

Installation Manual

RBS H SE
Hanging
Bird
Scales



RBS 1H/2H/3H /4H SE

Bird Scales

Ag/MIS/ImGb-2874-01/23 Rev 1.3

116901



RBS 1H, 2H, 3H, 4H SE

Installation Manual

Rev 1.3, 4/2023

Software Version: N/A

This manual for use and maintenance is an integral part of the apparatus together with the attached technical documentation.

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Munters reserves the right to effect modifications to the apparatus in accordance with technical and legal developments.

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1 Introduction

1.1 Disclaimer

Munters reserves the right to make alterations to specifications, quantities, dimensions etc. for production or other reasons, subsequent to publication. The information contained herein has been prepared by qualified experts within Munters. While we believe the information is accurate and complete, we make no warranty or representation for any particular purposes. The information is offered in good faith and with the understanding that any use of the units or accessories in breach of the directions and warnings in this document is at the sole discretion and risk of the user.

1.2 Introduction

Congratulations on your excellent choice of purchasing an RBS-H SE!

In order to realize the full benefit from this product it is important that it is installed, commissioned and operated correctly. Before installation or using the device, this manual should be studied carefully. It is also recommended that it is kept safely for future reference. The manual is intended as a reference for installation, commissioning and day-to-day operation of the Munters equipment.

1.3 Notes

Date of release: May 2021

Munters cannot guarantee to inform users about the changes or to distribute new manuals to them.

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2 Introduction to RBS H SE

The RBS Hanging Bird Scale SE support the following controllers.

- RBS-1H SE: AC-2000 SE or AC-2000 3G

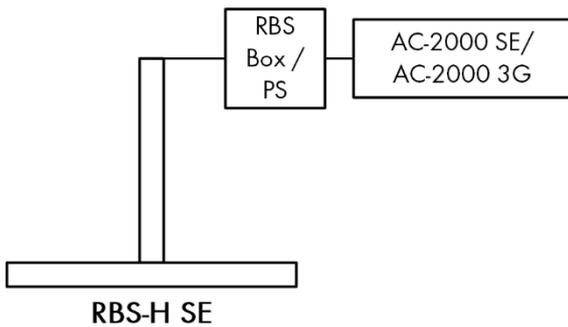


Figure 1: RBS-1H SE Block Diagram

- RBS-2H SE: RSC-2 SE

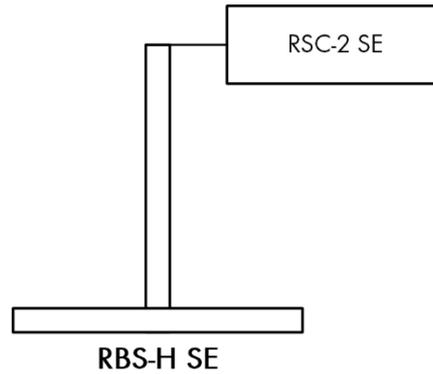


Figure 2: RBS-2H SE Block Diagram

- RBS-3H SE: Platinum, Platinum Pro, Trio, or RSU-2

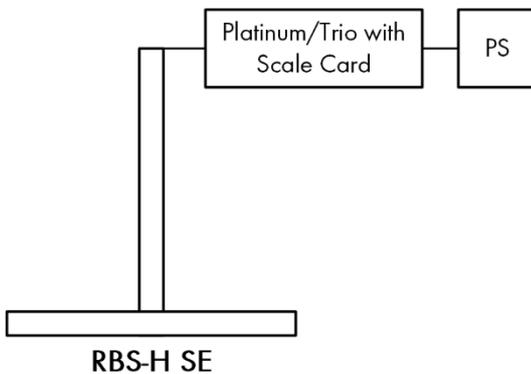


Figure 3: RBS-3H SE Block Diagram

- RBS-4H SE: AC-2000 Plus

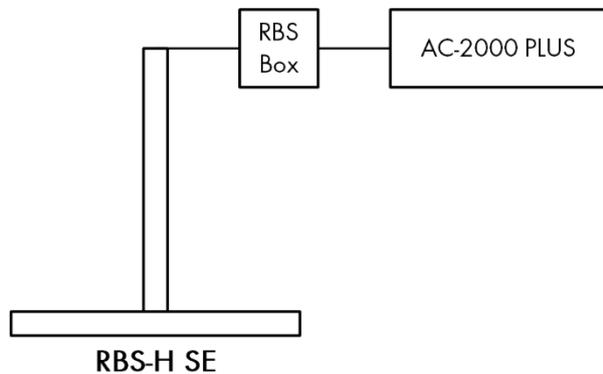
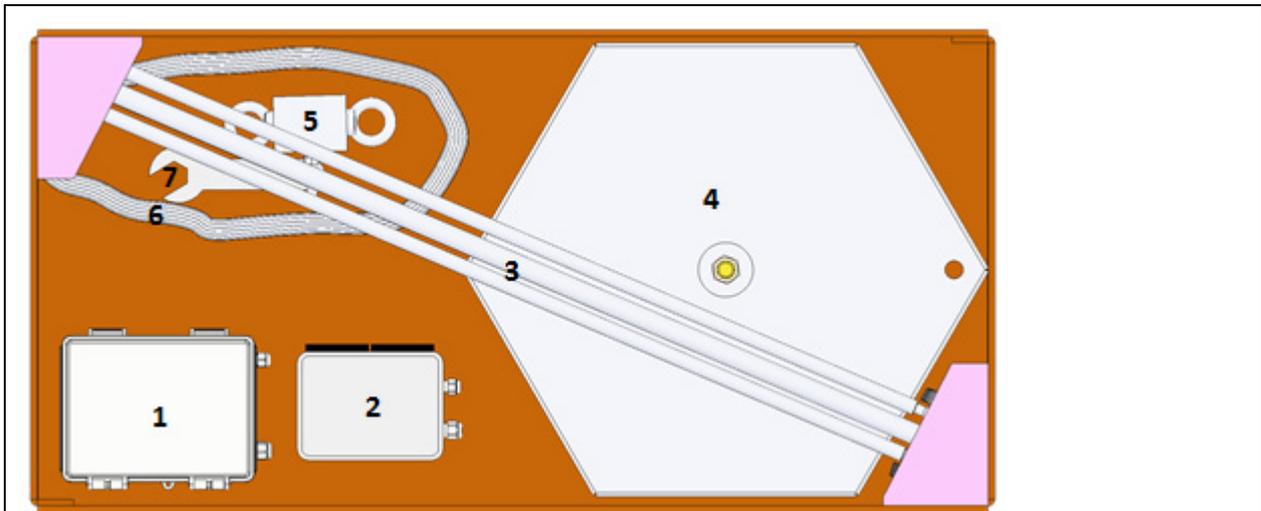


Figure 4: RBS-4H SE Block Diagram

3 Assembling the RBS H SE

- What Comes in the Box?
- Assembling the Unit

3.1 What Comes in the Box?

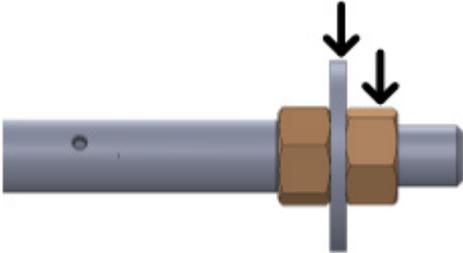


1	RSC-2 SE (option)	Includes documentation
2	RBS Box (option)	
3	Rods (3)	
	• Upper rod	
	• Middle rod	
	• Base rod	
4	Base, square plate, nuts	
5	Load cell	
6	Cable	
7	¾ Wrench	
	Additional nuts	

Documentation is provided for each component.

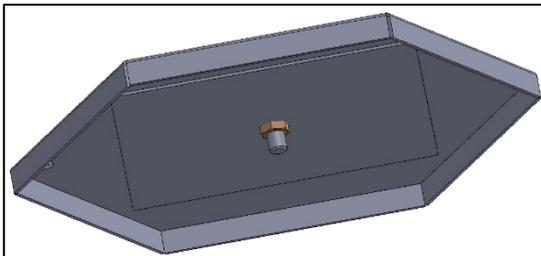
3.2 Assembling the Unit

1. Remove all components from the box.
2. Remove the bottom nut and the spring washer from the base rod.
Retain these pieces.



NOTE Do not attempt to unscrew the top nut!

3. Unscrew the bolt holding the base and square plate together.

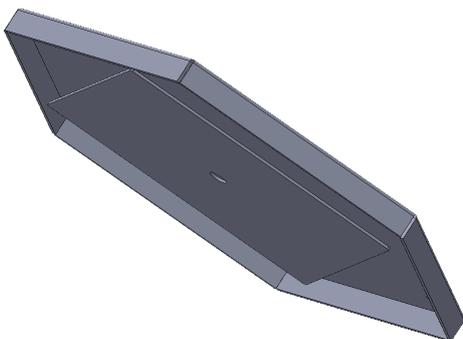


NOTE There is no need for the retaining bolt or nut but keep the washer.

4. Place the washer on the base rod.

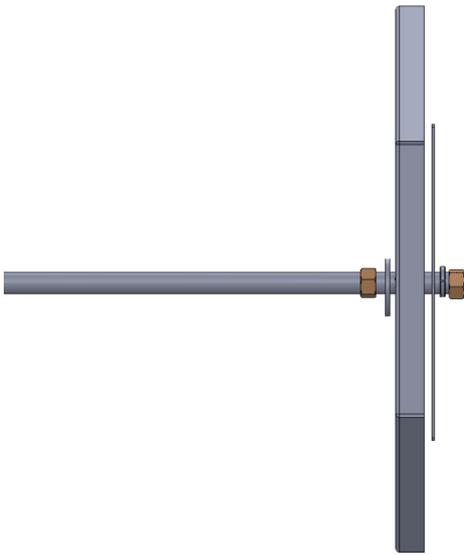


5. Put the square plate back in place, under the base, with the holes aligned.



6. Place the base rod through the base hole:

- a. put the spring washer on the rod
- b. secure the rod with a nut.



7. Screw the middle rod into the hook rod.



8. On the base rod, open the stoppers.

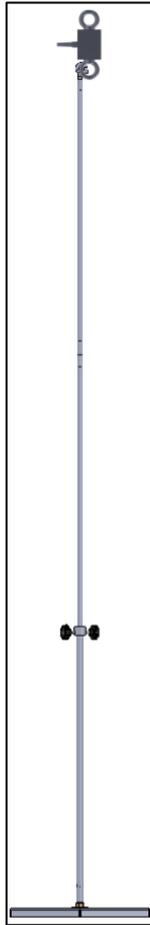


9. Place the two assembled tubes into the base rod; adjust to the required height and tighten the stoppers.



CAUTION Attach a lock screw or similar device to ensure that the stoppers remain locked.

10. Hang the assembled unit on the load cell.



11. Connect the cable to the RSC-2SE, RBS Box, or controller.

4 RBS-1H SE Wiring

These controllers support up to two (2) RBS-1H SE scales. Refer to the manual for calibration instructions. Wire the:

- RBS-1H SE to an RBS-1H box.
- RBS-1H box to an AC-2000 SE or AC-2000 3G Controller.

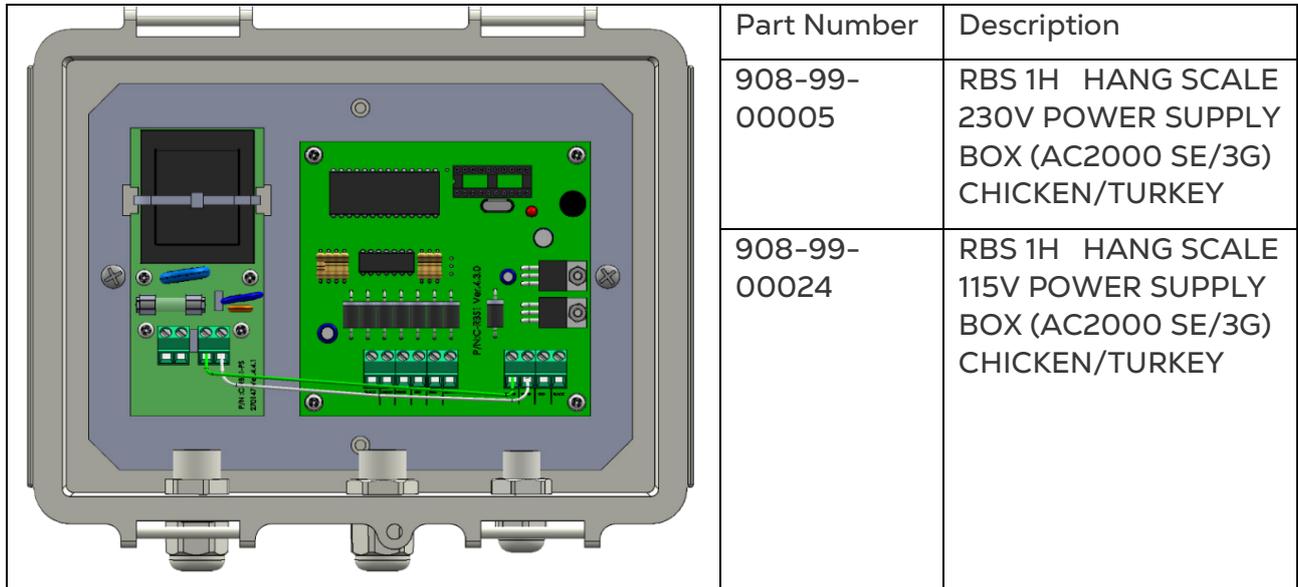


Figure 5: RBS-1H Box

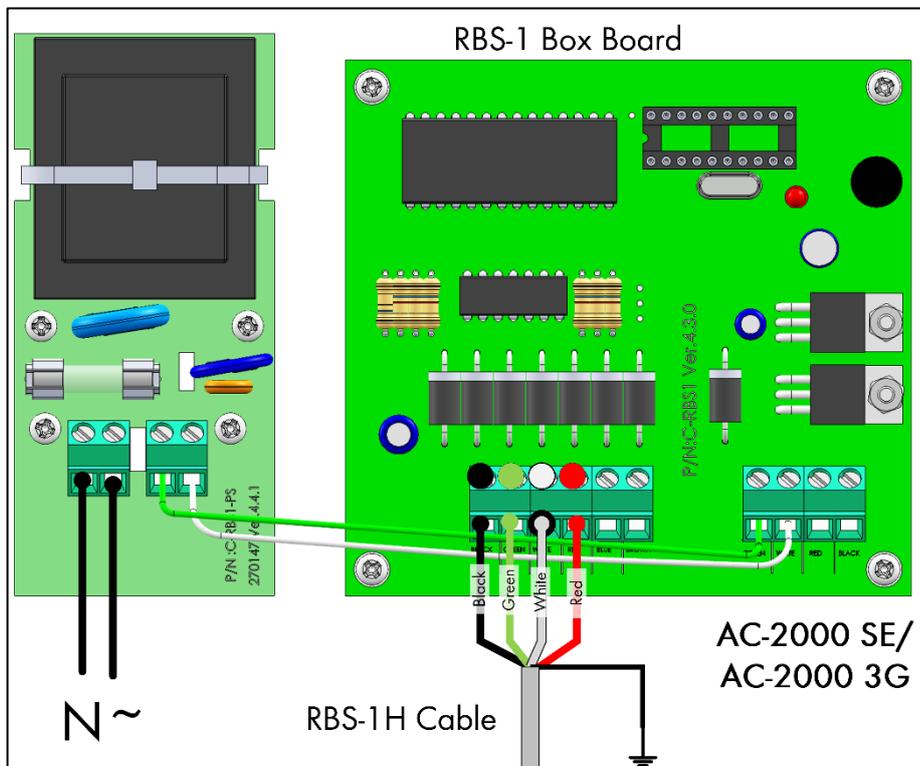


Figure 6: RBS-1H Box Wiring

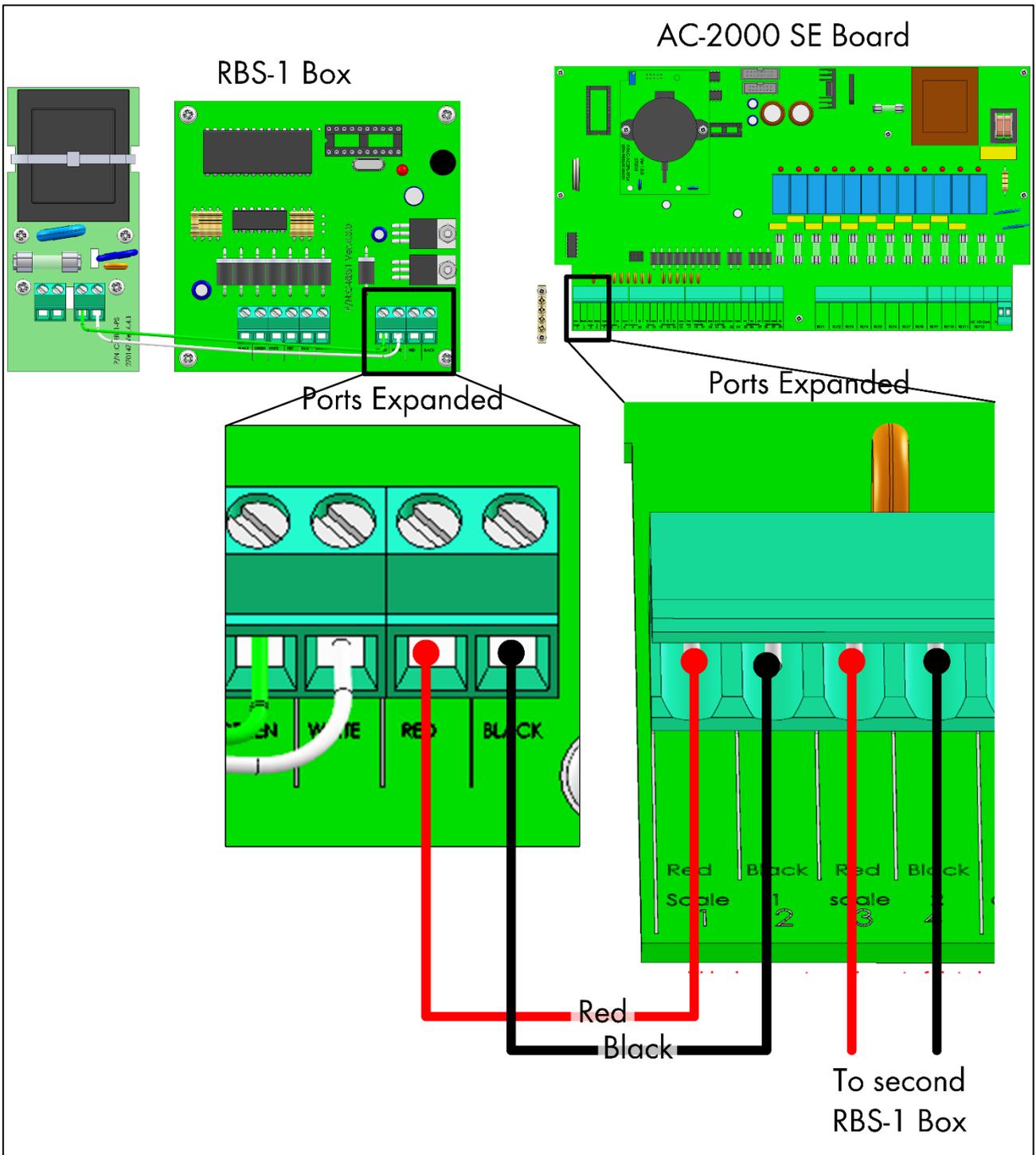


Figure 7: AC-2000 SE – RBS-1H SE Wiring

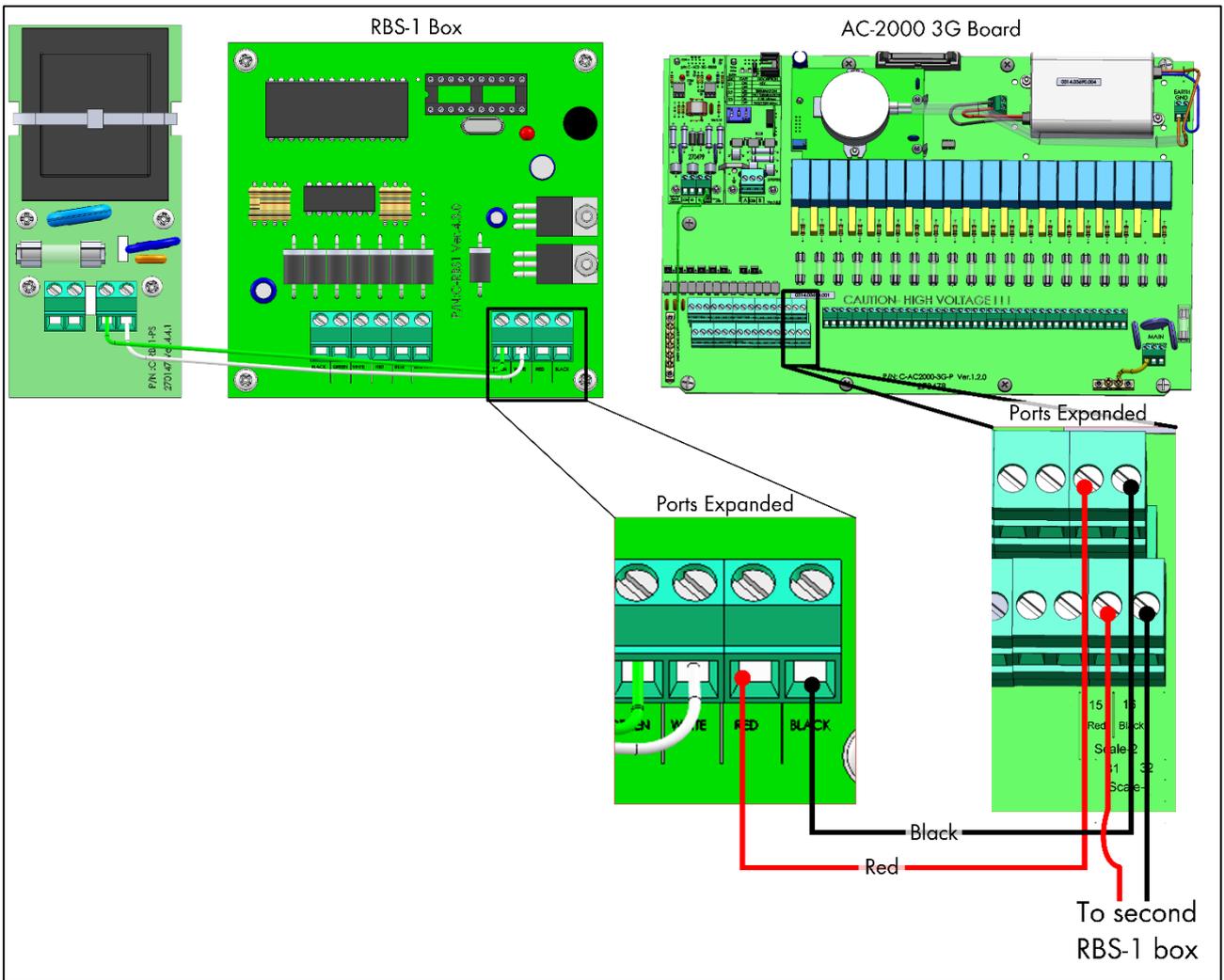


Figure 8: AC-2000 3G – RBS-1H SE Wiring

CAUTION Ground the RBS-1H SE!

5 RBS-2H SE Wiring

RBS-2H SE supports the RSC-2 Scale Center. Insert the RBS cables into the relevant RSC ports.

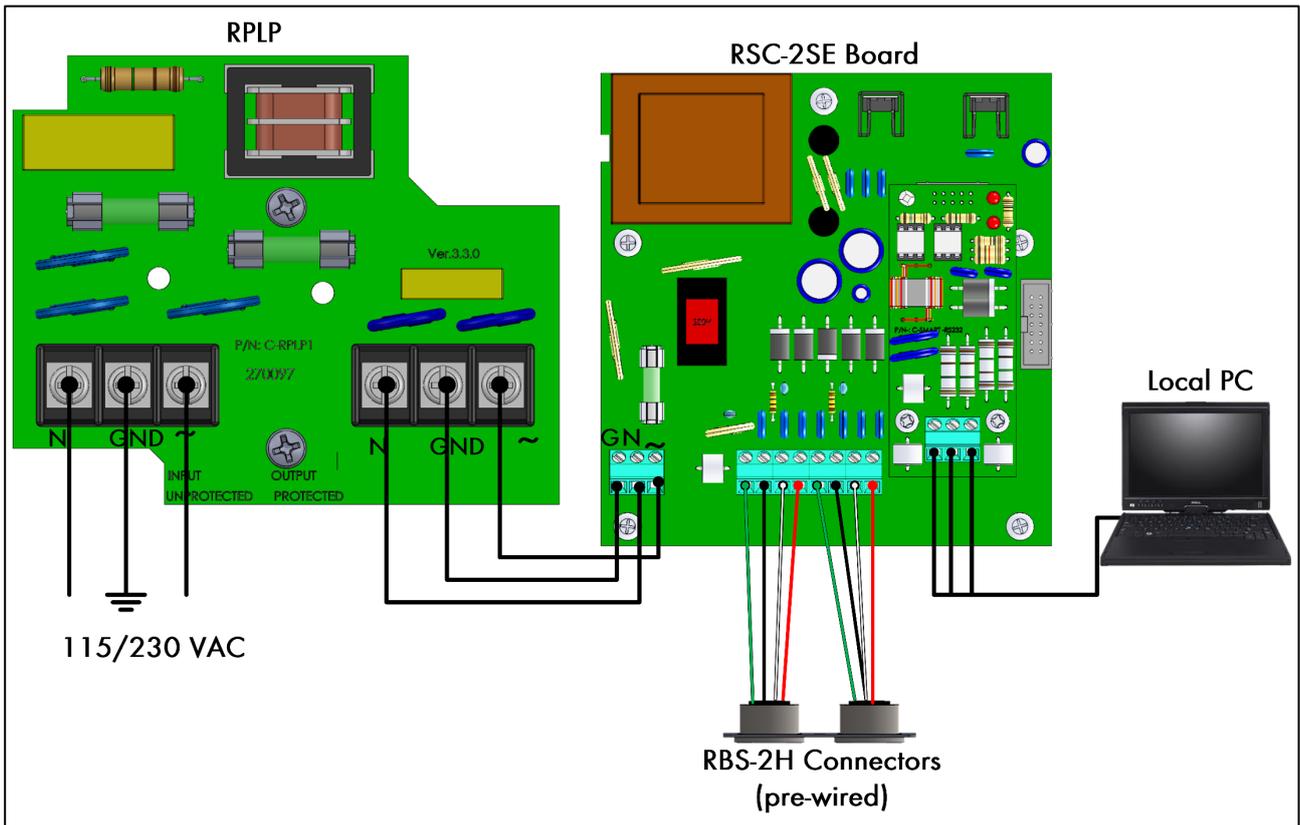


Figure 9: RPLP – RBS-2H Wiring

Refer to the relevant RPLP manual for technical details.

6 RBS-3H SE Wiring and Calibration

RBS-3H SE supports the Platinum (Figure 10), Platinum Pro (Figure 11), Trio/Echo 2.0 (Figure 12), or RSU (Figure 13) units.

6.1 Wiring Diagrams

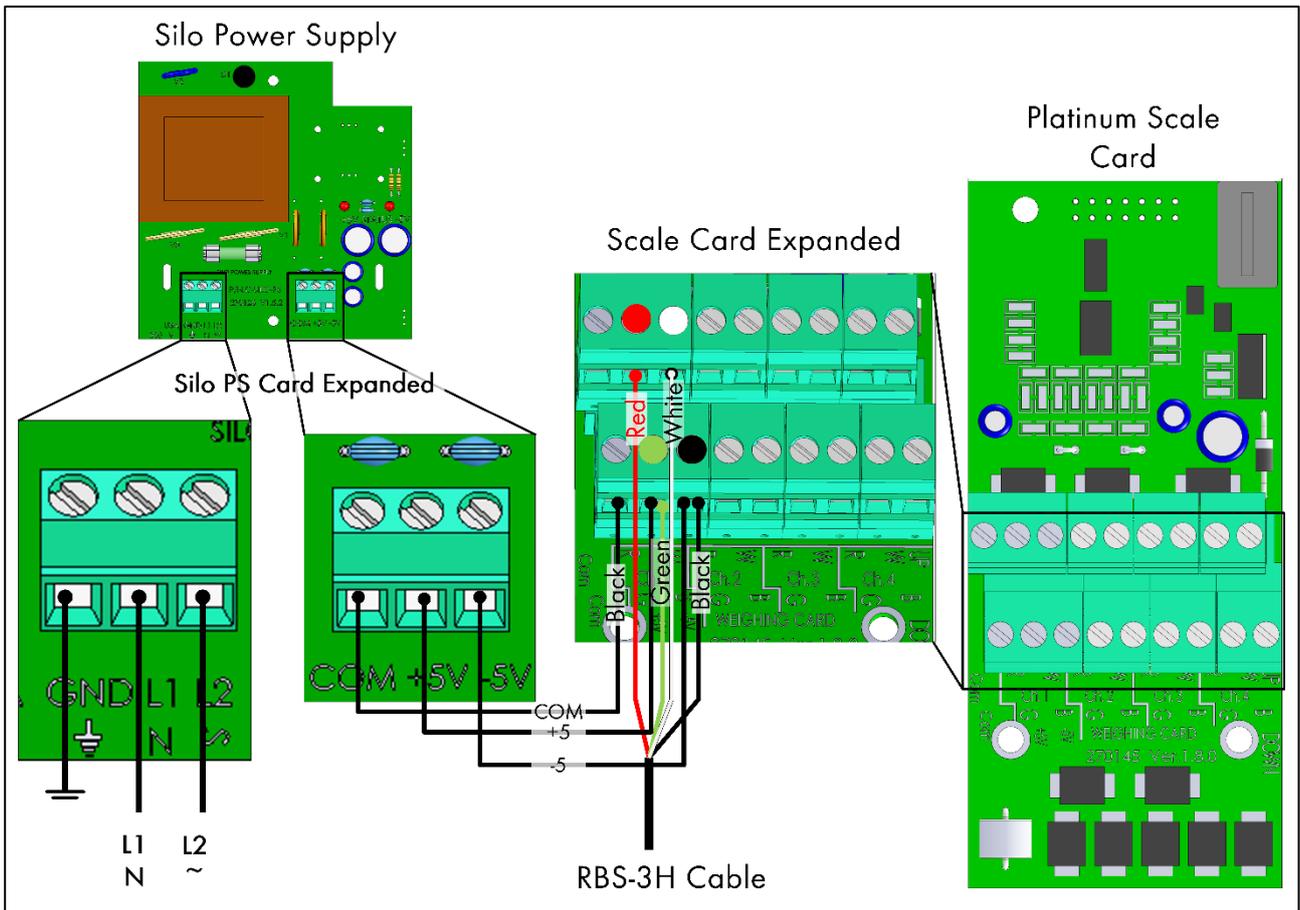


Figure 10: Platinum- RBS-3H SE Wiring

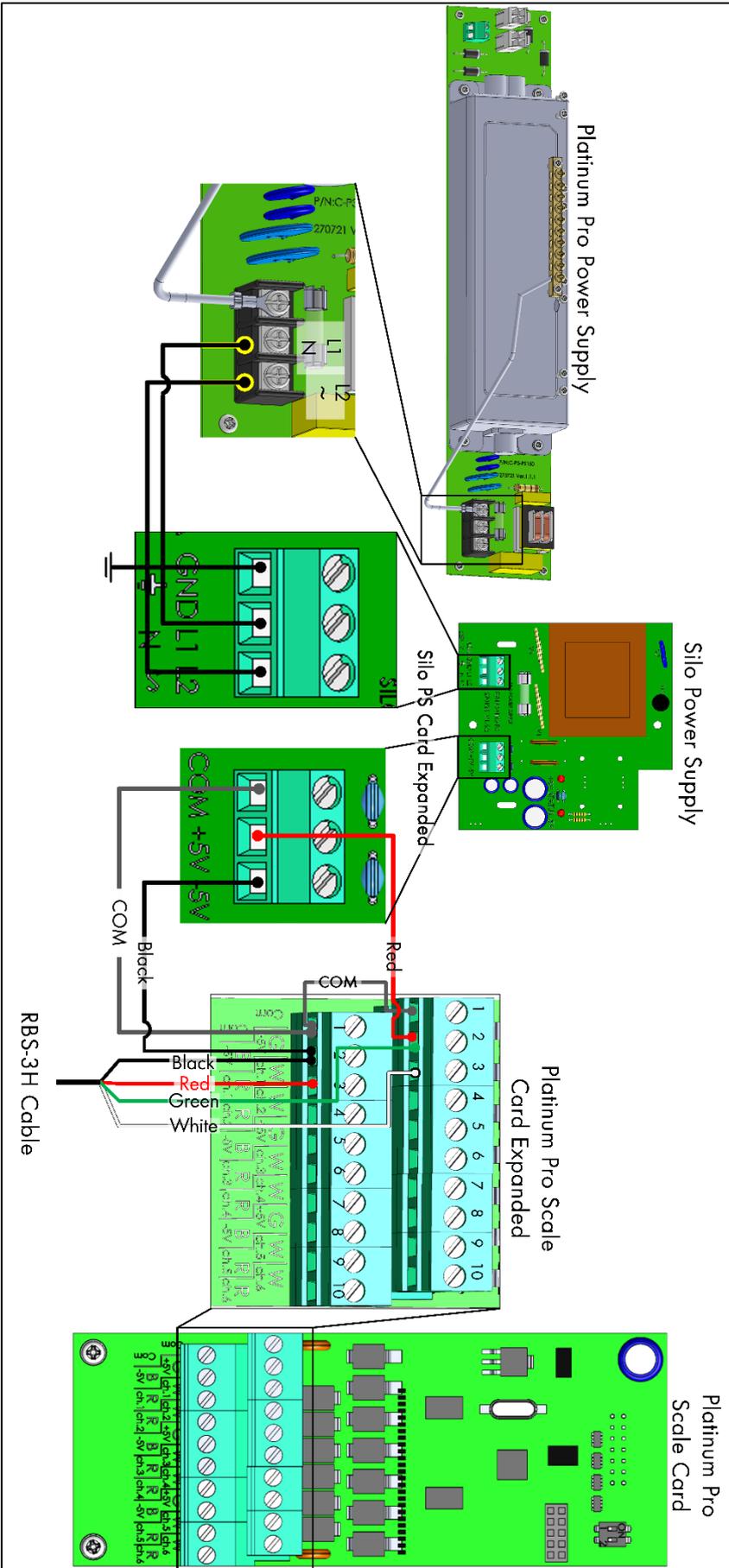


Figure 11: Platinum Pro – RBS-3H SE Wiring

6.2 Scale Calibration

- Platinum/Platinum Pro Scale Calibration
- Trio Scale Calibration

6.2.1 PLATINUM/PLATINUM PRO SCALE CALIBRATION

The scale calibration is an easy process and will be illustrated in the following steps:

SCALE CALIBRATION			
Channel-Scale		Factor Offset	
1	Feed/Silo-1	0.000	0
2	Bird-2	0	0
3	None	0	0
4	None	0	0

CHANNEL 1	
Press ENTER to Calibrate or RIGHT ARROW to change Factor or Offset	

1. The scale calibration table has 2 columns: channel-scale Factor and offset. The scale column is automatically filled according to the setup in the installation menu. If for example you need to calibrate Silo-1, place the cursor on line number one and press Enter.

2. The bottom part of the table will change to the following:

CALIBRATION PROCES CHANNEL 1	
Press ENTER for Tare Registration	

3. Make sure the silo is empty and steady and press Enter. The system will perform a check and its process will be illustrated in the following table:

CALIBRATION PROCES CHANNEL 1	
	30%

4. After the process will be finished the next table will appear:

CALIBRATION PROCES CHANNEL 1	
Place a known weight or start filling And press ENTER	

5. Use a known weight and enter its weight in Kg or in Lb or if you are using a truck, start filling the silo and press Enter.

The writing will change to the following:

CALIBRATION PROCES CHANNEL 1	
At the End, Enter the Filling weight	

1

- When the truck finishes the loading, disconnect it from the silo and enter the feed weight. If you are using a known weight enter its quantity.
- If you enter the weight in Lb than the scale factor will be in Lb and all the weights will be in Lb. If you enter the weight in Kg than scale factor will be in Kg and all the weights will be in Kg.

6. The system will perform a check and its process will be illustrated in the following table:

CALIBRATION PROCES CHANNEL 1	
	30%

7. If the calibration is successful a Good Calibration message will appear:

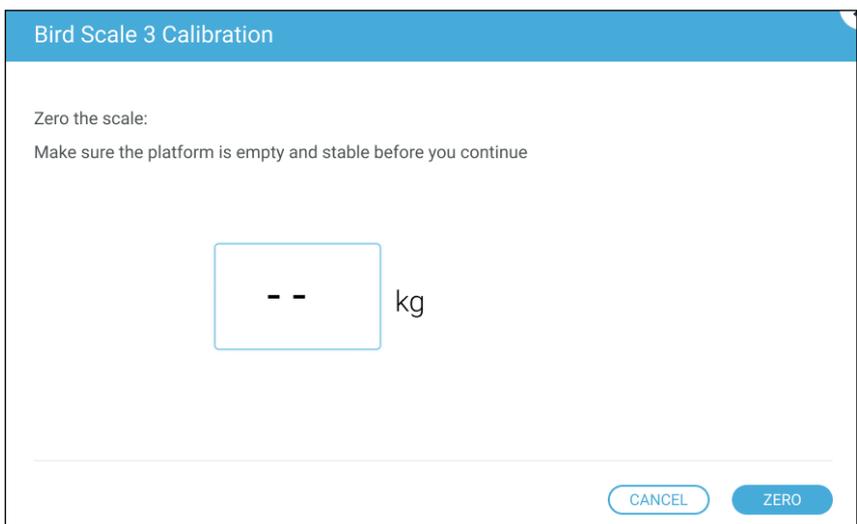
CALIBRATION PROCES CHANNEL 1	
GOOD CALIBRATION. Factor is 104.5 Press ENTER. If you are using a weight remove it before pressing ENTER	

The controller will identify if you are using a truck or a known weight at this check. If it is a truck, the weight will remain on the silo and if not the weight will be tare again.

8. Press MENU to Exit.

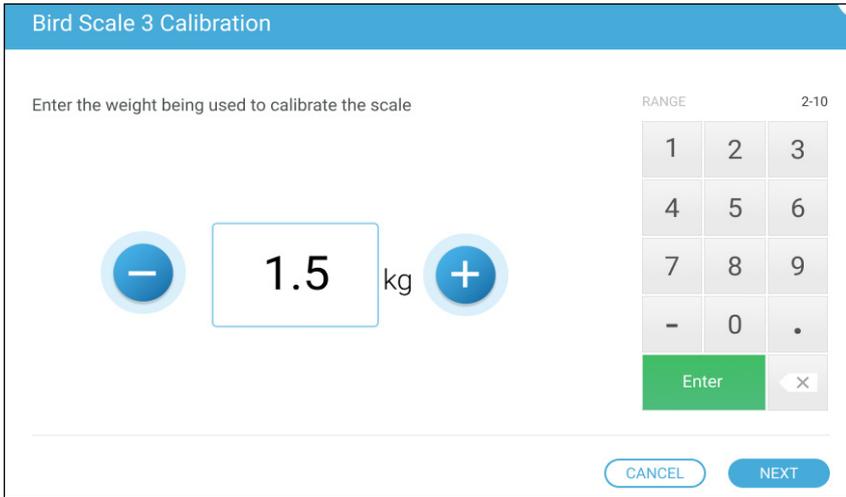
6.2.2 TRIO SCALE CALIBRATION

1. Click on a bird scale icon and click **Calibrate**. The following screen appears:

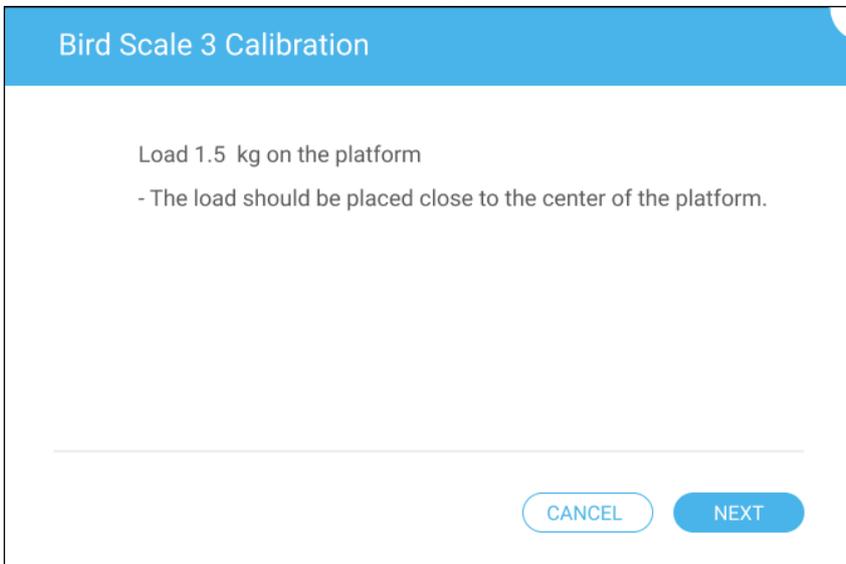


2. Remove everything from the scale and press Zero. In the following screen enter the weight being used to calibrate the scale; minimum is 1.0 kilogram. Click Next.

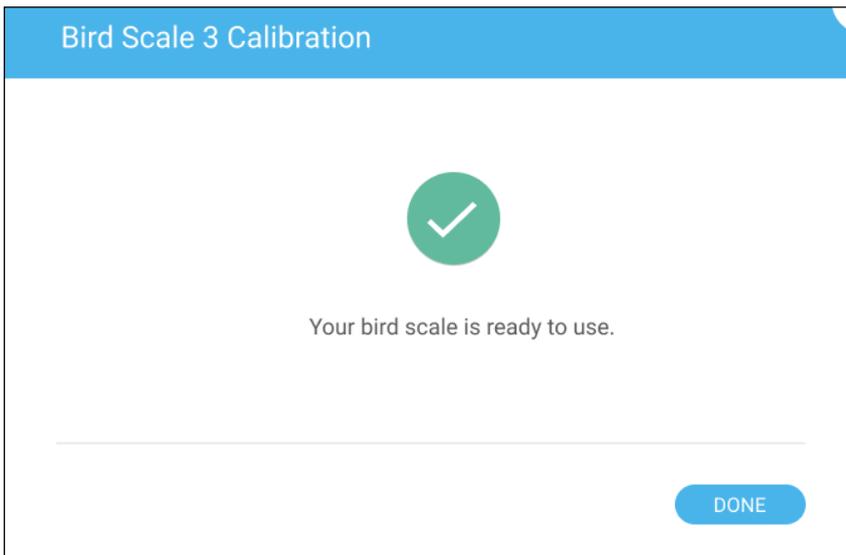
CAUTION The scale must be free of any objects before pressing Next!



3. Place a known weight on the scale (1.5 kilograms in the below example) and press Next.



The following screen should appear:



7 RBS-4H SE Wiring

AC-2000 Plus can power two RBS-4H SE units. No external power supply is required. Refer to the manual for calibration instructions.

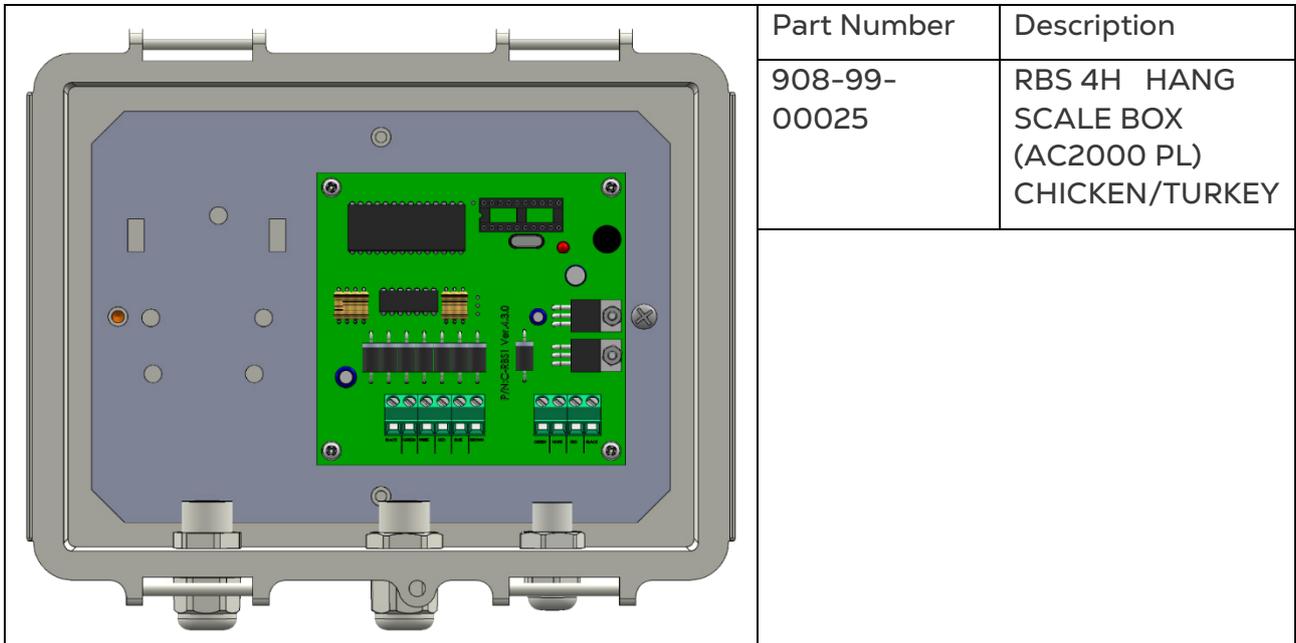


Figure 14: RBS-4H Box

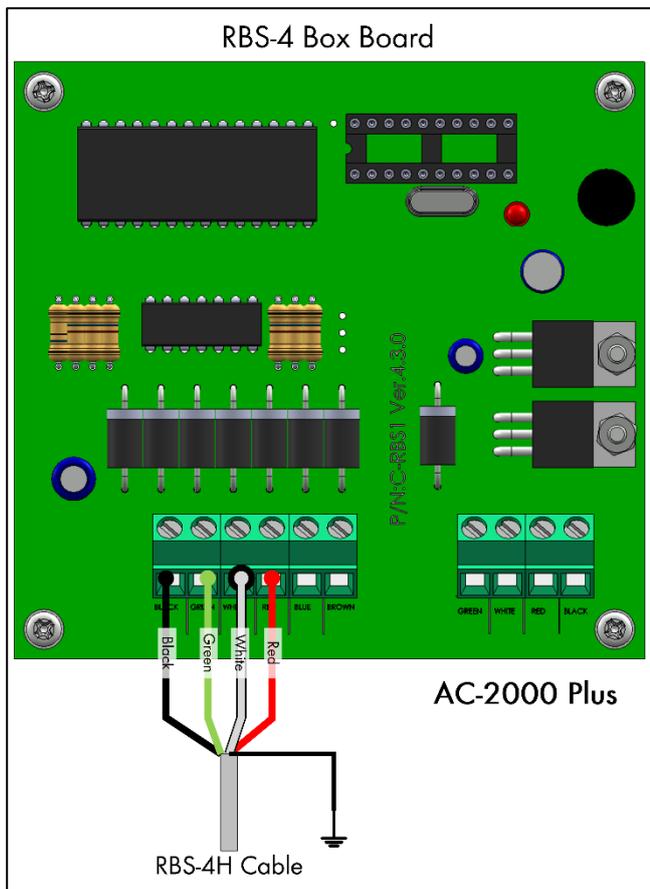


Figure 15: RBS-4H Box Wiring

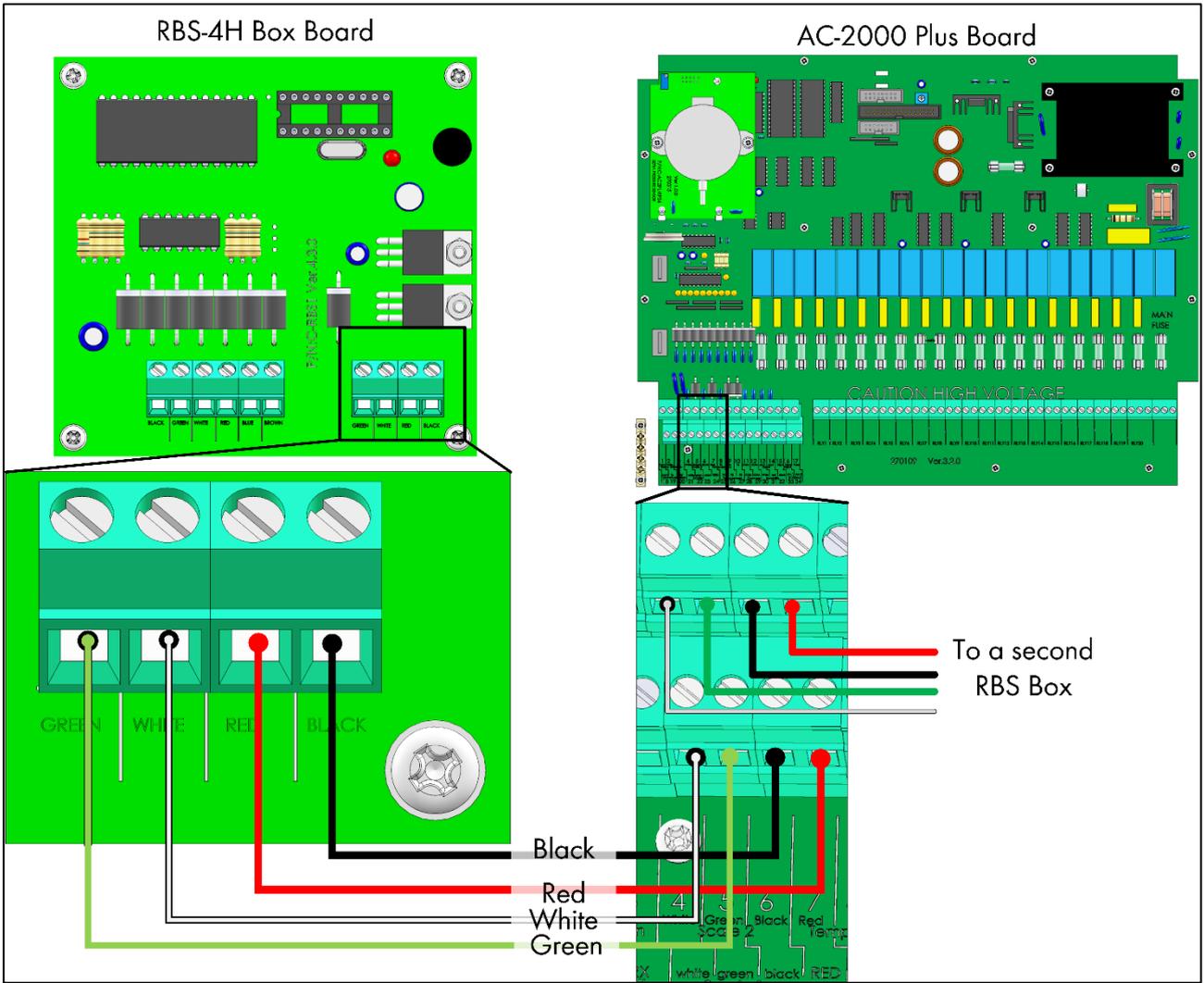


Figure 16: AC-2000 Plus – RBS-4H Box Wiring

8 Warranty

Warranty and technical assistance

Munters products are designed and built to provide reliable and satisfactory performance but cannot be guaranteed free of faults; although they are reliable products they can develop unforeseeable defects and the user must take this into account and arrange adequate emergency or alarm systems if failure to operate could cause damage to the articles for which the Munters plant was required: if this is not done, the user is fully responsible for the damage which they could suffer.

Munters extends this limited warranty to the first purchaser and guarantees its products to be free from defects originating in manufacture or materials for one year from the date of delivery, provided that suitable transport, storage, installation and maintenance terms are complied with. The warranty does not apply if the products have been repaired without express authorisation from Munters, or repaired in such a way that, in Munters' judgement, their performance and reliability have been impaired, or incorrectly installed, or subjected to improper use. The user accepts total responsibility for incorrect use of the products.

The warranty on products from outside suppliers fitted to Echo 2.0, (for example antennas, power supplies, cables, etc.) is limited to the conditions stated by the supplier: all claims must be made in writing within eight days of the discovery of the defect and within 12 months of the delivery of the defective product. Munters has thirty days from the date of receipt in which to take action, and has the right to examine the product at the customer's premises or at its own plant (carriage cost to be borne by the customer).

Munters at its sole discretion has the option of replacing or repairing, free of charge, products which it considers defective, and will arrange for their despatch back to the customer carriage paid. In the case of faulty parts of small commercial value which are widely available (such as bolts, etc.) for urgent despatch, where the cost of carriage would exceed the value of the parts, Munters may authorise the customer exclusively to purchase the replacement parts locally; Munters will reimburse the value of the product at its cost price.

Munters will not be liable for costs incurred in demounting the defective part, or the time required to travel to site and the associated travel costs. No agent, employee or dealer is authorised to give any further guarantees or to accept any other liability on Munters' behalf in connection with other Munters products, except in writing with the signature of one of the Company's Managers.

WARNING: In the interests of improving the quality of its products and services, Munters reserves the right at any time and without prior notice to alter the specifications in this manual.

The liability of the manufacturer Munters ceases in the event of:

- dismantling the safety devices;
- use of unauthorised materials;
- inadequate maintenance;
- use of non-original spare parts and accessories.

Barring specific contractual terms, the following are directly at the user's expense:

- preparing installation sites;
- providing an electricity supply (including the protective equipotential bonding (PE) conductor, in accordance with CEI EN 60204-1, paragraph 8.2), for correctly connecting the equipment to the mains electricity supply;
- providing ancillary services appropriate to the requirements of the plant on the basis of the information supplied with regard to installation;
- tools and consumables required for fitting and installation;
- lubricants necessary for commissioning and maintenance.

It is mandatory to purchase and use only original spare parts or those recommended by the manufacturer.

Dismantling and assembly must be performed by qualified technicians and according to the manufacturer's instructions.

The use of non-original spare parts or incorrect assembly exonerates the manufacturer from all liability.

Requests for technical assistance and spare parts can be made directly to the nearest [Munters office](#).

