



# agWEIGHr Weigh Bar Installation and Owners Guide

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## DISCLAIMER

Whilst every effort has been made to ensure accuracy, neither RINSTRUM nor any employee of the company, or its representatives shall be liable on any ground whatsoever to any party in respect of decisions or actions they may make as a result of using this information. In accordance with the Rinstrum policy, with continuing development of the agWEIGHr range of products the design and specifications stated are subject to change without notice.

The agWEIGHr products are developed and manufactured by Rinstrum Pty Ltd.

The agWEIGHr weigh beams are not suitable to trade measurements.

Changes in the colour, tea staining of the stainless steel, welding or arc damage, splits, cuts, rodent or animal damage to cables and fittings, fire or flood damage, overloading and misuse or abuse are not considered as warranty. Rinstrum warranty all supplied products and we draw your attention to the differing periods for individual products, even though these may be combined to form one measurement device. Information on the policy and process for warranty claims and repairs can be found on your website. [www.agweighr.com.au](http://www.agweighr.com.au) Rinstrum have been building weighing equipment for over 20 years and we do our utmost to ensure you have a suitable working product and are supported during the sales process, any request for technical information and any service or repair through our dealer network.

## WARNINGS



WEIGH BARS ARE HEAVY USE APPROPRIATE LIFTING



WATER & DUST RESISTANT – DO NOT IMMERSE or USE HIGH PRESSURE WASHDOWN



DO NOT OVERLOAD WEIGH BAR – CHECK BEFORE INSTALLATION



DO NOT WELD ON WEIGH BAR OR LOAD RECEPTOR



CAUTION WEIGH BAR COULD BE HOT OR COLD TO TOUCH

## Explanation of the Weighing System

The agWEIGHr weigh bars are commonly used to measure a static or restrained load directly applied to the top surface of the bar. This load is transferred through the mount to the load cell sensor. This signal from the load cell sensor is combined in each bar and then sent back via the cables to the Y junction located near the weight indicator and then again onto the weight indicator. The weight indicator reads this signal and then converts it to a weigh reading that is shown on the display for the operator.

The agWEIGHr weigh bars usually a set of 2 bars should be mounted securely underneath a load receptor, common are load platforms, race crush, box or crate and drafter devices including auto drafters. The weigh bar can also be mounted overhead where by the load is pulled down on the top surface of the bar. The weigh bars can be used for weighing farm or industrial products like drums or lengths of steel directly onto the top surface of the bar.





The weigh bars should also be mounted securely onto a foundation made of a hard level surface in a symmetrical layout. The positioning of the weigh bars should be as far as part as the mounting points on the load receptor can structurally be mounted to. Ideally there should be no tipping or uplift from mounting too far in from the approach or exit edges. The accuracy and repeatability of the device is highly dependent on a good installation. The agWEIGHr beam is extremely rigid but still requires a solid level surface to mount the weigh bars on top of. Ideally a concrete pad should be laid, however any firm level surface can be used.

The agWEIGHr bars are constructed to IP67 ingress protection and manufactured of stainless steel as is the load cell so they are suitable for wet and some corrosive environments. Also consider drainage and housekeeping for the weigh bars so that they are not constantly immersed or a build-up allowed of sediment inside or around the bar. Failure to do this will result in inaccuracy and possible damage.

We would strongly suggest that the agWEIGHr weigh bars be used with the other agWEIGHr accessories including our range of weight indicators and weighing system accessories.

## Kit of Parts

Your weigh bars should have several parts to make up a suitable weighing device.

| Weigh Bar Kit of Parts  |   |  |   |
|---|---|--|---|
|  |  |  |  |
| Two agWEIGHr Weigh Bars of the same length  | Two 6m armoured cables with M12 Male and Female connectors                          | One MC5JM3 M12 Male / Female Y cable junction  | 4 x Metric mounting bolts   |

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Additionally an agWEIGHr weight Indicator should be used or cable adaptors for other manufacturer's weight indicators can be fitted to the M12 connectors.

If using more than one set of weigh bars you will need additional junctions. More than one set of agWEIGHr bars can be used together with additional junctions, but do not mix and match other brands as this is usually incompatible.

## Installation

Firstly we would like to say thanks for purchasing a set of agWEIGHr weigh beams. If you are unsure after reading this guide on how best to install your weigh bars please feel free to contact your supplier or our service department for technical assistance. The agWEIGHr weigh bars are relatively quick and easy to install as a simple weighing device.





### 1. Mount the Weigh Bars

- Mount the load bars and Load platform clear of obstructions such as fence posts, gates, electrical or water pipes. Choose a site that it well drained always consider the safety of the operator.
- The site must be level across the each weigh bar top and between one weigh bar to the next.
- Provide a foundation if possible. A concrete foundation is recommended. Weigh bars can be mounted on a heavy ply board or other hard surface. Ideally the foundation should extend at least 600mm (2 feet) before the load platform in the direction that the animal will travel. This will reduce the amount of dirt, mud, etc., carried onto the load platform. Ideally the foundation should be level and the weigh bars should not be recessed in to the foundation.
- Ensure that the weigh bars are aligned the same distance apart from each other (systemically spaced) or that the weigh bars top mounting holes are aligned with the load platform or race crush mounting positions. If these do not exist then ensure that the weigh bars are located as close to the edge as possible.
- Ensure that the weigh bar feet sit flat on the foundation or concrete surface. It is recommended that the load bars are secured to the foundation. To secure the weigh bars, mark the locations of feet holes on the foundation. Use a drill and fasteners to suit the type of foundation. Tighten the fasteners to secure the load bars to the foundation. The weigh bar body should not twist or distort as the fasteners are tightened. If the weigh bar feet do not sit flat on the foundation or there is a rocking motion, clear any obstacle and pack or grout under the foot. Failure to secure the weigh bars to the foundation could result in inaccurate readings.

### 2. Mount the Load platform

- Mount the load platform, crush race or other load receptor to the weigh bars using the top mounting holes with the supplied bolts or a suitable length bolt. Remember that you should not use an arc welder as this can damage the weighing sensors.

## 3. Connect the cables

| Cable Connections   |   |  |   |
|---|---|--|---|
|  |  |  |  |
| Cables with M12 Male and Female connectors  | Male straight M12 connector for connection to MC5JM3 Y junction                   | Female straight M12 connector for connection to weigh bar M12                      | Connection to Y junction cable  |

**Note: DO NOT OVER TIGHTEN the connectors. The connection has an O’ring seal, so overtightening does not provide any additional ingress protection but could damage the connector. Each connector has an alignment slot and a mating alignment lug and pin (male) and socket (female) gender connections.**

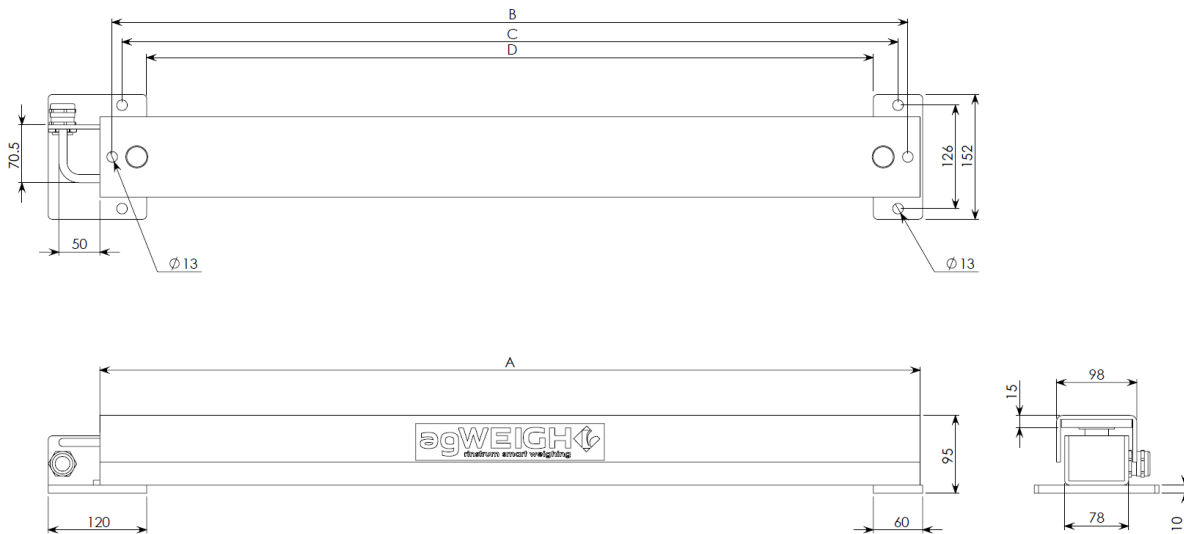
- Located on the handle end of each weigh bar is a M12 male connector. Using the straight female connector on the end of the 6m cable, connect the cable to the weigh bar connector by aligning the connectors and with a slight push and winding of the outer knurled part of the connector until it winds up snugly. Do this to all weigh bar cables.
- On the other end of the 6m cable is a straight male gender M12 connector. Locate the MC5MJ2 Y junction cable fitting and there will be two female gender connections on one side and a single male gender connector on the other side. Connect the 6m weigh bar cables to the female gender connections. It does not matter which one. Ensure they connect snugly.
- On the other side of the Y junction cable is a male gender connector. This connector is directly connected to the weight indicator.
- Where possible locate cables off the ground or in conduit or other pipes to protect against damage.
- When you have finished using the weigh bars the cables can be removed and stored away. Ensure that the exposed ends of the cables are kept dry and free from mud and dirt. Use provided caps where possible.

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## Care and Maintenance

- Good housekeeping will ensure a long life of your agWEIGHr weigh bars.
- Do not allow build-up of mud, dirt, rocks or other foreign material around the edges of the bars or on the weigh platform.
- When cleaning do not use high pressure water spray into the load cell area. Air spray is a better option to clear out build up. An occasional soapy wash down is ideal to keep the stainless steel weigh bars looking good if needed.
- When cleaning inspect cables for any damage. Replacement cables and additional cable lengths can be ordered as a spare part.
- When cleaning inspect for any damage to parts of the weigh bar. Replacement load cells can be ordered as a spare part.
- Do not weld onto the weigh bar or onto the load receptor. The load cells are a sensitive electronic device which can be easily damaged with strong electrical currents.

## Drawings



|          | 600x100 | 800x100 | 1000x100 |
|----------|---------|---------|----------|
| <b>A</b> | 600     | 800     | 1000     |
| <b>B</b> | 570     | 761     | 970      |
| <b>C</b> | 546     | 746     | 946      |
| <b>D</b> | 486     | 686     | 886      |

\* Dimensions are in mm

Additional information can be found on [www.agweighr.com.au](http://www.agweighr.com.au)