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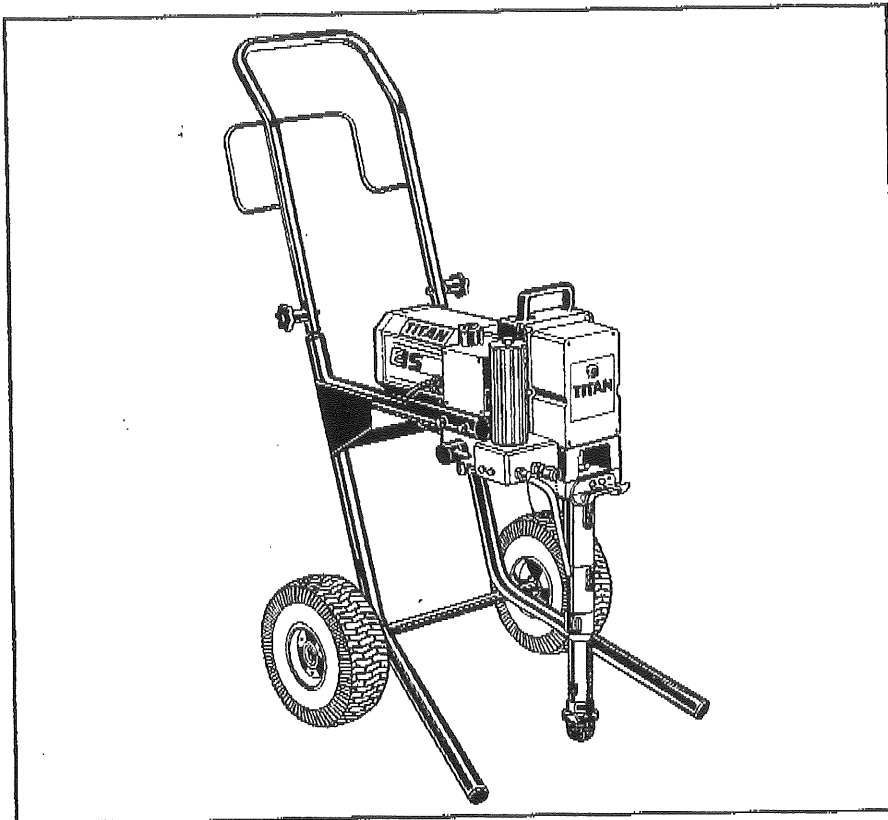
TITAN

**OWNERS MANUAL
FOR PROFESSIONAL
USE ONLY**

313-348 REV 1094B

DO NOT USE EQUIPMENT BEFORE READING THIS MANUAL

Elite **ETS**



**Pump Only -- 762-502
Complete -- 762-500**

**230V Pump Only -- 762-238
230V Complete -- 762-240**

**This manual contains important warnings and instructions.
Please read and retain for reference.
Never operate this unit unless it is properly grounded.**

Filter Block

ITEM NO	PART NO	DESCRIPTION	QTY
201	710-069	Plug	3
202	761-451	Filter Housing	1
203	730-083	Spring	1
204	761-043	Filter Cartridge	1
205	761-247	Filter Core	1
206	761-456	O-Ring	1
207	761-422	Filter Block (Incl. #206)	1
208	730-222	Outlet Cup Assembly	1
209	490-006	Fitting	2
210	710-087	Pressure Release Elbow	1
211	750-039	Pressure Release Tube	1
212	700-701	Nut	1
214	761-757	Bypass Valve Assembly	1
215	761-537	Gasket	1
216	761-722	O-Ring	1
217	761-721	Back-up Ring	1
218	761-755	Bypass Housing	1
219	221-008	O-Ring	1
220	761-763	Stem (Incl. 219)	1
221	761-706	Washer	2
222	761-698	Spring	1
223	761-705	Washer	1
224	761-731	Bypass Valve Retainer	1
225	761-762	Bypass Cam Base	1
226	761-761	Pin	1
227	761-697	Bypass Valve Handle	1
238	730-262	Screw	3
240	761-351	Filter Block Complete (Does not include #241-243, #238)	1
241	700-881	Gasket	1
242	700-499	O-Ring	1
243	761-525	Pressure Switch (Incl. #241,#242)	1

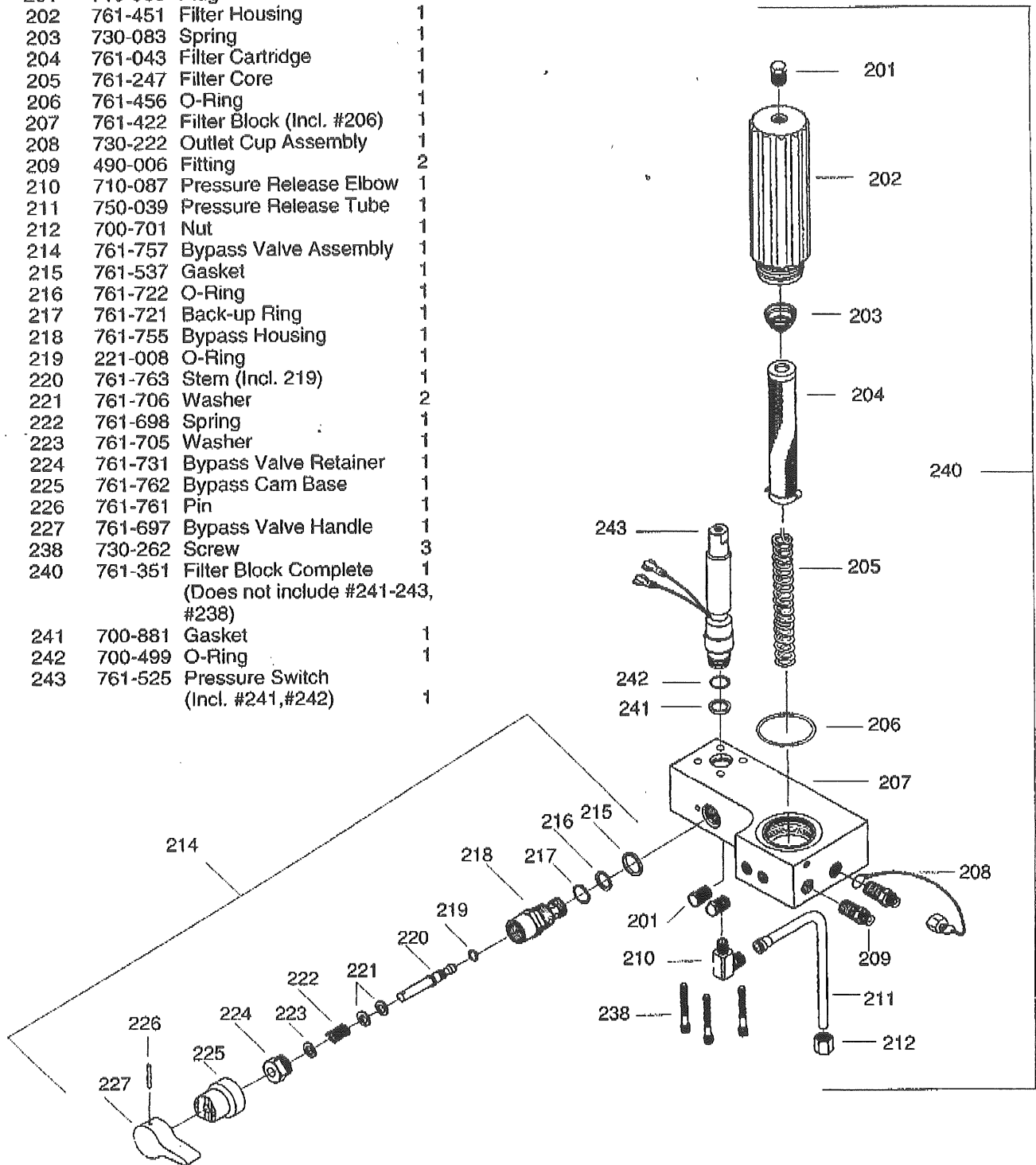


Figure 8

Gear Box

110V Electrical Schematic

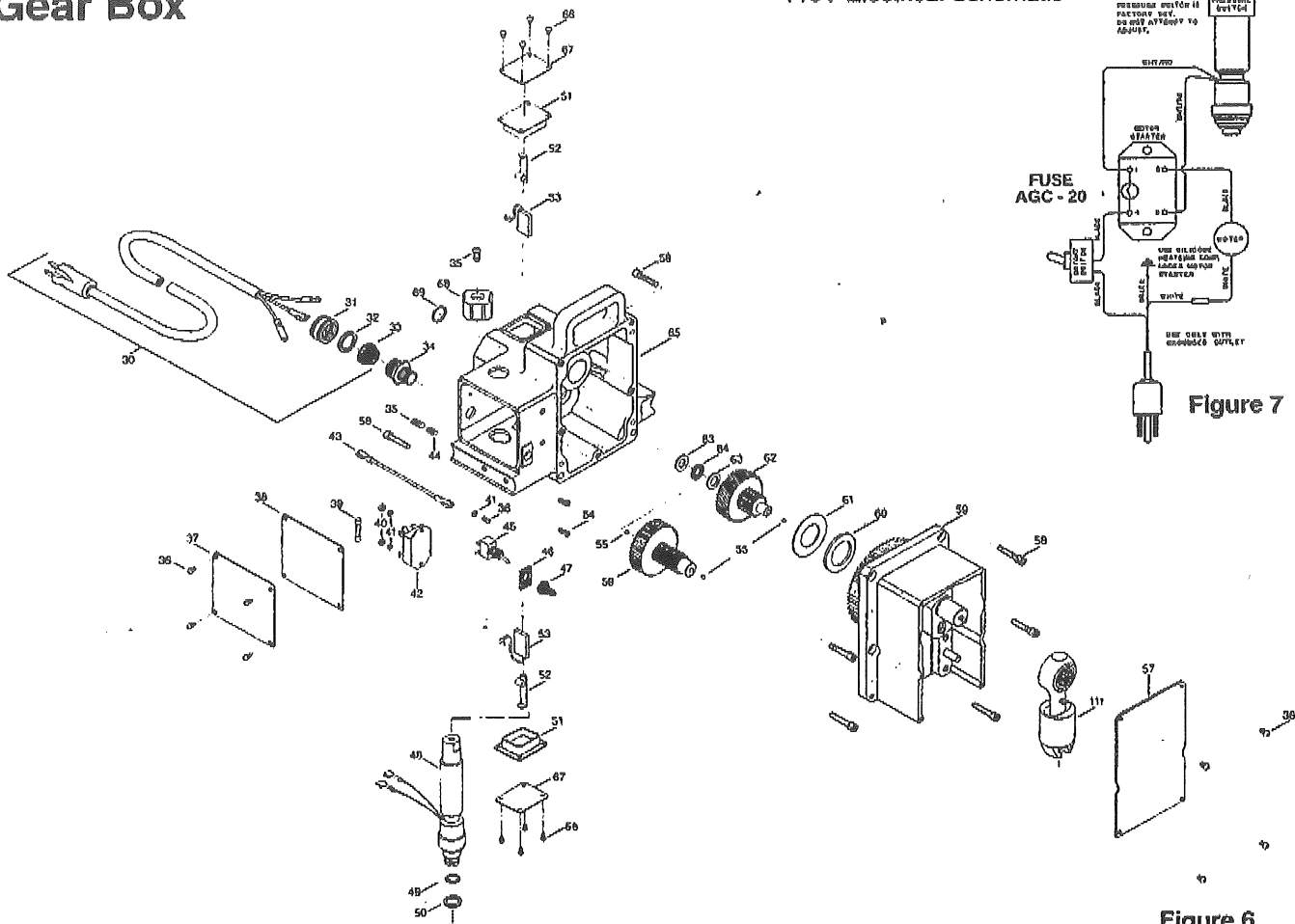


Figure 7

Figure 6

ITEM NO	PART NO	DESCRIPTION	QTY
30	762-307	Power Cord (#31-33)	1
31	710-157	Cord Grip Nut	1
32	710-156	Washer	1
33	710-155	Rubber Grommet	1
34	710-154	Cord Grip Housing	1
35	700-784	Screw	2
36	700-653	Screw	9
37	761-132	Plate	1
38	761-192	Insulator Plate	1
39	710-050	Fuse 20 Amp	1
40	700-714	Nut	2
41	700-785	Lock Washer	3
42	700-855	Motor Starter	1
43	710-064	Wire	1
44	700-715	Screw	1
45	700-646	Toggle Switch	1
46	700-775	On/Off Plate	1
47	700-645	Rubber Boot	1
51	702-039	Brush Insulator	2
52	702-067	Brush Spring	2
53	702-066	Brush	2
54	700-714	Screw	2
55	761-116	Thrust Ball	3
56	762-083	Output Pinion Gear	1
57	762-193	Front Cover	1
58	761-114	Screw	7

ITEM NO	PART NO	DESCRIPTION	QTY
59	762-100	Crankshaft Housing	1
60	761-221	Bearing	1
61	700-680	Washer	1
62	762-084	Interior Pinion Gear	1
63	761-102	Washer	2
64	761-101	Bearing	1
65	761-086	Motor Housing (Incl. #69)	1
66	730-260	Screw	8
67	702-053	Brush Plate	2
68	700-771	Knob	1
69	702-079	O-Ring	1
70	765-047	Gasket	1

For 230 Volt Units:

ITEM NO	PART NO	DESCRIPTION	QTY
30	770-309	Power Cord	1
31-34	765-063	Cord Grip Assembly	1
39	Removed	Fuse	1
42	765-050	Motor Starter	1
45	Removed	Toggle Switch	1
46	Removed	On/Off Plate	1
47	Removed	Rubber Boot	1
65	761-229	Motor Housing (Incl. #69)	1

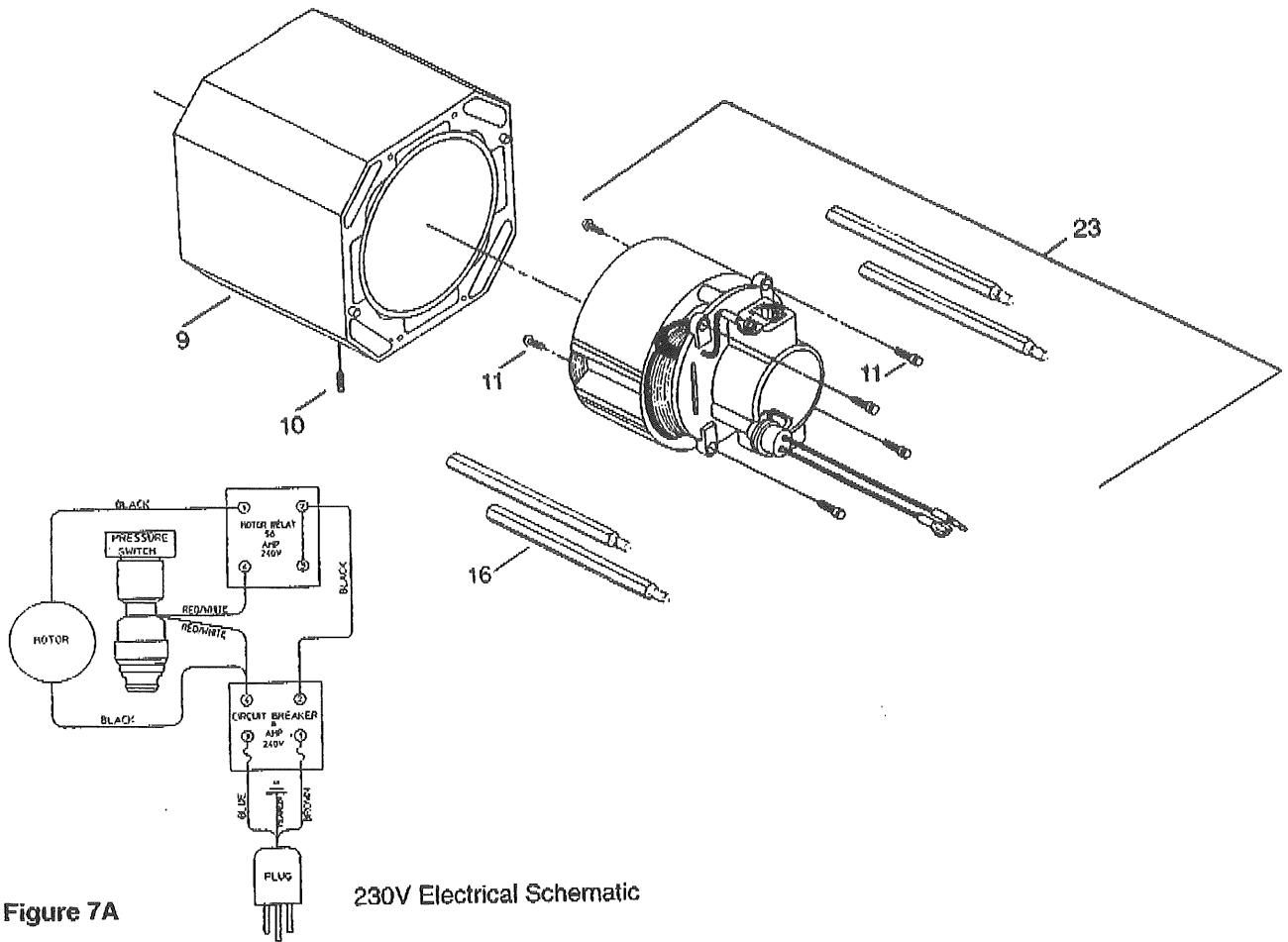


Figure 7A 230V Electrical Schematic

ITEM NO	PART NO	DESCRIPTION	QTY
9	761-045	Outer Housing (Includes #10)	1
10	761-244	Screw	1
11	700-639	Screw	6
16	760-027	Mounting Stud	4
23	761-201	Motor Field Assy. 120V (Does not include #16)	1

For 230 Volt Units:

ITEM NO	PART NO	DESCRIPTION	QTY
23	761-237	Field Assembly 230V	1
24	761-231	Armature	1
25	761-304	Circuit Breaker	1
26	765-050	Motor Starter	1
27	770-309	Power Cord	1

Motor Housing Replacement

WARNING: Before proceeding, follow the Pressure Relief Procedure outlined on page 5. Additionally, follow all other warnings to reduce the risk of an injection injury, injury from moving parts or electric shock. Always unplug the sprayer before servicing!

1. Follow steps 1 through 6 in Armature Replacement.
2. Remove Switch cover plate (#37) and Insulator Plate (#38). See Figure 6.
3. Disconnect black wire from Post (#2) of Motor Starter (#42).
4. Disconnect black wire from Motor to white wire from Power Cord.
5. Remove outer Motor Housing (#9).
6. Loosen set screw (#10) and push Motor Field Assembly (#23) out from the back of the outer Motor Housing (#9).
7. Inspect Motor Field Assembly (#23). If damaged, replace.
8. To install Motor Housing, reverse steps 1 through 6 here and steps 1 through 6 of the Armature Replacement.

UNITEC Motor Complete

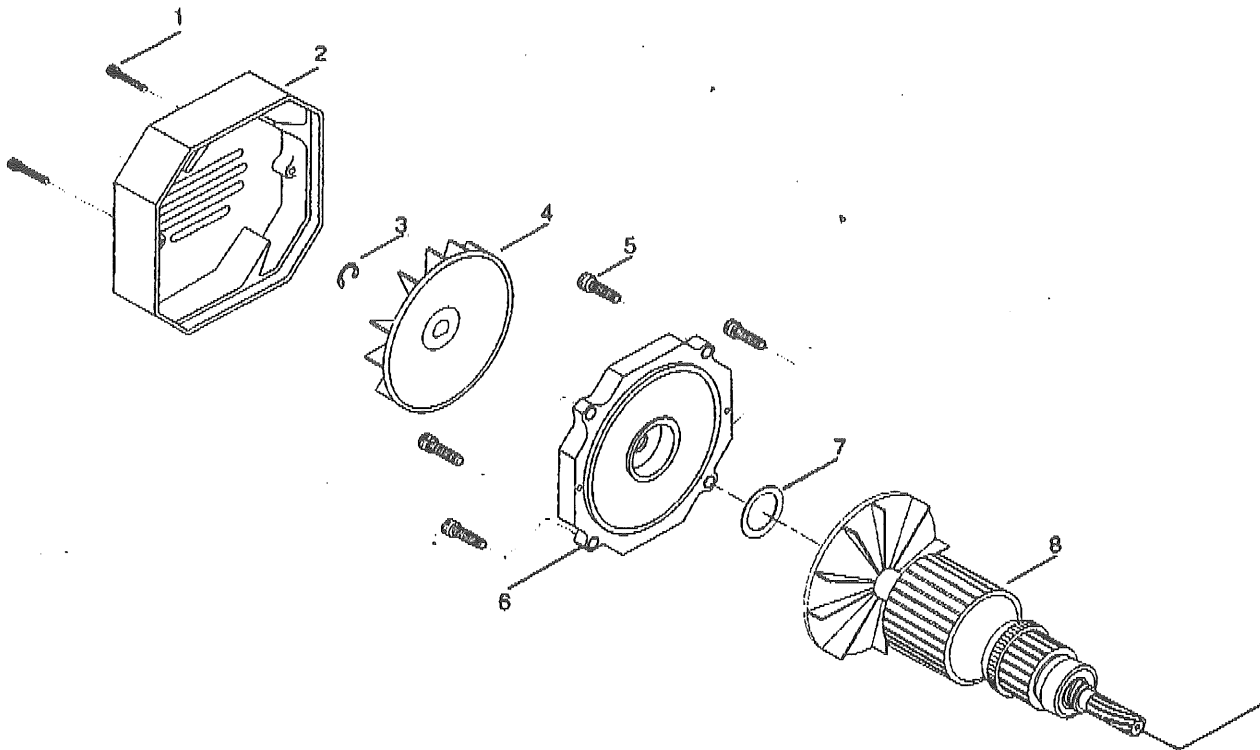


Figure 4

ITEM NO	PART NO	DESCRIPTION	QTY
1	761-023	Screw	2
2	761-027	Rear Cover	1
3	611-405	Snap Ring	1
4	702-040	Outer Fan	1
5	700-681	Screw	4
6	761-028	Rear Motor Housing	1
7	702-047	Wave Washer	1
8	761-302	Armature 120V	1

For 230 Volt Units:

ITEM NO	PART NO	DESCRIPTION	QTY
8	761-231	Armature 230V	1

Armature Replacement

WARNING: Before proceeding, follow the Pressure Relief Procedure outlined on page 5. Additionally, follow all other warnings to reduce the risk of an injection injury, injury from moving parts or electric shock. Always unplug the sprayer before servicing!

1. Remove Rear Cover (#2) by taking out screws (#1).
2. Remove Snap Ring (#3).
3. Remove Fan (#4).
4. Remove Rear Motor Housing (#6) by removing screws (#5). **NOTE:** Make sure to remove Wave Washer (#7) which should be on the End Bearing of the Armature.
5. Remove Motor Brushes. Follow Brush replacement procedure located on page 20.
6. Remove Armature by gently rocking and pulling Fan from rear of pump.
7. Inspect Armature. If damaged, replace.
8. To replace Armature, reverse steps 1 through 6 here.

Filter Block

ITEM NO	PART NO	DESCRIPTION	QTY
201	710-069	Plug	3
202	761-451	Filter Housing	1
203	730-083	Spring	1
204	761-043	Filter Cartridge	1
205	761-247	Filter Core	1
206	761-456	O-Ring	1
207	761-422	Filter Block (Incl. #206)	1
208	730-222	Outlet Cup Assembly	1
209	490-006	Fitting	2
210	710-087	Pressure Release Elbow	1
211	750-039	Pressure Release Tube	1
212	700-701	Nut	1
214	761-757	Bypass Valve Assembly	1
215	761-537	Gasket	1
216	761-722	O-Ring	1
217	761-721	Back-up Ring	1
218	761-755	Bypass Housing	1
219	221-008	O-Ring	1
220	761-763	Stem (Incl. 219)	1
221	761-706	Washer	2
222	761-698	Spring	1
223	761-705	Washer	1
224	761-731	Bypass Valve Retainer	1
225	761-762	Bypass Cam Base	1
226	761-761	Pin	1
227	761-697	Bypass Valve Handle	1
238	730-262	Screw	3
240	761-351	Filter Block Complete (Does not include #241-243, #238)	1
241	700-881	Gasket	1
242	700-499	O-Ring	1
243	761-525	Pressure Switch (Incl. #241,#242)	1

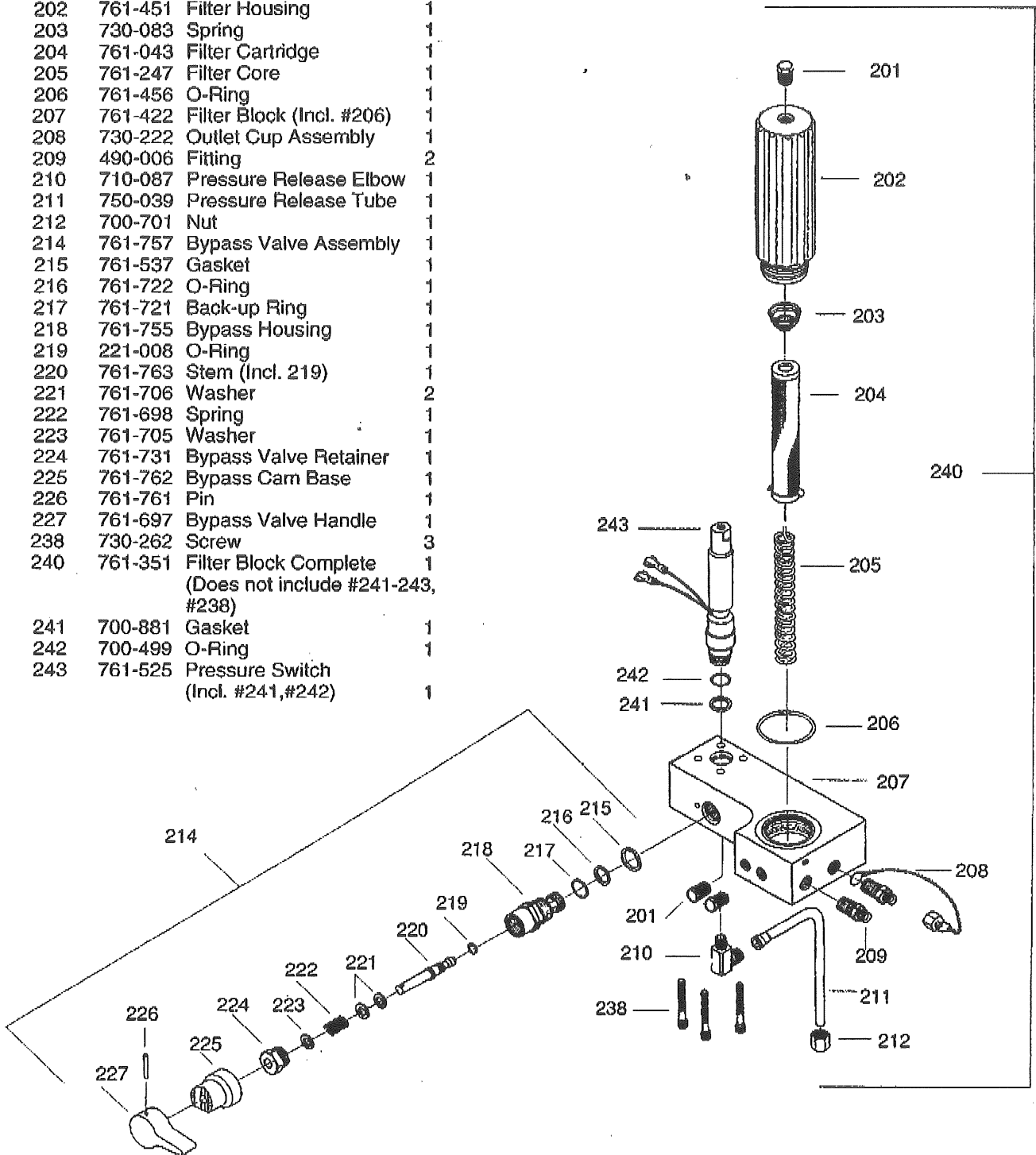


Figure 8

Seat Service and Repair

WARNING: Before proceeding, follow the Pressure Relief Procedure outlined on page 5. Additionally, follow all other warnings to reduce the risk of an injection injury, injury from moving parts or electric shock. Always unplug the sprayer before servicing!

The design of Titan's Elite Fluid Section allows access to the inlet and outlet balls and seat without completely disassembling the Fluid Section. It is possible that the Balls may not seat properly because of debris stuck in the inlet or outlet seat. Follow the instructions below for access to those areas.

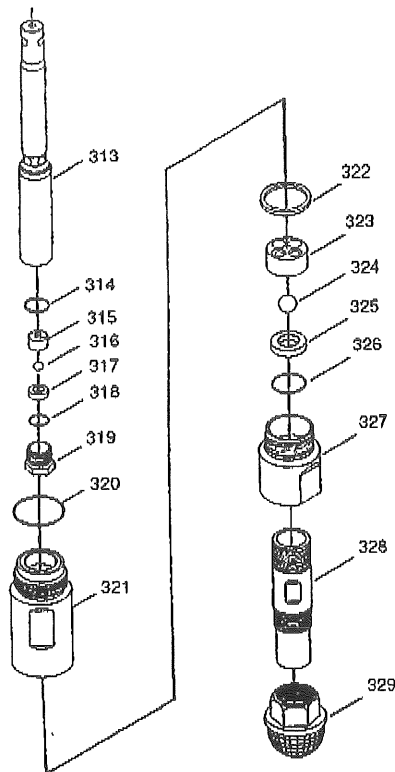


Figure 11

Pump Section Repair and Packing Replacement

WARNING: Before proceeding, follow the Pressure Relief Procedure outlined on page 5. Additionally, follow all other warnings to reduce the risk of an injection injury, injury from moving parts or electric shock. Always unplug the sprayer before servicing!

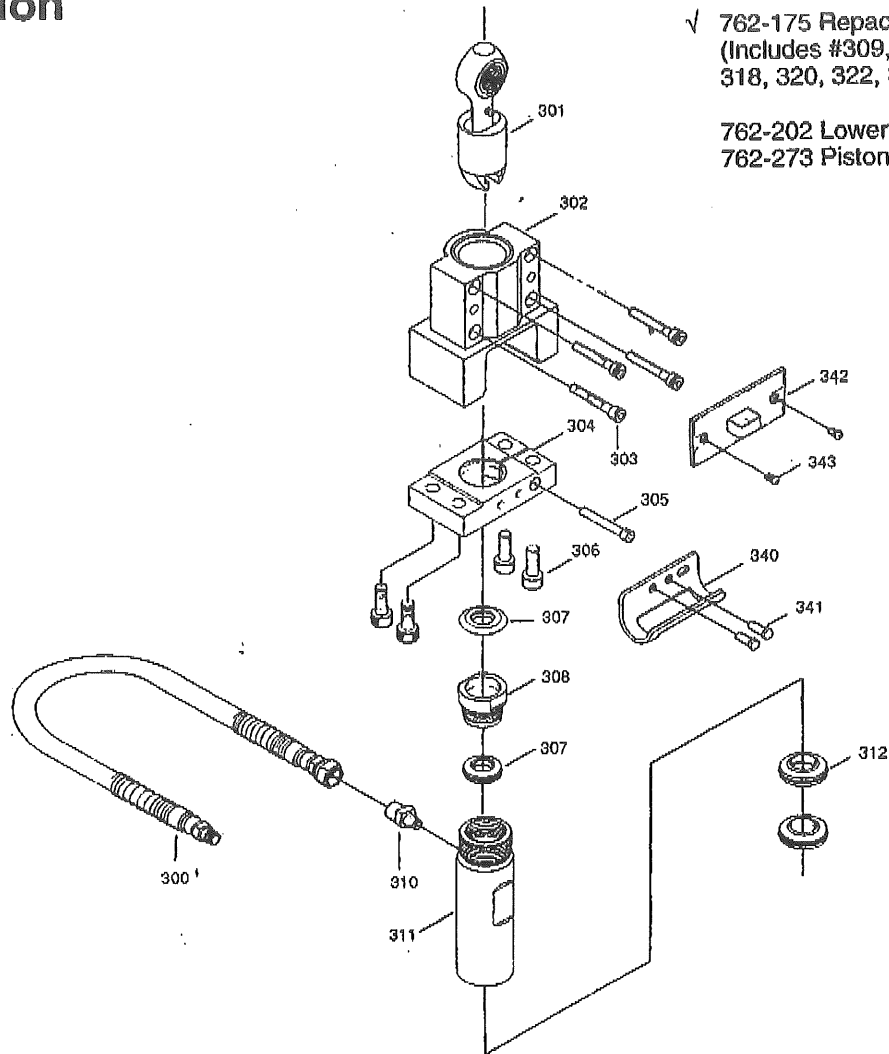
1. Stop Sprayer at the bottom of its stroke and remove Safety Plate #342.
2. Using a 3/8" allen wrench remove four screws (#306).
3. Using a 3/4" wrench loosen the retaining nut on the Pipe Assembly (#300) from Item #310.
4. Place a screwdriver between Item #304 and #302 and lightly pry downward.
5. Pull Fluid Section forward.
6. Place Foot Valve Housing (#327) in a vise and use a wrench on the Lower Housing (#321) to unthread.
7. Remove the Seal (#322) from inside the Lower Housing (#321).
8. Remove the Lower Cage (#323) from the Foot Valve Housing (#327).
9. Remove Ball (#324) and examine.
10. Remove Seat (#325). If damaged use other side or replace.
11. Remove Seal (#326).
12. Place the Lower Housing in a vise and use a wrench on the Upper Housing (#311) to unthread.
13. Remove Seal (#320) from outside of the Lower Housing (#321).

1. Place a wrench on the Foot Valve (#327) and unthread.
2. Clean out all debris. Examine Ball and Seat. If damaged replace. Continue if necessary or reinstall.
3. Place a wrench on the Lower Pump Housing (#321) and unthread.
4. Place a wrench on the Retainer (#319) and unthread.
5. Clean out all debris. Examine Ball and Seat. If damaged replace.
6. Reassemble and test unit. Should unit not perform properly consult the Troubleshooting Guides on pages 14 & 15 of this manual or continue with the Repair and Packing Replacement instructions below.

14. Place the Upper Housing (#311) in a vise and use a wrench on the upper Guide (#308) to unthread.
15. Using a Plastic Mallet Tap the Piston (#313) out of the Bottom of the Upper Housing (#311).
16. Place the Piston (#313) in the slots of the Slider (#301) which is still mounted on the unit. This will hold the Piston in place when removing the Retainer (#319).
NOTE: Never use wrench on the Piston.
17. Remove Seal (#314) from inside of Piston (#313).
18. Remove Upper Cage (#315) from the Retainer (#319).
19. Remove the Upper Ball (#316) and examine.
20. Remove Seat (#317). If damaged use the other side or replace.
21. Remove Seal (#318) from the Retainer (#319).
22. Remove the Upper Packing (#309) from the Upper Housing (#311).
23. Remove both Lower Packings (#312) from inside the Upper Housing (#311). **WARNING: Always insert Packings with the raised side facing into the Upper Housing.**
24. Assemble in reverse order.
Be sure to use all of the replacement parts supplied in the Repacking Kit #762-175.
25. Align Flats on Piston so that it is perpendicular to the Upper Mount (#304).
26. Reattach the four screws (#306) to the Pump Mount (#304).
27. Reattach Retaining Nut on Pipe Assembly (#300) to Connector (#310).

NOTE: Make sure to fill the Upper Guide (#308) one-third (1/3) full with Piston Seal Lubricant.

Fluid Section



√ 762-175 Repacking Kit
(Includes #309, 312, 314, 316,
318, 320, 322, 324, 326)

762-202 Lower Packing Tool
762-273 Piston Guide Tool

Figure 10

ITEM NO	PART NO	DESCRIPTION	QTY	ITEM NO	PART NO	DESCRIPTION	QTY
300	761-213	Hose Assembly	1	320	762-103	√ O-Ring	1
301	762-062	Crank Slide & Connecting Rod	1	321	762-064	Lower Housing (Incl. #130)	1
302	762-108	Slider Housing	1	322	762-076	√ Lower Poly Seal	1
303	761-115	Screw	4	323	762-075	Lower Cage (Incl. #132)	1
304	762-034	Upper Mount	1	324	*762-145	√ Lower Ball	1
305	761-149	Screw	1	325	762-080	Lower Seat (Incl. #136)	1
306	761-148	Screw	4	326	762-058	√ O-Ring	1
307	762-162	Splash Guard	1	327	762-123	Foot Valve Housing	1
308	762-077	Upper Guide	1	328	761-153	Down Tube	1
309	762-136	√ Upper Seal	1	329	710-046	Inlet Screen	1
310	490-006	Connector	1	340	761-033	Pail Hook	1
311	762-118	Upper Housing	1	341	710-033	Screw	2
312	762-138	√ Lower Seal	2	342	762-171	Safety Plate	1
√ 313	762-117	Piston Rod	1	343	730-260	Screw	2
314	762-111	√ Upper Poly Seal	1				
315	762-078	Upper Cage (Incl. #124)	1				
316	*762-144	√ Upper Ball	1				
317	762-079	Upper Seat (Incl. #128)	1				
318	762-057	√ O-Ring	1				
319	762-073	Retainer	1				

*Recommended Tool Box Parts

762-204 Fluid Section Complete
(Does not include #300, 301, 302, 303,
306, 328-343)