

MAINTENANCE and SERVICE

Maintenance and Lubrication Schedule

Normal vehicle maintenance must be performed as outlined in the Toyota-supplied owner's manual. This maintenance is not the responsibility of The Braun Corporation. Refer to the Warranty section of this manual for details regarding The Braun Corporation Rampvan® Warranty.

The maintenance and lubrication procedures outlined in this schedule must be performed at the recommended scheduled intervals by a Braun authorized service representative.

Infloor Ramp: Keeping the infloor ramp and ramp cassette area clean is the most effective preventive maintenance practice to exercise. Dirt, mud, snow, ice and other foreign objects entering the cassette could result in potential ramp problems.

Clean specified components and the surrounding area **before applying lubricants**. When replacing lubricated components, be sure to lubricate during installation procedures.

A "dri-film" style of light oil should be applied where *Light Oil is called out (goes on wet and then dries). Lubricants of this type are available that do not attract dust and other debris. Use of improper lubricants can attract dirt or other contaminants which could result in wear or damage to components. Avoid lubricants that can leave stains.

Some lubricants referenced in the schedule are available from The Braun Corporation (part numbers provided where specified).

All listed inspection, lubrication and maintenance procedures should be repeated at "3 month" intervals following the scheduled "6 month" maintenance. These intervals are a general guideline and will vary according to frequency of use and conditions. Exposure to severe conditions (weather, environment, contamination, heavy usage, etc.) may require inspection and maintenance procedures to be performed more often than specified.

WARNING

Maintenance and lubrication procedures must be performed as specified by an authorized service technician. Failure to do so may result in serious bodily injury and/or property damage.

Discontinue Rampvan® use immediately if maintenance and lubrication procedures are not properly performed, or if there is any sign of wear, damage, improper operation or any abnormal condition. Contact your sales representative or call The Braun Corporation at 1-800-THE LIFT®. One of our national Product Support representatives will direct you to an authorized service technician who will inspect your Rampvan®.

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3 Months	<p>Foldout Ramp: Foldout ramps vary in design. Disregard references to components not present.</p>	
	Outboard ramp extension hinge and fasteners	Clean and lubricate with *Light Oil. Resecure or replace fasteners as needed
	Inspect ramp inboard pivot points (bolts/screws and bushings/bearings) for positive securement, wear or damage	Clean and lubricate with *Light Oil. Tighten, replace or correct as needed
	Inspect ramp fold pickup bearing for positive securement, alignment, wear or other damage	Replace or correct as needed. If bearing retaining screw is not secure or is removed for service, apply Blue #242 Thread Locker Loctite to retaining screw and tighten.
	Inspect ramp fold arm for positive securement, alignment, wear or other damage	Tighten, replace or correct as needed
	Inspect ramp fold arm bearing slot for excessive wear or damage	Replace if needed
	Inspect ramp extension chain for proper alignment, securement or other defects	Realign, resecure, replace or otherwise correct as needed
	Inspect ramp floor mounting hardware for securement (loose or missing)	Resecure, replace or correct as needed
	<p>Infloor Ramp</p>	
	Inspect infloor ramp platform and cassette for alignment, obstructions, cleanliness, wear or other damage	Realign, remove obstruction, clean, replace or otherwise correct as needed. Use air compressor to blow out debris.
	Inspect drive belt idler pulley for securement (loose pulley will cause drive system to slip)	Resecure, replace or adjust as needed
	<p>General Items</p>	
	Lower power slide door track	Inspect for obstructions and clean (vacuum or blow out debris using compressor)
Wheelchair and occupant restraint belts and tie down track	Inspect for any defects such as cuts, fraying or any malfunction of belt, buckle or securement hardware. Clean dirt and debris from tie down track. Replace immediately if damaged.	
Inspect removable seat bases for proper engagement of latching mechanisms	Replace or correct as needed	

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6 Months	Perform all procedures listed in previous section also	
	<p>Power Fold Ramps:</p> <ul style="list-style-type: none"> • Ramp flap (extension) chain 	Lubricate with Anti-Seize (14 oz. caulk tube available per Braun part no. 24710)
	<p>Remove ramp housing cover/rear vertical panel and inspect:</p> <ul style="list-style-type: none"> • Top mount bracket bolts for securement (loose or missing) • Motor mounting bolts for securement (loose or missing) • Ramp fold arm securement (collar and mounting screws) • Microswitches securement and adjustment • Microswitch wires and terminals for securement or damage • Magnetic switch (applicable for 2007 only) 	<p>Resecure, adjust microswitches, replace damaged parts or otherwise correct as needed. Note: See Pre-2007 Foldout Ramp and 2007 Foldout Ramp Exploded views on pages 31B, 32B, 35A and 36A.</p>
	<p>Power Infloor Ramps: Deploy ramp platform from cassette and inspect:</p> <ul style="list-style-type: none"> • Drive belt adjustment (slippage) and idler pulley for securement and alignment • Motor mounting bolts for securement (loose or missing) • Microswitches securement and adjustment • Microswitch wires and terminals for securement or damage 	<p>Resecure, adjust, align, replace damaged parts or otherwise correct as needed. Note: See Infloor Ramp Exploded View on pages 31A and 32A.</p>
	<p>Linear Bearing Blocks</p>	<p>Lubricate with light penetrating oil. Remove floor transition flap trim to access. Insert oil in top of blocks using a flex nozzle.</p>
	<p>Manual Fold Ramps:</p> <ul style="list-style-type: none"> • Ramp flap (extension) chain 	Lubricate with Anti-Seize (14 oz. caulk tube available per Braun part no. 24710)
<p>Remove ramp housing cover/rear vertical panel and inspect:</p> <ul style="list-style-type: none"> • Top mount bracket bolts for securement (loose or missing) • Spring housing mounting bolts for securement (loose or missing) • Ramp fold arm securement (collar and mounting screws) 	<p>Resecure, replace damaged parts or otherwise correct as needed.</p>	
<p>Inspect power source: OEM battery, 50 amperes fuse, OEM engine compartment fuse block and driver side under dash-mounted fuse block.</p>	<p>Resecure, repair or replace</p>	
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<p>6 Months</p>	<p>Continued from previous page</p> <p>Inspect kneel actuator assembly for:</p> <ul style="list-style-type: none"> • Actuator mounting pin securement (micro-switch activation block) • Inspect chain for misalignment, wear or damage • Inspect chain master-links for securement • Inspect chain idler (pulley) for securement, wear, damage or misalignment • Inspect electrical harnesses for positive connections, proper routing, wear or other damage • Kneel microswitches <p>Kneel electrical override</p> <p>Kneel assembly chain</p>	<p>Realign, resecure, replace damaged parts or otherwise correct as needed. Note: See Kneel Actuator Assembly exploded view on page 37.</p> <p>Check to make sure switches are not worn, broken, loose or out of adjustment.</p> <p>Check operation</p> <p>Lubricate with Anti-Seize (14 oz. caulk tube available per Braun part no. 24710)</p>
<p>Consecutive 3 Month Intervals</p>	<p>Repeat all previously listed inspection, lubrication and maintenance procedures at 3 month intervals.</p>	