

SmartReader R Series

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Gallagher SmartReader R Series User Manual

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OVERVIEW

The Gallagher SmartReader R Series is a panel reader for use in permanent installations where it can be connected to:

- an external power supply, and
- a permanently connected data collection device.

The captured Electronic ID tag data is transferred to the data collection device (Scale or computer).



The SmartReader R Series has two parts:

- The SmartReader
- The Antenna Panel

Two Antenna Panel sizes are available to suit the animals being scanned. There are two models in the SmartReader R Series:

- R600 RFID Panel Reader (G03113 & G03121)
 - Small Antenna Panel (600 mm x 400 mm).
 - SmartReader with external power.
 - RS-232 port for transferring data to the Scale.
- R1300 RFID Panel Reader (G03113 & G031424)
 - Large Antenna Panel (1300 mm x 600 mm).
 - SmartReader with external power.
 - RS-232 port for transferring data to the Scale.

If required, multiple SmartReaders can operate in close proximity, so long as they are set up to ensure all Electronic ID tags are read correctly.

Electronic ID tags

The Gallagher SmartReader enables you to read both HDX (Half Duplex) and FDX-B (Full Duplex-B) Electronic ID tags.

HDX and FDX-B Electronic ID tags operate differently and therefore have different applications.

Configurator

The Configurator is a software program provided with the SmartReader R Series. Use it to alter settings and to diagnose performance problems in the installed SmartReader.

The Configurator is for **advanced users** and should be used with care as altering settings affects the operation of the SmartReader.

The Configurator software is automatically installed with the MyScale Pro software.

MyScale Pro

Note: The MyScale Pro CD is included with this product to so that the Configurator software (Included on the CD) can be installed as required, refer to *Installing the Configurator in the on-line SmartReader R / BR Series Configurator User Guide.*

For the **SmartReader R Series**, MyScale Pro is not used. MyScale Pro does not communicate directly with the R Series SmartReader. The Electronic ID tag information is transferred to a Scale or computer etc.

If the R Series SmartReader is connected to a Gallagher Scale, the captured Electronic ID tag information is incorporated into Scale sessions and can be transferred to MyScale Pro from the Scale.

For information on the MyScale Pro features see the documentation provided with the Scale. For an updated version of the MyScale Pro manual go to the following website: *www.gallagherams.com*

USER INFORMATION

SmartReader user interface



Button

Button	Function
Volume	There are two volume levels on the SmartReader ON and OFF.
	To change the volume on the SmartReader while it is operating, press the Volume button.
	Note: Warning beeps (low battery warning etc) ignore the Volume setting and beep as required.

Audible beep

The SmartReader beeps whenever one of the following situations occurs:

- An Electronic ID tag has been read, except if the volume is set to OFF.
- The volume level is set.
- The battery charge level is low. This warning sounds regardless of the volume set.
- The external power supply level is too low or too high. This warning sounds regardless of the volume level setting.

INSTALLATION

Mounting the Antenna Panel

Antenna Panel Kit

The Antenna Panel kit contains the following components:

- Antenna Panel
- Mounting instructions
- Antenna Panel mounting kit:
 - 4 x Washers M8 x 21 mm flat Stainless steel
 - 4 x Bolt M8 x 70mm HEX Stainless steel
 - 4 x Nut M8 HEX Stainless steel
 - 4 x Screw Wood TEK 14 x 10 90mm
 - 4 x Screw Wood TEK 14 x 10 65mm

Notes on locating the Antenna Panel

Gallagher recommends the following when installing the SmartReader Antenna Panel:

- The Antenna Panel can be mounted onto metal pipe or wood work of the animal handler but not solid steel handler walls.
- The edges of the Antenna Panel contain the antenna windings. This means that when the Antenna Panel is mounted, vertical bars should be kept away from the vertical edges of the Antenna Panel and horizontal bars should be kept away from the horizontal edges of the Antenna Panel.

Considerations

- The position of the Antenna Panel installation depends on the type and size of the animals to be scanned and the size of Antenna Panel to be installed.
- Gallagher recommends you mount the Antenna Panel temporarily while you determine the most appropriate position.
- Mounting the Antenna Panel on a metal animal handler can alter the read range of the SmartReader. Gallagher recommends that the SmartReader is mounted on wood or spaced pipework.
- Multiple SmartReaders can be installed in close proximity to each other, so long as they are synchronised to ensure conflicts do not occur between SmartReaders. For further details, see *Installing multiple SmartReaders* (p 16).
- Use the defined mounting holes, because drilling through the Antenna Panel will damage the antenna.

Procedure

1. Measure the vertical range of the Electronic ID tags on the animals to be scanned.



- 2. Determine the average height of the Electronic ID and mark this on the **outside** of the animal handler.
- 3. Determine what the Antenna Panel is to be mounted on, wood or pipe work, and prepare the appropriate mounting hardware from the supplied kit.



4. Using the **defined mounting holes**, mount the Antenna Panel on the **outside** of the animal handler so that the middle of the Antenna Panel matches the average height.



Note: DO NOT drill through the Antenna Panel as it will damage the antenna.

Note: You may want to temporarily attach the Antenna Panel and test the read range prior to permanently attaching the Antenna Panel.

Mounting the SmartReader

Considerations

Ensure the mounting location of the SmartReader provides protection from being knocked or damaged by animals.

SmartReader Kit

The SmartReader kit contains the following components:

- R Series SmartReader
- MyScale Pro CD
- Instruction Manual (this manual)
- Cables
 - Short serial cable (DB9 to DB9)
 - Long serial cable (DB9 to DB9)
 - DB9 to USB adapter

Connecting the SmartReader to the Antenna Panel

For information on using the 4 Metre Antenna Extension Cable Kit see *4 Metre Antenna Extension Cable Kit* (p 24).

- 1. Ensure the SmartReader is turned off.
- 2. On the Antenna Panel, unscrew the Amphenol connector locking nut from the Amphenol socket and pull it down to unplug from the Antenna Panel.



3. Mount the SmartReader on the mounting bracket by grasping the SmartReader on both sides and slide the back handle onto the mounting bracket.



4. Connect the antenna cable to the SmartReader and tighten the locking nut.



Connect the SmartReader to a computer

1. Using one of the supplied cables, connect one end into the RS-232 port on the SmartReader.



- 2. Connect the other end into appropriate port on the Scale or computer:
 - Scale: RS-232 (COM Port 2)
 - Computer: RS-232 or USB

Testing the SmartReader EID tag read range

The SmartReader EID tag read range should be tested to ensure the animals passing through the animal handler are accurately and reliably identified.

The SmartReader generates a balloon shaped read range (see diagram next page), within which EID tags are read reliably. The size of the read range for individual installations should be the width of the animal handler.

The SmartReader EID tag read range for a particular installation is tested using the built in set up mode in the SmartReader. This set up mode changes how often the SmartReader beeps to confirm a tag read from "only on first read" to "every read". This enables you to easily test the SmartReader EID tag read range using the same tag.

The following section describes how to complete an initial test on the SmartReader EID tag read range for your SmartReader installation. For more advanced testing, see *Advanced EID tag read range testing* (p 10).

Testing the read range

For your SmartReader installation you need to determine the size of the EID tag read range. If the read range is too small you need to take steps to improve it.

You need to test the appropriate type of EID tag you will be using, either HDX (Half duplex) and/or FDX (Full duplex).

To determine the size of your installation's SmartReader EID tag read range, complete the following steps:

- 1. Turn on the SmartReader.
- 2. Ensure the SmartReader is in set up mode by holding an EID tag in front of the SmartReader.
 - If the SmartReader beeps continuously it is in set up mode.
 - If the SmartReader beeps once it is in operational mode.
- 3. Hold the EID tag in the best orientation in the animal handler near the SmartReader Antenna Panel.

The SmartReader should **beep** indicating it is reading the EID tag.



- 4. Move the EID tag around to determine the size of the read range.
- 5. Is the read range indicated by the EID tag reads close to the ideal?
 - If yes, then test with live animals by passing a small group of animals through the animal handler and reading their Electronic ID tags.
 - If no, see Investigating SmartReader read range issues (p 10).

Investigating SmartReader read range issues

If the EID tag read range on your SmartReader installation is not adequate, check the following:

- The SmartReader is turned on and connected to the Antenna Panel.
- The EID tag is functional and is in the correct orientation for testing.

Re-test the read range by passing a small group of animals through the animal handler and reading their Electronic ID tags. If the SmartReader read range is still not adequate, complete the advanced testing and contact your Gallagher representative, see *Advanced Electronic ID tag read range testing* (p 10).

Advanced Electronic ID tag read range testing

If an adequate EID Tag read range is not achieved during the initial testing, use the following advanced testing procedures.

Install the Configurator software utility prior to starting the advanced Electronic ID tag read range testing.

The Configurator software utility is automatically installed with the MyScale Pro software.

You will need the following items at the animal handler:

- A Laptop computer with either a serial (DB9) or USB port
- A Serial cable (supplied)
- The Serial to USB cable if using the USB port (supplied).

Connect the SmartReader to a computer

For more information about the Configurator, see *Configurator* (p 2). The Configurator software is automatically installed with the MyScale Pro software.

Procedure

- 1. Using the supplied serial cable, connect the computer and the SmartReader.
 - a) Connect one end of the serial cable into a COM port on your computer.

If required, use the supplied DB9 to USB adapter to connect to the USB port on the computer.

b) Connect the other end into the COM port on the SmartReader.

Note: Once you have finished using the Configurator ensure you click on the disconnect button in the Configurator program prior to unplugging the cable. This ensures the data transmission returns to the correct state.

Start the Diagnostics Wizard

- 1. Connect the SmartReader to a computer. See *Connect the SmartReader to a computer* (p 10).
- 2. Open the Configurator software.
 - Double-click on the Configurator icon on the desktop.



OR

- a) Click on the Windows **Start** button.
- b) Select All Programs (Windows XP) or Programs (Windows 2000).
- c) Select **MyScale**.
- d) Click on SmartReader Configurator.
- 3. Click Connect

The current settings for the connected SmartReader are displayed in the lower part of the screen.

🙀 Configuration Utility - Gallagher SmartReader				
Program Reader Connection Tools Advanced Help				
Connection : COM1 💌 More				
Disconnect Search Get Settings Apply Settings Restore Defaults				
Settings				
Operational settings Panel Settings ID Code Format Communication Settings Diagnos				
Read Mode				
◯ Requested ⊙ Continuous Remember delay 300 🗢 sec.				
Read Time sec.				
Indication Of Tag Read Speaker Flash : O First read Every read Beep : O First read Every read				
Duplicate Tag Reads				
Duplicate Recognition Method Wired : O On O Off				
O Last Tag Only O Buffer: 10				
All settings successfully received.				

5.

4. Click on the Diagnostic tab. The following window displays:



1.

Assessing background noise

With this window displayed, SmartReader "hears" background electrical noise like that generated by computers, mobile phones, and electrical generators for example, in the frequency band that the Electronic ID tags work in. This background noise can interfere with the reading of the Electronic ID tags.

Press	Next > The following window is displayed:
SmartReade	er Diagnostic Wizard 🛛 🔀
2. Bac	kground Noise Level Graph
6.610	10
	9
	4
	2
Click	"Next" button when ready to proceed to the tag read rate tes
—Gallagher A	

Note: While this window is displayed, the SmartReader will not read Electronic ID tags.

The horizontal scale shows approximately 2 minutes viewing of the background noise.

The vertical scale shows the level of background noise. The higher up the scale the more background noise and the more likely the tag read range will be reduced.

2. If the background noise level is high, try turning off sources of electrical noise and re-test.

Test read range

1.

Press L	\mathbb{N} ext > \mathbb{N} . The follow	ving window is displayed	:
SmartRea	der Diagnostic Wizard		×
3. Ch	eck Tag Read Rate		
Step 1 -	Suspend an animal EID tag 600mm in front of the reader.		
Step 2 -	Make sure the tag base is parallel with the reader, as shown in the diagram.		
Step 3 -	Click the "Next" button to view the read rate graph.	600mm	
The read continue viewing	der will be automatically set to bus read whilst you are the test results graph and		
automat afterwar	idaily reset to current values ids.		
u anayrter		< Previous Next >	Finish

2. Follow the window instructions to test the EID tag read range in your animal handler.

. The following window is displayed:

Next >

3. Click

SmartRe	ader Diagnostic Wizard 🛛 🔀		
4. Та	4. Tag Read Rate Graph		
37%	100 90 F - Good		
	Acceptable		
	40 30		
	20 10 0		
	Tag Type : Half-Duplex (HDX) Full-Duplex (FDX)		
Gallaghe	r AMS Next > Finish		

Note: While this window is displayed the SmartReader is automatically set to continuously read.

The type of tag being read is shown at the bottom of the window.

4. Alter the mounting location of the Antenna Panel with the aim of improving the read range.

See *Mounting the Antenna Panel* (p 4).

Note: Once you have finished using the Configurator ensure you click on the disconnect button in the Configurator program prior to unplugging the cable. This ensures the data transmission returns to the correct state.

Testing with live animals

- 1. Pass a small group of animals through the animal handler.
- 2. Did the SmartReader read all the tags?
 - If yes, the SmartReader is operational.
 - If no, contact your Gallagher representative for further information.

INSTALLING MULTIPLE SMARTREADERS

When multiple SmartReaders are installed in close proximity, additional set up is required to ensure all Electronic ID tags are read correctly.

Each SmartReader must be able to communicate with all other SmartReaders to enable the antenna panel to be switched on and off at the appropriate times to ensure both Electronic ID tags can be read. For additional information about tags, see *Electronic ID tags* (p 2).

- If you have two SmartReaders to install you may use either wired or wireless installation. The wired option is the preferred option for the greatest reliability.
- If you have more than two SmartReaders you must use wired installation.

Wireless installation

Note: This option is applicable if you are installing two SmartReaders.

Once you have installed both SmartReaders, you need to change the following settings in the SmartReader via the Configurator program on your computer.

Procedure

- 1. Connect the SmartReader to a computer. See *Connect the SmartReader to a computer* (p 10).
- 2. Open the Configurator software.
 - Double-click on the Configurator icon on the desktop.



OR

- a) Click on the Windows **Start** button.
- b) Select All Programs (Windows XP) or Programs (Windows 2000).
- c) Select **MyScale**.
- d) Click on SmartReader Configurator.
- 3. Click Connect

The current settings for the connected SmartReader are displayed in the lower part of the screen.

🙀 Configuration Utility - Gallagher SmartReader			
Program Reader Connection Tools Advanced Help			
Connection : CDM1 🖌 More			
Disconnect Search Get Set	tings Apply Settings Restore Defaults		
Settings			
Operational settings Panel Settings ID Code Fo	ormat Communication Settings Diagnos		
⊂Read Mode ◯ Requested ◯ Continuous	Time Last Tag Remembered Remember delay 300 🗘 sec.		
Read Time sec.	Overwrite Oldest Session When Full		
Indication Of Tag Read	Speaker		
Flash : ○ First read	Volume : • On Off		
Duplicate Tag Reads			
🔾 Send 💿 Don't send	Synchronisation		
Duplicate Recognition Method	Wired : 🔵 On 💿 Off		
O Last Tag Only O Buffer: 10 v tags Resend after 180 sec.	Wireless : 🔿 On 💿 Off		
All settings successfully received.			

4. Click Get Settings

The SmartReader current settings are transferred to the Configurator and displayed.

5. Set the **Synchronisation - Wireless** option to **On**.

Synchronisation		
Wired :	🔿 On	💿 Off
Wireless :	📀 On	🔘 Off

- 6. Click Apply Settings to copy the changes down to the SmartReader.
- 7. Repeat for the second SmartReader.

Wired installation

- Applicable if you are installing more than two SmartReaders.
- Applicable for two SmartReader installations where greater reliability is required and it is practical to run the required cables.

Once you have installed the SmartReaders, you need to change the following settings in the SmartReader via the Configurator program on your computer.

Procedure

- 1. Connect the SmartReader to a computer. See *Connect the SmartReader to a computer* (p 10).
- 2. Open the Configurator software.

- Double-click on the Configurator icon on the desktop.



OR

- a) Click on the Windows **Start** button.
- b) Select All Programs (Windows XP) or Programs (Windows 2000).
- c) Select MyScale.
- d) Click on SmartReader Configurator.
- 3. Click Connect

The current settings for the connected SmartReader are displayed in the lower part of the screen.

🙀 Configuration Utility - Gallagher SmartReader 🛛 🔲 🗖 🔀				
Program Reader Connection Tools Advanced Help				
Connection : CDM1 🗸 More				
Disconnect Search Get Sett	Disconnect Search Get Settings Apply Settings Restore Defaults			
Settings				
Operational settings Panel Settings ID Code Fo	rmat Communication Settings Diagno:			
Read Mode	Time Last Tag Remembered			
Requested Ocontinuous	Remember delay 300 🗸 sec.			
Read Time 💽 💉 sec.	Overwrite Oldest Session When Full Yes No			
Indication Of Tag Read	Speaker			
Flash : ○ First read	Volume : On Off Been L			
Duplicate Tag Reads				
🚫 Send 🛛 💿 Don't send	Synchronisation			
Duplicate Recognition Method	Wired : 🔵 On 💿 Off			
O Last Tag Only O Buffer: 10 v tags Resend after 180 sec.	Wireless : 🔵 On 💿 Off			
All settings successfully received.	•			

4. Click Get Settings

The SmartReader current settings are transferred to the Configurator and displayed.

5. Set the Synchronisation - Wired option to On.



- 6. Click Apply Settings to copy the changes down to the SmartReader.
- 7. Repeat for all other SmartReaders.

Cabling requirements for connecting SmartReaders

During the wired installation you need to connect all SmartReaders together with a cable with the following pin outs:



This cable in not supplied by Gallagher - you are expected to have a custom cable made to suit the individual installation.



The extra COM connectors enable you to alter the settings of each SmartReader.

Create one for every SmartReader you have. This enables you to easily set up and communicate with all SmartReaders.

Dual-Reader Mode

This option enables increased Electronic ID reading performance, using two panel readers, which can be connected to operate in tandem as a Dual-Reader. If you are unable to get a consistent 100% read of animals in a race, then the Dual-Reader option may deliver the required performance.

Positioning two panel readers opposite each other on either side of a race, enables them to be operated as if they were a single reader with a larger read range. This provides a solution that works across races up to 1.2 metres wide. However, it is important the animals move through the race in single file to avoid a missed read.

The readers are installed as a master (primary reader) and slave (secondary reader). Once you have installed both SmartReaders you will need to change the settings in each SmartReader via the Configurator program on your computer.

Note: To use the Dual-Reader mode, you will need vSR1.09//b03 of reader software and v2.12.0.15 of SmartReader Configurator software, or higher versions.

Procedure

- 1. Connect the SmartReaders to a data collection device. (PC, TSi, SmartScale)
 - For a wired connection between the readers, refer to *Dual-Reader Wired Installation* (p 21).
 - For a Bluetooth connection between the readers, refer to *Dual-Reader Wireless Installation* (p 23).
- 2. Turn the **Primary** SmartReader on.
- 3. If the Dual-Readers are connected to a PC/laptop, open the Configurator software.

Double-click on the Configurator icon on the desktop.



OR

- a) Click on the Windows **Start** button.
- b) Select All Programs (Windows XP) or Programs (Windows 2000).
- c) Select **MyScale**.
- d) Click on SmartReader Configurator.
- 4. Click Connect

The current settings for the connected SmartReader are displayed in the lower part of the window under the Operational Settings tab:

🙀 Configuration Utility - Gallagher SmartReader				
Program Reader Connection Tools Advanced Help				
Connection : COM1 👻 More				
Disconnect Search Get Se	Disconnect Search Get Settings Apply Settings Restore Defaults			
Settings				
Operational settings Panel Settings ID Code F	ormat Communication Settings Diagno:			
Read Mode	Time Last Tag Remembered			
Requested Continuous				
Read Time 💽 sec.	Overwrite Oldest Session When Full Ves No			
Indication Of Tag Read	Speaker			
Flash : 🔵 First read 💿 Every read	Volume : $\bigcirc \Omega_n \bigcirc \Omega_{\rm ff}$			
Beep : 💽 First read 🛛 Every read	Beep!			
Duplicate Tag Reads				
🔘 Send 🛛 💿 Don't send	Synchronisation			
Duplicate Recognition Method	Wired : 🔿 On 💿 Off			
💿 Last Tag Only 🔵 Buffer: 👖 🔽 tags	Wireless: 🔿 On 💿 Off			
Resend after 180 🤤 sec.				
All settings successfully received.				

5. The Dual-Reader mode is set to the default, **OFF**.

Select **Primary** to set up the master SmartReader and then select **Custom Wired** or **Bluetooth**.

The **Synchronisation** settings default, depending on your selection.

- 6. Click Apply Settings. The settings are transferred to the SmartReader.
- 7. Click Disconnect
- 8. Unplug the first SmartReader (master) and connect to the other SmartReader (slave). Repeat from Step 2, to Step 7 to set up the **Secondary** SmartReader.

Refer to the *Configurator Online Help: Operational Settings - Dual-reader mode*, to set up the Operational Settings screen for the Primary and Secondary SmartReaders.

Dual-Reader wired installation

This section shows how to connect a master and slave SmartReader using a custom serial cable, and how to establish a connection between the SmartReaders and the data collection device. (PC, SmartTSi, Weighscale)

Note: You will need a simple custom serial cable in a "Y" configuration. This cable is not supplied by Gallagher - you are expected to have a custom cable made to suit your individual installation.

Procedure

1. Plug the supplied reader to RS-232 cable into the serial port on your data collection device.

- 2. Plug the other end into the Female plug on the custom serial cable.
- 3. Plug the Male plugs of the custom serial cable into the master and slave SmartReaders.

Note: If your computer does not have a serial port, use the supplied RS-232 to USB adaptor to connect to a USB port on the computer.

4. Return to Step 2. of Dual-Reader Mode to complete the installation process for Dual-Readers.

Custom Cable

The master reader has two two cables entering the single male DB9 serial connector.

- One cable carries the Wired Sync signal (pin 1), Incoming Secondary Tag Data (pin 3) and Ground (pin 5). This cable crosses pin 3 to pin 2 between the master and slave readers and terminates with a Male DB9 connector suitable for connecting to the slave reader.
- The other cable carries the Wired Sync signal (pin 1), Outgoing Primary Tag Data (pin 2) and Ground (pin 5). This cable goes from the master reader to terminate with a Female DB9 connector, suitable for connecting to the data collection device (SmartTSi, Weighscale or PC)

The following diagram shows the Dual-Reader Wired configuration:



Dual-Reader wireless installation

This section describes how to connect a master and slave SmartReader using the Bluetooth module, and how to establish a connection between the SmartReaders and the data collection device. (PC, SmartTSi, Weighscale)

Note: A standard serial cable will be required for this configuration, so the Primary tag data (tags read at both master and slave readers) can be transported to the data collection device.

- 1. Plug the supplied reader to RS-232 cable into the serial port on your data collection device.
- 2. Plug the other end into the master SmartReader.

Note: If your computer does not have a serial port, use the supplied RS-232 to USB adaptor to connect to a USB port on the computer.

3. Return to Step 2. of Dual-Reader Mode to complete the installation process.

Wireless

When Wireless Sync is used, there is no need for custom cables. Master mode Bluetooth reader firmware (vSR1.08 or later) is needed to allow the slave reader tag data to be communicated over Bluetooth to the master reader. It does not matter which reader is set up as Bluetooth master or slave, so long as the Bluetooth link establishes itself automatically when the two readers are powered up, and the tag data can be communicated.

The following diagram shows the Dual-Reader Wireless configuration:



ACCESSORIES

4 Metre Antenna Extension Cable Kit

The 4 Metre Antenna Extension Cable Kit contains:

- 1 x Extension cable (4m)
- 1 x Mounting bracket
- 2 x Metal TEK screws

Mounting the extension kit to the SmartReader

Mount the Antenna Panel as per *Mounting the Antenna Panel* (p 4).

Considerations

- The Extension cable is part of the Antenna Panel circuit so keep away from large metal surfaces.
- Ensure the SmartReader mounting location provides protection from being knocked or damaged by animals.
- Ensure the Extension cable is run so it can not be damaged or tripped over.
- Protect the Extension cable from damage from the environment, animals, people or weather. Avoid mounting the Extension cable in wet areas.
- The extension cable length is 4 m.

Procedure

- 1. Determine the location of the SmartReader based on the above considerations.
- 2. Using the supplied metal tek screws attach the mounting bracket to a solid mounting location using at least two of the holes in the mounting bracket.

The two sets of two holes allows for installation on horizontal or vertical pipe work.



- 3. Run the Extension cable from the SmartReader to the Antenna Panel along the proposed path and temporarily fasten the cable in place.
- 4. Ensure the SmartReader is turned off.

5. On the Antenna Panel, unscrew the Amphenol connector locking nut from the Amphenol socket and pull it down to unplug from the Antenna Panel.



- 6. Connect the Extension cable to the Amphenol connector and tighten.
- 7. Mount the SmartReader on the mounting bracket by grasping the SmartReader on both sides and slide the back handle onto the mounting bracket.



8. Connect the Extension cable to the Amphenol socket on the side of the SmartReader and tighten the locking nut.



9. Once the Extension cable location is finalised, attach the cable permanently using cable ties. The SmartReader is now ready to use.

OPTIONAL

Overview

The SmartReader (BR and R series) can be upgraded to use Bluetooth for communications between the SmartReader and a Scale, or a SmartReader and a computer. The Bluetooth upgrade needs to be done by your Gallagher distributor.

For communications between a SmartReader and a Scale, a Bluetooth RS-232 adaptor will need to be purchased.

For communications between a SmartReader and a computer, a Bluetooth USB adaptor will need to be purchased if the computer is not already Bluetooth enabled. In addition, the computer will need to be running Windows XP.

Bluetooth RS-232 Adaptor

Introduction

A Bluetooth RS-232 adaptor is available from your Gallagher distributor to allow a Bluetooth enabled SmartReader to communicate with a Scale.

Compatibility

This Bluetooth device should work with Scales that have power to pin 9 on the serial port.

A power supply is not required and is not supplied with the RS-232 adaptor. Power is expected to be provided from pin 9 of the RS-232 port to the adaptor from the Scale.

Setting up the Bluetooth RS-232 Adaptor

- 1. Plug the RS-232 adaptor into the serial port on the side of the Scale using the small serial cable that comes with the adaptor.
- 2. Power up and configure the Scale to receive data on that serial port.

For a Gallagher Smartscale this would be in the Setup menu under Communications, set Port 2 to "EID Standard".

- 3. Check that the power light on the adaptor has illuminated.
- 4. Turn on the reader.
- 5. Tag data will automatically be sent to the Scale.

Notes:

- The wireless connection should be effective to a range of at least ten metres.

- The "Power" LED illuminates when power is supplied to the adaptor.
- The Bluetooth light flashes when a wireless connection is active.
- The "Mode" LED (middle LED) only illuminates during configuration.

Pairing the RS-232 Adaptor with your reader

The RS-232 Adaptor must be **paired** with your individual SmartReader, i.e. the adaptor must be uniquely identified by your reader.

This is achieved by assigning your SmartReader "MAC address" to the adaptor. Other Bluetooth devices (including other readers working in the immediate area) will then be of no concern to your operation.

The pairing process must be carried out by your Gallagher distributor. If you have received the Bluetooth adaptor with your reader, the pairing should already be in effect. If not, take your reader and your adaptor to your nearest distributor for pairing.

Bluetooth USB Adaptor

Introduction

A Bluetooth USB adaptor is available from your Gallagher distributor to allow a Bluetooth enabled SmartReader to communicate with a computer.

This section describes how to install a Bluetooth USB adaptor to a USB port, to enable your computer to make a wireless communication with any Bluetooth device, including a Gallagher SmartReader.

The wireless connection can be used to download tag numbers to MyScale Pro or to configure the reader with the software supplied on the MyScale Pro CD.

Many modern computers are manufactured "Bluetooth enabled" and this accessory is not required for those models.

Compatibility

The Computer must be running the Windows XP operating system and have one available USB port.

MyScale Pro Version 2.5.1 or later must be installed on the computer.

Installing and connecting the USB Adaptor

1. Insert the adaptor into the USB port. This will be detected automatically.



2. After a period of configuration the Bluetooth icon will appear in the taskbar notification area.



3. Click on the Bluetooth icon. The following menu will be displayed:



4. Select the **Add a Bluetooth Device** option. This opens the Bluetooth Wizard.

Add Bluetooth Device Wizard		
®	Welcome to the Add Bluetooth Device Wizard	
×	Before proceeding, refer to the "Bluetooth" section of the device documentation. Then set up your device so that your computer can find it: - Turn it on - Make it discoverable (visible) - Give it a name (optional) - Press the button on the bottom of the device (Ferthoards and mice only)	
	My device is set up and ready to be found.	
	W Add only blactoom <u>devices (hat you tiust</u> .	
	< Back Next > Cancel	

- 5. Populate the **My device is set up and ready to be found** check box.
- 6. Turn on your SmartReader. A panel reader will constantly scan for a connecting computer.
- 7. Click **Next** on the Wizard. The following window will be displayed:



8. Double click on $\mathfrak{B}_{\mathsf{New device}}^{\mathsf{GGL}_{\mathsf{PANEL}}}$. The following window will be displayed:

Add Bluetooth Device Wizard		
Do you need a passkey to add your device?	×	
To answer this question, refer to the "Bluetooth" section o your device. If the documentation specifies a passkey, use	f the documentation that came with a that one.	
O Choose a passkey for me		
\bigcirc Use the passkey found in the documentation:		
● Let me choose my own passkey:	0000	
○ Don't use a passkey		
You should always use a <u>passkey</u> , unless your device does not support one. We recommend using a passkey that is 8 to 16 digits long. The longer the passkey, the more secure it will be.		
(<u>B</u> a	ck Next > Cancel	

- 9. Select Let me choose my own passkey. Enter 0000 (four zeroes) and click Next.
- 10. Passkeys will be exchanged and the wizard completes.



11. Click on Finish.

Note: The Bluetooth connection should be effective to a range of at least ten metres.

SPECIFICATIONS

Small Antenna Panel

Small Antenna Panel Dimensions (w x h x d) 3 kg 400 x 600 x 50 mm



Large Antenna Panel

Large Antenna Panel Dimensions (w x h x d)

7.3 kg 400 x 1300 x 50 mm



Sheep Auto Drafter Antenna Panel

Sheep Auto Drafter Antenna Panel

Dimensions (w x h x d)

15 kg 1080 x 900 x 200 mm



SmartReader

Weight R Series	1.5 kg
Dimensions (w x h x d)	300 x 220 x 100 mm (approx)
	The front and back are slightly curved out.

Power Requirements

Battery Power Supply

12 V Linear

12 V

Input voltage

Nominal 12 V DC, Maximum 15 V DC

Battery or Power supply can be plugged into the Gallagher R Series SmartReader.

The SmartReader power connector:



Standards

IP (Ingress Protection) Rating:	IP66
Operating temperature range:	-10 to +55 °C
Storage temperature range:	-40 to +85 °C

Safety Standards	Australia and New Zealand (AS/NZS 3350.2.29 or AS/NZS 60335.2.29)	
	Europe(EN 60335.2.29)	
C-Tick approval	New Zealand & Australia	
CE Mark	EN 300 330-2, EN 301 489-3	
FCC	This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.	
	This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment	

	generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:	
	Reorient or relocate the receiving antenna.	
	• Increase the separation between the equipment and receiver.	
	• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.	
	 Consult the dealer or an experienced radio/TV technician for help. 	
	CAUTION: Changes or modifications not expressly approved by Gallagher Group Limited could void the user's authority to operate the equipment.	
Industry Canada	This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.	
	This radio transmitter (IC: 7369A-G03113X) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.	
	Antenna Types: - BR600 Small Antenna Panel (G03121) - BR1300 Large Antenna Panel (G031424) - Sheep Auto Drafter Antenna Panel (G05714)	

Waste Electrical and Electronic Equipment

This symbol on the product or its packaging indicates that this product must not be disposed of with other waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city recycling office or the dealer from whom you purchased the product.



ONE YEAR WARRANTY

REGISTER ONLINE AT www.gallagherams.com TO EXTEND YOUR WARRANTY TO TWO YEARS

FOR THIS PRODUCT FROM DATE OF PURCHASE		
MODEL	SELLING DEALER STAMP	
SERIAL NO		
DATE PURCHASED		

This product is guaranteed free from defects in material or workmanship for a period of one year from date of purchase by the end user. Gallagher will repair or replace at their option any faulty product returned to them or their Dealer within this time period. Freight/forwarding costs incurred by the Customer in the warranty process remain the responsibility of the Customer.

This warranty does not cover damage (including subsequent corrosive damage) due to:

- Unauthorised repairs
- Modifications
- Failure to follow care and maintenance guidelines described in the User Manual
- Physical Mishandling
- Lightning Strike
- Floods, fires or acts of God
- Use of an arc welder on loadbars or equipment or steelwork attached to loadbars while a WeighScale is connected

Gallagher, their Distributors, and their Dealers accept no responsibility for the misuse of this product.

Gallagher, their Distributors, and their Dealers accept no responsibility for any accident caused subsequently to any tampering with or modification to or for the misuse of this product.

Gallagher, their Distributors, and their Dealers accept no liability for consequences and/or secondary damages or losses of any kind sustained directly or indirectly, a result of failure or defect in any product, material, installation or service.

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USA / CANADA

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PLEASE READ INSTRUCTIONS CAREFULLY BEFORE USE. PLEASE COMPLETE DETAILS AND KEEP WITH YOUR RECEIPT — IT IS YOUR PROOF OF WARRANTY