

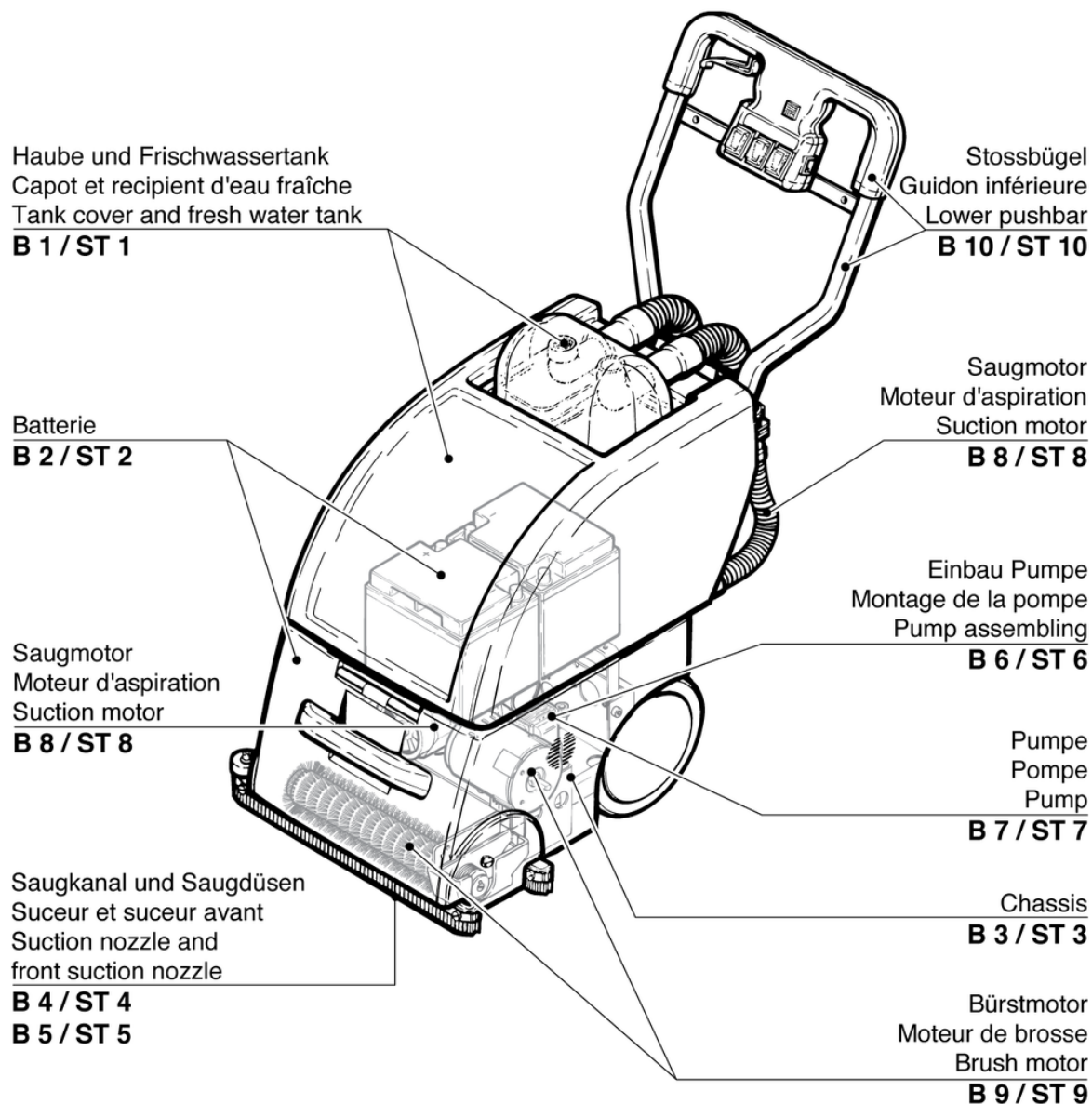
# RA410B

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Stromlaufplan  
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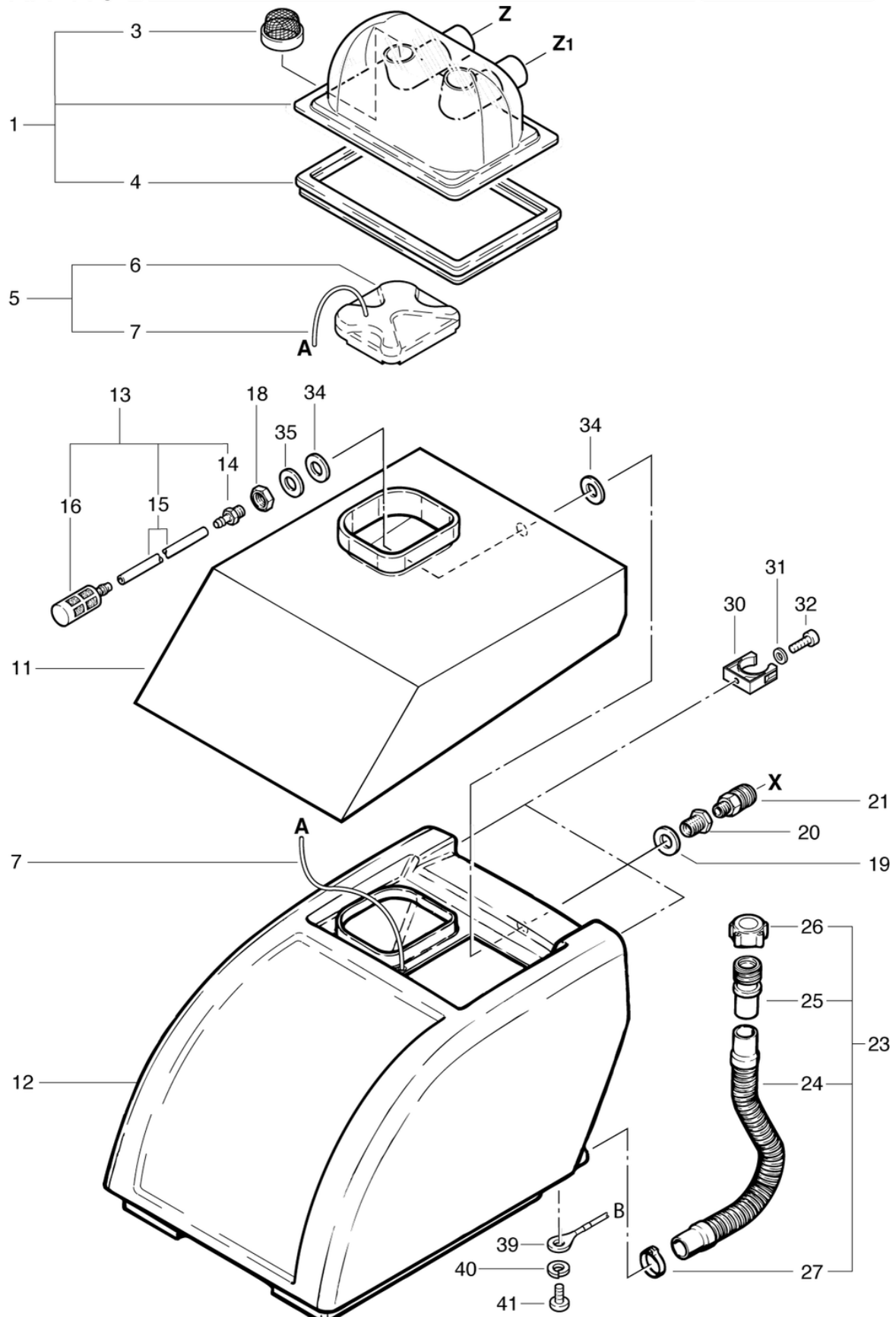
# RA410B

## Tank cover and fresh water tank

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RA 410 B



# RA410B

## Tank cover and fresh water tank

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| Pos. | Item no. | Spare part                                      |
|------|----------|-------------------------------------------------|
| 1    | 400.750  | Cover 2-hole smoke transparent with filter/seal |
| 3    | 400.766A | Air filter cpl. rustproof black                 |
| 4    | 420.723  | RA400 Seal for Cover (Tank)                     |
| 5    | 530.765  | Clean Water Tank Cover Compl                    |
| 6    | 530.758  | Cover For Fresh Water Tank                      |
| 7    | 490.750  | Holding rope ø3 x 500mm                         |
| 11   | 490.722  | Membrane                                        |
| 12   | 490.721  | Tank                                            |
| 13   | 490.725  | Suction hose compl.                             |
| 14   | P540F    | Straight nipple GES NW6 R 1/4                   |
| 15   | 415.719  | Suction hose 8/6 x 450                          |
| 16   | P528     | Fresh water filter processed                    |
| 18   | P535B    | Nut 3/8 Ms                                      |
| 19   | P097     | Sealing shim 30/17/2 PE                         |
| 20   | P535F    | Hollow nipple 3/8 - 1/4 x 18 Ms                 |
| 21   | P500B    | Quick coupling 1/4 AG, large brass              |
| 23   | 480.740  | Discharge Hose                                  |
| 24   | 480.741  | Discharge Hose                                  |
| 25   | 500.409A | Hose sleeve 45 x 25 x 80mm                      |
| 26   | 432.110  | Cover for Execution                             |
| 27   | P553R    | Hose clamp 039.6-706R                           |
| 30   | P109A    | Hose holder anthracite                          |
| 31   | P497G    | Washer DIN 125 A M5 5,3/10/1 A2                 |
| 32   | P488B    | Screw DIN 912 M5 x 12 A2                        |
| 34   | P097B    | Sealing shim ø35/17/2 EPDM                      |
| 35   | P098     | Clamping shim ø35mm                             |
| 39   | 490.745  | Nylon string                                    |
| 40   | P498U    | Ring DIN 127 B M6 6,1/11,8/1,6 A2               |
| 41   | P475P    | Screw DIN 85 A M6 x 8                           |

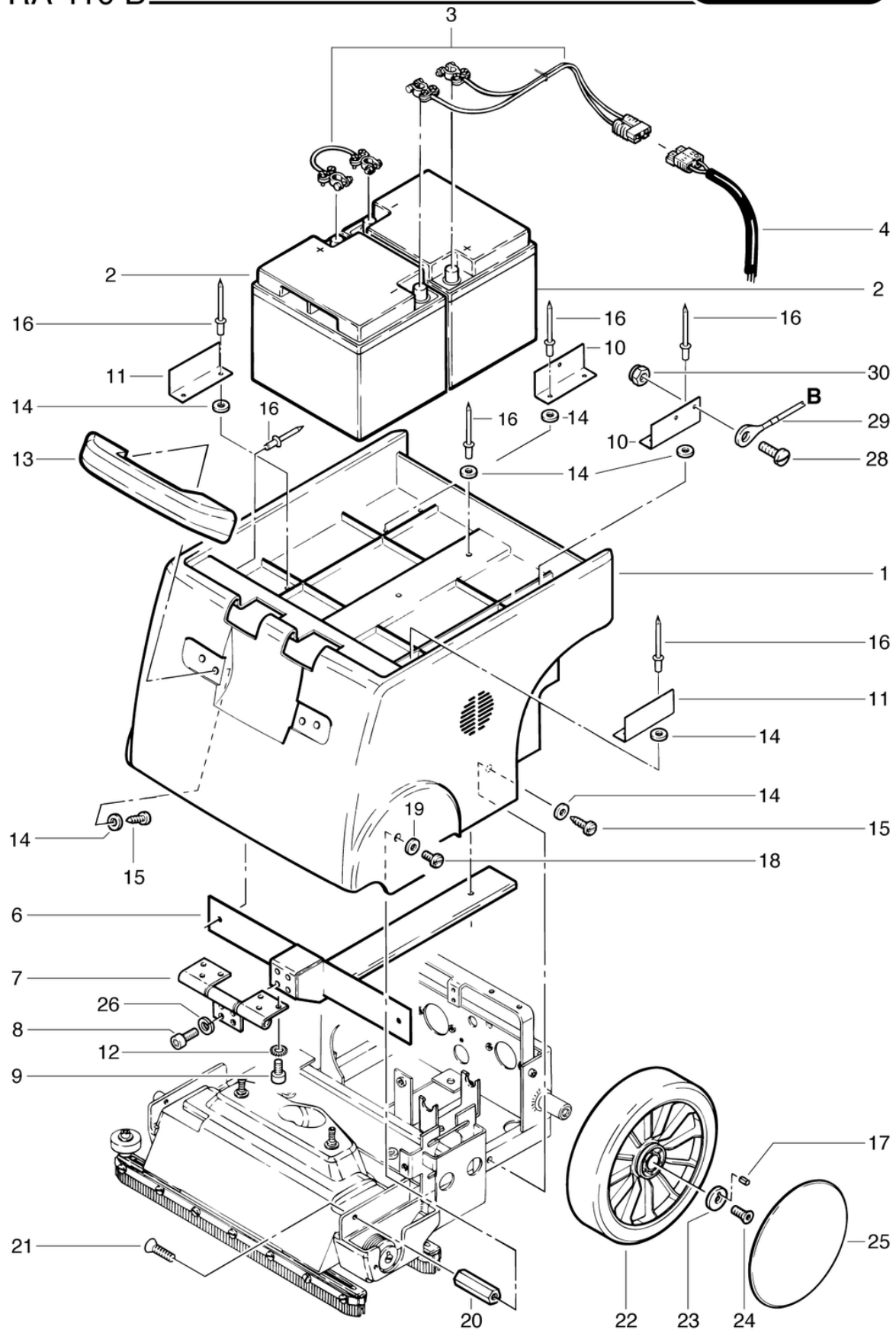
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## Battery

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# RA410B

## Battery

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| Pos. | Item no. | Spare part                            |
|------|----------|---------------------------------------|
| 1    | 411.711  | - chassis cover                       |
| 2    | 490.090  | Set of 2 wet batteries (2x50Ah)       |
| 2    | 490.091  | 2 gel batteries 50Ah / 12V            |
| 3    | 490.994  | clamp cable                           |
| 4    | 416.238  | Motor cable harness                   |
| 4    | 440.232  | Motor cable harness                   |
| 6    | 416.719  | Support                               |
| 7    | 420.391  | Hinge cpl.                            |
| 8    | P486Q    | Screw DIN 912 M6 x 12 A2              |
| 9    | P489E    | Screw DIN 912 M5 x 10 A2              |
| 10   | 416.718  | Angle                                 |
| 11   | 416.717  | Front Castor                          |
| 12   | P498D    | Washer DIN 6798 M5 5,1/9/0,5 A2       |
| 13   | 077.560  | Hopper handle anthracite grey         |
| 14   | P497E    | Shim DIN 9021 M5 5,3/15/1,2 A2        |
| 15   | P516Q    | Screw WN 1452 K50 x 18                |
| 16   | P485C    | Rivet Pop Standard 4.0 x 8.0 Alu / St |
| 17   | P512L    | Pin ISO 8750 2.5 x 5 A2               |
| 18   | P475I    | Screw DIN 85 A M5 x 12 A2             |
| 20   | 411.118  | Distance piece SW 12x45               |
| 21   | P480B    | Screw DIN 963 M5 x 10 A2              |
| 22   | 530.240  | wheel ø226 x 53 including bearings    |
| 23   | P499     | Mounting plate 30 x 3 kpl.            |
| 24   | P487U    | Screw DIN 7991 M6 x 12                |
| 25   | 530.242  | Wheel Cover Red                       |
| 26   | P498U    | Ring DIN 127 B M6 6,1/11,8/1,6 A2     |
| 28   | P488E    | Screw DIN 912 M5 x 8 A2               |
| 29   | 490.745  | Nylon string                          |
| 30   | P493G    | Nut DIN 985 M5                        |

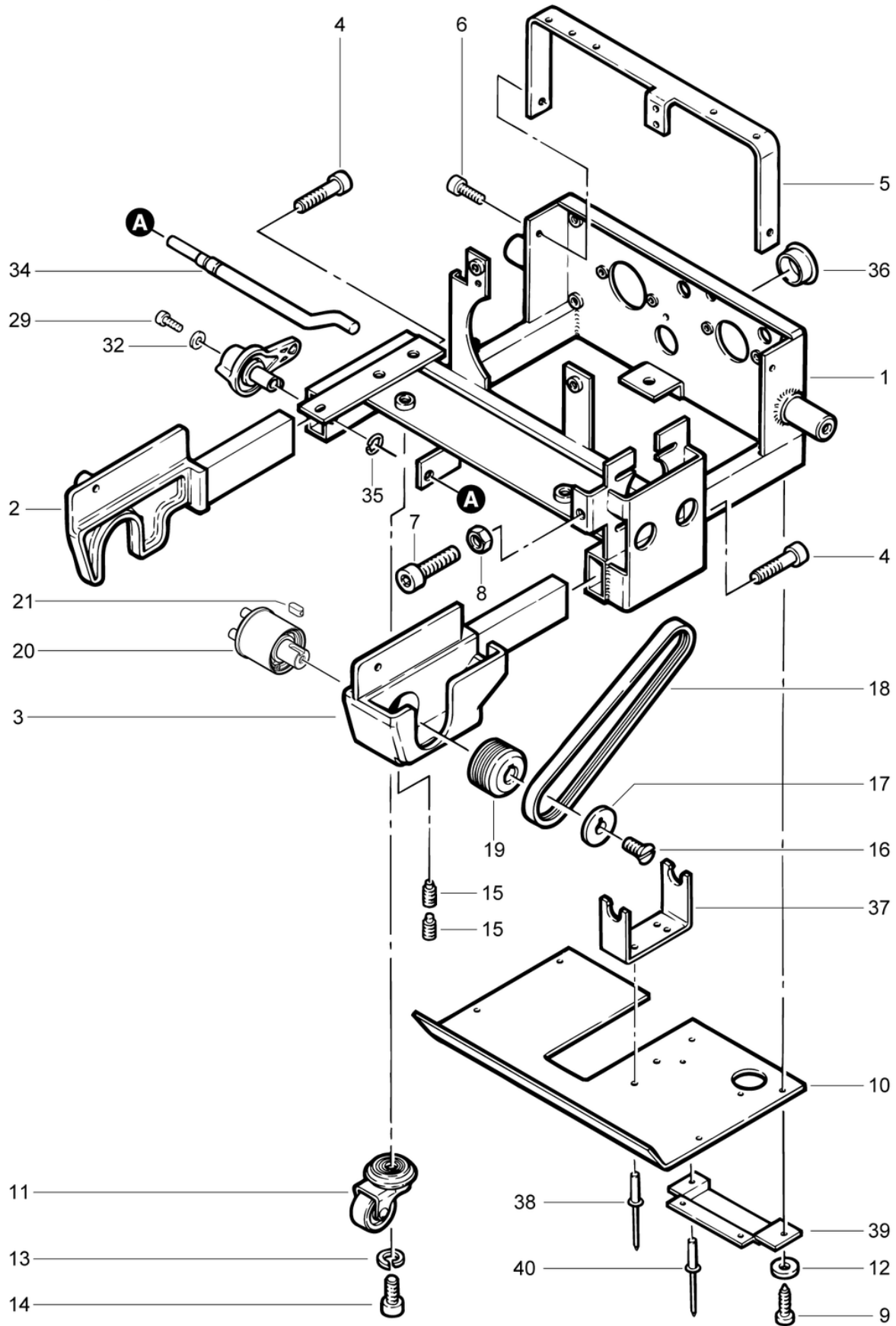
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## Chassis

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Chassis

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## Chassis

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| Pos. | Item no. | Spare part                            |
|------|----------|---------------------------------------|
| 1    | 411.111  | Chassis                               |
| 2    | 411.114  | Right Support                         |
| 3    | 400.113  | Left rail holder machined             |
| 4    | P486T    | Screw DIN 912 M6 x 25                 |
| 5    | 420.352  | Frame                                 |
| 6    | P480C    | Screw DIN 963 M4 x 8 A2               |
| 7    | P487D    | Screw DIN 912 M8 x 25                 |
| 8    | P490E    | Nut DIN 934 M8                        |
| 9    | P483G    | Screw DIN 7981 C 2,9 x 9,5            |
| 10   | 411.801  | Bottom plate                          |
| 10   | 481.801  | - bottom plate                        |
| 11   | P205C    | Caster ø50mm                          |
| 12   | P497B    | Shim DIN 9021 M3 3,2/9/0,8 A2         |
| 13   | P498E    | Ring DIN 127 B M10 10,2/18,1/2,2      |
| 14   | P487K    | Screw DIN 912 M10 x 25                |
| 15   | P482Z    | Pin DIN 914 M5 x 5 A2                 |
| 16   | P487U    | Screw DIN 7991 M6 x 12                |
| 17   | P499     | Mounting plate 30 x 3 kpl.            |
| 18   | 420.425  | Poly-V drive belt                     |
| 19   | 400.415  | Pulley ø 42 x 22mm                    |
| 20   | 400.405  | Brush axle complete                   |
| 21   | 400.420  | Wedge                                 |
| 29   | P488D    | Screw DIN 912 M4 x 8                  |
| 32   | P497E    | Shim DIN 9021 M5 5,3/15/1,2 A2        |
| 34   | 411.140  | Squeegee Lift Shaft Complete          |
| 35   | P499X    | Shim BN 813 6,35/12,9/0,7             |
| 36   | P171A    | Cover Ø25,5mm                         |
| 37   | P207B    | Pump holder                           |
| 38   | P485F    | Blind rivet 5 x 80 Alu/St             |
| 39   | 411.803  | Exhaust cover                         |
| 40   | P485C    | Rivet Pop Standard 4.0 x 8.0 Alu / St |

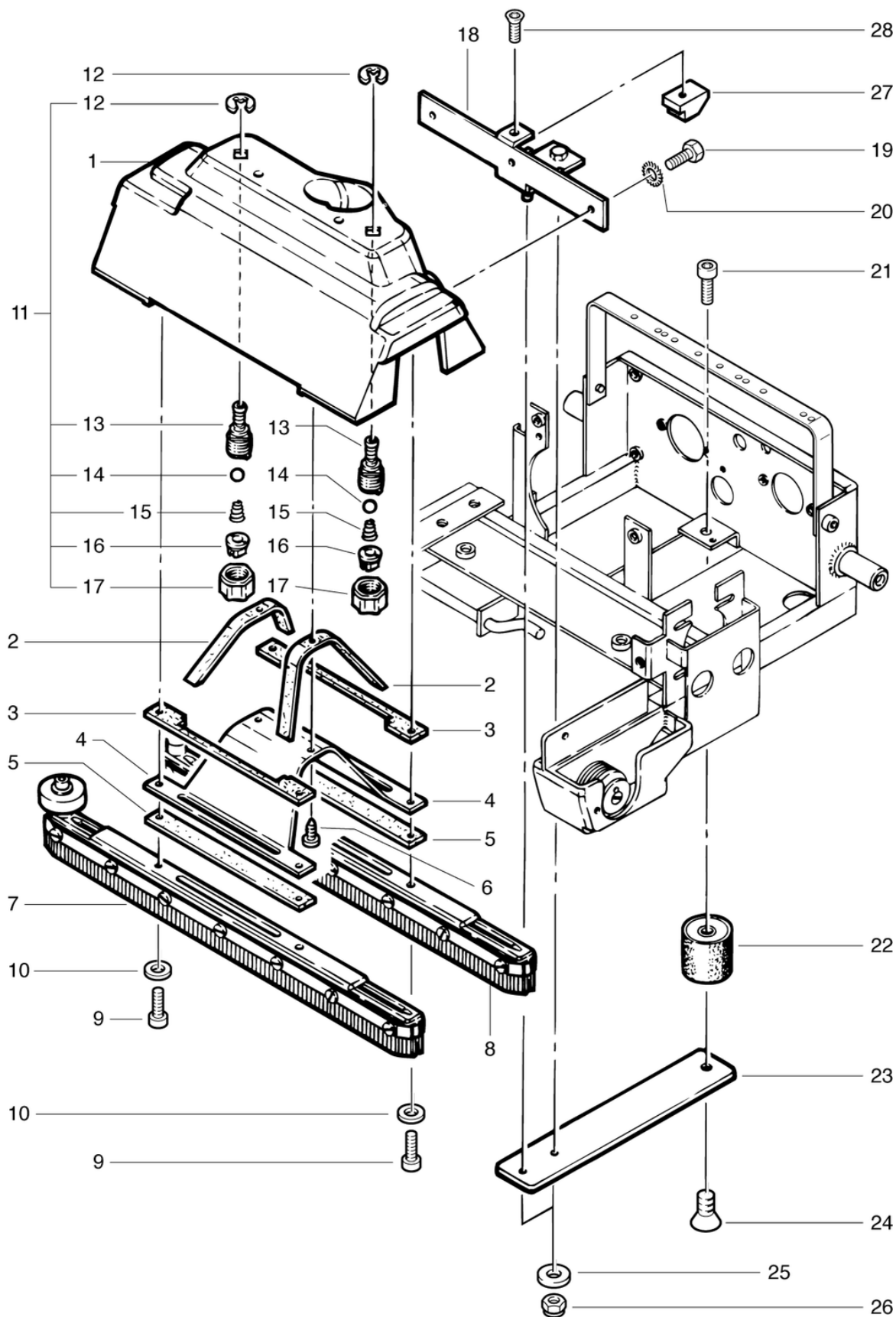
# RA410B

## Suction nozzle

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RA 410 E/B



# RA410B

## Suction nozzle

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| Pos. | Item no. | Spare part                                      |
|------|----------|-------------------------------------------------|
| 1    | 400.510  | Suction Nozzle                                  |
| 2    | 400.561  | Top seal 200 x 10 x 3mm                         |
| 4    | 400.560  | Cover plate 219.6 x 190 x 2mm                   |
| 5    | 400.563  | Bottom seal 190 x 18 x 3mm                      |
| 7    | 400.520  | RA400 Front Suction Nozzle                      |
| 8    | 400.530  | RA400 Rear Suction Nozzle                       |
| 9    | P488F    | Screw DIN 912 M5 x 14 A2                        |
| 10   | P497G    | Washer DIN 125 A M5 5,3/10/1 A2                 |
| 11   | 400.550  | Spray nozzle cpl.                               |
| 12   | P499N    | Shim DIN 6799 9/18,8/1,1 A2                     |
| 14   | P172W    | Ball ø7.14 for spray nozzle PA6.6               |
| 15   | P444E    | Compression spring 0.5/10.1;7/12                |
| 17   | P602D    | Union nut 3/8                                   |
| 18   | 400.394  | Nozzle holder                                   |
| 19   | P470H    | Screw DIN 933 M5 x 12                           |
| 20   | P498D    | Washer DIN 6798 M5 5,1/9/0,5 A2                 |
| 21   | P487A    | Screw DIN 912 M8 x 10                           |
| 22   | 420.393  | Round buffer M8 I-thread, ø30 x 30, M8 I-thread |
| 23   | 411.396  | Arch 262x45x5                                   |
| 24   | P479R    | Screw DIN 7991 M8 x 12                          |
| 25   | P496G    | Shim DIN 9021 M5 5,3/15/1,2                     |
| 26   | P493G    | Nut DIN 985 M5                                  |
| 27   | 411.391  | Glider                                          |

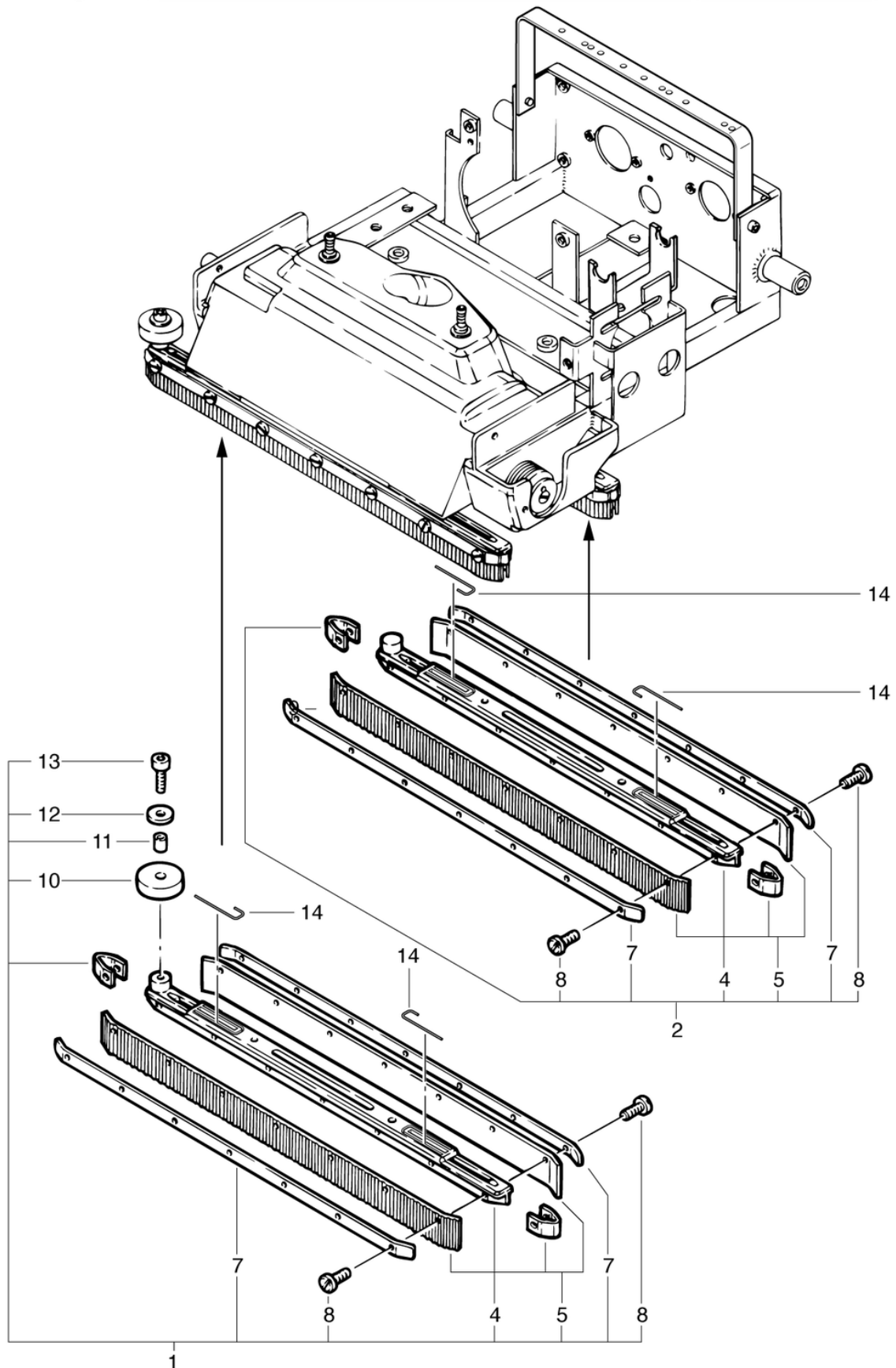
# RA410B

## Front suction nozzle

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RA 410 E/B



# RA410B

## Front suction nozzle

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| Pos. | Item no. | Spare part                     |
|------|----------|--------------------------------|
| 1    | 400.520  | RA400 Front Suction Nozzle     |
| 2    | 400.530  | RA400 Rear Suction Nozzle      |
| 4    | 400.538  | RA400 Water suction nozzle     |
| 5    | 400.050  | Squeegee Set cpl.              |
| 7    | 400.534  | Holding plate                  |
| 8    | P475V    | Screw DIN 85 A M4 x 10 A2      |
| 10   | 400.521  | Deflector roll 40 x 10         |
| 11   | 400.522  | Spacer sleeve 8 / 5.5 x 10.5mm |
| 12   | P497E    | Shim DIN 9021 M5 5,3/15/1,2 A2 |
| 13   | P488G    | Screw DIN 912 M5 x 16 A2       |
| 14   | 400.505  | Sealing String                 |

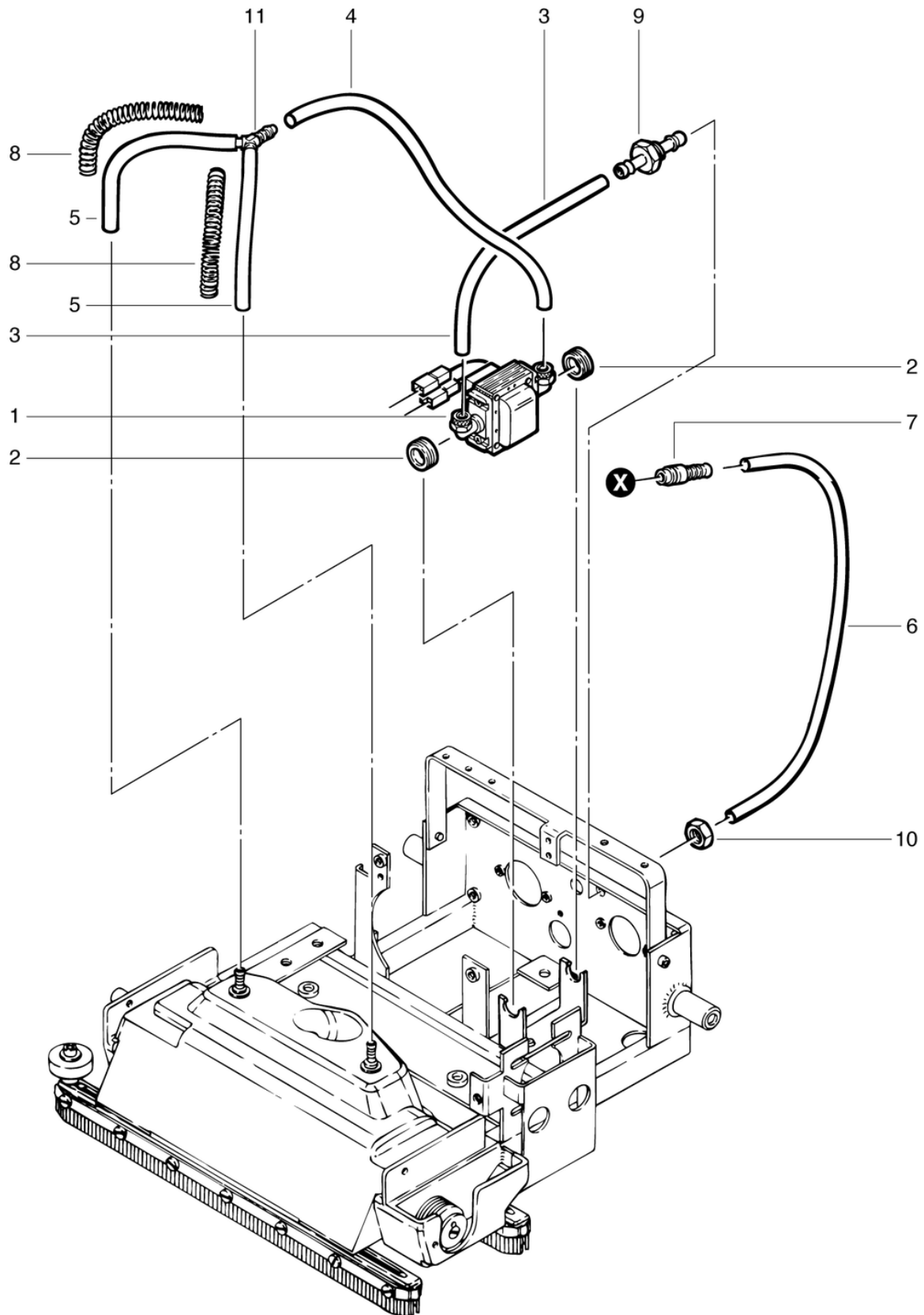
# RA410B

## Pump assembling

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RA 410 B



# RA410B

## Pump assembling

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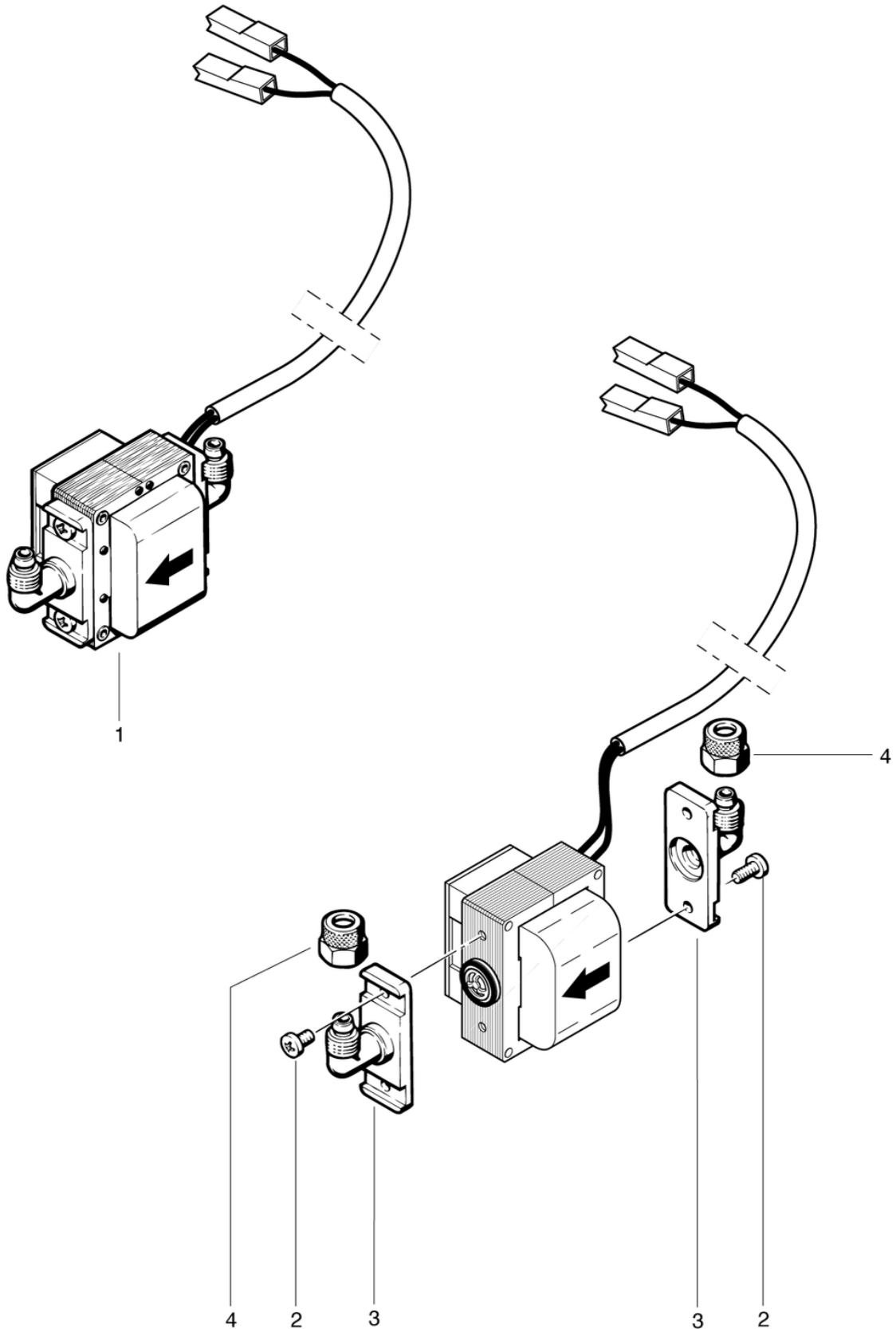
| Pos. | Item no. | Spare part                         |
|------|----------|------------------------------------|
| 1    | P817     | NDS-C Pump 24V                     |
| 2    | P207A    | Grommet                            |
| 3    | 400.261A | Hose ø 8 / 6 x 0.17m               |
| 4    | 400.262  | Pressure hose ø 8 / 6 x 0.34m      |
| 5    | 400.261  | Pressure hose ø 8 / 6 x 0.12m      |
| 6    | 400.264  | Pressure hose ø 8 / 6 x 0.63m      |
| 7    | P501D    | Plug nipple ø12 x 46mm             |
| 8    | 900.162A | Compression spring 0.8 / 9.5 / 120 |
| 9    | 400.342  | Double nipple                      |
| 10   | P535I    | Nut SW15 / G1 / 8 x 4 Ms           |
| 11   | P542D    | Y-piece 6mm                        |

# RA410B

## Pump

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RA 410 B



# RA410B

## Pump

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| Pos. | Item no. | Spare part                |
|------|----------|---------------------------|
| 1    | P817     | NDS-C Pump 24V            |
| 2    | P481M    | Screw DIN 7985 M4 x 10 A2 |
| 3    | P810M    | Angled fitting NW 6       |

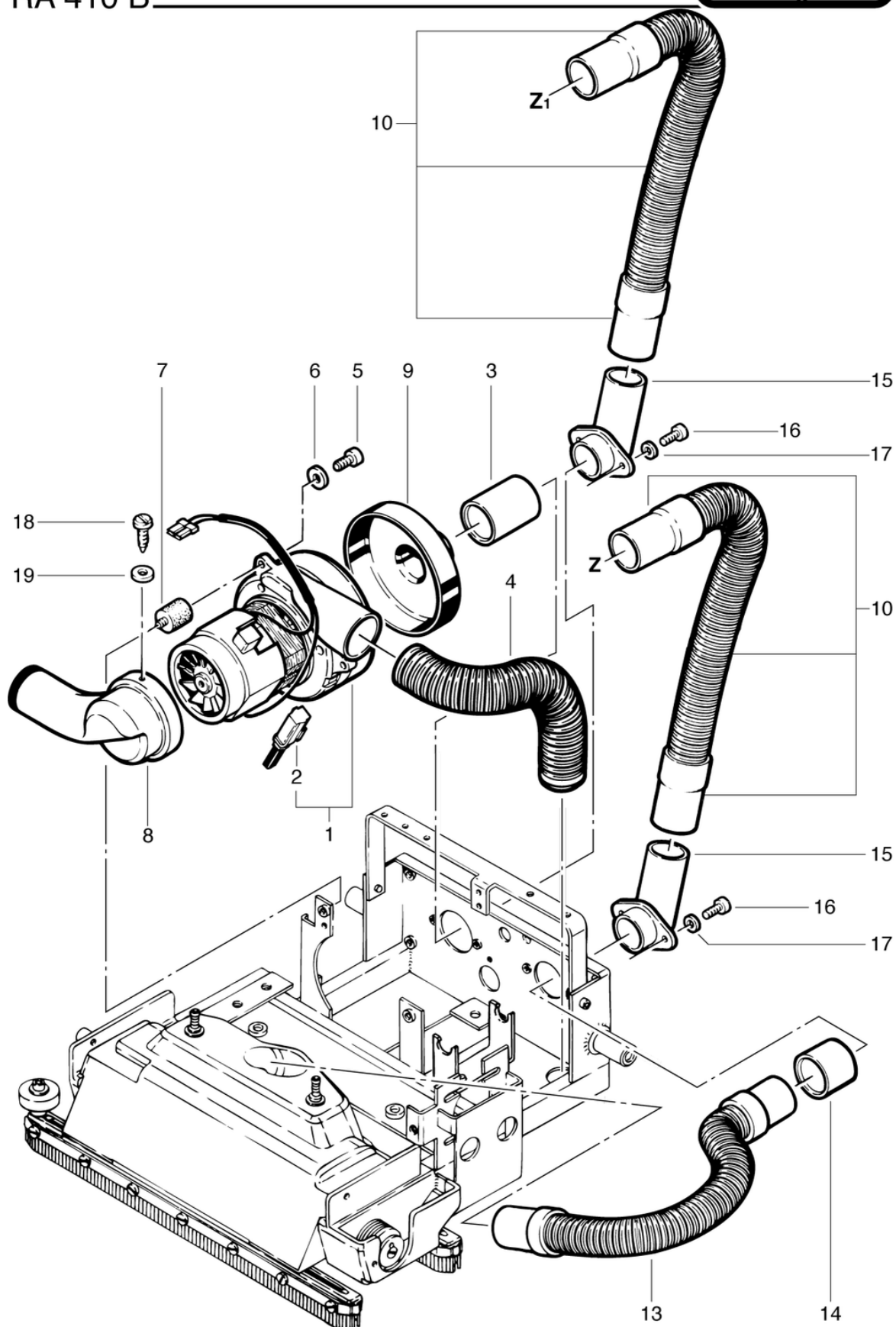
# RA410B

## Suction motor

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RA 410 B



# RA410B

## Suction motor

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| Pos. | Item no. | Spare part                              |
|------|----------|-----------------------------------------|
| 1    | 440.206  | Suction Motor- 24 V / 400W              |
| 2    | 500.441K | carbon brush (pair)                     |
| 3    | 400.215  | Connection Piece                        |
| 4    | 400.227  | Isolation hose 0.28m                    |
| 5    | P486Q    | Screw DIN 912 M6 x 12 A2                |
| 6    | P496L    | Shim DIN 9021 M6 6,4/18/1,6             |
| 7    | 400.214  | Round buffer M6 x 8 l-thread, ø 20 x 30 |
| 8    | 420.361  | Tube                                    |
| 9    | P206A    | Suction connection cap 40/144mm         |
| 10   | 411.770  | Hose 0.65m NW 32 including sleeve       |
| 13   | 500.408A | Suction Hose NW 32x540mm                |
| 14   | 400.224  | Sleeve                                  |
| 15   | 420.220  | Connection piece                        |
| 16   | P486A    | Screw DIN 912 M4 x 12                   |
| 17   | P496C    | Shim DIN 9021 M4 4,3/12/1               |
| 18   | P483H    | Screw DIN 7981 C 2,9 x 6,5 A2           |
| 19   | P497B    | Shim DIN 9021 M3 3,2/9/0,8 A2           |

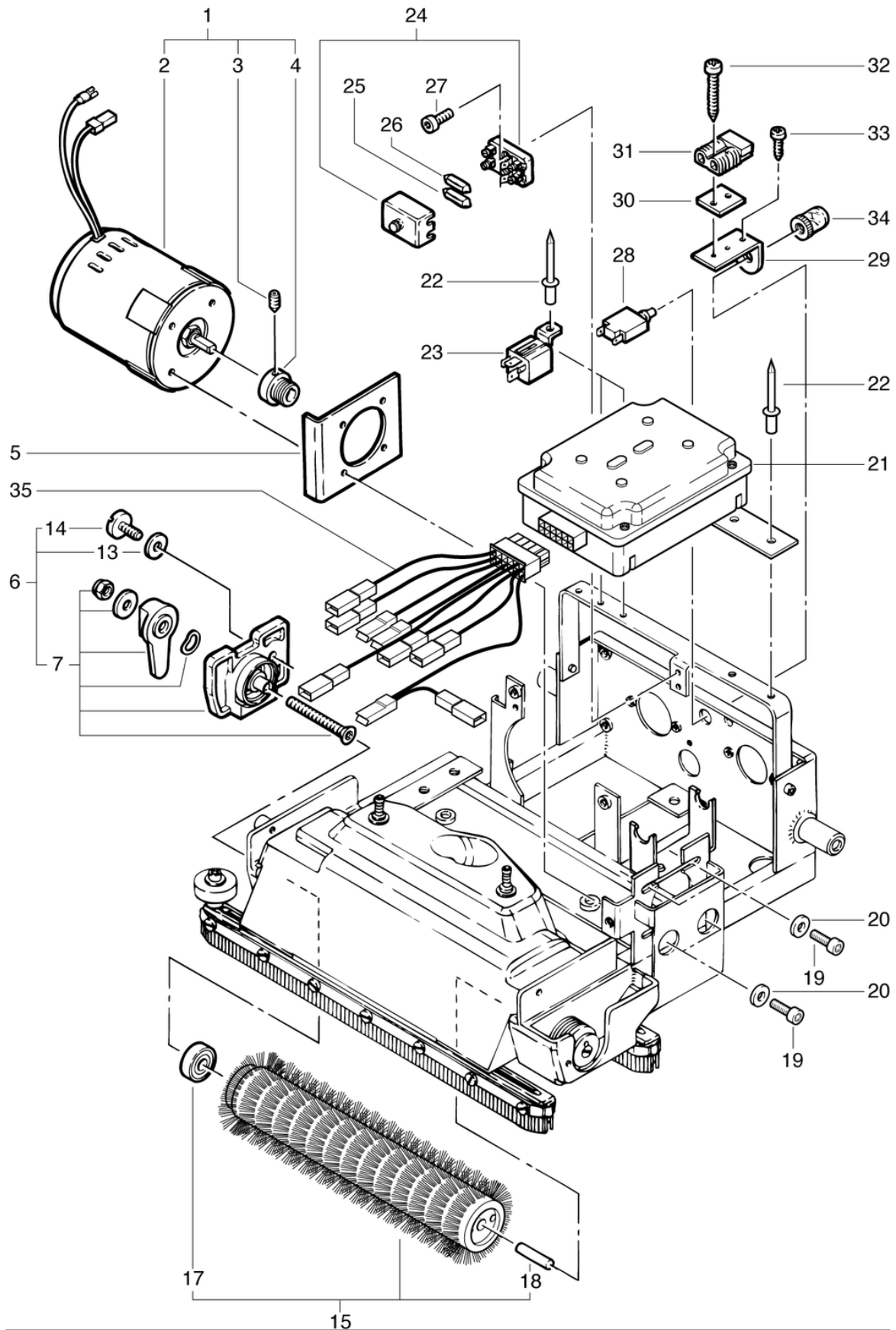
# RA410B

## Brush motor

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RA 410 B



# RA410B

## Brush motor

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| Pos. | Item no. | Spare part                                       |
|------|----------|--------------------------------------------------|
| 1    | 416.202  | RA410 Brush Motor                                |
| 1    | 440.202  | Brush motor complete including Items 2-4         |
| 2    | 440.203  | Motor 24vdc                                      |
| 3    | P482Z    | Pin DIN 914 M5 x 5 A2                            |
| 4    | 400.284  | Drive Pulley                                     |
| 5    | 400.291  | Motor Holder plate                               |
| 6    | 400.450  | Brush Support Complete                           |
| 7    | 400.460  | Brush holder cpl.                                |
| 13   | P497E    | Shim DIN 9021 M5 5,3/15/1,2 A2                   |
| 14   | 400.475  | Special Screw 18x20                              |
| 15   | 400.470  | Roller brush 330mm black compl.                  |
| 17   | P316D    | Deep groove ball bearing 6201 2RSR ø32 / 12 x 10 |
| 18   | 400.478  | Centrepin 8 x 28mm                               |
| 19   | P488F    | Screw DIN 912 M5 x 14 A2                         |
| 20   | P496G    | Shim DIN 9021 M5 5,3/15/1,2                      |
| 21   | 416.230  | Elec Panel/Pump(Brush Motor)                     |
| 22   | P485F    | Blind rivet 5 x 80 Alu/St                        |
| 23   | 470.759  | Relay Brush Motor                                |
| 24   | 500.956  | Distribution Box Complete                        |
| 25   | P407T    | Fuse 25 A                                        |
| 26   | P407S    | Fuse 5 A                                         |
| 27   | P486B    | Screw DIN 912 M4 x 16                            |
| 28   | 440.234  | Motor Protection Switch                          |
| 29   | 440.102  | Angle                                            |
| 30   | 440.103  | plate                                            |
| 31   | P357     | Charging plug red cpl.                           |
| 32   | P481T    | Screw DIN 7981 2,9 x 19                          |
| 33   | P483G    | Screw DIN 7981 C 2,9 x 9,5                       |
| 34   | 500.957A | Protective Cap                                   |
| 35   | 416.234  | Wiring harness to electronics                    |

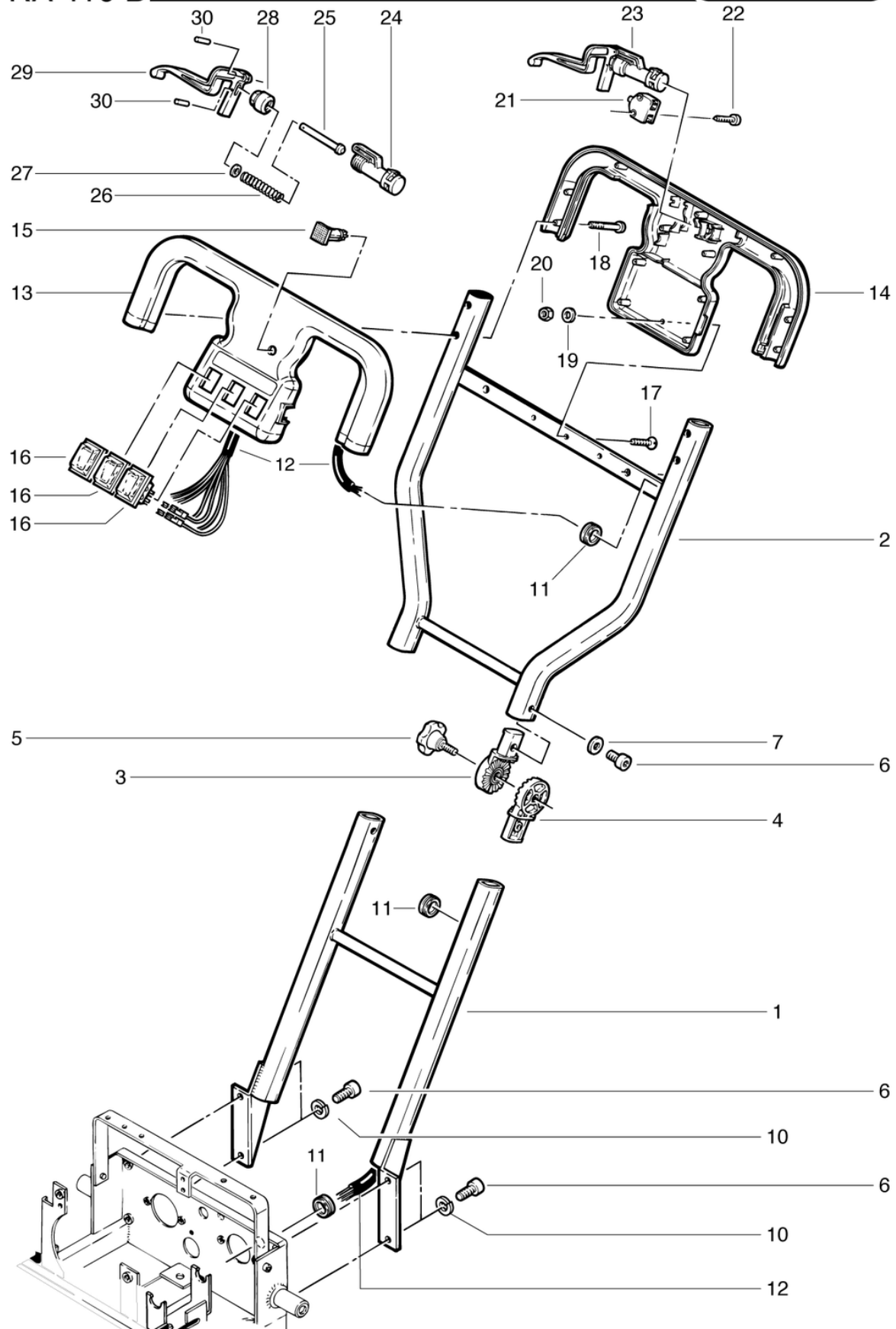
# RA410B

## Lower pushbar

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RA 410 B



# RA410B

## Lower pushbar

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| Pos. | Item no. | Spare part                        |
|------|----------|-----------------------------------|
| 1    | 480.652  | Lower Push Arm                    |
| 2    | 420.650  | Bumper upper part                 |
| 3    | 420.601  | Upper Joint                       |
| 4    | 420.602  | Lower Joint                       |
| 5    | P253     | Star grip Ø39.5 M6 x 25           |
| 6    | P486Q    | Screw DIN 912 M6 x 12 A2          |
| 7    | P496L    | Shim DIN 9021 M6 6,4/18/1,6       |
| 10   | P498U    | Ring DIN 127 B M6 6,1/11,8/1,6 A2 |
| 11   | P408K    | Rabber clamp DA 11/14/3           |
| 12   | 416.239  | Wiring harness bumper 7 x 0,5mm2  |
| 12   | 490.231  | Cable harness push bracket        |
| 13   | 440.611  | Upper handle housing              |
| 14   | 400.615  | Lower Handle Housing              |
| 15   | P398     | Warning lamp                      |
| 16   | P241     | Rocker switch white 24V           |
| 17   | P481E    | Screw DIN 963 M4 x 14 Ms          |
| 18   | P516B    | Screw WN 1452 K30 x 30            |
| 19   | P497D    | Shim DIN 125 A M4 4,3/9/0,8 Ms    |
| 20   | P491Q    | Nut DIN 934 M4 brass              |
| 21   | P242     | Push button switch 1 Pole         |
| 22   | P516E    | Screw WN 1451 K30 x 20            |
| 23   | 400.620  | Lever Complete                    |
| 24   | 400.622  | Valve Body                        |
| 25   | P681D    | Valve pin compl.                  |
| 26   | P681E    | Valve spring                      |
| 27   | P497G    | Washer DIN 125 A M5 5,3/10/1 A2   |
| 28   | P681B    | Union nut                         |
| 29   | 400.621  | Valve Lever                       |
| 30   | P681K    | Cylindrical pin 1,5/14,5          |

# RA410B

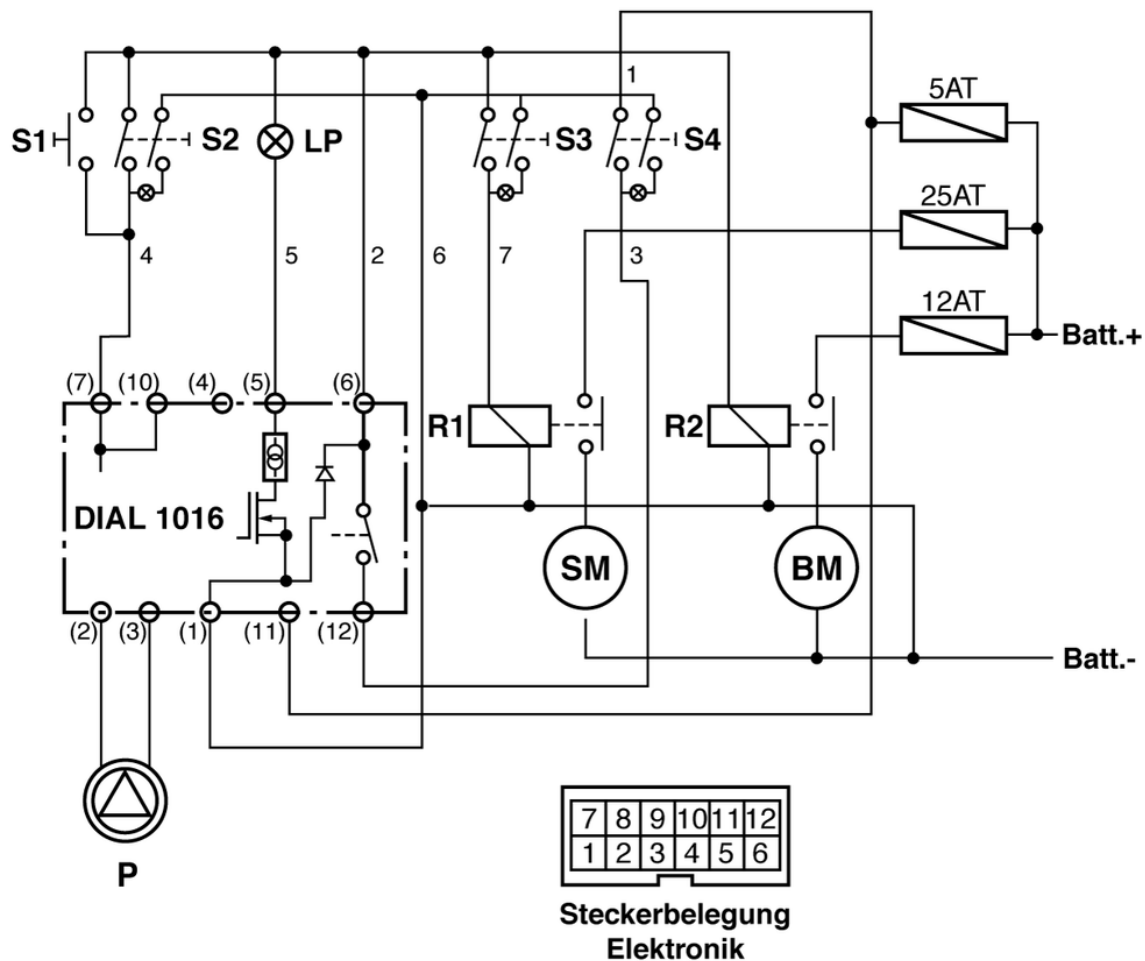
## Wiring diagram

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RA 410 B



## Stromlaufplan RA 410 B



- S1 = Tastschalter Pumpe / Interrupteur pour pompe / Main switch for pump  
S2 = Wippenschalter Pumpe / Interrupteur pour pompe / Main switch for pump  
S3 = Schalter Saugmotor / Interrupteur pour moteur d'aspiration / Main switch for vacuum motor  
S4 = Schalter Bürstmotor / Interrupteur pour moteur de brosse / Main switch for brush motor  
R1 = Relais Saugmotor / Relais pour moteur d'aspiration / Relais for vacuum motor  
R2 = Relais Bürstmotor / Relais pour moteur de brosse / Relais for brush motor  
P = Pumpe / Pompe / Pump  
SM = Saugmotor / Moteur d'aspiration / Vacuum motor  
BM = Bürstmotor / Moteur de brosse / Brush motor