Load Ranger 2.4 GHz RF Quick Start Guide

This document provides the information necessary to quickly setup the Load Ranger wheel weigh pads and pair them with the Ai-1 Indicator to take weight readings.

NOTE: For more information, see Load Ranger (RF) Technical Manual (PN 214194).

1. Setup Wheel Weigh Pads

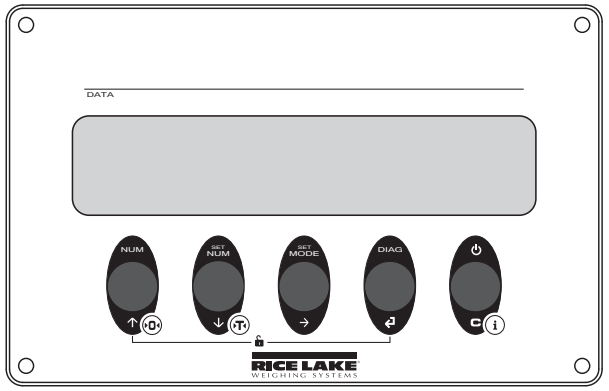

Figure 1. Wheel Weigh Pad Controls

1. Press to turn on the first wheel weigh pad.
2. Press during startup. tECh flashes, then CAL displays.
3. Press until SEr iAL displays.
4. Press to enter the ***Serial*** menu. id displays.
5. Press to enter the ID settings.
6. Press or to increase or decrease the selected digit and press to move between the digits to enter the pad ID number.

NOTE: The first Pad ID number must be 01 and the remaining pad ID numbers must increment in ascending numeric order. Example: 01, 02, 03. Do not configure two pads with the same ID number.

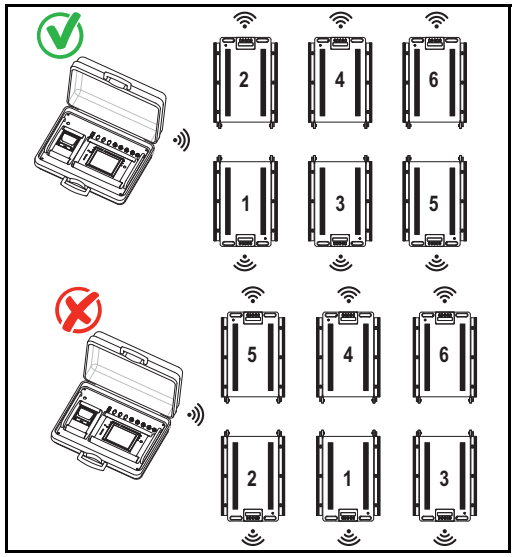

Figure 2. Wheel Weigh Pad Positioning

7. Press . Con .rF displays.
8. Press until rAd io displays.
9. Press . rF displays.
10. Press or until On displays.
11. Press . r .chAn briefly displays.
12. Use arrows to enter a channel number.

NOTE: The default channel number is 27. The wheel weigh pad channel number must match the indicator channel number it will pair with. The Ai-1 indicator supports channels 00 - 38. If using multiple groups of indicators and wheel weigh pads, the channel numbers must be unique for each group.

13. Press . OF briefly displays then bAud displays.
14. Press until wheel weigh pad resets.
15. Repeat procedure for all wheel weigh pads in the system.

2. Setup Ai-1 Indicator and Pair Wheel Pads

1. Turn off all wheel weigh pads.
2. Press to turn on the Ai-1 indicator.
3. During startup, press the upper right corner of the screen when the logo displays to enter the ***Technical Setup*** menu.

Figure 3. Touch Upper Right Corner of the Display

4. Press to go to second ***Setup menu*** page.
5. In the second page, press Serial ports F2. ***Serial Port*** menu displays.
6. Press Radio frequency intreface F5. ***Radio Frequency interface*** displays.
7. Press Channel F2.

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8. Enter the required channel number.

NOTE: The default channel number is 27. The wheel weigh pad channel number must match the indicator channel number it will pair with. The Ai-1 indicator supports channels 00 - 38. If using multiple groups of indicators and wheel pads, the channel numbers must be unique for each group.

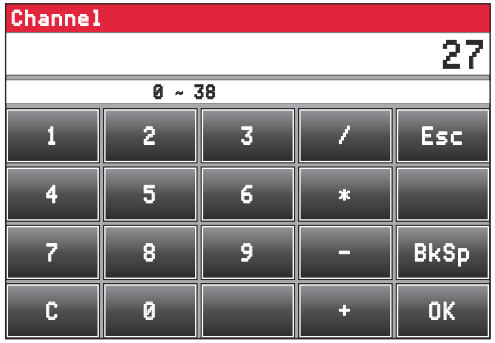

Figure 4. Channel Keyboard

9. Press OK. A ***Channel*** prompt displays.

Figure 5. Channel Success Prompt

10. Press OK to close the prompt and return to the ***Radio Frequency interface*** menu.

11. Press ← twice.
12. Press ↑.
13. Press Calibration F1.
14. Press Scale selection 1 scale/s F1.
15. Press Number of scales 1 F1.

Number of Scales menu displays.

16. Select the number of wheel weigh pads to be used.

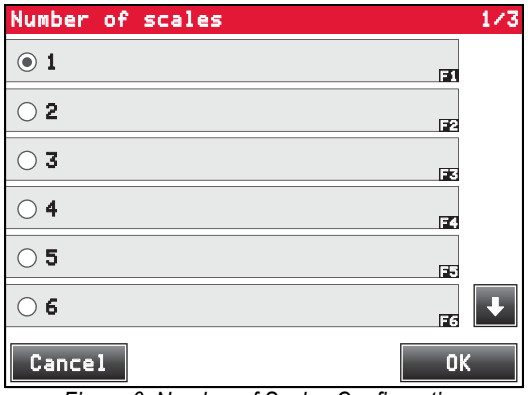

Figure 6. Number of Scales Configuration

17. Press OK.
18. Ensure all wheel pads have been configured following the steps in section 1, are turned on.
19. Press WWS configuration F3.
20. Press Get WWS configuration F2.
21. ***Gravity value setting*** pop-up displays.
22. Enter the gravity value for the area the wheel weigh pads will be used.

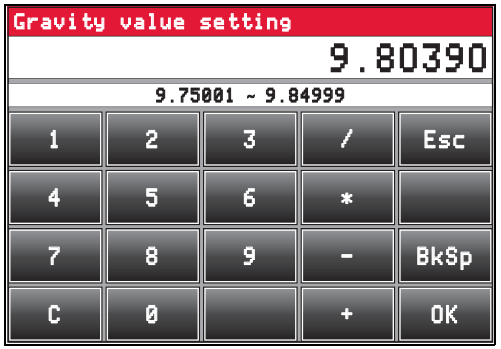

Figure 7. Set Gravity Value

23. Press OK to close pop-up and continue.
24. ***Get WWS configuration*** pop-up displays. Wait while configuration information is retrieved from wheel weigh pads.

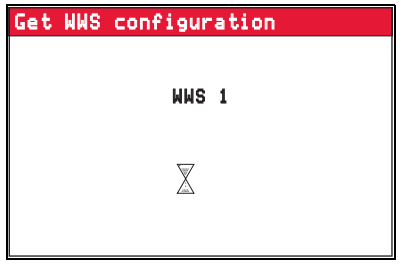

Figure 8. Get WWS configuration Pop-Up

25. Once configuration information is retrieved, the configuration session terminates.

Figure 9. Get WWS configuration Pop-Up

26. Press OK to close the pop-up.

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27. Press Esc.
28. Setup changed pop-up displays.

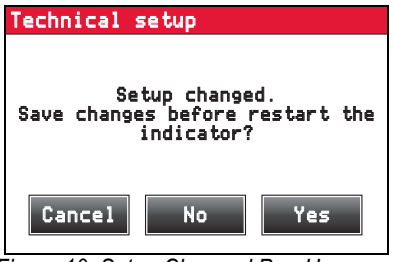


Figure 10. Setup Changed Pop-Up

29. Press Yes to save settings and complete setup.
30. (**Optional**) If indicator and wheel weigh pad units are different, a pop-up may display to update units.

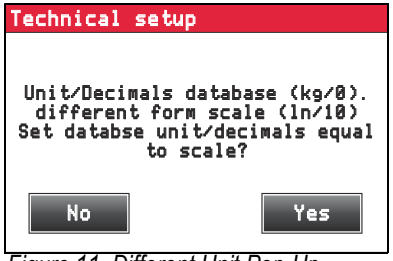


Figure 11. Different Unit Pop-Up

31. Press Yes to match units, or No exit without changing.
32. The indicator reboots to ***Weigh*** mode.

3. Initial Setup Parameters

The following parameter windows may display during initial setup before the indicator reboots to ***Weigh*** mode.

- The ***Backup of the Configuration*** window — Press Yes to backup all settings
- The ***Password*** window displays — Press Yes or No, depending on password requirements
- The ***Technical Setup*** window displays — Press Yes to convert the indicator units to match the wheel weigh pad units

4. Applications

The Load Ranger wheel weigh pads can be arranged to serve multiple applications. The adjustment from one scenario to another is made quickly and easily with the wireless and portability features of the Load Ranger system. This section highlights several of the arrangements available.

4.1 Wireless Setup

A wireless system allows for weighing with up to 16 connected wheel weigh pads per Ai-1 indicator. The wireless system is connected by following sections Section 1. through Section 3.

Typically wireless setup is configured for 2, 3, 4,5 or 6 pads.

Two Platform Applications

Two platform applications include weighing axles of the vehicle individually or trailers with only one axle.

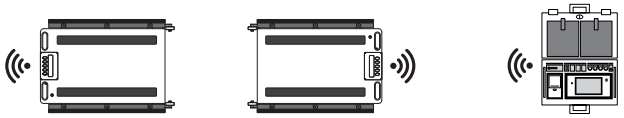
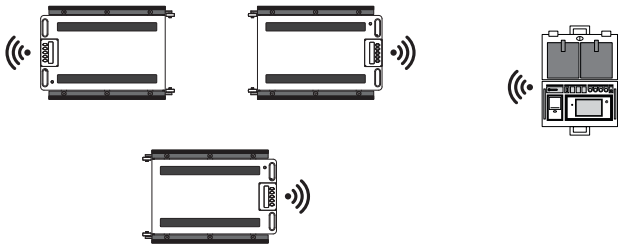


Figure 12. Two Platform Application

Three Platform Applications

Three platform applications include weighing small planes, three-wheeled vehicles or trailers with a support pin.



The size and capacity of the third platform can differ from those of the other platforms

Figure 13. Three Platform Application

Four Platform Applications

Four platform applications include weighing two-axle vehicles, trailers, containers or other items with four support points.

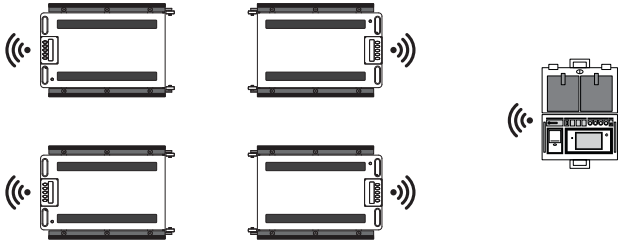


Figure 14. Four Platform Application

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Five Platform Applications

Five platform applications include weighing two-axle trailers with a support pin. When weighing both directions, a sixth platform can be used.

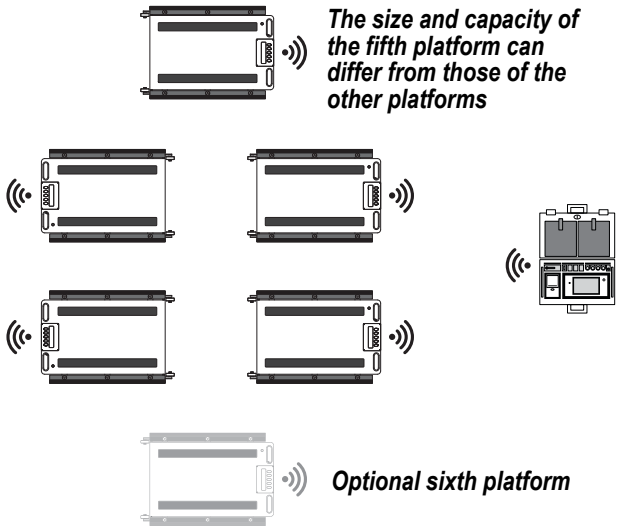

Figure 15. Five Platform Application

Six Platform Applications

Six platform applications include weighing three-axle vehicles or structures with six support points.

Figure 16. Six Platform Application

4.2 Wired Setup

A wired system allows for weighing up to four connected wheel weigh pads.

The data communication port is located on the underside of the wheel weigh pad. For the RF-MD, the port is located at the handle end of the platform and is the port further from the edge. For the RF-WD and RF-XWD, the port is located at the end opposite of the platform handles.

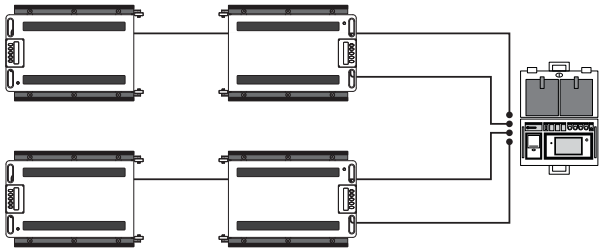

Figure 17. Wired Connection

4.2.1 Wired Setup Connection Procedure

1. Assign channel numbers and ID numbers to the wheel weigh pads.
2. Pair the Ai-1 indicator with the wheel weigh pads.
3. Turn off the wheel weigh pads and the Ai-1 indicator.
4. Connect RS-485 cables to the wheel weigh pads data communication ports.
5. Connect free ends of each RS-485 cable to one of the Ai-1 indicator's communication ports.

NOTE: The wheel weigh pads can be connected to any of the RS-485 ports on the Ai-1 indicator. The pad ID assigned within the wheel weigh pad dictates the scale number and it does not need to match the Ai-1 indicator channel number.

6. Turn on all of the wheel weigh pads.
7. Turn on the Ai-1 indicator. 485 H briefly displays on wheel weigh pads (H represents the assigned pad ID number). PL .H then displays on the wheel weigh pads and they are ready for use.