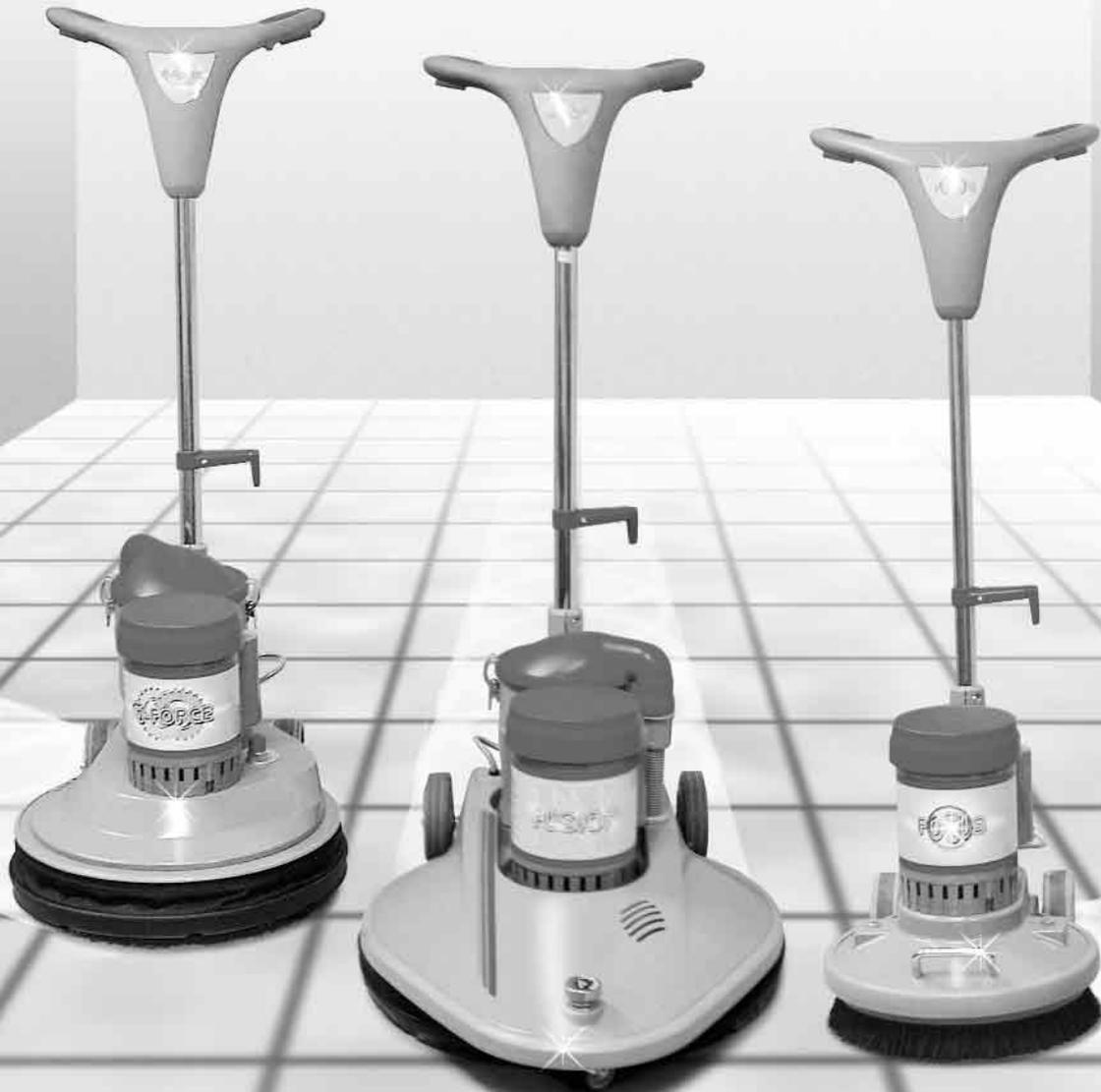


Hako Rotobic

SCRUBBER / POLISHERS, BURNISHERS



OPERATION MANUAL AND PARTS GUIDE

Hako Australia Pty Limited

ABN 43 002 858 059

6 Pike Street, Rydalmere NSW 2116 Australia

PO Box 360 Rydalmere BC1701

Telephone: (02) 9684 2433 Fax: (02) 9684 2278

Toll Free: 1800 257 221

Email: hksales@hakoaustralia.com.au

www.hakoaustralia.com.au

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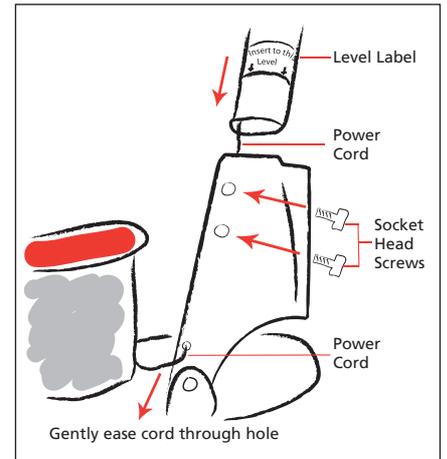
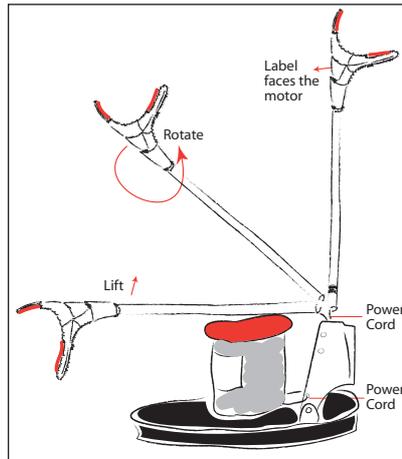


**An ideal solution to
cleaning problems
from Hako Rotobic.**

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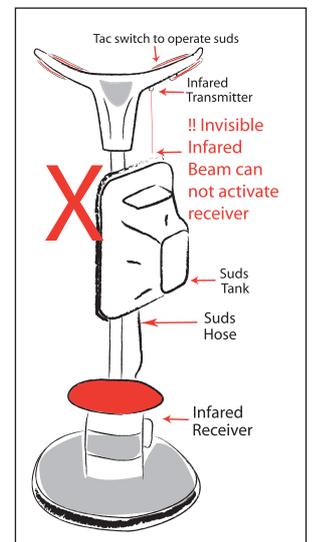
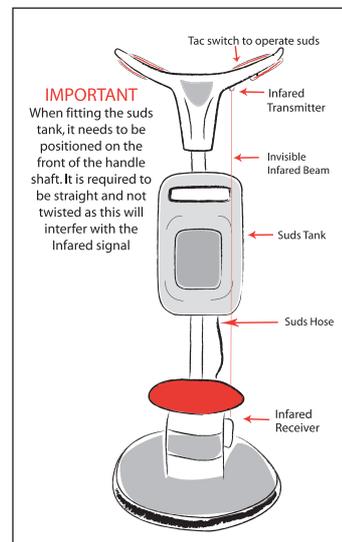
HANDLE ASSEMBLY

- Open top carton flaps
- Rotate Handle into Pivot Housing (41) ensuring handle label faces towards the front of the machine. The Handle and Pivot Housing are located similar to a lock and key.
- Insert handle to depth indicated on "Level Label" **easing the Power Cord through the Pivot Housing at the same time, to prevent damage to the Power Cord.**
- Firmly tighten the Socket Head Screws (40) shown using the "Key" provided.
- Cut Carton along lines shown, and wheel the machine from box.
- Wind Power Cord (24) between Handle and Arm Cord Storage and Release (29).



ASSEMBLY OF TANK (G-Force Suds & Focus Suds models only)

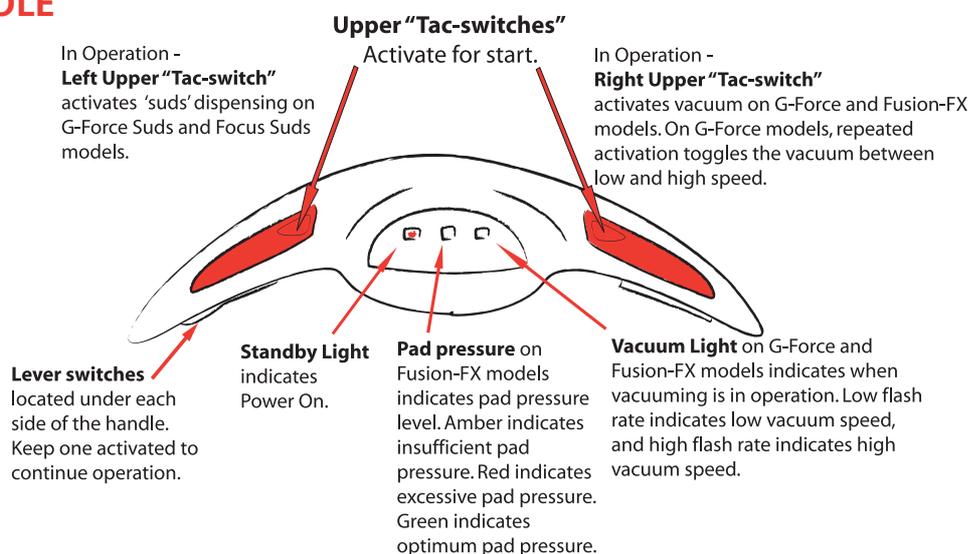
- Loosen Screw (31) on Arm Cord Storage and Release and orientate towards the back of the machine, and re-secure.
- Assemble the Suds Tank (47) to the handle as shown in diagram (Page 16) and secure firmly by tightening Nuts (48) using a spanner.
- Connect Hose (52) between Fitting (51) on tank, and Hose Tail (53) on Solenoid Valve
- Add no more than 10 Litres of water or neutral detergent to tank for scrubbing application.



SAFE USE

- Ensure that this Manual has been read and understood by the operator.
- This appliance is not intended for use by young children or infirm persons without supervision. Young children should be supervised to ensure that they do not play with the appliance.
- Only trained operators should use this appliance and be familiar with its adjustment and use.

HANDLE CONSOLE



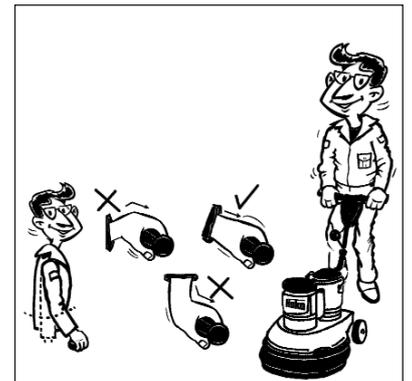
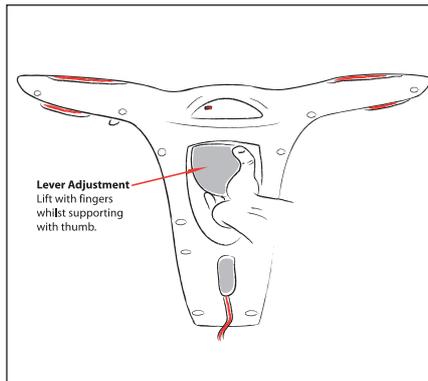
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HANDLE ADJUSTMENT

- Adjust the Handle by lifting the 'Lever Adjustment' (1) with fingers, while supporting with the thumb.

Note: Where the handle mechanism has been unduly jolted or strained, the release mechanism may "stick". Free the handle by pushing in a forward direction while releasing the Lever Adjustment.

- Adjust the handle to a comfortable level. This height is low enough to reduce flexion of the wrist, and is slightly higher than the knuckle height of the operator, when standing in a normal upright position.



PAD AND BRUSH SIZE

Use correctly sized pads and brushes for the machine.

Fusion-FX models,

- Use 25mm thick, 50cm diameter, synthetic high speed pads. Pads containing natural fibres may release odors that can be confused with that of burning electrical insulation, and are not recommended.

G-Force models,

- Use 45cm Quick Release Brushes, or 45cm Quick Release Insta-Lok Pad Holders suited for 45cm pads.

Focus Models,

- Use 40cm Quick Release Brushes, or 40cm Quick Release Insta-Lok Pad Holders suited for 40cm pads

FITTING PADS AND BRUSHES

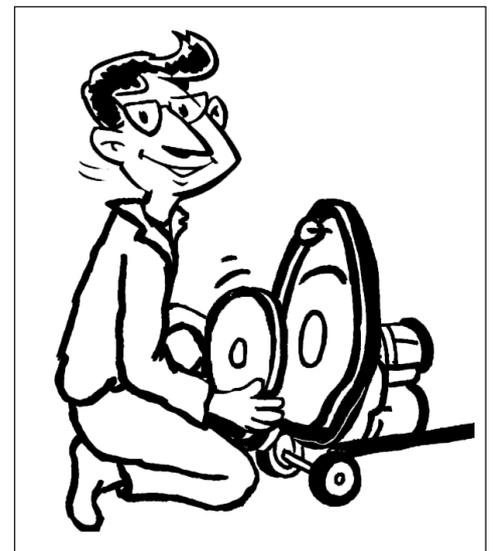
Fit the pad to the machine by raising the handle in the upright position and laying it back on the floor. Kneeling in front of the machine, and maintaining a straight back, for:

Fusion-FX models,

- Remove the Pad Retainer (154) (left hand thread).
- Fit the high speed pad central to the drive.
- Engage the Pad Retainer, screwing it firmly into position.
- Spin the pad by hand to ensure the pad runs concentrically. If excessive run out is allowed, the machine may vibrate.

G-Force and Focus models,

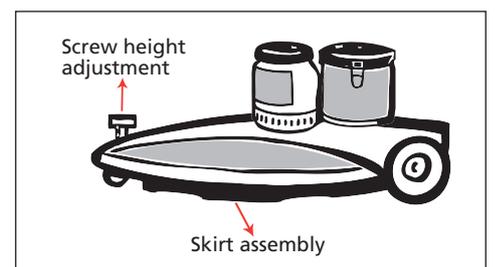
- Engage the pad or brush to the Quick Release Adaptor (103).
- Lock the pad or brush into position by rotating the Quick Release locking plate fully in a clockwise direction.
- Return the machine into an upright position.



SKIRT ADJUSTMENT AND CHECKS

Fusion-FX models

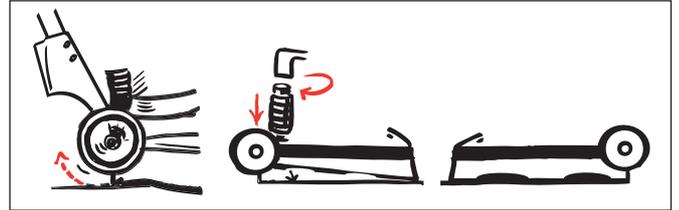
- Check that the Skirt Assembly (149) is sitting evenly on the floor. The Skirt Assembly is a slip on type fit to Inner Cover (145).
- Check that the Screw Height Adjuster (138) is set in the mid position.



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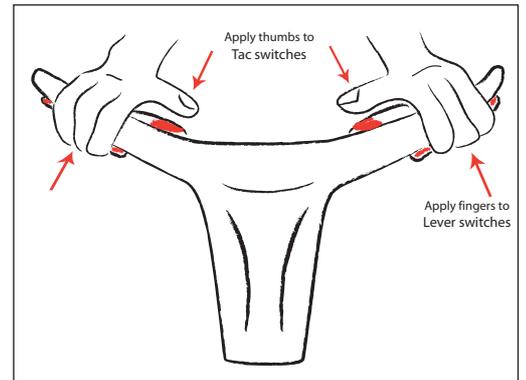
G-Force models

- With pad/brush fitted, lift the wheels (80) so that the machine is resting flat on the floor.
- Check that the Skirt Assembly (180) is sitting evenly on the floor.
- Adjustment can be made by removing the Vacuum Canister Lid (130) and rotating the Hose Inlet Assembly (168) either clockwise or anti-clockwise, to raise or lower the skirt height position.
- The ideal height, places the Hose Inlet Assembly in slight compression, keeping the Shute Assembly (183) in contact with the floor when heeling the machine, this maintains vacuuming efficiency all the time.



START UP

- Release the Power Cord (24) from the Handle by turning the Cord Release Arm (29).
- Leave the cord uncoiled on the floor away from the machine. Plug the cord into an electrical socket, and switch power ON. Check that the Red Standby Light on the console is lit.
- To prevent accidental starting of the machine, four switches need to be activated for start up. Two "Tac-switches" at the top of the handle, and two "Lever switches" under the handle. The switches are configured for normal grip. Press the "Tac-switches" with the thumbs, and the "Lever-switches" with the fingers.
- Once the machine has started, only one, of the 'Lever-switches' needs to be engaged, to keep the machine running. Move the thumbs off the top "Tac-switches", which now perform an alternative function.



PAD PRESSURE ADJUSTMENT (Fusion-FX model)

- The pad pressure needs to be adjusted to avoid overloading the machine.
- The pressure on the pad can be increased or decreased by adjusting the Screw Height Adjuster (138) up or down.
- Turning the Screw Height Adjuster in a clockwise direction reduces the pressure, and turning the knob in an anti-clockwise increases the pressure.
- The pad pressure indicator located on the handle console changes color from RED, GREEN, or AMBER depending on the level of pad pressure.
- Excessive pad pressure will cause the RED light to illuminate. Turn the Screw Height Adjuster knob clockwise to reduce the pad pressure.
- The optimum pad pressure is achieved when the pad pressure indicator is GREEN. You may need several attempts to optimize the settings when commencing a new job, or when the pad is changed.

VACUUM OPERATION (Fusion-FX & G-Force Models Only)

Fusion-FX models

To operate the vacuum simply press the right hand "Tac-switch", on top of the handle. The Fusion-FX has only a single speed vacuum motor.

G-Force models

To operate the vacuum simply press the right hand "Tac-switch", on top of the handle. The G-Force has a dual speed vacuum motor, repeatedly pressing the right hand "Tac-switch", toggles the vacuum between low and high vacuum operation.

To switch the vacuum OFF, simply release all the hand switches on the machine. This also stops the machine.

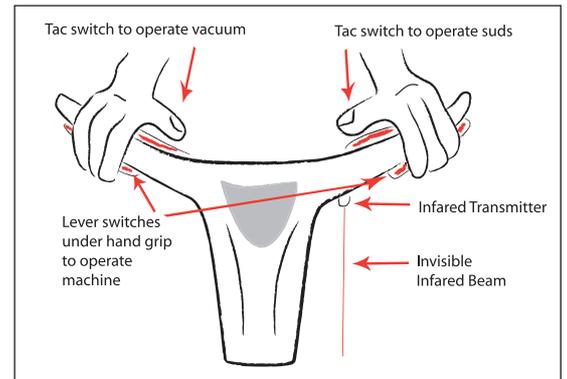
Note: As a safety precaution, on G-Force models fitted with the suds option, suds dispensing is cancelled when vacuuming is initiated.

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SUDS OPERATION *(G-Force Suds & Focus Suds models only)*

To initiate suds dispensing, simply press the left hand "Tac-switch" on top of the handle, dispensing continues for the length of time the switch is activated.

Note: (1) On G-Force models as a safety precaution, suds dispensing cannot be initiated if vacuuming is in progress.
(2) Suds actuation and dispensing is via an infra-red (IR) Transmitter (34) located under the left handle, near the Lever Switch. The principle of operation is similar to that of a TV remote control that acts in the line of sight. The IR Receiver (56) is located on top of the left hand Motor Capacitor Cover. Ensure a clear line of sight between these two point for effective switching.
(Refer page 1 - Assembly of Tank).



POSTURE, GRIP AND CONTROL

Fusion-FX models

The Fusion-FX model is a straight line burnisher that is operated in a forward motion.

The correct posture for operating the machine is,

- Upright stance with feet placement suited for normal walking.
- Symmetrical positioning of hands and arms.
- Relaxed positioning of arms close to the body.
- Predominantly a straight wrist.

G-Force and Focus models

The G-Force and Focus models are swing scrubber/polisher machines, that operate by swinging the machine from side to side.

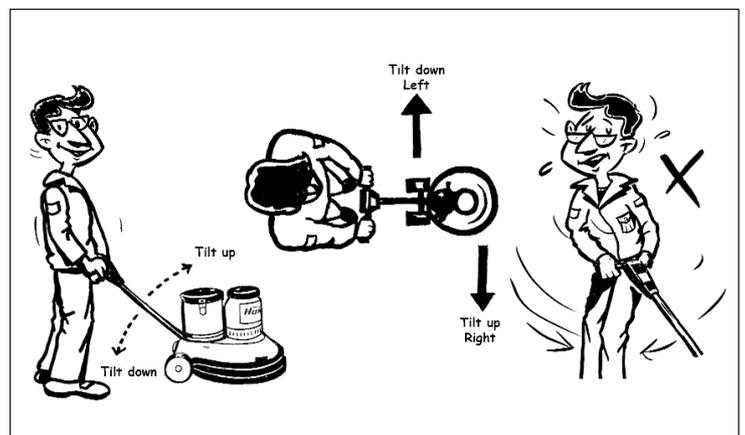
The correct posture for operating the machine is,

- Feet placement at approximately shoulder width.
- Symmetrical positioning of hands and arms.
- Relaxed positioning of arms close to the body.
- Predominantly a straight wrist.
- Upright stance with minimal twisting of upper body from the waist when slewing the machine.



Control (G-Force and Focus models)

- The machine is controlled by **balance not strength**.
- Do not use a power grip on the handle for control.
- Tilting the handle slightly upwards moves the machine to the right
- Tilting the handle slightly down moves the machine to the left
- When the handle is in the intermediate position the machine remains stationary.
- Violent up and down handle movement may cause the operator to lose control due to rapid sideways movement of the machine.
- Do not steer the handle, this will place undue strain on both the operator and handle mountings.

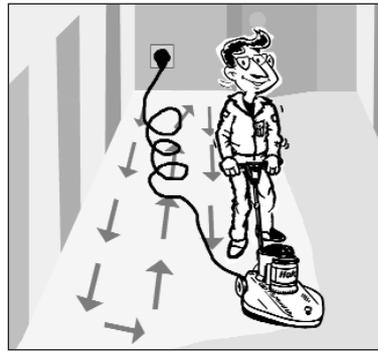


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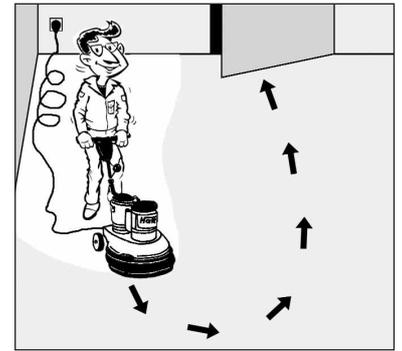
PLANNING THE JOB

- Plan the work path based on the location of the power point, room/furniture layout, entrance and exit points.
- For the Fusion-FX, commence the burnishing task by moving in a straight forward motion at slow walking speed, overlapping the previous pass sufficiently to give a uniform finish.
- For G-Force and Focus models forward progress is achieved by progressively swinging the machine in a side to side arc like motion, slightly overlapping the previous pass.
- Work away from the power cord to avoid entanglement with the rotating pad/brush mechanism.
- Ensure that the power cord is clear of the operators feet to avoid tripping.

FUSION-FX MODELS



G-FORCE & FOCUS MODELS



TRANSPORTATION

- For transporting the machine on level surfaces, adjust the handle to the upright position, and transport the machine on the back wheels.
- When transporting the machine and stairs are encountered, mechanical lifting aids should be used. Do not transport the machine up stairs by pulling on the handle, this practice amplifies forces on the operator, and can cause strain.
- Where lifting of the machine is inevitable operators should be trained in team lifting and manual handling techniques.



PAD AND BRUSH MAINTENANCE

- Replace pads that are excessively worn. Worn pads increase the risk of damage to the floor and pad face.
- Clean pads provide the best burnishing results.
- Wash pads on a regular basis and then store to dry.
- Do not use brushes that are excessively worn.
- Do not use Bassine brushes for wet scrubbing, the fibres may leach color and cause staining.
- Do not soak Bassine brushes in water for cleaning, the fibres absorb varying amounts of water and may cause machine vibration on the next application.
- Excessive amounts of polish congealed and fused on brush bristles, will cause drag on the machine, that can overload the motor. Congealed polish material can be abraded off the brush by, using the machine on flat natural concrete, alternatively replace the brush.
- Remove brushes, from machine after each use. In storage the weight of the machine resting on the brush or pad will permanently deform the bristles on the brush causing the machine to vibrate on the next application.
- Remove the Pad Holder and pad from the machine after each use, In storage the weight of the machine resting on the edges of the Pad Holder will damage the Quick Release Adaptor (103).

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FILTER BAG MAINTENANCE *(Fusion-FX and G-Force models)*

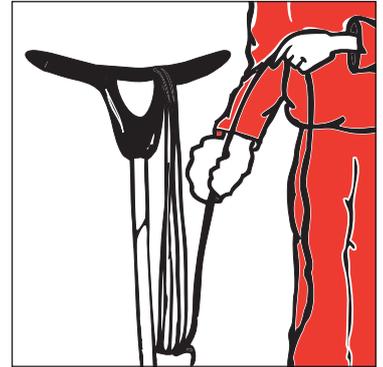
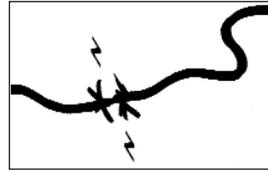
- The Filter Bag (129) must be emptied frequently, and the fine dust coating removed from the bag surface. Access the Filter Bag by releasing the latches on the Canister Assembly (124) holding the Lid (130).
- To clean, push the bag inside out over a bin, and then brush the surface clean using a soft banister brush or vacuum. Do not hit the bag against a wall because this may damage the filter media.
- Check the Filter Bag for perforations to maintain filtration efficiency.

Note: For the G-Force Sander model we suggest the use of paper bag liners, to enhance filtration and longevity of the filter bag.



POWER CORD MAINTENANCE

- Unplug machine from power point and wind the Power Cord between Handle and Arm Cord Storage and Release, from machine end.
- Check the cord for fractures or cuts while winding, and by using a clean cloth in the other hand, remove soilage from cord.
- Replace cords that are badly kinked or knuckled. Knuckling is caused by stretching the cord. Stretching occurs by pulling on an entrapped cord, winding the cord from the machine end while still plugged into the power point, winding the cord from the plug end, or winding the cord too tightly over the handle assembly.
- If the Cord is damaged, it must be replaced by an Authorised Dealer or a similarly qualified person.



SKIRT MAINTENANCE

- Remove accumulated dirt and debris from the skirt.
- Check the skirt for tears.
- Replace the skirt when the edges are worn.

VACUUM SYSTEM MAINTENANCE

- Check vacuum motor carbon brushes at regular intervals. Estimated carbon brush life approximately 500-600 hours.

SUDS TANK MAINTENANCE

- Drain tank of suds solution at the completion of job.
- Flush clean water through tank.
- Flush clean water through solenoid valve by activating solenoid valve.

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HAZARD PRECAUTIONS

Unplug electrical plug from the power point before conducting repair, service, maintenance or equipment cleaning

Electrical

- Do not handle electrical plug or machine with wet hands and power connected.
- Do not run vacuum motor when wet scrubbing or stripping (*G-Force models only*).
- Do not use machine for wet scrubbing without skirt in place (*G-Force models only*).
- Do not store machine outdoors or expose to rain.
- Do not wash or hose down the machine.
- Do not clean the machine by spraying it with water, detergent or cleaning solutions.
- Do not use machine if water has been picked up by the vacuum system, without electrical inspection by a qualified person. (*Fusion-FX & G-Force models only*).
- Do not pull on the Power Cord.
- Work away from the Power Cord to avoid entanglement with the rotating brush/pad mechanism. A hazard may occur if the appliance runs over the Power Cord.
- Plan work path based on layout and work area using a systematic approach.

Machine Control and Property Damage

- Ensure correct handle height adjustment for control.
- Violent handle movement by operator will cause rapid sideways movement and may cause operator to lose control. (*G-Force & Focus models only*).
- Fit quality brushes and pads, correctly sized, to suit application.
- Ensure floor is completely wet when wet scrubbing, and that floor surface is uniform, to minimize rapid sideways movement of the machine. (*G-Force & Focus models only*).
- Ensure the rear wheels are UP when in use (*G-Force & Focus models only*).
- Ensure the machine is in constant motion over the floor area. Keeping the machine in a localized spot may result in friction burns to the floor.

Trips, Slips and Falls

- Do not wear open top footwear when using this equipment.
- Wear slip resistant footwear at all times. Wear chemical resistant footwear when wet scrubbing or stripping floors (*G-Force & Focus models only*).
- Ensure power cord is clear of machine and operators feet.
- Use appropriate signage and barriers e.g. 'Cleaning in Progress' to alert public to cleaning activity.

Burns, Fire, or Explosion

- Do not vacuum anything that is burning or smoking such as cigarettes, matches or hot ashes (*Fusion-FX & G-Force models only*).
- Do not use machine in areas where flammable or combustible liquids, vapors or gases are present.
- Do not operate near explosive materials such as solvents, thinners, fuels or grain dust.

Musculoskeletal Injury

- Change brushes and pads using correct posture.
- Adjust handle to correct height and operate machine using correct posture.
- Hold handle firmly at start, relax grip and maintain a straight wrist when machine is running.
- Do not twist at the waist when slewing the machine or turning, turn using your feet.
- Using mechanical aids or team lifting, when lifting the machine
- Do not pull machine upstairs.
- Do not heel the machine to the point where the machine is on its edge, this can cause injury, damage to the handle, or damage to the floor. (*G-Force & Focus models only*).

Respiratory Damage/Illness due to Irritant Dust (*Fusion-FX & G-Force models only*).

- Do not use machine for vacuuming hazardous dust/particulates as defined in clause 50, WorkCover NSW, Occupational Health and Safety Regulation 2001.
- Filtration efficiency, vacuum airflow, particulate size and quantity must be considered in the assessment of emissions.

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SPECIFICATIONS

Main Motor	Type: Induction Motor, 4 pole Capacitor Start, Capacitor Run, with current overload protection. Voltage & Frequency: 220 to 240 Volts a.c. 50 – 60 Hz Power Output: 1500W at 8.3 Amps
Vacuum Motor (Fusion-FX & G-Force models only)	Type: Series Flow-Through Motor, Single Impeller System Voltage and Frequency: 220 to 240 Volts a.c. 50 – 60 Hz Air Flow: Low Speed, 17 litres/sec nominal High Speed, 24 litres/sec nominal
Noise Levels	Noise levels vary from 68dB _A to 78dB _A depending on condition and nature of floor, use of pads and brushes, with and without vacuum activation. The noise level readings do not exceed the 8hr level equivalent of 85dB _A referred to in clause 49 WorkCover NSW Occupational Health and Safety Regulation 2001.
Filter and Filtration	Media: Polyester needle felt, rated at 5 micron. Filtration is rated at 99% efficiency at 1 micron.
Machine Handle Vibration	Highest frequency weighted acceleration from vibration test measured on the handle is 1.6 meters/sec ² . This amplitude of vibration is less than the 8hr daily exposure over a 15 year period, and is well within user 'safe levels' (Reference Australian Standard AS 2763-1988)
Electrical Cord	15 metre long. 15 Ampere rating, 3 core normal duty.
Handle	The handle is ergonomically designed, and incorporates electronic safety interlock to prevent accidental starting. The machine incorporates finger tip "Tactile-switch" controls, to reduce operator fatigue. The machine can be stopped automatically by releasing the grip at the handle.
Handle Height Adjustment	Lever operated, providing an infinitely variable angle from horizontal to vertical position. This allows the user to optimize the handle height to suit individual needs, and to achieve the best control of the machine.
Transmission	Fusion-FX models Direct Drive Output speed: 1440rpm at 50 Hz, 1720rpm at 60 Hz (G-Force & Focus models) HTD® double reduction timing belt drive, using high performance reinforced belting system. Fitted with maintenance and lubrication free sealed bearings. Output speed: 430rpm at 50 Hz, 515rpm at 60 Hz G-Force Hi-Torque, Suds, & Sander models and Focus Hi-Torque & Suds models. Output speed: 215rpm at 50 Hz, 260rpm at 60 Hz
Wheels	Non-marking tyres Fusion-FX models 160mm diameter G-Force and Focus models 150mm diameter
Machine Weight (Not including brush or pad holder)	Fusion-FX models 41kg G-Force models 44kg Focus models 39kg
Packaging	Fusion-FX models 1030 x 600 x 490 46kg G-Force models 1060 x 510 x 560 49kg Focus models 1000 x 480 x 515 44kg
Product Approval for Electrical Safety	Compliant to: Australian and New Zealand Standards AS/NZS 3350.1 & 3350.2.10
Electromagnetic Conformity	Declaration of Conformity Marking C-Tick Mark N3771 Australian and New Zealand Standard AS/NZS CISPR 14.1

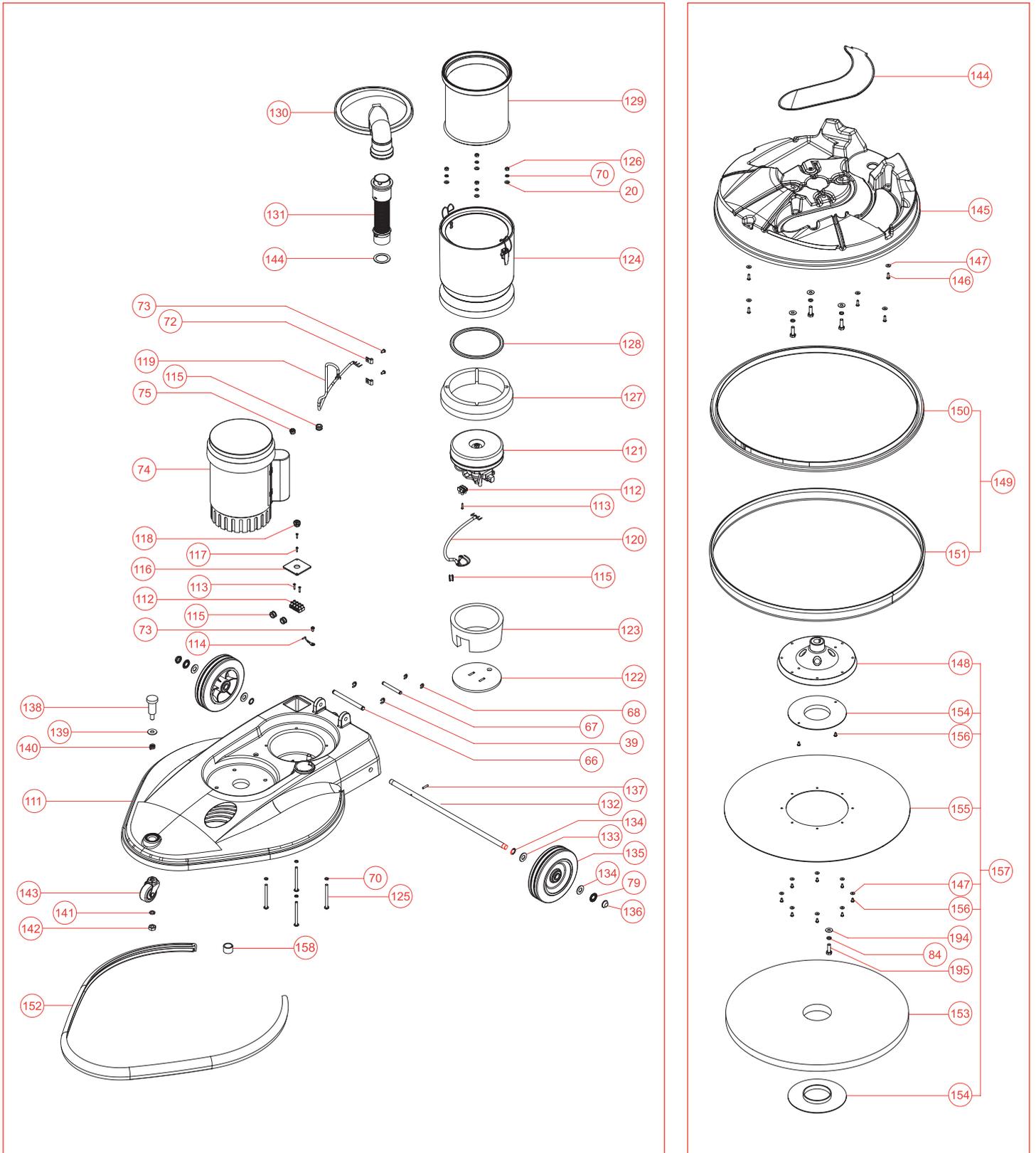
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CHASSIS FUSION-FX

ITEM NO.	PART No.	DESCRIPTION	QTY.	ITEM NO.	PART No.	DESCRIPTION	QTY.
	13805991	CHASSIS FUSION-FX ASSEMBLY		128	13806012	SEAL RING 12mm FOAM RUBBER	1
111	13805992	CHASSIS FUSION-FX (MACH & COATED)	1	129	13804950	FILTER BAG 140mm LONG SCRUBBER	1
66	13830151	PIN PIVOT HOUSING 10 OD x 115 CrP	1	130	13806333	LID VAC CANISTER RED	1
67	13830152	PIN LINK ASSY - CHASSIS 8 OD x 68 CrP	1	131	13805395	HOSE INLET ASSY FUSION-FX	1
39	13830148	CLIP 'E' D1500-0080 AZD	2		13806349	TANK FITTING WITH SEAL	1
68	13830149	CLIP 'E' D1500-0060 AZD	2		13805904	HOSE GREY 32mm x 235 +/-3 G-FORCE	1
112	13805275	TERMINAL BLOCK 500-35DS 12 WAY	0.5		11501807	CUFF HOSE 32mm (HUL)	2
113	13830019	SCREW PAN S/T No. 4 x 5/8 ZP	3		13501634	RING CLICK GREY HE18/69002	2
114	13805711	WIRE EARTH JUNCTION BOX	1	132	13805386	AXLE FUSION-FX 1/2 Dia ZP	1
73	13830134	SCREW PAN TAPTITE COMB TRILOBE No. 10 x 3/8 ZP	3	133	13805430	WASHER WAVE PLAIN 1/2 S/STEEL	2
115	13805402	GROMMET 8.7 mm ID No. M13	4	134	13830123	WASHER FLAT 1/2 x 1 x 16# ZP	4
116	13805920	PLATE GLAND FUSION -FX	1	79	13804109	WASHER STARLOCK 1/2 UC D6143 ZP	2
117	13805176	SCREW PAN S/T No. 4 x 1/2 ZP	2	135	13805415	WHEEL 160mm DIAMETER FUSION-FX	2
118	13805997	BUSH STRAIN HEYCO P/N 1207	1	136	13804663	CAP WHEEL AXLE 1/2	2
119	13805811	CORD MAIN MOTOR ASSY FUSION-FX & G-FORCE	1	137	13830122	PIN ROLL M4 x 20 ZP	1
72	13805498	CLAMP CABLE STEEL ZnP	2	138	13805460	SCREW HEIGHT ADJUSTER FUSION-FX	1
74	13805706	MOTOR CMG POLISHER 1500 WATT 3967B	1	139	13830110	WASHER FLAT 3/8 x 1 x 16# ZP	1
	13805675	KEY MOTOR 3/16 X 3/16 X 1 (782-B050525B)	1	140	13805387	SPRING COMPRESSION FUSION-FX	1
	13805683	CAPACITOR START 108-130mFd 250V86 X 46 (718-108130R250)1		141	13830080	WASHER SPRING 3/8 x 3/32 x 3/32 SQ SECT ZP	1
	13805684	CAPACITOR RUN 30mFd 440V 45 X 92 DQC (720-30440)	1	142	13830112	NUT LOCK HEX M10 STEEL ZP	1
	13805685	CAPACITOR COVER NO HOLE (800-5531B)	1	143	13805322	WHEEL CASTOR SWIVEL 50mm FUSION-FX	1
	13805866	CAPACITOR COVER WITH HOLE (800-5531BR1)	1	144	13805424	FOAM INLET / EXHAUST FUSION-FX	1
	13805688	FAN PLASTIC INTERNAL 22mm SHAFT (788-555022)	1	145	13805812	COVER INNER VAC FORMED FUSION-FX	1
	13805691	WASHER FAN PRESSED STEEL 38 (790-38FNW)	1	83	13804782	WASHER FLAT 5/16 x 3/4 x 18# ZP	4
	13805692	COWL PLASTIC MOTOR RED	1	84	13830045	WASHER SPRG 5/16 x 5/64 x 5/64 SQ SECT ZP	5
	13805864	SWITCH CENTRIFUGAL - (728-853P1100)	1	85	13804670	BOLT HEX 5/16W x 1 ZP	4
	13805865	SWITCH PLATE - (726-5488A)	1	146	13830121	SCREW TEK 10-16 x 16 C2	6
75	13805695	BUSH STRAIN RELIEF 766-1147B	1	147	13830027	WASHER FLAT 3/16 x 1/2 x 20# ZP	14
120	13805802	CORD VAC MOTOR ASSY FUSION-FX & G-FORCE	1	148	13805433	COUPLING MOTOR PAD FUSION-FX	1
121	13805063	MOTOR VAC SCRUBBER 750W 240V F/T AMS	1	149	13805059	SKIRT ASSY FUSION-FX	1
	13805304	CARBON BRUSH MECHANISM	2	150	13805382	SKIRT FABRIC FUSION-FX	1
122	13805426	INSULATION DISC VAC CHAMBER BASE CHASSIS	1	151	13805383	SKIRT EXTRUDED FUSION-FX	1
123	13805425	INSULATION VAC CHAMBER WALL CHASSIS	1	152	13805381	BUMP RAIL GREY FUSION-FX	1
124	13805479	CANISTER ASSY G-FORCE & FUSION FX	1	153	11510571	PAD FLOOR KANGAROO BEIGE 50CM	1
	13804922	LATCH TOGGLE CANISTER LID Ni PI	2	154	13805389	RETAINER BIG MOUTH SET (R.) - LH GREY	1
	13805261	CANISTER PLAIN G-FORCE & FUSION	1	155	13805390	FLEX-LOK FACE 20 FACE (R.)	1
125	13830126	SCREW RDHD M/T 1/4 x 3 ZP	4	156	13830125	SCREW HEX STREAKER IND W/HD No.8 x 3/4 ZP	10
20	13830107	WASHER FLAT 1/4 x 1/2 x 18# ZP	4	157	13805061	COUPLING DRIVE ASSY	1
70	13805141	WASHER SPRG 1/4 x 1/16 x 1/16 SQ SECT ZP	8	158	13805432	SPACER MOTOR COUPLING FUSION-FX	1
126	13804845	NUT HEX 1/4 UNC STEEL ZP	4	194	13830045	WASHER FLAT 5/16 x 1-1/4 x 12# ZP	1
127	13805541	INSULATION STRIP VAC CANISTER	1	195	13830096	SCREW HEX SET M8 x 25 ZP	1

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CHASSIS FUSION-FX



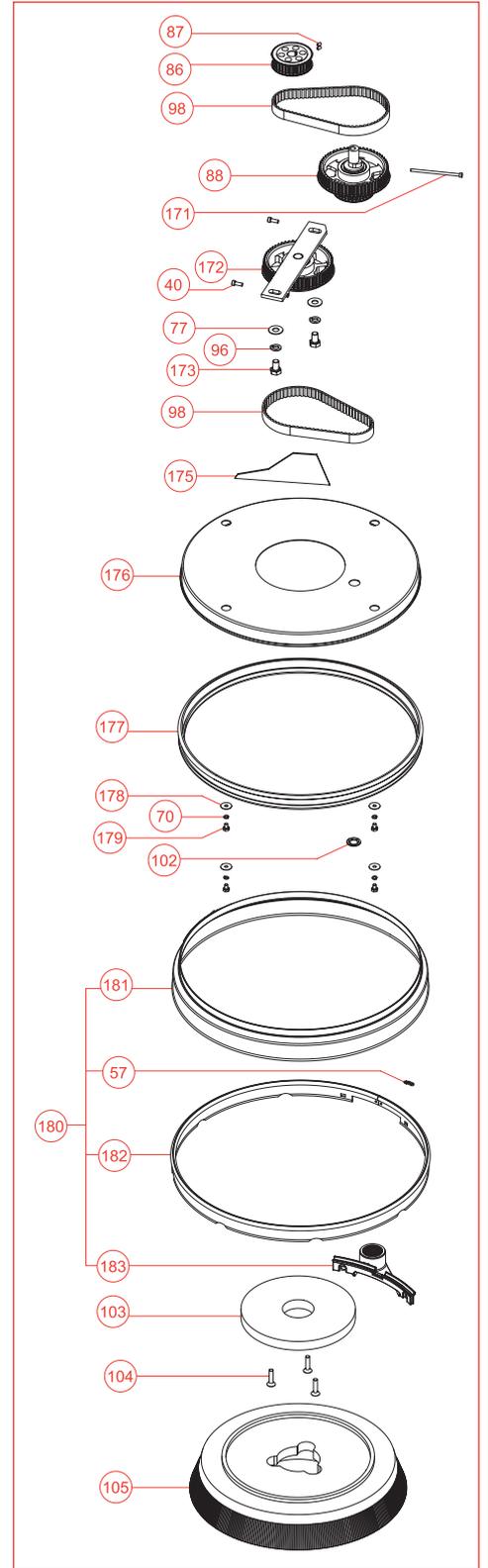
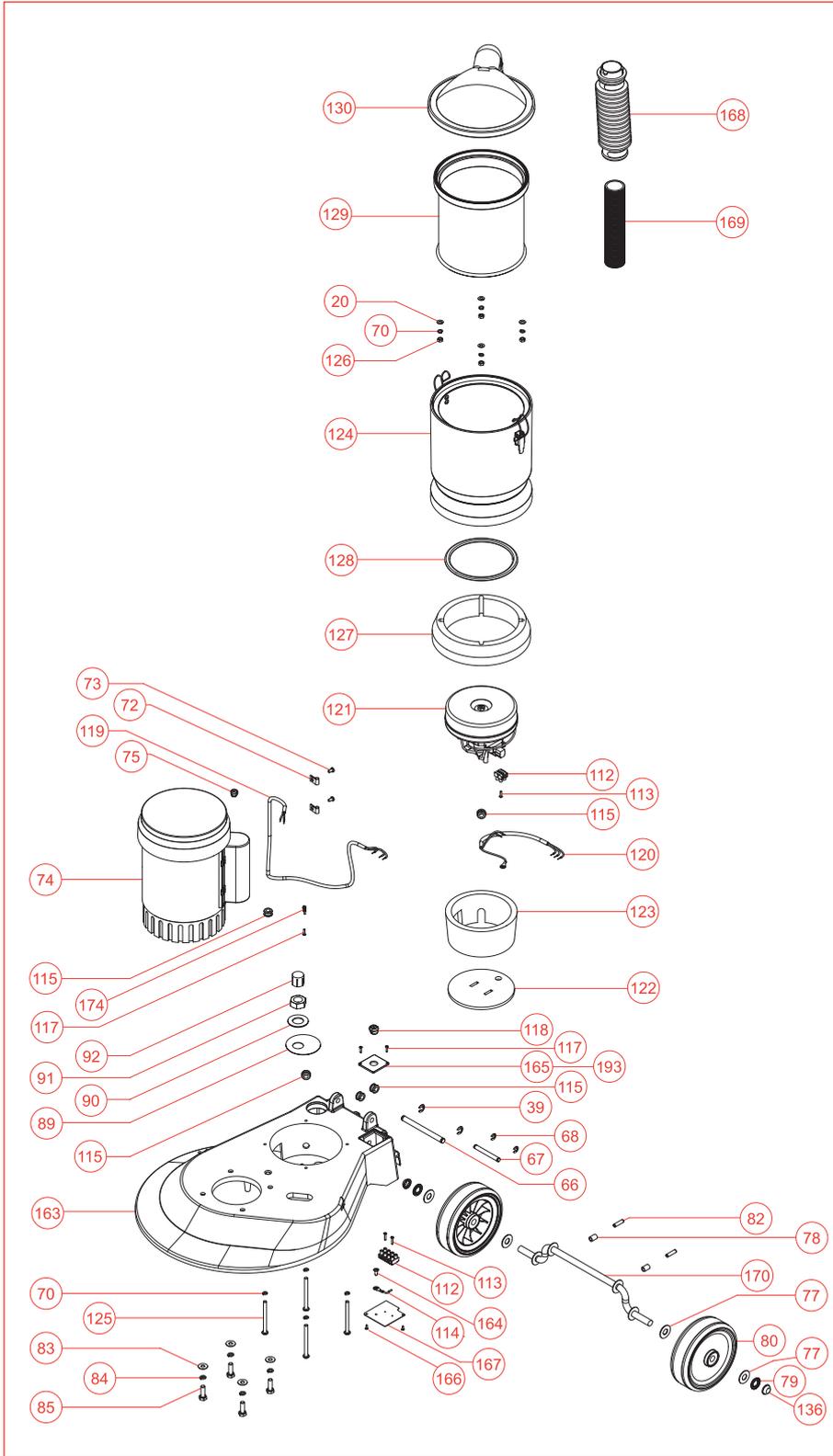
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CHASSIS G-FORCE

ITEM NO.	PART No.	DESCRIPTION	QTY.	ITEM NO.	PART No.	DESCRIPTION	QTY.
	13805993	CHASSIS G-FORCE ASSEMBLY		170	13804628	AXLE G-FORCE CrP	1
	13805851	CHASSIS G-FORCE HI-TORQUE ASSEMBLY		77	13804107	WASHER FLAT 1/2 x 1 1/8 x 16# ZP	6
	13805852	CHASSIS G-FORCE SANDER ASSEMBLY		78	13802880	HOSE PRESSURE 6mm REINFORCED NYLON	2
	13805853	CHASSIS G-FORCE SUDS ASSEMBLY		79	13804109	WASHER STARLOCK 1/2 UC D6143 ZP	2
163	13805994	CHASSIS G-FORCE (MACH & COATED)	1	80	13804649	WHEEL 150mm G-FORCE & FOCUS	2
66	13830151	PIN PIVOT HOUSING 10 OD x 115 CrP	1	136	13804663	CAP WHEEL AXLE 1/2	2
67	13830152	PIN LINK ASSY - CHASSIS 8 OD x 68 CrP	1	82	13804635	PIN SPRING 1/4 x 1 ZP	2
39	13830148	CLIP 'E' D1500-0080 AZD	2	83	13804782	WASHER FLAT 5/16 x 3/4 x 18# ZP	4
68	13830149	CLIP 'E' D1500-0060 AZD	2	84	13830045	WASHER SPRG 5/16 x 5/64 x 5/64 SQ SECT ZP	4
112	13805275	TERMINAL BLOCK 500-35DS 12 WAY	0.5	85	13804670	BOLT HEX 5/16W x 1 ZP	4
113	13830019	SCREW PAN S/T No. 4 x 5/8 ZP	3	86	13805914	PULLEY 30t MOTOR ASSEMBLY	1
114	13805711	WIRE EARTH JUNCTION BOX	1	86	13805911	PULLEY 22t MOTOR ASSEMBLY (Hi-Torque Models Only)	1
164	13830023	SCREW PAN S/T No. 10 x 1/2 ZP	1	87	13830155	SCREW GRUB M5 x 8 OIL BLACKENED	2
115	13805402	GROMMET 8.7 mm ID No. M13	4	88	13805843	PULLEY 30t-55t COUNTER & SHAFT ASSY	1
165	13805919	PLATE GLAND G-FORCE	1		13805916	PULLEY 30-55t COUNTER ASSY	1
117	13805176	SCREW PAN S/T No. 4 x 1/2 ZP	3	88	13805842	PULLEY 24-59t COUNTER & SHAFT ASSY (Hi-Torque Models Only)	1
166	13830136	SCREW S/T No. 4 x 1/4 ZP	2		13805913	PULLEY 24-59t COUNTER ASSY (Hi-Torque Models Only)	1
118	13805997	BUSH STRAIN HEYCO P/N 1207	1		13805925	SHAFT COUNTER PULLEY	1
118	13805877	GLAND CABLE NYLON M16x1.5 (G-FORCE SUDS MODELS ONLY)	1		13804747	BEARING 17 ID X 40 OD VBC3	2
167	13805998	COVER JUNCTION BOX G-FORCE	1	89	13830147	WASHER ECCENTRIC G-FORCE & FOCUS	1
119	13805811	CORD MAIN MOTOR ASSY FUSION-FX & G-FORCE	1	90	13830170	WASHER FLAT 7/8 x 1 5/8 x 14# ZP	1
72	13805498	CLAMP CABLE STEEL ZnP	2	91	13805910	NUT 1/2 BSPP ZP	1
74	13805706	MOTOR CMG POLISHER 1500 WATT 3967B	1	92	13830159	CAP RED PLASTIC 1/2 BSP KELVINDALE	1
	13805675	KEY MOTOR 3/16 X 3/16 X 1 (782-B050525B)	1	171	13830167	SCREW SOCKET HEAD CAP M5 x 80	1
	13805683	CAPACITOR START 108-130mFd 250V86 X 46 (718-108130R250)	1	172	13805847	PULLEY 55t BRUSH ASSY G-FORCE	1
	13805684	CAPACITOR RUN 30mFd 440V 45 X 92 DQC (720-30440)	1		13805915	PULLEY 55t BRUSH & RING ASSY	1
	13805685	CAPACITOR COVER NO HOLE (800-5531B)	1	172	13805846	PULLEY 59t BRUSH ASSY G-FORCE (Hi-Torque Models Only)	1
	13805866	CAPACITOR COVER WITH HOLE (800-5531BR1)	1		13805912	PULLEY 59t BRUSH & RING ASSY (Hi-Torque Models Only)	1
	13805688	FAN PLASTIC INTERNAL 22mm SHAFT (788-555022)	1		13805917	PLATE BRUSH AND SHAFT ASSY	1
	13805691	WASHER FAN PRESSED STEEL 38 (790-38FNW)	1		13805028	BEARING 20 ID X 47 OD 6204	2
	13805692	COWL MOTOR RED	1	173	13830171	SCREW SET M12 X 20 ZP	2
	13805864	SWITCH CENTRIFUGAL - (728-853P1100)	1	40	13830146	SCREW SOCKET HEAD CAP M6 x 16	2
	13805865	SWITCH PLATE - (726-5488A)	1	96	13830157	WASHER SPRG M12 x 4 x 2.5 ZP	2
75	13805695	BUSH STRAIN RELIEF 766-1147B	1	98	13805906	BELT 600-8M-21HP	2
75	13805403	GROMMET 7.2mm ID (Suds Models Only)	1	174	13805126	TIE CABLE CLAMP CLEAR PLC1M-S4-C (100)	1
73	13830134	SCREW PAN TAPTITE COMB TRILOBE No. 10 x 3/8 ZP	2	175	13805807	PLATE BAFFLE G-FORCE	1
120	13805802	CORD VAC MOTOR ASSY FUSION-FX & G-FORCE	1	176	13805909	GUARD PULLEY G-FORCE	1
121	13805063	MOTOR VAC SCRUBBER 750W 240V F/T AMS	1	177	13805922	BUMPER G-FORCE	1
	13805304	CARBON BRUSH 33378	2	178	13805162	WASHER FLAT 1/4 x 7/8 x 18# ZP	4
122	13805426	INSULATION DISC VAC CHAMBER BASE CHASSIS	1	179	13805155	SCREW HEX SET 1/4W x 3/8 ZP	4
123	13805425	INSULATION VAC CHAMBER WALL CHASSIS	1	102	13830166	PUSH ON FIX 16 ID x 28 OD ZP	1
124	13805479	CANISTER ASSY G-FORCE & FUSION FX	1	180	13805828	SKIRT ASSY G-FORCE	1
124	13805838	CANISTER ASSY G-FORCE SANDER (G-Force Sander Model Only)	1	181	13805810	SKIRT FABRIC G-FORCE	1
	13804922	LATCH TOGGLE CANISTER LID Ni PI	2	182	13805809	SKIRT EXTRUSION G-FORCE	1
	13805261	CANISTER PLAIN G-FORCE & FUSION FX	1	183	13805918	CHUTE VAC & INSERT ASSY G-FORCE	1
	13805837	CANISTER PLAIN G-FORCE SANDER (G-Force Sander Model Only)	1	193	13805876	GASKET PLATE GLAND (G-FORCE SUDS MODELS ONLY)	1
125	13830126	SCREW RDHD M/T 1/4 x 3 ZP	4	103	13930659	QUICK RELEASE ADAPTOR COMPLETE	1
20	13830107	WASHER FLAT 1/4 x 1/2 x 18# ZP	4	104	13830162	SCREW CSK M8 x 35 PH ZP	3
70	13805141	WASHER SPRG 1/4 x 1/16 x 1/16 SQ SECT ZP	12	105		ACCESSORIES (Optional)	1
126	13804845	NUT HEX 1/4 UNC STEEL ZP	4		12930150	BRUSH BASSINE G45cm QR	1
127	13805541	INSULATION STRIP VAC CANISTER	1		12930155	BRUSH SOFT NYLON G45cm QR	1
128	13806012	SEAL RING 12mm FOAM RUBBER	1		12930160	BRUSH HARD NYLON G45cm QR	1
129	13804950	FILTER BAG 140mm LONG SCRUBBER	1		12930165	BRUSH TYNEX G45cm QR	1
130	13806333	LID VAC CANISTER RED	1		12941200	PAD HOLDER G45cm QR	1
168	13805829	HOSE INLET ASSY G-FORCE	1		12945020	SANDSCREEN DRIVER 45cm QR	1
	13805926	FITTING LID & HOSE G-FORCE	1		12945025	SANDSCREEN 45cm x 60# COARSE	1
	13805927	INSERT THREADED HOSE G-FORCE	1		12945030	SANDSCREEN 45cm x 80# MEDIUM	1
	13805984	SPRING COLLAR 50mm O.D. CrP	2		12945035	SANDSCREEN 45cm x 100# FINE	1
	13805923	HOSE CONVOLUTED G-FORCE	1		12945040	SANDSCREEN 45cm x 120# VERY FINE	1
169	13805904	HOSE GREY 32mm x 235 +/-3 G-FORCE	1		12945045	SANDSCREEN 45cm x 150# ULTRA FINE	1
169	13805905	HOSE GREY 32mm x 285 +/-3 (G-FORCE Sander Model Only)	1		11410117	PAPER BAG Pkt (10)	1

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CHASSIS G-FORCE



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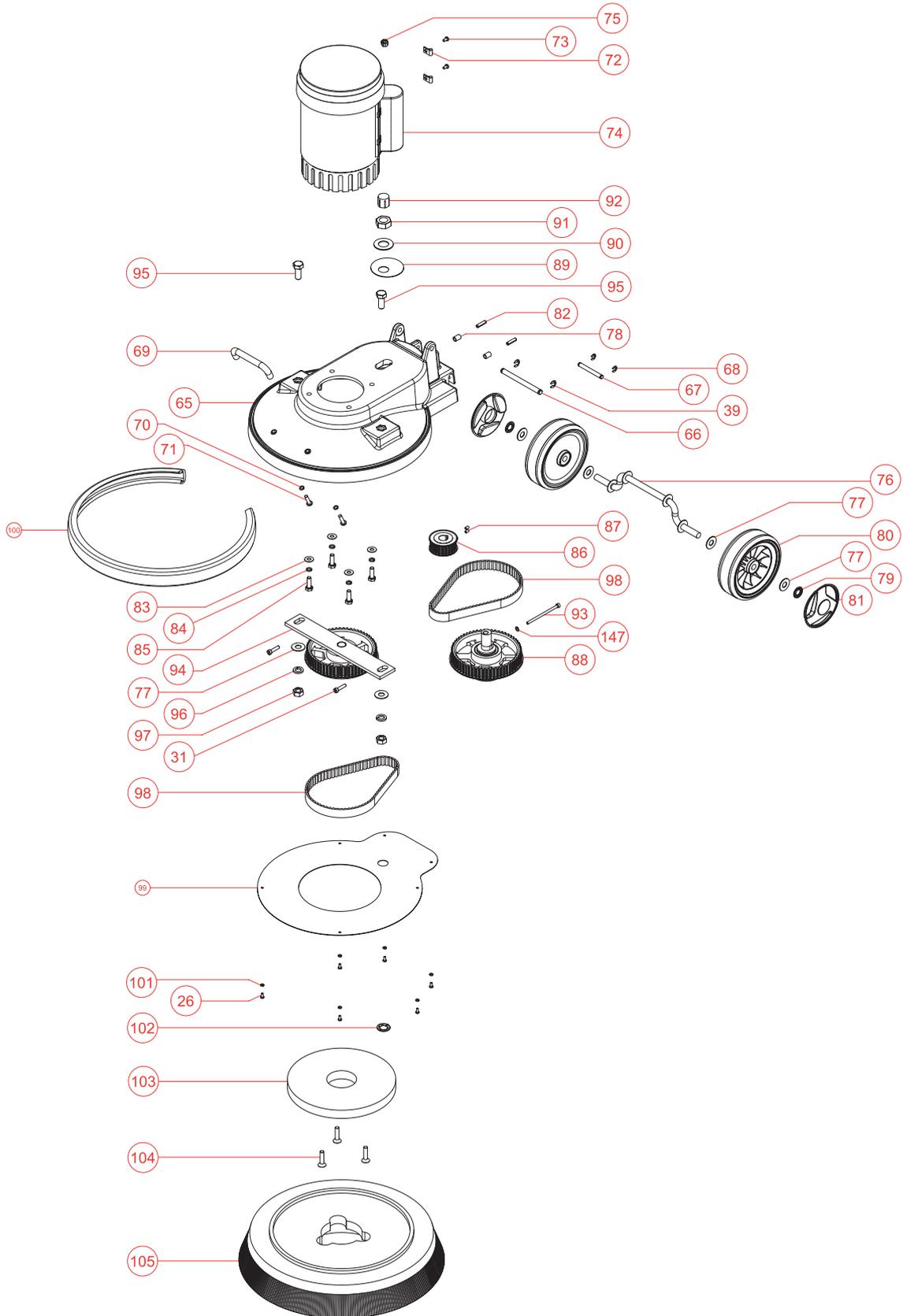
CHASSIS FOCUS

ITEM NO.	PART No.	DESCRIPTION	QTY.
	13805995	CHASSIS FOCUS ASSEMBLY	
	13805850	CHASSIS FOCUS HI-TORQUE ASSEMBLY	
	13805849	CHASSIS FOCUS SUDS ASSEMBLY	
65	13805996	CHASSIS FOCUS (mach&coated)	1
66	13830151	PIN PIVOT HOUSING 10 OD x 115 CrP	1
67	13830152	PIN LINK ASSY - CHASSIS 8 OD x 68 CrP	1
39	13830148	CLIP 'E' D1500-0080 AZD	2
68	13830149	CLIP 'E' D1500-0060 AZD	2
69	13803879	D-PULL HANDLE 13mm x 1/4W THREAD	1
70	13805141	WASHER SPRG 1/4 x 1/16 x 1/16 SQ SECT ZP	2
71	13830091	SCREW 1/4 x 1 PAN M/T ZP	2
72	13805498	CLAMP CABLE STEEL ZnP	2
73	13830134	SCREW PAN TAPTITE COMB TRILOBE No. 10 x 3/8 ZP	2
74	13805706	MOTOR CMG POLISHER 1500 WATT 3967B	1
	13805675	KEY MOTOR 3/16 X 3/16 X 1 (782-B050525B)	1
	13805683	CAPACITOR START 108-130mFd 250V86 X 46 (718-108130R250)	1
	13805684	CAPACITOR RUN 30mFd 440V 45 X 92 DQC (720-30440)	1
	13805685	CAPACITOR COVER NO HOLE (800-5531B)	1
	13805866	CAPACITOR COVER WITH HOLE (800-5531BR1)	1
	13805688	FAN PLASTIC INTERNAL 22mm SHAFT (788-555022)	1
	13805691	WASHER FAN PRESSED STEEL 38 (790-38FNW)	1
	13805692	COWL PLASTIC MOTOR RED	1
	13805864	SWITCH CENTRIFUGAL - (728-853P1100)	1
	13805865	SWITCH PLATE - (726-5488A)	1
75	13805695	BUSH STRAIN RELIEF 766-1147B	1
75	13805403	GROMMET 7.2mm ID (Suds Models Only)	1
76	13803900	AXLE FOCUS CrP	1
77	13804107	WASHER FLAT 1/2 x 1 1/8 x 16# ZP	6
78	13802880	HOSE PRESSURE 6mm REINFORCED NYLON	0.025
79	13804109	WASHER STARLOCK 1/2 UC D6143 ZP	2
80	13804649	WHEEL 150mm G-FORCE & FOCUS	2
81	13804108	CAP HUB FOCUS	2
82	13804635	PIN SPRING 1/4 x 1 ZP	2
83	13804782	WASHER FLAT 5/16 x 3/4 x 18# ZP	4
84	13830045	WASHER SPRG 5/16 x 5/64 x 5/64 SQ SECT ZP	4
85	13804670	BOLT HEX 5/16W x 1 ZP	4
86	13805914	PULLEY 30t MOTOR ASSEMBLY	1
86	13805911	PULLEY 22t MOTOR ASSEMBLY (Hi-Torque Models Only)	1
87	13830155	SCREW GRUB M5 x 8 OIL BLACKENED	2
88	13805843	PULLEY 30-55t COUNTER & SHAFT ASSY	1

ITEM NO.	PART No.	DESCRIPTION	QTY.
	13805916	PULLEY 30-55t COUNTER ASSY	1
88	13805842	PULLEY 24-59t COUNTER & SHAFT ASSY (Hi-Torque Models Only)	1
	13805913	PULLEY 24-59t COUNTER ASSY (Hi-Torque Models Only)	1
	13805925	SHAFT COUNTER PULLEY	1
	13804747	BEARING 17 ID X 40 OD VBC3	2
89	13830147	WASHER ECCENTRIC G-FORCE & FOCUS	1
90	13830170	WASHER FLAT 7/8 x 1 5/8 x 14# ZP	1
91	13805910	NUT 1/2 BSPP ZP	1
92	13830159	CAP RED PLASTIC 1/2 BSP KELVINDALE	1
93	13830168	SCREW SOCKET HEAD CAP M5 x 90	1
147	13830027	WASHER FLAT 3/16 x 1/2 x 20# ZP	3/5
94	13805845	PULLEY 55t BRUSH ASSY FOCUS	1
	13805915	PULLEY 55t BRUSH & RING ASSY	1
94	13805844	PULLEY 59t BRUSH ASSY FOCUS (Hi-Torque Models Only)	1
	13805912	PULLEY 59t BRUSH & RING ASSY (Hi-Torque Models Only)	1
	13805917	PLATE BRUSH AND SHAFT ASSY	1
	13805028	BEARING 20 ID X 47 OD 6204	2
95	13830156	SCREW SET M12 x 30 ZP	2
31	13830161	SCREW SOCKET HEAD CAP M6 x 25 ZP	2
96	13830157	WASHER SPRG M12 x 4 x 2.5 ZP	2
97	13830158	NUT HEX M12 STEEL ZP	2
98	13805906	BELT 600-8M-21HP	2
99	13805936	GUARD PULLEY FOCUS	1
100	13805929	BUMPER FOCUS	1
101	13830164	WASHER SPRG M4 x 1.5 x 1.5 SQ SECT ZP	6
26	13830163	SCREW S/T No.8 x 3/8 Mush Nib per STS ZP	6
102	13830166	PUSH ON FIX 16 ID x 28 OD ZP	1
103	13930659	QUICK RELEASE ADAPTOR COMPLETE	1
104	13830162	SCREW CSK M8 x 35 PH ZP	3
105		ACCESSORIES (Optional)	
	12930131	BRUSH BASSINE 40cm QR	1
	12930305	BRUSH SOFT NYLON 40cm QR	1
	12930175	BRUSH MEDIUM NYLON 40cm QR	1
	12930301	BRUSH HARD NYLON 40cm QR	1
	12970911	BRUSH TYNEX 40cm QR	1
	12941091	PAD HOLDER 40cm QR	1
	12941100	PAD HOLDER SHORT TRIM 40cm QR	1
	11510600	PAD CONTOUR DEEP SCRUB 42.5cm	1
	12935000	CARPET BONNET 42.5cm	1

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CHASSIS FOCUS

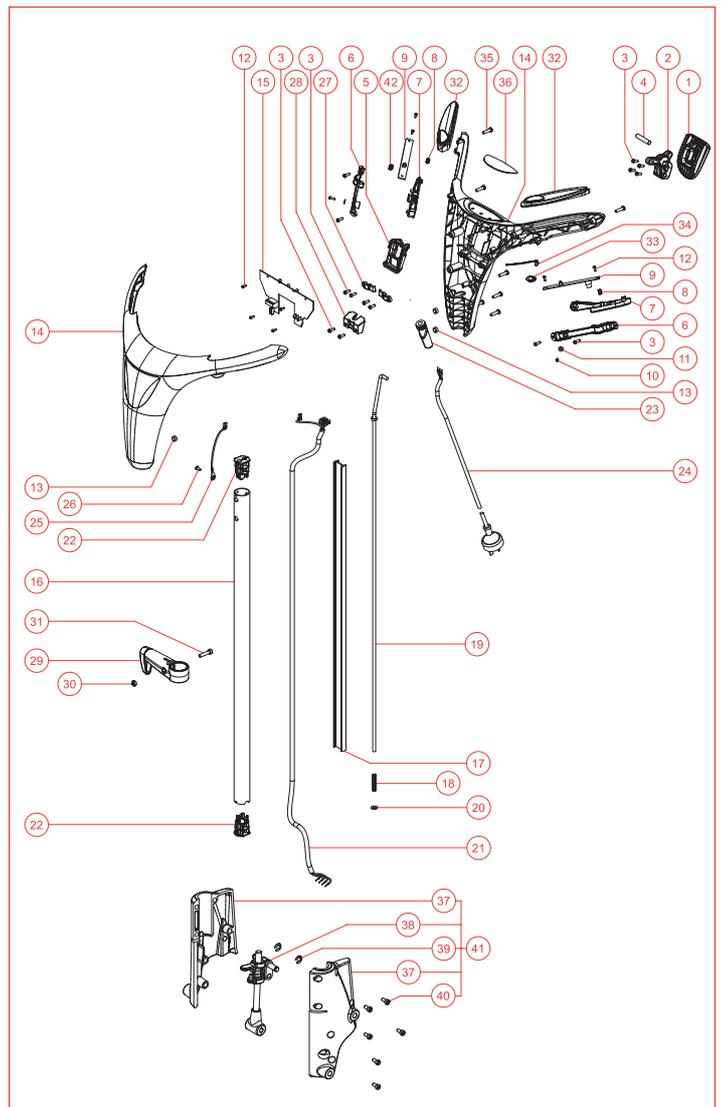


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HANDLE

ITEM NO.	PART No.	DESCRIPTION	QTY.
	13805985	HANDLE FUSION-FX ASSEMBLY	
	13805986	HANDLE G-FORCE ASSEMBLY	
	13805988	HANDLE G-FORCE SUDS ASSEMBLY	
	13805987	HANDLE FOCUS ASSEMBLY	
	13805989	HANDLE FOCUS SUDS ASSEMBLY	
1	13805954	LEVER ADJUSTMENT	1
2	13805959	LEVER ADJUSTMENT ARM	1
3	13830142	SCREW WN1412 KB40 x 12Z PT	14
4	13805942	PIN CLAMP LEVER 8 OD X 39	1
5	13805967	LEVER INFILL	1
6	13805960	BRACKET TRIGGER	2
7	13805961	TRIGGER LEFT & RIGHT SET	1
8	13805945	SPRING TRIGGER	2
9	13805833	KEY-PAD PCB	2
10	13830143	SCREW WN1412 KB30 x 10Z PT	2
11	13830026	WASHER FLAT 1/8 x 3/8 x 20# ZP	2
12	13830144	SCREW WN1412 KB30 x 8Z PT	8
13	13805943	COLLAR HANDLE 10 OD x 5	4
14	13805953	HOUSING HANDLE - FRONT & REAR SET	1
15	13805832	PCB FOCUS (Focus Models Only)	1
15	13805830	PCB FUSION-FX (Fusion-FX Models Only)	1
15	13805831	PCB G-FORCE (G-Force Models Only)	1
16	13805946	TUBE HANDLE	1
17	13805947	LINER ROD POLYPROPYLENE 674 LONG	1
18	13805839	SPRING COMPRESSION ACTUATOR ROD	1
19	13805938	ROD ACTUATOR ASSY	1
20	13830107	WASHER FLAT 1/4 x 1/2 x 18# ZP	1
21	13805980	CORD HANDLE G-FORCE & FUSION FX	1
21	13805840	CORD HANDLE FOCUS (Focus Models Only)	1
22	13805964	GUIDE CABLE AND ROD M& F SET	2
23	13805966	GROMMET CABLE	1
24	13805979	CORD 3 CORE 15M X 15A	1
25	13805981	WIRE EARTH 160 LONG	1
26	13830163	SCREW S/T No.8 x 3/8 Mush Nib per STS ZP	1
27	13805963	CLAMP CABLE	2
28	13805965	COVER STRAIN RELIEF	1
29	13805957	ARM CORD STORAGE & RELEASE	1
30	13805305	HEX NUT M6 STEEL ZP	1
31	13830161	SCREW SOCKET HEAD CAP M6 x 25 ZP	1
32	13805955	GRIP HANDLE LEFT & RIGHT SET	1
33	13805969	LENS IR LED	1
34	13805835	TRANSMITTER IR & LOOM (Suds Models Only)	1
35	13805283	SCREW WN1412 KB50 x 20Z PT	12
36	13805970	DECAL FOCUS	1
36	13805972	DECAL FUSION-FX	1

ITEM NO.	PART No.	DESCRIPTION	QTY.
36	13805971	DECAL G-FORCE	1
37	13805948	PIVOT HOUSING LEFT & RIGHT SET	1
38	13805859	PIVOT HOUSING CONTROL SYSTEM	1
	13805939	SHAFT LINK ASSY	1
	13805940	LINK PIN 10 O.D. X 73.4	1
	13805944	SPRING LOCK PLATE	1
39	13830148	CLIP 'E' D1500-0080 AZD	2
40	13830146	SCREW SOCKET HEAD CAP M6 x 16	6
41	13805990	PIVOT HOUSING ASSEMBLY	1
	13830172	KEY 5AF HEX FOR M6 SOCKET HD CAP SCREW	1
42	13805875	SPRING TAC SWITCH	2

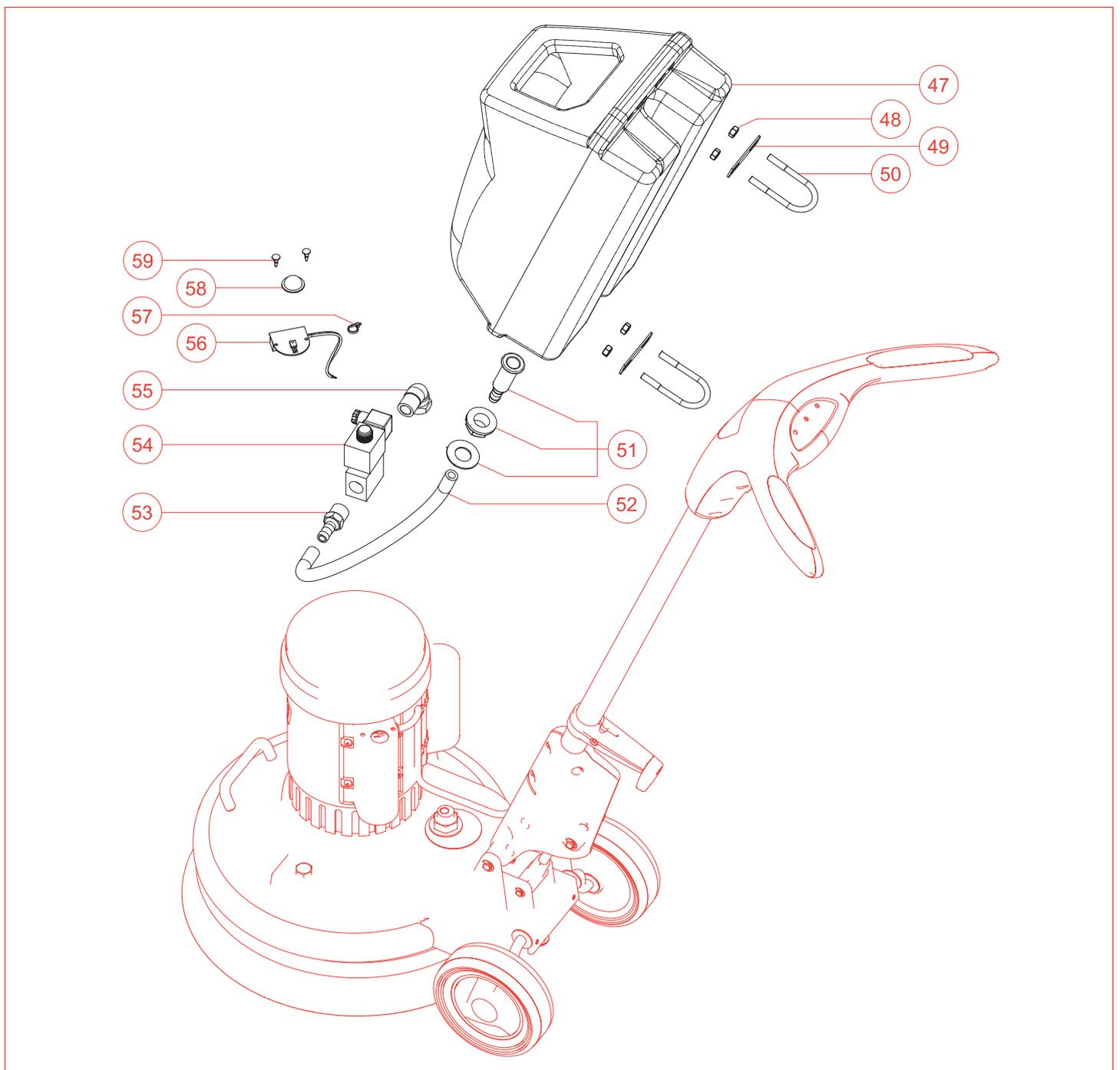


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SUDS

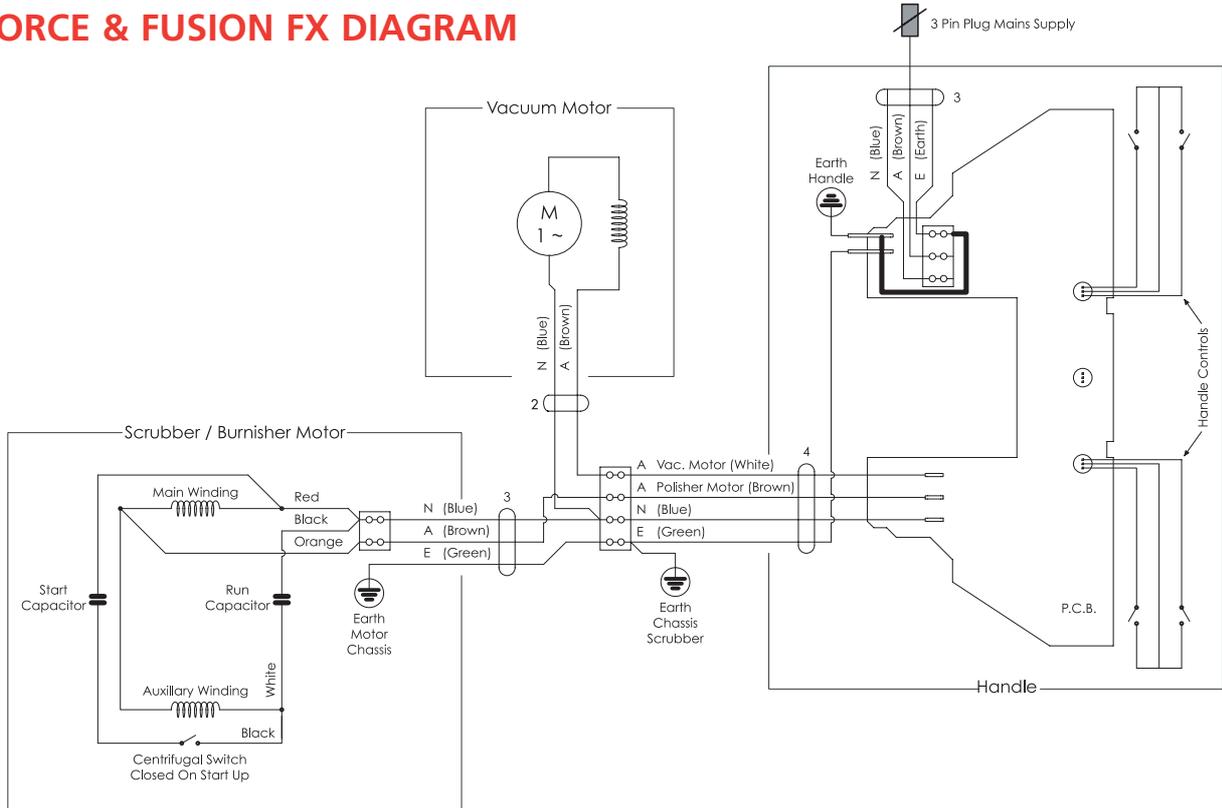
ITEM NO.	PART No.	DESCRIPTION	QTY.
47	13805707	TANK SUDS GREY 10 LITRE	1
48	13805027	NUT NYLOC 5/16 UNC	4
49	13805098	PLATE TANK 'U' BOLT	2
50	13805102	BOLT 'U' 5/16	2
51	13805717	TANK FLANGE 15 NYGLAS - HOSE TAIL END	1
52	13805718	HOSE PVC 13 ID X 2 WALL	1
53	13805716	HOSE TAIL 15MM NYGLAS	1

ITEM NO.	PART No.	DESCRIPTION	QTY.
54	13805719	SOLENOID VALVE 1/2 BSP PVC	1
55	13805715	ELBOW 15mm M & F NYGLAS	1
56	13805834	PCB SUDS	1
57	13830054	CABLE TIE 98 LONG x 2.5 WIDE NAT	1
58	13805813	LENS CLEAR DOMED 22mm DIA	1
59	13805848	STAND OFF PCB 6.35mm	2

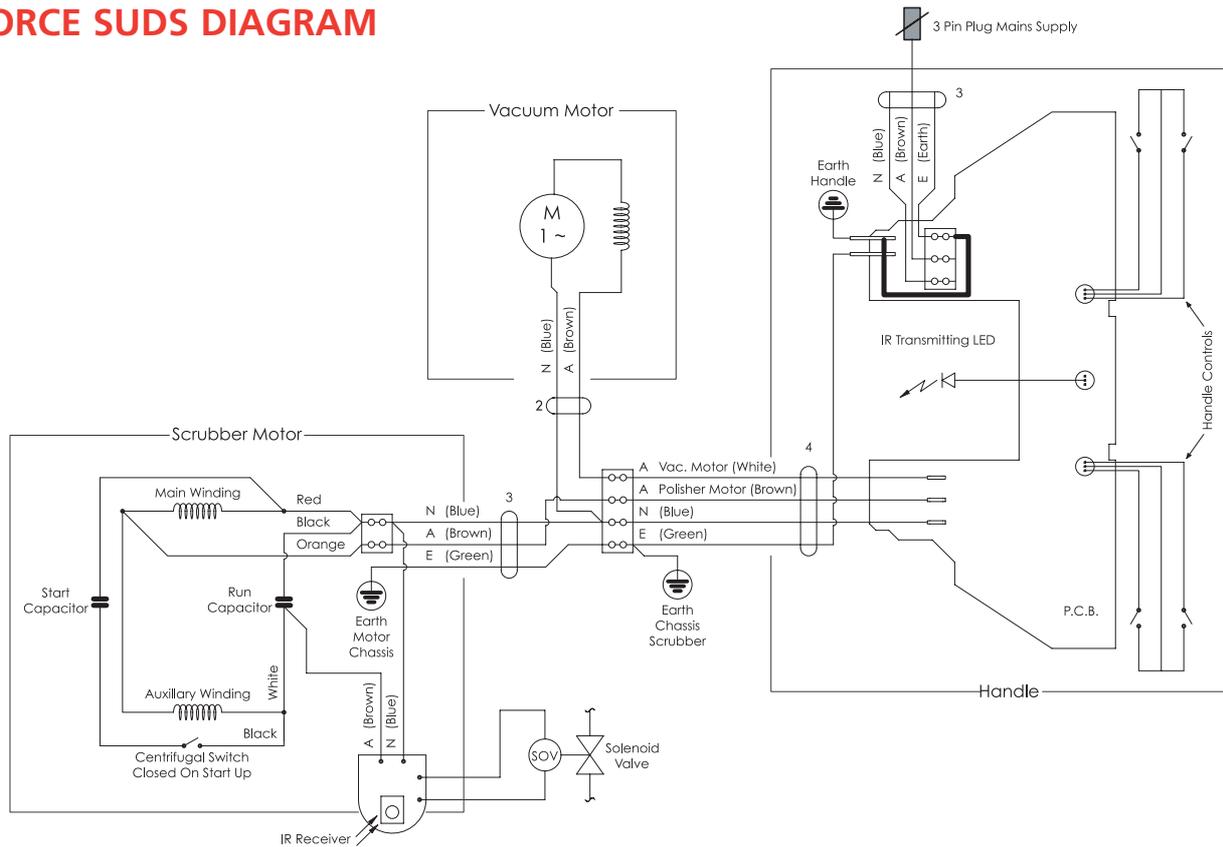


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G-FORCE & FUSION FX DIAGRAM

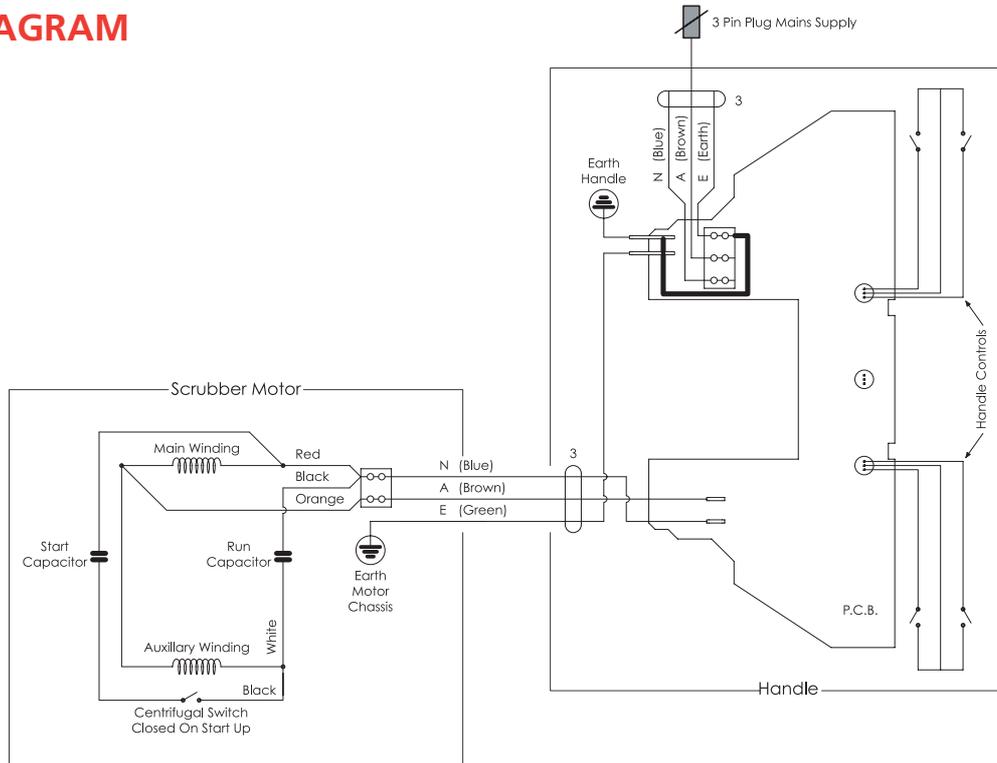


G-FORCE SUDS DIAGRAM

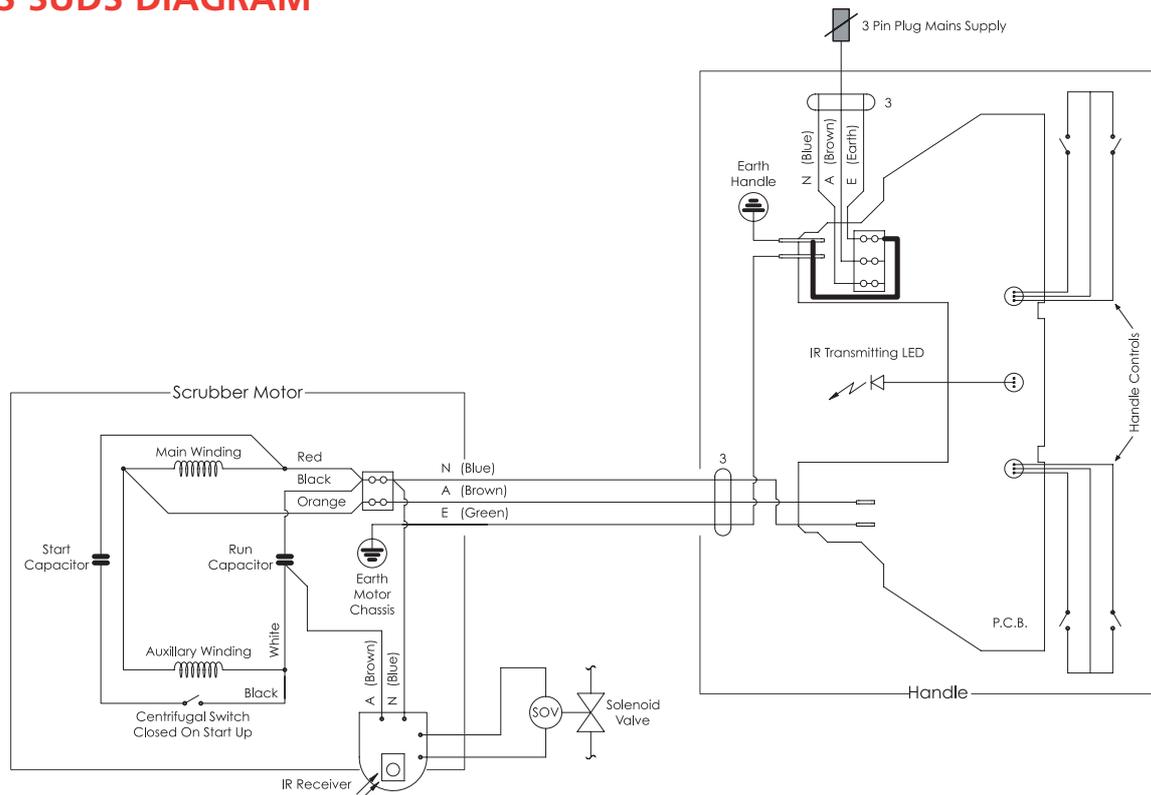


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FOCUS DIAGRAM



FOCUS SUDS DIAGRAM



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General Warranty Policy

Hako Australia Pty Limited (Hako) warrants this machine and its components, which are wholly of their manufacture, against faulty material and workmanship, for a period of one (1) year, from the date of purchase to the original user, subject to the following conditions:

- This warranty does not apply to normal wear and tear items whose life is dependent on their use and care, such as switches, electrical cords, carbon brushes, brushes, pads, floor tools, motor bearings, filters, hoses, belts, seals, mechanical fasteners, skirts, wheels, treads, tyres, engine, batteries, battery charger, spark plugs, hydraulic pumps, and power heads.
- No warranty shall apply to any machine or component altered, abused, neglected, repaired or modified in any way outside our factory or Authorized Dealer service outlet.
- The placing of any non genuine Hako approved part, not manufactured or sold by the Company or authorized by it, shall null and void any warranty.
- Authorisation by Hako management must be gained before equipment or parts are returned under warranty.
- Hako shall not in any event be liable for any contingent loss or damage to property whatsoever.
- All claims must be made on an official warranty claim form.
- Warranty claims and credits will not be actioned unless faulty part/machine is returned to Hako for assessment with on an official warranty claim form.
- Hako reserves the right to repair or replace parts claimed as faulty at its discretion and subject to examination at its factory.
- Warranty repairs can only be carried out by an Authorized Dealer service outlet.
- Hako will accept the labour content of a warranty claim for a one (1) year period, when a machine is sold by an Authorised Dealer.
- Work carried out by a dealer on machinery he has not sold and considered warranty, will be reimbursed for labour at the current labour rate and the defective part will be replaced.
- Dealers are responsible for freight of equipment and parts returned for warranty. Hako accepts freight for equipment and parts forwarded to dealers under warranty.

Warranty Registration Details

Purchaser:.....Purchase date:.....

Address:.....

State:.....Post Code:.....Contact:.....

Model No.:.....Serial Number:.....

Purchased from:.....

Address:.....