



# BALL **DISPENSER**

ULTIMA 8 | ULTIMA 12 | ULTIMA 19 | ULTIMA 20 | ULTIMA 45

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## 1 General information

### 1.1 Foreword

We would like to congratulate you on the purchase of your new Range Servant machine. Thank you for choosing Range Servant as a supplier. We are grateful to have you as a customer.

This User's manual contains information you will need to maintain to operate the unit. Read through and understand this User's manual before you take the machine into use. If these instructions are not followed, the machine might get damaged or cause injury. In many cases, following the instructions is a necessary condition for Range Servant's warranty to be applicable. Each person operating the machine must read these instructions.

No part of this publication may be reproduced without the written authorization of Range Servant.

### 1.2 Terms and conditions

All information regarding warranty, defects or liability are outlined in Range Servant's General Terms and Conditions for Delivery applicable to your purchase.

If you have any questions, or if problems should arise, please contact your Range Servant representative.

### 1.3 EC Declaration of Conformity

In accordance with the Machine Directive 2006/42/EC, Annex IIA.

**The Manufacturer:**

***RANGE SERVANT®***

Range Servant AB  
Skallebackavägen 11  
SE-302 41 HALMSTAD  
Sweden

**The Representative:**

*(To be filled in by a representative established within the EU)*

.....  
*Company*

.....  
*Address*

.....  
*Telephone*

Declare that:

Ball Dispenser  
Machine

.....  
*Type*

.....  
*Serial no., manufacturing no. etc.*

- A. is in conformity with Council Directive 2006/42/EC concerning approximation of the laws of the Member States relating to machines in particular as referred to in Annex I to this Directive concerning essential health and safety requirements in connection with the design and manufacture of machines, as amended by Council Directive 2006/42/EC concerning approximation of the laws of the Member States relating to machines;
- B. *(if applicable)* are manufactured in accordance with the following regulations, directives etc.: .....
- C. *(if the requirements under A have been fulfilled)* that the harmonized standards EN ISO 12100:2010 (or parts thereof) have been applied
- D. *(if applicable)* are manufactured according to the following national standards and technical specifications.

Halmstad on

.....  
*Date*

Andreas Boquist  
CEO

  
.....  
*Signature*

## 1.4 Description

### 1.4.1 Ball Dispenser

The Ball Dispenser can be used either as a stand-alone machine or it can be integrated into a complete, automated system – the Range Servant Ball Management System.

The user-friendly Ball Dispensers from Range Servant are designed to accept different types of payment and to deliver, quickly and consistently, the exact number of balls. Prices are differentiated and several payment methods can be used in parallel. The number of dispensed balls per payment can be easily changed by the user themselves. The balls are handled with care and only undamaged and clean balls are delivered to the player.

### 1.4.2 Ball Management System

Range Servant can deliver a complete, flexible Ball Management System adaptable to any kind of driving range requirements. The Ball Dispenser can be combined with the work-efficient, environment friendly Ball Washer. The Ball Washer in turn can be connected to the Elevator, the Conveyor Belt or the Blower for the transport of clean, undamaged balls from Washer to Dispenser. The system also includes a Ball Picker machine picking up used balls from all over the driving range. Thus the circle is closed and manual work reduced to a minimum.

By applying our extensive know-how to the specific problems of every driving range we are able to offer tailor-made solutions.

## 1.5 Identification

When contacting Range Servant, please identify your machine with the help of the information contained in the identification plate. The identification plate is well visible and firmly attached and contains the following information:

- Name and address of the manufacturer
- CE-marking
- Designation of series or type of machine
- Serial no., if any
- Year of manufacture
- Weight
- Mains voltage and motor power, if any

***RANGE SERVANT***<sup>®</sup>

RANGE SERVANT AB, SE-302 41 HALMSTAD, SWEDEN  
TEL. +46 35 10 92 40 WWW.RANGESERVANT.COM

MANUFACTURING NO.

YEAR  MODEL

WEIGHT  VOLT/KW

*Product identification plate*

## 1.6 Technical specifications

General	Ultima 8	Ultima 12	Ultima 19	Ultima 20	Ultima 45
Max capacity [balls]	8000*	12000*	20000*	20000*	43000*
Capacity [balls/h]	25000	25000	25000	25000	25000
Settings [balls/payment]	1-255	1-255	1-255	1-255	1-255
<b>Dimensions:</b>					
Height [mm] /([in])	1330 (52.4)	2056 (80.9)	2056 (80.9)	2056 (80.9)	2056 (80.9)
Height open lid [mm] /([in])	1790 (70.5)	-	-	-	-
Width [mm] /([in])	1012 (39.8)	1012 (39.8)	1012 (39.8)	2022 (79.6)	2022 (79.6)
Depth [mm] /([in])	760 (29.9)	760 (29.9)	1520 (59.8)	760 (29.2)	1520 (59.8)
Weight, with balls [kg]	452	641	1077	1093	2225
Weight, without balls [kg]	85	90	159	175	251
<b>Electric system:</b>					
Mains voltage [V, 50/60 Hz]	230/115	230/115	230/115	230/115	230/115
Control voltage [V, DC]	12	12	12	12	12
Power, feeding motor [W]	17.4	17.4	17.4	2x17.4	2x17.4

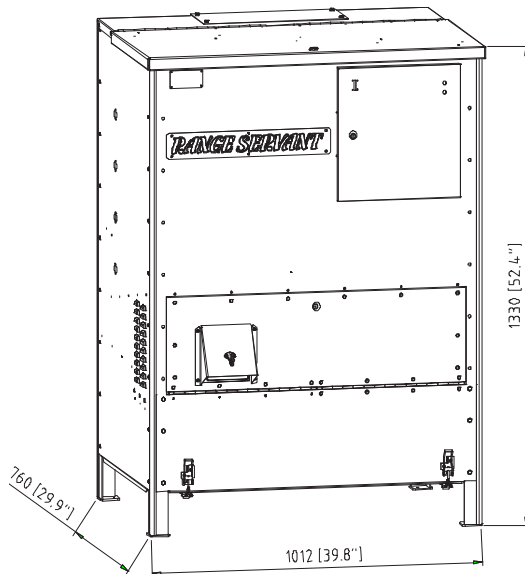
\* Capacity may differ depending on ball quality and filling technique.

**Operating Conditions:**

Operating Temperature [°C] / ([°F])

+2 - +50 (+35- +122)

\* Ball Washer and elevator are not included



Ball Dispenser Ultima 8

The level of airborne noise has been measured for an identical machine under normal operating conditions. The values indicate the sound pressure level measured 1 m (39.4") from the sides of the machine and 1.6 m (63") from the floor or access platform.

Sound pressure level at the machine (dB, A)  
<70 dB

*The manufacturer reserves the right to alter any details of the products without prior notice.*

## 2 Safety

### 2.1 General

Safety measures are a combination of measures taken by the manufacturer when designing and building the machine and measures that have to be taken by the user. The machine has been designed to function for its intended purpose. It has been designed and manufactured in such a way that use and maintenance can take place with the least possible risks to the operator, provided such work is carried out according to the instructions laid down in this User's manual.

The objective of the safety measures is to eliminate all accident hazards during the operational life of the machine. This also includes the assembly and dismantling of the machine, including any hazards arising as a consequence of such abnormal circumstances as can be anticipated.

All Range Servant retailers keep accessories and spare parts at your disposal along with competent advice. They also have the technical

qualifications necessary for installing your machine and are informed about what technical changes are authorized.

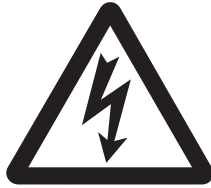
### 2.2 Conformity with mandatory requirements

The Range Servant ball management machines fulfil the personal safety requirements of the EU Machine Directive 2006/42/EC, with a special reference to Annex I of the Directive concerning essential health and safety requirements in connection with the design and manufacture of machines. Furthermore the harmonised standards EN ISO 12100:2010 (or parts thereof) have been applied.

The electrical equipment fulfil the safety provisions laid down in the EU low voltage directive 2014/35/EU.

## 2.3 Remaining risks

There are warning signs serving as a reminder and warning to the user of any remaining risks, i.e. risks that we have not been able to eliminate, or sufficiently minimise, in our design and against which technical safety measures do not provide complete, or sufficient, protection. The signs are yellow with black characters. They are big enough to be readable from a distance of three meters.



Warning sign in electrical cabinet

- Always disconnect the power supply to the machine before carrying out maintenance or service work. The mains switch is located in the electrical cabinet in the lower right hand corner of the printed circuit board.
- Never touch the circuit board or other electrical components in the electrical cabinet. They can be current conducting and cause injury to person and/or equipment damage.
- Mechanical or electrical alterations may only be undertaken in consultation with Range Servant.
- For your safety use hearing protection when filling the dispenser with golf balls.

## 2.4 Authorised use

The Ball Dispenser may only be used for the distribution of golf balls. For the machine to operate properly, the balls must be clean and undamaged or else they may get stuck and cause machine failure. Distribution of balls may only start provided the machine has been installed according to the instructions contained in this User's manual.

RSCoconnect may only be used provided that the product has been installed according to the instructions contained in this User's manual.

### 2.4.1 Necessary qualifications

Due to the complex design and operation of the machine the person carrying out service and maintenance work must have the necessary qualifications. The user is required to have attended a training course, in the form of a comprehensive study of this User's manual.

## 2.5 Unauthorised use

Using accessories or spare parts not recommended by Range Servant AB might cause personal injury and/or equipment damage and affect the operational reliability of your Ball Dispenser. For safety reasons, use only the components recommended by Range Servant. They are intended for your machine, have been chosen for safety reasons and are approved by the manufacturer.

Damage caused by the use of accessories and spare parts not approved by Range Servant or damage due to unauthorised technical changes are not covered by the warranty obligation.

## 2.6 Emergencies

### 2.6.1 Fire

Water shall be used as an extinguisher in the event of fire, except if the fire is located in the electric equipment, where a carbon dioxide extinguisher must be used.

	<p><b>VARNING!</b> Slå av strömmen. Klämrisk.</p>	<p><b>WARNING!</b> Turn off the power. Moving parts.</p>
	<p><b>ATTENTION!</b> Couper le courant. Parties mobiles.</p>	<p><b>WARNUNG!</b> Den Strom abstellen. Bewegliche Teile.</p>
	<p><b>¡PRECAUCION!</b> Apagar el encendida. Partes movibles.</p>	<p><b>ATTENZIONE!</b> Togliere la corrente. Parti mobili.</p>

Warning sign on front hatch

## 2.7 Operational reliability

For trouble-free operation and long service life the instructions below should be followed:

- Place the Ball Dispenser on a firm and level surface.
- Place the machine under cover so that only the front is accessible to members of the public. If the machine is card-operated it must stand under cover for the warranty to apply.
- Never strain the machine by loading it with more balls than recommended. The loading capacity for your machine is stated in the Technical Specifications in the beginning of this User's manual.
- The machine should be connected to its own wall socket to prevent interference with its electronic system.
- Make sure that the electric box is always properly shut and covered when rinsing the machine. Moisture and water can damage the electrical components.
- When cleaning inside the dispenser never spray water directly onto the electric motor.

## 3 Design and function

### 3.1 General

The machine is intended for use as a golf Ball Dispenser. It consists of a ball magazine and is inside fitted with two plates on two levels for load reduction and, at the bottom, a grid.

The grid consists of a number of ball ducts, arranged next to each other and ending above a conveyor belt transporting the balls to the ball chute.

A photocell is installed in connection with the conveyor belt counting the balls being transported by the belt.

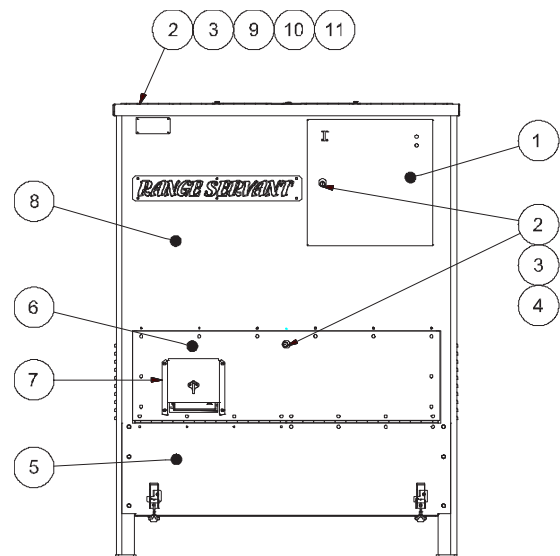
All interior surfaces are inclined so that the balls are continuously flushed downwards.

The lower level allows for damaged balls and debris to be sorted out.

All essential parts of the Ball Dispenser are manufactured of stainless steel, rust protected steel or aluminium.

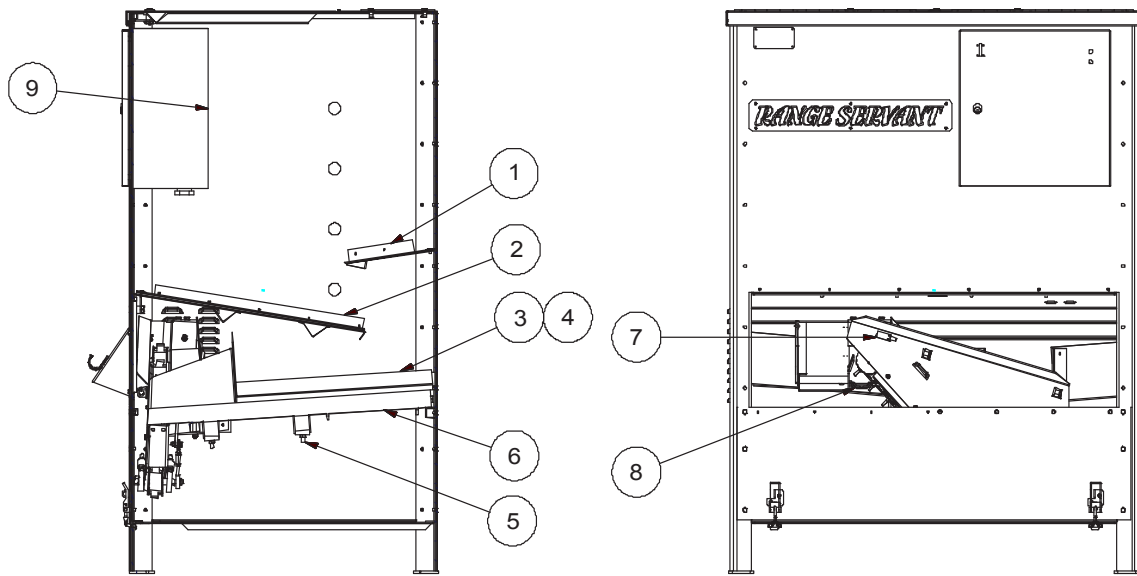
The Range Servant Ball Dispenser has been designed in order to provide driving range owners with a long-lasting, reliable, practical and economic golf ball management system.

### 3.1.1 Machine exterior



Pos	Designation
1	Electrical cabinet door
2	Locks for electrical cabinet, front hatch and lid
3	Shackle, front hatch lock and lid
4	Shackle, electrical cabinet door
5	Lower front panel
6	Front inspection hatch
7	Ball chute
8	Upper front panel
9	Front portion of lid
10	Lid hinges
11	Rear portion of lid

### 3.1.2 Machine interior



Pos	Designation
1	Upper inclined plate
2	Lower inclined plate
3	Left side plate of grid
4	Right side plate of grid
5	Shock absorber

Pos	Designation
6	Grid
7	Photocell NPN
8	Dispenser motor
9	Electrical cabinet

## 3.2 Description of components

### 3.2.1 Grid

The lowest level inside the Ball Dispenser consists of a grid. On top of the grid is a movable plate. At one end of the movable plate is a funnel-shaped ball duct discharging onto a conveyor belt divided into compartments. The conveyor belt runs between a lower and upper pulley. The angle of the conveyor belt is designed so that the balls automatically roll on from one compartment to the other until all compartments are filled with balls. An electric conveyor motor runs the upper pulley and thus the conveyor belt. The conveyor motor is connected to an electronic control circuit including a photocell located next to the conveyor belt counting the balls passing on the belt.

### 3.2.2 Payment Methods

The Ball Dispenser can be operated with different payment methods. Each machine can run more than one payment system at the same

time, for example combining token/coin or token/coin/card.

The number of balls dispensed need not necessarily be the same for the different forms of payment (see chapter 5.2 *BA-16 Control System*).

## 4 Installation

### 4.1 Factory testing and configuration

The Ball Dispensers are always tested and configured before delivery to the customer. On this occasion all the parameters of the control system are adjusted according the customer's wishes.

Our objective when carrying out this final check is to verify that the product corresponds on all accounts to the requirements laid down by the customer when ordering and to prevent defective products from being brought onto the market.



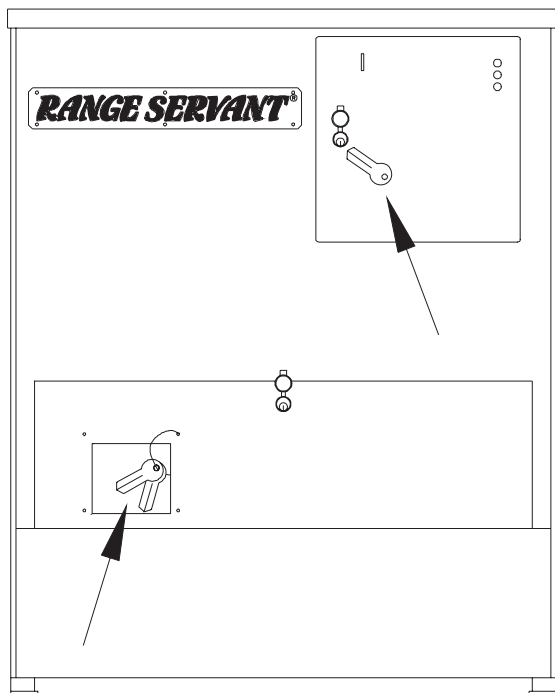
## 4.2 Installation of the Ball Dispenser

For trouble free operation, place the Ball Dispenser on a firm and level surface.

Place the machine under cover so that only the front is accessible to members of the public. If the machine is card-operated it must stand under cover for the warranty to apply.

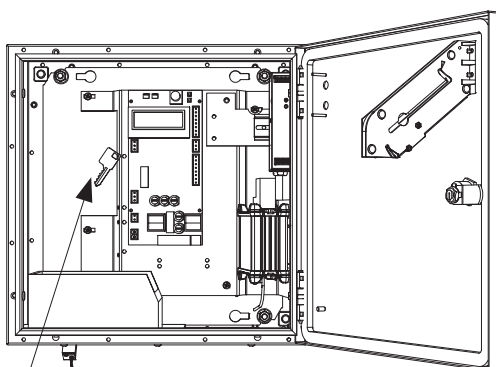
Remove the keys tied into the opening for the ball chute in the front hatch.

The keys are identical and are used for opening the electrical cabinet (see arrow).



*Troubleshooting for Ultima 8, 12, 19, 20, 45.*

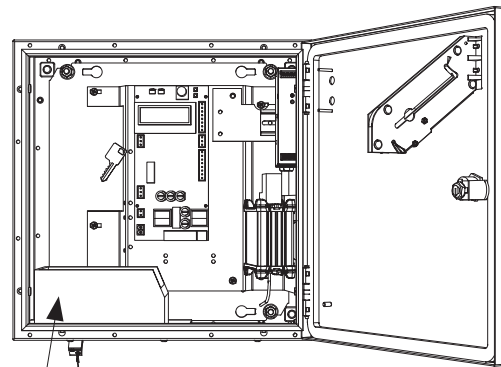
Inside the electrical cabinet there are another four keys, all identical, which fit the lid of the Ball Dispenser and the front inspection hatch.



*Location of keys in electrical cabinet*

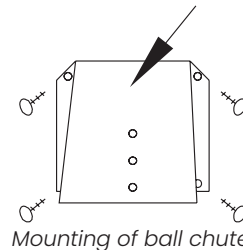
Open the lid of the Ball Dispenser and remove the package containing a plastic tray, a ball chute, the number of tokens ordered for the machine and other accessories, if any.

Place the plastic tray inside the electrical cabinet so that the tokens fall directly into the tray. If the machine is both coin and token operated, there will be two trays for sorting both forms of payment at source.



*Location of plastic collecting tray*

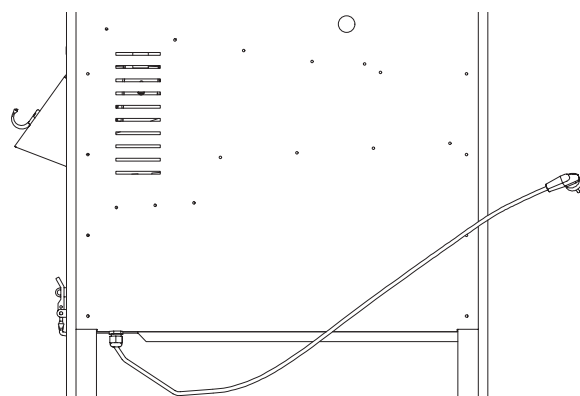
Screw the ball chute into place over the hole in the front hatch.



*Mounting of ball chute*

The electric cable is located in the bottom of the machine and is pulled out through the hole situated on the side or in the bottom of the machine.

**IMPORTANT!** Do not connect the cable until the machine is ready for operation.



*Location of the electric cables*

## 4.3 RSConnect

### 4.3.1 Description

Improve your Range Intelligence with our Smart Range Technology. A Dashboard, showing important KPIs, such as balls dispensed, payment channels and more. Add to that low ball and technical malfunction alerts to maximize efficiency and minimize downtime.

#### *Low ball level alert*

Never run out of balls again by getting an alert when the ball level is low.

#### *Statistics*

Know your range business with statistics, such as balls dispensed, payment channels, and much more.

#### *System Health*

Be ahead of the game! Keep your Range Servant equipment online and healthy 24/7. You will receive an alert if balls cannot be dispensed.

#### *API-Integration*

This optional feature will enable integration with Third Party Solutions for a greater Range Experience.

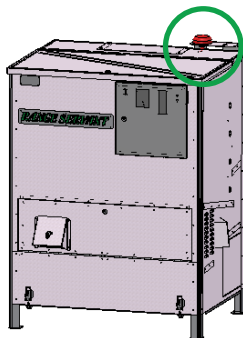
### 4.3.2 Identification

The identification of the RSConnect router is the MAC ID, located on the router.

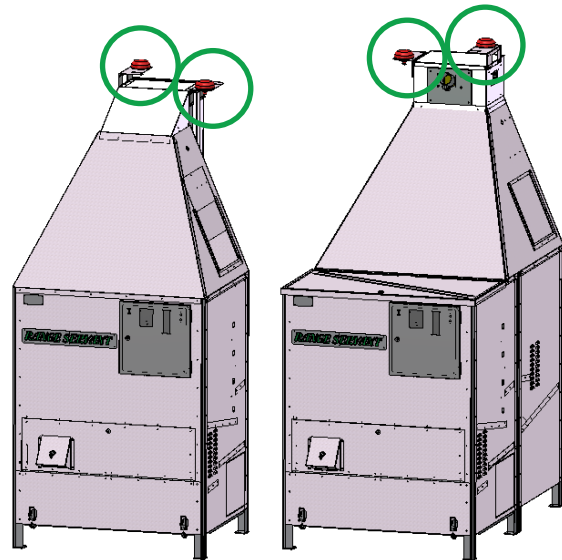
### 4.3.3 Assembly

Mount the antenna bracket. The position varies depending on which type of dispenser you have. See picture 1.

#### 1 *Approved antenna positions*



*Ultima  
Flat top models*



*Ultima  
Cone top models  
with elevator*

*Ultima  
Cone top models  
with ball receiver*

### 4.3.4 Operation

Scan the QR code located on the router. Fill in the form to start the onboarding process for RSConnect Smart Range. When the registration form has been filled in, you will be contacted by Range Servant Support team. They will guide you on how to use the RSConnect dashboard.

For further help with the system you will have access to Instruction videos.

### 4.3.5 Maintenance

Wipe the low-level photocell at least once a month. The photocell is located at the bottom of the electrical cabinet. Use a piece of cloth moistened with methylated spirits.

## 5 Operation

### 5.1 BA-16 Control System

#### 5.1.1 Introduction

BA-16 is a control system intended for use with Range Servant's Ultima and RS series of Ball Dispensers. It offers up to six separate payment inputs (channels) and allows for ball amounts to be adjusted for each channel. It also offers connection to smart payment systems as well as connection to Range Servant's RSConnect maintenance system.

### 5.1.2 Connections



**WARNING! Before you start the installation, disconnect the power from the electrical outlet!**

#### LOW VOLTAGE CONNECTIONS

##### Pay Channels

Terminal	Explanation
P1 – P6	Pay channels for payment devices. One pulse will dispense the amount of balls set in the Menu system. For a pulse to be recognised it needs to be at least 100ms and close to Ground (G).
G	Ground point. All G's on the board are of same electrical potential.
+	12V DC power supply. A maximum of 2Amps is allowed for external devices.
R	Ground with 1KOhms in series.
D	Dispense output. Goes low when dispensing. (used for red front dispense light)

##### Sensor Connector

Terminal	Explanation
G	Ground for ball counting sensor (or cradle position on RS dispensers)
IN	Pulse input from sensor
+	12V Power supply for sensor

##### Dispense Motor Connector

Terminal	Explanation
+	Dispense motor positive
-	Dispense motor negative
B	Blocking signal. 100Ohms in series to ground, active while dispensing

##### Power Supply Input

Terminal	Explanation
-	Ground from Power supply
+	12V DC from Power supply

#### MAINS VOLTAGE CONNECTIONS

**WARNING:** As the system normally connects to a wall outlet and some countries use non-polarised plugs you can NOT rely on any input/output being Neutral or Live even though its designation says so!

**ATTENTION:** Only persons with sufficient knowledge and certifications are allowed to handle any Mains voltage connections! Always consult a certified electrician before attempting any work on these connections!

##### Mains out to power supply

Terminal	Explanation
N	Mains Neutral to power supply. Controlled by Power switch and protected by fuse.
L	Mains Live to power supply. Controlled by Power switch and protected by fuse.

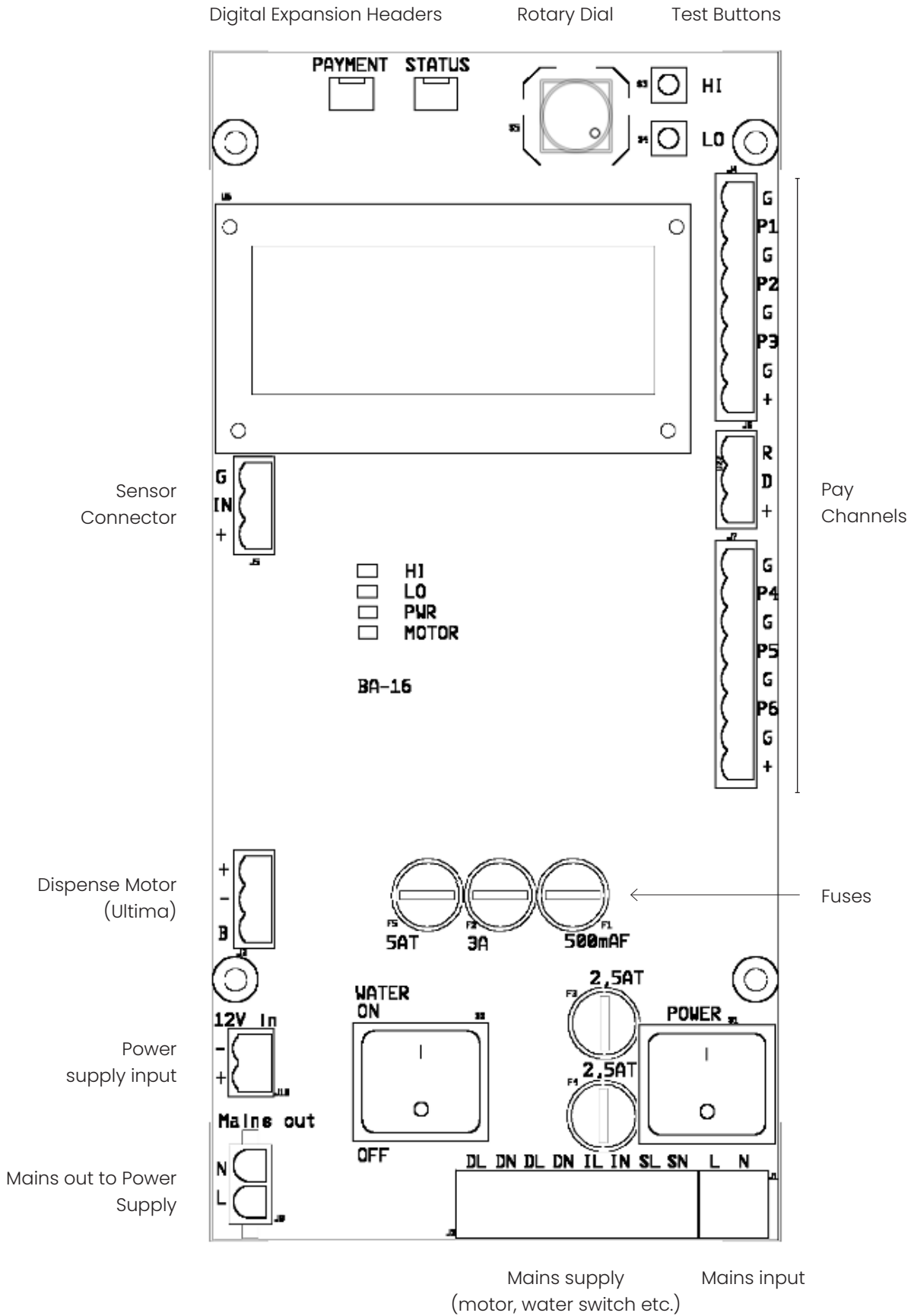
##### Mains supply (motor, water switch etc.)

Terminal	Explanation
DL	Water valve mains Live output (Controlled by "water on" switch)
DN	Water valve mains Neutral output (Controlled by "water on" switch)
DL	Dispense motor mains Live output (RS dispensers only)
DN	Dispense motor mains Neutral output (RS dispensers only)
IL	Mains Live output when NOT dispensing
IN	Mains Neutral output when NOT dispensing
SL	Mains Live output (for accessories). Controlled by Power switch and protected by fuse.
SN	Mains Neutral output (for accessories), Controlled by Power switch and protected by fuse.

##### Mains input

Terminal	Explanation
L	Mains Live input
N	Mains Neutral input

### 5.1.3 Board Overview



### 5.1.4 Menu System

The menu system is operated using the Rotary Dial. To display the menu, turn the Dial clockwise. Navigate the menu by turning the Dial clockwise or anti-clockwise. To edit a menu item 'click' the Dial by pressing it inwards towards the circuit board until it clicks. Adjustments to the value is made by turning the Dial clockwise (increase) or anti-clockwise (decrease). Once desired value is achieved click the Dial again to save the new value. The display will go back into standby after some time of inactivity.

#### MENU ITEMS

##### *Speed Lo*

This value adjusts the speed of the motor when there are five balls or less left to dispense.

This is to make sure the motor has time to stop once correct ball amount is achieved

Default value: 20

##### *Speed Hi*

This value adjusts the speed of the motor when running at full speed.

Default value: 100

##### *Pay 1*

Sets the amount of balls to dispense when a pulse is given on Pay Channel 1

##### *Pay 2*

Sets the amount of balls to dispense when a pulse is given on Pay Channel 2

##### *Pay 3*

Sets the amount of balls to dispense when a pulse is given on Pay Channel 3

##### *Pay 4*

Sets the amount of balls to dispense when a pulse is given on Pay Channel 4

##### *Pay 5*

Sets the amount of balls to dispense when a pulse is given on Pay Channel 5

##### *Pay 6*

Sets the amount of balls to dispense when a pulse is given on Pay Channel 6

### 5.1.5 Front LED's

BA16 uses two LED's to communicate its status to users.

#### *Green*

- Is lit when the dispenser is powered on.

#### *Red*

- Is lit during dispensing.
- Flashes continuously if previous dispense failed. Flashing continues until either a successful dispense has been made, or until the board is reset.

## 5.2 Adjustment of photocell

The photocell is the component detecting the balls and signalling to the control system that the correct number of balls have been dispensed. The photocell indicates by an amber LED when a ball is detected.

The photocell is adjusted as follows:

- Place a ball on the highest point of the conveyor belt. Make sure it is in line with the photocell and that the red ray of light from the photocell hits the ball at a point about 2/3 of the height of the ball.
- Move the ball sideways, while controlling that the amber and green LEDs on the photocell are lit.
- Start dispensing and check that the amber LED blinks with each detected ball.

# 6 Maintenance

## 6.1 General

Range Servant will provide accessories and original spare parts together with competent advice.

Maintenance carried out correctly minimizes defects and ensures maximum service life and reliable operation. Any malfunctions are detected at an early stage and are therefore easily corrected. Regular maintenance minimises

defects and equipment breakdown. The following maintenance instructions only refer to the most common problems and their causes.

## 6.2 Maintenance intervals and instructions

Maintenance intervals:

1. Once every month
2. Once every golf season

Maintenance intervals and instructions		1	2
<b>1</b>	<b>Machine exterior</b>		
1.1	Lubricate the eccentric lock, the lid and front hatch locks and the hinges of lid and front hatch with ordinary lubricating oil.	X	
<b>2</b>	<b>Machine interior</b>		
2.1	Lubricate the linking arms with ordinary lubricating oil.	X	
2.2	Wipe the photocell that counts the balls. The photocell is located above the conveyor belt. Use a piece of cloth moistened with pure alcohol.	X	
2.3	If chemical fertilisers are used on the driving range, we recommend that the dispenser is cleaned thoroughly once a month to prevent corrosion of the machine's internal components. Cut the power supply to the machine, open the front hatch, remove grass and other debris and rinse with clean water.	X	
2.4	Empty the machine, sort out worn or damaged balls, stones and grit etc and clean the inside with clean water. (Do not spray water directly onto the electric motor.)		X
2.5	Clean and the ball duct (located after the grid).		X
2.6	Clean and the conveyor belt.		X

### 6.3 Troubleshooting and repair

Although the operation of the machine is most reliable, problems may arise for various reasons.

**ATTENTION!**

**To reduce the time spent on troubleshooting, always start by checking that cables and connections are clean and tightened.**

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE MEASURES
The Ball Dispenser does not start.	→ The power supply is not connected.	→ Connect the machine to the power supply.
	→ The ON/OFF switch on the circuit board is not "ON"	→ Set the switch in the "ON" position.
	→ Defective fuse(s) on the circuit board.	→ Replace the fuse(s) (2x 2.5AT (ceramic), 1x 500mAF, 1x 3AF, 1x 5AT).
	→ Token contacts do not close.	→ Check that the token cable is not damaged.
The Ball Dispenser delivers too many balls.	→ The photocell is not correctly adjusted or dirty.	→ Adjust or clean the photocell according to instructions (paragraph 5.3 "Adjustment of photocell")
The Ball Dispenser delivers too few balls.	→ The conveyor belt speed is not correctly adjusted.	→ Adjust the speed according to instructions (paragraph 5.2.4 "Menu System".)

*If none of the above solves the problem, please contact our support at +46 35 10 92 40.*

### 6.4 Function test

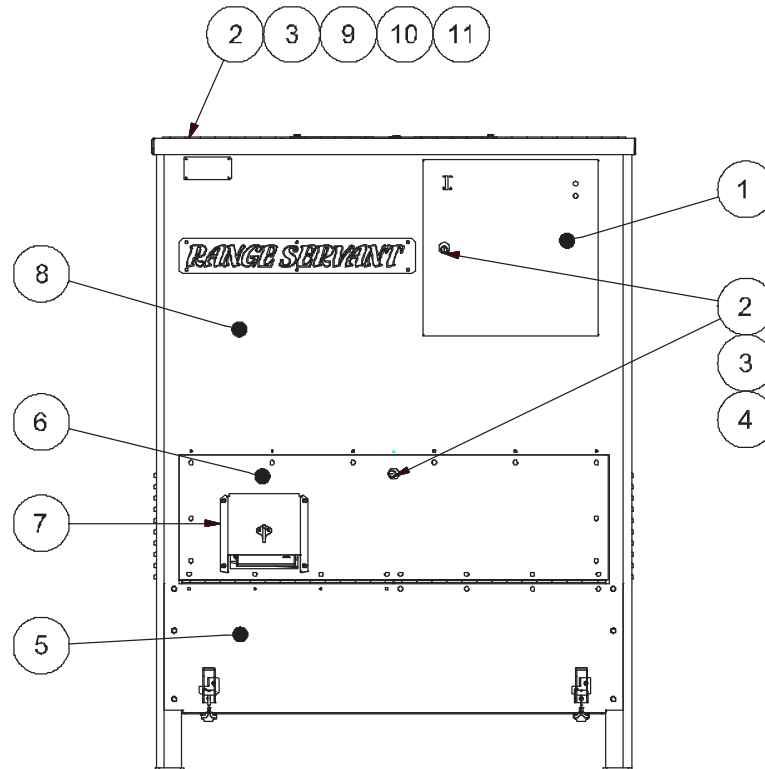
After maintenance or repair work the operation of the machine should be tested by running the machine with the front hatch open. Use a payment method and check that everything works to satisfaction.

## 7 Spare parts

In this chapter you will find detailed drawings of the Ball Dispenser showing the location of the different spare parts. The tables accompanying the drawings contain information about spare parts number and designation and the quantity of each spare part installed per machine model.

- = The alternative marked with "--" depends on the customer's choice of equipment.

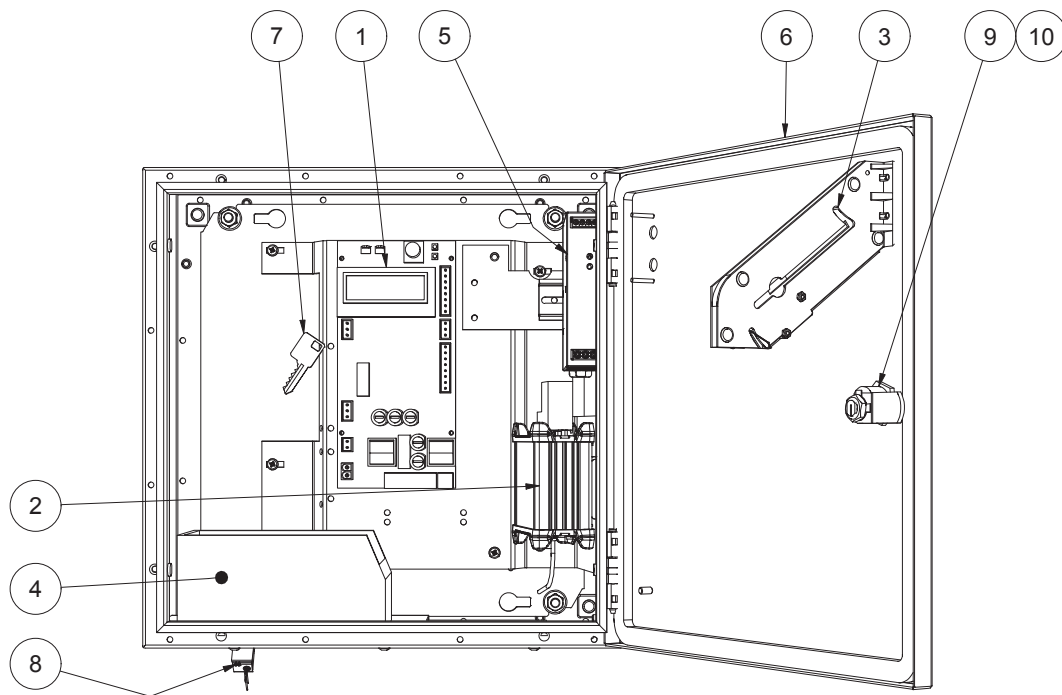
### 7.1 External



Pos	Part No.	Designation	Ultima 8	Ultima 12	Ultima 19	Ultima 20	Ultima 45
1		Electrical cabinet door	1	1	1	2	2
2	101900	Lock for electrical cabinet, front inspection hatch and lid	1	1	1	2	2
3	101950	Shackle, front hatch lock and lid	1	1	1	2	2
4	101960	Shackle, control cabinet door	1	1	1	2	2
5	DJM1505	Lower front panel	1	1	1	2	2
6	DJM1506	Front inspection hatch	1	1	1	2	2
6	DJM0046	Hinge 448 mm	1	1	1	2	2
7	102000	Ball shute without hook	1	1	1	2	2
7	DJA0000	Hook	1	1	1	2	2
8	DJM1500	Front panel	1	1	1	-	-
8	DMM1500	Front panel	-	-	-	2	2
9	106610	Front portion of lid	1	-	1	-	-
9	736610	Front portion of lid	-	-	-	-	1
10	106550	Lid hinges	1	-	1	-	2
11	106510	Rear portion of lid	1	-	-	-	-

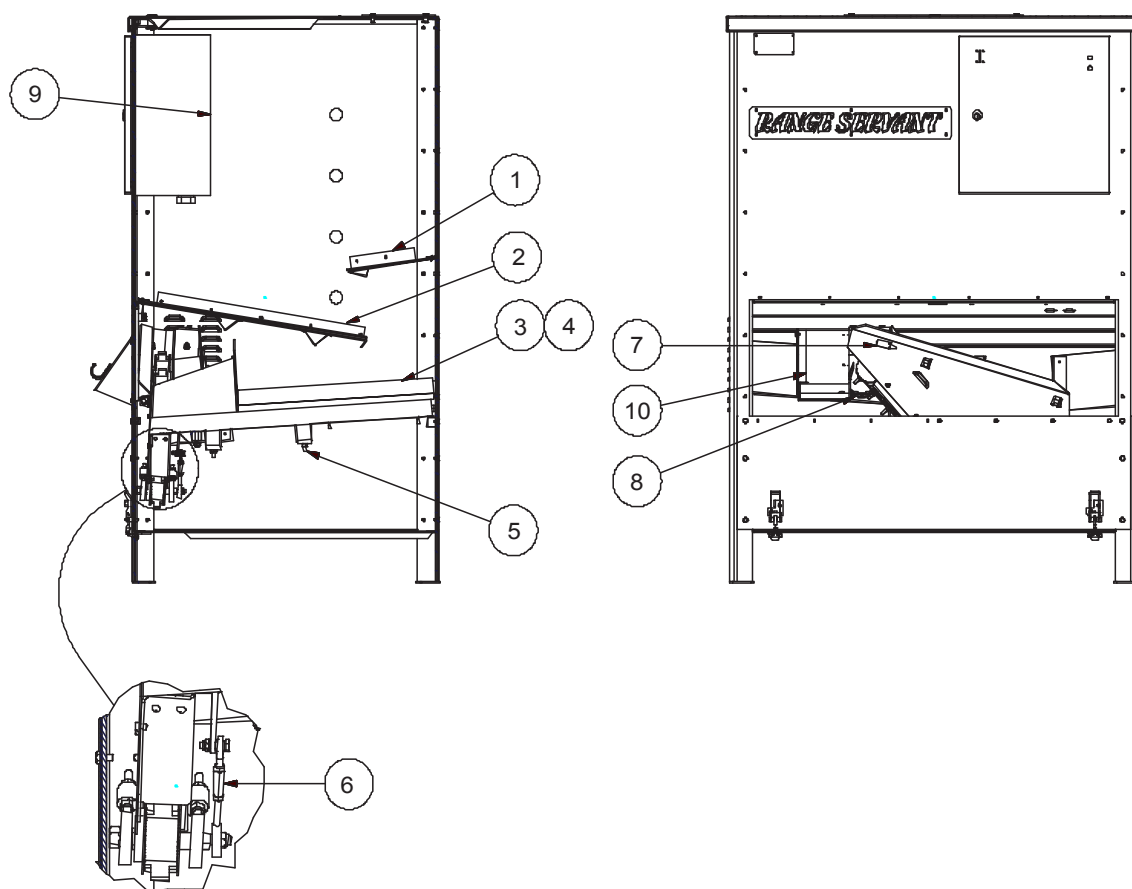


## 7.2 Electrical cabinet



Pos.	Part No.	Designation	Ultima 8/12 /19	Ultima 20/45
1	OBM0800	BA-16 Circuit Board	1	2
2	1001300	Router RSConnect	1	2
3	108600	Token acceptor	1	2
4	109410	Coin box	1	2
5	1001181	Power supply	1	2
6		Door	1	2
7	101920	Spare key	1	2
8	CCE0500	Photocell	1	2
9	101900	Lock with two keys	1	2
10	101960	Deadbolt 86, angled	1	2

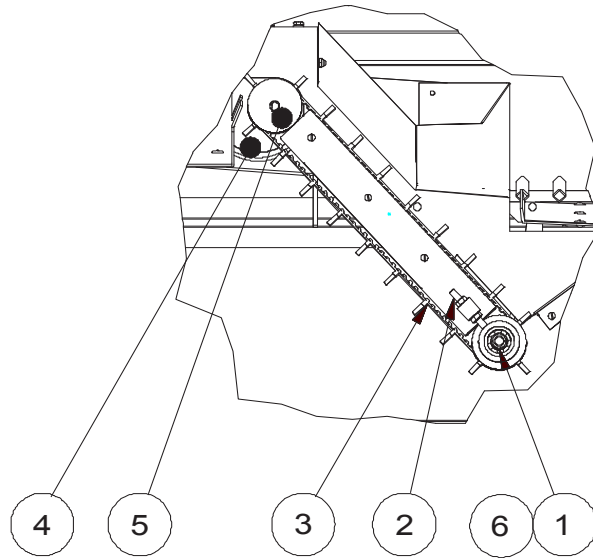
### 7.3 Internal



Cross section

Pos	Part No.	Designation	Ultima 8/12/19	Ultima 20/45
1	182600	Upper inclined plate	1	2
2	102705	Lower inside sheet	1	2
3	DJM0033	Left side plate of grid	1	2
4	DJM0034	Right side plate of grid	1	2
5	DJA0004	Shock absorber	1	2
6	DJM0057	Linking arm	1	2
7	930218	Photocell, counter	1	2
8	1000370	Motor	1	2
9	-	Electrical cabinet	1	2
10	DJM0028	Ball chute	1	2
10	DJM0082	Bottom mat, grid	1	2
-	DAM0290	Corner sheet kit	1	2

### 7.3.1 Grid



View of the grid through the open front hatch

Pos	Part No.	Designation	Ultima 8/12/19	Ultima 20/45
1	DJM0054	Axle for conveyor belt pulley	1	2
2	DJM0055	Clamp screw	2	4
3	DJA0006	Cog belt	1	2
4	1000370	Ultima motor JKPM 9-ZFG 1/50	1	2
5	DJM0048	Gear drive	1	2
6	DJM0053	Tension roller, complete	1	2

## 8 Contact

### 8.1 Range Servant AB

Skallebackavägen 11  
SE-302 41 HALMSTAD  
Sweden

Telephone: +46 (0)35 10 92 40

E-mail: [sales@rangeservant.com](mailto:sales@rangeservant.com)

### 8.2 Retailers and representatives

All the necessary information concerning the Range Servant's representative is continuously updated on our website [www.rangeservant.com](http://www.rangeservant.com)



Founded in Halmstad, Sweden in 1986, Range Servant's founder, Jordan Knez, saw a need to improve equipment for the golf industry. Using sustainability and durability as guiding principles, he combined his enthusiasm for golf and technical expertise to develop Sweden's first ball dispensers, washers, and ball pickers. In the early 90's, Range Servant expanded to the United States and developed a distributor network around the world. In 2023 we finally expanded into the UK with our own company. Range Servant handles nearly 10 billion balls annually and are considered the market leader in driving range equipment.

Range Servant produces and sells driving range equipment and solutions that manage the picking, washing, dispensing, and overall handling of golf balls. Each customer is unique, and we are always happy to assist with technical support, spare parts, installation, and project management. Range Servant offers a wide variety of accessories to round out a complete catalog of high-quality range equipment.

**Our goal is to inspire the golfer to hit more balls and to help the range owner operate a carefree and more profitable business.**

# ***RANGE SERVANT®***

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