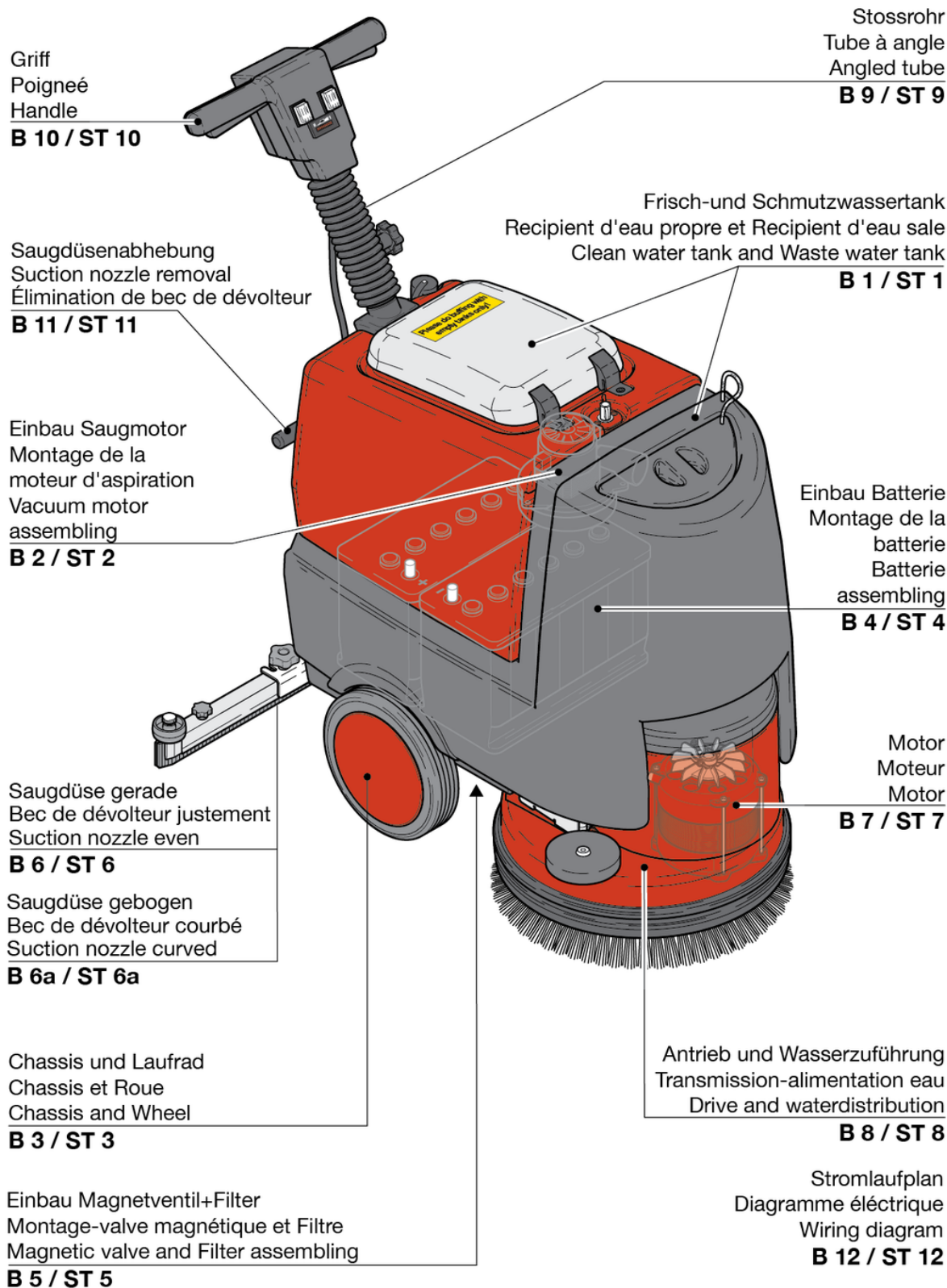


RA431B Duo

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RA 431 B Duo

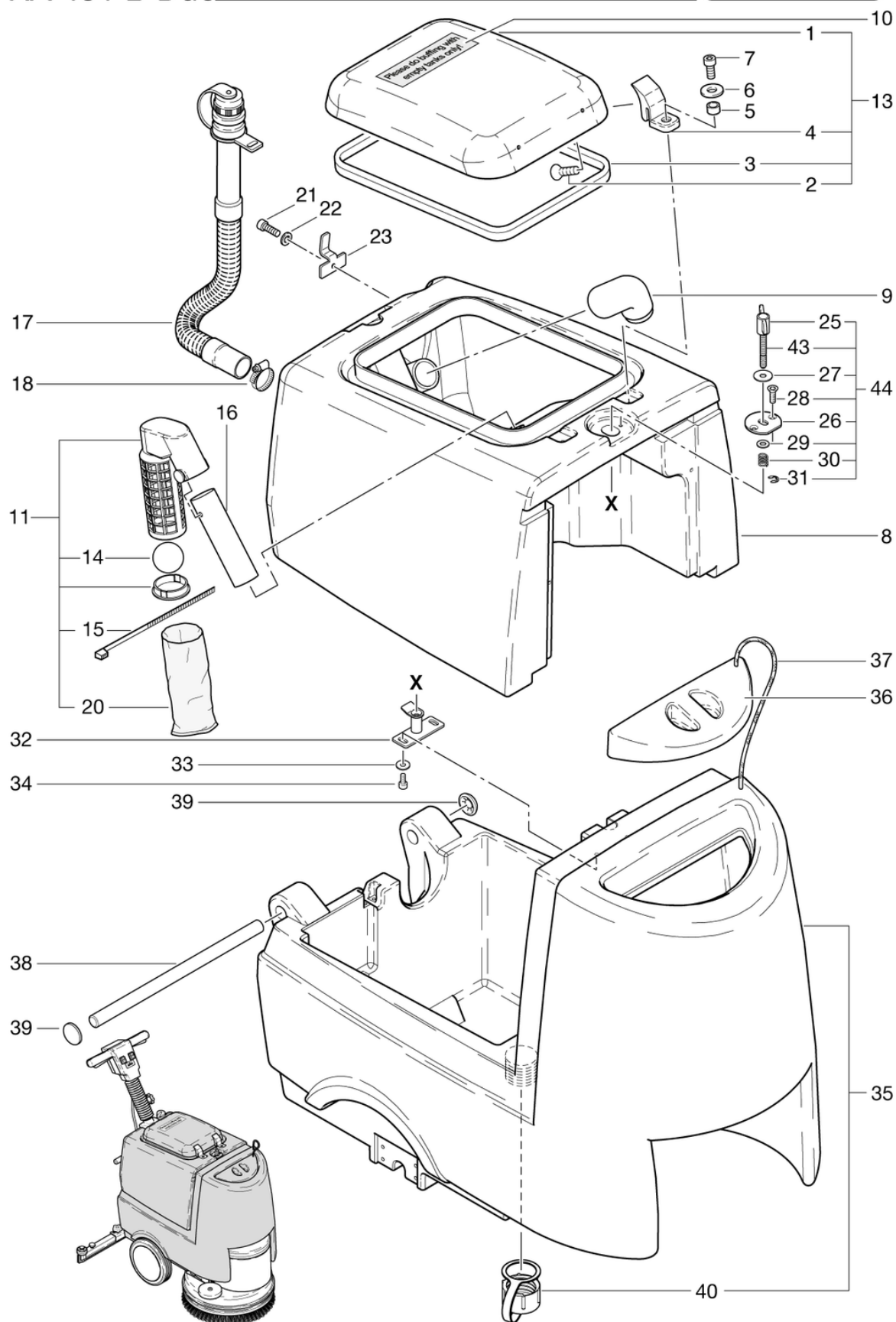


RA431B Duo

Clean water tank and Waste water tank

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RA 431 B Duo

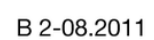
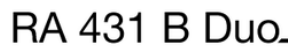


RA431B Duo

Clean water tank and Waste water tank

Pos.	Item no.	Spare part
1	710.120	Cover of the dirty water tank processed transparently
2	P4800	Screw DIN 965 M4 x 8 A2
3	710.121	Cover seal EPDM black
4	710.122	Rubber Hinge
5	430.618	Distance ring $\varnothing 7/5 \times 5,5$
6	P497K	Washer DIN 125 A M6 6,4/12/1,6 A2
7	P488B	Screw DIN 912 M5 x 12 A2
8	436.200	Waste Tank RA431
9	560.674	Elbow connector $\varnothing 42 / 33$
10	436.107	adhesive general foreman tip
11	432.300	Float Basket Complete
13	470.468	Hood RA 431B / 430B vorm.
14	432.304	Ball $\varnothing 45$ mm
15	P609B	Cable tie weatherproof- 3,5 x 200
16	432.205	Suction Tube
17	P561	Drain hose with crimp sleeve 0.63m
18	P206D	Hose clamp 32-50mm/12
20	432.315	Filter Bag
22	P498D	Washer DIN 6798 M5 5,1/9/0,5 A2
23	P109G	Hose holder
25	P174	Wing nut M8 IG
26	436.221	Washer
27	P497T	Shim DIN 9021 M8 8,4/24/2 A2
28	P480PA	Screw DIN 7991 M5 x 8 A2
29	P496P	Washer DIN 125 A M8 8,4/16/1,6 A2
30	436.228	Compression spring DIN 2095 0.8 / 10.8 / 30
31	P500K	Washer DIN 6799 6/12/0,7 A2
32	432.407	Tank Adjustment
33	P497E	Shim DIN 9021 M5 5,3/15/1,2 A2
34	P481Z	Screw DIN 7985 M5 x 10 A2
35	436.100	Fresh Water Tank
36	432.115	Clean Water Cover
37	432.750	Holding rope $\varnothing 3 \times 260$ mm
38	436.220	joint rod
39	P499L	Ring Starlock 12 A2 with cap
40	432.110	Cover for Execution
43	436.226	Shaft
44	436.225	Fastener Complete

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RA431B Duo

Vacuum motor assembling

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Pos.	Item no.	Spare part
1	440.206	Suction Motor- 24 V / 400W
2	P870KB	Carbon brushes (pair) OEP
3	P470RA	Screw ISO4017 M6 x 14 A2
4	400.217	Round buffer M6 x 8, ø 20 x 25
5	436.355	Motor support
6	P490D	Nut DIN 934 M6
7	470.490	Hose Connection Cap
8	436.353	Hose RA430
9	436.352	Cover to blower
10	P471Z	Screw DIN 933 M6 x 10 A2
11	P496S	Washer DIN 9021 M10 10,5/30/2,5 A2
12	P470T	Screw DIN 933 M6 x 16
13	P497K	Washer DIN 125 A M6 6,4/12/1,6 A2
14	470.488	Drain hose
15	P424	Cable tie black 4.8 x 300mm
16	P470X	Screw DIN 933 M6 x 20
17	P497H	Washer DIN 9021 M6 6,4/18/1,6 A2
18	P510L	Washer DIN 522 M6 6,4/25/1,5 A2
19	742.129	Distance ring ø 8 / 6 x 4
20	436.447	Lift Cable 501B
21	436.358	Cable tree L=1820mm
22	P476E	Screw DIN 7985 M5 x 16 A2
23	4611085	Cable Clamp
24	470.759	Relay Brush Motor

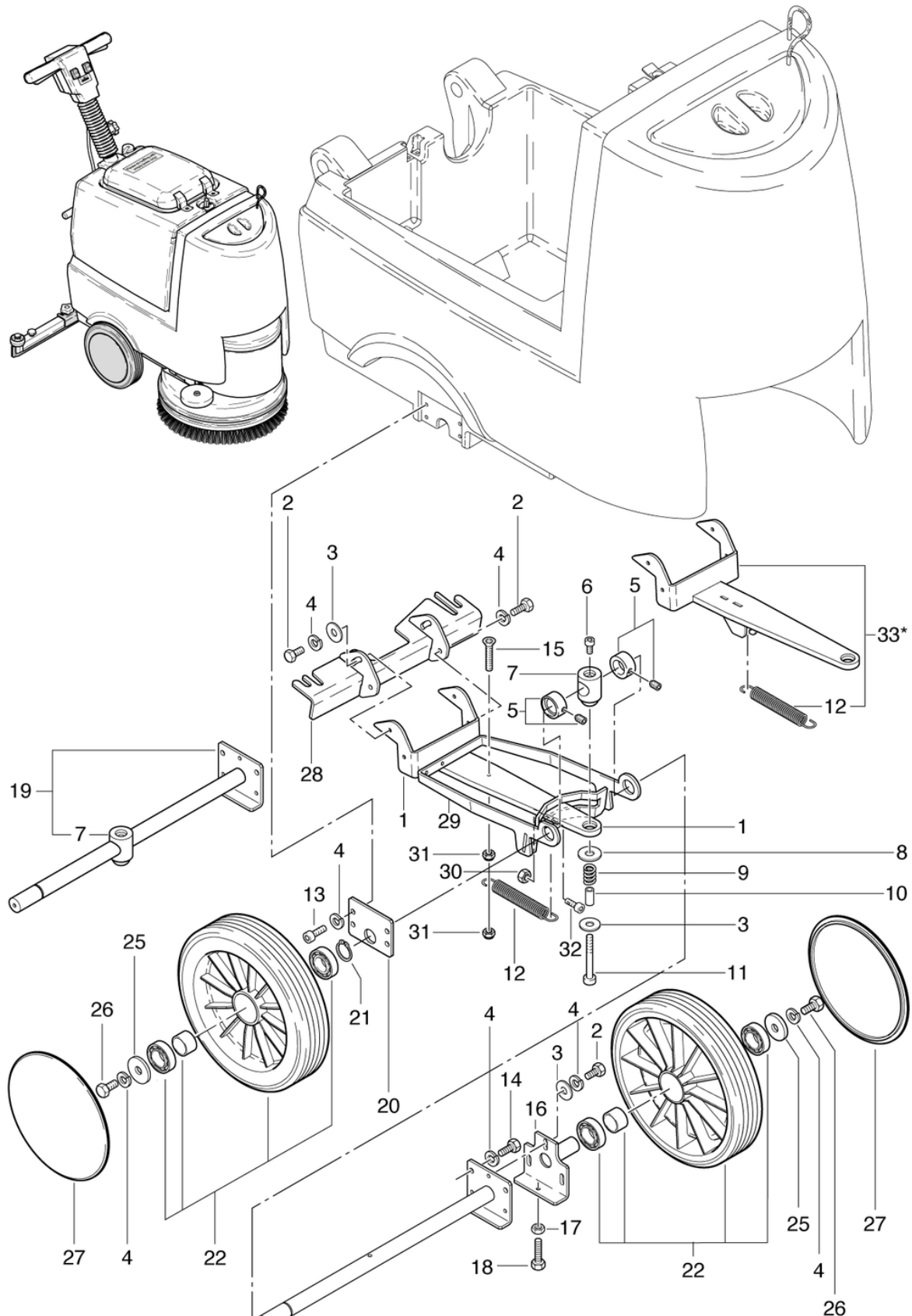
RA431B Duo

Chassis and Wheel

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RA 431 B Duo



* bis Masch.-Nr. / to machine no. / au no. de machine **8820.001**

RA431B Duo

Chassis and Wheel

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Pos.	Item no.	Spare part
1	432.082A	Squeegee support inner
2	P472R	Screw DIN 933 M6 x 12 A2
2	P492R	Nut DIN 934 M20 x 1.5 A2
3	P497H	Washer DIN 9021 M6 6,4/18/1,6 A2
4	P498U	Ring DIN 127 B M6 6,1/11,8/1,6 A2
5	P335	Ring Ø32/20 x 14
6	P486YC	Screw DIN 912 M6 x 10 A2
7	432.063A	Ball stud rustproof
8	P496S	Washer DIN 9021 M10 10,5/30/2,5 A2
9	432.083	Spring VD-284 2.5 / 15/22
10	432.081	Distance ring ø9.6 / 6.2 x 30
11	P486Y	Screw DIN 912 M6 x 40 A2 with shaft
12	432.084A	Mainspring 2.5 / 18 / 85.8
13	P486R	Screw DIN 912 M6 x 16
14	P470T	Screw DIN 933 M6 x 16
15	P480W	Screw DIN 7991 M6 x 25 A2
16	432.061A	Drive axle rustproof
17	P490D	Nut DIN 934 M6
18	P470X	Screw DIN 933 M6 x 20
19	432.060A	Axle cpl. rustproof
20	432.062A	right sheet rust-proof
21	P513EA	Ring DIN 471 20/1,2 A2
22	530.240	wheel ø226 x 53 including bearings
25	P510L	Washer DIN 522 M6 6,4/25/1,5 A2
27	530.242	Wheel Cover Red
28	432.380A	Squeegee support
29	432.090A	Squeegee support lift frame
31	P493K	Nut DIN 985 M6
32	432.079	Hexagon screw M 8x16
33	432.075	Lever Complete

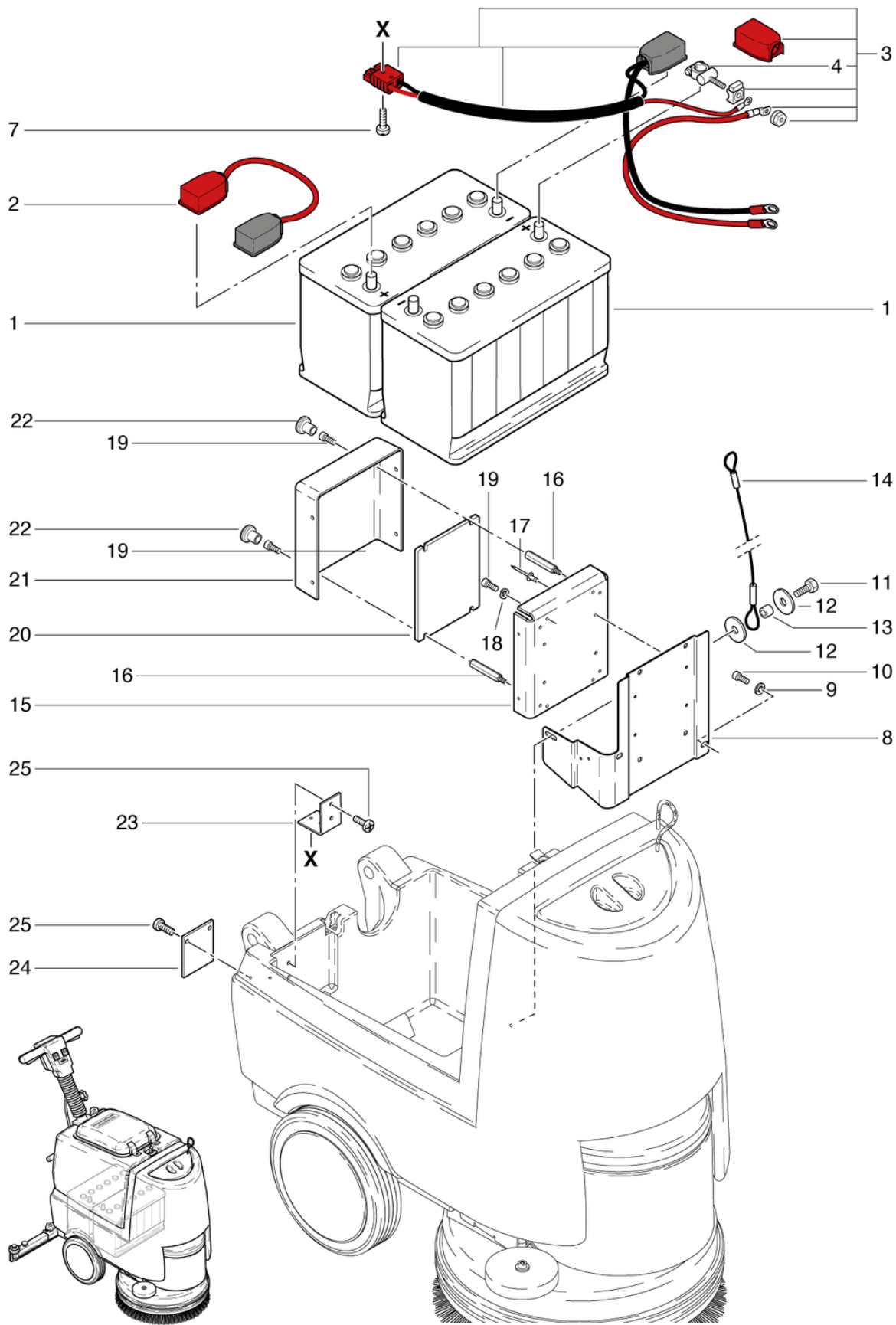
RA431B Duo

Batterie assembling

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RA 431 B Duo



RA431B Duo

Batterie assembling

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Pos.	Item no.	Spare part
1	500.092	Set of 2 gel batteries à 12 V/85 Ah (C5) Eternity
2	436.985	Battery connection wire 10mm2, L = 0.16m
3	436.986	Battery-cable harness Duo incl. 100A
4	P357E	Battery clamp 1 pole
7	P475F	Screw DIN 85 A M4 x 20 A2
8	436.779	porter Ele-Box Duo
9	P497H	Washer DIN 9021 M6 6,4/18/1,6 A2
10	P486YC	Screw DIN 912 M6 x 10 A2
11	P470T	Screw DIN 933 M6 x 16
12	P510L	Washer DIN 522 M6 6,4/25/1,5 A2
13	742.129	Distance ring ø 8 / 6 x 4
14	436.447	Lift Cable 501B
15	436.707	Sigmadrive RA431 Duo
16	P484UF	Spacers BN 3318 M6 x 55 St vz
17	P485PA	Rivets 4,8 x 13 Alu/St
18	P498U	Ring DIN 127 B M6 6,1/11,8/1,6 A2
19	P486Q	Screw DIN 912 M6 x 12 A2
20	436.626	Cooling plate
21	436.627	Cover
22	P494X	Handle BN 5364 M6 10/20 / 7.5 POM
23	436.109	Support angle
24	560.622	plug cover
25	P488B	Screw DIN 912 M5 x 12 A2

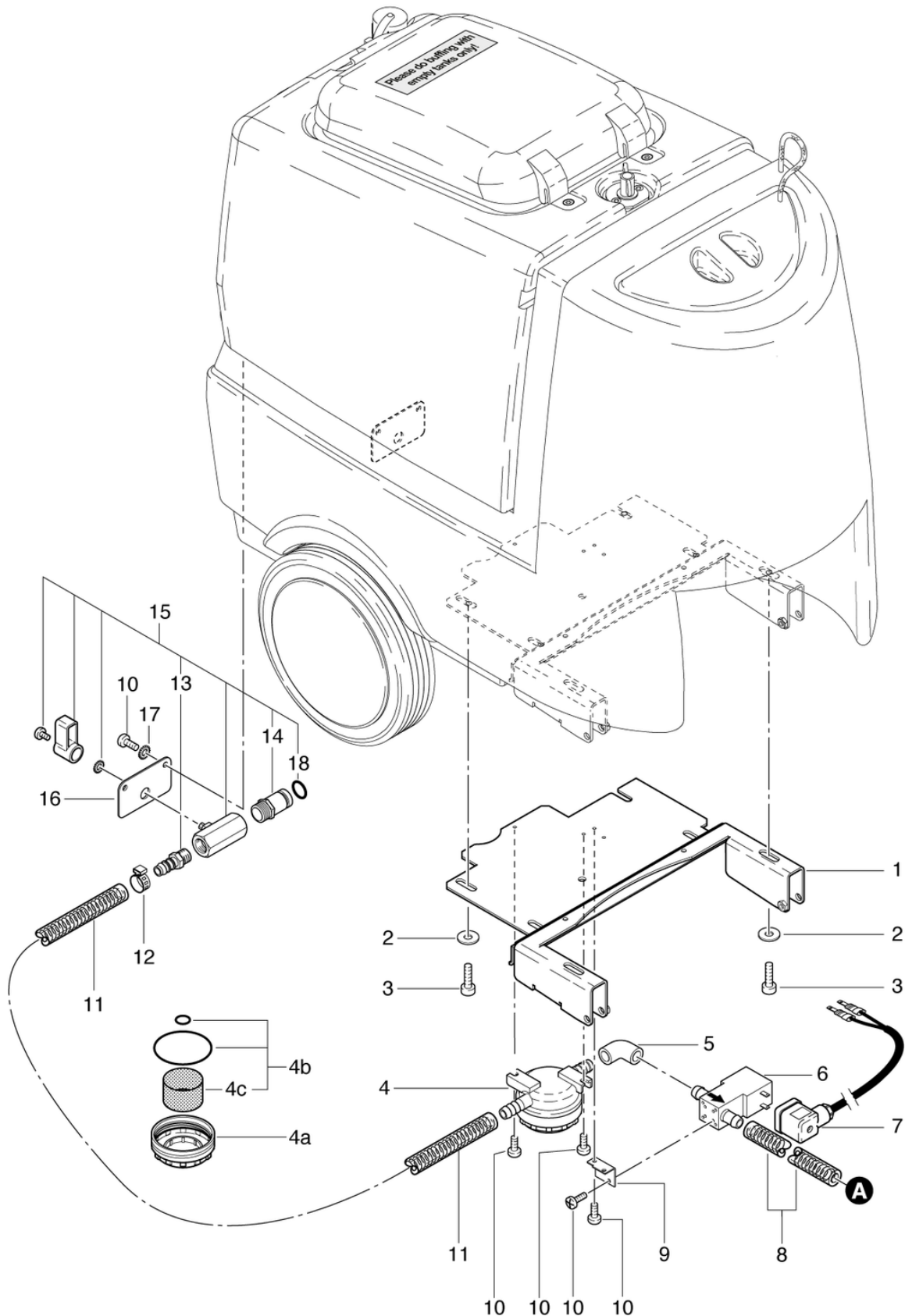
RA431B Duo

Magnetic valve and Filter assembling

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RA 431 B Duo



RA431B Duo

Magnetic valve and Filter assembling

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Pos.	Item no.	Spare part
1	436.052A	Support plate B stainless
2	P497H	Washer DIN 9021 M6 6,4/18/1,6 A2
3	P486Q	Screw DIN 912 M6 x 12 A2
4a	430.258	Cover to fresh water filter 1/2" + 3/8"
4b	430.759A	Filter Assembly
4c	430.759B	Filter sieve
4	430.759	Fresh water filter 1/2"-1/2" mesh 40
5	432.091	Elbow connector
6	P258	Magnetic valve 24V
7	436.708	Cable harness magnetic valve DUO incl. plug
8	430.231	Hose lye pipe mag valve 62cm
9	432.096A	angle bracket valve rustproof
10	P481Z	Screw DIN 7985 M5 x 10 A2
11	430.236	Tube
12	P550N	Hose clamp 19.8-706R
13	P519B	Nipple 1/2
14	432.087	Nipple 1/2
15	432.085	Valve Complete
16	432.092A	Plate for ball valve, printed rust-free
17	P498D	Washer DIN 6798 M5 5,1/9/0,5 A2
18	P960O	Ring DIN 3771 15,88/2,62

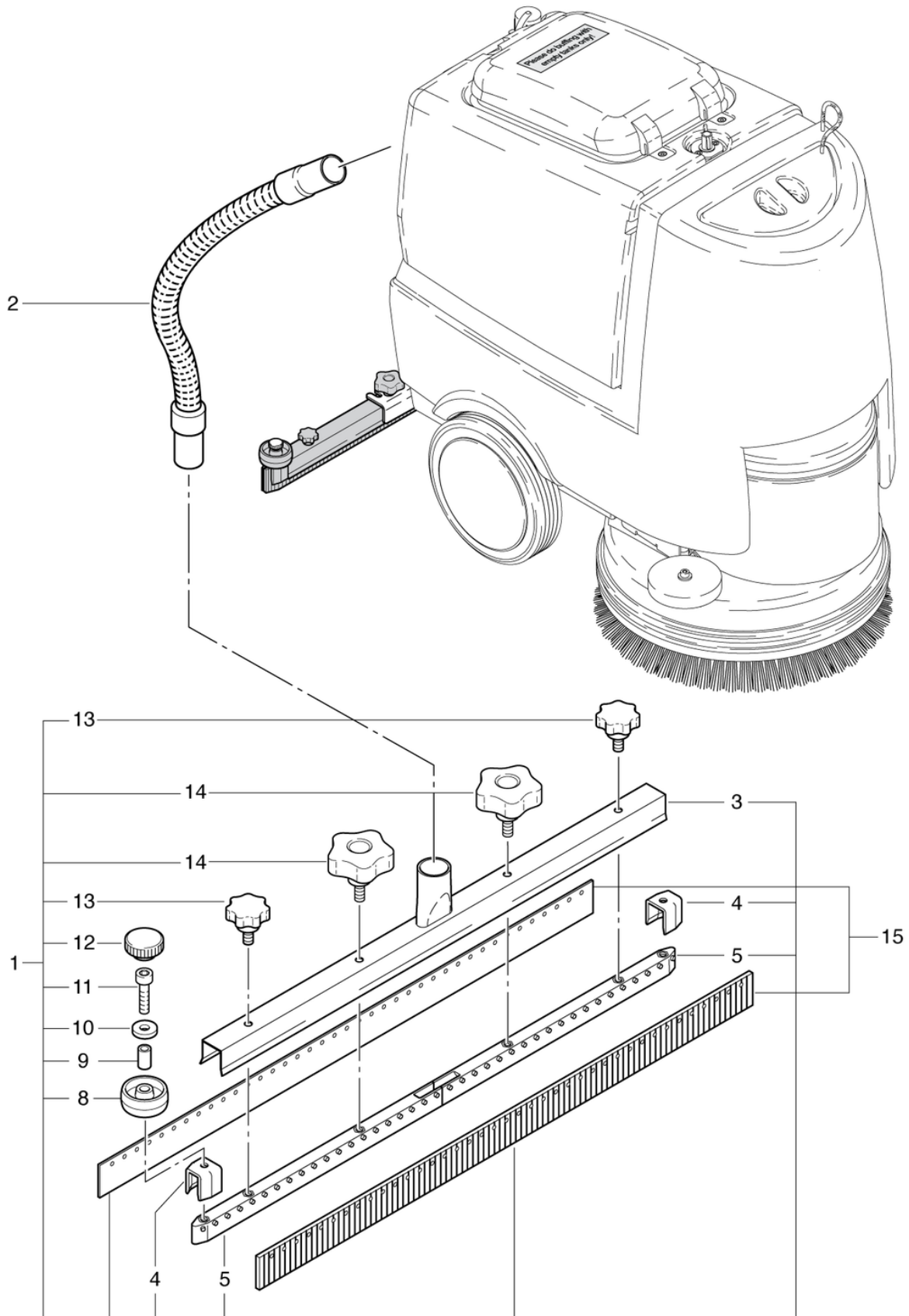
RA431B Duo

Suction nozzle even

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RA 431 B Duo



RA431B Duo

Suction nozzle even

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Pos.	Item no.	Spare part
1	430.600	Suction nozzle Complete 70cm
2	470.831	Suction hose 0.64m
3	430.602	Suction nozzle housing
4	530.606	Nozzle End Piece
5	430.603	Holder For Blades
8	450.364F	Plastic Wheel 50mm
9	530.609	Distance tube 8/6 x 28mm
10	P497H	Washer DIN 9021 M6 6,4/18/1,6 A2
11	P486U	Screw DIN 912 M6 x 35 A2 with shaft
12	P494X	Handle BN 5364 M6 10/20 / 7.5 POM
13	530.607	Star handle ø40 M8 x 16
14	P253M	Star grip Ø62 M8 x 18 A2
15	430.080	Rubber blade oil resistant (suction nozzle straight)

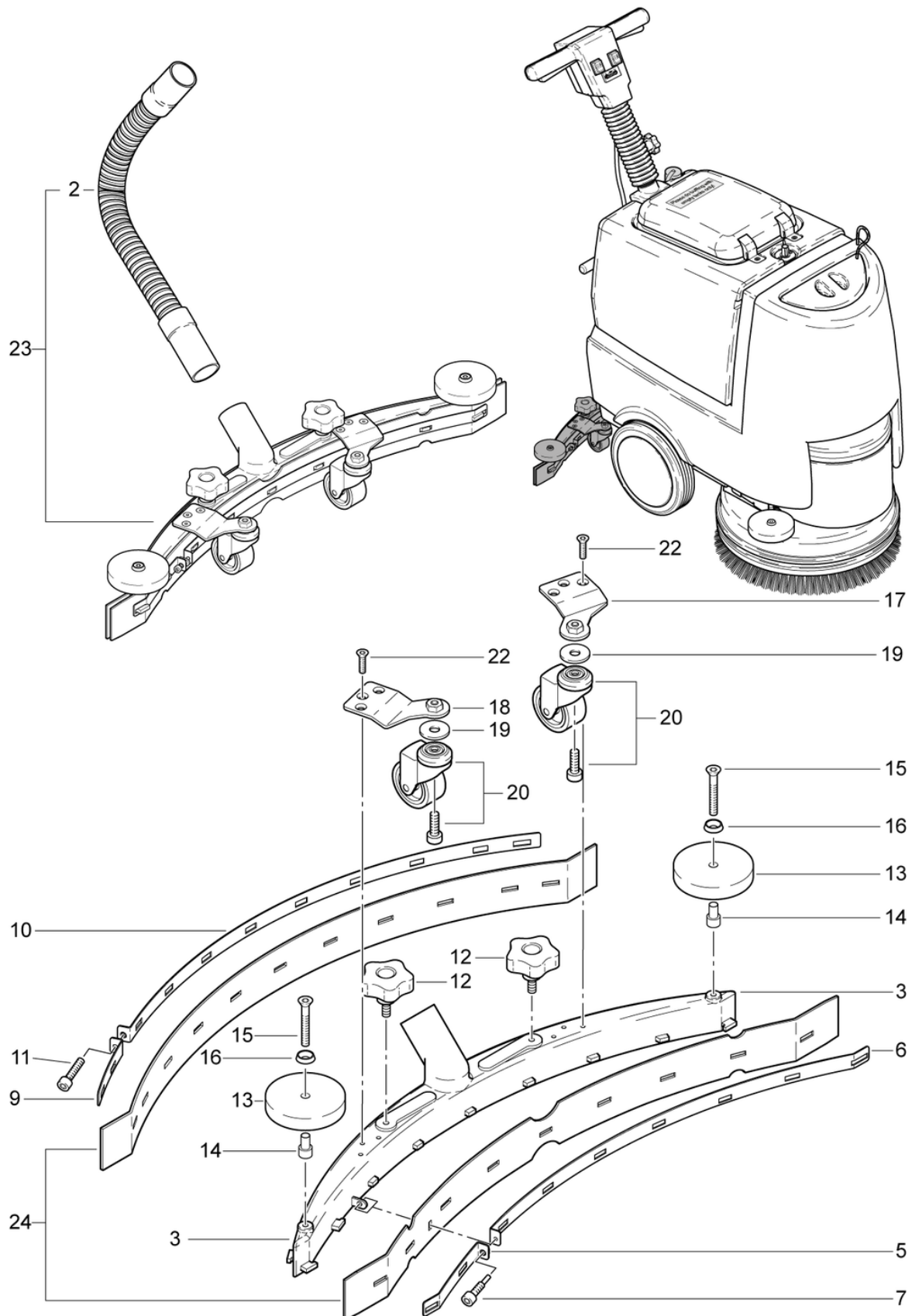
RA431B Duo

Suction nozzle curved

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RA 431 B Duo



RA431B Duo

Suction nozzle curved

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Pos.	Item no.	Spare part
2	470.832	Suction Hose Complete 32mm x 0,64m
3	432.555	Suction Nozzle Body
5	432.561	Support Plate small, in front
6	432.563	Support Plate in front
7	800.425	Machined screw DIN 912 M6 x 30 A2
9	432.564	Support Plate Small in back
10	432.562	Back Support Plate
11	P488Q	Screw DIN 912 M6 x 25 A2
12	P253M	Star grip Ø62 M8 x 18 A2
13	510.127	Fender Wheel ø90mm
14	432.508	Distance ring ø15/8,5 x 26,8
15	P479P	Screw DIN 7991 M8 x 45 A2
16	P500T	Shim SN 213912 M8 25/4,8 A2
17	432.553A	roller holder left rustproof
18	432.554A	roller holder right rustproof
19	P500S	Shim DIN 433 M10 10,5/18/1,6 A2
20	P209B	Caster with Screw M10 x 20
22	P479N	Screw DIN 7991 M6 x 14 A2
24	432.080LT	Rubber blade standard (suction nozzle curved)
24	432.551	Rubber blade oil resistant (suction nozzle curved)

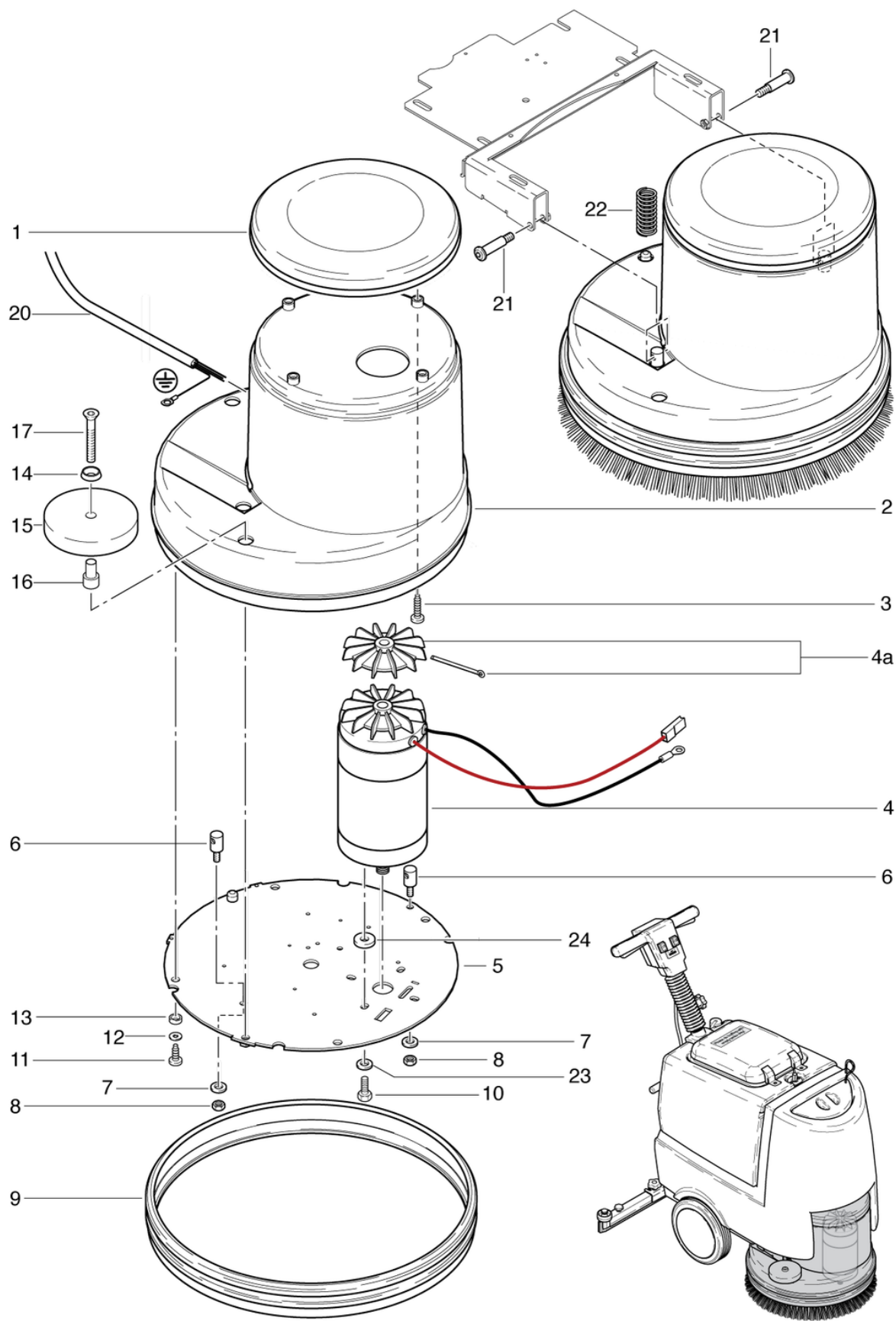
RA431B Duo

Motor

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RA 431 B Duo



RA431B Duo

Motor

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Pos.	Item no.	Spare part
1	748.0670	Anthracite gray lid
2	432.512	cover brush head red DUO machined
3	P515L	Screw WN 1452 K50 x 25 A2
4a	565.593	Brush Motor Fan
4	436.125	Motor 24v Duo
5	432.503A	Drive disk stainless
6	432.505A	Hold bolt rustproof
7	P496P	Washer DIN 125 A M8 8,4/16/1,6 A2
8	P492H	Nut DIN 985 M8 St galvanized
9	720.054	Powerdisc Buffer Housing
10	P486T	Screw DIN 912 M6 x 25
11	P515LA	Screw WN 1452 K50 x 10 A2
12	P496G	Shim DIN 9021 M5 5,3/15/1,2
13	432.515	Distance Ring
14	P500T	Shim SN 213912 M8 25/4,8 A2
15	510.127	Fender Wheel ø90mm
16	432.508	Distance ring ø15/8,5 x 26,8
17	P479P	Screw DIN 7991 M8 x 45 A2
21	432.521	Shoulder Screw
22	436.520	Compression spring DIN 2095 2.0 / 18/56
23	P498U	Ring DIN 127 B M6 6,1/11,8/1,6 A2
24	432.509	Distance ring ø15/6,5 x 7

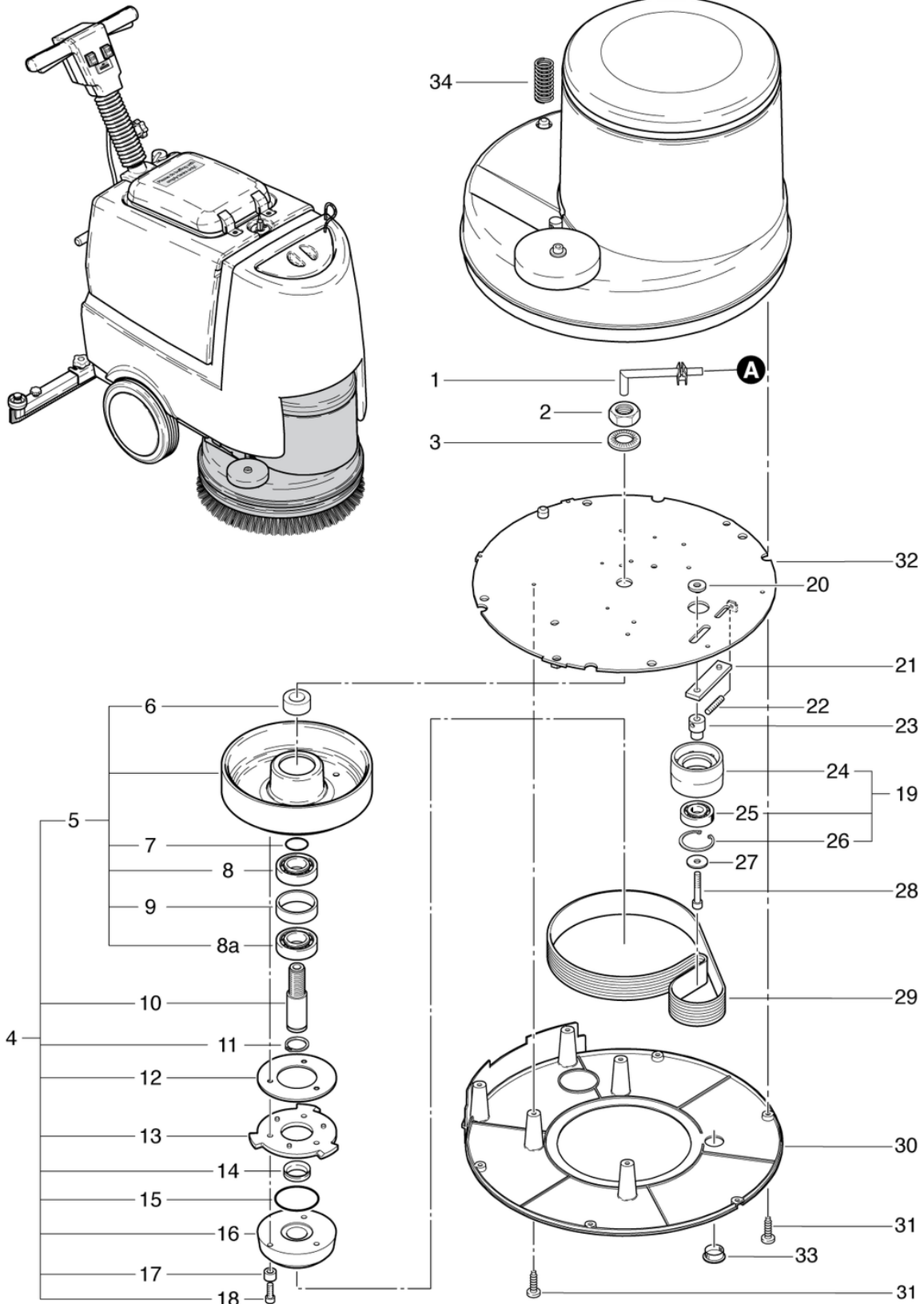
RA431B Duo

Drive and waterdistribution

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RA 431 B Duo



RA431B Duo

Drive and waterdistribution

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Pos.	Item no.	Spare part
1	432.166	Lye pipe
2	P492R	Nut DIN 934 M20 x 1.5 A2
3	P498Q	Shim NFE 25511 M20 20,5/40/4,9
4	432.127	Drive Hub RA431 Duo
5	432.129	Drive Pulley
6	432.507	Bearing
7	P964A	Ring DIN 3771 55,25/2,62 EPDM
8a	P316P	Deep groove ball bearing 6205 2RS ø52 / 25 x 15
8	P316Q	Deep groove ball bearing 6003 2RSR ø35 / 17 x 10
9	3611851	Spacer ring ø 52 / 45 x 15
10	741.125	Main Axle
11	P513D	Ring DIN 471 25/1,2
12	430.136	Distance shim 46 x 99 x 1
13	742.141	Pad Hub
14	P344	Shaft sealing ring 25x40x3 EPDM/V2A
15	P964B	Ring DIN 3771 42,52/2,62 EPDM
16	430.157	Pad Driver Hub
17	742.129	Distance ring ø 8 / 6 x 4
18	P487S	Screw DIN 912 M6 x 20 A2
19	742.116	Tension pulley ø65.2 x 37 cpl.
20	720.125	Groove Nut
21	720.128A	Support 82 x 20mm inoxydable
22	P513J	Pin DIN 913 M6 x 30 A2
23	720.127	Tap
24	742.117	Belt Tension Pulley Use742.116
25	P316O	Deep groove ball bearing 6302 2RSR ø42 / 15 x 13
26	P513G	Ring DIN 472 42/1,75
27	P496Q	Shim DIN 9021 M8 8,4/24/2
28	P487T	Screw DIN 912 M8 x 45 A2 with schaft
30	432.145	Soil Complete
31	P516H	Screw WN 1451 K50 x 16
32	432.503	Drive disk
33	P542L	Blind hole cover
34	436.520	Compression spring DIN 2095 2.0 / 18/56

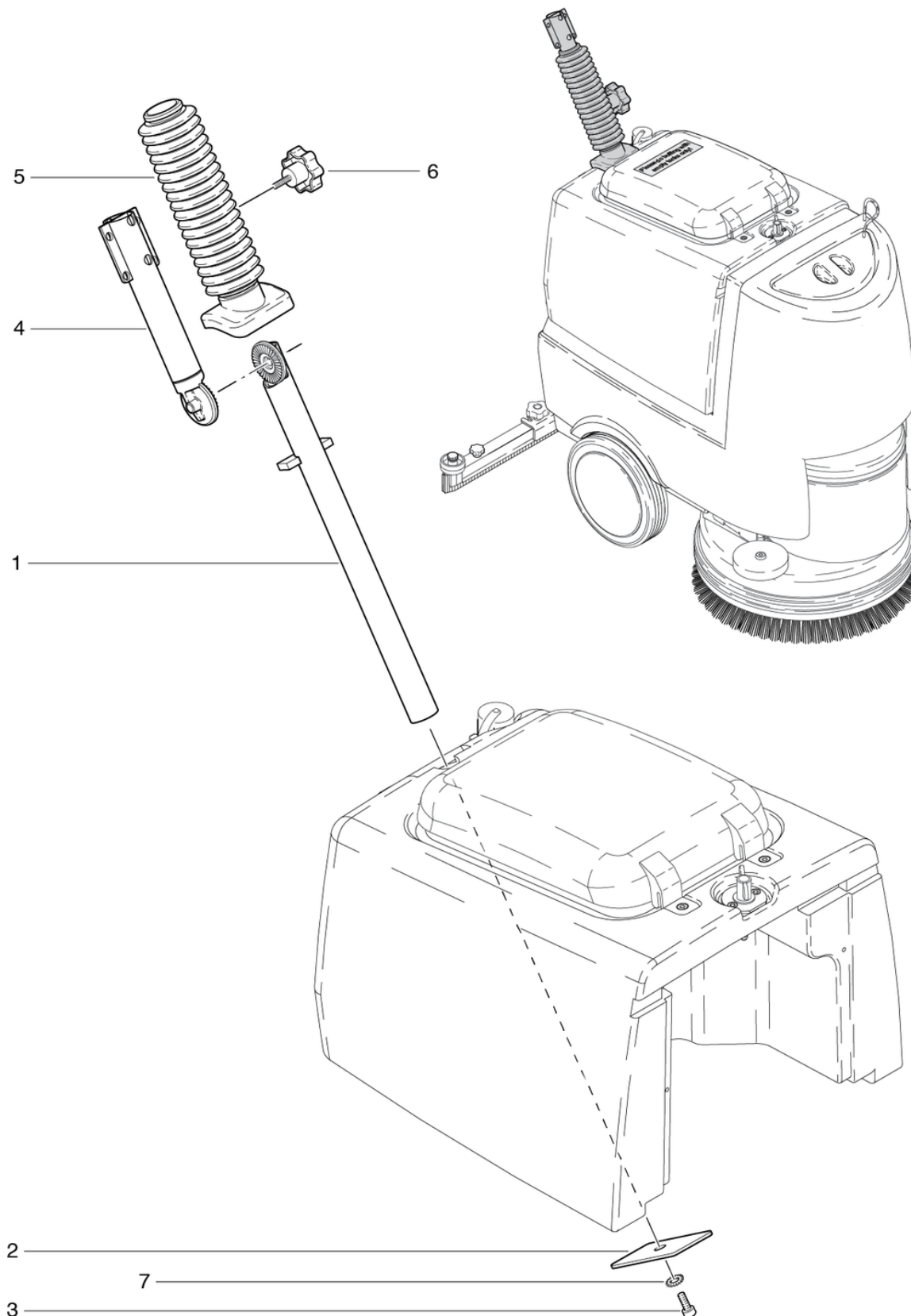
RA431B Duo

Angled tube

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RA 431 B Duo



RA431B Duo

Angled tube

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Pos.	Item no.	Spare part
1	436.255	Lower Angled Tube
2	436.340A	underlay rustproof
3	P487HA	Screw DIN 912 M10 x 35 A2
4	432.412	Upper Handle Tube
5	432.405	Protection Sleeve
6	P253K	Star grip Ø62 M8 x 30
7	P498F	Shim DIN 6797 A M10 10,5/18/10,9 A2

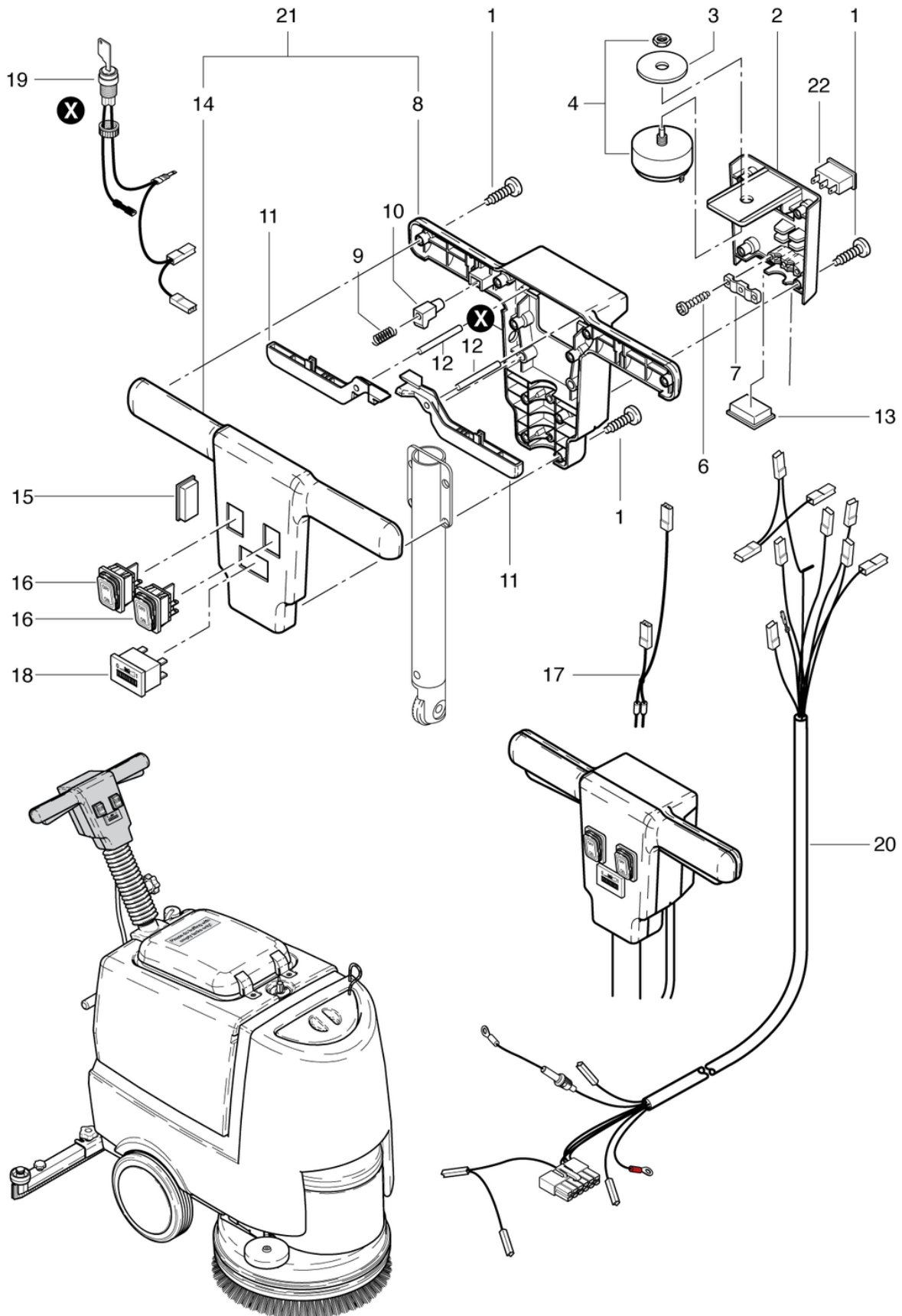
RA431B Duo

Handle

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RA 431 B Duo



RA431B Duo

Handle

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Pos.	Item no.	Spare part
1	P515L	Screw WN 1452 K50 x 25 A2
2	436.312	Rear handle cover Duo anthrazid
3	P496	Shim DIN 9021 M12 13/37/3
4	6650454	Switch
6	P515K	Screw M 5x20
7	742.321	Cable clamp
8	436.322	Rear Handle Housing
9	742.209	Compression spring VD-090L 0.55 / 6 / 29.2
10	742.208	Button grey anthrazite
11	741.204	Switch
12	P512M	Pin ISO 2338 6 x 50 pc vz
13	741.216	Switch Handle
14	436.320	Front Handle Housing
15	P171O	Cover
16	P241	Rocker switch white 24V
17	436.332	
18	701.330	Battery Indicator
19	436.361	Key Switch
20	436.331	Cable tree for pushbar
21	436.309	handle top DUO ahead/back
22	P248	Rocker switch with flat plug connection 6.3 x 0.8

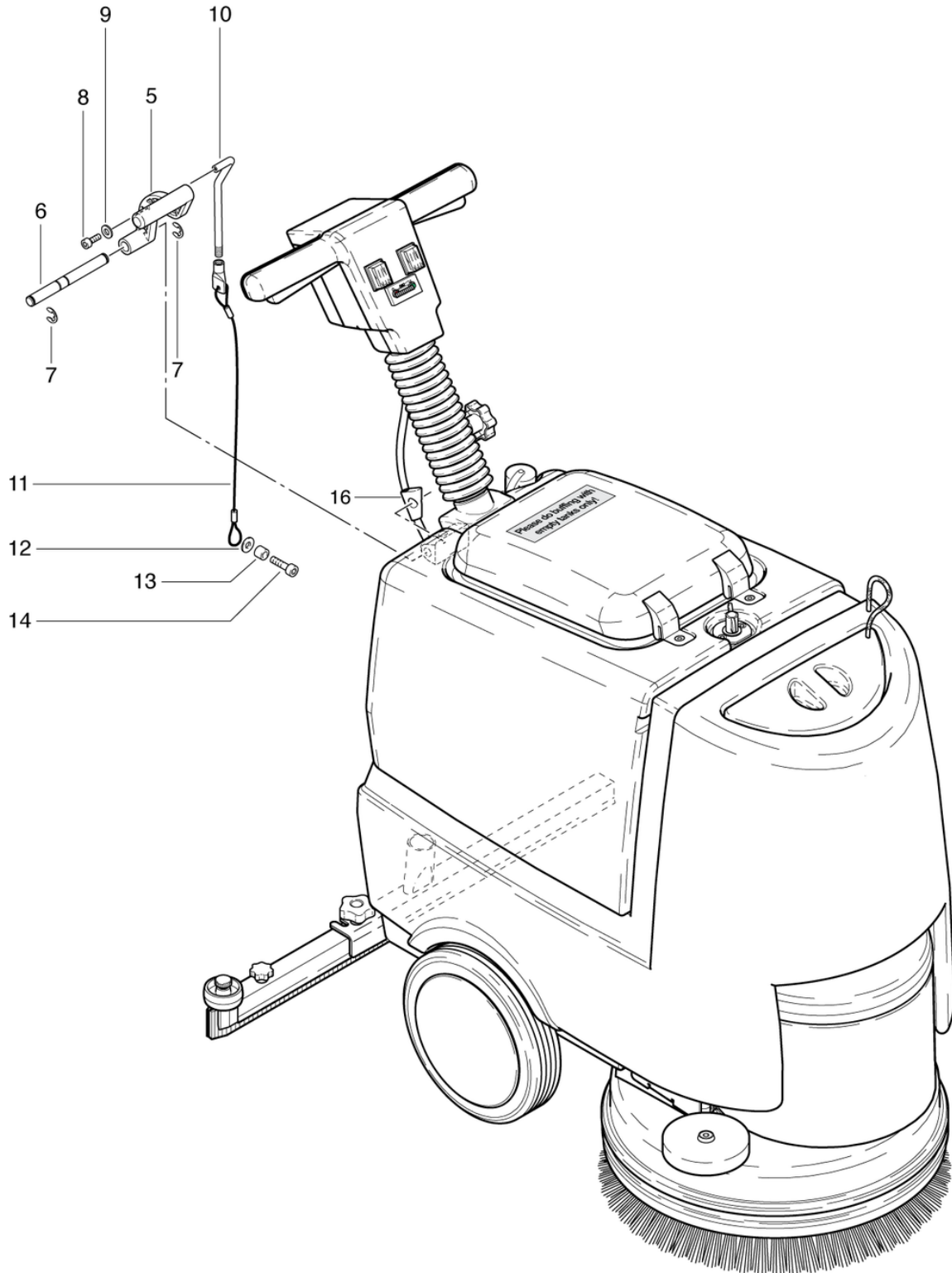
RA431B Duo

Suction nozzle removal

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RA 431 B Duo



RA431B Duo

Suction nozzle removal

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Pos.	Item no.	Spare part
5	432.365	Lever to Suction Nozzle
6	432.361	Axle
7	P499Q	Shim DIN 6799 8/16,3/1
8	P488E	Screw DIN 912 M5 x 8 A2
9	P497E	Shim DIN 9021 M5 5,3/15/1,2 A2
10	432.370	Squeegee Lift
11	436.817	Pull rope RA431B 407mm
12	P497K	Washer DIN 125 A M6 6,4/12/1,6 A2
13	430.618	Distance ring ø7/5 x 5,5
14	P472F	Screw DIN 933 M5 x 12 A2
16	432.362	Cable entry

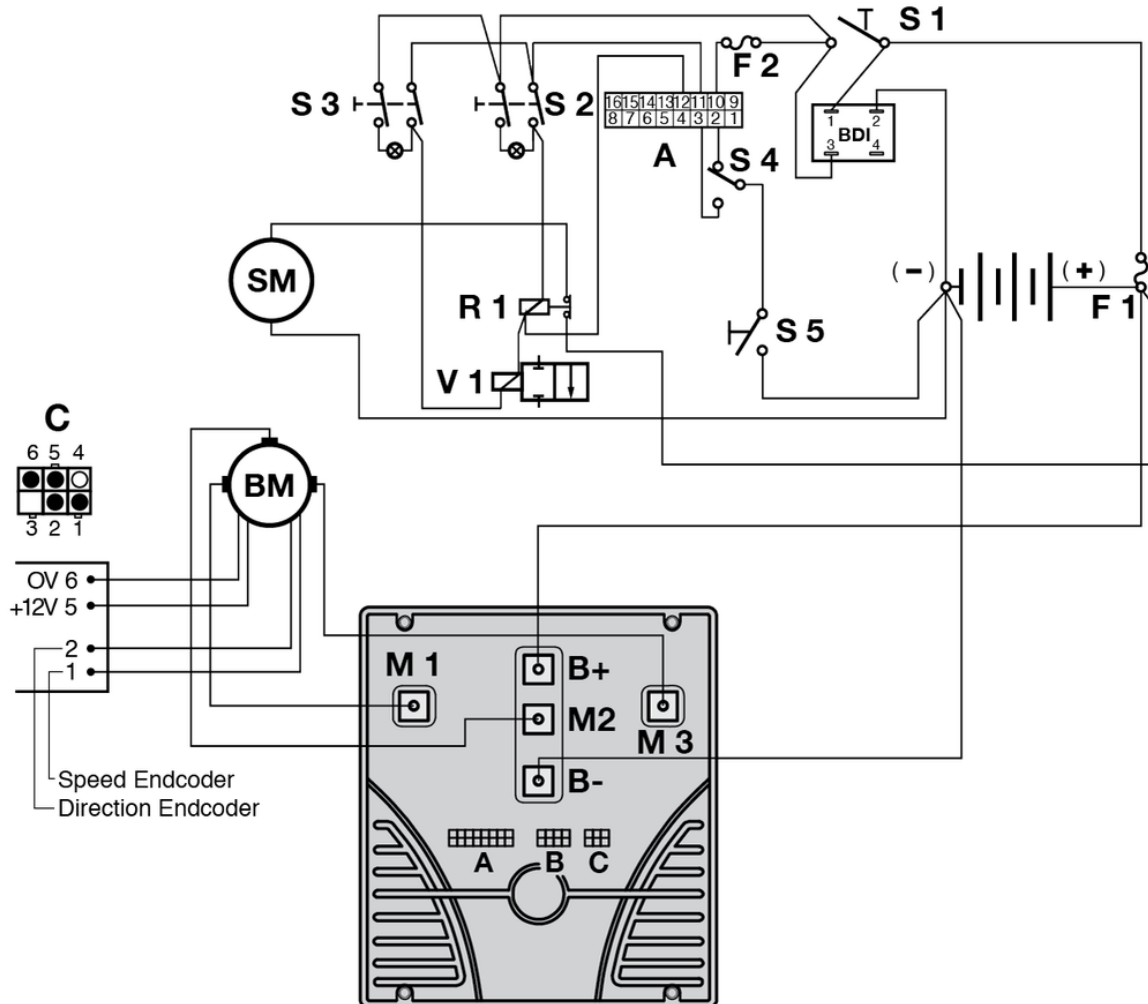
RA431B Duo

Wiring diagram

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RA 431 B Duo



- S 1 = Schlüsselschalter / Key switch
- S 2 = Schalter Saugmotor / Suction motor switch / Interrupteur pour moteur
- S 3 = Schalter Magnetventil
- S 4 = Schalter Drehzahl
- S 5 = Schalter Bürstmotor / Switch for brush motor / Interrupteur pour moteur
- BM = Bürstmotor / Motor / Moteur
- SM = Saugmotor / Moteur d'aspiration / Vacuum motor
- V 1 = Magnetventil
- F 1 = Schmelzsicherung 100 A / Fuse 100 A / Fusible 100 A
- F 2 = Schmelzsicherung 10 A / Fuse 10 A / Fusible 10 A
- R 1 = Relais Saugmotor
- BDI = Batteriediagnosegerät