

## Color Detector installation guide

The Color Detector (**model CD-1**) allows you to detect painted animals and sort them according to special settings. The advanced-technology sensor mounts in the Pro-Sort sorter and connects quickly and easily to any new or existing Pro-Sort or Pro-Sort Touch scale head.

Common uses for the CD-1 include gilt selection and sick pig segregation. For example, you can select and mark gilts for breeding. When one of the specially marked gilts moves through the sorter, the CD-1 detects the painted animal and the system sorts it according to the color sorting settings. This allows you not only to separate the gilts, but also to confirm that they are the correct weight.



### Selecting a paint

The CD-1 is designed to detect **blue** paint only; **other colors will not work properly**.

#### Phason recommends

- ◆ Phason has tested and recommends **Raidex Spray marker for pigs and cattle**. For information about Raidex spray markers and dealers, visit the Raidex website.
- ◆ Phason recommends using aerosol paint, not liquid paints that require mixing.

#### Phason DOES NOT recommend

Phason has tested and does not recommend **Uni Mark aerosol marking spray**.

#### What about other paints?

Other blue paints **might** work, but Phason has not tested them. **Paints that are more purple than blue will not work**. If you have paint you would like to test, follow the testing instructions on page 4.



## Installing the CD-1

Carefully read and follow *all* the instructions in the order they are listed.

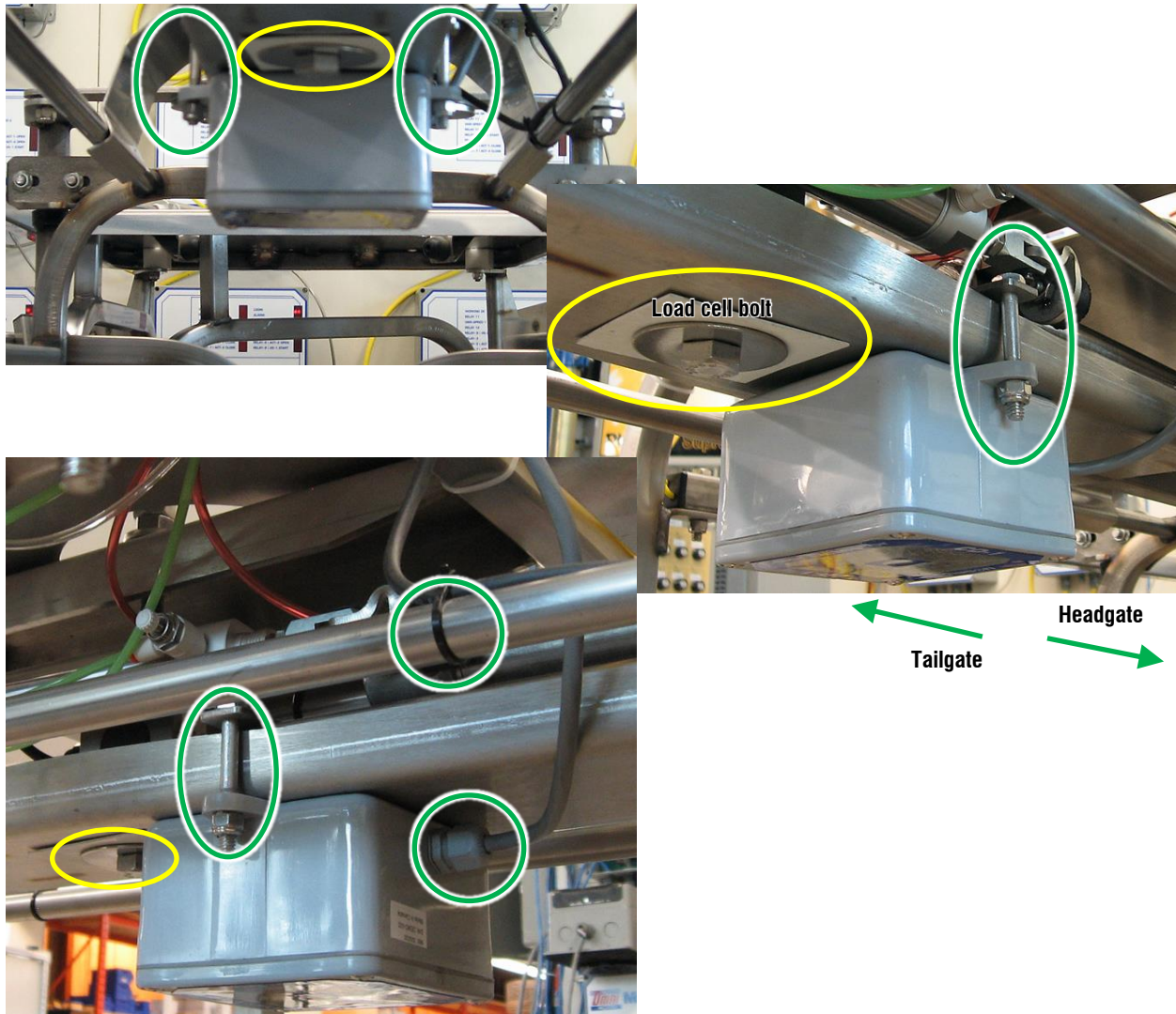


- ◇ Before installing or servicing the CD-1, switch off the power to the scale head.
- ◇ After installing the CD-1 and before leaving the system unattended, test the equipment. For more information, read **Testing the installation** on page 4.

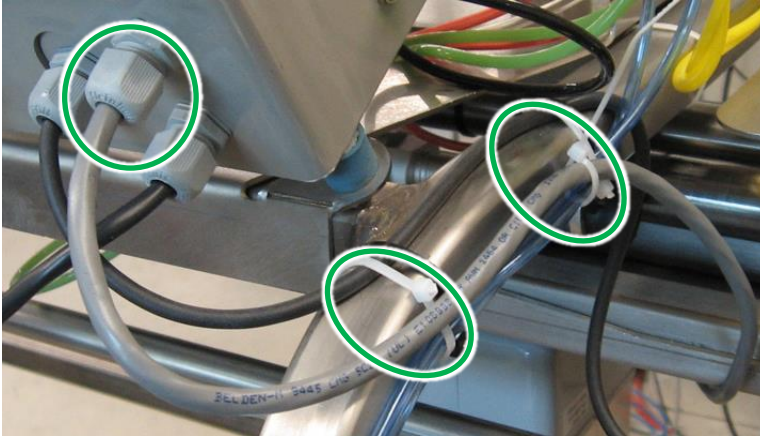
## Mounting the CD-1

1. Fasten the CD-1 to the sorter using the mounting bracket, bolts, and nuts.

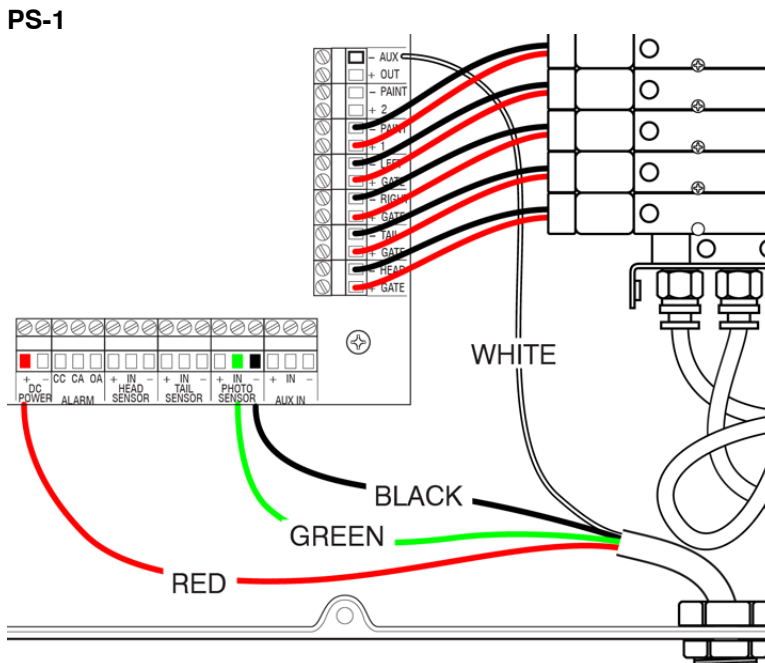
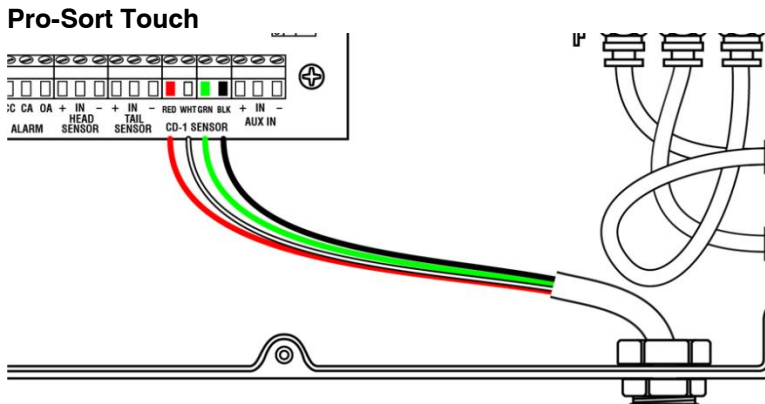
- ◇ Note location of the CD-1 in relation to the load cell bolt.
- ◇ Note the location of the strain relief and cable as it passes through the cage.



2. Insert the cable into the scale head enclosure, through a strain relief. Route the cable as shown and then secure it in place using cable ties.



3. Connect the wires to the terminal blocks as shown below.



## Testing the installation



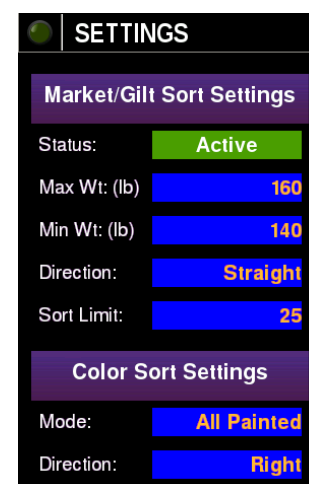
### After installing the CD-1 and before leaving the system unattended:

- ◇ Verify that the CD-1 and the scale head function properly.
- ◇ Set up Select Sort and then make sure the system correctly sorts painted animals.

- ◆ The tests require a blue sample. Paint a piece of paper or similar object with the paint you will be using on the animals.
- ◆ If the system passes the tests, go to **Select Sort** and set up your color sorting options.
- ◆ If the system does not pass the tests, read **Troubleshooting the installation** on page 5.

### Testing the CD-1 with a Pro-Sort Touch

1. At the HOME menu, press **Settings**.
2. On the SETTINGS screen, press **Edit** (✎).
3. Press the box beside **Mode**.
4. Press **All Painted** and then **Accept** (✓).
5. Press the box beside **Direction**.
6. Select a direction that is different from the **Group 1** direction, and then press **Accept** two times.  
You should now be out of edit mode with the **Status** showing **Active**.
7. Take note of the minimum and maximum weight values for **Group 1**.  
For the next step, you will need a weight that is between these values.
8. Place the weight on the scale.
9. The CD-1 LEDs should come on. Wait until the LEDs go off.  
The sorter should sort in the direction for **Group 1** because it did not detect the color blue.
10. Take the weight off the scale.
11. Place the weight on the scale.  
The CD-1 LEDs should come on.
12. While the CD-1 LEDs are on, hold the blue painted item about one foot in front of the CD-1.  
The LEDs should go off and the sorter should sort in the direction you selected in the **Color Sort Settings** because it detected the color blue.
13. Take the weight off the scale.



### Testing the CD-1 with a PS-1 Scale Head

1. At the PS-1 Scale Head, scroll to **Advanced Menu** and activate emergency mode.
2. Scroll to **Settings** and then select **Sick Sort**.
3. Change the sick sort options to **Color Only** and a direction that is *different than Group 1*.
4. Take note of the minimum and maximum weight values for **Group 1**. For the next step, you will need a weight that is between these values.
5. Place the weight on the scale.
6. The CD-1 LEDs should come on. Wait until the LEDs go off.  
The sorter should sort in the direction for **Group 1** because it did not detect the color blue.
7. Take the weight off the scale.
8. Place the weight on the scale.  
The CD-1 LEDs should come on.
9. While the CD-1 LEDs are on, has the blue painted item about one foot in front of the CD-1.  
The LEDs should go off and the sorter should sort in the direction you selected in the color settings because it detected the color blue.
10. Take the weight off the scale.
11. Return the sick sort settings to their original values.
12. Scroll to **Advanced Menu** and deactivate emergency mode.

### Troubleshooting the installation

- ◆ If the LEDs do not come on, make sure the CD-1 wires are connected exactly the same as shown in the wiring diagram.
- ◆ If the system sorts in the same direction for each test, make sure the Sick Sort direction is not the same as the Group 1 or default directions.

## Maintaining the CD-1

Proper care and maintenance will help your CD-1 last longer. To prevent damage to the unit, perform the following steps after the first two weeks of operation, and once a year after that.



If you need to seal the cable entry, use a sealant labelled “non-corrosive”, “electronics grade”, or “neutral cure”, such as GE Silicone RTV6780B, RTV 142, or RTV 162. **Do not** use a sealant that is labelled as “acetic acid cure” or “acetoxycure”. These sealants release acetic acid while curing, which can damage the Pro-Sort Touch and will void the warranty.

1. Remove the cover from the unit and then check inside for moisture. If there is any moisture, wipe it away using a dry cloth.
2. Check the cable entry point to make sure it is properly sealed. If it is not properly sealed, apply silicone sealant around the entry point.
3. Check all wires to make sure they are properly connected and in good condition.
4. Fasten the cover to the enclosure.

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