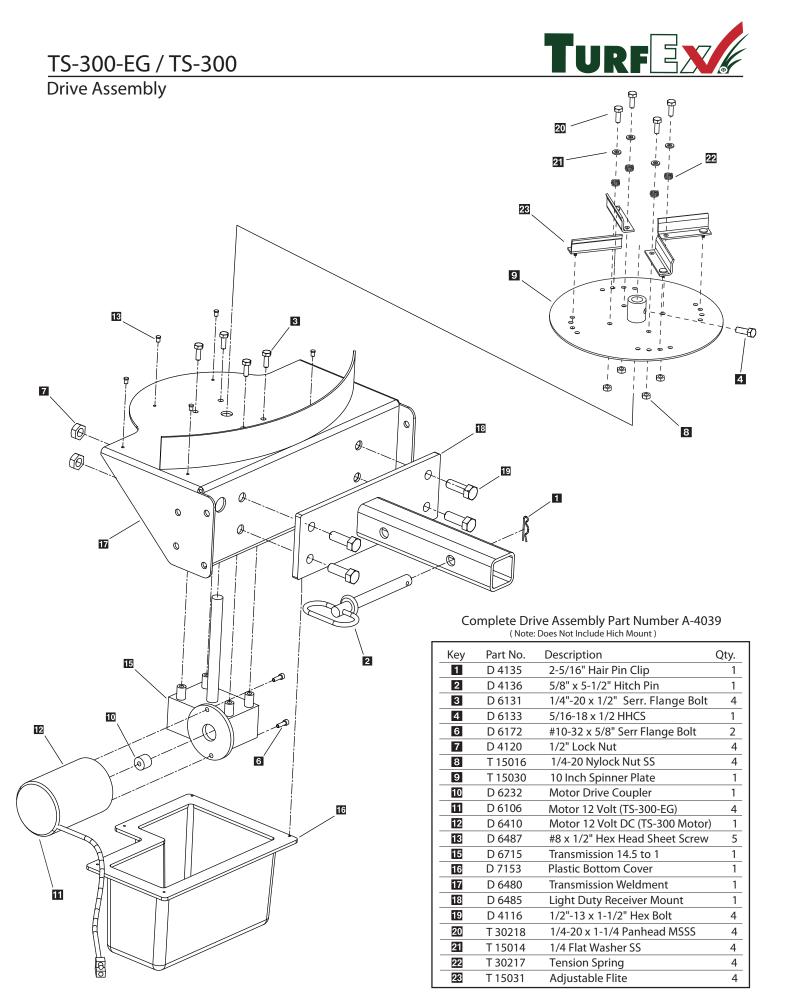
Step 7: Insert dielectric grease on terminals of SAE plug at rear of vehicle.



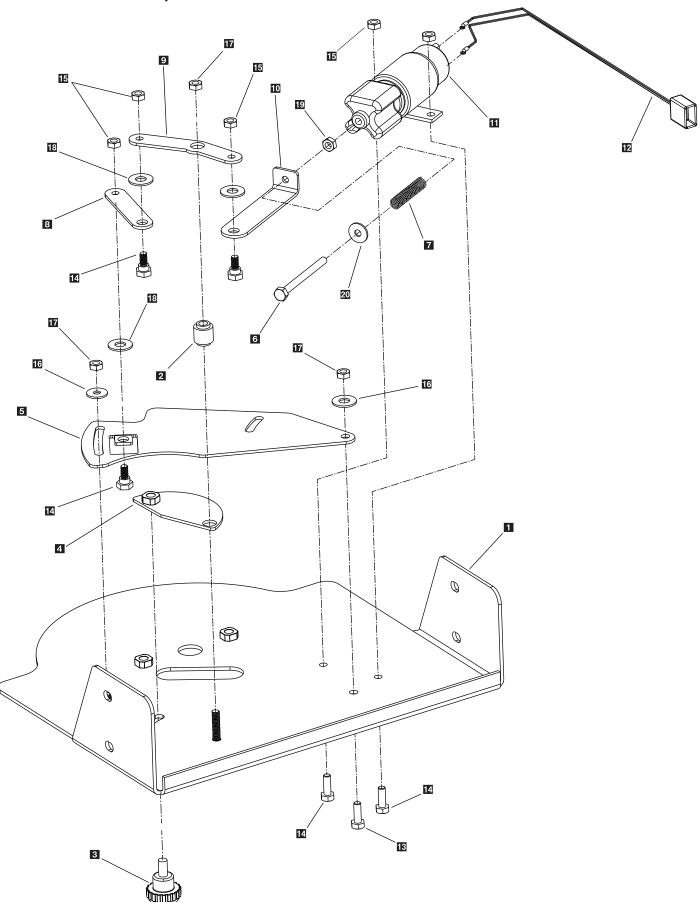
## TS-300-EG Main Assembly Breakdown



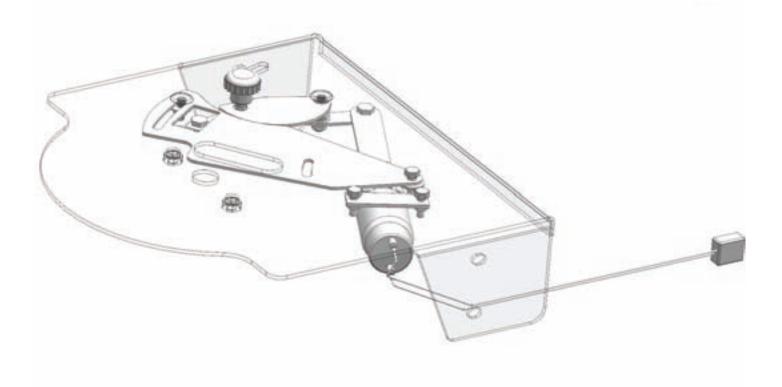
Key	Part No.	Description	Qty.
1	D 6462	5/16" - 18 x 1-3/4" HHCS	14
2	D 6712	Hopper Tube Support	1
3	D 6138	5/16" Lock Nut	14
4	D 4318	3/8" Fender Washer	4
5	D 6753	2.7 Cu/Ft Seeder Hopper Yellow	1
6		Electric Gate Assembly	1
7		Drive Assembly	1



# TS-300-EG Electric Gate Control System

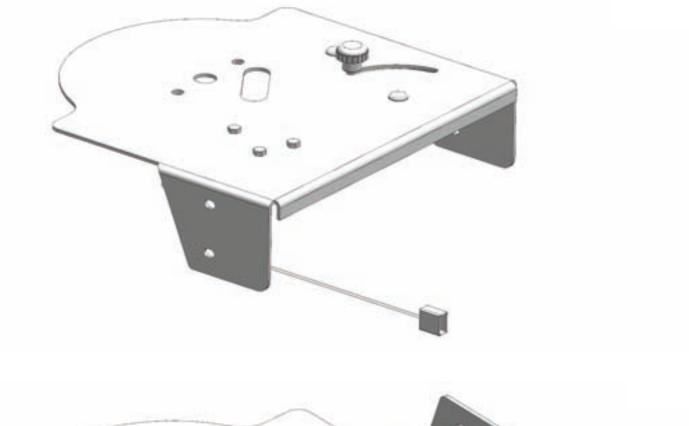


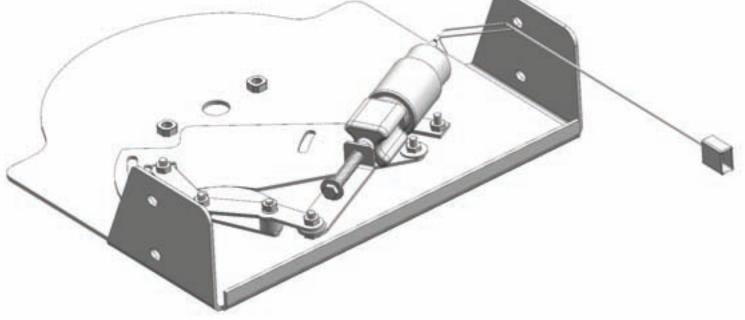




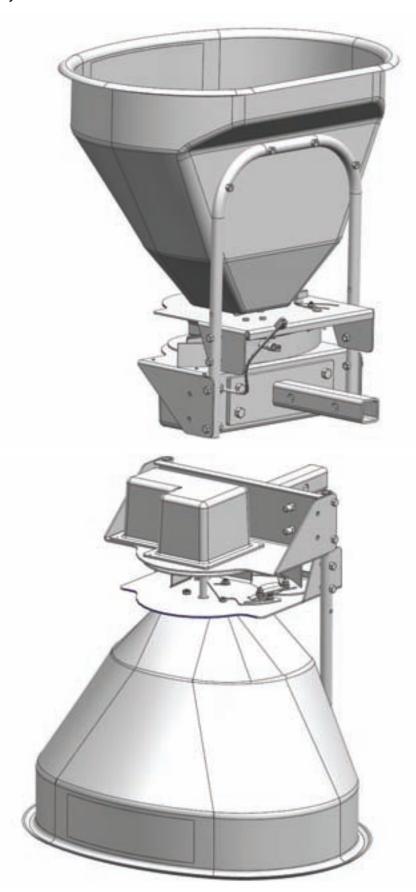
Kov	Dart No	Description	0
Key	Part No.	Description	Qt
1	T-15001	Gate Deck	
2	T-15037	Gate Stop Spacer	
3	T-15029	Gate Stop Knob	
4	T-15003	Gate Stop	
5	T-15002	Gate Slide	
6	T-15012	1/4-28 x 3 SHCS SS	
7	T-15009	Stainless Spring	
8	T-15007	Stainless Arm #3	
9	T-15006	Stainless Arm #2	
10	T-15005	Stainless Arm #1	
11	T-15008	12 Volt Actuator	
12	T-15020	Actuator Power Cord	
13	D 6166	5/16-18 x 1 Hex Bolt	
14	T-15021	1/4-20 x 3/4 PPH MS Stainless	
15	T-15016	1/4-20 Nylock Stainless	
16	T-15017	5/16 Nylon Flat Washer	
17	T-15018	5/16-18 Nylock Stainless	
18	T-15023	1/4" Nylon Flat Washer	
19	T-15013	1/4-28 Jam Nut Stainless	
20	T-15014	1/4" Flat Washer Stainless	



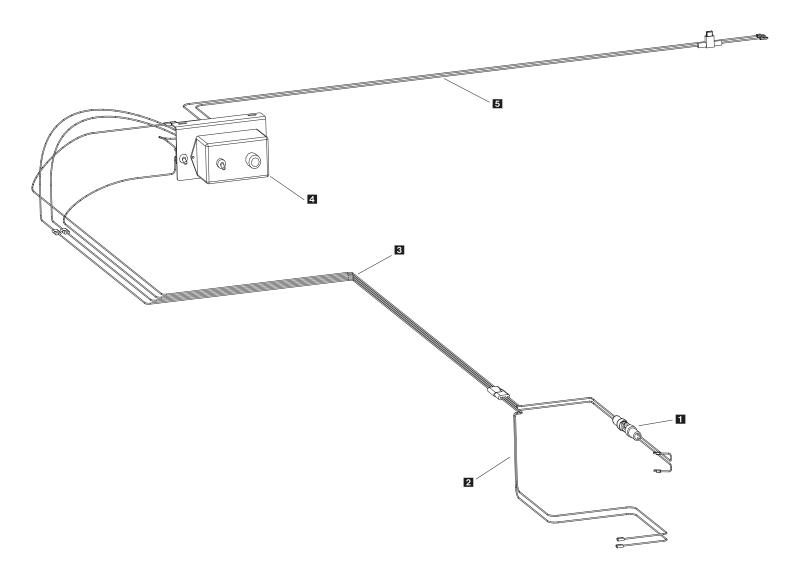






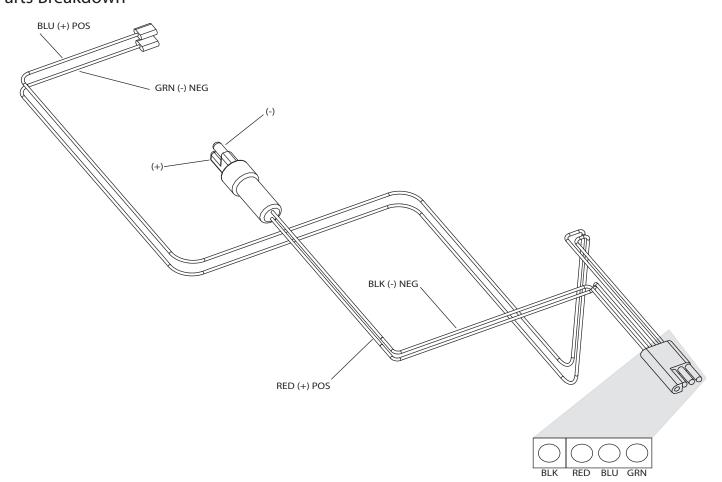




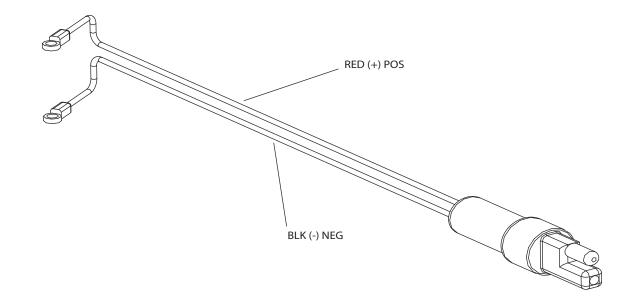


Key	Part No.	Description	Qty.
1	T 15020	SOLENOID WHIP	1
2	T 15034	SPREADER HARNESS	1
3	T 15028	VEHICLE HARNESS	1
4	D 7171	CONTROL	1
5	T 15011	BATTERY HARNESS	1

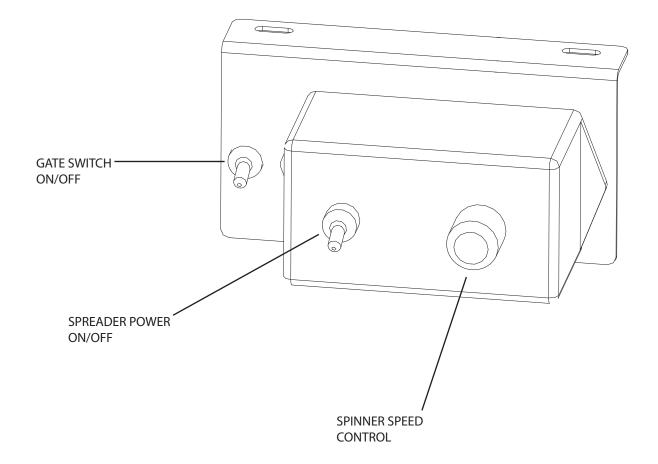




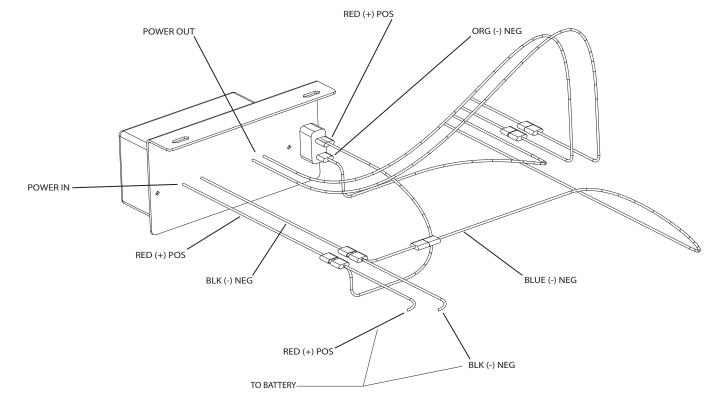
TS-300-EG Solenoid Power Cord T 15020

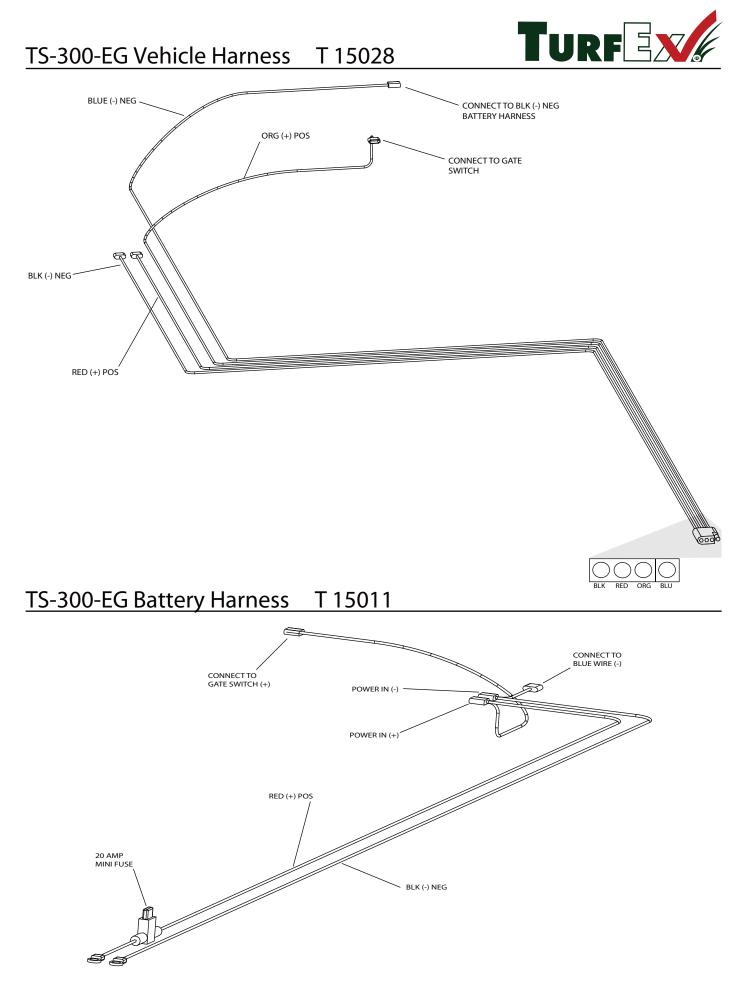






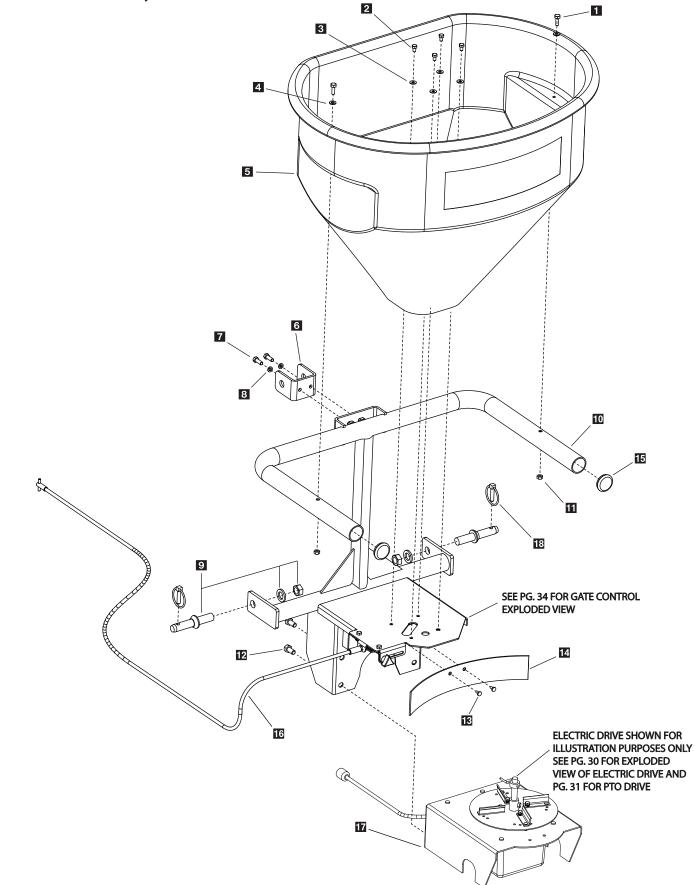
### TS-300-EG Control Back View







### TS-700-E / TS-700-P Main Frame Assembly



### TS-700-E / TS-700-P Assembly Views





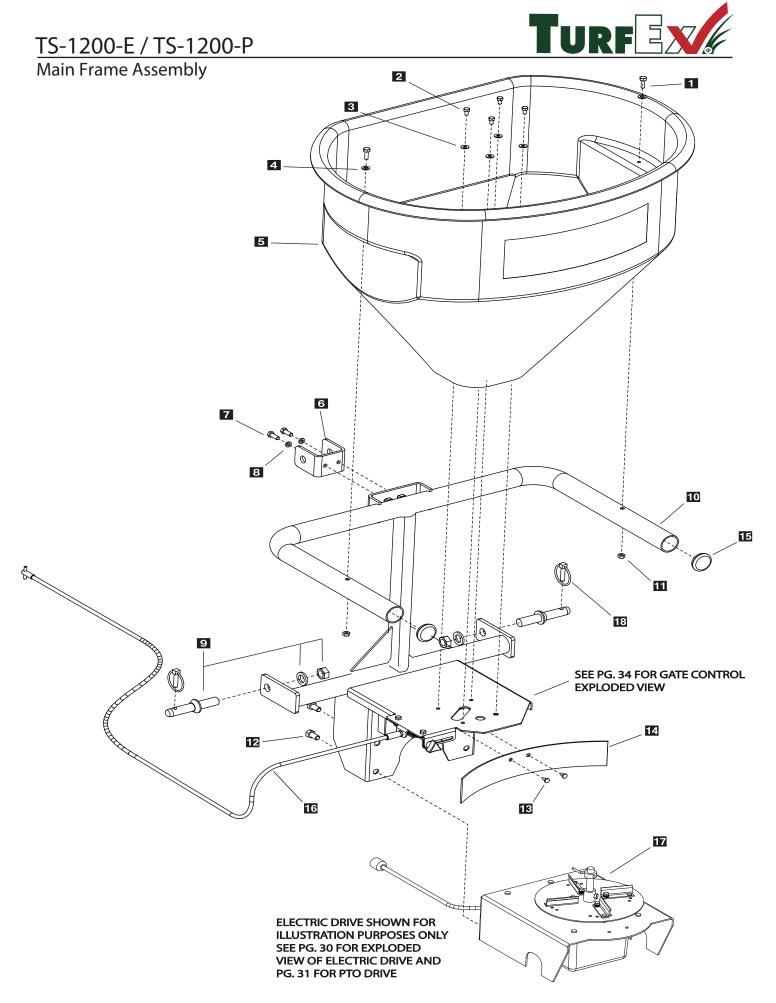
TS-700-Е



TS-700-P

Key	Part No.	Description	Qty.
1	D 5724	3/8-16 x 1-3/4 HHCS	2
2	D 6576	5/16-18 X 1-1/4 HHCS	4
3	D 6165	5/16 USS Flat Washer	4
4	D 4125	3/8 USS Flat Washer	2
5	T 30200	Hopper	1
6	T 30204	Clevis Three Point Bracket	1
7	D 4121	3/8-16 x 1 HHCS	2
8	D 4313	3/8 Lock Washer	2
9	D 4137	Lift Arm Pin Assembly	2
10	T 30203	Frame Weldment	1

Key	Part No.	Description	Qty.
11	D 4124	3/8-16 Lock Nut	2
12	D 6528	1/2-13 x 1 Flange Bolt	4
13	D 6463	Large Plastic Push Pin	2
14	D 6110	Plastic Deflector	1
15	T 30219	Plastic Tube End Cap	2
16		Complete Gate Assembly (see pg 29)	1
17	A 6223	Complete Drive Assembly (see pg 26)	1
18	D 4133	5/16 Lynch Pin	2



### TS-1200-E / TS-1200-P Assembly Views







Key	Part No.	Description	Qty.
1	D 5724	3/8-16 x 1-3/4 HHCS	2
2	D 6576	5/16-18 X 1-1/4 HHCS	4
3	D 6165	5/16 USS Flat Washer	4
4	D 4125	3/8 USS Flat Washer	2
5	T 30300	Hopper	1
6	T 30204	Clevis Three Point Bracket	1
7	D 4121	3/8-16 x 1 HHCS	2
8	D 4313	3/8 Lock Washer	2
9	D 4137	Lift Arm Pin Assembly	2
10	T 30304	Frame Weldment	1

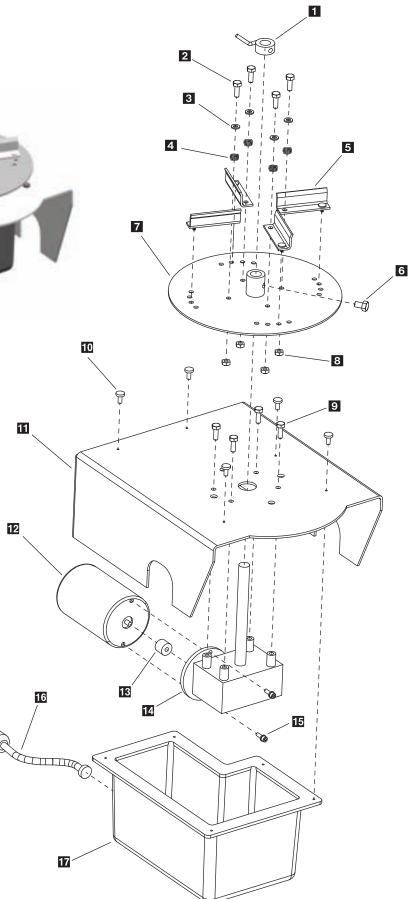
Key	Part No.	Description	Qty.
11	D 4124	3/8-16 Lock Nut	2
12	D 6528	1/2-13 x 1 Flange Bolt	4
13	D 6463	Large Plastic Push Pin	2
14	D 6110	Plastic Deflector	1
15	T 30219	Plastic Tube End Cap	2
16		Complete Gate Assembly (see pg 29)	1
17	A 6223	Complete Drive Assembly (see pg 31)	1
18	D 4133	5/16 Lynch Pin	2

### <u>ТS-700-Е / TS-1200-Е</u>

### Electric Drive Exploded View



Key	Part No.	Description	Qty.
1	D 6405	Agitator	1
2	T 30218	1/4-20 x 1-1/4 Panhead MS SS	4
3	D 4125	3/8 Flat USS Washer	4
4	T 30217	Tension Spring	4
5	T 30211	Adjustable Fin	5
6	D 6133	5/16-18 X 1/2 Hex Bolt	1
7	T 30216	Spinner Plate	1
8	D 4289	1/4-20 Nylock Nut	4
9	D 6131	1/4-20 x 1/2 Serrated Flange	4
10	D 6487	#8 x 1/2 HWH With Slot	5
11	T 30208	Drive Enclosure	1
12	D 6106	12 Volt Spinner Motor	1
13	D 6232	Drive Coupler	1
14	D 6715	Spinner Transmission	1
15	D 6172	#10-32 x 5/8 Serrated Flange	2
16	D 6115	Power Cord	1
17	D 7153	Plastic Motor Cover	1



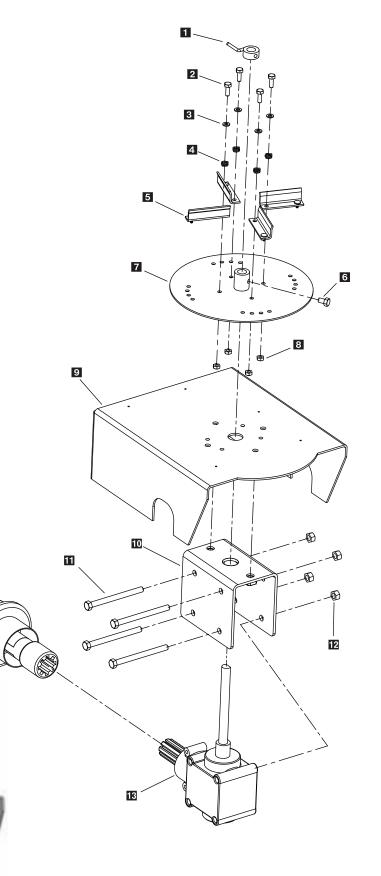
### <u>TS-700-P / TS-1200-P</u>

### PTO Drive Exploded View

-				
	Key	Part No.	Description	Qty.
	1	D 6405	Agitator	1
	2	T 30218	1/4-20 x 1-1/4 Panhead MS SS	4
	3	D 4125	3/8 Flat USS Washer	4
	4	T 30217	Tension Spring	4
	5	T 30211	Adjustable Fin	4
	6	D 6133	5/16-18 X 1/2 Hex Bolt	1
	7	T 30216	Spinner Plate	1
	8	D 4289	1/4-20 Nylock Nut	4
	9	T 30208	Drive Enclosure	1
	10	T 30209	Transmission Mtg Bracket	1
	11	T 30206	3/8-16 x 5 HHCS	4
	12	D 4124	3/8-16 Lock Nut	4
	13	T 30210	Pto Transmission	1
	14	T 30214	Drive Line Assembly	1
L				

14

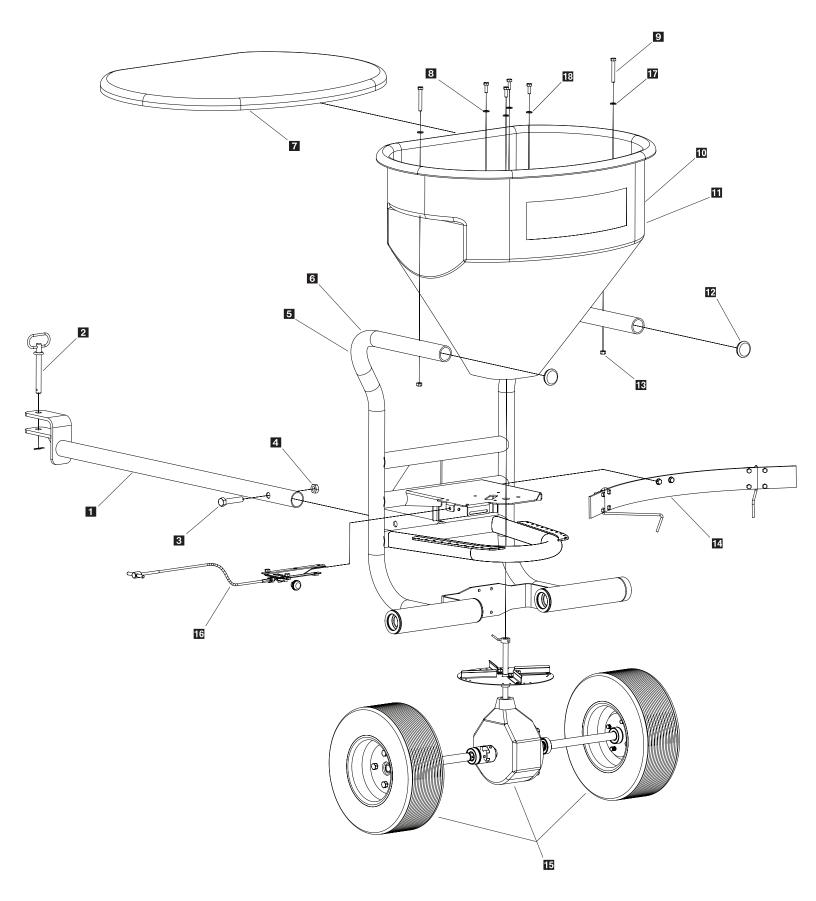




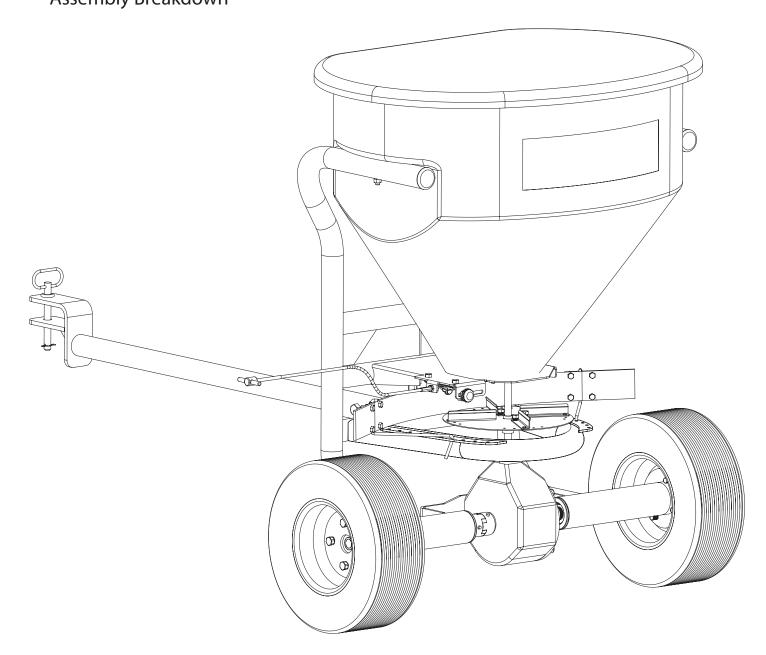
### TS-700-GR / TS-1200-GR



Main Frame Assembly



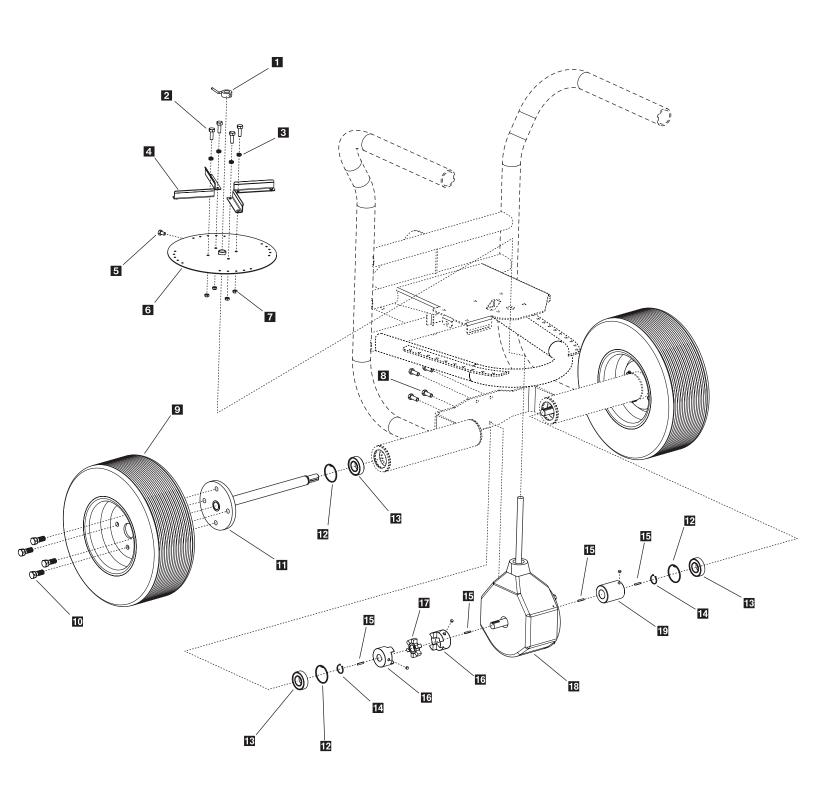




Key	Part No.	Description	Qty.	Key	Part No.	Description	Qty.
1	T 30231	Drawbar	1	11	T 30200	700 Series Hopper	2
2	D 4136	Hitch Pin W/Clip	1	12	T 30219	2 Inch Plastic End Cap	4
3	D 4126	5/8-11 x 3-1/2 Hex Head	1	13	D 4124	3/8-15 Nylox Nut Zinc	2
4	D 4127	5/8-11 Nylox Nut	1	14	Adjustable Deflector Assembly (See Pg. 43)		
5	T 30225	700 Series Frame	1	15	Spinner/Axle Drive Assembly (See Pg. 32,33)		
6	T 30240	1200 Series Frame	1	16	Gate Con	trol Assembly (See Pg. 32)	
7	T 30215	Clear Cover	1	17	D 4125	3/8 Flat Washer Zinc	2
8	D 6137	5/16-18 x 1-1/4 Phillips Pan Head MS SS	4	18	D 6169	3/8 Flat Washer SS	4
9	D 5724	3/8-16 x 2-3/4 Hex Head	2				
10	T 30300	1200 Series Hopper	1				

### TS-700-GR/TS-1200-GR

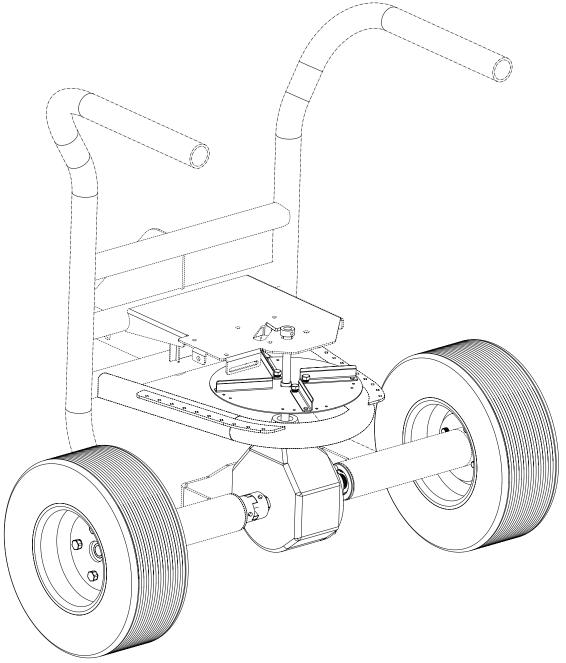




### TS-700-GR/TS-1200-GR

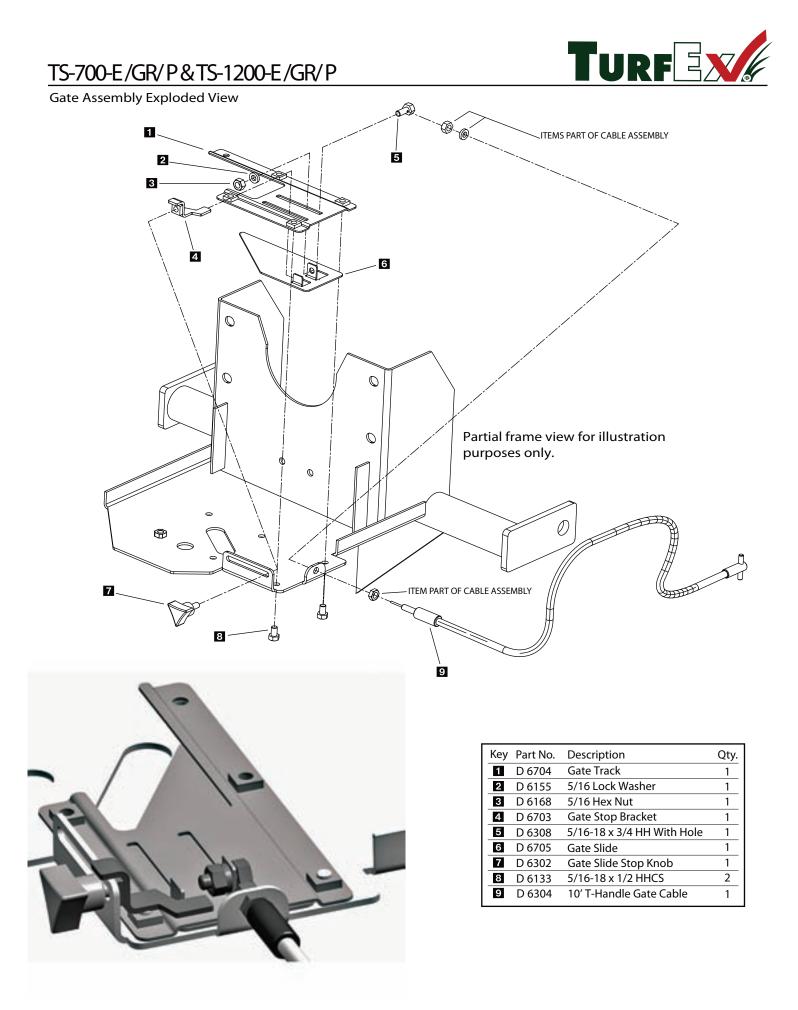
Parts Breakdown





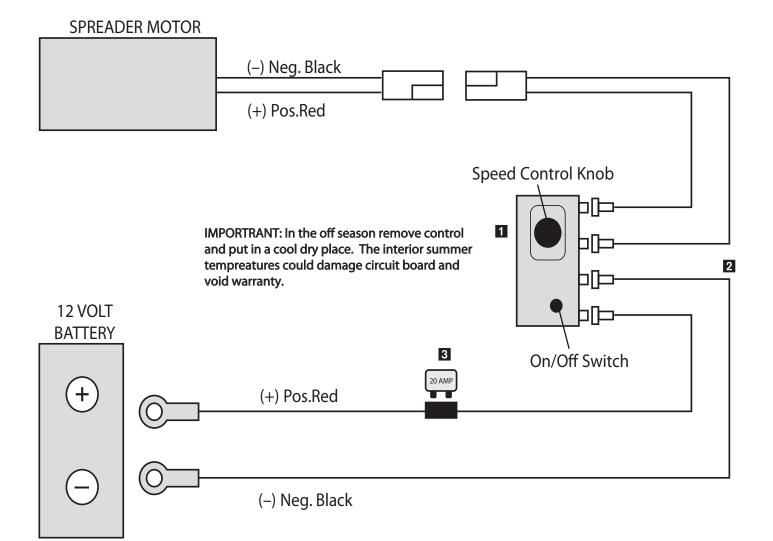
Key	Part No.	Description	Qty.
1	D 6705	Agitator	1
2	T 30218	1/4-20 x 1-1/4 Panhead MSSS	4
3	T 30217	Fin Tension Spring	4
4	T 30211	Adjustable Flite	4
5	D 6133	5/16-18 x 1/2 HHCS	1
6	T 30216	10 Inch Spinner Plate	1
7	T 15016	1/4-20 Nylock Nut SS	4
8	D 6576	5/16-18 x 1-1/4 HHCS	4
9	T 30229	Wheel Assembly	2
10	T 30230	Lug Bolt	8
10	T 30227	Axle	2

Key	Part No.	Description	Qty.
12	T 30233	52 mm Bearing Retainer	4
13	T 30232	Bearing	4
14	T 30234	1 Inch Retainer Ring	2
15	D 6873	3/16 Keyway Stock	4
16	D 6842	Lovejoy Coupling	2
17	D 6843	Spyder	1
18	T 30226	Ground Drive Transmission	1
19	T 30236	Coupling	1



Electrical System





Key	Part No.	Description	Qty.
1	D 7171	Mini Control	1
2	D 7201	Harness	1
3	D 6482	20 Amp Breaker	1



### THIS PAGE INTENTIONALY LEFT BLANK

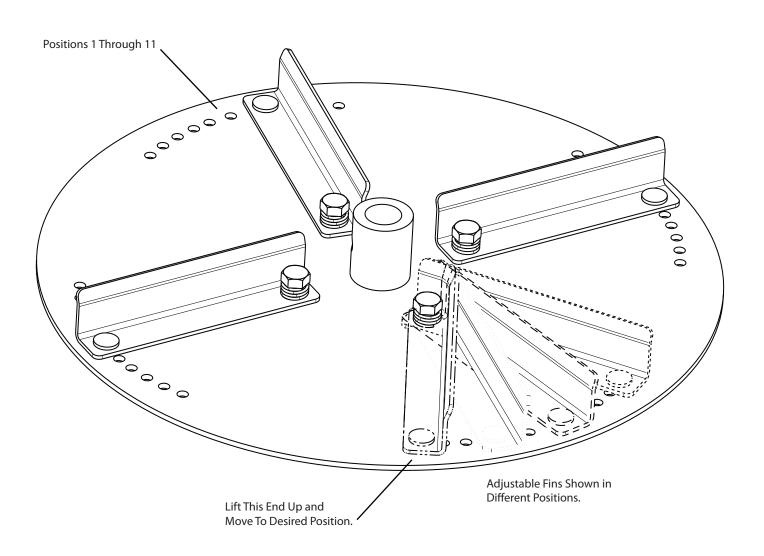


### THIS PAGE INTENTIONALY LEFT BLANK



### TS-700-E/GR/P&TS-1200-E/GR/P

Adjustable Spinner Assembly



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.



# TS - 300-E/EG & TS - 700/ TS -1200 E/GR/P Calibration Chart

		TURFEX TS-300-E/EG					
	GATE SETTING	UREA 46-0-0	LESCO TURFACE	LESCO SHADE MIX	LESCO FERT 30-0-10	LESCO INSECTICIDE	
	1	х	x	x	x	0.57	
	2	1.39	0.83	х	0.39	5.28	
	3	7.15	2.11	x	3.84	14.38	
т	4	10.54	х	0.18	8.79	18.06	
ÜR	5	15.97	×	0.40	13.55	30.24	
F E X	6	24.66	х	0.51	17.07	35.04	
	7	31.36	14.70	0.66	23.94	50.32	
K E Y	8	35.70	х	0.98	29.74	56.22	
ş	9	47.70	х	1.78	39.38	64.56	
S E T T	10	55.29	х	5.59	45.20	76.47	
I N G	11	63.39	37.95	7.27	53.22	82.59	
	12	73.59	х	8.72	64.64	106.49	
	13	78.60	х	10.00	69.06	122.64	
	14	83.08	х	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							

		TURFEX TS-700-E/GR/P CALIBRATION DATA					
	GATE SETTING	UREA 46-0-0	LESCO TURFACE	LESCO SHADE MIX	LESCO FERT 30-0-10	LESCO INSECTICIDE	
	1	1.18	х	х	×	3.64	
	2	3.37	2.59	.21	1.54	10.99	
	3	9.37	4.66	.28	7.88	20.32	
_	4	14.08	x	1.28	12.89	27.52	
U U R	5	23.82	х	1.67	16.77	42.78	
RFEX	6	27.61	х	2.14	19.27	47.16	
ĸ	7	32.72	15.52	3.35	25.34	58.48	
Ë	8	41.24	х	4.02	35.26	64.56	
S E T	9	46.16	x	7.02	40.82	85.44	
T	10	58.11	х	7.22	45.81	97.52	
I N G	11	70.29	34.40	8.33	57.37	104.16	
0	12	70.95	x	8.68	62.14	105.66	
	13	79.44	x	12.60	67.29	118.56	
	14	87.78	×	12.68	70.48	121.14	
	15	89.43	59.92	14.19	74.24	140.16	
	FLOW RATES ARE CALCULATED AT POUNDS PER MINUTE						

		TURFEX TS-1200-E/GR/P CALIBRATION DATA						
	GATE SETTING	UREA 46-0-0	LESCO TURFACE	LESCO SHADE MIX	LESCO FERT 30-0-10	LESCO INSECTICIDE		
	1	х	х	х	x	0.57		
	2	1.39	0.83	×	0.39	5.28		
	3	7.15	2.11	x	3.84	14.38		
Т	4	10.54	x	0.18	8.79	18.06		
	5	15.97	x	0.40	13.55	30.24		
F E X	6	24.66	х	0.51	17.07	35.04		
	7	31.36	14.70	0.66	23.94	50.32		
K E Y	8	35.70	х	0.98	29.74	56.22		
ş	9	47.70	x	1.78	39.38	64.56		
S E T T	10	55.29	x	5.59	45.20	76.47		
I N G	11	63.39	37.95	7.27	53.22	82.59		
	12	73.59	х	8.72	64.64	106.49		
	13	78.60	х	10.00	69.06	122.64		
	14	83.08	х	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





	TIME REQUIRI A DISTANCE (	SPEED	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 refernce 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 vegitation. 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. Formualtions vary within the same brand or even between brannds
  - 2. Formulations vary between batches or dates of manufacture
  - 3. Humidy 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 calibriation
  - 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 Squre 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.



## THIS PAGE INTENTIONALY LEFT BLANK



## THIS PAGE INTENTIONALY LEFT BLANK

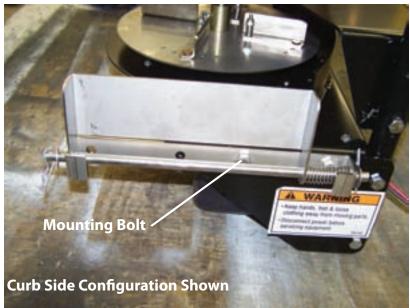
## Deflector Kit Parts Breakdown

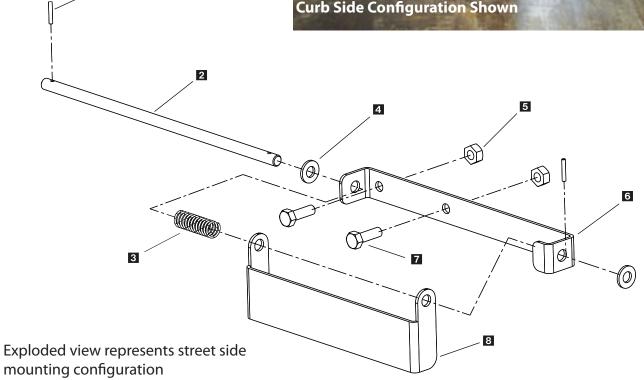
SDK-020



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

1



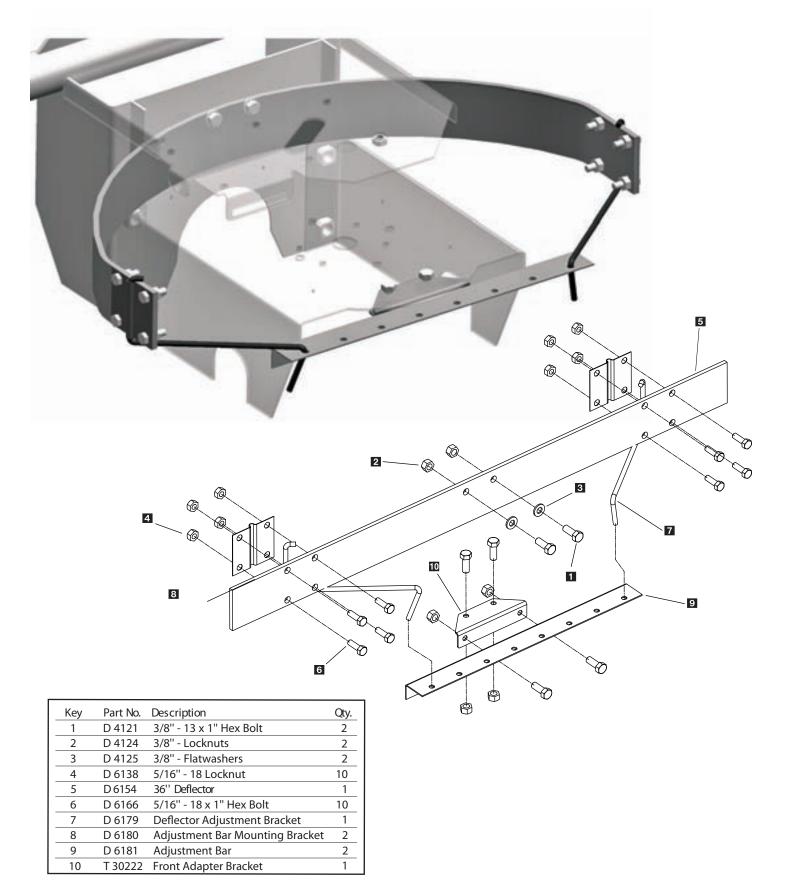


Key	Part No.	Description	Qty.
1	D - 6853	Cotter Pin	2
2	T-15055	Side Deflector Hinge Pin	1
3	T-15056	Compression Spring	1
4	D - 6169	3/8 Flat Washer SS	2
5	T-15018	5/16 Nylock Nut SS	2
6	T-15054	Deflector Mounting Bracket	1
7	D - 6418	5/16 - 18 x 1 Hex Bolt ss	2
8	T-15053	Side Def;ector	1

## TS-700-E / P & TS-1200-E / P



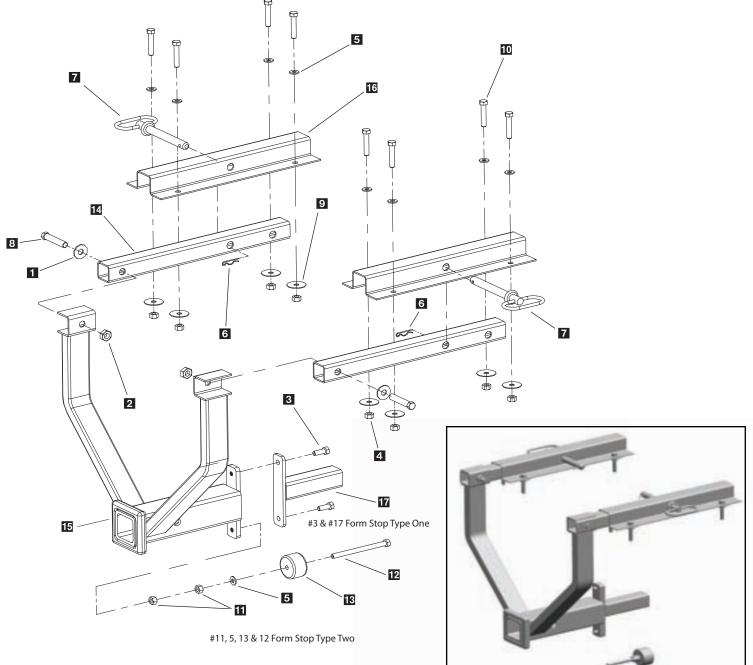
ADF-020 Adjustable Deflector Kit



## TS-300-E / TS-300-EG



## DRM-175 Drop Utility Mount



### Maximum Load Weight Not To Exceed 240 lbs. Gross

Key	Part No.	Description	Qty.	Key	Part No.	Description
1	D 4119	1/2" Flat Washer	2	10	D 6420	3/8" - 16 x 2 Truss B
2	D 4120	1/2"-Lock Nut	2	11	D 6421	3/8" - 16 Hex Nut
3	D 4121	3/8"-16x1 Hex Bolt	2	12	D 6422	3/8" - 16 x 5" Hex B
4	D 4124	3/8"-Lock Nut	8	13	D 6423	2" Rubber Stopper
5	D 4125	3/8" Flat Washer	9	14	D 6432	Mounting Rail
6	D 4135	2 - 5/16" Hair Pin Clip	2	15	D 6434	Drop Mount Weldm
7	D 4136	5/8" x 5-1/2" Hitch Pin	2	16	D 6435	Mounting Rail Hat S
8	D 6246	1/2" - 13 x 2-1/2" Hex Bolt	2	17	D 6436	Mule Adapter
9	D 4318	3/8" Fender Washer	8			

Key	Part No.	Description	Qty.
10	D 6420	3/8" - 16 x 2 Truss Bolt Full Thread	8
11	D 6421	3/8" - 16 Hex Nut	2
12	D 6422	3/8" - 16 x 5" Hex Bolt	1
13	D 6423	2" Rubber Stopper	1
14	D 6432	Mounting Rail	2
15	D 6434	Drop Mount Weldment	1
16	D 6435	Mounting Rail Hat Section	2
17	D 6436	Mule Adapter	1



#### **MULE 550**

Step 1: Temporarily remove the tailgate. Remove the bed liner if equipped.

Step 2: Bolt support rails to spreader mount with 1/2" bolts. Install 1/2" hex bolt with washer through rail first then spreader spreader mount. Install 1/2" locknut and tighten. Avoid over tightening to avoid potentially crushing tube.

Step 3: Place spreader mounting rails over spreader mount support rails and install pins. Locate the spreader bracket mounting rails on top of the bed by centering left to right and positioning the rear edged of the rails 5/8" beyond the rear of the bed. Transferring mounting holes to bed & drill 7/16".

Important: Check for proper clearance underneath bed before drilling holes.

Step 4: Bolt rails under belt with truss head bolts, fender washers, SAE washers and nylon lock nuts. Install the spreader bracket before tightening hardware. The tailgate and bed liner may be reinstalled now.

Step 5: Install 550 anti dump bracket with (2) 3/8" bolts provided.

Step 6: Install gate control cable per attached instructions.

Step 7: Route cables at your discretion and install switch.

#### **MULE 2500**

The installation of the spreader on the 2500 is the same as the 550 with the following exceptions.

Step 1: When positioning the mounting rails the end of the rails should be 1/2" forward of the rear edge of the bed.

Step 2: The universal anti dump threads into the lower weld nut on the spreader bracket assembly. Adjust rubber bumper to be 1/2" to 3/4" behind the rear axle - receiver hitch assembly.

#### CLUB CAR CARRYALL

Step 1: Remove the bed tailgate and bottom angle trim. Also remove the 2 rear carriage bolts from the floor of the bed.

Step 2: Place spreader mounting rails over spreader mount and install pins. Locate the 2 front outside mounting rails over the holes from the carriage bolts remove in step 1.

Step 3: Install truss head bolts, fender washers, SAE washers and nylon lock nuts in the carriage bolt holes. Transfer the remaining mounting rail holes and bolt rails into bed.

#### JOHN DEERE GATOR

Step 1: Remove the bed tailgate.

Step 2: Place spreader mounting rails over spreader mount and install pins.

Step 3: Locate the spreader bracket mounting rails on top of the bed by centering left to right, push main mount flush up against rear of bed to locate mounting rails. Transfer mounting holes to bed.

Step 4: Install mounting rails with truss head bolts, fender washers, SAE Washers and nylon lock nuts in the 1/2" mounting holes.

Step 5: The universal anti dump threads into the lower weld nut on the spreader bracket assembly. The rubber bumper should be adjusted to rest against the frame of the vehicle. The trailer hitch bracket may need to be relocated depending on configuration.

#### CAUTION: MAXIMUM WEIGHT NOT TO EXCEED 240 LBS.

# Trailer Mount Model #TLR-175



#### MAXIMUM LOAD WEIGHT NOT TO EXCEED 240 LBS. GROSS

#### TRAILER MOUNT ASSEMBLY INSTRUCTIONS

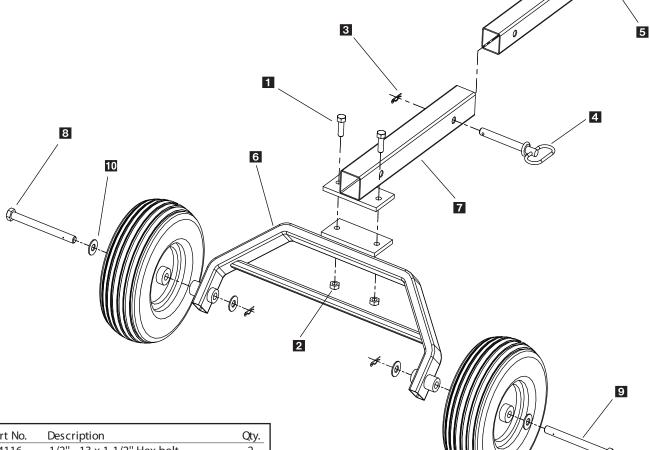
Step 1: Insert axle through wheel and axle weldment.

Step 2: Put washer on then install hair pin clip to secure axle. Repeat Steps 1 & 2 for other side.

Step 3: Bolt tube support on axle weldment.

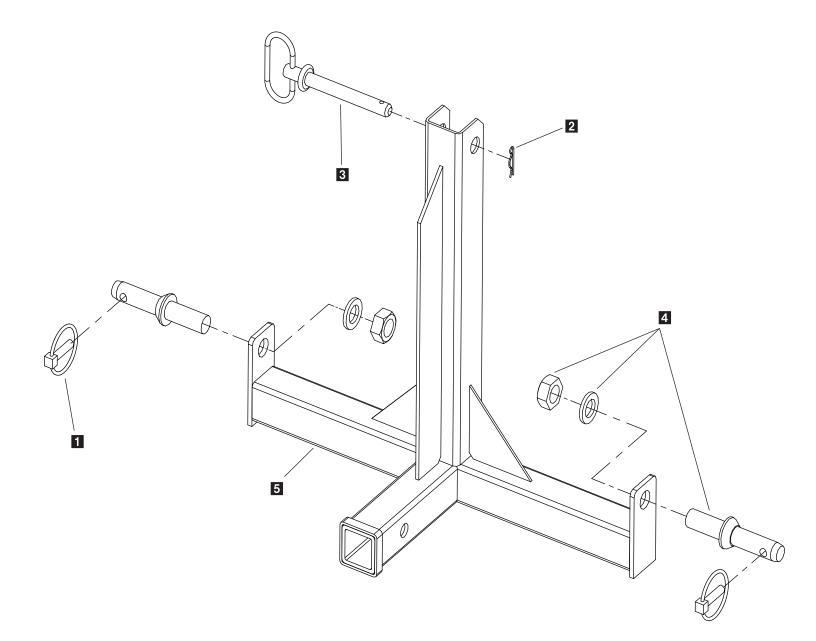
Step 4: Insert trailer tongue per drawing and pin into position.

Step 5: Insert spreader mount into opposite side of trailer tongue and pin into position.



Key	Part No.	Description	Qty.
1	D 4116	1/2" - 13 x 1-1/2" Hex bolt	2
2	D 4120	1/2'' - Locknuts	2
3	D 4135	Hair pin clip	3
4	D 4136	5/8" x 5 -1/2" Hitch pin	1
5	D 6438	Trailer tongue	1
6	D 6439	Trailer "A" frame	1
7	D 6440	Receive tube mount	1
8	D 6441	Trailer tire	2
9	D 6442	5/8" - 13 x 7" Hex bolt special	2
10	D 6443	5/8" Flat washers	4



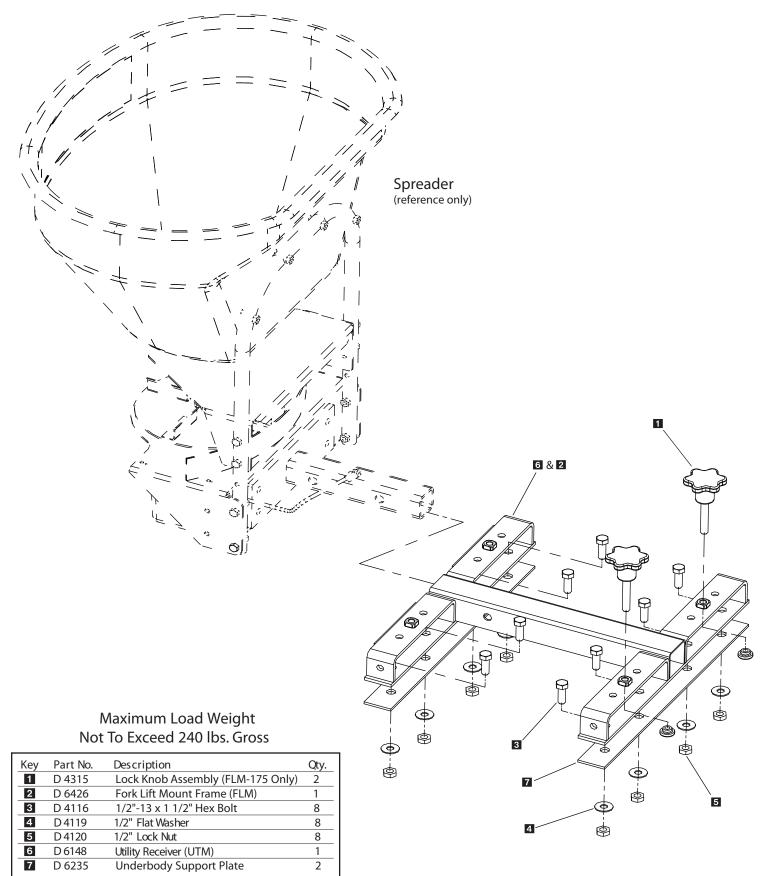


Key	Part No.	Description	Qty.
1	D 4133	5/16″ Linch Pin	2
2	D 4135	2-5/16" Hairpin Clip	1
3	D 4136	5/8″ x 5-1/2″ Hitch Pin	1
4	D 4137	7/8" x 5-1/2" Lift Arm Pin	2
5	D 6147	3-Point Frame	1

CAUTION: MAXIMUM OF 240 LBS. GROSS WEIGHT CAN BE PUT ONTO MOUNT.

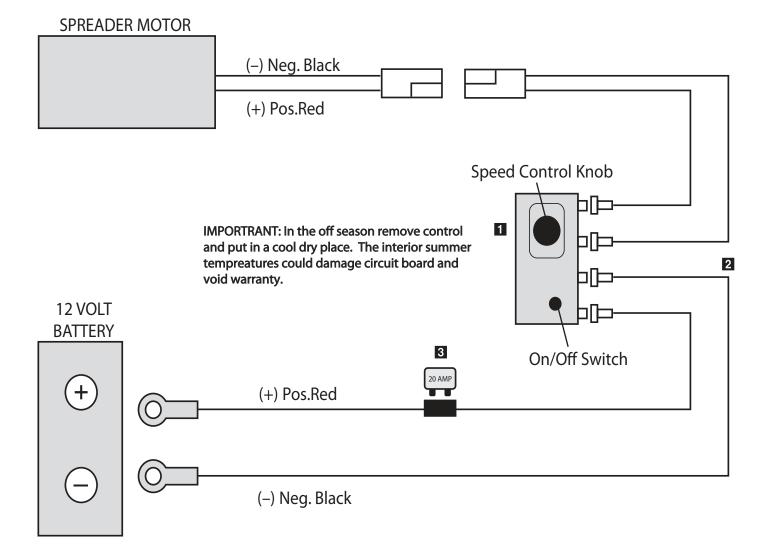
## Utility Mount Model #UTM/FLM-175







### TS-300 (Optional Kit)

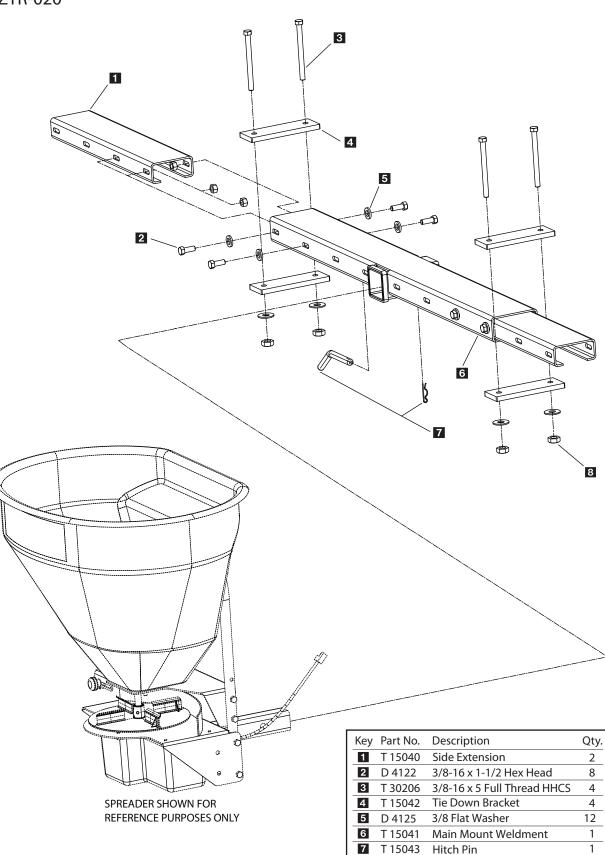


Key	Part No.	Description	Qty.
1	D 7171	Mini Control	1
2	D 6719	Harness	1
3	D 6482	20 Amp Breaker	1





ZTR-020



8 D 4124

3/8-16 Nylock

12

## Spreader Maintenance

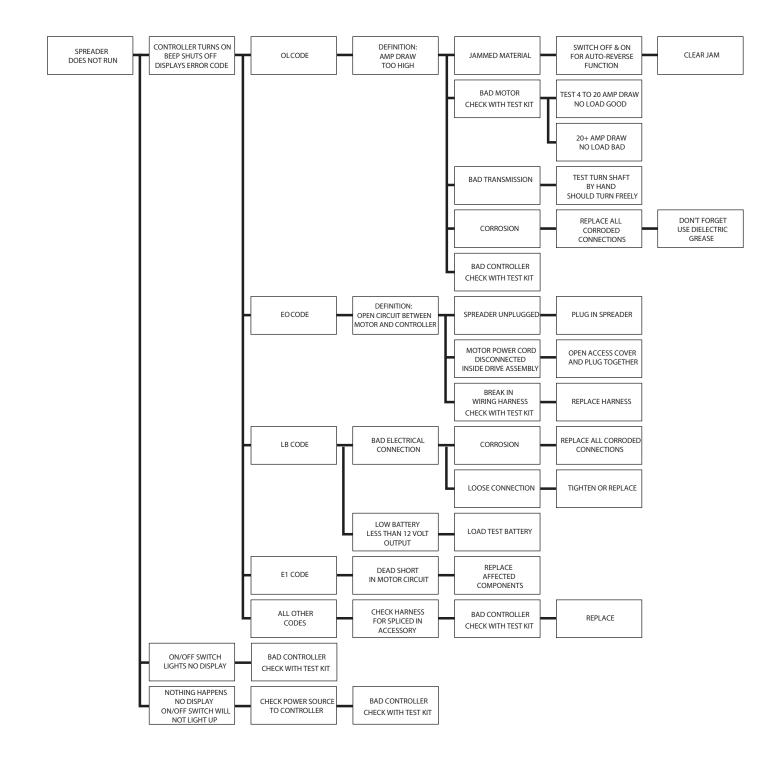
- WARNING When servicing is necessary, perform it in a protected area. Do not use power tools in rain or snow because of DANGER of electrical shock or injury. Keep area well lighted. Use proper tools. Keep the area of service clean to help avoid accidents.
- WARNING Disconnect electricity to spreader 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 diaelectric 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.



## Troubleshooting

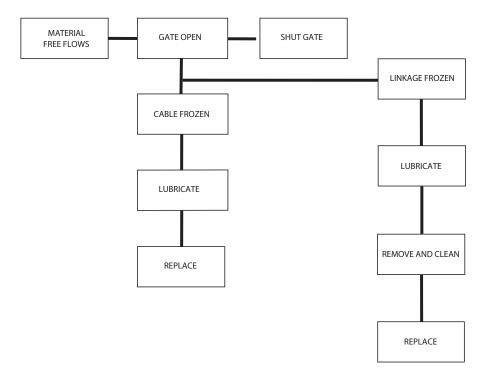


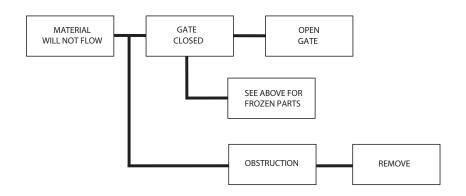
### TS-300/TS-300-EG/TS-700-E/TS-1200-E



## Troubleshooting (continued)









## Limited Warranty

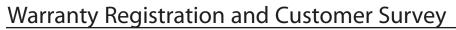
Two year warranty on Turfex brand products against defects in material or workmanship under normal use and service, subject to limitations detailed below. Warranty period of two years begins on the date of purchase by the original retail user.

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 that 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.





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 usin	g with your Spreader,	Broom and/or Spra	yer?			
	Make		Model		Year_		
6)	What type of material are you usi	ng in your spreader an	d/or sprayer?				
7)	TurfEx Dealer Name:						
	TurfEx Dealer Address:						
	Turfex Dealer Phone:						
8)	Does your TurfEx Dealer stock Tur	fEx replacement Parts?	🖵 Yes	🗆 No 🛛 🛛 I don't kr	now		
9)	Do you feel your TurfEx Dealer so	ld you the correct proc	duct for your needs	/application?	🗅 Yes 🗖 No		
10)	How would you rate your overall satisfaction with your Turfex Dealer?-	L Very Satisfied	C Satisfied	C Somewhat Satisfied	☐ Somewhat Dissatisfied	Dissatisfied	Uery Dissatisfied
11)	How would you rate your overall satisfaction with your Turfex Product?	☐ Very Satisfied	☐ Satisfied	C Somewhat Satisfied	C Somewhat Dissatisfied	Dissatisfied	☐ Very Dissatisfied
12)	Would you purchase another Turft	Ex Product?	Yes 🗳 No				
13)	If you would like to receive E-Mail ALEF	RTS for new products, bull	etins or special promo	tions please supply add	dress :		
14)	Please use the space below to con	nvey your comments a	nd/or suggestions.				
	NOTE: I have read the owner's m with care and under the proper c	anual and all safety pr onditions.	recautions and I un	derstand that this ec	quipment could be d	langerous if not ope	erated
15)	Owner's signature: X						
	PL	LEASE FOLD AND	SEAL WITH TRA	NSPARENT TAPE	BEFORE MAILIN	G.	

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

հեսինեսինեստիներություններիներին