





Art. 19040

EN Operator's manual smart Sensor

## **GARDENA** smart Sensor

1. SAFETY	. 4
2. FUNCTION	. 6
3. INITIAL OPERATION	. 7
4. OPERATION	. 13
5. MAINTENANCE	. 15
6. STORAGE	. 16
7. TROUBLESHOOTING	. 17
8. TECHNICAL DATA	. 18
9. SERVICE/WARRANTY	. 19

### Translation of the original instructions.

For safety reasons, children and young people under 16 as well as anyone who is not familiar with these operating instructions should not use the product. Persons with reduced physical or mental abilities may use the product only if they are supervised or instructed by a responsible person. Children must be supervised to ensure that they do not play with the product. Never operate the product when you are tired, ill or under the influence of alcohol, drugs or medicine.

#### Intended use:

The **GARDENA smart Sensor** is intended to control the smart system taking into account soil moisture and temperature in private domestic gardens, allotments and greenhouses.

The **smart Sensor** can only be used together with the **GARDENA smart Gateway**.



# DANGER! Risk of physical injury!

→ The GARDENA smart Sensor must not be used for industrial purposes or in conjunction with chemicals, foodstuffs, easily flammable and explosive materials.

#### 1. SAFETY

#### Important!

Read the operator's manual carefully before use and keep for future reference.



### DANGER! Risk of suffocation!

Small parts can be easily swallowed. There is also a risk that the polybag can suffocate toddlers. Keep toddlers away when you assemble the product.



#### DANGER! Cardiac arrest!

This product makes an electromagnetic field while it operates. This field may under some conditions interfere with active or passive medical implants. To decrease the risk of conditions that can possibly injure or kill, we recommend persons with medical implants to speak with their physician and the medical implant manufacturer before you operate the product.

Do not use damaged products. Ensure that all parts are correctly disposed of with immediate effect (please see Chapter 6. STORAGE "Disposal/Disposal of the batteries").

Keep damaged parts out of the reach of children.

Regularly examine the product for damage.

There is a risk of tripping. Position the sensor in such a manner that it can be seen at all times.

The product will become hot when exposed to sunlight. Touching the product in such a condition can result in slight burns if touched.

Ensure that the product is only used within the stated temperature range -1 °C to +50 °C.

#### **Batteries:**



#### DANGER!

Replace flat batteries. If the batteries are completely flat, battery acid could leak.

Do not use re-chargeable batteries.

Regularly examine the batteries for damage.

Do not use damaged batteries. Ensure that they are correctly disposed of (please see Chapter 6. STORAGE "Disposal/Disposal of the batteries").

Keep damaged batteries out of the reach of children.

To prevent failure of the Sensor due to weak batteries in conjunction with a lengthy absence, batteries should be replaced in due course. This will depend on the previous operating life of the batteries and the probable length of absence, which should not exceed 6 month in total.

### Information regarding use:

The Soil Moisture Sensor is equipped with a safety switch. If the batteries are flat, the selected watering time of the smart App will be used for watering.

The spread of moisture in the soil after watering or rainfall is rather slow. In the worst-case scenario it may happen that irrigation and a rain shower overlap until the required soil moisture is attained.

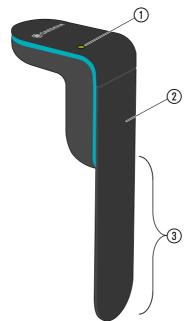
### 2. FUNCTION

The Sensor measures the soil moisture at the root level of the plants and the temperature near the soil automatically and sends the measured results to the Gateway. (The values can be read using the **GARDENA smart App**).

If the batteries are flat and are not replaced, the smart App will function with the program selected.

→ Replace batteries (see 3. INITIAL OPERATION "To insert batteries").

### Controls/Display:



① Connection-LED:

Green flashing for 3 min.: During connection

Green illuminating for 1 sec: Sensor is connected

Red flashing for 10 sec: Sensor is not connected

- ② Temperature sensor (inside the product)
- ③ Measuring area

#### 3. INITIAL OPERATION

### To insert batteries:

The batteries are not included in the scope of delivery.

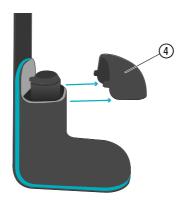
# The Sensor must only be operated with 2 x alkalimanganese (alkaline) batteries type LR6 (AA) (Mignon).

The operating period is approx. 6 months. The operating period can vary depending on ambient temperature and transmission frequency.

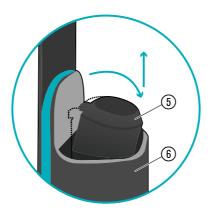


#### **CAUTION!**

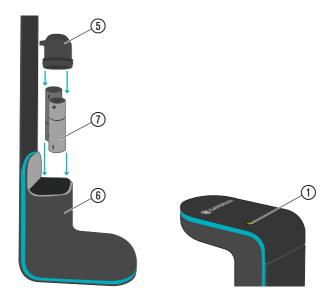
Rechargeable batteries should not be used!



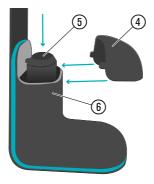
1. Pull the lid 4 outwards.



2. Pull the battery compartment cover ⑤ outwards until there's a click and then pull the battery compartment cover ⑤ upwards.



3. Insert the batteries (§) into the battery compartment (7). Make sure that the polarity is correct. The LED (1) flashes green.



- 4. Push the battery compartment cover ⑤ back onto the battery compartment ⑥.
- 5. Slide the lid (4) back onto the sensor. The inclusion mode has been activated.
- 6. Make sure that the Connection LED flashes green before continuing.
- 7. Follow the instructions in the **GARDENA smart App**.

If inclusion has failed (no green LED), push the battery compartment cover ⑤ for approx. 10 seconds to reset the sensor.

#### To select the correct location:

#### **Correct location:**

The Sensor must be positioned at a location in the watering area which is exposed to the same climatic conditions as the plants (sun, wind, rain, etc.) for which a status is to be displayed.

If you use drip irrigation, place the sensor near a dripping point.

If you would like to place the sensor in a planter, choose a spot at least 5 cm from the edge.

If you would like to place the sensor in the lawn, first strip the top layer of the lawn before continuing.

Place the sensor so that there are no obstacles between the sensor and the Gateway.

#### Incorrect location:

To rule out erroneous results caused by waterlogging, the Sensor should not be positioned in dips in the ground.

In direct sunlight, it should be noted that the measured temperature can differ from the actual temperature.

When used in a flower pot, the sensor must be at least 5 cm from the edge of the flower pot.



#### **CAUTION!**

Damage to the sensor from the lawn mower.

→ The cutting height of the lawnmower must be at least 30 mm.

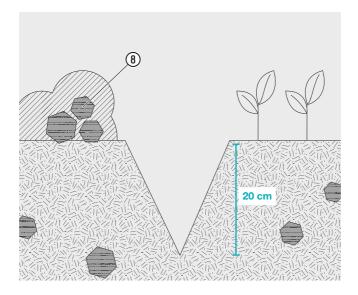
### To plant the Sensor:



#### CAUTION!

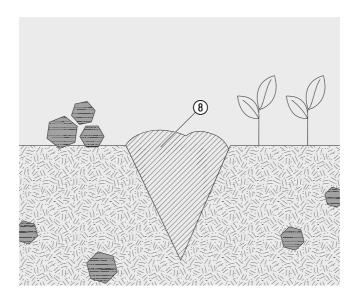
The measuring area will only measure the soil moisture correctly if the measuring area is in full contact with the ground on all sides! No air should be trapped at the measuring area in the ground.

#### Remove the soil:



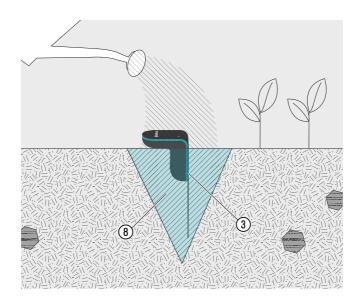
- 1. Dig a funnel-shaped hole in the ground ® at least 20 cm deep.
- 2. Break up the soil  $\ensuremath{\mathfrak{B}}$  removed and take out any stones and thick roots.
- 3. Make sure there are no metal objects near the sensor.

### Prepare the soil:



- 4. Moisten the soil if the soil is dry.
- 5. Replace the damp broken-up soil (8) in the funnel-shaped hole without packing tight.

#### Place the sensor:



- 6. Push the sensor into the soil (a) up to the lower edge of the horizontal part of the sensor head (The sensor needs to be pushed into the soil at least to the **min** mark).

  Here the measuring area (a) must be in full contact with the damp soil on both sides.
- 7. Press down the soil ® around the measuring area ③ lightly.
- 8. Water the area around the Sensor with approx. 5 litre water. *It may take several hours until the sensor measures the actual soil moisture.*
- 9. If you place the sensor in the lawn, cut the stripped-off lawn into pieces and place them around the sensor.

#### 4. OPERATION

### Operation with the GARDENA smart App:

You can use the **GARDENA smart App** to control all **GARDENA smart products** from anywhere at any time.

You can download the free **GARDENA smart App** from the Apple App Store or from the Google Play Store.

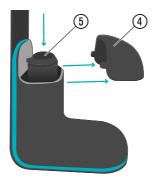
In order to include, a **GARDENA smart Gateway** with internet connectivity is needed. All **GARDENA smart products** are integrated via the app. Follow the instructions inside the App.

### Displays of the sensor in the app:

- Soil moisture
- Temperature
- Battery status
- Signal strength

### Factory Reset:

The smart Sensor will be reset to the factory settings.



- 1. Pull off the lid 4.
- 2. Push the battery compartment cover ⑤ for a short time. *New connection (if the connection failed).*

#### - or -

Push and hold down the battery compartment cover ⑤ for at least 10 seconds.

LED flashes green.

Cancels the existing connection and allows a new connection to be established, e.g. different Gateway.

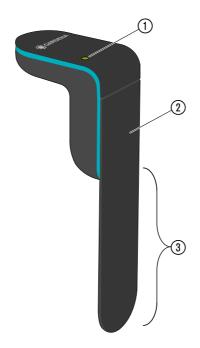
### **Usages:**

To keep the soil moisture level as constant as possible, irrigation should be carried out with short watering cycles and short watering times. This especially applies to flower boxes on balconies, which have a watering time of < 5 minutes.

The spread of moisture in the soil after watering or rainfall is rather slow. In the worst-case scenario it may happen that irrigation and a rain shower overlap until the required soil moisture is attained.

### **5. MAINTENANCE**

### To clean the sensor:



### No caustic/abrasive cleaning agents should be used.

Whenever the Sensor is relocated, the sensor should be cleaned.

- 1. Clean sensor with clear water.
- 2. Clean the measuring area  $\ensuremath{\mathfrak{D}}$  with a damp cloth (do not use solvent).

#### 6. STORAGE

### To put into storage:

### The product must be stored away from children.

- 1. Remove the batteries to preserve them (see 3. INITIAL OPERATION).
- 2. Store the Sensor in a dry, enclosed and frost-free place.

### Disposal:

(in accordance with RL2012/19/EC)



The product must not be disposed of to normal household waste. It must be disposed of in line with local environmental regulations.

#### **IMPORTANT!**

Dispose of the product through or via your municipal recycling collection centre.

### Disposal of the batteries:

The batteries may only be disposed of when discharged.

#### **IMPORTANT!**

Dispose of the batterie through or via your municipal recycling collection centre.

### 7. TROUBLESHOOTING

In case of malfunctions you will find the FAQ at this address:

### www.gardena.com/smart/faq

Problem	Possible Cause	Remedy
LED of the sensor flashes red	Inclusion is failed.	→ Push the battery compartment cover for a short time (see 4. OPERATION "Factory reset").



NOTE: For any other malfunctions please contact the GARDENA service department. Repairs must only be done by GARDENA service departments or specialist dealers approved by GARDENA.

### **8. TECHNICAL DATA**

smart Sensor	Unit	Value (Art. 19040)
Outdoor operating temperature	°C	- 1-+50
Storage temperature	°C	-20 - +60
SRD:		
Frequency range	MHz	863 – 870
Maximum power	mW	25
Free field radio range (approx.)	m	100
Soil moisture	%	0 – 100
Batteries required		2 x alkalimanganese (alkaline) batteries type LR6 (AA) (Mignon)
Operating time of the batteries		approx. 6 months with alkaline batteries (min. 2000 mAh)

### EC Declaration of Conformity:

Hereby, GARDENA Manufacturing GmbH declares that the radio equipment type (Art. 19040) is in compliance with directive 2014/53/EU.

The full text of the EC declaration of conformity is available at the following internet address:

http://www.gardena.com/int/support/safety-regulations

### 9. SERVICE/WARRANTY

#### Service:

Please contact the address on the back page.

### Warranty statement:

In the event of a warranty claim, no charge is levied to you for the services provided.

GARDENA Manufacturing GmbH grants a warranty for all original GARDENA new products for two years from the date of original purchase from the retailer, provided that the devices have been for private use only. This manufacturer's warranty does not apply to products acquired second hand. This warranty includes all significant defects of the product that can be proved to be material or manufacturing faults. This warranty is fulfilled by supplying a fully functional replacement product or by repairing the faulty product sent to us free of charge; we reserve the right to choose between these options. This service is subject to the following provisions:

- The product has been used for its intended purpose as per the recommendations in the operating instructions.
- Neither the purchaser nor a third party has attempted to open or repair the product.
- Only Original GARDENA replacement parts and wear parts have been used for operation.
- Presentation of the receipt.

Normal wear and tear of parts and components (such as blades, blade fixing parts, turbines, light bulbs, V-belts/toothed belts, impellers, air filters, spark plugs), visual changes, wear parts and consumables are excluded from the warranty.

This manufacturer's warranty is limited to replacement and repair of products in accordance with the abovementioned conditions. The manufacturer's warranty does not constitute an entitlement to lodge other claims against us as a manufacturer, such as for damages. This manufacturer's warranty does **not**, of course, affect statutory and contractual warranty claims against the dealer/retailer.

The manufacturer's warranty is governed by the law of the Federal Republic of Germany.

In case of a warranty claim, please return the faulty product, together with a copy of the receipt and a description of the fault, with postage paid to the service address.

### Consumables:

Faults which occur as a result of incorrectly installed or leaking batteries are not covered by the guarantee.

### **Product liability:**

In accordance with the German Product Liability Act, we hereby expressly declare that we accept no liability for damage incurred from our products where said products have not been properly repaired by a GARDENA approved service partner or where original GARDENA parts or parts authorised by GARDENA were not used.

Deutschland / Germany GARDENA Manufacturing GmbH Central Service Hans-Lorenser-Straße 40 D-89079 Ulm Produktfragen: (+49) 731 490-123 Reparaturen: (+49) 731 490-290

service@gardena.com

http://www.gardena.com

Albania KRAFT SHPK Autostrada Tirane-Durres Km 7 1051 Tirane

Argentina ROBERTO C. RUMBO S.R.L. Predio Norlog Lote 7 Benavidez. ZC:1621 Buenos Aires ventas@rumbosrl.com.ar

Australia
Husqvarna Australia Pty. Ltd.
Locked Bag 5
Central Coast BC
NSW 2252
Phone: (+61) (0) 2 4352 7400
customer.service@
husqvarna.com.au

Austria / Österreich Husqvarna Austria GmbH Industriezeile 36 4010 Linz Tel.: (+43) 732 77 01 01-485 service.gardena@ husqvarnagroup.com

Azerbaijan Firm Progress a. Aliyev Str. 26A 1052 Baku Belarus Private Enterprise

"Master Garden"
Minsk
Sharangovich str., 7a
Phone: (+375) 17 257-00-33
Mob.: (+375) 29 676-16-09
mg@mastergarden.by

Belgium Husqvarna Belgium nv Gardena Division Leuvensesteenweg 542 Planet II E 1930 Zaventem België

Bosnia / Herzegovina SILK TRADE d.o.o. Industrijska zona Bukva bb 74260 Tešanj

Brazil
Husqvarna do Brasil Ltda
Av. Francisco Matarazzo,
1400 – 19º andar
São Paulo – SP
CEP: 05001-903
Tel: 0800-112252
marketing.br.husqvarna@

Bulgaria AGROLAND България АД бул. 8 Декември, №13 Офис 5 1700 Студентски град София Тел.: (+359) 24666910 info@agroland.eu

Canada / USA GARDENA Canada Ltd. 100 Summerlea Road Brampton, Ontario L6T 4X3 Phone: (+1) 905 792 93 30 info@gardenacanada.com Chile
REPRESENTACIONES
JOE S.A.
Av. Del Valle Norte 857,
Piso 4
Santiago RM
Phone: (+56) 2 24142560
contacto@jce.cl

China
Husqvarna (Shanghai)
Management Co., Ltd.
富世华 (上海) 管理有限公司
3F, Benq Square B, No207, Song Hong Rd.,
Chang Ning District,
Shanghai
PRC. 200335
上海市长宁区淞虹路207号明
基广场距离接。邮编。200335

Colombia
Husqvarna Colombia S.A.
Calle 18 No. 68 D-31, zona
Industrial de Montevideo
Bogotá, Cundinamarca
Tel. 571 2922700 ext. 105
jairo.salazar@
husqvarna.com.co
Costa Ries

Costa Rica Compania Exim Euroiberoamericana S.A. Los Colegios, Moravia, 200 metros al Sur del Colegio Saint Francis – San José Phone: (+506) 297 68 83 exim\_euro@racsa.co.cr Croatia

Croatia Husqvarna Austria GmbH Industriezeile 36 4010 Linz Tel.: (+43) 732 77 01 01-485 service.gardena@ husqvarnagroup.com

Cyprus Med Marketing 17 Digeni Akrita Ave P.O. Box 27017 1641 Nicosia

Czech Republic
Husqvarna Česko s.r.o.
Türkova 2319/5b
149 00 Praha 4 – Chodov
Bezplatná infolinka:
800 100 425
servis@cz.husqvarna.com

Denmark GARDENA DANMARK Lejrvej 19, st. 3500 Værløse Tif.: (+45) 70264770 husqvarna@husqvarna.dk www.gardena.com/dk

Dominican Republic BOSQUESA, S.R. Carretera Santiago Licey Km. 5 ½ Esquina Copal II. Santiago Dominican Republic Phone: (+809) 736-0333 joserbosquesa@claro.net.do

Ecuador Husqvarna Ecuador S.A Arupos E1-181 y 10 de Agosto Quito, Pichichor Tel. (+593) 22800739 francisco.jacome@ husqvarna.com.ec

Estonia Husqvarna Eesti OÜ Valdeku 132 EE-11216 Tallinn info@gardena.ee

Finland
Oy Husqvarna Ab
Gardena Division
Lautatarhankatu 8 B / PL 3
00581 HELSINKI
www.gardena.fi

France
Husquarna France
9/11 Allée des pierres mayettes
9/13 Gennevilliers Cedex
France
http://www.gardena.com/fr
N° AZUR: 0 810 00 78 23
(Prix d'un appel local)

Georgia Transporter LLC 113b Beliashvili street 0159 Tbilisi, Georgia Great Britain

Great Britain
Husqvarna UK Ltd
Preston Road
Aycliffe Industrial Park
Newton Aycliffe
County Durham
DL5 6UP
info.gardena@
husqvarna.co.uk

**Greece**Π. ΠΑΠΑΔΟΠΟΥΛΟΣ ΑΕΒΕ Λεωφ. Αθηνών 92
Αθήνα
Τ.Κ.104 42
Ελλάδα
Τηλ. (+30) 210 5193100
info@papadopoulos.com.gr

Hungary
Husqvarna Magyarország Kft.
Ezred u. 1-3
1044 Budapest
Telefon: (+36) 1 251-4161
vevoszolgalat.husqvarna@
husgvarna.hu

Iceland BYKO ehf. Bildshöfoa 20 110 Reykjavik

Ireland
Husqvarna UK Ltd
Preston Road
Ayoliffe Industrial Park
Newton Ayoliffe
County Durham
DL5 6UP
info.gardena@
husqvarna.co.uk

Italy
Husqvarna Italia S.p.A.
Via Santa Vecchia 15
23868 VALMADRERA (LC)
Phone: (+39) 0341.203.111
assistenza.italia@
it.husqvarna.com

Japan Husqvarna Zenoah Co., Ltd. 1-9 Minamidai Kawagoe 350-1165 Saitama gardena-jp@ husqvarnagroup.com

Kazakhstan LAMED Ltd. 155/1, Tazhibayevoi Str. 050060 Almaty IP Schmidt Abayavenue 3B 110 005 Kostanay

Korea Kyung Jin Trading CO.,LTD. 107-4, SunDuk Bld., YangJae-dong, Seocho-gu, Seoul, (zipcode: 137-891) Phone: (+82) (0)2 574-6300

Latvia
Husqvarna Latvija SIA
Ulbrokas 19A
LV-1021 Rīga
info@gardena.lv

Lithuania UAB Husqvarna Lietuva Ateities pl. 77C LT-52104 Kaunas info@gardena.lt Luxembourg
Magasins Jules Neuberg
39, rue Jacques Stas
Luxembourg-Gasperich 2549
Case Postale No. 12
Luxembourg 2010
Phone: (+352) 401401
api@neuberg.lu

Mexico AFOSA Av. Lopez Mateos Sur # 5019 Col. La Calma 45070 Zapopan, Jalisco Mexico Phone: (+52) 33 3818-3434 icornejo@afosa.com.mx

Moldova Convel S.R.L. 290A Muncesti Str. 2002 Chisinau

Netherlands Husqvarna Nederland B.V. GARDENA Division Postbus 50131 1305 AC ALMERE Phone: (+31) 36 521 00 10 info@gardena.nl

Neth. Antilles Jonka Enterprises N.V. Sta. Rosa Weg 196 P.O. Box 8200 Curaçao Phone: (+599) 9 767 66 55 pgm@jonka.com

New Zealand Husqvarna New Zealand Ltd. PO Box 76-437 Manukau City 2241 Phone: (+64) (0) 9 9202410 support.nz@husqvarna.co.nz

Norway Husqvarna Norge AS Gardena Division Trøskenveien 36 1708 Sarpsborg info@gardena.no

Peru Husqvarna Perú S.A. Jr. Ramón Cárcamo 710 Lima 1 Tel: (+51) 1 3320 400 ext. 416 juan.remuzgo@ husqvarna.com

Poland Husqvarna Poland Spółka z o.o. ul. Wysockiego 15 b 03-371 Warszawa Phone: (+48) 22 330 96 00 gardena@husqvarna.com.pl

Portugal Husqvarna Portugal, SA Lagoa - Albarraque 2635 - 595 Rio de Mouro Tel.: (+351) 21 922 85 30 Fax: (+351) 21 922 85 36 info@gardena.pt

Romania Madex International Srl Soseaua Odaii 117 - 123, RO 013603 Bucureşti, S1 Phone: (+40) 21 352.76.03 madex@ines.ro

Russia / Россия
ООО "Хускарна"
141400, Московская обл.,
г. Химки,
улица Ленинградская,
владение 39, стр.6
Бизнес Центр
"Химки Бизнес Парк",
помещение ОВО2\_04
http://www.gardena.ru
Serbia

Domel d.o.o. Autoput za Novi Sad bb 11273 Belgrade Phone: (+381) 118 48 88 12 miroslav.jejina@domel.rs Singapore Hy-Ray PRIVATE LIMITED 40 Jalan Pemimpin #02-08 Tat Ann Building

#02-08 Tat Ann Building Singapore 577185 Phone: (+65) 6253 2277 shiying@hyray.com.sg Slovak Republic Husqvarna Česko s.r.o. Türkova 2319/5b 149 00 Praha 4 – Chodov

Bezplatná infolinka: 800 154 044

servis@sk.husqvarna.com Slovenia Husqvarna Austria GmbH Industriezeile 36 4010 Linz Tel.: (+43) 732 7701 01-485 service.gardena@ husqvarnagroup.com

South Africa Husqvarna South Africa (Pty) Ltd Postnet Suite 250 Private Bag X6, Cascades, 3202, South Africa Phone: (+27) 33 846 9700 info@gardena.co.za

Spain Husqvarna España S.A. Calle de Rivas nº 10 28052 Madrid Phone: (+34) 91 708 05 00 atencioncliente@gardena.es

Suriname
Deto Handelmaatschappij N.V.
Kernkampweg 72-74
P.O.Box: 12782
Paramaribo – Suriname
South America
Phone: (+597) 438050
www.deto.sr

Sweden Husqvarna AB/ GARDENA Sverige Drottninggatan 2 561 82 Huskvarna Sverige

Switzerland / Schweiz Husqvarna Schweiz AG Consumer Products Industriestrasse 10 5506 Mägenwil Phone: (+41) (0) 62 887 37 90 info@gardena.ch

Turkey
Dost Bahçe Dış Ticaret
Mümessillik A.Ş
Yunus Mah. Adil Sok. No:3
Ic Kapi No: 1 Kartal
34873 Istanbul
Phone: (+90) 216 38 93 939
info@dostbahce.com.tr

Ukraine / Україна ТОВ «Хускварна Україна» вул. Васильківська, 34, офіс 204-г 03022, м. Київ Тел. (+38) 0 800 504 804 info@gardena.ua

Uruguay FELI SA Entre Ríos 1083 CP 11800 Montevideo – Uruguay Tel: (+598) 22 03 18 44 info@felisa.com.uy

Venezuela Corporación Casa y Jardín C.A. Av. Caroní, Edif. Trezmen, PB. Colinas de Bello Monte. 1050 Caracas. Tif: (+58) 212 992 33 22 info@casayjardin.net.ve

19040-20.962.01/0121 © GARDENA Manufacturing GmbH D-89079 Ulm http://www.gardena.com