



Increasing the range of the Wireless Water Monitoring System

Gallagher offer a number of antenna systems for farmers needing to increase the read range of their Wireless Water Monitoring System. Use this brochure to find the answers to common challenges like longer distances between monitoring location and tanks, multiple tank monitoring and lack of line of sight between monitor and tanks.



Antenna Options to increase the range

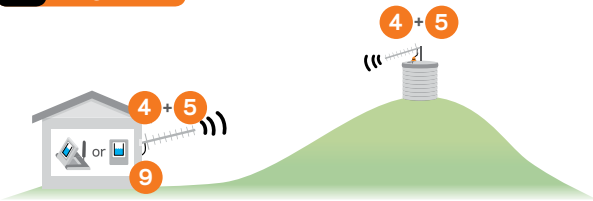
Use the diagrams to find the setup that most closely resembles the challenge - A-F

Line of sight

Maximum range is 4km, if there is genuine line of sight. Anything in the way (e.g. hills/trees/buildings/vehicles/walls) will reduce distance. To extend range up to 10km

- Point to point - use a Directional Long Range Antenna at both ends
- Must be directly pointing to far location

A 1 Tank



B 2+ Tanks

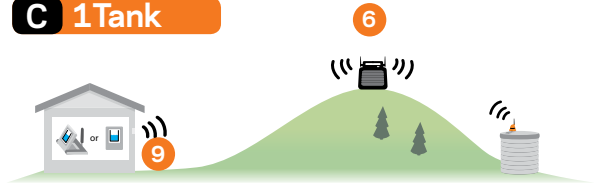


No line of sight

If there is no line of sight, to provide a stronger radio signal it is often beneficial to install an Active Repeater on a hill top. Choose a location that has clear line of sight to the source and the destination (tank and the farm house).

- Only one repeater can be used in a system (not designed to be daisy chained)
- Needs to face north so that the solar panel can keep the battery charged.

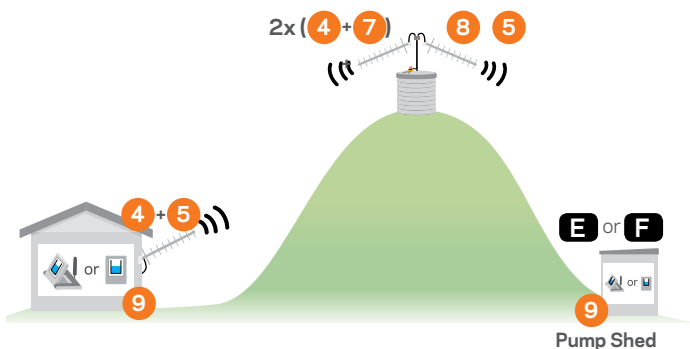
C 1 Tank



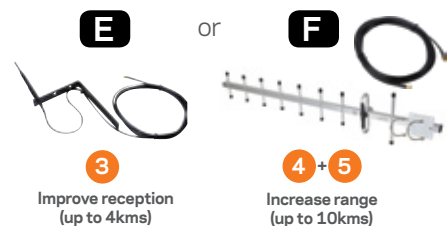
D Further Range Extension



Pump shed - no line of sight to house



Two base unit systems are needed. One automatically maintains tank level (pump shed to tank) and the other monitors tank level to confirm system is working correctly (tank to house).



Improve reception (up to 4kms)

Increase range (up to 10kms)

Antenna options to increase the range

Use the product list to determine the products needed for the system - 1-9

Step 1

Multi Direction Antenna Systems

B E

Multi directional antennae send/receive signals to/from multiple monitored locations and base display unit.

Up to **10km** **1** **High Power External Multi Directional Antenna**
G98506



A long life weatherproof antenna designed to be mounted externally to maximise the range and reception. Comes complete with brackets and hardware.

2 **Cable**
G98604 (4m) G98605 (10m)



For use with **1** Multi directional with SMA male to N female, 3u" gold plated connectors.

Up to **4km** **3** **External Multi Directional Antenna**
G98504



External mounted option for standard distance installations that require improved reception to the base unit, especially useful for corrugated iron pump sheds.

Single Direction Antenna Systems

A B D F

Single direction antennae send/receive signals to/from a single monitored location.

Up to **10km** **4** **Directional Ultra Long Range Antenna**
G98500



Made from the highest quality weather resistant materials, this high performance antenna maximises range to a single location

5 **Cable**
G98602 (4m) G98603 (10m)



For use with **4** Directional Ultra Long Range High Performance low loss RG58U cable with SMA to SMA, 3u" gold plated connectors.

Active Repeater

C D

6 **Active Repeater**
G98512



Can be utilised to carry the signal over an obstacle preventing line of sight. Only 1 Active Repeater can be used per Water Monitoring System. Tank unit and display only.

Other

7 **0.5m Cable**
G98601



For use with **4** Shorter length to ensure minimal signal loss between antenna

8 **Cable splitter**
G98701



For use in systems that require two Directional Antenna - splits the transmission signal in half

9 **Wall Mount Adaptor**
G98017



For use with Wall Mount Display Units to connect to Antenna cable

Parts list

Starter Pack Desk Mount

Included



Display
Desk Mount LCD
Display
G98114



Tank Unit
Tank Unit only
G98236



Sensor
Stainless Steel Sensor
4m or 10m
G98800 or G98801

Spare parts



Power Supply
Desk mount power
supply
G98116



Standard Antenna
Antenna Standard
Multi Directional
G98508



Display Antenna
Desk Mount
Antenna
G98510

Starter Pack Wall Mount

Included



Display
Wall Mount LCD
Display
G98014



Power Supply
Wall Mount
Power Supply
G98016



Tank Unit
Tank Unit only
G98236



Sensor
Stainless Steel Sensor
4m or 10m
G98800 or G98801

Spare parts



Standard Antenna
Antenna Standard
Multi Directional
G98508

Tank Unit with 4m sensor

Included



Tank Unit
Tank Unit only
G98236



Sensor
Stainless Steel Sensor
4m or 10m
G98800 or G98801

Spare parts



Standard Antenna
Antenna Standard
Multi Directional
G98508

Wireless Pump Controller

Included



Wireless Pump Controller
G98310
Single Phase

Spare parts



Standard Antenna
Antenna Standard
Multi Directional
G98508