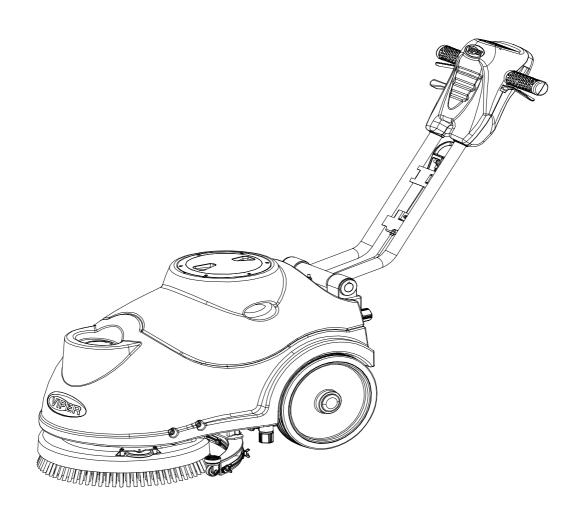




# Lista de Material

AS380/15B-EU AS380/15B-UK







### **SAFETY PRECAUTIONS**

This machine is intended for commercial use. It is constructed for use in an indoor environment and is not intended for any other use. Use only with recommended accessories.

All operators shall read, understand and exercise the following safety precautions:

#### 1) DO NOT OPERATE MACHINE:

Unless trained and authorized.

Unless you have read and understand the operators manual.

In flammable or explosive areas.

If not in proper operating condition.

In outdoor areas.

#### 2) BEFORE OPERATING MACHINE:

Make sure all safety devices are in place and operate properly.

#### 3) WHEN USING MACHINE:

Go slow on inclines and slippery surfaces.

Follow all safety guidelines.

Be very careful when using the machine in reverse.

Report and fix any damage to machine prior to operating it.

#### 4) BEFORE LEAVING OR SERVICING MACHINE:

Stop machine on level ground.

Turn machine off.

#### 5) WHEN SERVICING MACHINE:

Read operators manual thoroughly prior to operating or servicing this machine.

Use manufacturer supplied or approved replacement parts.

Secure machine with wheel blocks prior to jacking the machine up.

Use approved jack or hoist to safely elevate the machine.

Disconnect batteries prior to working on machine.

Wear gloves when handling batteries or battery cables.

Avoid any contact with battery acid.

Avoid moving parts; do not wear loose fitting clothing while servicing machine.



#### **WARNING!**

Batteries emit hydrogen gas. Explosion or fire can result from hydrogen gas. Keep Sparks and open flames away! Keep battery compartment open when charging.



#### WARNING!

Flammable materials can cause an explosion or fire. Do not use flammable materials in tanks.



#### WARNING!

Flammable materials or reactive metals can cause explosion or fire .Do not pick up.

### **MACHINE SET UP & INSTALLATION**

#### **UNCRATING MACHINE**

Be sure and check packing carton for any damage. Immediately report any damage to carrier. Check contents of package to ensure that the following items are included:

- 1. Machine
- 2. Batteries(x2)
- 3. Squeegee assembly
- 4. Owners Manual
- 5. Electric Battery Charger Manual (if equipped)
- 6. Connecting wire for battery and charger (if equipped)
- 7. Brush

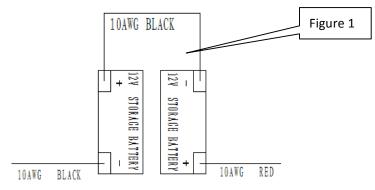
#### BATTERY DISASSMBLY AND INSTALLATION

- 1. Switch off the main switch. (47)
- 2. Remove the recovery tank. (2)
- 3. Remove the bolt from batteries. (16) Remove or change batteries.
- 4. Install the batteries on the machine according to the diagram below.
- 5. Install the recovery tank.



#### WARNING

Do not connect+ to +,or - to-,when disassembly or install the batteries. It is very dangerous.



#### **Battery charging**

Charge the batteries. (see Maintenance section)

#### **MACHINE SET UP**

### **Pre-operation checks**

- 1. Sweep or dust mop the surface to be cleaned.
- 2. Check that squeegee is properly installed.
- 3. Lower the squeegee (33) with the lever. (26)
- 4. Ensure batteries are fully charged. (see Battery Charging section)
- 5. Check that brush is properly installed.

#### Brush/Pad driver installation and disassembly



#### NOTE

Only install manually. If automatically installed, it will wear brush hub. Make sure that the tanks are empty before removing the brush.

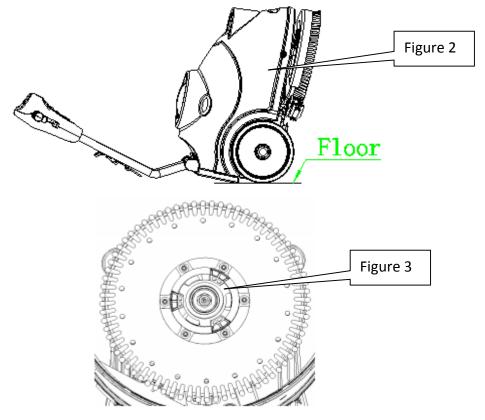
- 1. Turn off the machine.
- Lay down the machine in the position shown in figure 2. Pull up lift lever (26) to raise the squeegee. (33)

- 3. Mount the brush or pad driver onto the drive wheel hub and then rotate counterclockwise until it locks, as indicated in figure 3.
- 4. To remove the brush/pad, rotate the brush/pad clockwise until it is released from drive hub.



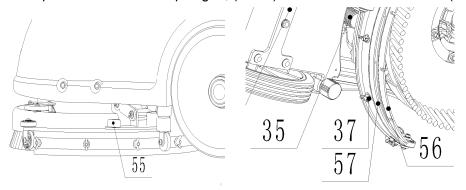
#### **WARNING**

Do not turn on the machine in this position as below. In case of brush/pad come out or cause injury.



#### Squeegee installation

- 1. Turn off the machine. (47)
- 2. Pull down the squeegee lift lever (26) to put down the squeegee in the "working" position.
- 3. Lay down the machine in this position as shown in figure 2.
- 4. Loosen the two knobs (55) on the squeegee and slide the squeegee into the slots on the squeegee brackets.
- 5. Tighten the knobs securely. (unscrew the knobs, if to remove)
- 6. To replace the front/rear squeegee, (56/57) unscrew the thumb knobs. (37)



#### Solution tank filling



#### **NOTE**

The machine can be filled with a hose or bucket. Do not remove the Solution filter (21) while filling.

- 1. Fill water into solution tank (3) from the inlet (20) through hose or bucket.
- 2. Do not overfill the solution tank. It is best to leave a an inch from the top edge.
- 3. The water temperature must not exceed 40°C.



#### **CAUTION!**

Use only low-foam and non-flammable detergents, intended for automatic scrubber applications.

#### Solution tank draining



#### NOTE

Solution tank should be drained and cleaned after each scrubber operation is completed.

- 1. Unscrew the drain cap (22) on the bottom of solution tank. The solution/water will flow freely into a bucket or floor drain.
- 2. Rinse the solution tank with clean water after every use. This will help prevent chemical buildup and clogging of the solution lid.
- 3. Replace the drain cap. (22)

#### Recovery tank draining



#### **NOTE**

Recovery tank should be drained and cleaned after each scrubber operation is completed.

- Turn the latch (17) on the recovery tank. Remove the recovery tank from machine by grasping two grooves of tank and pulling up. Open the lid (1) and overturn the recovery tank to drain the dirty water into a container, or unscrew the drain cap (22) to let water drain into a bucket.
- 2. Clean and Rinse the recovery tank with clean water after every use.
- 3. Re-place the recovery tank on the machine and turn the latch (17) to lock the tank in place.

#### **MACHINE OPERATION**

- 1. Set the handle to a comfortable height by pressing level. (25)
- 2. Lower the squeegee (33) onto floor by pulling down the lift handle. (26)
- 3. Turn on the main power switch. (47)
- 4. Turn on the brush motor switch (48) and the solution switch. (50)
- 5. Turn on the vacuum motor switch. (49)
- 6. If necessary, adjust the water flow by manually turning the ball valve. (31)
- 7. Pull one or both operating triggers. (24) The brush will spin & solution will begin to flow. Push the machine forward to start cleaning.



#### NOTE

If the battery indicator light (51) is green, the machine can be used. If it is yellow or red, the batteries must be charged.

4



#### **CAUTION!**

Before lifting the brush, turn off the main power switch. (47)



#### **CAUTION!**

If the control panel (46) lights flash simultaneously, this indicates the machine is overloaded. Please turn off all the switches on the control panel (46) to reset the machine. If problem persists, contact authorized service provider.



#### **CAUTION!**

Operating machine with discharged batteries may cause harm to the batteries or to the machine.

#### **AFTER EACH USE**

After scrubbing, please proceed with below actions before storing the machine:

- 1. Remove the brush / pad-holder.
- 2. Empty the tanks as shown in the previous paragraph.
- 3. Perform the daily maintenance procedures. (see Maintenance section)
- 4. Store the machine in a clean and dry place, with the brush / pad-holder and the squeegee up.
- 5. If storing in an area that may reach freezing temperatures, be sure to drain all fluids from the machine prior to storage. Any damage caused by freezing will void the warranty.

#### **MACHINE STORAGE**

If the machine is not going to be used for more than 30-days, please proceed with below actions:

- 1. Perform the procedures shown in 'After Each Use' section above.
- 2. Disconnect the battery connector.

#### MAINTENANCE

The lifespan of the machine and its maximum operating safety are ensured by correct and regular maintenance. The following chart provides the scheduled maintenance. The intervals shown may vary according to individual working conditions.



#### WARNING

Maintenance procedures must be performed with the machine switched off and the batteries/battery charger cable disconnected. Moreover, carefully read the instruction in the Safety chapter.

All maintenance procedures must be performed by qualified personnel, or by an authorized Service Center.

This Manual describes only the most common maintenance procedures.

For additional maintenance procedures, contact your local Service Center.

#### **SCHEDULED MAINTENANCE TABLE**

|                                             | After each use | Weekly | Every six | Annually |
|---------------------------------------------|----------------|--------|-----------|----------|
| Procedure                                   |                |        | months    |          |
| Battery charging                            |                |        |           |          |
| Squeegee cleaning                           |                |        |           |          |
| Brush cleaning                              |                |        |           |          |
| Clean tank, vacuum screen & check top cover |                |        |           |          |
| gasket                                      |                |        |           |          |
| Squeegee blade check and replacement        |                |        |           |          |
| Inlet filter cleaning                       |                |        |           |          |
| Screw and nut tightening check              |                |        | (1)       |          |
| Lubricate rotary parts                      |                |        | (1)       |          |
| Check brush motor carbon brushes            |                |        |           | (2)      |
| Check vacuum motor carbon brushes           | _              |        |           | (2)      |

- (1) After the first 8 working hours.
- (2) This maintenance procedure must be performed by an authorized Service Center.

#### **BATTERY CHARGING**



#### NOTE

Charge the batteries when the yellow or red indicator, (51) or at the end of every work cycle.



#### **CAUTION!**

Proper battery care will extend battery life



#### **CAUTION!**

If the machine is not equipped with on-board battery charger, choose an external battery charger suitable for the type of batteries installed.



#### **WARNING!**

Please use Viper approved charger to charge the batteries.

- 1. Place charger and machine in a well ventilated area.
- 2. Turn machine off. (47)
- 3. Remove the recovery tank, (2) exposing battery compartment.
- 4. Plug the charging cable to the grounded wall outlet (100v~240v). Connect the charging cable to the machine socket.
- 5. The charging light (30) indicates the batteries are charging. A green light indicates battery charging is completed.
- 6. Upon the completion of charging, first unplug the charging cable from the wall outlet and then disconnect from machine.
- 7. Replace the recovery tank.



#### **NOTE**

For further information about the operation of the battery charger, (29) see the charger section.

#### **SQUEEGEE CLEANING**



#### **NOTE**

For optimal performance, the squeegee blades must be clean, dry and undamaged.



#### **CAUTION!**

It is advisable to wear protective gloves when cleaning the squeegee because there may be sharp debris.

#### SQUEEGEE BLADE CHECK AND REPLACEMENT

- 1. Take off the squeegee as shown in the previously.
- 2. Check the edges of the front & rear blades for cracks. If necessary replace with new blades.
- 3. Unscrew six the thumb nuts (37) to remove the blades.
- 4. Check the front & rear blades for cuts and tears. If damage is found, you can flip the blades once & re-install. If already flipped, please replace with new blades.
- 5. Install the squeegee in the reverse order of removal.

#### **BRUSH /PAD DRIVER CLEANING**



#### **CAUTION!**

It is advisable to wear protective gloves when cleaning the brush/pad because there may be sharp debris.

- 1. Remove the brush/pad as shown in "Machine Use" section.
- 2. Clean and wash the brush/pad with water and detergent.
- 3. Check the brush bristles for integrity and wear. If necessary, replace the brush.
- 4. Check the pad for wear. If necessary, replace the pad driver.

#### RECOVERY TANK MAINTENANCE



#### **CAUTION!**

It is advisable to wear protective gloves when cleaning the tank and vacuum/suction assembly because there may be sharp debris.

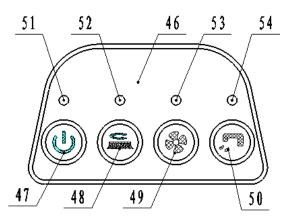
- 1. Move the machine to the appointed draining area.
- 2. Turn off the main switch. (47)
- 3. Remove the recovery tank, (2) clean and rinse both solution/recovery tank, and drain out.
- 4. Remove vacuum gasket & filter. Clean and re-install.
- 5. Check the recovery tank lid gasket and the vacuum rubber connector (18) for wear. Replace if necessary.



#### **NOTE**

The gasket ring of recovery tank and the rubber connector between two tanks create vacuum in the tank. If necessary, replace them.

### **Control Panel**



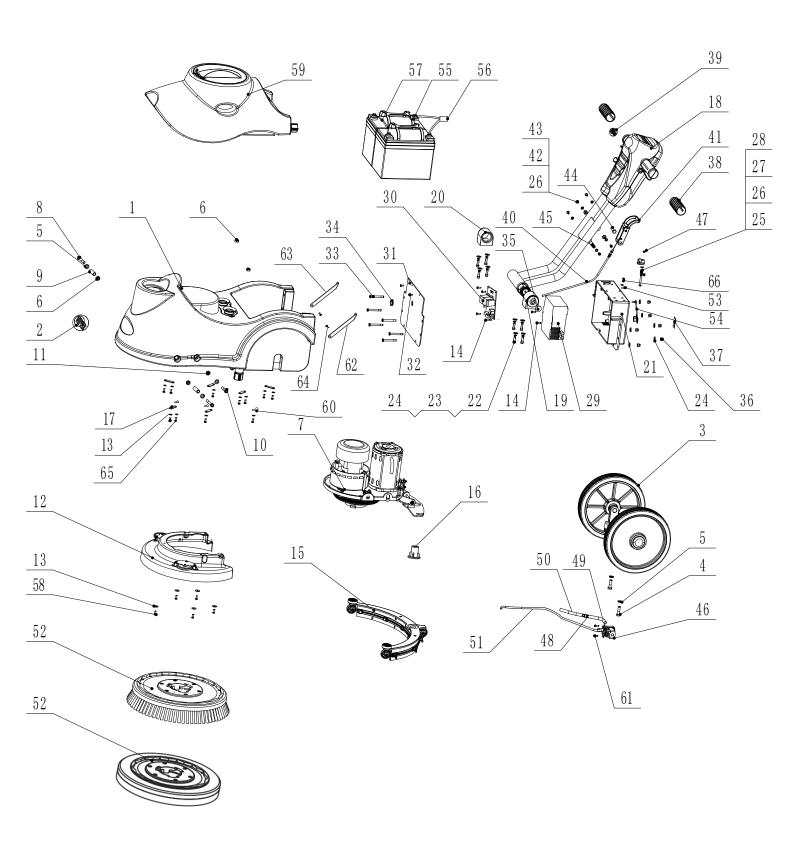
- 46. Control panel
- 47. Main switch
- 48. Brush motor switch
- 49. Vacuum motor switch
- 50. Solution switch

- 51. Battery indicator
- 52. Brush motor indicator
- 53. Vacuum motor indicator
- 54. Solution indicator

#### **TECHINICAL DATA**

| TECHNICAL DATA                            |                                             |  |
|-------------------------------------------|---------------------------------------------|--|
| MODEL                                     | FANG15B                                     |  |
| Machine length / width / height           | 770x500x550MM                               |  |
| Solution tank capacity                    | 15L                                         |  |
| Recovery tank capacity                    | 15L                                         |  |
| Wheel diameter                            | 254MM                                       |  |
| Brush motor                               | 24V/250W                                    |  |
| Vacuum motor                              | 24V/300W                                    |  |
| Solenoid valve                            | 24V                                         |  |
| Maximum gradient when working             | 2%                                          |  |
| Sound level                               | 70dBA                                       |  |
| Standard Batteries                        | Dry: (2×12V) 24V 33Ah                       |  |
| Batteries size                            | 196 x 130 x 175mm                           |  |
| Power cable length                        | N / A                                       |  |
| Cleaning productivity                     | 750m²/hour                                  |  |
| Squeegee width                            | 490mm                                       |  |
| Brush diameter                            | 380mm                                       |  |
| Brush rpm                                 | 150rpm                                      |  |
| Charger                                   | Input 110-224Vac, 50-60HZ; Output 24Vdc, 5A |  |
| Machine net weight                        | 60kg                                        |  |
| Machine weight (with charger and package) | 65kg                                        |  |
| Carton spec                               | 780x415x590MM                               |  |

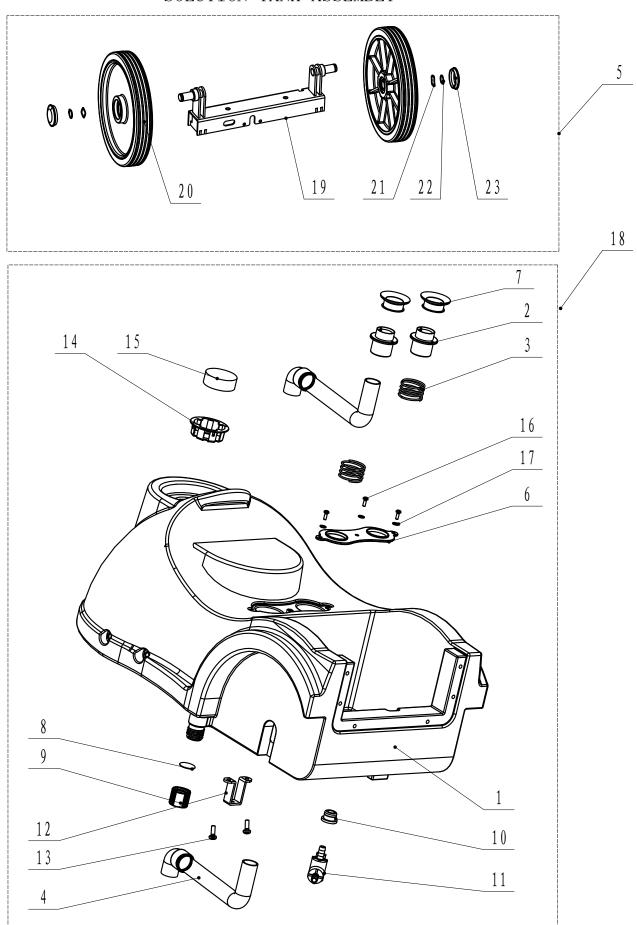
### COMPLETE ASSEMBLY



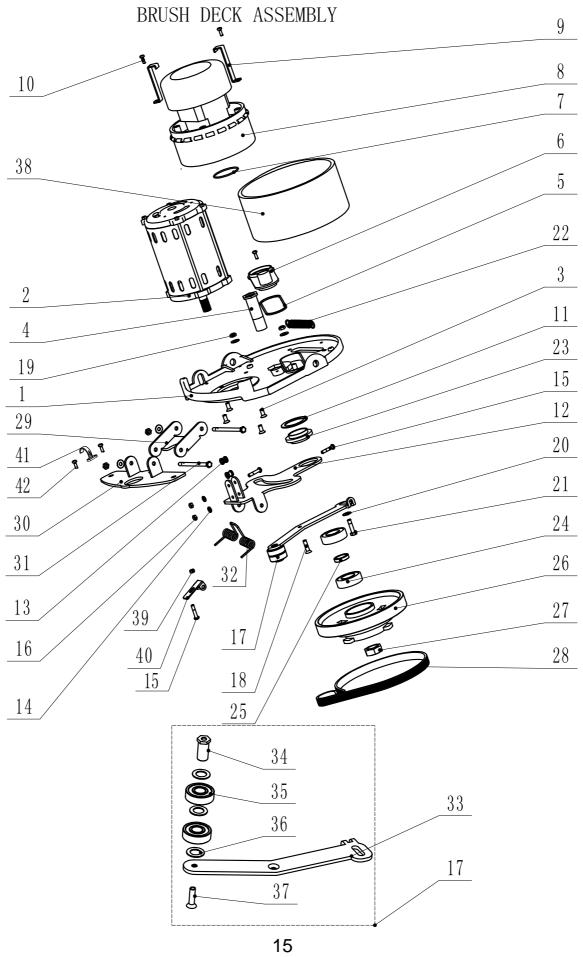
|      | COMPLETE MACHINE - FANG15B |                                  |     |
|------|----------------------------|----------------------------------|-----|
| Item | Part No.                   | Description                      | Qty |
| 1    | VF89100                    | KIT, SOLUTION TANK               | 1   |
| 2    | VF89018                    | LABEL, SOLUTION TANK             | 1   |
| 3    | VF89200                    | KIT, AXLE WHEEL                  | 1   |
| 4    | VF14251                    | BOLT, M8X30, HEX HEAD            | 2   |
| 5    | VF13514A                   | WASHER, D8X1XD16.5               | 5   |
| 6    | VF14516                    | NUT, NYLON INSERT, M8            | 4   |
| 7    | VF89831                    | KIT, MOTOR MOUNTING PLATE        | 1   |
| 8    | VF85698                    | HEX SOCKET SCREW, M8X55          | 2   |
| 9    | VF89030                    | BUSHING                          | 2   |
| 10   | VF14258                    | HEX SOCKET SCREW, M8X40          | 1   |
| 11   | VF14503                    | NUT, M8                          | 1   |
| 12   | VF89400                    | KIT, SKIRT ASSEMBLY              | 1   |
| 13   | VV13664                    | WASHER, D4X1XD8                  | 15  |
| 14   | VF13491                    | PH SCREW, M4X12                  | 16  |
| 15   | VF89821                    | KIT, SQUEEGEE                    | 1   |
| 16   | VF89029A                   | HOSE, CONNECT SQUEEGEE           | 1   |
| 17   | VF89015                    | PLATE                            | 6   |
| 18   | VF89600                    | KIT, HANDLE ASSEMBLY             | 1   |
| 19   | VF89001                    | HANDLE BLOCK, LEFT               | 1   |
| 20   | VF89002                    | HANDLE BLOCK, RIGHT              | 1   |
| 21   | VF89003                    | CIRCUIT BOX                      | 1   |
| 22   | VV60220S1                  | HEX SOCKET SCREW, M6X15          | 8   |
| 23   | VV20290                    | WASHER LOCK, ¢6                  | 8   |
| 24   | VF13614                    | WASHER, ¢6                       | 14  |
| 25   | GT13027                    | PH SCREW, M5X45                  | 1   |
| 26   | VA13482                    | WASHER, D5X1XD10                 | 6   |
| 27   | VF89004                    | LATCH, RECOVERY TANK             | 1   |
| 28   | VF89005                    | SPRING, PRESS                    | 1   |
| 29   | VF89023US                  | KIT, CHARGER                     | 1   |
| 30   | VF89025-1                  | PLATE, MAIN CONTROL              | 1   |
| 31   | VF89006                    | CIRCUIT COVER                    | 1   |
| 32   | VF14301                    | SCREW, M4X12                     | 2   |
| 32   |                            | HEX BOLT M6X50                   | 4   |
| 33   | VF89034                    |                                  |     |
| 0.4  | VF89034A                   | HEX BOLT M6X55                   | 2   |
| 34   | VF89052                    | COVER, WATERPROOF                | 1   |
| 35   | VF89037                    | PLUG, RUBBER                     | 1   |
| 36   | VF89035                    | COVER NUT, M6                    | 6   |
| 37   | VF89016                    | LABEL, CHARGE DISPLAY            | 1   |
| 38   | VF89012                    | HANDLE GRIP, RUBBER              | 2   |
| 39   | VF89017                    | LABEL, REAR HOUSING              | 1   |
| 40   | VF89007                    | CABLE, SQUEEGEE LIFT             | 1   |
|      | VF89007-1                  | CABLE, SQUEEGEE LIFT             | 1   |
| 41   | VF89008                    | HANDLE, SQUEEGEE LIFT            | 1   |
| 42   | VV20509                    | PH SCREW, M5X10                  | 3   |
| 43   | VF89010                    | ROTATE AXLE, SQUEEGEE LIFT CABLE | 2   |
| 44   | VF89011                    | AXLE, SQUEEGEE LIFT CABLE        | 1   |
| 45   | VF89009A                   | ROTATE AXLE, SQUEEGEE LIFT CABLE | 2   |
| 46   | VF89056                    | SOLENOID VALVE, 24V              | 1   |
| 47   | VF14514                    | NUT, NYLON INSERT, M5            | 1   |
| 48   | VF89033                    | HOSE                             | 1   |
| 49   | VF89847                    | PIPE SI, D6XD10, 0.115M          | 1   |
| 50   | VF89848                    | PIPE SI, D4XD8, 0.115M           | 1   |
| 51   | VF89846                    | PIPE SI, D6XD10, 0.45M           | 1   |
|      | VF89830                    | BRUSH ASSEMBLY                   | 1   |
| 52   | VF89817                    | PAD DRIVER                       | 1   |

| COMPLETE MACHINE - FANG15B |          |                             |     |
|----------------------------|----------|-----------------------------|-----|
| Item                       | Part No. | Description                 | Qty |
| 53                         | VF85102  | SMALL CLAMP                 | 1   |
| 54                         | VF89055  | RUBBER PLUG, CHARGER INSERT | 1   |
| 55                         | VF89020  | BATTERY, 2-12V 35Ah         | 1   |
| 56                         | VF89036  | POWER WIRE                  | 1   |
| 57                         | VF89021  | KIT, BATTERY CONNECT LINE   | 1   |
| 58                         | VA13473  | PH SCREW, M4X16             | 5   |
| 59                         | VF89827  | KIT, RECOVERY TANK          | 1   |
| 60                         | VF85141  | BIG CLAMP                   | 1   |
| 61                         | VA13472  | PH SCREW, M4X8              | 2   |
| 62                         | VS00001  | SUPPORT,LEFT                | 1   |
| 63                         | VS00002  | SUPPORT,RIGHT               | 1   |
| 64                         | GT13054  | SCREW, M5X12                | 2   |
| 65                         | VV13650A | SCREW, M4X10                | 11  |
| 66                         | VF14214  | SCREW, M5X8                 | 1   |

### SOLUTION TANK ASSEMBLY

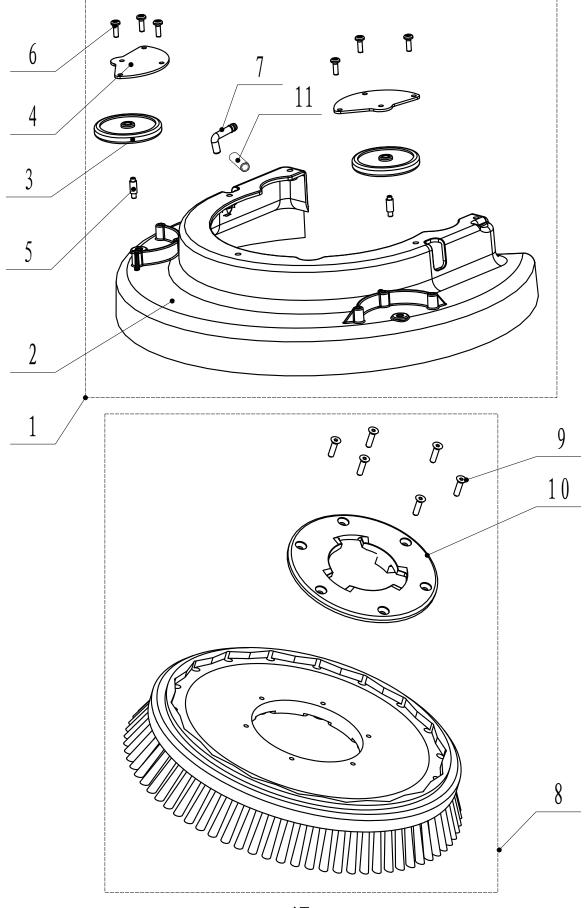


|      | SOLUTION TANK ASSY - FANG 15B |                                 |     |
|------|-------------------------------|---------------------------------|-----|
| Item | Part No.                      | Description                     | Qty |
| 1    | VF89101                       | SOLUTION TANK                   | 1   |
| 2    | VF89102                       | HOSE, CONNECT VACUUM            | 2   |
| 3    | VF89103                       | SPRING, PRESS                   | 2   |
| 4    | VF89104                       | VACUUM HOSE                     | 2   |
| 5    | VF89200                       | KIT, WHEEL AXLE                 | 1   |
| 6    | VF89106                       | PLASTIC PLATE, HOSE LIMIT       | 1   |
| 7    | VF89107                       | RUBBER SEAL                     | 2   |
| 8    | VF89115                       | GASKET                          | 1   |
| 9    | VF89110                       | CAP, DRAIN                      | 1   |
| 10   | VF85302                       | RUBBER BUSHING                  | 1   |
| 11   | VF89091                       | SOLUTION TAP                    | 1   |
| 12   | VF89112                       | CABLE BRACKET                   | 1   |
| 13   | VF14200                       | PH SCREW, M6X15                 | 2   |
| 14   | VF89113                       | SEAT, INLET, FRESH WATER TANK   | 1   |
| 15   | VF89114                       | FILTER, INLET, FRESH WATER TANK | 1   |
| 16   | VF13491                       | PH SCREW, M4X12                 | 3   |
| 17   | VV13664                       | WASHER ¢4                       | 3   |
| 18   | VF89100                       | KIT, SOLUTION TANK              | 1   |
| 19   | VF89201                       | WHEEL AXLE                      | 1   |
| 20   | VF89202                       | DRIVE WHEEL, 10"                | 2   |
| 21   | VF14563                       | WASHER,WAVE                     | 2   |
| 22   | VF14552                       | SNAP SPRING                     | 2   |
| 23   | VF89202-3                     | CAP, WHEEL                      | 2   |



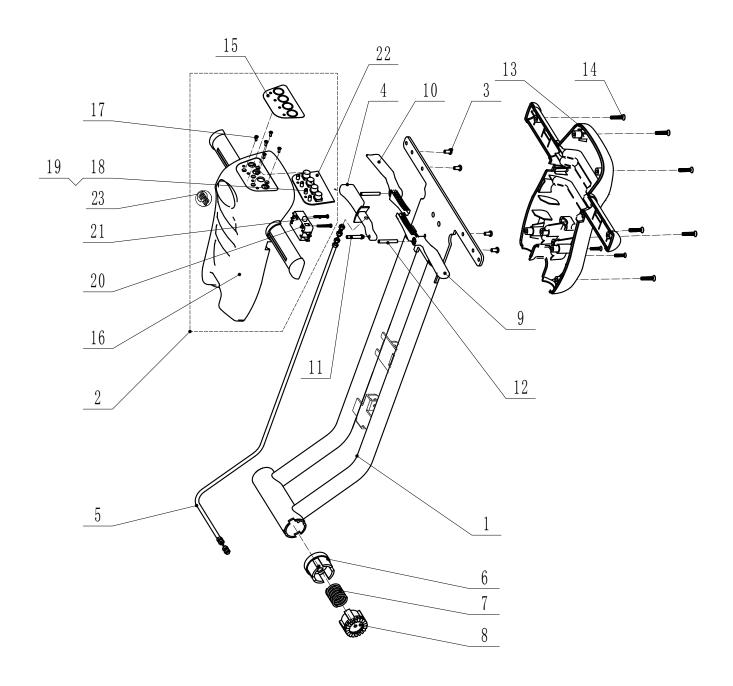
|      | BRUSH DECK ASSY - FANG 15B |                            |     |
|------|----------------------------|----------------------------|-----|
| Item | Part No.                   | Description                | Qty |
| 1    | VF89301                    | PLATE, MOTOR MOUNT         | 1   |
| 2    | VF89302                    | BRUSH MOTOR ASSEMBLY       | 1   |
| 3    | VF89303                    | SCREW, M6X14               | 4   |
| 4    | VF89304                    | BOLT, DIRVE BELT           | 1   |
| 5    | VF89305                    | O-RING, BIG                | 1   |
| 6    | VF89306                    | SEALING COVER, VACUUM      | 1   |
| 7    | VF89307                    | O-RING, SMALL              | 1   |
| 8    | VF89309                    | KIT, VACUUM MOTOR          | 1   |
| 9    | VF89310                    | BRACKET, VAC MOTOR         | 2   |
| 10   | VF13491                    | PH SCREW, M4X12            | 3   |
| 11   | VF89311                    | WASHER, THIN               | 1   |
| 12   | VF89312                    | PLATE, SQUEEGEE ROTATE     | 1   |
| 13   | VF89313                    | GUIDE WHEEL, SQUEEGEE      | 2   |
| 14   | VA13482                    | WASHER ¢5                  | 2   |
| 15   | VA13475                    | PH SCREW, M5X25            | 3   |
| 16   | VF14514                    | NUT, NYLON INSERT, M5      | 2   |
| 17   | VF89314                    | KIT, BELT ADJUSTMENT       | 1   |
| 18   | VF14223                    | SCREW, M6X25               | 1   |
| 19   | VF14506                    | NUT, NYLON INSERT, M6      | 4   |
| 20   | VF13614                    | WASHER, ¢6                 | 3   |
| 21   | VV20058                    | BOLT, M6X25, HEX           | 1   |
| 22   | VF89318                    | SPRING                     | 1   |
| 23   | VF89319                    | BUSHING, SQUEEGEE ROTATE   | 1   |
| 24   | ZD45425                    | BEARING, 6204              | 2   |
| 25   | VF89320                    | BUSHING                    | 1   |
| 26   | VF89321                    | DRIVE HUB                  | 1   |
| 27   | VF89322                    | NUT, M20                   | 1   |
| 28   | VF89323                    | DRIVE BELT, PJ270          | 1   |
| 29   | VF89324                    | PLATE, SQUEEGEE LIFT       | 1   |
| 30   | VF89325                    | PLATE, SQUEEGEE BRACKET    | 1   |
| 31   | VF89326                    | ROTATE BOLT, SQUEEGEE LIFT | 2   |
| 32   | VF89823                    | TORSION SPRING             | 1   |
| 33   | VF89315                    | PLATE, BELT ADJUSTMENT     | 1   |
| 34   | VF89316                    | BOLT, BEARING              | 1   |
| 35   | VF51126A                   | BEARING, 6201              | 2   |
| 36   | VF89317                    | WASHER, D12.2XD20X1        | 3   |
| 37   | GT13084                    | SCREW, M6X20               | 1 1 |
| 38   | VF89308                    | SILENCER SPONGE            | 1   |
| 39   | VV13633                    | NUT, M5                    | 1   |
| 40   | VF89337A                   | PRESSURE ADJUSTMENT PLATE  | 1   |
| 41   | VF89092                    | CLAMP DRAIN HOSE           | 1   |
| 42   | VV13667                    | SCREW, M4X8                | 2   |

## BRUSH SKIRT & BRUSH



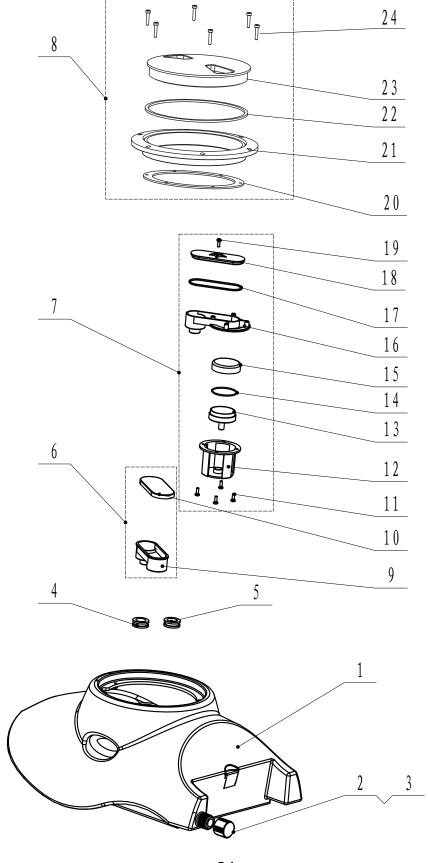
| BRUSH SKIRT & BRUSH - FANG 15B |             |                      |     |
|--------------------------------|-------------|----------------------|-----|
| Item                           | Part No.    | Description          | Qty |
| 1                              | VF89400     | BRUSH SKIRT ASSEMBLY | 1   |
| 2                              | VF89401     | BRUSH SKIRT          | 1   |
| 3                              | VF89402     | WHEEL, BUMPER        | 2   |
| 4                              | VF89403     | COVER, WHEEL         | 2   |
| 5                              | VF89404     | SHAFT                | 2   |
| 6                              | VF14401     | SCREW, ST4X10        | 6   |
| 7                              | VF89051     | ELBOW                | 1   |
| ,                              | VF89838     | ELBOW                | 1   |
| 8                              | VF89830     | BRUSH ASSEMBLY       | 1   |
| 0                              | VF89817     | PAD DRIVER ASSEMBLY  | 1   |
| 9                              | MF-VF002-4A | SCREW, ST6.5X25      | 6   |
| 10                             | VF89803     | BRUSH HUB            | 1   |
| 11                             | VF89824     | HOSE                 | 1   |

## HANDLE CONTROL ASSEMBLY



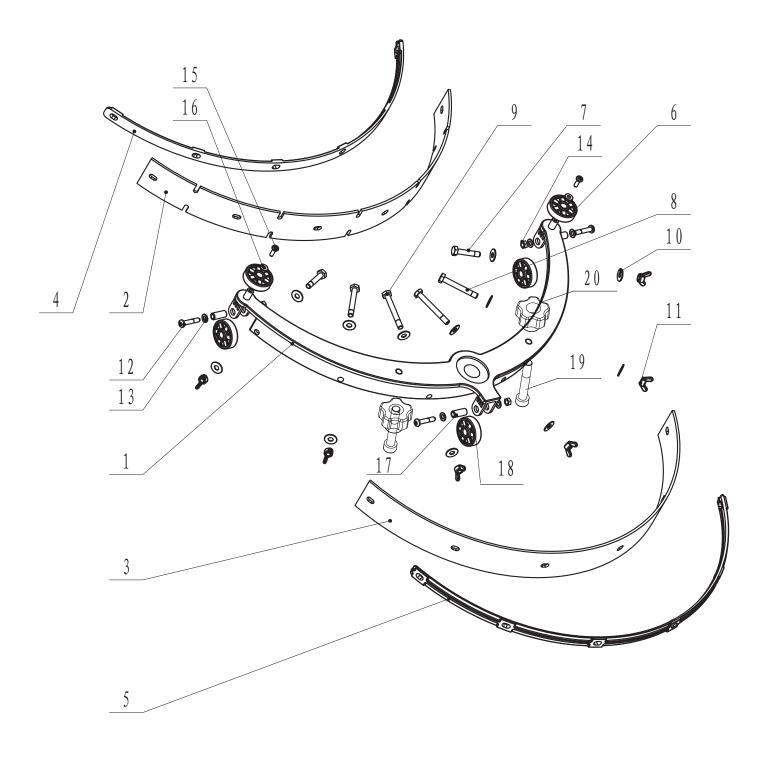
| HANDLE ASSY - FANG 15B |           |                            |     |
|------------------------|-----------|----------------------------|-----|
| Item                   | Part No.  | Description                | Qty |
| 4                      | VF89601   | HANDLE TUBE ASSY           | 1   |
| 1                      | VF89601A  | HANDLE TUBE ASSY           | 1   |
| 2                      | VF89607   | KIT, FRONT CONTROL HOUSING | 1   |
| 3                      | 80405A    | PH SCREW, M5X12            | 4   |
| 4                      | VF89610   | TRIGGER, HANDLE ADJUSTMENT | 1   |
| 5                      | VF89611   | CABLE, HANDLE ADJUSTMENT   | 1   |
| 6                      | VF89612   | BUSHING, GUIDE GEAR        | 1   |
| 7                      | VF89613   | SPRING, HANDLE GEAR        | 1   |
| 8                      | VF89614   | GEAR, HANDLE ADJUSTMENT    | 1   |
| 9                      | VF89615   | TRIGGER, LEFT              | 1   |
| 10                     | VF89616   | TRIGGER, RIGHT             | 1   |
| 11                     | VF89617   | PIN, HANDLE ADJUSTMENT     | 1   |
| 12                     | VF89621   | PIN, TRIGGER               | 2   |
| 13                     | VF89618   | CONTROL HOUSING, REAR      | 1   |
| 14                     | VF80407A  | PH SCREW ,M5X25            | 8   |
| 15                     | VF89619   | LABEL, SWITCH              | 1   |
| 16                     | VF89608   | CONTROL HOUSING, FRONT     | 1   |
| 17                     | 33005101  | PH SCREW, M3X8             | 5   |
| 18                     | VF89622   | BOLT, INSULATION, M3X15    | 5   |
| 19                     | VV13617   | NUT, M3                    | 5   |
| 20                     | VF40263A  | SWITCH                     | 1   |
| 21                     | VF14244   | PH SCREW, M3X20            | 2   |
| 22                     | VF89025-2 | CIRCUIT BOARD              | 1   |
| 23                     | VF89017   | LABEL, CONTROL HOUSING     | 1   |

### RECOVERY TANK ASSEMBLY



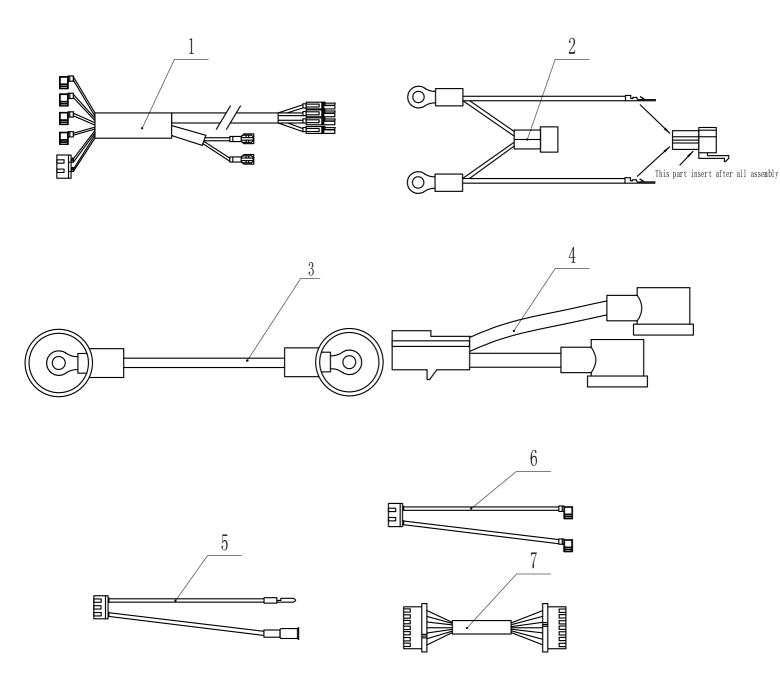
| RECOVERY TANK - FANG 15B |          |                            |     |
|--------------------------|----------|----------------------------|-----|
| Item                     | Part No. | Description                | Qty |
| 1                        | VF89701  | RECOVERY TANK              | 1   |
| 2                        | VF89115  | GASKET                     | 1   |
| 3                        | VF89110  | CAP, DRAIN                 | 1   |
| 4                        | VF89810  | RUBBER BUSHING, TANK       | 1   |
| 5                        | VF89811  | RUBBER BUSHING, TANK, GREY | 1   |
| 6                        | VF89828  | KIT, SQUEEGEE SUCTION      | 1   |
| 7                        | VF89829  | KIT, SQUEEGEE VACCUM       | 1   |
| 0                        | VF89716  | KIT, RECOVERY TANK COVER   | 1   |
| 8                        | VF89716A | KIT, RECOVERY TANK COVER   | 1   |
| 9                        | VF89813  | BASE, OUTLET               | 1   |
| 10                       | VF89712  | COVER, RUBBER              | 1   |
| 11                       | VA50523  | SCREW, ST4X8               | 4   |
| 12                       | VF89709  | GUIDE BASE, PLUG VACUUM    | 1   |
| 13                       | VF89711  | PLUG, BASE                 | 1   |
| 14                       | VF89307  | O-RING, PLUG               | 1   |
| 15                       | VF89710  | PLUG, COVER                | 1   |
| 16                       | VF89814  | BASE, VACUUM               | 1   |
| 17                       | VF89705  | O-RING                     | 1   |
| 18                       | VF89706  | COVER, VACUUM              | 1   |
| 19                       | VA13477  | SCREW, ST4X15              | 2   |
| 20                       | VF89077  | SEAL, LID                  | 1   |
| 21                       | VF89079  | SEAT,FOR LID               | 1   |
| 22                       | VF89078  | SEAL, LID                  | 1   |
| 23                       | VV96001S | LID, RECOVERY TANK         | 1   |
| 24                       | VF89080  | SCREW, M4X12               | 6   |

## SQUEEGEE ASSEMBLY



| SQUEEGEE ASSY - FANG 15B |            |                                       |     |
|--------------------------|------------|---------------------------------------|-----|
| Item                     | Part No.   | Description                           | Qty |
| 1                        | VF89815    | SQUEEGEE BRACKET                      | 1   |
| 2 -                      | VF89807    | SQUEEGEE BLADE, FRONT                 | 1   |
| 2                        | VF89807-PU | SQUEEGEE BLADE, FRONT (PU - OPTIONAL) | 1   |
| 3 -                      | VF89808    | SQUEEGEE BLADE, REAR                  | 1   |
| 3                        | VF89808-PU | SQUEEGEE BLADE, REAR (PU - OPTIONAL)  | 1   |
| 4                        | VF89504    | STRAP, SQUEEGEE FRONT                 | 1   |
| 5                        | VF89505    | STRAP, SQUEEGEE REAR                  | 1   |
| 6                        | VF89506    | WHEEL, SQUEEGEE                       | 2   |
| 7                        | VA13479    | BOLT, M6X30, HEX STAINLESS            | 2   |
| 8                        | VF89507    | BOLT, M6X45, HEX STAINLESS            | 2   |
| 9                        | VF14264    | BOLT, M6X50, HEX STAINLESS            | 2   |
| 10                       | VF13614    | WASHER, D6.3XD12.6X1.2, STAINLESS     | 12  |
| 11                       | VF89509    | NUT, THUMB, M6                        | 6   |
| 12                       | 80398A     | SCREW, M5X35                          | 3   |
| 13                       | VA13482    | WASHER, D5XD10X1.0, STAINLESS         | 6   |
| 14                       | VF14514    | NUT, NYLON INSERT, M5                 | 3   |
| 15                       | VF13491    | PH SCREW, M4X12                       | 2   |
| 16                       | VV13664    | WASHER, D4XD12X1MM, STAINLESS         | 2   |
| 17                       | VF89508    | BUSHING                               | 3   |
| 18                       | VF89809    | WHEEL, SQUEEGEE                       | 3   |
| 19                       | VF85698    | BOLT, M8X55                           | 2   |
| 20                       | VF89510    | THUNB BOLT                            | 2   |

## ELECTRICAL



| ELECTRICAL PARTS - FANG 15B |           |                      |     |
|-----------------------------|-----------|----------------------|-----|
| Item                        | Part No.  | Description          | Qty |
| 1                           | VF89026   | MOTOR WIRE           | 1   |
| 2                           | VF89022   | MAIN POWER WIRE      | 1   |
| 3                           | VF89021   | BATTERY CONNECT WIRE | 1   |
| 4                           | VF89036   | POWER WIRE           | 1   |
| 5                           | VF89024   | CHARGER INPUT WIRE   | 1   |
| 6                           | VF89620   | KIT, 4-LEG SWITCH    | 1   |
| 7                           | VF89025-3 | COMMUNICATION WIRE   | 1   |

### **TROUBLESHOOTING**

| Trouble                                | Possible Cause                                 | Remedy                   |
|----------------------------------------|------------------------------------------------|--------------------------|
|                                        | The battery connector is disconnected          | Connect                  |
| The machine does not work, indicator   | The batteries are completely discharged        | Charge the batteries     |
| light (51) do not turns on             | The power line disconnected from the power     | Connect                  |
| The machine does not work, indicator   | The batteries are discharged                   | Charge the batteries     |
| light (51) display red                 |                                                |                          |
| Brush motor does not work, brush       | The PCB or key board is broken                 | Change the PCB or key    |
| indicator light (52) does not turn on. |                                                | board                    |
|                                        | The deck motor is overloaded                   | Use less aggressive      |
| Brush motor does not work, brush       |                                                | brushes suitable for the |
| indicator light (52) flashes           |                                                | floor to be cleaned      |
| indicator light (oz) hashes            | Obstruction preventing the brush from rotating | Clean the brush hub      |
| Vacuum system motor does not work,     | The PCB or key board is broken                 | Change the PCB or key    |
| vacuum motor indicator light (53) does | ,                                              | board                    |
| not turn on                            |                                                |                          |
| Vacuum system motor does not work,     | The vacuum motor is overloaded                 | Check the vacuum motor   |
| brush indicator lights (53) flash      |                                                |                          |
|                                        | The recovery tank is full                      | Empty the recovery tank. |
|                                        | The hose is disconnected from the              | Re-connect               |
|                                        | squeegee                                       |                          |
| Insufficient vacuuming / water nickup  | Vacuum assembly is clogged                     | Clean or check           |
| Insufficient vacuuming / water pickup  | The squeegee is dirty, or the squeegee         | Clean and check the      |
|                                        | blades are worn or damaged                     | squeegee                 |
|                                        | The recovery tank do not latched closed        | Lock the latch (17)      |
|                                        | The tank cover is not properly closed, or the  | Close the cover properly |
|                                        | gasket is damaged                              | or replace the gasket    |
|                                        | The solution filter is dirty                   | Clean the filter         |
| The solution flow is insufficient      | The solution is empty                          | Refill solution tank     |
| THE SOLUTION IS ITSUITICIENT           | Solution flow control valve (31) is clogged    | Clean the valve          |
|                                        | The solution is dirty                          | Clean the solution       |
|                                        | There is debris under the squeegee blades      | Remove the debris        |
| The squeegee leaves marks on the floo. | The squeegee blades are worn, chipped or       | Replace the blades       |
|                                        | torn                                           |                          |

