

BREUER/TORNADO[®] CORP.

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 **TORNADO[®]**

**MaxVac
COMMERCIAL
VACUUM CLEANER**



ILLUSTRATED PARTS

**L2118E FOR COMMERCIAL USE ONLY
B/T 10/99**

NOTES

This illustrated parts book covers:

| | |
|--------------------|---------------|
| CATALOG NO. | 98880* |
| SERIES | B |
| VOLTAGE | 115V |

All specifications are subject to change without notice.

*  Listed

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WARRANTY

Your Tornado[®] Machine has been thoroughly tested and inspected and is warranted to be free of defects in material and workmanship. Refer below for base warranty. This warranty does not cover normal wear items such as power cords, wheels and switches. Other items may apply or not apply based on your specific Tornado[®] machine. If such defects occur, this warranty is voided if service is attempted by non-Authorized Tornado[®] Service Depots.

The Tank Vacs, Electric are warranted as follows:

- 1 year on motor and powerheads
- 1 year on all other components
- 1 year on labor

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precautions should always be followed, including the following:

READ ALL INSTRUCTIONS BEFORE USING THIS APPLIANCE

WARNING To reduce the risk of fire, electric shock or injury:

Connect to a properly grounded outlet only. See grounding instructions.

Do not leave appliance when plugged in. Unplug from outlet when not in use and before servicing. Always turn off appliance before connecting or disconnecting motorized nozzle.

To avoid electric shock, do not expose to rain-store indoors.

Do not allow to be used as a toy. Close attention is necessary when used by or near children.

Use only as described in this manual. Use only manufacturer's recommended attachments.

Do not use with damaged cord or plug. If appliance is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to a service center.

Do not pull or carry by cord, use cord as a handle, close a door on cord, or pull cord around sharp edges or corners. Do not run appliance over cord. Keep cord away from heated surfaces.

Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.

Do not put any object into openings. Do not use with any opening blocked; keep free of dust, lint, hair, and anything that may reduce air flow.

Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.

Do not pick up anything that is burning or smoking, such as cigarettes, matches, or hot ashes

Do not use without dustbag and/or filters in place.

Turn off all controls before unplugging.

Use extra care when cleaning on stairs.

Do not use to pick up flammable or combustible liquids such as gasoline or use in areas where they may be present.

Before operating your TORNADO® Equipment make sure the voltage and current used are the same as indicated on the nameplate.

When unit is not in use-coil motor cord and place on unit.

SAVE THE INSTRUCTIONS

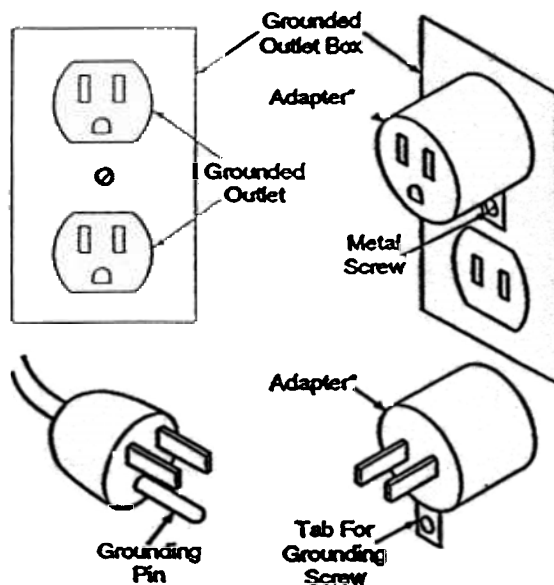
GROUNDING METHODS

GROUNDING INSTRUCTIONS

This appliance must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

WARNING: Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance; if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

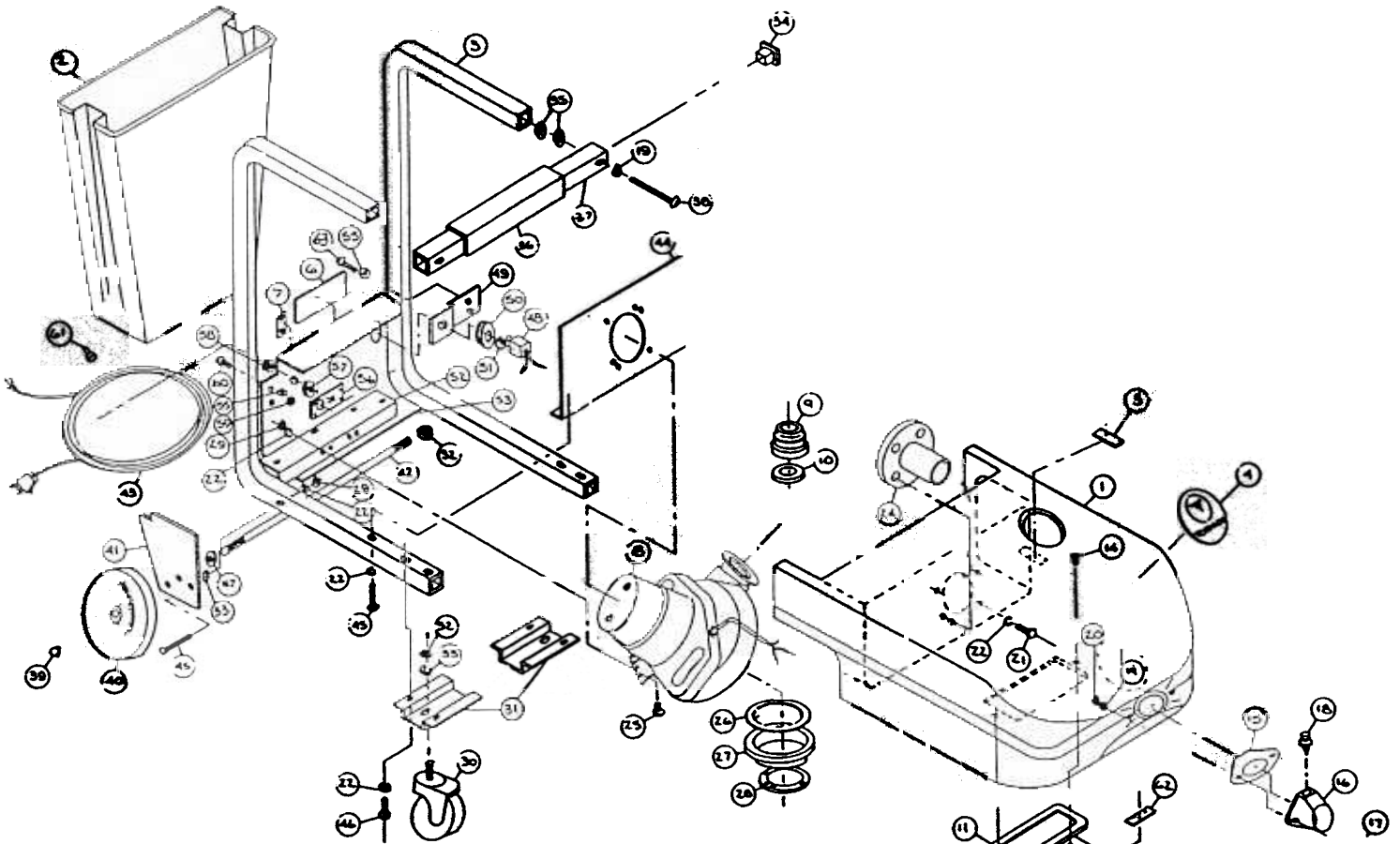
This appliance is for use on a nominal 120-volt circuit, and has grounding plug that looks like the plug illustrated in sketch A. A temporary adapter that looks like the adapter illustrated in sketches B and C may be used to connect this plug to a 2-pole receptacle as shown in sketch B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet (sketch A) can be installed by a qualified electrician. The green-colored rigid ear, lug, or the like, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adapter is used, it must be held in place by a metal screw.



EXTENSION CORDS

Use only three-wire extension cords which have three-prong grounding-type plug caps and three-pole receptacles that accept the appliance's plug. Extension cords should be the equivalent or a size heavier than the input cord. Replace or repair damaged cords.

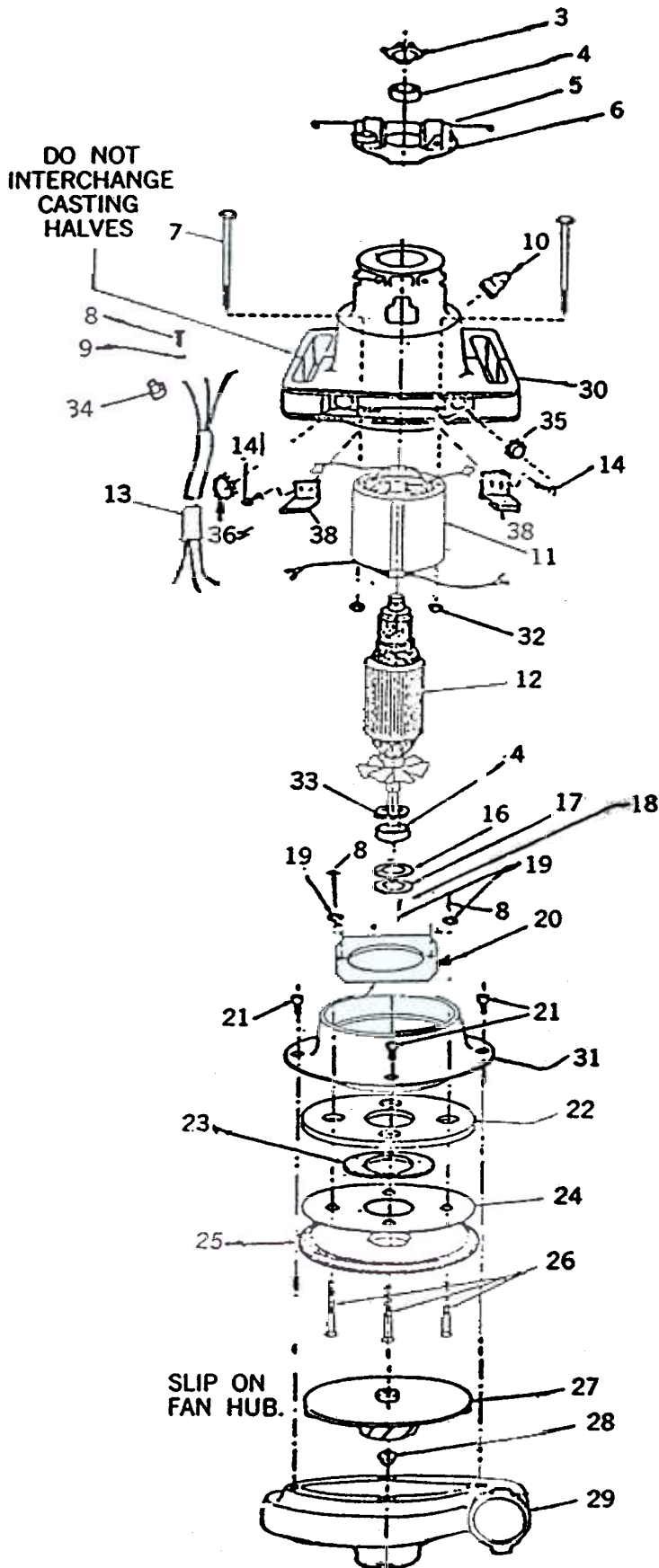
***NOTE:** IN CANADA, THE USE OF A TEMPORARY ADAPTOR IS NOT PERMITTED



**MAXVAC PARTS LIST
"B" SERIES**

| INDEX NO. | NAME | PART NO. | QTY. REQ'D. | INDEX NO. | NAME | PART NO. | QTY. REQ'D. |
|-----------|-------------------------|----------|-------------|-----------|-----------------------|----------|-------------|
| 1. | Tank Scrap Container | 15372 | 1 | 33. | Lockwasher | 3536 | 4 |
| 2. | Tool Basket | 14382 | 1 | 34. | Square Insert | 14215 | 2 |
| 3. | Handle Half | 14373 | 2 | 35. | Helix Washer | 14216 | 4 |
| 4. | Nameplate | 7648 | 1 | 36. | Handle Sleeve | 14262 | |
| 5. | Warning Label | 16237 | 1 | 37. | Crossbar Handle | 14390 | 1 |
| 6. | Warning Label | 13821 | 1 | 38. | Screw | 1979 | 2 |
| 7. | On-Off Label | 14387 | 1 | 39. | Acorn Lock Nut | 14278 | 2 |
| 8. | Motor S/A | | 1 | 40. | Wheel — 6" | 14288 | 2 |
| 9. | Exhaust Extension Assy. | 14063 | 1 | 41. | Axle Plate | 14779 | 2 |
| 10. | Gasket | 5781 | 1 | 42. | Wheel Shaft | 14279 | 1 |
| 11. | Gasket | 14079 | 1 | 43. | Cable (115V) | 14126 | |
| 12. | Cover Plate | 15370 | 1 | 44. | Adapter Plate S/A | 14261 | |
| 13. | Screw | 14311 | 2 | 45. | Screw | 1978 | 8 |
| 14. | Nut, Self Lock | 12787 | 2 | 46. | Screw | 4986 | 4 |
| 15. | Gasket | 2915 | 1 | 47. | Washer | 3321 | 2 |
| 16. | Tank Intake | 2914 | 1 | 48. | Switch | 14282 | 1 |
| 17. | Screw | 14046 | 2 | 49. | Switch Bracket | 14375 | 1 |
| 18. | Intake Lock S/A | 8080 | 1 | 50. | Switch Grommet | 14379 | 1 |
| 19. | Washer | 851 | 4 | 51. | Hex Nut | 940 | 1 |
| 20. | Nut | 7533 | 2 | 52. | Mounting Plate | 14376 | 1 |
| 21. | Screw | 14668 | 6 | • | Wire Tie | 14560 | 2 |
| 22. | Lockwasher | 1574 | 22 | 53. | Rear Cover | 14374 | 1 |
| 24. | Deflector-Intake | 16972 | 1 | 54. | Screw | 3261 | 7 |
| 25. | Screw | 86 | 4 | 55. | #10 Int. Lockwasher | 11007 | 12 |
| 26. | Gasket | 8004 | 1 | 56. | Strain Relief Bracket | 14378 | 1 |
| 27. | Adapter | 14066 | 1 | 57. | Strain Relief | 11252 | |
| 28. | Gasket | 11386 | 1 | 58. | Grommet | 4276 | 1 |
| 29. | Nut | 1497 | 6 | 59. | Lock-Nut | 10894 | 2 |
| 30. | Caster | 10669 | 2 | 60. | Screw | 3660 | 2 |
| 31. | Caster Bracket | 15369 | 2 | 61. | Connectors | 6824 | 3 |
| 32. | Nut | 2581 | 4 | 62. | Cover Plate Label | 16300 | 1 |
| • | Lockwasher | 6387 | 1 | • | Filter Assy. | 90528 | 1 |
| | | | | • | Name Plate ON/OFF | 8517 | 1 |
| | | | | 63. | Screw | 4651 | 4 |

* Not Illustrated



| INDEX NO. | NAME | PART NO. | QTY. REQ'D. |
|-----------|-----------------------|----------|-------------|
| 3. | Finger Spring | 7858 | 1 |
| 4. | Bearing | 11236 | 2 |
| 5. | Carbon Brush | 11486 | 2 |
| 6. | Brush Card S/A | 14682 | 1 |
| 7. | Screw | 11275 | 2 |
| 8. | Screw | 7534 | 3 |
| 9. | Lockwasher | 1713 | 1 |
| 10. | Strain Relief Bushing | 11252 | 1 |
| 11. | Field | 11271 | 1 |
| 12. | Armature | 11270 | 1 |
| 13. | Cable | 14077 | 1 |
| 14. | Screw | 86 | 4 |
| 16. | Washer-Split | 12603 | 1 |
| 17. | Felt Washer | 12602 | 1 |
| 18. | Spacer | 12601 | 1 |
| 19. | Nut | 7533 | 8 |
| 20. | Cooling Fan Baffle | 11268 | 1 |
| 21. | Cap Screw | 11240 | 4 |
| 22. | Fiber Glass Pad | 11269 | 1 |
| 23. | Gasket | 11555 | 1 |
| 24. | Fan Chamber Plate | 11274 | 1 |
| 25. | Gasket | 11562 | 1 |
| 26. | Screw | 11276 | 4 |
| 27. | Fan | 12809 | 1 |
| 28. | Fan Spinner | 11242 | 1 |
| 29. | Fan Chamber S/A | 14365 | 1 |
| 30. | Motor Housing S/A | 14061 | 1 |
| 31. | Cover Plate | 14140 | 1 |
| 32. | Locknut | 10892 | 2 |
| 33. | Ring | 14322 | 1 |
| 34. | Connector | 6824 | 2 |
| 35. | Hole Plug, Large | 14624 | 1 |
| 36. | Plug Button | 4054 | 1 |
| 38. | Motor Hsg. Bracket | 14681 | 2 |

CONNECTING HOSE TO INTAKE

Lift locking pin in Skrap-Trap intake, insert swivel as far as possible and release locking pin. When properly connected, sleeve will swivel freely.

DRY PICK-UP OPERATION

The Tornado Max Vac is designed to be used for dry surface vacuuming on carpeting, tile, wood, concrete, walls, ceilings, furnishings or ventilation systems. Ideally designed to clean schools, department stores, office buildings, hotels-motels, restaurants, bowling alleys, theaters, churches and public buildings.

MAINTENANCE OF EXTERNAL FILTER

Disconnect machine cable from wall outlet. The filter bag is the primary recovery source. After each use remove filter bag by twisting bag collar in a counterclockwise direction and by disconnecting the two bag straps. Remove upper bag clamp and shake debris into a trash container. For maximum cleaning efficiency, turn filter bag inside out and remove all dust and dirt by brushing both the filter and built-in cloth silencer. Be sure filter clamp is properly positioned over filter opening for proper seal before attaching to your Max Vac.

MAINTENANCE OF SKRAP-TRAP

Disconnect machine cable from wall outlet. The Skrap-Trap is designed to entrap objects such as pins, staples, chips, clips and heavier debris so they do not pass through the fan into the filter. Therefore, after each use tilt the machine forward and empty debris through the vacuum intake. Periodically clean out the Skrap-Trap located on the underside by backing out the two screws just enough so the Skrap-Trap door becomes free and slide it out to expose opening. Remove any entrapped objects.

MAINTENANCE OF MOTOR UNIT

Damage to an armature invariably is caused by permitting carbon brushes to become worn to less than 1/4 inch in length. To prevent this occurrence, inspect brushes after 200 hours operation and frequently thereafter replacing when necessary. Failure to do so will nullify out warranty. To inspect carbon brushes, unplug machine cable from wall outlet. Remove rear cover by removing (6) screws and release brush springs, pull brushes out and check. No other maintenance of motor should be attempted during first year after purchase. (See Warranty) Servicing should be performed by an authorized service representative.

LOSS OF SUCTION

Loss of suction may occur for one of the following reasons:

- 1.) Debris becoming wedged in floor tool, handle, hose or intake.
- 2.) Filter not properly emptied and maintained.
- 3.) Skrap-Trap not cleaned out after each use.

ATTACHMENTS

Recommend all 1-1/2" attachments for both floor and overhead cleaning.