Training Sweepmaster P/B 980R/RH 6502.30/35/40/50/55/60





As of May 2014, the machine designations have changed. The name Jonas, which was known for ride-on sweepers, became the name Sweepmaster, which applies to all sweepers. The distinction as to which machine is involved is generated by specifying the type of drive, sweeping width and operating concept (similar to that of the old Hakomatics). The old designations will continue to be used in these training documents. Here is a comparison of the "old" and "new" designations for this machine

Jonas 980 V	Sweepmaster P 980 R
Jonas 980 VH	Sweepmaster P 980 RH
Jonas 980 E	Sweepmaster B 980 R
Jonas 980 EH	Sweepmaster B 980 RH

P stands for petrol, D for diesel and B for battery variant. The LPG powered machines are an option up to machine 6502 3/5 0610841 and are not marked in the name. As of February 2016, the LPG version is a separate variant 6502.35/55. The R stands for a ride-on variant and the H for a high dump.



1. Working method of Jonas 980



The side brush fetches the dirt from corners and edges into the intake track of the wide broom. This hurls it overhead directly into the collection container. The fine dust that is whirled up is sucked by the suction fan against the free-hanging plate filter, where it is separated. Only clean air leaves the machine.



2. Technical data

Vehicle dimensions and weights		Jonas 980 E/EH	Jona
Lenghst with side broom	mm	1520	1520
Width with 1 side broom	mm	1120	1120
Height above driver's seat	mm	1300	1300
Weight – without batteries	kg		
Weight – ready to use	kg		

Driving and sweeping performance			
Speed forward / revers	km/h	6,0 / 4,0	6,0 / 4,0
Sweeping speed till	km/h	till 6,0	till 6,0
Sweeping width – without / with 1 / with 2 side	mm	700 / 970 / 1240	700 / 97
brooms			
Theoretical ground coverage with 2 side brooms	m²/h	till 7450	till 7450
Theoretical ground coverage without side broom	m²/h	till 4200	till 4200
Climbing ability (max. 1 minute)	%	till 16	till 16

Tires	-		_
Size (standart) front / rear		4.00 – 4 Solid rubber	4.00 - 4
Inflation pressure	bar		6,0

Broom			
Diameter / Lenghst	mm	345 / 700	345 / 70
Diameter (min. by wear)	mm	ca. 290	ca. 290
Revolution speed	¹ /min	530 ± 20	530 ± 20
Sweeping pattern	mm	50 + 5	50 + 10
Bristle material		PES	PA



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Side broom		Jonas	
Diameter	mm	460	460
Revolution speed	¹ /min	ca. 90	ca. 90
Bristle material		PES	PA
Dirt container	-		
Capacity	Liter	2 x 30	2 x 30
Dust extraction / Filter system			
Filter surface	m²	2,8	2,8
Filter system – Plate filter	Stück	1	1
Underpressure above plate filter	mm/WS	≥ 11	>14
Hydraulic system			
Hydraulic oil, f. e. Mobiloil			DTE 15 N hydraulic
Tank capacity	Liter		10
Traction drive	bar		100
Electric System			
Starter – Battery	V / Ah		12 / 45
Light coil current	A		
Operation voltage	DC / V	24	
Traction drive	kW	0,6	
Central motor (Dust fan / Sweeping)	kW	0,75	
Total power consumption	kW	1,9	
Vibration levels			
The weighted effective value of the acceleration	m/s²	< 2,5	
determined in accordance with EN 1033 to which			
the upper limbs (hand-arm) are exposed under			
normal operating conditions is no more than			
The effective value of the acceleration determined in	m/s²	< 0,5	
seat) is exposed under normal operating conditions			
is no more than			



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	< 2,5
	< 0,5

Geräuschemissionswert				Jonas 980 E/EH	Jonas 980 V/VH	
Sound power level measured according to DIN EN		dB (A)		77	82	
ISO 3744 under normal operating conditions a	and					
maximum volume flow						
Motor		Jonas	980 E/EH	Jonas 980 V/VH and	d LPG J 980 V/VH P from 1085	
Manufacturer, Type				Kawasaki FE 250 D	Briggs&Stratton Vanguard	
					Typ 19L237	
Working/combustion process				4-stroke / Petrol	4-stroke / Petrol	
Number of cylinders / arrangement				1	1	
Bore / Stroke	mm			76 / 55	79,24 / 61,93	
Displacement	cm ³			249	305	
Valve clearance (with a cold engine) inlet/outlet	mm			0,15 / 0,15	0,15 / 0,15	
valve						
Power at 2500 1/min	KW / P	S		4,3 / 5,8	5,1 / 7,0	
Operating speed	¹ /min			2475 ± 25	2475 ± 25	
Engine oil	SAE			10W -40 Quality SC or	r higher 10W -30 Quality SF or highe	
Capacity incl. filter	Liter			1,2	0,83	
Spark plug				NGK BP 5 ES	491055S	
Fuel consumption	Liter/h			ca. 1,2	Ca. 2,0	
Fuel type				Unleaded petrol (min. 8	87 Unleaded petrol (min. 87	
				octane)	octane)	
Tank capacity	Liter			5,3	3,6	



3. Structure and mechanics

Dismantling :

- Lower the broom ullet
- Remove left side panel \bullet
- Loosen the cross handle (2) and remove the broom swing \bullet arm (1) on the left
- Open both toggles (3+5) and remove side panel (4) ullet
- Pull out the broom •



Assembly:

Work steps in reverse order

Remark:

Twist the broom as you push it in until it noticeably clicks onto the tooth driver





Check sweeping pattern

- Drive the machine onto a flat concrete or asphalt surface lacksquare(For devices with pneumatic tires, the tire pressure must be checked and corrected if necessary)
- Switch on the broom and let it rotate for a short time lacksquare
- Raise the broom and switch it off, move the machine forward a little and measure the sweeping pattern

If the broom is adjusted correctly, a parallel sweeping line should appear on the floor (sweeping pattern).

The width of the sweeping pattern should be 50 + 5 mm for the Jonas 980 E and 50 + 10 mm for the Jonas 980 V.

Note: Exceeding the specified sweeping pattern affects the service life of the broom. The sweeping pattern decreases as soon as the broom diameter becomes smaller due to wear of the bristles.

Adjust sweeping pattern

The sweeping pattern is adjusted after loosening the toggle and turning the cross handle in the engine compartment.

Adjustment of parallelism

- Loosen the left bearing shell of the torsion shaft •
- Adjust parallelism using the stop screw •





- **Bearing shell**
- Torsion shaft
- Stop screw

Check and adjust sealing strips on the broom tunnel

The correct adjustment and perfect condition of the sealing strips on the broom tunnel are absolutely necessary for the good sweeper function, in particular to ensure the prescribed underpressure (Jonas 980 E ≥ 11 mm Ws; Jonas 980 V > 14 mm Ws) in the broom room, a clean sweeping pattern and to achieve minimal wear on the sealing strips.

- The sealing strips at the bottom of the broom tunnel are to be adjusted on a smooth surface. The side and rear ulletsealing strips can be adjusted in elongated holes, the front sealing strip on the actuating rods
- For devices with pneumatic tires, the tire pressure must be checked and corrected if necessary lacksquare
- The sealing strip at the front of the folding apron must rest on the floor, bent slightly backwards •
- Sealing strips, left and right, must be at a distance of 2 mm from the floor
- The sealing strip at the rear must have a floor clearance of approx. 5 mm •

Note: Defective sealing strips must be replaced as quickly as possible



Broom wear compensation

As wear progresses, the discharge edge of the main broom roller is adjusted





Side broom adjustment

The inclination of the side broom must be adjusted so that the contact surface is approx. 2/3 of the broom circumference.

In the direction of travel, the ground contact on the right side broom should be between 11 a.m. and 3 p.m. left side broom between 9 a.m. and 1 p.m.

- The inclination can be adjusted by loosening the gear holder and moving it in the area of the slots
- The height of the raised side broom must be adjusted using the cable so that the alignment of the upper edges of the pulleys is approximately 10° less than horizontal. This results in a distance from the upper side of the V-belt to the holder of the side panel of approx. 15 mm
- The V-belt tension is not adjustable and is guaranteed by spring force





Plate filter changing and cleaning

- Stop the engine and remove the key
- Open the seat hood
- Filter box remove cover •
- Loosen and remove the wing screws at the corner points \bullet
- Fold up the vibrating frame and hook it in \bullet
- Remove the plate filter upwards

Dust extraction fan flap

- If the sweepings and surfaces are wet, the bypass flap must be opened
- The shaking motor is operated via the micro switch (S10) on the control cable under the dashboard. The micro switch (S11) on the bypass flap switches the indicator light for the opened flap.







Front wheel drive (petrol) bearing plate





Tighten nut with 60 Nm, while pivoting the wheel

• If pinholes do not fit, tighten nut till next cotter pin hole

Front wheel drive (electric) bearing plate





Removal and installation steps required for tire replacement



 Removal of drive on the separation point between plates of the wheel carrier





2. Loosen the fastening screw the plate and the holder





3. Pulling off the holder between the plate and the brush flange

4. Pulling off the lateral closure stuffing



5. Pull brush flange from the motor axle





6. Remove brush flange





7. Loosen wheel bolts (8x)

8. Pull of the wheel tyre



9. Check slip ring for condition and cleanliness





10. Put new wheel tyre on. Screw crosswise the wheel bolts, hand tight





11. Fasten the wheel bolts crosswise with 16Nm

12. Check carbon brushes for wear and easy mobility in the brush holder



13. Put on brush flange straight to the drive motor shaft





14. Thighten fastening plate





15. Verschlußstopfen in die Bohrung setzen

16. The

maintenance is completed. The drive could be assembled to the machine

4. Drive

Engine variation 980 V / VH (6502.30 / 6205.35 / 6502.50 / 6205.55)

Till 65023/50610841 for petrol type. LPG-Variation remains Kawasaki and changes to type 6502.35/55 with consecutive number

Air-cooled single-cylinder 4-stroke petrol engine with 4.3 kW at 2500 $^{1/min}$ with electric starter

Manufacturer:	Kawasaki			
Туре:	FE 250 D			
From 65023/50610851 for	petrol type			
Air-cooled single-cylinder 4	-stroke petrol engine with 5.1 kW at 2500 ¹ / _{min} with electric starter			
Manufacturer :	Briggs&Stratton			
Туре:	Vanguard Typ 19L237 0010 Trim F1			
Engines installed from October 2019 meet emissions level 5				
Nominal speed :	(with the broom, side broom and extraction fan switched on) 2475 \pm 25 $^\circ$			

The engine is equipped with an oil deficiency switch, which switches off the engine if the engine oil level is too low



¹/_{min}

Circuit diagram electric Kawasaki





Circuit diagram electric Briggs&Stratton





5. Hydraulic

General

The hydraulic units are maintenance-free.

Maintenance work focuses on oil and filter changes to keep the system clean.

With regular monitoring and periodic maintenance, premature failures can be prevented.

Brief description of travel drive Jonas 980 V/VH

The machine is equipped with a hydrostatic drive, which works in a closed system. The driving speed can be adjusted continuously forwards and backwards using the accelerator pedal, which is mechanically connected to the pump. The automatic return to the zero position results in dynamic braking and self-locking to prevent the machine from rolling unintentionally.

Should it become necessary to move the machine while the engine is stopped, the bypass valve on the pump must be opened.

The pump pressure is not adjustable. At approx. 200 bar working pressure the drive motor will stall the engine.









Travel pump







Motor connector В

Hochentleerung

The lifting cylinder of the high dump is fed from a hydraulic unit with storage container. The pressure for lifting and lowering is limited to **62** bar.

The lifting cylinder is in completely retracted condition set to 590 mm length





6. Electric

Safety notes

Always disconnect the battery (negative pole) when working on the engine and the electrical system

Notes for the three-phase alternator

- 1. Only run the engine with the battery connected
- 2. Do not use a charger to jump start
- 3. Disconnect the battery from the device when recharging or performing electric welding



View relay board 980 V / VH

The relay board with the components listed below is located under the seat hood

- 1.) F2 : 20 A Pre-fuse (F3, F4, F5, F7, F8, F9, F10)
- 2.) F3 : 5 A Engine switch off; hour meter
- 3.) F4 : 5 A Controller shaker; Lights front, rear light right
- 4.) F5 : 10 A Horn;
- 5.) F7 : 10 A Switching supply LPG; LPG-check valve
- 6.) F8 : 7,5 A Lights front, rear lights left
- 7.) F9 : 7,5 A High dump
- 8.) F10: 10 A Battery power LPG controller
- 9.) F11: 30 A Shaker motor
- 10.) F12: 5 A Charge control alternator
- 11.) F14: 5 A Flash light, option
- 12.) A1 : LPG controller
- 13.) K 6 : Relay lift catch
- 14.) K7 : Relay lower locking
- 15.) K8 : Relay lift locking
- 16.) K9 : Relay lower catch
- 17.) K10: Work relay lift
- 18.) K11: Work relay lower
- 19.) K 3: Relay switch off central motor (GND)
- 20.) K 4 : Timer relay filter monitoring
- 21.) K 5 : Controller shaker
- 22.) F13: 30 A Hydraulic unit





View relay board 980 E / EH

The relay board with the components listed below is located under the seat hood

- 1.) F2 : 20 A Pre-fuse (F3, F4, F5, F6, F8, F9)
- 2.) F3 : 10 A Drive controller
- 3.) F4 : 5 A Controller shaker; rear light right 3rd+4th side broom, option
- 4.) F5 : 10 A Horn
- 5.) F6 : 5 A LDS controller; Multimode relay
- 6.) F7 : 5 A Battery charge level indicator
- 7.) F8 : 7,5 A Lights front, rear light left
- 8.) F9 : 7,5 A High dump
- 9.) F10: 30 A Vacuum cleaner, option
- 10.) F11: 30 A Shaker motor
- 11.) F14: 5 A Flash light, option
- 12.) K 4: Timer relay filter monitoring
- 13.) K 5: Controller shaker
- 14.) F12: 63 A Central motor
- 15.) F1 : 63 A Power drive controller
- 16.) K1 : Relay speed reduction (Multimode)
- 17.) K12: Relay switch off work (LDS)
- 18.) K 3: Relay switch off central motor (GND)
- 19.) K 2: Relay power central motor





View hydraulic unit high dump Jonas 980 EH

- 20.) K6 : Relay lift catch
- 21.) K7 : Relay lower locking
- 22.) K8 : Relay lift locking
- 23.) K9 : Relay lower catch
- 24.) K10: Work relay lift
- 25.) K11: Work relay lower
- 26.) F13: 30 A Hydraulic unit







Description LDS for Jonas 980 E / EH

The task of the deep discharge signal generator is to safely protect the battery from deep discharge while making full use of the available capacity

Before the battery-operated machine is put into operation, the deep discharge signal generator (LDS) with combined battery charge status indicator must be set to the type of battery used

Two types of batteries are permitted

- a) maintenance-free block battery, 4 pcs. 6 V / 240 Ah Type: GiV (Order no. 7401)
- b) low-maintenance trough battery, 1 pc . 24 V / 210 Ah Type: Liner plate (EpzB) (Order no. 4201)

In order to enter the setting mode, the machine must be switched on and the configuration input of the LDS must be switched to battery plus.

To do this, the blind cap (a) must be removed from the control panel and the plug contact plugged together underneath the blind cap. Only now is it possible to program the LDS.

After the adjustment has been made, the plug contact must be opened again!



= Factory setting



LDS with battery status indicator

- 1) Lever out blind cap (a) from dashboard
- 2) Remove the plug contact (b) from the blind cap
- 3) Connect the plug contact (b) to the flat blade (c)
- Carry out the LDS settings as described below 4)
- After setting TSG, disconnect the connection between 5) (b)+(c) again
- 6) Put the plug contact (b) back on the blind cap (a)
- 7) Place the blind cap (a) back into the cutout in the dashboard



Programming LDS

To get to the programming level, press the left button "▲/•" and keep it pressed until the display flashes. Now release the button





The three digits for the value "Discharge Profile – Full" (factory preset to 2.08 V/C) flash on the display.

Press the right button ">" to increase the full value by a step of 0.01 V/C, or press and hold the right button to increase continuously.

When the display reaches 2.30 V/C, it automatically restarts at 1.80 V/C. When the desired full value of the profile is reached, press the left button " \blacktriangle /•" once.





The three digits for the "Discharge Profile – Empty" (factory preset to 1.92 V/C) flash on the display.

Press the right button "▶" to increase the empty value by a step of 0.01 V/C, or press and hold the right button to increase continuously.

When the display has reached the full value, it automatically starts again at 1.50 V/C. When the desired empty value of the profile is reached, press the left button " \blacktriangle /•" once.

The configuration mode is ended by pressing the left button. The display switches to the charge status display

After the adjustment has been made, the plug contact must be opened again!

Order no.	Battery type	Discharge profile "full"	Discharge profile "full"
7401	maintenance-free 4 x 6 V / 240 Ah GiV	2,08	1,92
4201	low maintenance 24 V / 210 Ah EPzB	2,08	1,84



Description travel drive 980 E / EH

The drive motor is powered by the electronic traction control.

With the accelerator pedal, the driver selects the direction of travel using the corresponding microswitch in the first section of the lever travel. The driving speed is subsequently entered into the driving control using the continuously variable potentiometer that is common to forward and reverse travel.

The speed for reversing is reduced to 60% even when the potentiometer in the driving electronics is fully deflected. The thermally monitored traction motor and the TSG cause the travel speed to be reduced by 50% if the battery overheats or has a low charge level. Further emptying causes this function to be switched off. When driving on inclines, please remember that the system is designed for trips lasting 1 minute and an incline of 12%. Larger inclines or longer trips on less steep passages also lead to overloading and thus to the drive being switched off.



Driving control diagnostics

If an error occurs when commissioning the control or during operation, some errors are recognized by the control and indicated via the display or the flashing code of the LED (new control).

For diagnosis, the seat switch must be bypassed, as the unactivated switch displays the error code "A12".

Alarm Code	Alarm description	Description	Wiring	Troubleshooting
1x flash	Forward switch closed at power-ON	Controller has detected the forward switch ON while the key-switch is switched ON	A1.X1PIN14 to X1PIN14 to X3PIN4 at S3PIN1 Switch.fct. S3 PIN1 to 2 (OPEN); PIN1 to 4 (CLOSED) S3PIN4 to X3PIN5 to X1 PIN12 at A1.X1PIN12	Check the forward switch Check the wiring of the forv
2x flash	Backward switch closed at power-ON	Controller has detected the backward switch ON while the key-switch is switched ON	A1.X1PIN14 to X1PIN14 to X3PIN4 at S2PIN1 Switch.fct. S2 PIN1 to 2 (OPEN); PIN1 to 4 (CLOSED) S2PIN4 to X3PIN6 to X1 PIN13 at A1.X1PIN13	Check the backward switch Check the wiring of the bac
3x flash	Potentiometer fault	Controller has detected that the potentiometer (signal) voltage is higher than maximum range	A1.X1PIN1 (5V) to X1PIN1 to X3 PIN1 at R1PIN1 (Power) and A1.X1PIN3 (GND) to X1PIN3 to X3 PIN3 at R1PIN3 (GND) R1PIN1 (0,5 - 4,5V) to X3PIN2 to X1 PIN2 at A1.X1PIN2 (Signal)	Check potentiometer for co
4x flash	Potentiometer out of neutral position at power-ON	Controller has detected the potentiometer (signal) voltage is out of neutral position while the key-switch is switched ON	A1.X1PIN1 (5V) to X1PIN1 to X3 PIN1 at R1PIN1 (Power) and A1.X1PIN3 (GND) to X1PIN3 to X3 PIN3 at R1PIN3 (GND) R1PIN1 (not equal to calibration value) to X3PIN2 to X1 PIN2 at A1.X1PIN2 (Signal)	Move the potentiometer to position, calibrate the poter
5x flash	Thermal protection	Heatsink temperature is higher than 85°C	/	Power-off, wait few minutes Check motor power consun (90A (B900R) or 120A (B98
6x flash	Controller's power stage damaged	Controller's self-check has detected a failure on internal power-stage	/	If the controller repeats this



ward switch

kward switch

prrect wiring

neutral position or if it is in neutral ntiometer neutral setting

nption 80R/RH))

alarm, change it

	Alarm Code	Alarm description	Description	Wiring	Troubleshooting
	7x flash	Overcurrent (short circuit)	Controller has protected itself, cause of an external short circuit	A1.M(PIN1) at M1.PIN(A2) and A1.M2(PIN2) at M1.PIN(A1)	Check the motor's wires Check internal motor res If ok and the controller r
	8x flash	Power fuse or on-board contactor damaged	Controller detects a failure on the external power fuse or power connections	G1.PIN(P) to X0PIN(P) to F1.PIN1/PIN2 at A1.PIN (B+) and A1.PIN(B-) to X200 to X0PIN(N) at G1.PIN(N)	If the controller repeats of o.k., change it
	9x flash	Undervoltage	Battery voltage lower than value set by parameter (< 18V)	G1.PIN(P) to X0PIN(P) to F1.PIN1/PIN2 at A1.PIN (B+) and A1.PIN(B-) to X200 to X0PIN(N) at G1.PIN(N)	Check battery's charge. controller repeats this al
	10x flash	Overvoltage	Battery voltage higher than 45V	/	Check the battery status
	11x flash	Overload protection	/	A1.M(PIN1) at M1.PIN(A2) and A1.M2(PIN2) at M1.PIN(A1)	Check the motor power
	12x flash	Disable switch on	Controller is disabled	A1.X1PIN8 (only if A1.X1PIN5 (24V)) to K3.PIN86 and K3.PIN85 to A1.X1PIN7 Required feedback: X200 to K3.PIN30 Switch.fct. K3.PIN30 to 87a (not switched => GND = deactivated); PIN30 to 87 (switched => A1.PIN6 OPEN)	Check wiring to A1.X1Pl Eliminate reason for dea Then reset with key swit
	13x flash	Key-off sequence detected	Key switch was opened	G1.PIN(B+) to X0PIN(B+) to X100 to F2PIN1/2 to X2PIN1 to S1PIN(BAT) Switch.fct. S1 PIN(BAT) (OPEN); PIN(BAT) to PIN1+2(CLOSED) S1 to X2PIN3 to F3PIN1/2 at A1.X1PIN15	Check the key switch wi
	14x flash	Internal memory fail	/		If the controller repeats
	15x flash	No release	No signal from seat contact	G1.PIN(B+) zu X0PIN(B+) zu X100 zu F2PIN1/2 zu X2PIN1 zu S1PIN(BAT) Schaltfkt. S1 PIN(BAT) (OFFEN); PIN(BAT) zu PIN1+2(GESCHLOSSEN) S1 zu X2PIN zu F3PIN1/2 zu X1PIN4 zu X5PIN1 an S5 (OFFEN); (GESCHLOSSEN) zu X5PIN2 zu X1PIN5 an A1.X1PIN5	Check wiring of seat cor



s esistance repeats this alarm, change it this alarm and the power connections are . Check your parameter settings: if the larm, change it s consumption (25A max. 60s long) PIN6 activation. itch OFF-ON

riring

this alarm, change it

ntact switch and seat contact switch

Driving control settings

From February 2022 to October 2023, the new driving control 01116920 only needs to be installed. It can only be calibrated with an additional tool (03503540). It normally does not require any parameterization or calibration! From October 2023, "on-board" calibration will be possible again. Parameterization is still not necessary.

The control parameterization may only be carried out by trained, authorized Hako employees. An incorrect setting can lead to a defect in the control system and significant machine malfunctions, which can result in uncontrolled driving behavior.

Driving control settings (valid till Februar 2022)

There are 3 buttons below the 7-segment LED display. Programming is initiated by pressing the "**MODE**" button and the first parameter "F0" appears on the display. The "**UP**" key is used to select the next larger parameter (F1, F2 ...), and the "**DOWN**" key is used to select the next smaller one. If the parameter to be adjusted is selected, it must be activated by pressing the "**MODE**" button. The setted numerical value of the selected parameter can be read on the display. If you are not yet in programming mode, when you press the "**UP**" or "**DOWN**" buttons, the display jumps immediately to the password entry level with the display "**F00**" or "**100**" and the left digit flashing.





Password only for potentiometer setting :



The first flashing digit of the 3-digit password can be selected with the "**UP**" and "**DOWN**" buttons and confirmed with the "**MODE**" button. The flashing middle digit is entered and confirmed in the same way. After entering and confirming the right number, the display returns to the last parameter or to "**F0**" if the password is entered correctly. If one of the 3 digits has been entered incorrectly, the process must first be completed totally until the "**Err**" display appears briefly after confirming the last digit with "**MODE**". In this case, the entire procedure must be repeated

In order to be able to program the control, the seat contact must be bridged. In some cases, the 5-pin plug from relay K3 in the machine must also be removed beforehand.

The previously selected parameter "F.." appears in the display after the correct password has been entered. By pressing the "MODE" button, the numerical value of the parameter is called up.

The numerical value of the selected parameter can now be increased or reduced using the "**UP/DOWN**" buttons. The change to the parameter must be confirmed by pressing the "**MODE**" button. The display then returns to the selected parameter "**F..**".

The parameter mode can be exited immediately by pressing the "**MODE**" and "**UP**" buttons simultaneously. After about 20 seconds, it will end automatically without pressing a button. The control is then in operating mode.





If the control or the drive potentiometer is replaced, the control must be adapted to the potentiometer

- Press the "MODE" key and select the parameter "F20" using the "UP" key and confirm with "MODE" 1. (Attention: if you are not yet in the programming level, the display switches to password mode)
- Set the numerical value of "F20" to the value "1" using the "UP" key 2.
- Use the "DOWN" button to select parameter "F10" and confirm with the "MODE" button 3.
- The value "0" must then appear on the display. Otherwise, use the "UP/DOWN" button to set the value to "0" and 4. confirm with "MODE"
- "F10" appears on the display again 5.
- While "F10" appears on the display, press the "UP" and "DOWN" buttons simultaneously for a few seconds until 6. the display changes.



A "-" (Minus) is displayed in the lower area of the left LED segment display, and the potentiometer voltage between "0...5" is displayed in the right LED segment display. Diesen Wert bei Neutralstellung des Fahrpedal mit der "MODE" – Taste bestätigen.





7. Display changes. A "-" (Minus) is displayed in the upper area of the left LED segment display. The right LED segment display shows the potentiometer voltage between "0...5".



8. Deflect the accelerator pedal in the forward direction as far as it will go. The display now shows a value between "10...30" displayed. When the accelerator pedal is at maximum deflection, confirm with the "MODE" button



- 9. Display automatically switches back to "F0". The potentiometer has been read in.
- 10. The programming mode is automatically deactivated after 20 seconds, or can be left immediately by pressing simultaneously using the "**UP**" and "**MODE**" buttons. (if necessary, plug the 5-pin plug back into relay K3)
- 11. Switch the machine off and on again, check the function of the direction of travel and speed



At the Jonas 980 E / EH, the parameterization of the current limitation must be set

1. Press the "**MODE**" key and select the parameter "**F8**" using the "**UP**" key and confirm with "**MODE**".

(Attention: if you are not yet in the programming level, the display switches to password mode)



2. Set the numerical value of "F8" to the value "120" using the "UP" key



If parameters have been changed unintentionally, the parameter "F0 = 2" can be used to reset the control to the delivery status. The driving potentiometer needs to be read in again.



Driving control settings (valid from Oktober 2023)

- Insert the adapter plug 03026580 into the cable set W8 plug between X3.



- Press the pedal forward "fully"
- Key switch to "ON"
- The "max speed parameter" is set automatically
- Release pedal forward. The value of the neural position is set
- Key switch to "OFF". The two values are saved
- Remove the adapter plug between X3 and plug directly X3 together.

For operator information only, when the pedal value is read and refers to "Maximum Speed", the red alarm LED will start flashing rapidly until the process is complete (power off).



Alternative driving control settings (valid from Oktober 2023)

- Press the pedal forward "full" (the microswitch is actuated forward)



- Operate the reverse microswitch manually
- Key switch to "ON"
- The "max speed parameter" is set automatically
- Additionally hold the forward microswitch with your hand
- Release pedal forward. The value of the neural position is set
- Key switch to "OFF". The two values are saved

For operator information only, when the pedal value is read and refers to "Maximum Speed", the red alarm LED will start flashing rapidly until the process is complete (power off).



Drive pedal





7. Service

See the following pages:

- SWM P980R/RH
- SWM B980R/RH



SWM P980R/RH

Work step	once after 5h	once after 100h	every 100h	add. ever 200h
Change engine oil	Х		Х	
Check engine for oil leakage			Х	
Check engine rpm				Х
Clean air filter element			Х	
Change air filter element				Х
Check v-belt tension	Х			
Check v-belt for wear and tension			Х	
Change fuel filter				Х
Check spark plug			Х	
Change spark plug				Х
Check valve clearance				Х
Check battery			Х	
Check steering chain adjustment				Х
Check service and parking brake			Х	
Check the treads of the wheels				Х
Check hydraulic oil level			Х	
Check hydraulic system for leakage			Х	
Check hydraulic hoses				Х
Change hydraulic oil		Х		
Change hydraulic oil filter				
Check main broom for wear and damage			Х	
Check sweeping pattern			Х	
Check broom aprons (sealing strips) for clearance, wear and damage			Х	
Check side broom for wear and damage			Х	
Check filter system for leak-tightness			Х	
Basic cleaning of plate filter			Х	
Change plate filter				
Check screw connections of high dump	Х			
Check wires and plug connections for ease of movement, wear and corrosion				Х
Check function of seat contact				Х
Function test of machine			Х	





SWM B980R/RH

Work step	once after 5h	once after 100h	every 100h
Clean machine		n.a.	Х
Check LDS adjustment	Х	n.a.	
Check charger adjustment	Х	n.a.	
Check battery charging status		n.a.	Х
Clean and grease battery terminals		n.a.	Х
Check the carbon brushes of the electric motors for ease of movement and wear. Remove carbon dust		n.a.	
Check wires and plug connections for ease of movement, wear and corrosion		n.a.	
Check v-belt tension	Х	n.a.	
Check v-belt for wear and tension		n.a.	Х
Check hydraulic oil level		n.a.	Х
Check hydraulic hoses		n.a.	
Check steering chain adjustment		n.a.	
Visual inspection of wheel tyre		n.a.	
Check screw connections of high dump	Х	n.a.	Х
Check service and parking brake		n.a.	Х
Check main broom for wear and damage		n.a.	Х
Check sweeping pattern		n.a.	Х
Check broom aprons (sealing strips) for clearance, wear and damage		n.a.	Х
Check side broom for wear and damage		n.a.	Х
Check filter system for leak-tightness		n.a.	
Basic cleaning of plate filter		n.a.	Х
Change plate filter		n.a.	
Check function of seat contact		n.a.	
Function test of machine		n.a.	Х



add. every 200h	add. every 500h
	Х
Х	
Х	
Х	
Х	
Х	
	Х
Х	