



User Manual

AGRETO Animal Scale

23.1.2019



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1 Introduction

Thank you for choosing the AGRETO Animal Scale. You have purchased a robust weighing device for practical everyday use.

Please read this user manual carefully before installing the device and putting it into operation.

This manual reflects common parlance in the use of the term "weight" instead of "mass".

2 Scope of delivery

The AGRETO Animal Scale is supplied in three boxes. Final assembly is usually performed on-site by the customer. The standard package includes:

- all parts of the scale with built-in weighing technology
- 1 AGRETO HD1 weighing display
- this manual

3 Intended use

The AGRETO Animal Scale is designed for the weighing of pigs, sheep and other animals up to 300 kg, so long as the size of the scale is sufficient.

The scale is compliant with protection class IP68, and the AGRETO HD1 weighing display with protection class IP67. The scale can therefore also be used in stables, wet rooms and outdoors.

The AGRETO Animal Weighing Scale may only be used as a checkweigher for internal purposes. Use for legal transactions is not permitted.

4 Safety

4.1 Safety instructions for the buyer



IMPORTANT!

Ensure that anyone using the AGRETO Single Animal Weighing Scale for the first time has read and understood this manual.

4.2 Safety instructions for assembly personnel



Appropriate means must be used when transporting machine parts with load-bearing devices.



The wearing of safety shoes is mandatory for persons engaged in the assembly, disassembly or installation of the scale.



The wearing of safety gloves is mandatory for persons engaged in the assembly, disassembly or installation of the scale.



Be aware of the risk of crushing between moving parts of your appliance during assembly, disassembly and installation.



Do not store and use the scale in a potentially explosive atmosphere.



Risk of tripping on components/tools that may lie in the vicinity.

4.3 Safety instructions for machine operators



HAZARD!

The AGRETO Single Animal Weighing Scale may only be operated by persons who are familiar with the handling of the appliance.



CAUTION!

Keep the work area clean. Dirty workplaces promote accidents.



HAZARD!

Risk of injury from tripping/falling and carelessness when working with the scale.

5 Technical specifications

5.1 Loadcells

- high-resolution shearbeam loadcells, 3 mV/V, 350 ohm
- nominal load: 500 kg
- safe overload 120 %, breaking load 150 %
- accuracy: +/- 0.02 %
- waterproof in accordance with protection class IP68
- operating temperature: -35 to +65 degrees Celsius
- temperature compensation: -10 to +40 degrees Celsius

6 Assembly of scale

The components of the scale are delivered in three boxes. The appliance can be assembled by one person.

Please follow the assembly instructions below.

6.1 Assembly of base frame

| required mounting material | size | pieces |
|----------------------------|-------|--------|
| hex bolt | M8x20 | 4 |
| washer | M8 | 4 |
| spring washer | M8 | 4 |



Lay the frame part with the wheel fastenings sideways on a flat surface. Be careful not to damage the attached cables.

The wheel mounts on the frame must face outwards.

Add the floor panel. The edging of the floor panel must point in the direction of the feet.

Screw the front side of the floor panel to the frame part with 2 screws from the inside to the outside.

Repeat the process with the frame part with the handles on the other side of the floor panel. The handles must point outwards. The side with the wheels is referred to as "front" in this manual, the side with the handles as "rear". The directions left and right are seen from the handle side.

Then place the balance on the floor with the feet.

6.2 Mounting of side panels

| required mounting material | size | pieces |
|----------------------------|-------|--------|
| hex bolt | M8x20 | 16 |
| washer | M8 | 16 |
| lock washer | M8 | 16 |

The lower two side panels (1 x right, 1 x left) are identical. Each has 4 holes at the top and 5 holes at the bottom. Place the side panels with the smooth surface facing inwards and secure them with only two screws each at the front and rear. Don't tighten the screws yet.



The upper two side panels are different. The left side panel has three holes on top, the right side two holes. Place the upper side panels also with the smooth surface facing inwards, while paying attention to the cables. Secure the panels with two screws each at the front and back, too. Don't tighten the screws yet.



6.3 Screwing together the side panels

| required mounting material | size | pieces |
|----------------------------|-------|--------|
| hex bolt | M8x20 | 8 |
| washer | M8 | 16 |
| lock washer | M8 | 8 |
| nut | M8 | 8 |



Mount the 4 screws per side to attach the lower side panels to the upper ones.

6.4 Mounting the strengthening parts

| required mounting material | size | pieces |
|----------------------------|-------|--------|
| hex bolt | M8x20 | 10 |
| washer | M8 | 14 |
| lock washer | M8 | 10 |
| nut | M8 | 10 |



Turn the scale over so that the feet are facing up. Pay attention to the cables.

Screw the side panels to the floor panel. In case of the middle 3 screws, one reinforcement angle is screwed and no second washer is used.

Now tighten all screws.

6.5 Mounting the doors

| required mounting material | size | pieces |
|----------------------------|--------|--------|
| fillister head screw | M10x25 | 6 |
| washer | M10 | 18-22 |
| stop nut | M10 | 6 |

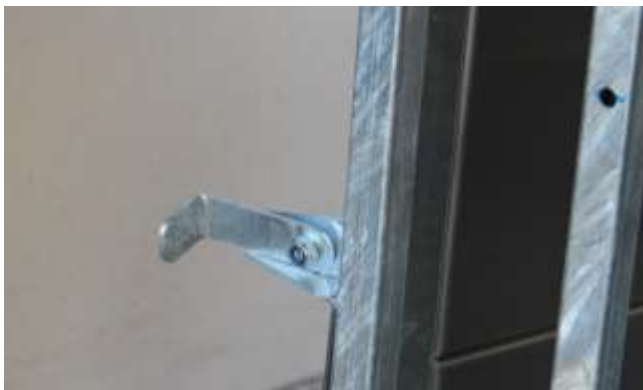
The door with the two holes for remote control and the castor is mounted at the front, and the door without additional holes at the rear.



Mount the doors with the notch at the door stop pointing downwards.

One disc each is to be installed between the fixing bracket and the doors. Close the doors to test them. If a door needs to be positioned higher, an extra disc can be placed between them.

Tighten the stop nuts only enough to ensure that the doors can still be moved easily.



Mount the two door latches as shown. One disc is to be mounted between the stop and the latch. At the rear door, tighten the stop nuts only enough to ensure that the door latches can still be moved easily.

The front door is usually remote controlled, and kept closed due to the construction of the remote control. The bolt can here also be fixed in the open position.

6.6 Mounting the wheels

| required mounting material | size | pieces |
|----------------------------|-------|--------|
| fillister head screw | M8x60 | 2 |
| washer | M8 | 6 |
| spring washer | M8 | 2 |
| nut | M8 | 2 |



Mount the two wheels at the front of the scale. One disc each is to be installed between the wheel and the fastening latch. The wheels have a mounted inner socket, and the screws can therefore be tightened.

6.7 Mounting the castor

| required mounting material | size | pieces |
|----------------------------|--------|--------|
| fillister head screw | M10x50 | 1 |
| washer | M10 | 1 |
| stop nut | M10 | 1 |



Mount the castor at the front door, as shown.

6.8 Mounting the door lever

| required mounting material | size | pieces |
|----------------------------|--------|--------|
| hex bolt | M8x20 | 2 |
| washer | M8 | 5 |
| spring washer | M8 | 3 |
| nut | M8 | 3 |
| fillister head screw | M10x25 | 1 |
| washer | M10 | 1 |
| stop nut | M10 | 1 |
| hex bolt | M12x25 | 1 |



Attach the mounting bracket on the left-hand side of the scale with two M8 screws. The standing component must point inward.



Attach the lever to the outside of the mounting bracket. The short part of the lever must face inward. The rounded head screw must point from inside to outside.



Mount the ball outside on the lever.



Attach the rubber buffer on the left-hand side panel, as shown.

6.9 Mounting the door operating rod

| required mounting material | size | pieces |
|----------------------------|------|--------|
| ball joint | M10 | 2 |
| washer | M10 | 1 |
| spring washer | M10 | 1 |

Screw a ball joint to the operating rod on both sides.



Fasten the rod and ball joint in the middle hole on the front door.



Fasten the rod with the second ball joint into the hole on the door lever.

Open and close the front door using the lever to test it. When the door is closed, the door lever must be able to move over the dead centre and rest on the rubber buffer with a slight tension.

If necessary, you can slightly remove one of the ball joints from the bar.

6.10 Mounting the display bracket

| required mounting material | size | pieces |
|----------------------------|-------|--------|
| hex bolt | M8x20 | 4 |
| washer | M8 | 8 |
| spring washer | M8 | 2 |
| nut | M8 | 2 |
| stop nut | M8 | 2 |



Attach the mounting bracket to the right side of the scale.



Attach the mounting bracket for the display as shown. In the normal state the holding bracket protrudes outwards and can be folded inwards.

Tighten the stop nuts only enough to ensure that the bracket can be turned.

6.11 Mounting the weighing display

| required mounting material | size | pieces |
|----------------------------|--------|--------|
| screw connection | 1 inch | 1 |

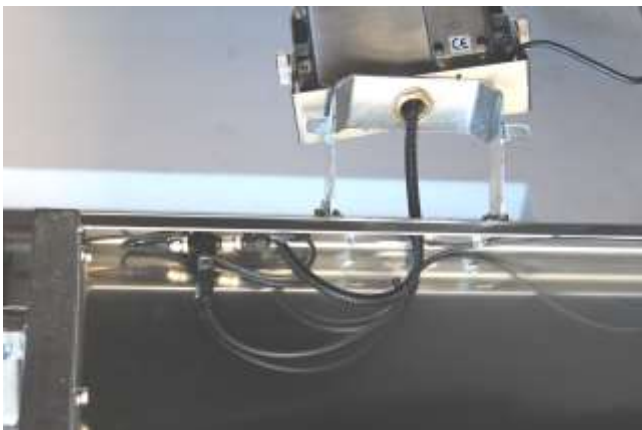


Connect the bracket of the display to the retaining bracket on the scale using the screw connection.

Rotate the weighing display in the desired direction and tighten the screw connection.

6.12 Connecting the cabling

| Required mounting material | size | pieces |
|----------------------------|------|--------|
| cable tie | | |
| cable tie socket | | |



Thread the weighing signal cable of the indicator through the screw connection and down through the mounting bracket and connect it to the distributor. Attach the other two weighing signals to the distributor too.

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Thread one cable connector each through the latch of the self-adhesive cable brackets.

Glue the brackets to the underside of the side panel and attach the cables. Use the additional cable connectors to attach the cables and the distributor.

7 Troubleshooting

To determine the properly function of the scale, place a weight first on each corner, and then in the centre of the scale. The weight of one person will probably sufficient for a rough function test. For an accuracy check, a test weight with at least 20 % of the scale's nominal load should be used.

Should significant deviations occur, this can have the following causes:

- One or more weighing feet are not standing on the ground, and the scale may even tilt. -> Adjust the height of the weighing feet using the levelling screws.
- The scale is placed with one of its sides against a wall or other object. -> Set up the scale so that no part of the construction is in contact with any other object.
- The scale construction is in contact with the ground, possibly due to dirtying. -> Ensure that the entire scale construction is in contact with the floor only through the weighing feet.
- One or more cables are damaged. -> Find the corner at which an incorrect weight is displayed and check the relevant cable. In the case of damage to a cable, the affected cable, including the loadcell, must be replaced.
- If all of the above are excluded, please contact the manufacturer.

8 Warranty

In addition to the statutory warranty, the following warranty provisions apply to the AGRETO animal scale:

- AGRETO electronics GmbH guarantees the function of and shall repair or replace all parts which show material or manufacturing damage within the warranty period.
- Warranty service is provided only by AGRETO electronics GmbH directly.
- The decision on the existence of a warranty claim is the exclusive responsibility of AGRETO electronics GmbH.
- The warranty period begins with the date of the first invoice to an end customer and ends five years after this date.
- The prerequisite for warranty service is the presentation of the original invoice and compliance with all points of this manual.
- Signs of usage, normal wear and tear and damage caused by improper use, negligence and accidents are excluded from warranty service.
- Any transport costs incurred during the processing of a warranty claim go to the buyer's expense.

9 Disposal



Ensure that the disposal of the product or its components as part of final decommissioning is environmentally sound and that individual types of material have been separated (metal to scrap metal, plastic to plastic waste, etc. - do not dispose of with household waste!)

For detailed information see Directive 2002/96/EC

10 Legal Notice

All information, specifications and illustrations are based on the product state as of 2019, subject to technical changes or design modifications.

All information contained in this manual is given without any guarantee. The liability of the author is excluded.

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