# Sensor 2 (120V)



### Description

### **Operating instructions (ENG)**

MODELS:

1.012-070.0 12" Sensor2

1.012-071.0 14" Sensor2





/		
	Model:	
	Date of Purchase:	
	Serial Number:	
	Dealer:	
	Address:	
	Phone Number:	
	Sales Representative:	
1		/

# **Warranty Registration**

Thank you for purchasing a Kärcher North America product. Warranty registration is quick and easy. Your registration will allow us to serve you better over the lifetime of the product.

To register your product go to : http://warranty.karcherna.com/ For customer assistance: 1-800-444-7654



Machine Data Label 2	
Table of Contents3	
How To Use This Manual4	

#### Safety

IMPORTANT SAFETY INSTRUCTIONS 5
HAZARD INTENSITY LEVEL 6
GROUNDING INSTRUCTIONS
Caution
Technical Specifications 10

### Operations

Assembling the Vacuum Cleaner	12
Operating Instructions	14

#### Maintenance

Bag Full Indicator 1	6
Changing the Paper Bag 1	6
Changing the Filters 1	6
Changing the Brush Strip 1	7
Clearing Blockages 1	8
Warranty 2	20

#### Parts

Upper Housing	24
12" Power Head	26
14" Power Head	28
Wiring Diagram	30

This manual contains the following sections:

- How to Use This Manual
- Safety
- Operations
- Maintenance
- Parts List

The HOW TO USE THIS MANUAL section will tell you how to find important information for ordering correct repair parts.

Parts may be ordered from authorized dealers. When placing an order for parts, the machine model and machine serial number are important. Refer to the MACHINE DATA box which is filled out during the installation of your machine. The MACHINE DATA box is located on the inside of the front cover of this manual.

Model:
Date of Purchase:
Serial Number:
Dealer:
Address:
Phone Number:
Sales Representative:

The model and serial number of your machine is located on the bottom of the machine.



The SAFETY section contains important information regarding hazardous or unsafe practices of the machine. Levels of hazards are identified that could result in product damage, personal injury, or severe injury resulting in death.

The OPERATIONS section is to familiarize the operator with the operation and function of the machine.

The MAINTENANCE section contains preventive maintenance to keep the machine and its components in good working condition. They are listed in this general order:

- Bag Indicator
- Changing the Bag
- Changing the Filter
- Changing the Brush Strip
- Clearing Blockages

The PARTS LIST section contains assembled parts illustrations and corresponding parts list. The parts lists include a number of columns of information:

- **REF** column refers to the reference number on the parts illustration.
- **PART NO.** column lists the part number for the part.
- **PRV NO.** reference number.
- **QTY** column lists the quantity of the part used in that area of the machine.
- **DESCRIPTION** column is a brief description of the part.
- **NOTES** column for information not noted by the other columns.

NOTE: If a service or option kit is installed on your machine, be sure to keep the KIT INSTRUCTIONS which came with the kit. It contains replacement parts numbers needed for ordering future parts.

NOTE: The manual part number is located on the lower right corner of the front cover.

# **IMPORTANT SAFETY INSTRUCTIONS**

### When using this machine, basic precaution must always be followed, including the following: READ ALL INSTRUCTIONS BEFORE USING THIS MACHINE.

### NWARNING: To reduce the risk of fire, electric shock, or injury:

- 1. Do not leave appliance when plugged in. Unplug from outlet when not in use and before servicing.
- 2. Do not use outdoors or on wet surfaces.
- 3. Do not use near small children. Do not allow to be used as a toy. Close attention is necessary when used by or near children.
- 4. Use only as described in this manual. Use only manufacturer's recommended attachments.
- 5. Do not use with damaged cord or plug. If appliance is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to a service center.
- Do not pull or carry by the cord, use cord as a handle, close a door on cord, or pull cord around sharp edges or corners. Do not run appliance over cord. Keep cord away from heated surfaces. Do not wind cord tighter than necessary to keep it on the cord hooks.
- 7. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- 8. Do not handle plug or appliance with wet hands.
- 9. Do not put any object into openings. Do not use with any opening blocked; keep free of dust, lint, hair, and anything that may reduce air flow.
- 10. Keep hair, loose clothing, fingers and all parts of body away from openings and moving parts. Do not place fingers or other body parts under vacuum unless unplugged.
- 11. Do not pick up anything that is burning or smoking, such as cigarettes, matches, or hot ashes.
- 12. Do not use without dust bag and/or filters in place. Do not wash filters.
- 13. Turn off all controls before unplugging.
- 14. Use extra care when cleaning on stairs. Do not use to pick up flammable or combustible liquids such as gasoline or use in areas where they may have been present.
- 15. Machines can cause fire when operated near flammable vapors or materials. Do not operate this machine near flammable fluids, dust or vapors.
- 16. Maintenance and repairs must be done by qualified personnel.
- 17. Connect to a properly grounded outlet only. See Grounding Instructions.
- 18. Do not use machine as a step.
- 19. If used on plush carpet or carpet with thick padding, do not leave machine in one place with machine turned on.
- 20. Use of extension cord or light socket with inadequate current-carrying capacity could result in electric shock or fire hazard.

## **READ AND SAVE THESE INSTRUCTIONS**

The following symbols are used throughout this guide as indicated in their descriptions:

#### HAZARD INTENSITY LEVEL

There are three levels of hazard intensity identified by signal words **-WARNING** and **CAUTION** and **FOR SAFETY**. The level of hazard intensity is determined by the following definitions:

### A WARNING:

WARNING - Hazards or unsafe practices which COULD result in severe personal injury or death.

## **ACAUTION:**

**CAUTION** - Hazards or unsafe practices which could result in minor personal injury or product or property damage.

#### FOR SAFETY: To Identify actions which must be followed for safe operation of equipment.

Report machine damage or faulty operation immediately. Do not use the machine if it is not in proper operating condition. Following is information that signals some potentially dangerous conditions to the operator or the equipment. Read this information carefully. Know when these conditions can exist. Locate all safety devices on the machine. Please take the necessary steps to train the machine operating personnel.

#### FOR SAFETY:

DO NOT OPERATE MACHINE: Unless Trained and Authorized. Unless Operation Guide is Read and understood. In Flammable or Explosive areas. In areas with possible falling objects

#### WHEN SERVICING MACHINE:

Avoid moving parts. Do not wear loose clothing; jackets, shirts, or sleeves when working on the machine. Use manufacturer approved replacement parts.

### **GROUNDING INSTRUCTIONS**

This appliance must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

# **WARNING**:

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance - if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

This appliance is for use on a nominal 120-volt circuit, and has a grounded plug that looks like the plug illustrated in sketch A. A temporary adapter looks like adapter illustrated in sketches B and C, may be used to connect this plug to a 2-pole receptacle as shown in sketch B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet (sketch A) can be installed by a qualified electrician. The green colored rigid ear, lug or the like extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adapter is used, it must be held in place by a metal screw.

NOTE: In Canada, the use of a temporary adapter is not permitted by the Canadian Electrical Code.



Please save these instructions. If you pass the machine to a third party, please pass these on as well. The use of the machine is at your own risk. The manufacturer / supplier is not liable for any injury or damage caused by incorrect usage of the machine. This appliance is suitable for commercial use, e.g. in hotels, schools, hospitals, factories, shops, offices, and rental companies. This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they are given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children should not play with the appliance. Cleaning and user maintenance should not be done by children without strict supervision.



### Caution

Before using the vacuum cleaner, always check for any signs of damage, especially to the mains cable and hose. If a component is damaged, it must be replaced with a authorized manufacturer part. For safety reasons internal components must be fitted by a Manufacturer Service Representative or an Authorized Service Technician. The use of non-genuine parts will waive the warranty for this product and could pose a serious safety risk. All repairs within the guarantee period should be performed by an authorized Service Representative. Electrical appliance, do not expose to liquid, moisture or heat.

### **Technical Specifications**

Item	Description
Vacuum Motor	1000 Watt
Suction	225 mbar [2300mm WS]
Air Flow	106 cfm/50 l/s
Filter Bag	1.4 gallon/5.3 liter, 3 layer
Working Width:	
12" Sensor2	11.8 inches/300mm
14" Sensor2	14.2 inches/360mm
Brush Strip	Replaceable
Brush Drive	Non-slip drive belt
Cable	
12" Sensor2	25ft/7.6m
14" Sensor2	39 feet/12m
Weight:	
12" Sensor2	20.4 pounds/9.3kg
14" Sensor2	20.7 pounds/9.4kg
Protection	Grounded
Sound Pressure Level L <sub>pA</sub>	76 dB[A]
Uncertainty K <sub>pA</sub>	2 dB[A]
Hand-arm Vibration Value	< 2.5 m/s <sup>2</sup>
Uncertainty K	0.2 m/s <sup>2</sup>



### Control/Components

- 1. Handle grip
- 2. Handle tube
- 3. Retaining ring
- 4. Bag full indicator
- 5. Attachment tube handle
- 6. Hose
- 7. Attachment tube
- 8. Recessed grip
- 9. Power head
- 10. On/Off switch

- 11. Pile adjustment knob
- 12. Release button
- 13. Mains cable
- 14. Rear carrying handle
- 15. Cover release latch
- 16. Cable hook
- 17. Crevice nozzle
- 18. Upholstery nozzle
- 19. Foot pedal



#### Assembling the Vacuum Cleaner

Carefully place the dust bag housing (20) in the vertical position. Fit it over the swivel neck (21) and support lever (46) of the power head (9) until the release button (12) locks.



To dismantle, press the release button (12) and remove the dust bag housing (20) from the power head (9).



To fit the mains cable to the machine, push the rubber plug (33) of the cable into the socket on the swivel neck (21) when the vacuum cleaner is assembled.

Ensure the rubber plug is fully inserted into the socket.

Fit the mains cable into the groove (22) in the dust bag housing located in the attachment wand recess, then to the clamps on the top of the dust bag housing and on the rear of the handle.



Finally insert the mains cable into the cable cleat (23). You can hear a "click" when the mains cable is fully inserted. To take off the mains cable push the button (34) next to the cable cleat (23) and remove the mains cable.



Fit the attachment tube (7) into the swivel neck (21) and then push the attachment tube handle (5) over the projection (35). Push the black end of the hose into the connecting tube (24) so that it clicks into place. The hose can be taken off by squeezing the retaining ring (3). The other end of the hose fits into the attachment tube (7) only one way.

NOTE: If The Machine Does Not Work, Then The Steps Above Have Not Been Executed Correctly. Please Ensure The Parts Are Properly Pushed Together, Especially The Cable Plug And Swivel Neck.





### **Operating Instructions**

The Sensor2 vacuum cleaners are designed for high performance, usability and durability. The rotating brush with manual height adjustment cleans your carpets and other floors safely and thoroughly. The hose and attachment tube allow all around cleaning.

The machine features S-Class filter technology to meet modern hygiene requirements.

The foot pedal latch(25) locks the machine in the upright position. To release the machine from the upright position depress the foot pedal (19) and lower the dust bag housing.

### **ACAUTION:**

If used on plush carpet or carpet with thick padding, turn off unit when handle is in upright position.

The On/Off switch (10) is ergonomically located on the side of the power head and can be operated with a tap of the foot.



Brush height adjustment can be changed by foot or with the attachment tube.

To do this, put the machine into the upright position, then lift the attachment tube from the machine.

The end of the attachment tube (7) fits into the groove (26) of the height adjustment button (11).



By pressing the button (11), the brush can be adjusted from position 1 (lowest setting) to 4 (highest setting) and back.

When the brush is new, set it to position 2.

If it is hard to push, change to position 3 or 4.

For a deep and intensive cleaning performance, setting 1 is recommended.



This vacuum cleaner has a brush jammed indicator (27). If the brush is jammed or overloaded the machine will automatically switch-off and the orange indicator shows in the display (36). If this occurs, unplug the machine and clear the obstruction.

# **AWARNING**:

ALWAYS unplug from the mains socket before dismantling any part of the machine.



To use the attachment tube (7) or hose (6) put the machine in the upright position, then lift the tube from the machine and stretch out the hose until it locks. When the tube is returned to the machine, ensure it is pushed down over the projection (35) on the housing.

The hose (6) can be used on its own. Push the button (28) on the backside of the tube (7) and extracted the hose (6) out of the tube (7). After using put the hose back into the tube. The attachments (17,18) fit either to the end of the hose or the end of the tube.



When using accessory tools, keep floor brush off carpet by keeping handle in locked position and lowering handle with one hand to raise brush off floor. Operate accessories with other hand.









#### Maintenance and Service

## WARNING:

ALWAYS unplug from the mains socket before dismantling any part of the machine.

### **Bag Full Indicator**

If the warning indicator (4) turns orange, it indicates that there is a reduced air flow. This is caused either by dirty filters, a blockage in the hose or base of the machine, or a full paper bag. When picking up fine dust, it may be necessary to change the dust bag before it is full. Fluff or hair lets air pass through easily, the bag may overfill before the full indicator comes on.

### **Changing the Paper Bag**

To change the paper bag, press the catch (15) and remove the bag cover (29). Push the lever (30) over to the right. Then change the bag, as illustrated on front of bag. Ensure that the bag top (47) is located properly on both sides of the holder (46) and pushed until it locks. The used paper bag can be sealed with a cap.

NOTE: Do not re-use paper bags.

NOTE: Use only manufacturer approved filters and bags

To fit a new dust bag, Slide the right side of the bag top into the holder (46) and fit the dust inlet of the bag top (47) over connecting tube until the filter bag latches into the lever.

#### **Changing the Filters**

The Microfilter (37) is located in the dust bag compartment. To change the Microfilter slide it out. Please ensure no particles fall down into the swivel neck. To insert a new Microfilter (37) lift the metal bar (38) to slide the filter in.



39 41 41 40 The Exhaust Filter (39) is located inside the separate Filter holder (40). To change the Exhaust Filter (39) pull out the Exhaust Filter holder (40). The internal filter can be easily taken out.

Replace the Exhaust Filter (39) with the sealing gasket (41) downwards and insert the filter holder back into the dust bag housing.

Replace the Microfilter and Exhaust Filter when it becomes dirty or after 20 paper bags have been used.

Do not wash filters.

Do not re-use bags.

The bag cover (29) can only be closed when the filters are fitted properly.

### Changing the Brush Strip



# ALWAYS unplug from the mains socket before dismantling any part of the machine.

To replace the brush strip (42), push the button (43), remove the side plate (44) and turn the brush so that the brush strip (42) can be pulled out of the opening. Ensure that the new brush strip (42) is fully inserted and press the side plate (44) back into place.

NOTE: Ensure that the side plate (44) is fully pushed home so that it locks in place.





#### **Clearing Blockages**

Blockages in the hose can cleared by taking the hose off the machine. Squeeze the retaining ring (3) and remove hose.

If there is no visible blockage, place wrong end of hose in connecting tube (24), hold it upright with one hand, block the top with other hand and switch machine on. If necessary, rapidly lift your hand on and off the end of the hose.



Never use anything sharp to clear the hose.



Check for a blockage in the swivel neck of the power head and under the yellow trap-door (45) on the bottom of the power head. Ensure that the passage between these two openings in the power head is clear.

# PARTS

86400000 - Sensor2



REF	PART NO.	PRV. NO.	DESCRIPTION	NOTES
1	86394300	50100WI	DUST BAG HOUSING KPL	
2	86394460	50145WI	HANDLE TUBE INCL. TUBE COVER	
3	86144830	0127ER	SCREW, M4 X 10	
4	86394470	50147ER	CLAMP	
5	86394480	50153SWER	HANDLE CPL.	
6	86397550	0104ER	SCREW 3.9 X 25	
7	86394320	50200BG	DUSTBAG HOUSING	
8	86394520	50165SW	EXTENSION TUBE	
9	86394330	50105HG	CONNECTING TUBE	
10	86394550	0107ER	SCREW 2,9 X 13	
11	86397560	501824	MAINS CABLE YELLOW 40FT 120V	
12	86394340	50118BG	DUST BAG HOUSING BUMPER BASE	
13	86142650	5040SB	HOSE, SENSOR SILVER	
14	86394350	50205ER	FILTER SAFETY CATCH CPL.	
15	86394360	50122ZG	DUST BAG LEVER	
16	86394370	50123ER	AXLE	
17	86394380	50124ER	LEG SPRING	
18	86397830	50125ER	BAG HOLDER	
19	86363370	01036ER	SCREW M4 X 14	
20	86140000	2014ER	CLAMP CONNECTING ROD (AXLE)	
21	86394430	50209ER	FILTER INDICATOR	
22	86414170	5424KG	RETAINING RING, KÄRCHER GRAY	
23	86394390	50130BG	RECESSED GRIP	
24	86394400	50131BG	CONNECTION ADAPTER	
25	86144930	5289	SEAL, FILTER TUBE	
26	86394440	50142ER	ANTISTATIC WIRE	
27	86394450	50143BGER	CARRY HANDLE	
28	86394500	50216ZG	BOX EXHAUST FILTER	
29	86394490	50215BG	BACK COVER CPL.	
30A	86394540	50169N	HEPA EXHAUST FILTER NON OVERPRINTED	
30B	86412810	50171	EXHAUST FILTER	
31	86005220	5301ER	MICRO HYGENE FILTER	
32	86000500	5300	SENSOR FILTER BAG PACK (10PK)	
33	86319300	1092SW	CREVICE NOZZLE BLK	
34	86319290	1491SW	UPHOLSTERY NOZZLE BLK	



86400000 - Sensor2

REF	PART NO.	PRV. NO.	DESCRIPTION	NOTES
100	86397640	50401BGWI	POWER HEAD COVER WINDSOR S2-12	
101	86397260	1013WI	SUPPRESSOR KIT	
102	86397570	50414WI	CHASSIS 12"	
103	86397580	50313sw	BUMPER	
104	86397390	05112WI	SWITCH	
105	86397480	50443UL	SWITCHING UNIT	
106	86397470	50308WI	COVER FOR AIR CHANNEL	
107	86140010	2856	CLAMP	
108	86397590	50403kgER	BRUSH ROLLER RELEASE	
109	86397340	50356sw	BEARING BLOCK R.H.	
110	86397510	50367hg	POSITION CAMS	
111	86146220	2833	THRUST MEMBER	
112	86397350	50352sw	BRUSH STRIP COVER	
113	86146230	2834	THRUST MEMBER	
114	86397610	50404gsER	FRONT BOTTOM PLATE	
115	86137920	2849	AXLE CLAMP	
116	86397600	50310gsER	REAR BOTTOM PLATE	
117	86400150	2868ZG	ACCESS DOOR CPL.	
118	86143850	2861	PILE ADJUSTMENT AXLE	
119	86143920	5174sw	PILE ADJUSTMENT WHEEL BLK	
120	86397630	50415	BRUSH STRIP 12"	
121	86397620	50470WI	BRUSH ROLLER 12"	
122	86005000	5110	BELT HTD-II, 219 3M	
123	86397460	50332ER	SPRING	
124	86320320	2869sw	RUBBING PLATE BLK	
125	86397280	50348WI	AXLE AND WHEEL	
126	86397440	50330zg	FOOT PEDAL	
127	86397450	50331hg	CATCH PEDAL	
128	86397270	50334sw	COVERING CAP	
129	86397360	50306zg	POWER SWITCH BUTTON	
130	86397490	50371ER	SWITCH ROD	
131	86138230	5379	BELT 312 3M-HTDII-6 (RPL 5109)	
132	86397520	50445ER	SENSOR	
133	86145460	5107-1	SUPPORT SPRING	
134	86397400	50438hgER	SUPPORT LEVER WITH SPRING	
135	86397330	50355hg	BEARING BLOCK L.H.	
136	86397370	50465ER	BRUSH MOTOR 120V	
137	86139400	05117S	CARBON BRUSH SET 100/120V	
138	86143580	5117/1	MOTOR PULLEY	
139	86397430	50441UL	MOTOR COVER	
140	86397420	50440ER	SWIVEL SUPPORT R.H.	
141	86397380	50436hgWI	SWIVEL NECK CPL. 3 -WIRE	
142	86397410	50439ER	SWIVEL SUPPORT L.H.	
143	86147030	0102ER	SCREW, M3.9 X 13 DIN7981	
144	86144850	0197ER	SCREW, M4 X 12 HWH	
145	86144780	01016ER	SCREW, M4 X16-T20 SS	
146	86397540	01010ER	SCREW AM4X16	
147	86397550	0104ER	SCREW 3,9X25	
148	86147170	0176ER	SCREW, M47 X 30 PHPNHMS ZN DIN7985	
149	86397650	01042ER	SCREW 4X10	
150	86145250	2867	SPRING	
	301 10200			1



REF	PART NO.	PRV. NO.	DESCRIPTION	NOTES
100	86397710	50431BGWI	POWER HEAD COVER WINDSOR S2-15	
101	86397260	1013WI	SUPPRESSOR KIT	
102	86397660	50444WI	CHASSIS 14"	
103	86397670	50314sw	BUMPER	
104	86397390	05112WI	SWITCH	
105	86397480	50443UL	SWITCHING UNIT	
106	86397470	50308WI	COVER FOR AIR CHANNEL	
107	86140010	2856	CLAMP	
108	86397290	50433kgER	BRUSH ROLLER RELEASE	
109	86397340	50356sw	BEARING BLOCK R.H.	
110	86397510	50367hg	POSITION CAMS	
111	86146220	2833	THRUST MEMBER	
112	86397350	50352sw	BRUSH STRIP COVER	
113	86146230	2834	THRUST MEMBER	
114	86397690	50434gsER	FRONT BOTTOM PLATE	
115	86137920	2849	AXLE CLAMP	
116	86397680	50311gsER	REAR BOTTOM PLATE	
117	86400150	2868ZG	ACCESS DOOR CPL.	
118	86143850	2861	PILE ADJUSTMENT AXLE	
119	86143920	5174sw	PILE ADJUSTMENT WHEEL BLK	
120	86002440	2046	BRUSH STRIP, 14"	
121	86397700	50471WI	BRUSH ROLLER 14"	
122	86005000	5110	BELT HTD-II, 219 3M	
123	86397460	50332ER	SPRING	
124	86320320	2869sw	RUBBING PLATE BLK	
125	86397280	50348WI	AXLE AND WHEEL	
126	86397440	50330zg	FOOT PEDAL	
127	86397450	50331hg	CATCH PEDAL	
128	86397270	50334sw	COVERING CAP	
129	86397360	50306zg	POWER SWITCH BUTTON	
130	86397490	50371ER	SWITCH ROD	
131	86138230	5379	BELT 312 3M-HTDII-6 (RPL 5109)	
132	86397520	50445ER	SENSOR	
133	86145460	5107-1	SUPPORT SPRING	
134	86397400	50438hgER	SUPPORT LEVER WITH SPRING	
135	86397330	50355hg	BEARING BLOCK L.H.	
136	86397370	50465ER	BRUSH MOTOR 120V	
137	86139400	05117S	CARBON BRUSH SET 100/120V	
138	86143580	5117/1	MOTOR PULLEY	
139	86397430	50441UL	MOTOR COVER	
140	86397420	50440ER	SWIVEL SUPPORT R.H.	
141	86397380	50436hgWI	SWIVEL NECK CPL. 3 -WIRE	
142	86397410	50439ER	SWIVEL SUPPORT L.H.	
143	86147030	0102ER	SCREW, M3.9 X 13 DIN7981	
144	86144850	0102ER	SCREW, M4 X 12 HWH	
145	86144780	01016ER	SCREW, M4 X 12 11011	
146	86397540	01010ER	SCREW AM4X16	
140	86397550	0104ER	SCREW 3,9X 25	
147	86147170	0104ER	SCREW, M47 X 30 PHPNHMS ZN DIN7985	
140	86145250	2867	SPRING	
575	00140200	2007		

