Repair Flow - Floor Care

Proces step	Action	Robotics	Bagless	Bag	AquaTrio	Stick	Handheld	SpeedProMax
Intake	1 Visual inspection (transport damage) take care for pictures	x	x	x	x	x	x	x
	2 Check Type/serialnumber	x	x	x	x	x	x	x
	3 Log all available accessory, counter check with info from consumer	x	x	x	x	x	x	x
Diagnosis	4 Lion Battery check, if yes please refer Lion Tab	x	O	O	O	x	x	x
	4 Check product for consumer complaint and main function (NFF contact consumer)	x	x	x	x	x	x	x
	5 Visual inspection check for loosen parts, leaking etc..	x	x	x	x	x	x	x
	6 Opening device	x	x	x	x	x	x	x
Repair	7 Repairing the fault(s) encountered (view Symptom Cure)	x	x	x	x	x	x	x
	8 Checking any modifications (view Symptom Cure, new software, etc.) **Refer Annex tabs per family (if available)**	x	x	x	x	x	x	x
Basic Functional test	9 **Basic Functional test while the appliance is open** (linked to consumer complaint or what you may have detected)	x	x	x	x	x	x	x
	Check if battery is empty -> load with the delivered adaptor	x	o	o	o	x	x	x
	Check adaptor / docking station	x	o	o	o	x	x	x
	Check on error codes / leds	x	o	o	x	x	o	x
	Check all IR sensors with camera on cell phone: if IR sensors light up with bright light = ok - In case of non-bright light : clean the sensor(s).	x	o	o	o	o	o	o
	Check if bumper is loose or stuck	x	o	o	o	o	o	o
	Check if dirt is present at nozzle and brushes : need to be cleaned	x	o	o	o	x	x	x
	Check if brushes are turning *does not apply to the full range	x	x	x	x	x	o	x
	Check if water flows when brushes are removed	o	o	o	x	o	o	o
	Service activities in accordance with the operating schedule	x	o	o	o	o	o	o
	Check/ Replace Filter !!!CRP parts must be charged to the consumer !!!	x	x	x	o	x	x	x
	Clean dustbin and/or Filter	x	x	x	o	x	x	x
	Check CleanWaterTank and DirtyWaterTank	o	o	o	x	o	o	o
	Check side brushes -> clean if necessary or replace !!CRP parts must be charged to the consumer !!!	x	o	o	o	o	o	o
	Check wheel assies -> clean if necessary or replace (front an main wheels)	x	o	o	x	x	o	x
	Check connection Docking station to robot:	x	o	o	o	o	o	o
	Check Fan	x	o	o	o	o	o	o
	check water circuit for any leakage, such as Oetiker clamps, boiler and valve connection and hoses	o	o	o	x	o	o	o
	Check mechanism for good movement and unexpected noise, suction power	x	x	x	x	x	x	x
	10 Assembly	x	x	x	x	x	x	x
Inspection	11 Do cabinet parts fit well together	x	x	x	x	x	x	x
visual	12 Check for damages	x	x	x	x	x	x	x
Power check	13 Will the set switch on	x	x	x	x	x	x	x
	14 Battery check	x	o	o	o	x	x	x
Accesoires	15 Do the accessories match with the intake	x	x	x	x	x	x	x
Consumer complaint	16 Check the product for the consumer complaint	x	x	x	x	x	x	x
Quick Functional test	17 Test main basic function	x	x	x	x	x	x	x
Leakage	18 Did the product leak during the testing	o	o	o	x	x	x	o
	19 Draining the circuit (in winter)	o	o	o	x	x	x	o
Claim Administration	20 **Provide precise IRIS code, according dedicated code table for Garment Care products. The location code from the part you have worked on MUST be completed always with the part reference from exploded view ! Primary fault and coresponding IRIS code should be claimed first.**	x	x	x	x	x	x	x
Cleaning	22 Clean water reservoir	o	o	o	x	x	x	o
	23 Clean dust container, dustbag compartment, brushes, tubes, hoses	x	x	x	x	x	x	x
	24 External cleaning (housing surface)	x	x	x	x	x	x	x
Safety check	25 Earth leakage, Isolation test, resistor of earth wire grounding, as requested in certain country's (VDE, ISO) or H-POT TEST	x	x	x	x	x	x	x
Visual	26 power cable / cordwinder, cable must be fully checked	o	x	x	x	o	o	o
	27 Check the main cable / adaptor for damages	x	x	x	x	x	x	x
Packing	28 Packing	x	x	x	x	x	x	x
	29 Check completeness (accessories) according income log	x	x	x	x	x	x	x
	30 Neatly pack the product	x	x	x	x	x	x	x
Documentation	31 Info for Consumer by packed ? E.g. service brochure, FAQ, NFF letter, S/C	x	x	x	x	x	x	x
	32 Other instructions according S/C	x	x	x	x	x	x	x
Repair report	33 Is there an answer to ALL consumer questions / complaints (see complaint)	x	x	x	x	x	x	x
	34 add set statistic and give, if needed clear instruction towards consumer	x	x	x	x	x	x	x
	35 Is it indicated which documents are added	x	x	x	x	x	x	x
	36 Are there tips how to prevent issues	x	x	x	x	x	x	x

x=apply to family, O=not

Floorcare - Robotics

Service Checklist	☒NOK / ☑ OK	Corrected ☑	Reference
Battery			
Springs battery			FC8810, FC8820
Fanhousing / bottom			
Remove Hair/dirt on Big Wheels, Frontwheel and Axes			
Remove hair on Sidebrushes			
When hair/dirt has not been removed, the following behaviour can occur :			
Robot turns around; strange behaviour; unexpected moves to the right / left or			
even backwards movement.			
Replacement of old models (before prod.date 1631)			S/C 113742; 114071
			S/C 114248
Deep Sleep mode			S/C 114604
Not returning to Docking station after 35 min.			S/C 114695
Checklist NFF			S/C 114630
Switch on robot, check behaviour and unexpected noise, deep sleep			
Callibration of robots			S/C 114981
Error on Display (E6)			S/C 114989
Error triangle on Display			S/C 114990
Service Instruction for robots (Strange behaviors)			S/C 114991

This is a trouble shoot list for robotics.

Please read below listed checkpoints on frequent complaint topics (Bold text) based on analysis results of many field returns. The IR sensors are visible with most cell phone's camera. Then you can see the sending signal(s) as clear (purple) light beam(s).

The robot can only drive backwards

- Front window cover: A little bit dust on the (inside or outside); it can block the IR signal.

- Cliff sensor: A little bit dust on one or more cliff sensor(s) can give weak/distorted signal
- Bumper (Mechanical switching): bumper is stuck or hooked, not freely moving back to position.
- Re-calibration of cliff sensor (7 cm) for FC877x, FC871x and FC88xx

The robot can only drive a few cm and stops while side brush is rotating

- Robot is not switched off for ± 1 month, causing a register overload (time stamp). Software Fix implemented in November 2017 (Firmware version v5.32)
- To clear the register: Switch off robot using switch, wait for 1 min and then turn the device on again. Place the device on charger / docking station and check functioning.

The robot can only drive in circles / curved

- The small front wheel cannot swivel or rotate freely. This causes the robot to compensate slipping or wrong turning behavior. Take out front wheel and caster to remove all dirt & hairs.

- One or both big wheels are blocked by hairs, the robot will drive curved or at less speed. Take out wheel unit and remove all hairs and dirt.

- One or both big wheels gearbox is defect (broken teeth of small gear). Take out wheel unit and replace.

Wheel rubber is dirty / greasy causing robot to slip on the floor. Clean the wheel rubber.

- SmartPro Compact & Active: After a few minutes, the pre-programmed program will change to another mode. This is to ensure proper cleaning of the entire room. (There is a spot mode clean program letting robot clean in circles)

Deep sleep mode

- When the battery of the robot is completely empty, the robot will go into "deep sleep" mode. The robot must first be connected to the charger / docking station to ensure that it can be switched on again (full charging 3-4 hours).
- When the main "o / o" switch is operated from "off" to "on", the robot must first connect to the charger (adapter / docking station) to ensure that it awakes from deep sleep mode. The robot will not work otherwise. (Only applicable for robots with rocker switch)
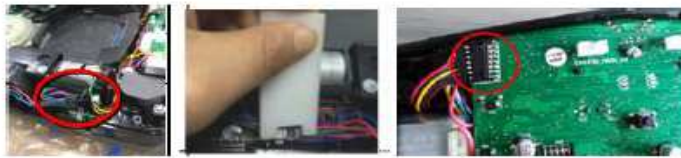
General findings from market returns

- Robot poorly maintained; A lot of dust and dirt inside robot, e.g. on PCBA.
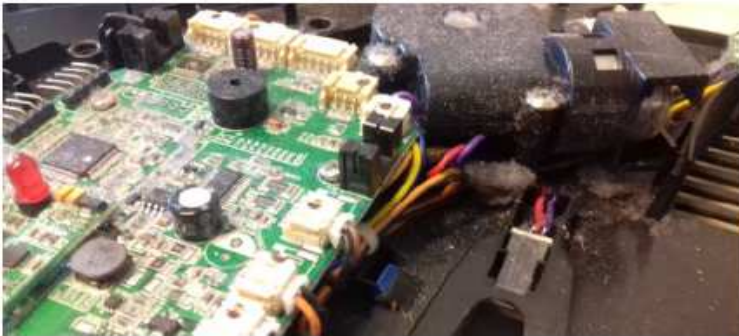
- Robot poorly maintained; a lot of dust and dirt inside Fan, Filter, Side brush, nozzle. Scratches on top lid (robot must had severe wedging)
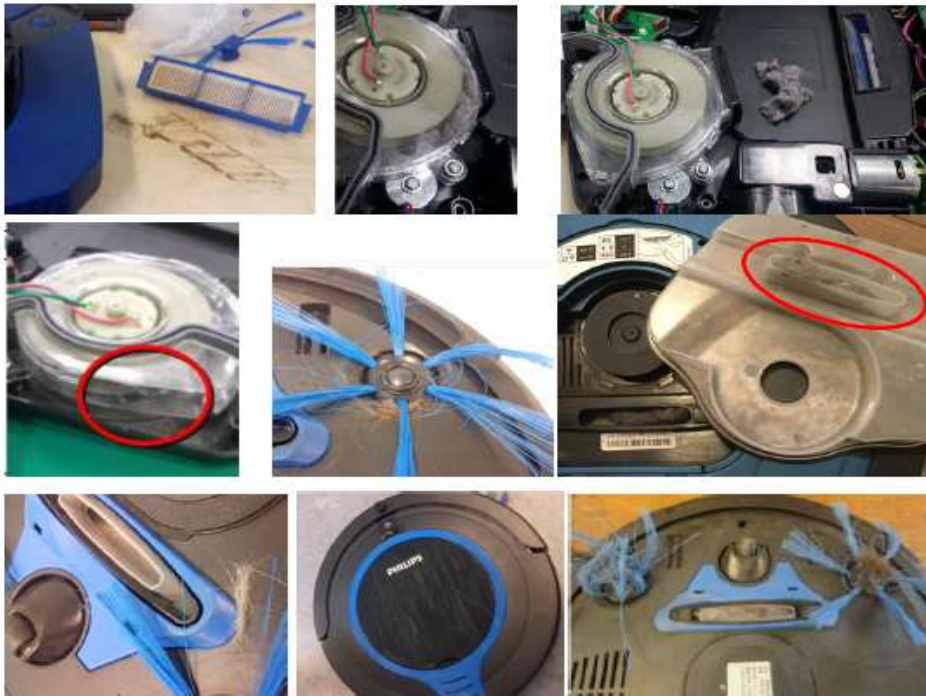
- Connectors not assembled correct, now fixture is used in production, and visible marking

- SmartPro Easy (FC879x) Bumper PCBA assembly has 90° bends, there is a risk to be broken.


Does not return to docking station:

- Robot without UI panel: RVC will go back to the docking station whether it started from the DS or triggered by timer of the RC or APP.
- FC88XX have UI panel, press timer (30/40/60) on the remote control once or twice to decide if the RVC will go back to docking station after completing the clean task.

- When battery is empty, robot has 20 - 30 minutes to find docking station, if not found robot switches off.
- Location of docking station in the room: must have free clearance for sending and receiving IR signal. (see DFU)

- During cleaning run: Plinths /carpets / obstacles; can robot cross any time? Multiple rooms
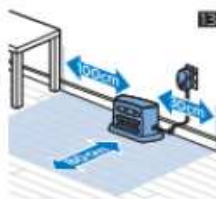
Smart Pro Active / compact: "Old" model versus "New" model (xxx/B)

- No "hard" O/I switch in new version:

- Run time in minutes according below table:

update:20190107

Model	Mainboard	Original Battery	Software setting in old version		New Battery	Software setting in new version		Fan Mode
			Working time	Searching dock time		Working time	Searching dock time	
FC8710/FC8715	Sirius2 2L	2800mAh	95	35	2900mAh	95	35	
FC8774/8776/8972/8778	Sirius2 2L	2800mAh	95	35	2900mAh	95	35	
FC8812	Sirius2 2L	2200mAh	70	20	2900mAh	70	35	
FC8822	Sirius2 2L	2800mAh	60	20	2900mAh	60	35	Turbo
	Sirius2 2L	2800mAh	90	20	2900mAh	90	35	Normal
FC8832/FC8932	Sirius2 2L	2800mAh	60	20	2900mAh	60	35	Turbo
	Sirius2 2L	2800mAh	90	20	2900mAh	90	35	Normal

Robot drops of stairs:

- Caution in DFU: In some cases, the drop-off sensors may not detect a staircase or other height difference in time. Monitor the robot carefully the first few times you use it, and when you operate it near a staircase or another height difference.

- It is important that you clean the drop-off sensors regularly to ensure the robot continues to detect height differences properly (see 'Cleaning and maintenance', use phone camera to check sending signal).

Robot suddenly stops and power cut off:

- Battery power too low. When battery is in low condition, a sudden power demand can activate the BMS. No time to go in "docking mode / search for docking station", power is cut off by BMS.

No suction power:

- Nozzle cannot move freely; nozzle must seal surface with the floor.
- Additional weight is missing in the nozzle (XL nozzle) (metal plate)
- Nozzle / filter clogged with dust / fluff

Battery Voltage:

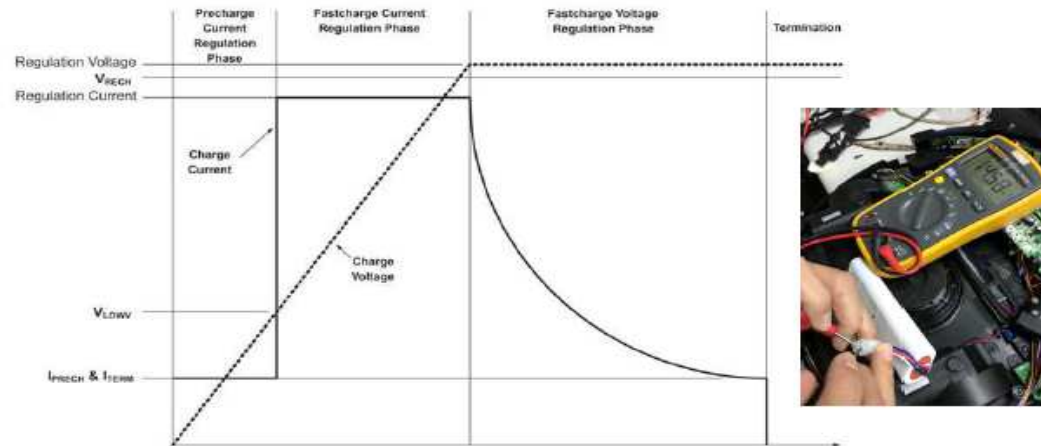- Normal cycle Charging Li-ion Battery Pack: Constant Current, Constant Voltage.

Figure 9. Typical Charging Profile

- The pre-charge activates when the battery voltage is below the threshold of low voltage protection by BMS, in 2900 mAh case, it is 11V. (Red / Black wire = 0 V, Blue / Black wire > 6V) (Current for pre-charge is controlled by a charge IC on mainboard). Pre-charge time is no more than 30mins.
- According to the report of self-consumption of battery from Grand pro, the battery from 11V to 10V will take about 12months in room temperature(~25C, it would be okay for a long storage time if necessary.

Floorcare - Bag

Service Checklist	☒NOK / ☑ OK	Corrected ☑	Reference	optional search criteria for AYS
Dustbag full / damaged / placed wrong				
Motorfilter				
Exhaust filter				
Cordwinder				
Clogged C-bend				
Clogged Hose				
MANDATORY: to replace the Dustbag holder on PowerGo models (set before<kw1836)			SDA_114916	FC8240, FC8250

Floorcare - Bagless

Service Checklist	☒NOK / ☑ OK	Corrected ☑	Reference
Dustbag full / damaged / placed wrong			
Bucketfilter			
Exhaust filter			
Cordwinder			
Clogged C-bend			
Clogged Hose			
Lid Bucket			

Floorcare - AquaTrio

Service Checklist	☒NOK / ☑ OK	Corrected ☑	Reference
Handles Watertanks			
Brushes dirty / turning			
Pump (if water comes out)			
Position watertanks			
Lid of nozzle			
Bearing holders 4322 003 38622 (black)			Change to lower temperature of Drive train assy / 2015
Drive train assy 4322 005 34312 (230 V.)			Change to lower temperature / 2015
Drive train assy 4322 005 34952 (220 V.)			Change to lower temperature /2015 +
			S/C 112979

Floorcare - Handhelds

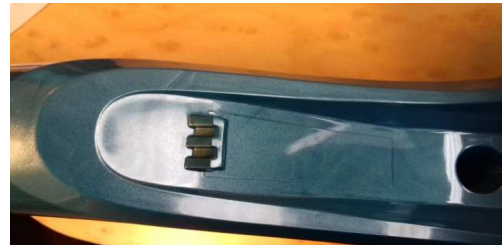| Service Checklist	☒NOK / ☑ OK	Corrected ☑	Reference
Weeknr. Indicated in the plastic housing (only valid for Handhelds)			See Picture nr. 1
Check if Valve is present and functional			See Picture nr. 2 (valve of FC614x) is present
			See Picture nr. 3 : non functional (deformed)
Check water container on leakage			FC6172, FC6404..FC6409
Check if waterdispenser assy is clogged			FC6172, FC6404..FC6409
Check Battery			
Check Adaptor			
Check Led's during charging : if leds are blinking fast = PCBA failure			All Stick appliances
Check functionality car cord			FC6149
Check the wire between Upper- and Lowerstick on damage			
Check if Fixation bolt is present			
Check and clean small wheels			
Check and clean the Rotating Brush			
Check if connector pins are not pushed in			See picture nr. 4
Check if locking point handheld is not damaged			See Picture nr. 5

Picture 1

Picture 2

Picture 3

Picture 4

Floorcare - SpeedPro Max

| Service Checklist	☒NOK / ☑ OK	Corrected ☑	Reference
Weeknr. Indicated in the Handheld			See Picture nr. 1 A - Please use only this weeknr. for claims
Weeknr. Indicated on the Nozzle			See Picture nr. 1B
Check Battery			See Picture nr. 2
Check Adaptor			See Picture nr. 3
Check charging : shows Battery %			See Picture nr. 4
Check Filter : if it is clogged, led is burning			See Picture nr. 5
Check and clean wheels			
Check and clean the Brush in Nozzle			
Check and clean rubber flaps of Nozzle			
Check if connector pins for Battery are in the correct position			
Check electrical connections :			
- Tube <-> Nozzle			
- Tube <-> Handheld			
Check Hose in Nozzle on leakage			
Connectors get loose			SDA_114986
MANDATORY: Appliance cannot be charged anymore, battery is empty			SDA_114898

Picture 1 A :

Picture 1B :

Picture 2:

Picture 3 :
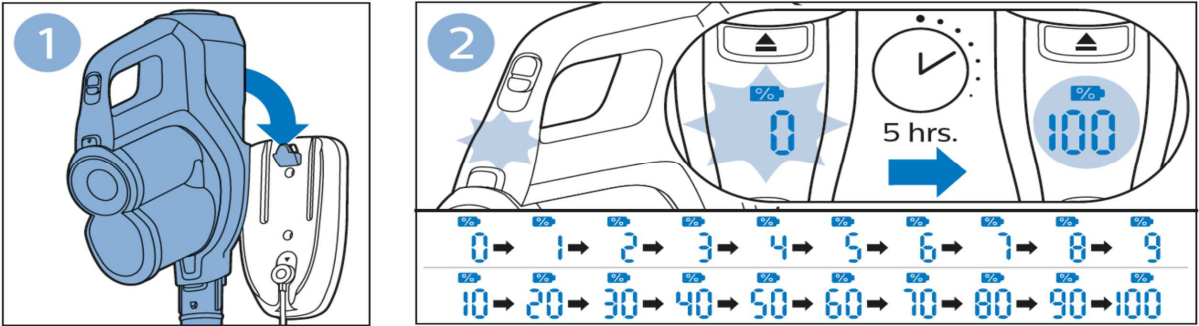
Picture 4 :

Picture nr. 5 :
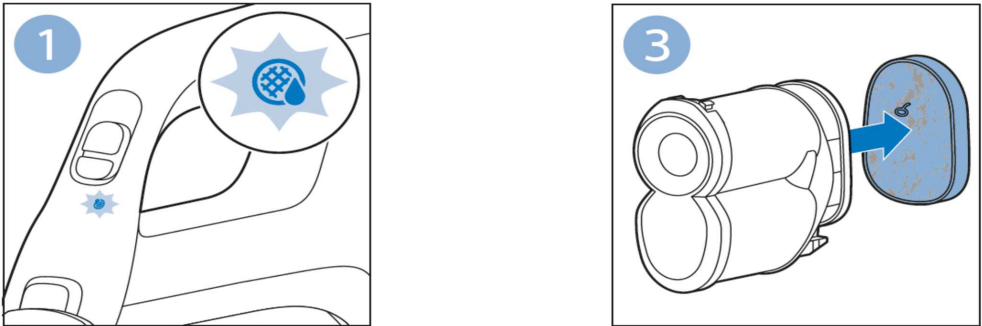
Date	Family	topic	Reference	removed / added	commend	version
01.09.2017		initial version v1 released				v1
20.11.2017		update the Annex slides with some critical checkpoints				v2
20.11.2017		release v2				v2
04.04.2018		Add SpeedPro Max as appliance and Critical Areas				v3
05.04.2018		release v3				v3
19.10.2018	SpeedPro Max	add Mandatory s/c into SpeedPro Max	SDA_114898	add		v4
19.10.2018		release v4				v4
13.11.2018	PowerGo	MANDATORY: to replace the Dustbag holder on PowerGo models (set before<kw1836)	SDA_114916	add		v5
16.11.2018		release v5				v5
06.03.2019		added S/C for SpeedPro Max	SDA_114986	add		v6
06.03.2019		added S/C for Robotics	SDA_114989	add		v6
06.03.2019		added S/C for Robotics	SDA_114990	add		v6
06.03.2019		added S/C for Robotics	SDA_114991	add		v6
15.03.2019		release v6				v6
14.04.2021		highlight cord winder and power cable within the safety check				v7
14.04.2021		release v7				v7
26.09.2026		release v8				v8
07.11.2025		release v9				v9