



Electronic Service Manuals

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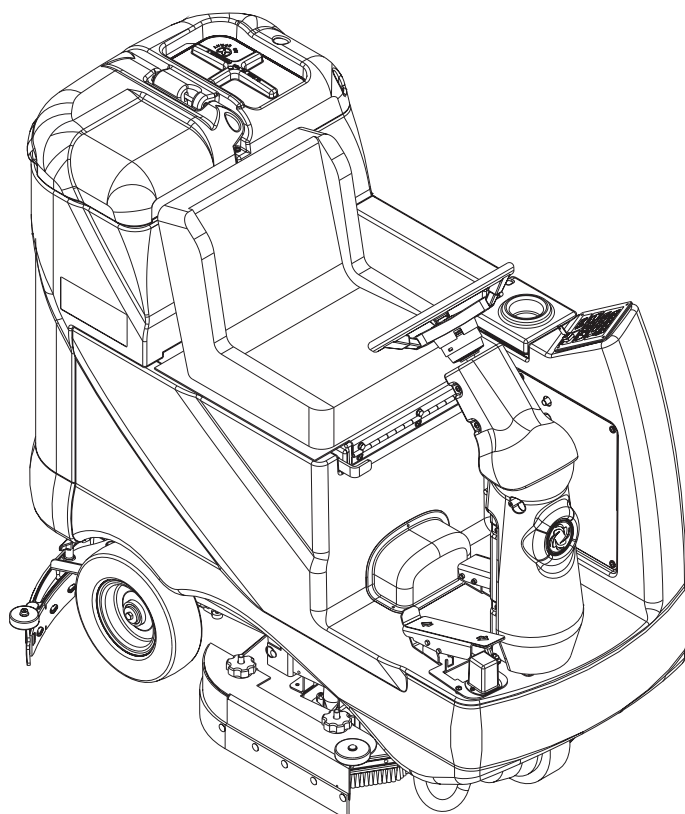
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Serving the Cleaning Industry Since 1922

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Advenger™

BR 600S, 650S, 700S, 800S



Instructions For Use

Advance MODELS 56314000, 56314001, 56314002, 56314003,
56314004, 56314005, 56314006, 56314007
Nilfisk MODELS 56314010, 56314011, 56314012, 56314013,
56314014, 56314015, 56314016, 56314017



**Nilfisk
Advance**
setting standards

English

3/04 Form Number 56041554



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INTRODUCTION

This manual will help you get the most from your Nilfisk-Advance Rider Scrubber. Read it thoroughly before operating the machine.

Note: Bold numbers in parentheses indicate an item illustrated on pages 6-7.

This product is intended for commercial use only.

PARTS AND SERVICE

Repairs, when required, should be performed by your Authorized Nilfisk-Advance Service Center, who employs factory trained service personnel, and maintains an inventory of Nilfisk-Advance original replacement parts and accessories.

Call the NILFISK-ADVANCE DEALER named below for repair parts or service. Please specify the Model and Serial Number when discussing your machine.

(Dealer, affix service sticker here.)

NAME PLATE

The Model Number and Serial Number of your machine are shown on the Nameplate on the machine. This information is needed when ordering repair parts for the machine. Use the space below to note the Model Number and Serial Number of your machine for future reference.

MODEL NUMBER _____

SERIAL NUMBER _____

UNCRATE THE MACHINE

When the machine is delivered, carefully inspect the shipping carton and the machine for damage. If damage is evident, save the shipping carton so that it can be inspected. Contact the Nilfisk-Advance Customer Service Department immediately to file a freight damage claim.

After removing the carton, cut the plastic straps and remove the wooden blocks next to the wheels. Use a ramp to roll the machine from the pallet to the floor.

CAUTIONS AND WARNINGS

SYMBOLS

Nilfisk-Advance uses the symbols below to signal potentially dangerous conditions. Always read this information carefully and take the necessary steps to protect personnel and property.

DANGER!

Is used to warn of immediate hazards that will cause severe personal injury or death.

WARNING!

Is used to call attention to a situation that could cause severe personal injury.

CAUTION!

Is used to call attention to a situation that could cause minor personal injury or damage to the machine or other property.

GENERAL SAFETY INSTRUCTIONS

Specific Cautions and Warnings are included to warn you of potential danger of machine damage or bodily harm.

WARNING!

- * This machine shall be used only by properly trained and authorized persons.
- * While on ramps or inclines, avoid sudden stops when loaded. Avoid abrupt sharp turns. Use low speed down hills. Clean only while ascending (driving up) the ramp.
- * Keep sparks, flame and smoking materials away from batteries. Explosive gases are vented during normal operation.
- * Charging the batteries produces highly explosive hydrogen gas. Charge batteries only in well-ventilated areas, away from open flame. Do not smoke while charging the batteries.
- * Remove all jewelry when working near electrical components.
- * Turn the key switch off (O) and disconnect the batteries before servicing electrical components.
- * Never work under a machine without safety blocks or stands to support the machine.
- * Do not dispense flammable cleaning agents, operate the machine on or near these agents, or operate in areas where flammable liquids exist.
- * Do not clean this machine with a pressure washer.
- * Only use the brushes provided with the appliance or those specified in the instruction manual. The use of other brushes may impair safety.

CAUTION!

- * This machine is not approved for use on public paths or roads.
- * This machine is not suitable for picking up hazardous dust.
- * Do not use scarifier discs and grinding stones. Nilfisk-Advance will not be held responsible for any damage to floor surfaces caused by scarifiers or grinding stones (can also cause damage to the brush drive system).
- * When operating this machine, ensure that third parties, particularly children, are not endangered.
- * Before performing any service function, carefully read all instructions pertaining to that function.
- * Do not leave the machine unattended without first turning the key switch off (O), removing the key and applying the parking brake.
- * Turn the key switch off (O) and remove the key, before changing the brushes, and before opening any access panels.
- * Take precautions to prevent hair, jewelry, or loose clothing from becoming caught in moving parts.
- * Use caution when moving this machine in below freezing temperature conditions. Any water in the solution or recovery tanks or in the hose lines could freeze, causing damage to valves and fittings. Flush with windshield washer fluid.
- * The batteries must be removed from the machine before the machine is scrapped. The disposal of the batteries should be safely done in accordance with your local environmental regulations.
- * Do not use on surfaces having a gradient exceeding that marked on the machine.
- * All doors and covers are to be positioned as indicated in the instruction manual before using the machine.

SAVE THESE INSTRUCTIONS

CONSIGNES DE PRUDENCE ET DE SÉCURITÉ

SYMBOLES

Les symboles reproduits ci-dessous sont utilisés pour attirer l'attention de l'opérateur sur des situations dangereuses. Il est donc conseillé de lire attentivement ces indications et de prendre les mesures adéquates en vue de protéger le personnel et le matériel.



DANGER!

Ce symbole est utilisé pour mettre l'opérateur en garde contre les risques immédiats pouvant provoquer des dommages corporels graves, voire entraîner la mort.



ATTENTION!

Ce symbole est utilisé pour attirer l'attention sur une situation susceptible d'entraîner des dommages corporels graves.



PRUDENCE!

Ce symbole est utilisé pour attirer l'attention de l'opérateur sur une situation qui pourrait entraîner des dommages corporels minimes, ou des dommages à la machine ou à d'autres équipements.

CONSIGNES GENERALES DE SECURITE

Les consignes spécifiques de prudence et de sécurité mentionnées ici ont pour but de vous informer de la survenance de tout risque de dommages matériels ou corporels.



ATTENTION!

- * Cette machine ne pourra être utilisée que par du personnel parfaitement entraîné et dûment autorisé.
- * Evitez les arrêts subits lorsque la machine est chargée et se trouve sur des rampes ou des plans inclinés. Evitez les virages serrés. Adoptez une vitesse réduite lorsque la machine est en descente. Ne nettoyez que lorsque la machine monte la pente.
- * Eloignez les batteries de toutes flammes, étincelles ou substance fumigène. Les gaz explosifs sont ventilés pendant le fonctionnement normal.
- * De plus, du gaz hydrogène explosif s'échappe des batteries lorsqu'elles sont en charge. Ne procédez au chargement des batteries que dans une zone bien ventilée, loin de toute flamme. Ne fumez pas à proximité des batteries lorsqu'elles sont en charge.
- * Otez tous vos bijoux lorsque vous travaillez à proximité de composants électriques.
- * Positionnez la clé de contact sur off (O) et déconnectez les batteries avant de procéder à l'entretien des composants électriques.
- * Ne travaillez jamais sous une machine sans y avoir placé, au préalable, des blocs de sécurité ou des étais destinés à soutenir la machine
- * Ne déversez pas d'agents nettoyants inflammables, ne faites pas fonctionner la machine à proximité de ces agents ou d'autres liquides inflammables.
- * Ne nettoyez pas cette machine avec un nettoyeur à pression.
- * Utilisez uniquement les brosses fournies avec l'appareil ou celles spécifiées dans le manuel d'instructions. L'utilisation d'autres brosses peut mettre la sécurité en péril.



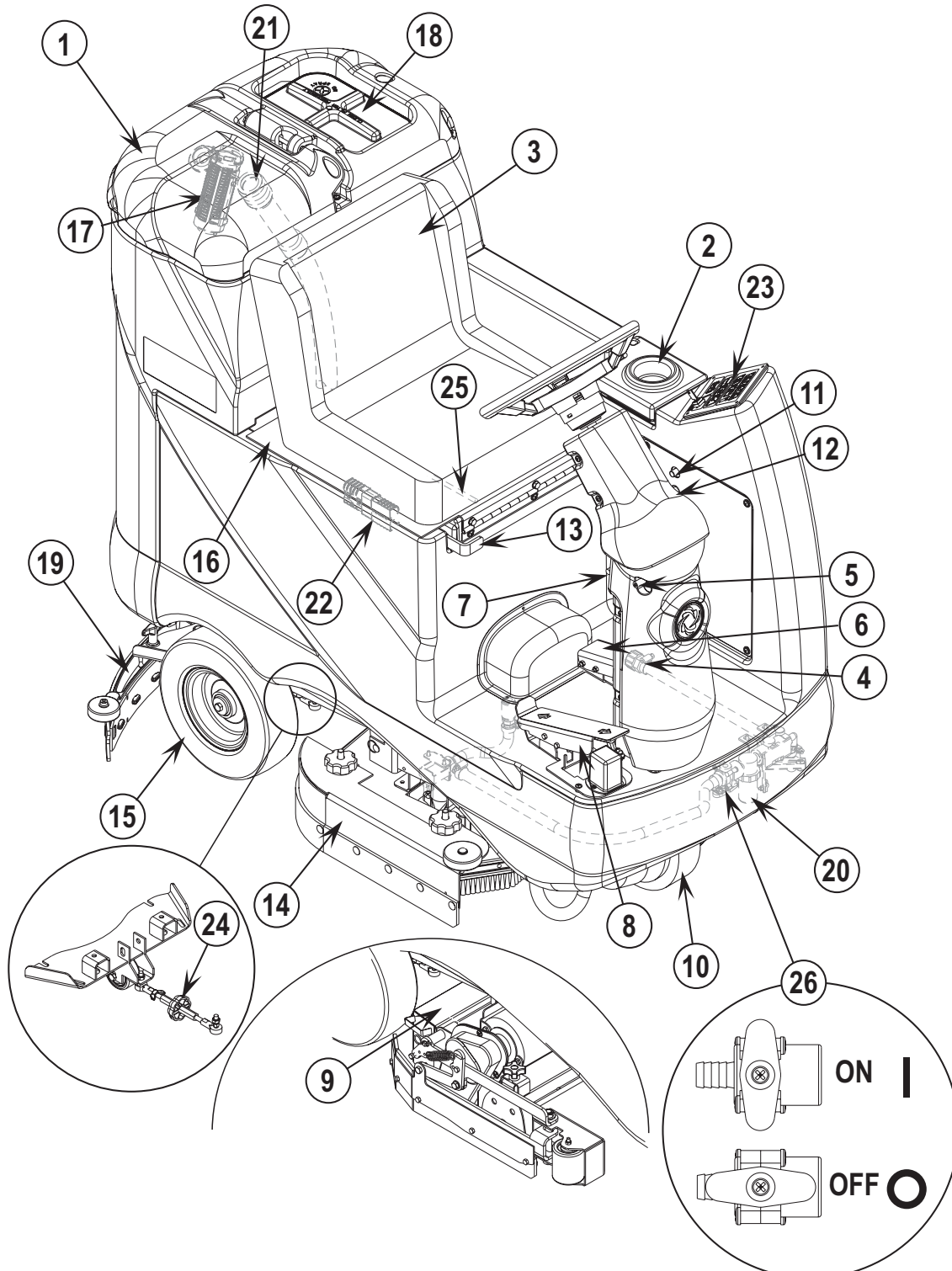
PRUDENCE!

- * Cette machine n'est pas conçue pour une utilisation sur les chemins ou voies publics.
- * Cette machine n'est pas conçue pour le ramassage des poussières dangereuses.
- * N'utilisez pas de disques de scarificateur ni de meules. Nilfisk-Advance ne pourra en aucun cas être tenue pour responsable des dommages occasionnés à vos sols par ce type d'équipement (vous risquez également d'endommager le système d'entraînement des brosses).
- * Lors de l'utilisation de cette machine, assurez-vous que des tiers, et notamment des enfants, ne courent pas le moindre risque.
- * Avant de procéder à toute opération d'entretien, veuillez lire attentivement toutes les instructions qui s'y rapportent.
- * Ne laissez pas la machine sans surveillance sans avoir, au préalable, coupé le contact, enlevé la clé de contact (O) et tiré le frein à main.
- * Positionnez la clé de contact sur off (O) avant de remplacer les brosses ou d'ouvrir tout panneau d'accès.
- * Prenez toutes les mesures nécessaires pour éviter que les cheveux, les bijoux ou les vêtements amples ne soient entraînés dans les parties mobiles de la machine.
- * Faites attention lorsque vous déplacez cette machine dans un endroit où la température peut descendre sous 0°. Car l'eau contenue dans les réservoirs de solution ou de récupération ou dans les conduites risquerait de geler et par là même d'endommager les valves et raccords de la machine. Rincez avec un liquide de lave-glace.
- * Prenez soin d'enlever les batteries de la machine avant de mettre cette dernière au rebut. Pour ce qui est de l'élimination des batteries, conformez-vous aux réglementations locales en matière d'environnement.
- * N'utilisez pas sur des surfaces dont la pente dépasse celle mentionnée sur la machine.
- * Toutes les portes et couvercles doivent être dans la position mentionnée dans le manuel d'instruction avant de mettre la machine en service.

CONSERVEZ SOIGNEUSEMENT CES INSTRUCTIONS

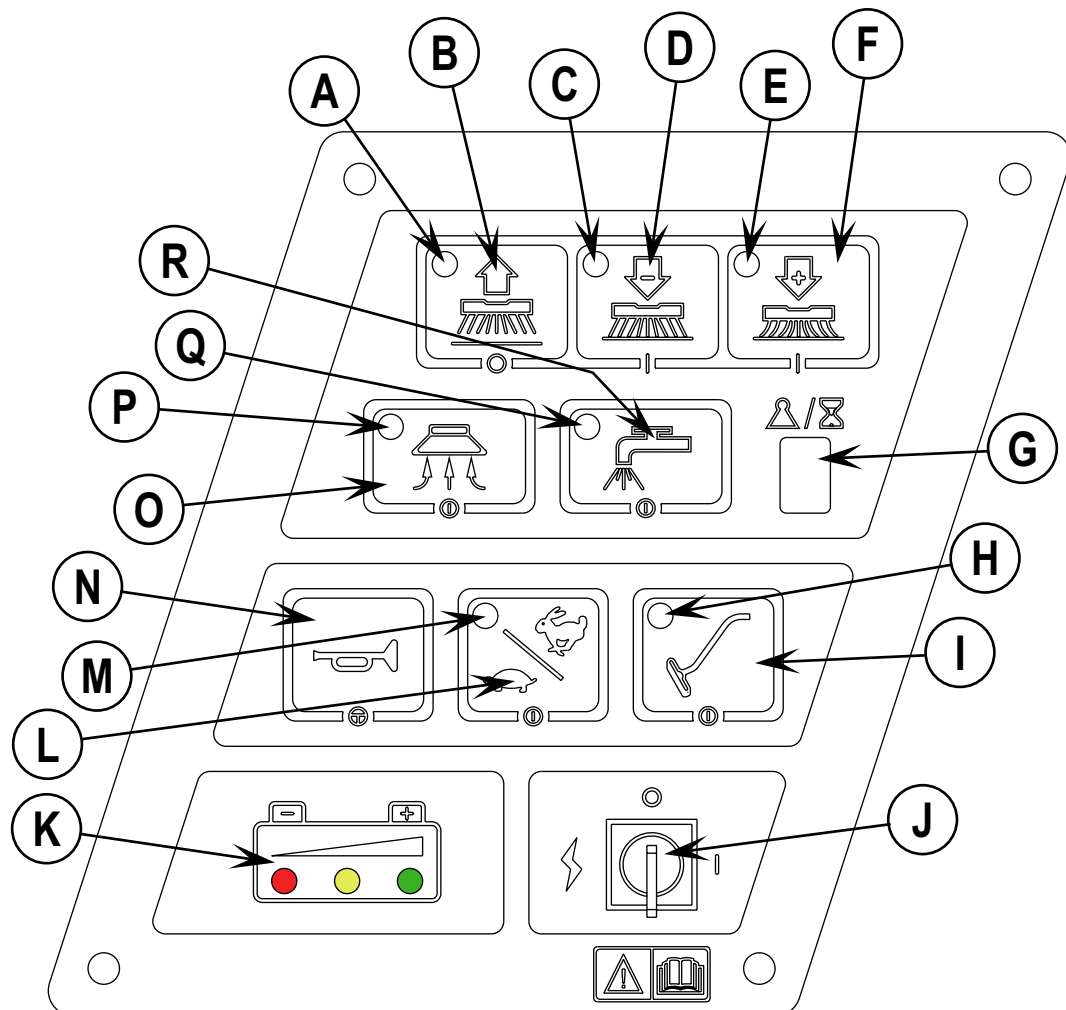
KNOW YOUR MACHINE

- | | | | |
|----|----------------------------------|----|--|
| 1 | Recovery Tank Cover | 13 | Emergency Stop Switch / Battery Disconnect |
| 2 | Solution Tank Fill Cover | 14 | Scrub Deck |
| 3 | Operator's Seat | 15 | Rear Wheel |
| 4 | Solution Tank Drain Hose | 16 | Battery Compartment (under seat) |
| 5 | Steering Wheel Tilt Adjust Knob | 17 | Recovery Tank Shutoff Float |
| 6 | Brake Pedal / Parking Brake | 18 | Vacuum Motor Filter Housing |
| 7 | Solution Flow Control Lever | 19 | Squeegee Assembly |
| 8 | Drive Pedal, Directional/Speed | 20 | Solution Filter |
| 9 | Hopper (cylindrical models only) | 21 | Recovery Tank Drain Hose |
| 10 | Drive and Steer Wheel | 22 | Machine Battery Connector |
| 11 | Wheel Drive Circuit Breaker | 23 | Control Panel |
| 12 | Control Circuit Circuit Breaker | 24 | Squeegee Tilt Adjust Knob |
| | | 25 | Operator Seat Adjustment Lever |
| | | 26 | Smart Solutions™ / ECO Solution™ |



CONTROL PANEL

- A Scrub OFF Indicator
- B Scrub OFF Switch
- C Scrub Pressure Decrease Indicator
- D Scrub Pressure Decrease Switch
- E Scrub Pressure Increase Indicator
- F Scrub Pressure Increase Switch
- G Scrub Pressure / Hourmeter Display
- H Wand Switch Indicator
- I Wand Switch
- J Key Switch
- K Battery Condition Indicator
- L Speed Select Switch
- M Speed Select Indicator
- N Horn Switch
- O Vacuum Switch
- P Vacuum System Indicator
- Q Solution System Indicator
- R Solution Switch



KNOW YOUR MACHINE DESCRIPTIONS:

Recovery Tank Cover (1) – Open to access Recovery Tank for rinsing and(or) cleaning Float Cage.

Solution Tank Fill Cover (2) – Open to fill the solution tank, use non-foaming chemicals only.

Operator's Seat (3) – The machine operator sits here. The seat has a safety switch which prevents the machine from moving without an operator in the seat.

Solution Tank Drain Hose (4) – Used to empty the solution tank.

Steering Wheel Tilt Adjust Knob (5) – Push down on this knob to adjust the Steering Wheel up or down.

Brake Pedal / Parking Brake (6) – Push down to stop machine. NEVER leave machine unattended without setting Parking Brake.

Solution Flow Control Lever (7) – Move this lever UP to increase solution flow to the floor. Move DOWN to decrease the amount of solution flow to the floor.

When the Drive Pedal (8) is released from either forward or reverse travel, the solution flow will stop automatically, and resume when the drive is engaged.

Drive Pedal, Directional / Speed (8) – The operator can make the machine go forward by pushing forward on it, or reverse by pushing backward on it. The speed is variable depending on how far forward or backward the pedal is moved. When the Scrub Deck (14) is in the "DOWN" position, the brushes, solution and vacuum will operate when the drive pedal is engaged in either direction. The brushes stop after the drive pedal is in neutral for 1.5 seconds, the vacuum stops after the drive pedal is in neutral for 10 seconds. **NOTE:** Solution only operates when moving forward.

Hopper (9) – Found only on cylindrical models, catches debris. Empty and clean daily.

Drive and Steer Wheel (10) – Wheel drive motor attached to this wheel to propel machine either forward or reverse. Also attached to Steering Wheel for steering left or right.

Wheel Drive Circuit Breaker (11) – Provides overload protection to machine's wheel drive motor. If it trips, it will pop out. To reset, wait one minute and press the button back in. If any breaker trips repeatedly, have the machine serviced.

Control Circuit Breaker (12) – Provides overload protection. If it trips, it will pop out. To reset, wait one minute and press the button back in. If any breaker trips repeatedly, have the machine serviced.

Emergency Stop / Battery Disconnect (13) – Push in on lever to disconnect batteries.

Scrub Deck (14) – Contains brush drive motors and brushes.

Rear Wheel (15) – Rear wheel of machine.

Battery Compartment (16) – Batteries stored here, flip seat panel up to access.

Recovery Tank Shutoff Float (17) – Shuts off vacuum when recovery tank is full.

Vacuum Motor(s) Filter Housing (18) – Location of Vac Motor(s) air intake filter(s).

Squeegee Assembly (19) – Picks up solution after scrubbing.

Solution Filter (20) – Filters solution prior to dispensing on floor.

Recovery Drain Hose (21) – Used to empty the recovery tank.

Machine Battery Connector (22) – Batteries plug into this connector, disconnect to charge batteries.

Control Panel (23) – Operator Controls found here, see "FUNCTIONAL DESCRIPTION OF CONTROL SWITCHES".

Squeegee Tilt Adjustment Knob (24) – Used to adjust the tilt of the squeegee forward or backward.

Operator Seat Adjustment Lever (25) - Use this lever to slide the operator's seat forward or backward.

Smart Solutions™ / ECO Solution™ (26) – This valve is used when a consistent reduced flow of solution is desired. When the lever is in the "OFF" position; the machine operates conventionally; solution flow is determined with the Solution Flow Control Lever (7). When the lever is in the "ON" position; solution flow is controlled automatically. The Solution Flow Control Lever (7) should not be shut off, but is otherwise inactive. Make sure that the lever for Valve (26) is all the way ON or all the way OFF, never in between.

FUNCTIONAL DESCRIPTION OF CONTROL SWITCHES:

The controls on the Advenger were designed with *one touch operation* in mind. For single pass scrubbing the user can simply depress one switch and all systems on the machine will be ready to go.

For most single-pass scrubbing operations, the operator should only need to use the top three switches on the control panel. These are the Scrub System Off, Scrub Pressure Decrease, and Scrub Pressure Increase switches.

Scrub Off Switch (B) - Pressing this switch when the unit is in a scrub mode will cause the following to occur:

- The scrub brushes will turn off and the scrub deck will raise to the up position
- The solution flow will be stopped
- The first time that this switch is pressed, the vacuum/squeegee system will NOT be turned off. This is so that any remaining water may be picked up without having to turn the vacuum back on. If this switch is pressed a second time (pressed after the scrub system has been turned off) the squeegee will raise and the vacuum will shut off after a 10 second delay.
- The travel speed limit will return to the transport speed setting.

Scrub Pressure Decrease Switch (D) – If the scrub system is off, pressing this switch will cause the following to occur:

- The scrub system will be enabled with the scrub pressure set to the last used setting and the scrub deck will be lowered
- The vacuum system will be enabled and the squeegee will be lowered
- The solution system will be enabled
- The travel speed will be limited to the scrub speed setting
- As soon as the throttle is moved from the neutral position the scrub brushes will start turning and the vacuum will turn on. If the direction is forward the solution flow will start. If the direction is reverse, the squeegee will raise and the solution flow will be stopped.

If the scrub system is already enabled when this switch is pressed, the scrub pressure will decrease. If the switch is held, the pressure will decrement until the minimum setting of 1 is reached.

Scrub Pressure Increase Switch (F) – If the scrub system is off, pressing this switch will cause the following to occur:

- The scrub system will be enabled with the scrub pressure set to the last used setting and the scrub deck will be lowered
- The vacuum system will be enabled and the squeegee will be lowered
- The solution system will be enabled
- The travel speed will be limited to the scrub speed setting
- As soon as the throttle is moved from the neutral position the scrub brushes will start turning and the vacuum will turn on. If the direction is forward the solution flow will start. If the direction is reverse, the squeegee will raise and the solution flow will be stopped.

If the scrub system is already enabled when this switch is pressed, the scrub pressure will increase. If the switch is held, the pressure will increment until the maximum programmed limit is reached (default = 9).

Wand Switch (I) – This switch is used when an external scrub wand is used. Pressing this switch will turn the vacuum on continuously without regard to the throttle position. It will also enable the optional solution pump. If the scrub system was on it will be turned off. This includes turning off the scrub brushes and raising the scrub deck, turning the solution flow off (to the scrub deck). The squeegee will be lowered to provide easier access to the recovery hose. **NOTE:** *automatic shutoff of the vacuum motor when the recovery tank is full is disabled when the wand is enabled. The float in the recovery tank will still prevent water from entering the vacuum motor, but the motor will not shut off.*

Key Switch (J) – Main power switch

Speed Select Switch (L) – This switch will allow the operator to select the transport speed limit while the scrub system is enabled thereby allowing scrubbing at a higher rate of speed. This option can be disabled if desired. See the programming section for details.

The transport and scrub speed limits can be programmed using a Curtis handheld programmer. Refer to the service manual for details.

Horn Switch (N) – This switch will sound the horn as long as the switch is held.

The horn also functions as an automatic back-up alarm when the throttle is moved to the reverse position. The volume of the back-up alarm is programmable. It can also be programmed to provide an annunciation feature that will sound whenever the drive pedal is in the forward position. See the programming section for details.

Vacuum Switch (O) – This switch is used to turn the vacuum system on or off. When the vacuum is on the squeegee will lower (unless the machine is in reverse) and when the vacuum is off the squeegee will raise. Pressing this switch will alternate between on and off. The vacuum will only turn on when the throttle is moved from the neutral position. It will remain on for 10 seconds after the throttle returns to neutral.

The vacuum also has an automatic shutoff feature that will turn the vacuum and scrub systems off if the recovery tank becomes full. This feature can be disabled if desired. The shutoff threshold can also be adjusted if necessary. See the programming section for details.

Solution Switch (R) - This switch is used to turn the solution system on or off. Pressing this switch when the scrub system has been activated will alternate between on and off. The solution flow will only turn on when the throttle is moved from the neutral position in the forward direction. The solution flow will turn off if the throttle returns to neutral or is moved to reverse.

Pressing this switch when the scrub system is off will momentarily turn the solution flow on to allow pre-wetting of the scrub brushes.

DESCRIPTION OF INDICATORS ON THE CONTROL PANEL:

In general, the following guidelines apply to the control panel indicators:

A **steady red** indicator means that the function is inhibited for some reason. For example, if the scrub system is off and the operator is not on the seat, the scrub system indicator will be red indicating that the system cannot be turned on until the operator is on the seat.

A **flashing red or yellow** indicator means that a fault has occurred in the particular system. An example of this would be an over-current fault.

A **yellow** indicator means that the particular function has been enabled but is not currently on. For example, if a scrub mode is selected and the throttle is in neutral, the scrub system, vacuum, and solution indicators will all be yellow indicating that the systems are enabled and ready to turn on when the throttle is moved to forward or reverse.

A **green** indicator means that the particular system is on.

A **flashing green** indicator means that the particular system is in a delayed-off condition. An example of this is when a scrub mode is selected and the throttle goes from forward or reverse to neutral. When this happens the vacuum indicator will flash green indicating that the vacuum is still on but that it will be turning off after the delay period.

Scrub Off Indicator (A):

- This indicator will be green if the scrub system is off and ready to be activated.
- This indicator will be red if the scrub system has been turned off and the scrub deck is not up yet, or if the scrub deck is up and there is no weight on the seat.
- This indicator will flash red if there is a fault in the scrub system.
- This indicator will be off if the scrub system has been activated.

Scrub Pressure Decrease Indicator (C):

- This indicator will be yellow if the scrub system is enabled but the drive pedal is at neutral and the current scrub pressure is at 2 or more.
- This indicator will be green if the scrub system has been turned on, the current scrub pressure is at 2 or more and the machine is moving in either direction.
- This indicator will be off if the scrub system has been turned OFF or the scrub pressure is set at 1.

Scrub Pressure Increase Indicator (E):

- This indicator will be yellow if the scrub system is enabled but the drive pedal is at neutral and the current scrub pressure is at 8 or less.
- This indicator will be green if the scrub system has been turned on, the current scrub pressure is at 8 or less and the machine is moving in either direction.
- This indicator will be off if the scrub system has been turned OFF or the scrub pressure is set at 9.

Scrub Pressure/Hourmeter Display (G):

The single character display on the control panel is primarily used as a display for the scrub pressure. This display is also used to display the machine hours and any control system fault codes.

If any of the systems on the machine are on or if the throttle is not in neutral, the display will indicate the scrub pressure setting (1-9). If the scrub system is off the display will indicate 0.

Upon power-up or if the machine has been idle for at least ten seconds with all systems turned off, the display will indicate the machine hours. The format for the display of the hours is as follows:

Example 123.4 hours

- The display will indicate 1 followed by a short blank period
- The display will indicate 2 followed by a short blank period
- The display will indicate 3 followed by a short blank period
- The display will indicate _ followed by a short blank period, this is used as a decimal point to indicate tenths of hours
- The display will indicate 4 (tenths) followed by a long blank period
- The display sequence will repeat

If an overload fault occurs, the display will indicate the associated error code immediately. If an open or short fault occurs, the error will be displayed if the scrub system is not active. The format for the display of error codes is as follows:

Example: error code 6, and error code 18

- The display will indicate E followed by a short blank period
- The display will indicate 0 followed by a short blank period
- The display will indicate 6 followed by a slightly longer blank period
- The display will indicate E followed by a short blank period
- The display will indicate 1 followed by a short blank period
- The display will indicate 8 followed by a slightly longer blank period
- The display sequence will repeat

NOTE: If a speed control fault occurs (error code 3) the wand indicator will flash the fault code produced by the Curtis speed control. Refer to the service manual troubleshooting section for details.

Wand Switch Indicator (H):

- This indicator will be green if the Wand Switch has been turned ON.
- This indicator will be off if the Wand Switch has been turned OFF.

Speed Selector Indicator (M):

- This indicator will be green if a scrub mode has been selected and the faster scrub speed has been selected.
- This indicator will be off if the Speed Select Switch has been turned OFF.

Vacuum System Indicator (P):

- This indicator will be green if the vacuum is on.
- This indicator will flash green if the vacuum is in the 10 second delayed-off condition.
- This indicator will be yellow if the vacuum is enabled but the drive pedal is in neutral.
- This indicator will flash yellow if there is a vacuum system fault.
- This indicator will be off if the vacuum is disabled and turned off.

Solution System Indicator (Q):

- This indicator will be green if the solution is on.
- This indicator will be yellow if the solution is enabled but the drive pedal is in neutral.
- This indicator will flash yellow if there is a solution system fault.
- This indicator will be off if the solution is disabled and turned off.

Power Saving Sleep Function

The Advenger is equipped with a battery saving feature that will turn all of the machine systems and accessories off if the machine is left in an idle state for a preset period of time. This sleep mode will only occur if the operator is not on the seat and the wand function is not in use. The sleep mode is indicated by a short duration green flashing scrub system off indicator. The sleep function is automatically cancelled when the operator sits on the seat or any of the control switches are pressed. The sleep delay period is adjustable from 10 to 90 minutes in 10 minute increments. The default period is 10 minutes. It can also be disabled. Refer to the service manual for changing the delay period.

CONTROL SYSTEM ERROR CODES

Display Code.....	Fault description
01.....	Non-Critical Control
02.....	Critical Control
03.....	Speed Control
04.....	Scrub Deck Lift Actuator Overload
05.....	Squeegee Lift Actuator Overload
06.....	Brush Motor Overload
07.....	Vacuum Motor Overload
08.....	Contactors / Solution Solenoid Overload
17.....	Scrub Deck Lift Actuator Open
18.....	Scrub Deck Lift Actuator Short
19.....	Squeegee Lift Actuator Open
20.....	Squeegee Lift Actuator Short
21.....	Brush Motor open
22.....	Brush Motor Short
23.....	Vacuum Motor Open
24.....	Vacuum Motor Short
25.....	Contactors / Solution Solenoid Open
26.....	Contactors / Solution Solenoid Short
27.....	No Accessory / Wiring

DESCRIPTION OF THE BATTERY CONDITION INDICATORS

The battery condition indicator (J) consists of three lights, a green (G), a yellow (Y), and a red (R). The voltage indication will change based on the cutoff level (standard or alternate) selected in the control unit. The battery voltage ranges for the various indications are listed below:

	Standard	Alternate
Green	34.00+	34.50+
Green & Yellow	33.00-33.99	34.00-34.49
Yellow	32.00-32.99	33.50-33.99
Yellow & Red	31.50-31.99	33.00-33.49
Red	31.00-31.49	32.50-32.99
Flashing Red/Cutoff	<31.00	<32.50

NOTE: Refer to service manual for selection of alternate cut-off level. Once the low voltage cutout level has been reached (flashing red indicator) the batteries must be **FULLY** recharged to reset the battery condition indicator. The scrub system will not function until the indicator has been reset.

INSTALL THE BATTERIES

⚠ WARNING !

Use extreme caution when working with batteries. Sulfuric acid in batteries can cause severe injury if allowed to contact the skin or eyes. Explosive hydrogen gas is vented from inside the batteries through openings in the battery caps. This gas can be ignited by any electrical arc, spark or flame.

When Servicing Batteries...

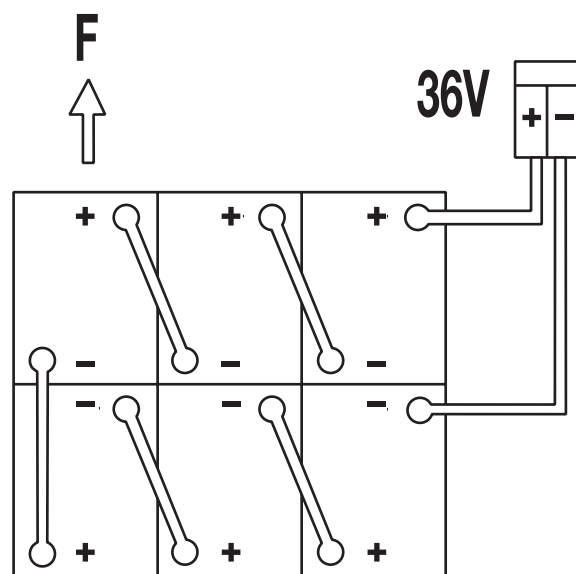
- * Remove all jewelry.
- * Do not smoke.
- * Wear safety glasses, a rubber apron and rubber gloves.
- * Work in a well-ventilated area.
- * Do not allow tools to touch more than one battery terminal at a time.

⚠ CAUTION !

Electrical components in this machine can be severely damaged if the batteries are not installed and connected properly. Batteries should be installed by Nilfisk-Advance or by a qualified electrician.

- 1 Turn the Key Switch (J) off (O) and remove the key. Then swing open the Battery Compartment Cover (16).
- 2 Using (2) people and an appropriate lifting strap, carefully lift the batteries into the compartment tray exactly as shown. Refer to decal 56015168 battery cable layout.
- 3 See Figure 1. Install battery cables as shown and tighten the nuts on the battery terminals.
- 4 Install the battery boots and secure tightly to the battery cables with the supplied tie straps.
- 5 Connect the battery pack connector to the machine connector (22) and close the battery compartment cover.

FIGURE 1



305A/H - 20HR - RATE

56015168

INSTALL THE BRUSHES (DISC SYSTEM)

CAUTION !

Turn the key switch off (O) and remove the key, before changing the brushes, and before opening any access panels.

- 1 Make sure the Key Switch (J) is off (O). To access the brushes, remove both side skirt assemblies. Note: The skirts are held in place by a two large Knobs, loosen these knobs and slide the skirt assemblies off of the Scrub Deck.
- 2 To mount the brushes (or pad holders) align the lugs on the brush with the holes on the mounting plate and turn to lock in place (turn outside edge of brush towards front of machine).

24 Inch Models
 56505751 - Magna Grit 46
 56505752 - Dyna Grit 80
 56505753 - AgLite Grit 500
 56505754 - Prolene
 56505755 - ProLite
 56505756 - Union Mix
 56505757 - MidGrit 240
 56505758 - MidLite Grit 180

26 Inch Models
 56505761 - Magna Grit 46
 56505762 - Dyna Grit 80
 56505763 - AgLite Grit 500
 56505764 - Prolene
 56505765 - ProLite
 56505766 - Union Mix
 56505767 - MidGrit 240
 56505768 - MidLite Grit 180

28 Inch Models
 56505801 - Magna Grit 46
 56505802 - Dyna Grit 80
 56505803 - AgLite Grit 500
 56505804 - Prolene
 56505805 - ProLite
 56505806 - Union Mix
 56505807 - MidGrit 240
 56505808 - MidLite Grit 180

32 Inch Models
 56505831 - Magna Grit 46
 56505832 - Dyna Grit 80
 56505833 - AgLite Grit 500
 56505834 - Prolene
 56505835 - ProLite
 56505836 - Union Mix
 56505837 - MidGrit 240
 56505838 - MidLite Grit 180

DISC BRUSH APPLICATION GUIDE (SUGGESTION ONLY)

	46	80	180	240	500			Union
Application	Grit	Grit	Grit	Grit	Grit	Prolene	Prolite	Mix
Stripping:								
Concrete	X	X						
Terrazo	X	X						
Ceramic/Quarry tile		X						
Vinyl tile		X						
General Scrubbing:								
Concrete	X	X	X	X		X		
Terrazo			X	X	X	X		
Ceramic/Quarry tile			X	X	X	X		
Marble					X		X	
Vinyl tile			X		X	X		
Raised-rubber tile					X		X	
Polishing:								
Raised Disc Tile								X
Marble								X
Vinyl tile								X

INSTALL THE BRUSHES (CYLINDRICAL SYSTEM)

CAUTION !

Turn the key switch off (O) and remove the key, before changing the brushes, and before opening any access panels.

- 1 Make sure the Key Switch (J) is off (O). To access the brushes, swing both side skirt assemblies open. Note: The skirts are held in place by a large cotter pin on each side, remove the pins and swing the skirt assemblies out of the way. Loosen the black knobs (one on each side) on top of the idler assemblies and remove the idler assemblies. Slide the brush into the housing, lift slightly, push and turn until it seats. Re-install the idler assemblies, close the skirt assemblies and secure with cotter pins.

24 Inch Models
 56314389 - Soft Nylon
 56314390 - Stiff Nylon
 56314391 - Polypropylene
 56314392 - 180 Grit
 56314393 - 80 Grit
 56314394 - 46 Grit

26 Inch Models
 56314383 - Soft Nylon
 56314384 - Stiff Nylon
 56314385 - Polypropylene
 56314386 - 180 Grit
 56314387 - 80 Grit
 56314388 - 46 Grit

28 Inch Models
 56412191 - Soft Nylon
 56412192 - Stiff Nylon
 56412046 - Polypropylene
 56412193 - 180 Grit
 56412194 - 80 Grit
 56412195 - 46 Grit

32 Inch Models
 56407473 - Soft Nylon
 56407474 - Stiff Nylon
 56407475 - Polypropylene
 56407476 - 180 Grit
 56407477 - 80 Grit
 56407478 - 46 Grit

CYLINDRICAL BRUSH APPLICATION GUIDE (SUGGESTION ONLY)

	46	80	180	Polypro- pylene	Stiff Nylon	Soft Nylon
Application	Grit	Grit	Grit			
Stripping:						
Concrete	X	X				
Terrazo	X	X				
Ceramic/Quarry tile		X				
Vinyl tile		X				
General Scrubbing:						
Concrete	X	X	X	X	X	
Terrazo			X	X	X	X
Ceramic/Quarry tile			X	X	X	X
Marble			X		X	X
Vinyl tile			X	X	X	X
Raised-rubber tile			X			X

INSTALL THE SQUEEGEE

- 1 Make sure the Squeegee (19) is up (O) and the Key Switch (J) is off (O). Hold the squeegee tool so that the curved ends point forward, then slide the squeegee tool onto the Mount (A) (See Figure 2).
- 2 Hand tighten the Thumb Nuts (B) and then connect the vacuum hose to the Squeegee Tube (C) (vacuum hose should loop to the right).

FILL THE SOLUTION TANK

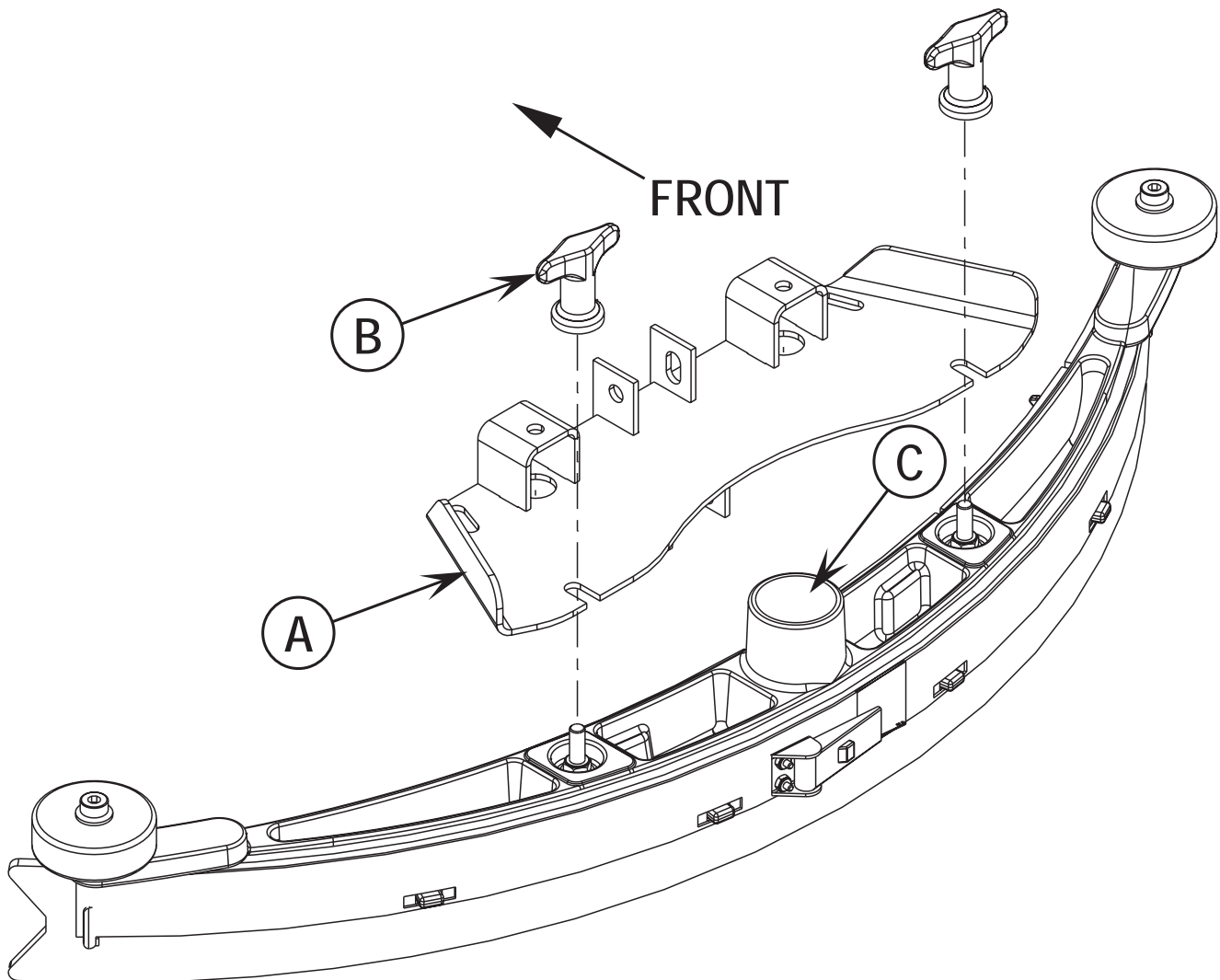
Read the cleaning chemical label and figure the proper amount of chemical to mix for a tank that holds 30 US gallons (113 liters).

Open the Solution Tank Cover (2), then fill the tank 1/3 full of water, add the cleaning chemical, then fill the tank to 7.62cm (3 inches) from the top of the tank opening (fill to bottom of the wall in tank opening).

CAUTION!

Use only low-foaming, non-flammable liquid detergents intended for automatic scrubber machine applications.

FIGURE 2



OPERATING THE MACHINE

WARNING !

Be sure you understand the operator controls and their functions.

While on ramps or inclines, avoid sudden stops when loaded. Avoid abrupt sharp turns. Use low speed down hills. Clean only while ascending (driving up) the ramp.

To Scrub...

Follow the instructions in preparing the machine for use section of this manual.

- 1 While seated on the machine, adjust the seat and steering wheel to a comfortable operating position using the adjustment controls (25) and (5).
- 2 Turn the Master Key Switch (J) ON (I). This will display the control panel indicator lights, reference the Battery Condition Indicator (K) and Hour Meter (G).
- 3 Release the Parking Brake (6). To transport the machine to the work area, apply even pressure with your foot on the front of the Drive Pedal (8) to go forward or the rear of the pedal for reverse. Vary the pressure on the foot pedal to obtain the desired speed.
- 4 Adjust the Solution Flow Control Valve Lever (7) to about 1/4 to 1/3 open position. Note the adjustment can be changed to allow variable solution flow for different types of floors to be scrubbed. Example: A rough or absorbent floor surface, such as unfinished concrete, will require more solution than a smooth finished floor.
NOTE: For a consistent reduced flow of solution; open the Solution Flow Control Valve Lever (7) all the way and then turn ON the Smart Solutions™ / ECO Solution™ valve.
- 5 Press the Solution Switch (R) and hold for 5 seconds. This is done to pre-wet the floor. Note: This will help prevent scarring of the floor surface when starting to scrub with dry brushes.
- 6 Press the Scrub Pressure Decrease Switch (D) or the Scrub Pressure Increase Switch (F) to activate the scrub system. Note: refer to the Functional Description of Control Switches section for a more detailed explanation of these and other control panel functions.
- 7 When the Scrub Pressure Decrease Switch (D) or the Scrub Pressure Increase Switch (F) are selected, the brushes and squeegee are automatically lowered to the floor. The machine's scrub brush rotation, solution system flow and vacuum starts when the Drive Pedal (8) is activated. Note: When operating the machine in reverse, only the brushes will rotate, the solution is automatically shut off to conserve the solution usage.
- 8 Begin scrubbing by driving the machine forward in a straight line at a normal walking speed and overlap each path by 2-3 inches (50-75 mm). Adjust when necessary the machine speed and solution flow according to the condition of the floor.

CAUTION !

To avoid damaging the floor, keep the machine moving while the brushes are turning.

- 9 When scrubbing, check behind the machine occasionally to see that all of the waste water is being picked up. If there is water trailing the machine, you may be dispensing too much solution, the recovery tank may be full, or the squeegee tool may require adjustment.
- 10 For extremely dirty floors, a one-pass scrubbing operation may not be satisfactory and a "double-scrub" operation may be required. This operation is the same as a one-pass scrubbing except on the first pass the squeegee is in the up position (press the Vacuum Switch (O) to raise the squeegee). This allows the cleaning solution to remain on the floor to work longer. The final pass is made over the same area, with the squeegee lowered to pick up the accumulated solution.
- 11 The recovery tank has an automatic float shut-off to prevent solution from entering the vacuum system when the recovery tank is full. When the float shut-off is activated, the control system will shut down the scrub, vacuum and solution systems. The Scrub Pressure / Hourmeter Display (G) will display "FULL". To clear the display, press the Scrub OFF Switch (B), Scrub Pressure Decrease Switch (D), Scrub Pressure Increase Switch (F) or the Vacuum Switch (O). When the float closes, the recovery tank must be emptied. The machine will not pick up water with the float closed. **NOTE:** If the control repeatedly gives a full indication when the tank is not full, the automatic shut-off feature can be disabled, have a qualified service technician refer to the service manual to perform this function.
- 12 When the operator wants to stop scrubbing or the recovery tank is full, press the Scrub OFF Switch (B) once. This will automatically stop the scrub brushes and solution flow and the scrub deck will raise UP. **NOTE:** the vacuum/squeegee system will not be turned off when the switch is only pressed once, this is to allow any remaining water to be picked up without turning the vacuum back on. Press the switch a second time and the squeegee will raise and the vacuum will stop after a 10 second delay.
- 13 Drive the machine to a designated waste water "DISPOSAL SITE" and empty the recovery tank. To empty, pull the Drain Hose (21) from its rear storage area, then remove the plug (hold the end of the hose above the water level in the tank to avoid sudden, uncontrolled flow of waste water). Refill the solution tank and continue scrubbing.

WET VACUUMING

Steps to follow in fitting the machine with optional attachments for wet vacuuming.

- 1 Disconnect the recovery hose from the squeegee. Connect the coupler and hose from the wand kit to the recovery hose.
- 2 Attach suitable wet pick-up tools to the hose. (An optional Wand Kit PN56314307 is available from Nilfisk-Advance).
- 3 Turn the Master Key Switch (J) ON, next press the Wand Switch (I). The vacuum motor and pump will run continuously until the switch is pressed again to turn them OFF. **NOTE:** If the control repeatedly gives a full indication when the tank is not full, the automatic shut-off feature can be disabled, have a qualified service technician perform this function.

AFTER USE

- 1 When finished scrubbing, press the Scrub Off Switch (B) twice, this will automatically raise, retract and stop all the machine systems (brush, squeegee, vacuum & solution). Then drive the machine to a service area for daily maintenance and review of other needed service up keep.
- 2 To empty the solution tank, remove the Solution Drain Hose (4) from it's storage clamp. Direct the hose to a designated "DISPOSAL SITE" and remove the plug. Rinse the tank with clean water.
- 3 To empty the recovery tank, pull the Recovery Tank Drain Hose (21) from its storage area. Direct the hose to a designated "DISPOSAL SITE" and remove the plug (hold the end of the hose above the water level in the tank to avoid sudden, uncontrolled flow of waste water). Rinse the tank with clean water.
- 4 Remove the brushes or pad holders. Rinse the brushes or pads in warm water and hang up to dry.
- 5 Remove the squeegee, rinse it with warm water and re-install on mount.
- 6 Remove the hopper on cylindrical systems and clean thoroughly. Remove from either side of the machine by opening the skirt and tilting the hopper up and away from housing, then pull out.
- 7 Check the maintenance schedule below and perform any required maintenance before storage

MAINTENANCE SCHEDULE

MAINTENANCE ITEM	Daily	Weekly	Monthly	Yearly
Charge Batteries	X			
Check/Clean Tanks & Hoses	X			
Check/Clean/Rotate the Brushes/Pads	X			
Check/Clean the Squeegee	X			
Check/Clean Vacuum Shut-Off Float	X			
Check/Clean the vacuum motor foam filter(s)	X			
Clean Hopper on Cylindrical System	X			
Check Each Battery Cell(s) Water Level		X		
Inspect Scrub Housing Skirts		X		
Inspect and clean Solution Filter		X		
Check Foot/ Parking Brake For Wear & Adjustment		X		
Clean Solution Trough on Cylindrical System		X		
Lubrication - Grease Fittings			X	
* Check Carbon Brushes				X

* Have Nilfisk-Advance check the vacuum motor carbon motor brushes once a year or after 300 operating hours. The brush and drive motor carbon brushes check every 500 hours or once a year.

NOTE: Refer to the Service Manual for more detail on maintenance and service repairs.

- 8 Store the machine indoors in a clean dry place. Keep from freezing. Leave the tanks open to air them out.
- 9 Turn the Master Key Switch (J) OFF (O) and remove the key.

LUBRICATING THE MACHINE

Once a month, pump a small amount of grease into each grease fitting on the machine until grease seeps out around the bearings.

Grease fitting locations are:

- Squeegee Caster Wheel Axle
- Steering Wheel Shaft Universal joint

Once a month, apply light machine oil to lubricate the:

- Steering Chain
- General Pivot Points For the Squeegee, Brush Linkage and Side Skirts
- Squeegee mount angle adjustment knob threads

CHARGING THE BATTERIES

Charge the batteries each time the machine is used, or whenever the Battery Condition Meter (K) is showing a yellow, red or flashing red indicator light(s).

To Charge the Batteries...

- 1 Depress the Battery Disconnect (13).
- 2 Open the Battery Compartment Cover (16) to provide proper ventilation.
- 3 Push the connector from the charger into the Battery Connector (22).
- 4 Follow the instructions on the battery charger.
- 5 Check the fluid level in all battery cells after charging the batteries. Add distilled water, if necessary, to bring the fluid level up to the bottom of the filler tubes.

WARNING !

Do not fill the batteries before charging.

Only charge batteries in a well-ventilated area.

Do not smoke while servicing the batteries.

CAUTION !

To avoid damage to floor surfaces, always wipe water and acid from the top of the batteries after charging.

CHECKING THE BATTERY ELECTROLYTE LEVEL

Check the electrolyte level of the batteries at least once a week.

After charging the batteries, remove the vent caps and check the electrolyte level in each battery cell. Use distilled water to fill the batteries to the bottom of the filler tube.

Do not over-fill the batteries!

CAUTION !

Acid can spill onto the floor if the batteries are overfilled.

Tighten the vent caps. If there is acid on the batteries, wash the tops of the batteries with a solution of baking soda and water (2 tablespoons of baking soda to 1 quart of water).

SQUEEGEE MAINTENANCE

If the squeegee leaves narrow streaks or water, the blades may be dirty or damaged. Remove the squeegee, rinse it under warm water and inspect the blades. Reverse or replace the blades if they are cut, torn, wavy or worn.

To Reverse or Replace the Rear Squeegee Wiping Blade...

- 1 See Figure 3. Raise the squeegee tool off the floor, then unsnap the Center Latch (A) on the squeegee tool.
- 2 Remove the Tension Straps (B).
- 3 Slip the rear blade off the alignment pins.
- 4 The squeegee blade has 4 working edges. Turn the blade so a clean, undamaged edge points toward the front of the machine. Replace the blade if all 4 edges are nicked, torn or worn to a large radius.
- 5 Install the blade, following the steps in reverse order and adjust the squeegee tilt.

To Reverse or Replace the Front Squeegee Blade...

- 1 Raise the squeegee tool off the floor, then loosen the (2) Thumb Nuts (C) on top of the squeegee and remove the squeegee tool from the mount.
- 2 Remove both rear Tension Straps first.
- 3 Remove all the wing nuts that hold the front blade in place, then remove tension strap and blade.
- 4 The squeegee blade has 4 working edges. Turn the blade so a clean, undamaged edge points toward the front of the machine. Replace the blade if all 4 edges are nicked, torn or worn to a large radius.
- 5 Install the blade, following the steps in reverse order and adjust the squeegee tilt.

SQUEEGEE ADJUSTMENT

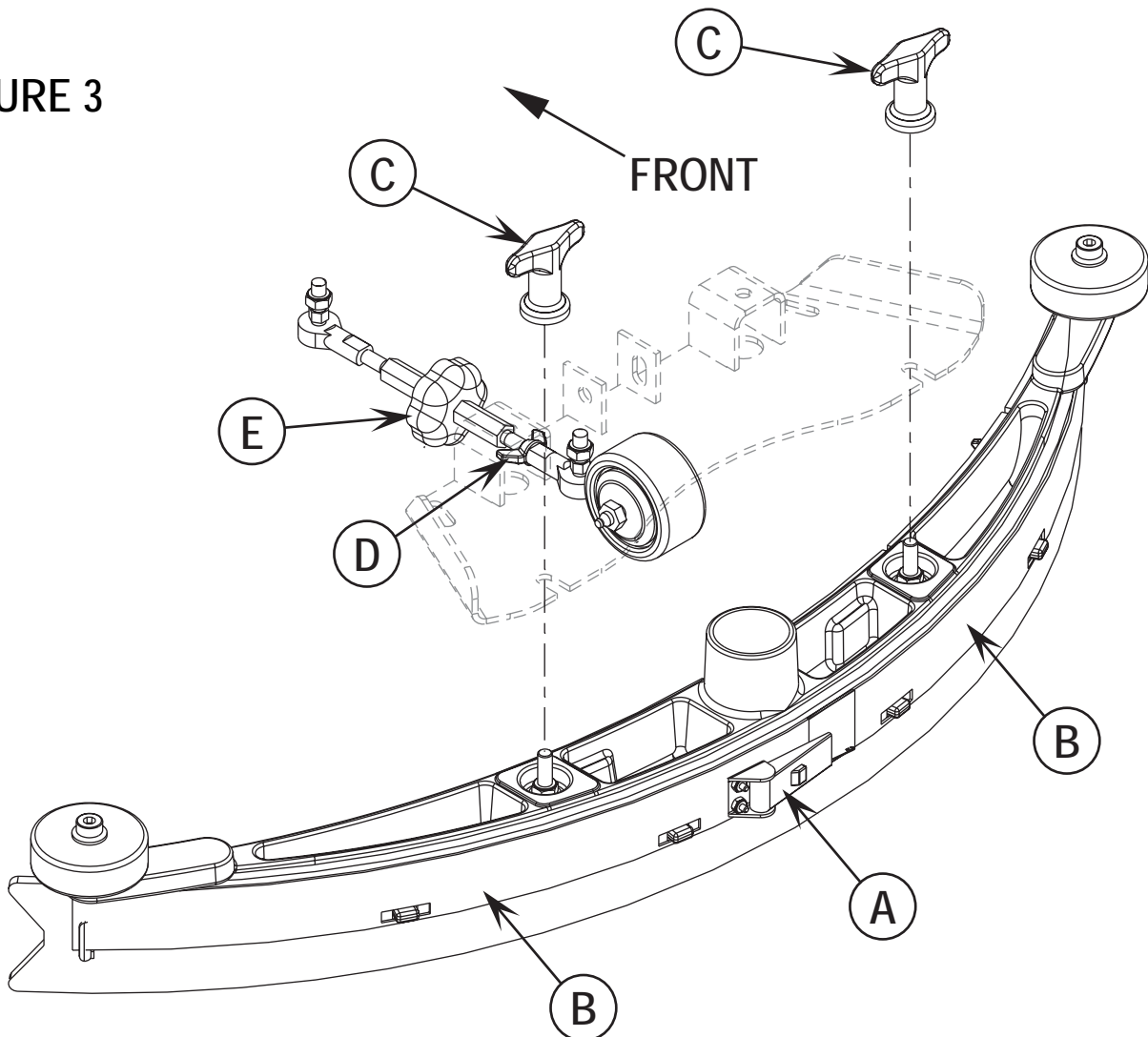
There is just one squeegee tool adjustment possible, angle.

Adjusting the Squeegee Angle

Adjust the squeegee angle whenever a blade is reversed or replaced, or if the squeegee is not wiping the floor dry.

- 1 Park the machine on a flat, even surface and lower the squeegee. Then drive the machine forward enough to have the squeegee blades fold over to the rear.
- 2 Loosen the Lock Wing Nut (D) (hand tightened). This secures the squeegee mount angle from easily vibrating out of adjustment.
- 3 Turn the Adjustment Knob (E) to tilt the tool forward or backwards, until the rear squeegee wiping blade touches the floor evenly across its entire width.
- 4 Re-tighten by hand the Lock Wing Nut (D).

FIGURE 3



SIDE SKIRT MAINTENANCE (DISC SYSTEM)

The side skirt's function is to channel the waste water to the squeegee, helping contain the water within the machines cleaning path. During normal use the blades will wear in time. The operator will notice a small amount of water leaking out underneath the side skirts. A height adjustment can easily be made to lower the blades so that all the water can be pick-up by the squeegee.

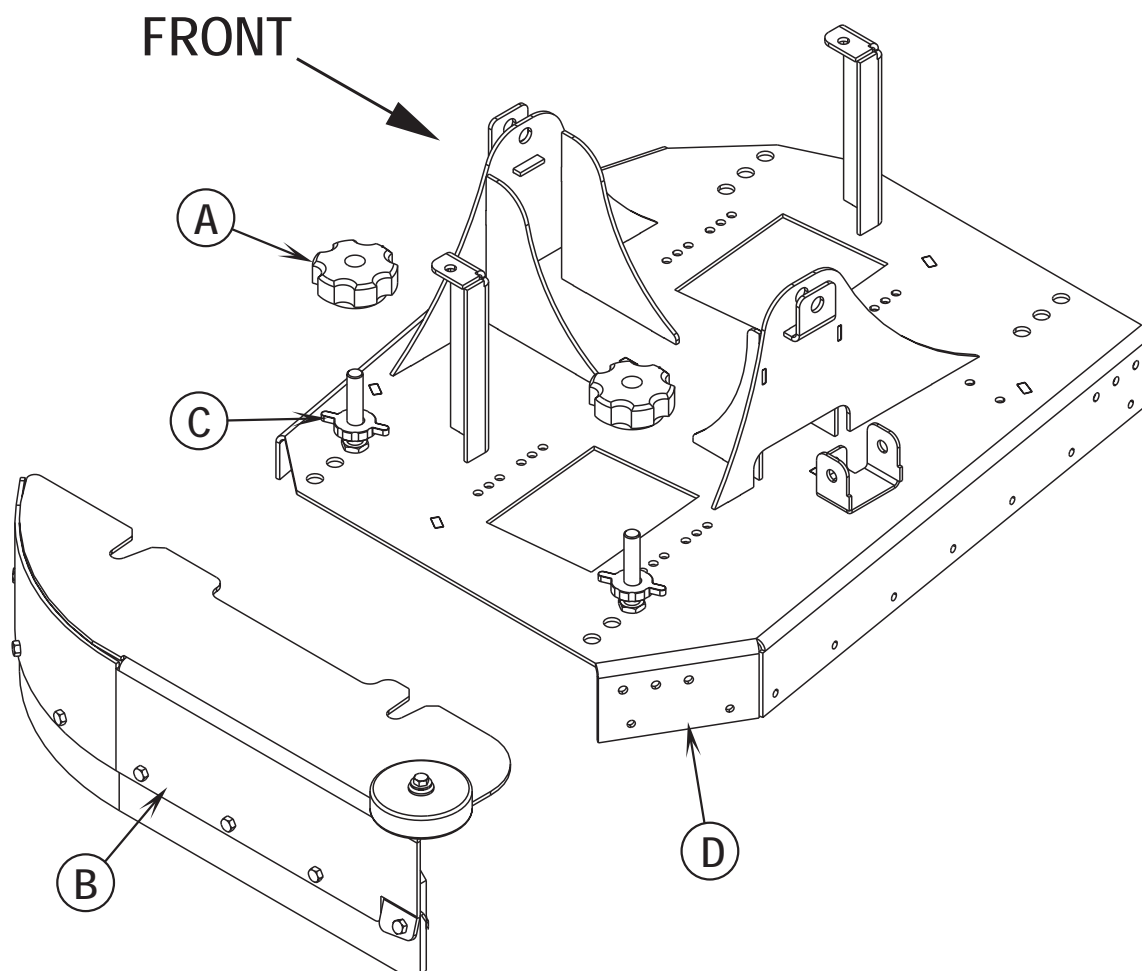
To reverse or replace the scrub system side skirt(s) ...

- 1 See Figure 4. Loosen the (2) side skirt Retainer Knobs (A) (2 per side) and pull the Skirt Assemblies (B) off from the scrub deck.
- 2 Remove all the hardware that holds the blades to the skirt housings.
- 3 Replace the blades as a set if they are nicked, torn or worn beyond their ability to be adjusted.
- 4 Reinstall the skirt housing assemblies onto the machine and adjust the blade for proper contact to the floor when the brush deck is placed in the scrub position.

SIDE SKIRT HEIGHT ADJUSTMENT (DISC SYSTEM)

- 1 The side skirt housing knob retainer screw studs have leveling Adjuster Collars (C), that are to be raised or lowered to compensate for blade wear.
- 2 To adjust, remove the Skirt Assemblies (B) from the Scrub Deck (D) to access the Adjuster Collars (C). Adjustment Tip: The skirts Retainer Knobs (A) can be loosened with skirts left on and the Adjuster Collars (C) rotated by reaching under the skirt housing.
- 3 Turn the Adjuster Collars (C) (Up or Down) to where the blades just fold over enough when scrubbing that all the waste water is contained inside the skirting. Note: Make small adjustments to obtain good blade wiping. Do not lower the blades too much to where they fold over excessively and cause unneeded blade wear.

FIGURE 4

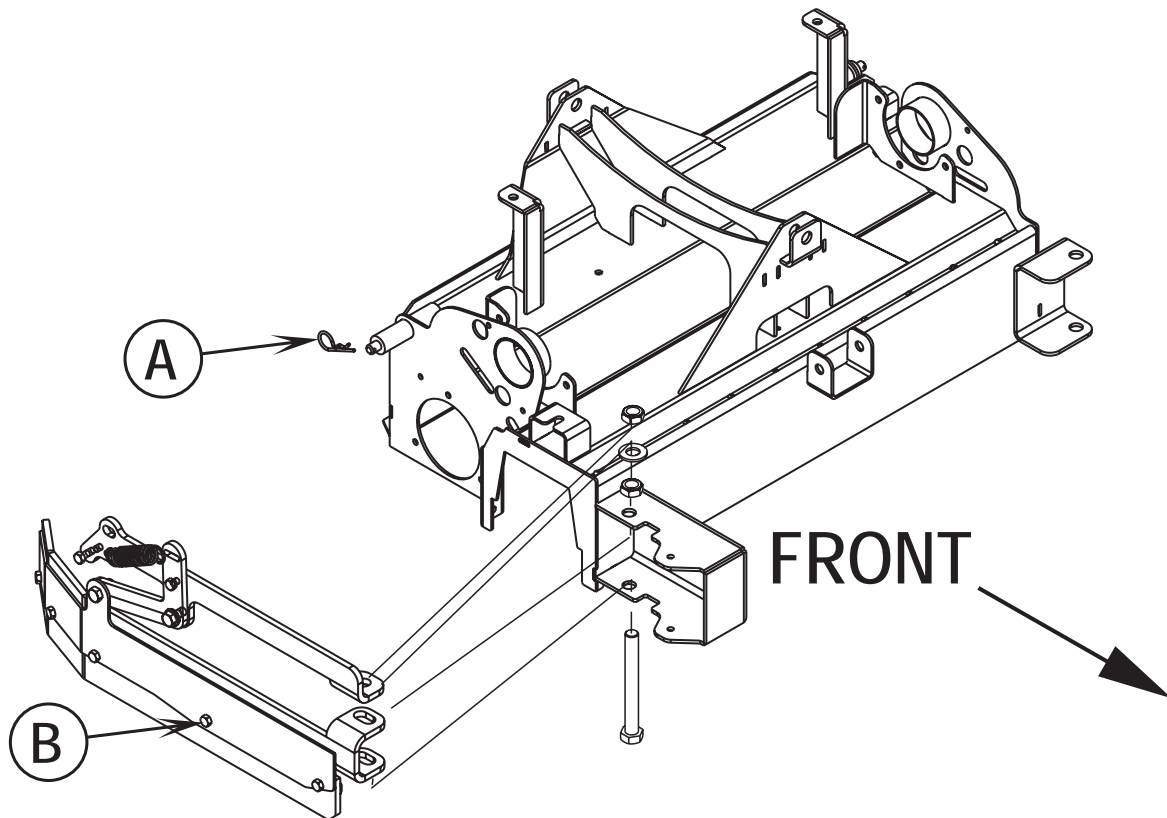


SIDE SKIRT MAINTENANCE (CYLINDRICAL SYSTEM)

The side skirts function is to channel the waste water to the squeegee, helping contain the water within the machines cleaning path. During normal use the blades will wear in time. The operator will notice a small amount of water leaking out underneath the side skirts. Skirt height adjustment is automatic on this system. The skirt assemblies should move up and down freely for proper operation.

To replace the scrub system side skirt(s) ...

- 1 See Figure 5. Remove the (2) (A) Cotter Pins and swing the Skirt Assemblies open. Remove the (B) Screws and Nuts, remove the Skirts and replace.

FIGURE 5

GENERAL MACHINE TROUBLESHOOTING

Problem	Possible Cause	Remedy
Poor water pick-up	Worn or torn squeegee blades	Reverse or replace
	Squeegee out of adjustment	Adjust so blades touch floor evenly across entire width
	Recovery tank full	Empty recovery tank
	Recovery tank drain hose leak	Secure drain hose cap or replace
	Recovery tank cover gasket leak	Replace gasket / Seat cover properly
	Debris caught in squeegee	Clean squeegee tool
	Vacuum hose clogged	Remove debris
	Using too much solution	Adjust solution control valves
	Foam filter cover not seated	Seat cover properly
Poor scrubbing performance	Worn brush or pad	Rotate or replace brushes
	Wrong brush or pad type	Consult Nilfisk-Advance
	Wrong cleaning chemical	Consult Nilfisk-Advance
	Moving machine too fast	Slow down
	Not using enough solution	Adjust solution control valves
Inadequate solution flow or no solution	Solution tank empty	Fill solution tank
	Solution lines, valves, filter or trough clogged	Flush lines, trough and clean solution filter
	Solution control valves not open	Adjust solution control valves
	Solution solenoid valve	Clean or replace valve
Machine does not run	Emergency stop switch tripped	Reconnect battery connectors
	Operator seat safety switch	Check for open circuit and replace
	Main system controller	Check error fault codes (see service manual)
	Tripped 10 Amp circuit breaker	Check for electrical short circuit & reset
No FWD/REV wheel drive	Drive system speed controller	Check error fault codes (see service manual)
	Tripped 45 Amp circuit breaker	Check for drive motor overload
	Emergency stop switch tripped	Reconnect battery connectors
Vacuum shuts off and display shows "FULL" when recovery tank is not full	Plugged squeegee hose	Clear debris
	Vacuuuming large amounts of water at a high travel speed	Slow down or disable auto shut-off feature (see service manual)
Poor Sweeping Performance (Cylindrical System)	Hopper Full	Empty and clean hopper
	Brushes worn	Replace brushes
	Bristles have taken a set	Rotate brushes

TECHNICAL SPECIFICATIONS (as installed and tested on the unit)

Model		BR 600S	BR 650S	BR 700S	BR 800S
		Advenger™ 2400D	Advenger™ 2600D	Advenger™ 2810D	Advenger™ 3210D
Model No.		56314010 56314000	56314011 56314001	56314012 56314002	56314013 56314003
Voltage, Batteries	V	36V	36V	36V	36V
Battery Capacity	Ah	305	305	305	305
Protection Grade		IPX3	IPX3	IPX3	IPX3
Sound Power Level (IEC 704-1)	dB(A)/20µPa	70	70	70	70
Gross Weight	lbs / kg	1,380 / 626	1,385 / 628	1,385 / 628	1,390 / 630
Vibrations at the Hand Controls	m/s ²	<2.5m/s ²	<2.5m/s ²	<2.5m/s ²	<2.5m/s ²
Vibrations at the Seat	m/s ²	<0.5m/s ²	<0.5m/s ²	<0.5m/s ²	<0.5m/s ²
Gradeability					
Transport		14% (8°)	14% (8°)	14% (8°)	14% (8°)
Cleaning		10% (6°)	10% (6°)	10% (6°)	10% (6°)
Model		BR 600CS	BR 650CS	BR 700CS	BR 800CS
		Advenger™ 2400C	Advenger™ 2600C	Advenger™ 2810C	Advenger™ 3210C
Model No.		56314014 56314004	56314015 56314005	56314016 56314006	56314017 56314007
Voltage, Batteries	V	36V	36V	36V	36V
Battery Capacity	Ah	305	305	305	305
Protection Grade		IPX3	IPX3	IPX3	IPX3
Sound Power Level (IEC 704-1)	dB(A)/20µPa	70	70	70	70
Gross Weight	lbs / kg	1,385 / 628	1,390 / 630	1,390 / 630	1,395 / 633
Vibrations at the Hand Controls	m/s ²	<2.5m/s ²	<2.5m/s ²	<2.5m/s ²	<2.5m/s ²
Vibrations at the Seat	m/s ²	<0.5m/s ²	<0.5m/s ²	<0.5m/s ²	<0.5m/s ²
Gradeability					
Transport		14% (8°)	14% (8°)	14% (8°)	14% (8°)
Cleaning		10% (6°)	10% (6°)	10% (6°)	10% (6°)

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	2 44 40 23 93

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mail@nilfisk-advance.dk	43 43 77 00
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DK-8900 Randers	Fax: +45
www.gerni.com	86 43 14 81

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Greece	

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Ladyao, Jatuchak, Bangkok 10900	691-4079
Thailand	

TYPE: BR600S, BR600CS, BR700S, BR700CS, BR800S, BR800CS

<p>EU Overensstemmelseserklæring DK</p> <p>Batteridreven gulvaskemaskine Maskinen er fremstillet i overensstemmelse med følgende direktiver: Maskindirektiv: 98/37/EØF EMC-direktiv: 89/336/EØF 92/31/EØF 93/68/EØF 98/13/EOF</p> <p>Lavspændingsdirektiv: 73/23/EØF 93/68/EØF Harmoniserede standarder: EN 60 335-2-72</p>	<p>Déclaration CE de conformité B, F</p> <p>Autolaveuse à batterie Cette machine a été fabriquée conformément aux directives suivantes: Réglementation machine: 98/37/CEE Réglementation CEM: 89/336/CEE 92/31/CEE 93/68/CEE 98/13/CEE Règlement basse tension: 73/23/CEE 93/68/CEE Normes harmonisées: EN 60 335-2-72</p>
<p>EU Överensstämmelseförsäkran S, FIN</p> <p>Batteri-Skurmaskin Maskinen är tillverkad i överensstämmelse med följande direktiver: Maskindirektiv: 98/37/EEG EMC-direktiv: 89/336/EEG 92/31/EEG 93/68/EEG 98/13/EEG Lågspänningsdirektiv: 73/23/EEG 93/68/EEG Harmoniserade standarder: EN 60 335-2-72</p>	<p>EG-conformiteitsverklaring NL, B</p> <p>Vloeronderhoudmachine Deze machine is vervaardigd overeenkomstig de volgende richtlijnen: Machine richtlijn: 98/37/EEC EMC-richtlijn: 89/336/EEC 92/31/EEC 93/68/EEC 98/13/EEC Laagspanning richtlijn: 73/23/EEC 93/68/EEC Geharmoniseerde normen: EN 60 335-2-72</p>
<p>EU Declaration of Conformity GB, IRL</p> <p>Battery powered floor scrubber This machine was manufactured in conformity with the following directives and standards: Machine Directive: 98/37/EEC EMC-directive: 89/336/EEC 92/31/EEC 93/68/EEC 98/13/EEC Low voltage directive: 73/23/EEC 93/68/EEC Harmonized standards: EN 60 335-2-72</p>	<p>Declaración de conformidad de la CEE E</p> <p>Fregadoa a baterías Esta máquina ha sido fabricada en conformidad a las siguientes normativas: Normativa de la máquina: 98/37/CEE Normativa EMC: 89/336/CEE 92/31/CEE 93/68/CEE 98/13/CEE Normativa sobre baja tensión: 73/23/CEE 93/68/CEE Normas armonizadas: EN 60 335-2-72</p>
<p>Dichiarazione di conformità - CEE I</p> <p>Lavasciuga a batteria È prodotto in conformità alle disposizioni contenute nelle Direttive del Consiglio dei Ministri: M-direttiva: 98/37/EEC EMC-direttiva: 89/336/EEC 92/31/EEC 93/68/EEC 98/13/EEC LV-direttiva: 73/23/EEC 93/68/EEC Norme armonizzate: EN 60 335-2-72</p>	<p>EU Declaração de conformidade da CE P</p> <p>Auto-lavadora a baterias Esta máquina foi fabricada em conformidade com as seguintes directrizes: Directriz de maquinaria: 98/37/CEE Directriz EMC: 89/336/CEE 92/31/EEC 93/68/CEE 98/13/CEE Directriz de baixa voltagem: 73/23/CEE 93/68/CEE Normas harmonizadas: EN 60 335-2-72</p>
<p>EG – Konformitätserklärung D, A</p> <p>Batteriebetriebene Scheuersaugmaschine Diese Maschine wurde gemäß den folgenden Richtlinien hergestellt: Maschinenrichtlinie: 98/37/EWG EMV-Richtlinie: 89/336/EWG 92/31/EWG 93/68/EWG 98/13/EWG Niederspannungsrichtlinie: 73/23/EWG 93/68/EWG Harmonisierte normen: EN 60 335-2-72</p>	<p>EU:n yhdenmukaisuudesta direktiiveihin FIN</p> <p>Akkukäyttöinen yhdistelmäkone On valmistettu noudattaen yhteisön määräämiä direktiivejä: M-direktiivi: 98/37/CEE EMC-direktiivi: 89/336/CEE 92/31/CEE 93/68/CEE 98/13/CEE LV-direktiivi: 73/23/CEE 93/68/CEE Yhdenmukaistetut standardit: EN 60 335-2-72</p>
<p>Δηλώση προσαρμογής/συμόρφωσης EU GR</p> <p>Μπαταριοκίνητο μηχανήμα πλυσής δαπέδων Το μηχανήμα έχει κατασκευαστεί ομόμοια με τις παρακάτω προστάγματα: Προσταγμάτη-EMC: 98/37/EEC 89/336/EEC 92/31/EEC 93/68/EEC 98/13/EEC Προσταγμάτη χαμηλής τάσεως: 73/23/EEC 93/68/EEC Εναρμονισμένα πρότυπα: EN 60 335-2-72</p>	<p>EL vastavusdeklaratsioon ET</p> <p>Akutoitega põrandapuhasti Käesolev masin on valmistatud kooskõlas järgmiste direktiivide ja standarditega: Masinadirektiiv: 98/37/EEC Elektromagnetilise sobivuse direktiiv: 89/336/EEC 92/31/EEC 93/68/EEC 98/13/EEC Madalpinge direktiiv: 73/23/EEC 93/68/EEC Ühtlustatud standardid: EN 60 335-2-72</p>

<p>ES atbilstības deklarācija LV Grīdas beršanas mašīna ar akumulatoru barošanu Šī mašīna izgatavota atbilstoši šādām direktīvām un standartiem: Mašīnu direktīva: 98/37/EEC Elektromagnētiskās savietojamības (EMC) direktīva: 89/336/EEC 92/31/EEC 93/68/EEC 98/13/EEC Zemsprieguma direktīva: 73/23/EEC 93/68/EEC Saskaņotie standarti: EN 60 335-2-72</p>	<p>Pareiškimas apie atitikimą ES direktyvoms LT Baterijos energija varomas grindų šveitimo įrenginys Šis įrenginys pagamintas laikantis tokių direktyvų bei standartų: Įrengimų direktyva: 98/37/EEC EMC direktyva: 89/336/EEC 92/31/EEC 93/68/EEC 98/13/EEC Žemos įtampos įrengimų direktyva: 73/23/EEC 93/68/EEC Harmonizuoti standartai: EN 60 335-2-72</p>
<p>Deklaracija EU o skladnosti SL Stroj za čiščenje tal na akumulatorski pogon Ta stroj je izdelan v skladu z naslednjimi smernicami in standardi: Smernica o strojih: 98/37/EEC Smernica o elektromagnetni združljivosti (EMC): 89/336/EEC 92/31/EEC 93/68/EEC 98/13/EEC Smernica o nizki napetosti: 73/23/EEC 93/68/EEC Harmonizirani standardi: EN 60 335-2-72</p>	<p>Prehlásenie o súlade EÚ SK Zariadenie na čistenie povrchov napájané batériou Toto zariadenie bolo vyrobené v súlade s nasledujúcimi direktívami a normami: Direktíva o zariadeniach: 98/37/EEC Direktíva EMC: 89/336/EEC 92/31/EEC 93/68/EEC 98/13/EEC Direktíva o nízkom napätí: 73/23/EEC 93/68/EEC Súvisiace normy: EN 60 335-2-72</p>
<p>EU Prohlášení o shodě CS Bateriemi napájené zařízení pro mytí podlah Tento stroj byl vyroben ve shodě s následujícími směrnici a normami: Směrnice o strojním zařízení: 98/37/EEC Směrnice o elektromagnetické kompatibilitě: 89/336/EEC 92/31/EEC 93/68/EEC 98/13/EEC Směrnice o nízkém napětí: 73/23/EEC 93/68/EEC Harmonizované normy: EN 60 335-2-72</p>	<p>Deklaracja zgodności z normami UE PL Akumulatorowa cyklinarka podłogowa Niniejsze urządzenie zostało wyprodukowane w zgodzie z następującymi dyrektywami i normami UE: Dyrektywa dotycząca maszyn: 98/37/EEC Dyrektywa: kompatybilność elektromagnetyczna 89/336/EEC 92/31/EEC 93/68/EEC 98/13/EEC Dyrektywa: urządzenia elektromagnetyczne niskonapięciowe 73/23/EEC 93/68/EEC Zharmonizowane normy: EN 60 335-2-72</p>
<p>EU megfeleléségi nyilatkozat HU Akkumulátoros padlósúrológép Ez a gép az alábbi irányelvekkel és szabványokkal összhangban készült: Gépészeti irányelvek 98/37/EEC EMC-irányelvek 89/336/EEC 92/31/EEC 93/68/EEC 98/13/EEC Kisfeszültségű irányelvek: 73/23/EEC 93/68/EEC Harmonizált szabványok: EN 60 335-2-72</p>	<p>Декларация изготовителя о соответствии директивам ЕС Поломочная машина, работающая на аккумуляторных батареях Данная машина разработана в соответствии со следующими инструкциями и стандартами: Инструкция по разработке машин: 98/37/EEC Инструкция EMC: 89/336/EEC 92/31/EEC 93/68/EEC 98/13/EEC Инструкция по использованию низких напряжений: 73/23/EEC 93/68/EEC Согласованные стандарты: EN 60 335-2-72</p>



4.3.2004.

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