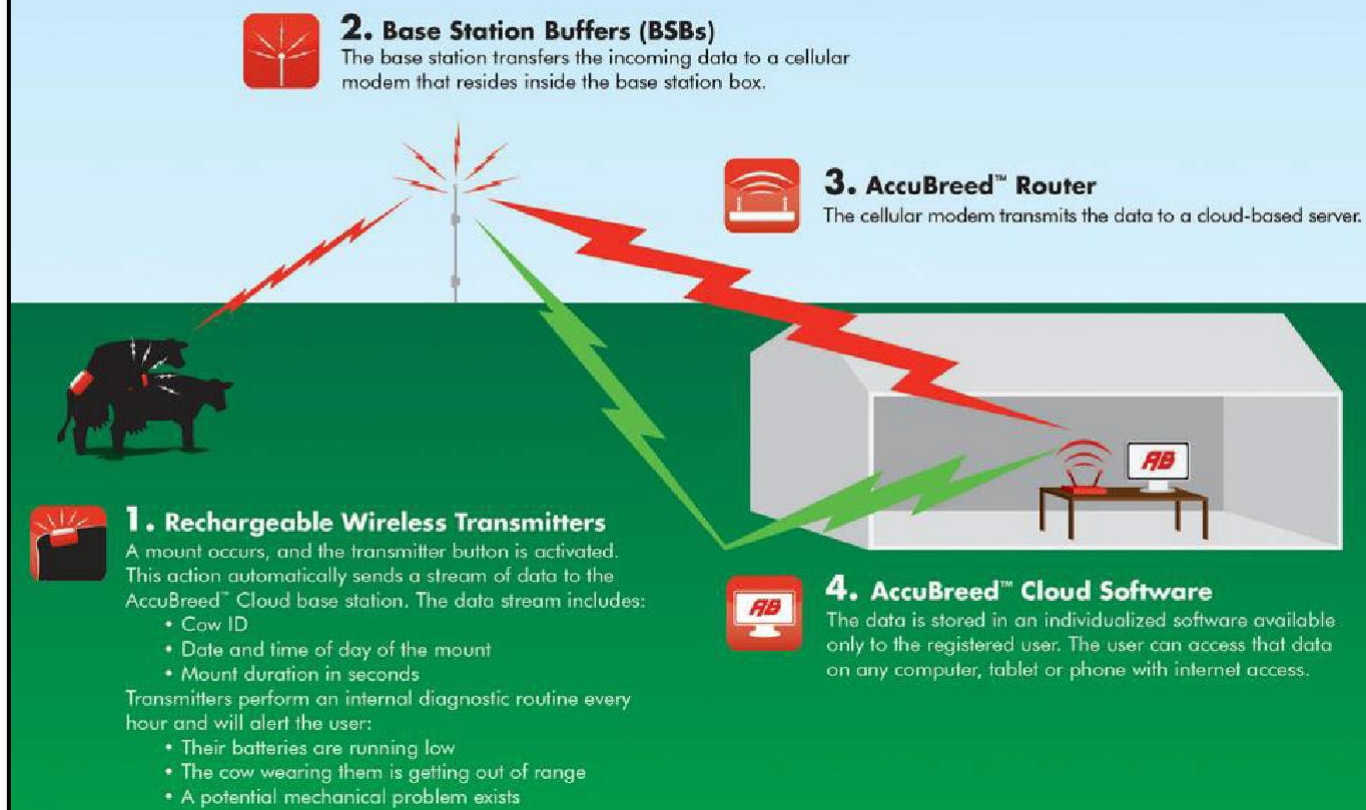


ACCUBREED™ EQUIPMENT INSTALL & SYSTEM OVERVIEW GUIDE

INTRODUCTION / OVERVIEW

The AccuBreed™ Heat Detection System uses digital technology to capture mounting data as it occurs. Transmitters are applied halfway between the hip and tail-head of a cow and when an event occurs the information is sent to the base station. The base station uses a built-in cellular modem and relays the information to the AccuBreed™ Cloud Service where the data is stored and sorted into categories such as *Standing Heat*, *Breed Zone*, *Watch for Heat* and *Awaiting Heat*. Users will access the AccuBreed™ Cloud Service from their phone or computer to view the data or receive text notifications.

How the AccuBreed™ System Communicates:



How to contact us:

AB-70-002-MAN C

Phone (715) 953-2417

E-mail: Questions@AccuBreedCloud.com

Mail: Genesis Instruments, 200 Main St. Elmwood, WI 54740

Website: www.accubreedcloud.com

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INCLUDED EQUIPMENT

All complete AccuBreed™ Systems Include the following components. Additional Items such as additional Transmitters, Patch Kits, Repeaters, Extra Cable are sold separately and listed on page 15.



Transmitters (QTY 10)



Base Station w/ SIM Card (QTY 1)



Base Station Antenna (QTY 1)



Base Station Antenna Cable (10')



Outdoor Power Module (QTY 1)



Transmitter Charger (QTY 1)



Ground Wire (20')



Tack Cleaning Cloth (QTY 1)



SureCall Antenna Mounting Kit (QTY 1)



3M 77 Spray (QTY 1)



Rubber Brush (QTY 1)



Antenna Mounting Hardware (QTY 1)



Power Cable (50')



Intact™ Peel & Stick Patch Kit (QTY 25)



Coax-Seal (4')



Pole Mounting Kit (QTY 1)



Antenna Surge Protector (QTY 2)



SureCall Cell Antenna Cable (QTY 1)



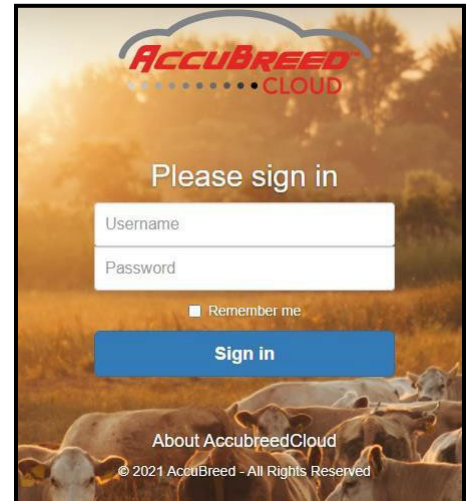
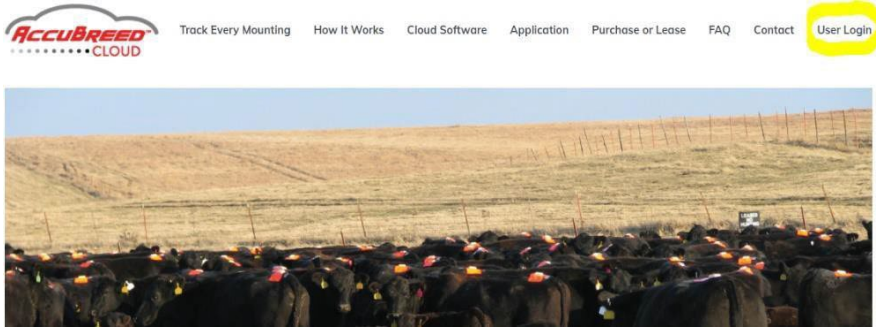
Whip Cellular Antenna (QTY 2)




- The Base Station, Outdoor Power Module, Repeaters and all other equipment must be installed in accordance with all local, state and national codes and regulations with good installation practices.
- Do not install any equipment near overhead electrical wires.
- Do not install any equipment on public utility poles.
- Do not use any extension cords to connect the Outdoor Power Module.
- Disconnect the Outdoor Power Module before servicing the system.
- If the power cord, power supply, or any other part of the system is damaged or shows signs of water or dust incursion, disconnect the system, do not use the system and seek service immediately.
- Do not operate the system until all covers are securely in place and all seals are tight.
- Use only the AccuBreed™ antennas, connectors and power cables.
- AccuBreed™ antennas must be grounded.
- Do not attempt to use this system for any purpose other than as intended by the manufacturer.
- Do not remove any warning labels or signs. Have them replaced if they become illegible or are missing.
- Do not install or wire in “hazardous locations” as defined by the electrical code.
- Before digging to bury wire, always call to verify location of existing utilities.

AccuBreed™ Cloud Sign In Steps

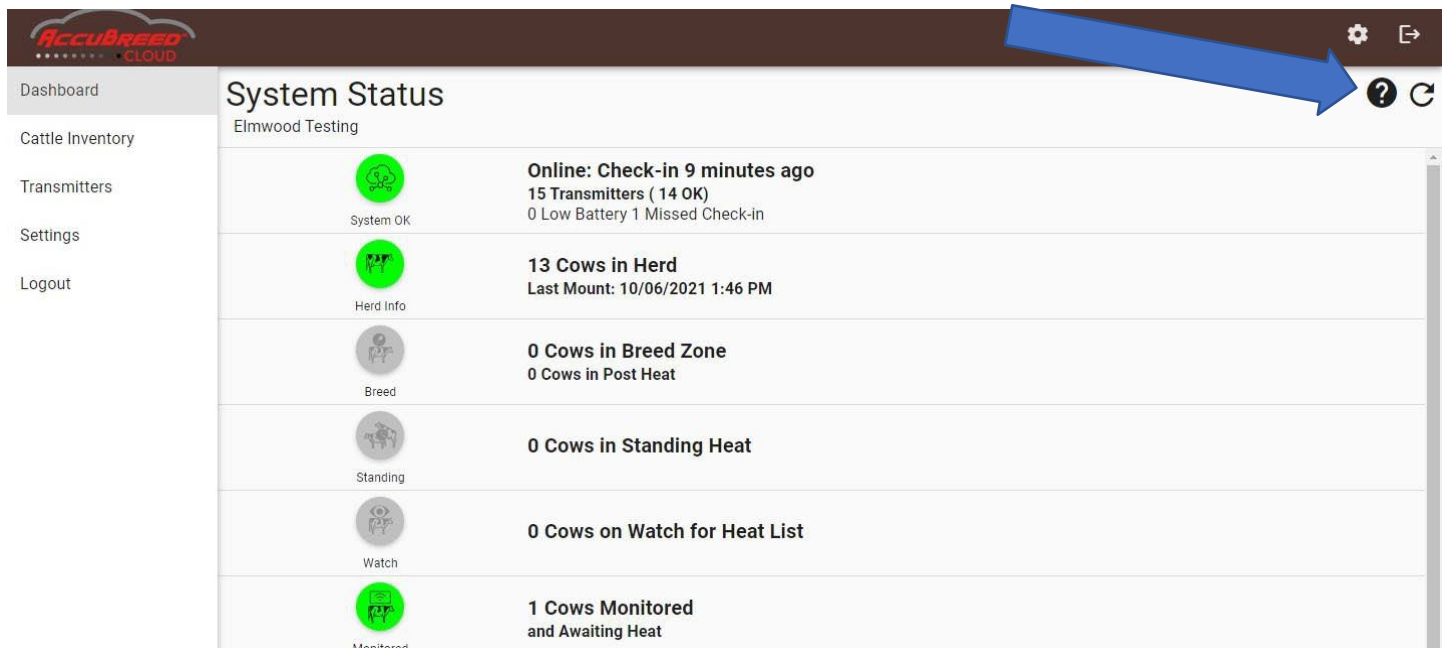
1. From your web browser on your computer, smartphone or tablet visit: <https://app.accubreedcloud.com/>
2. Enter the Username and Password provided to you by the AccuBreed™ representative.



AccuBreed™ Cloud Set Up

After signing in, click the  symbol in the top right of the Dashboard page. It will open the “AccuBreed™ Cloud Quick Start Guide” and will teach users how to fully operate the website.

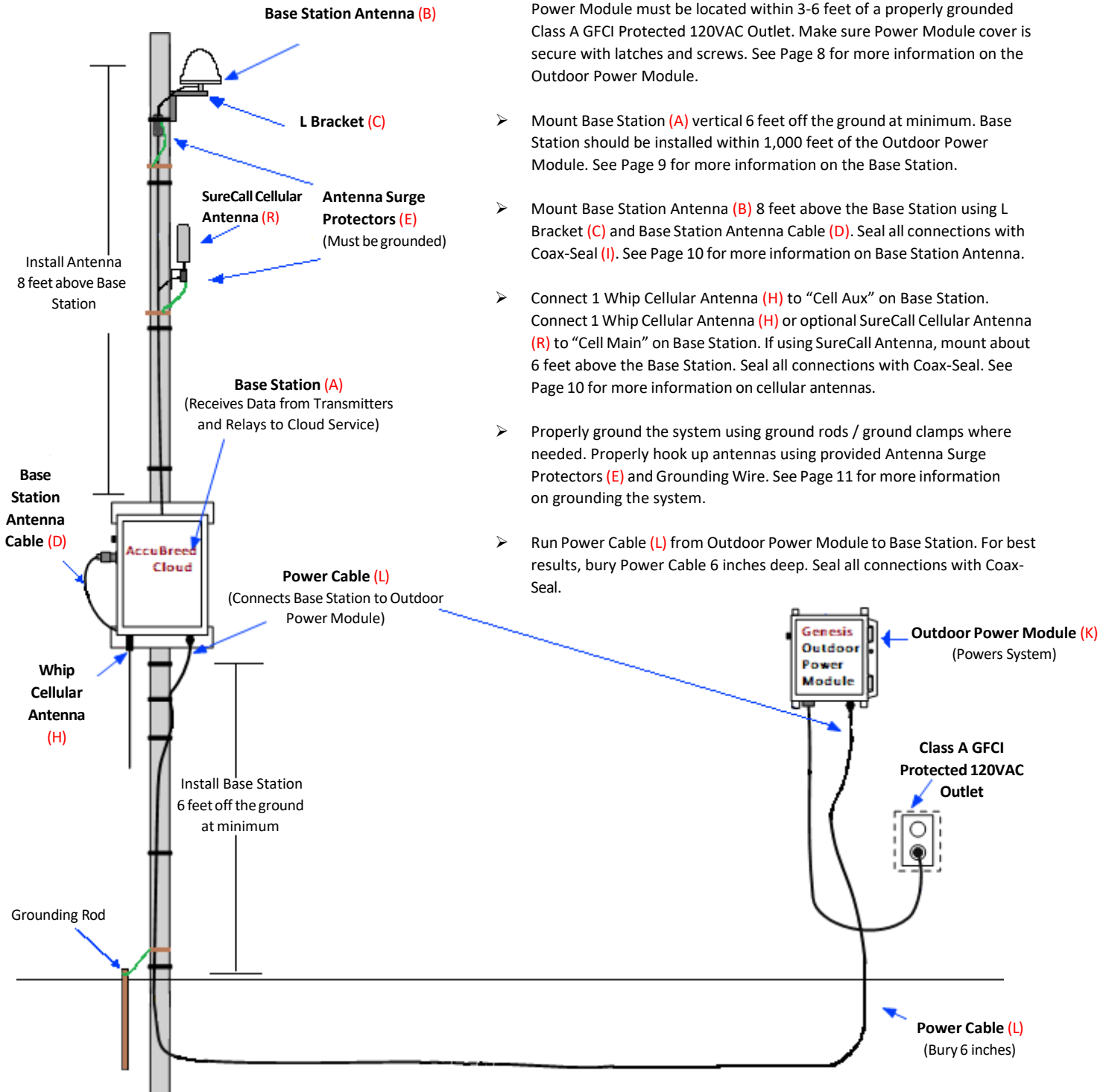
The AccuBreed™ Cloud Quick Start Guide describes how to upload cow IDs, assign transmitters, view reports, set heat parameters and much more! The Quick Start Guide is a must-read document for all users.



CONNECTION ILLUSTRATION

Configuration shown is an illustration to show connections and is not drawn to scale. Installer must ensure actual installation meets all required state and local code. Read all safety information on page 5 before attempting to install or service the AccuBreed™ system.

- Mount Outdoor Power Module (K) vertically at least 1 foot off the ground. Power Module must be located within 3-6 feet of a properly grounded Class A GFCI Protected 120VAC Outlet. Make sure Power Module cover is secure with latches and screws. See Page 8 for more information on the Outdoor Power Module.
- Mount Base Station (A) vertical 6 feet off the ground at minimum. Base Station should be installed within 1,000 feet of the Outdoor Power Module. See Page 9 for more information on the Base Station.
- Mount Base Station Antenna (B) 8 feet above the Base Station using L Bracket (C) and Base Station Antenna Cable (D). Seal all connections with Coax-Seal (I). See Page 10 for more information on Base Station Antenna.
- Connect 1 Whip Cellular Antenna (H) to "Cell Aux" on Base Station. Connect 1 Whip Cellular Antenna (H) or optional SureCall Cellular Antenna (R) to "Cell Main" on Base Station. If using SureCall Antenna, mount about 6 feet above the Base Station. Seal all connections with Coax-Seal. See Page 10 for more information on cellular antennas.
- Properly ground the system using ground rods / ground clamps where needed. Properly hook up antennas using provided Antenna Surge Protectors (E) and Grounding Wire. See Page 11 for more information on grounding the system.
- Run Power Cable (L) from Outdoor Power Module to Base Station. For best results, bury Power Cable 6 inches deep. Seal all connections with Coax-Seal.



OUTDOOR POWER MODULE

About Outdoor Power Module

The system will be powered using the Outdoor Power Module. The Outdoor Power Module serves as the primary power disconnect for the AccuBreed™ Base Station. The Outdoor Power Module is an outdoor rated enclosure.

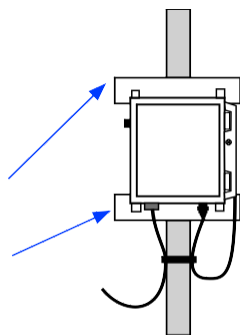


Indicator Light:
Lack of light does not guarantee there is no power present within the enclosure. Disconnect power before servicing the system.

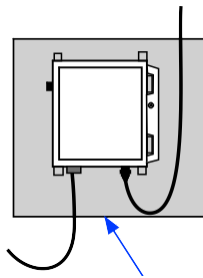


Location / Installation

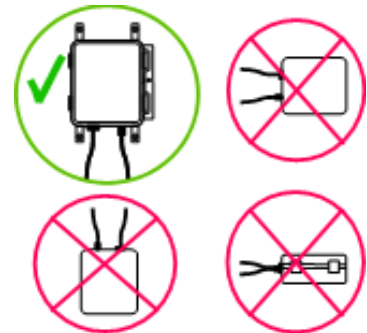
- A. The Outdoor Power Module must be located within 3-6 feet of a properly grounded Class A GFCI Protected 120VAC outlet. The outlet needs to be close enough to the location of the Outdoor Power Module that the built-in cord can comfortably reach the outlet without the use of any extension cords.
- B. The Outdoor Power Module must be located, away from areas of combustible materials and be at least 1 foot off the ground. For best results, do not mount in direct sunlight as it may reduce power output.
- C. The Outdoor Power Module can be mounted on treated wood using its metal mounting feet or mounted to a pole using brackets. Do not drill holes into the Outdoor Power Module. Ensure the Outdoor Power Module cover is secure with latches and screws.
- D. Install the Outdoor Power Module vertically with the cords facing down.



Pole mount example:
Use pole mounting brackets.



Wall mount example:
Treated plywood, concrete or block.



BASE STATION

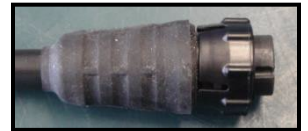
About AccuBreed™ Base Station

The Base Station receives data (mounts, check-ins, battery life, signal, status) from the transmitters and relays that information to the AccuBreed™ Cloud Service. Base Station range is reliable up to 2,000 feet with clear line of site. If a pasture is larger than 2,000 feet or has hills, AccuBreed™ Repeaters (Range Extender) may be necessary.

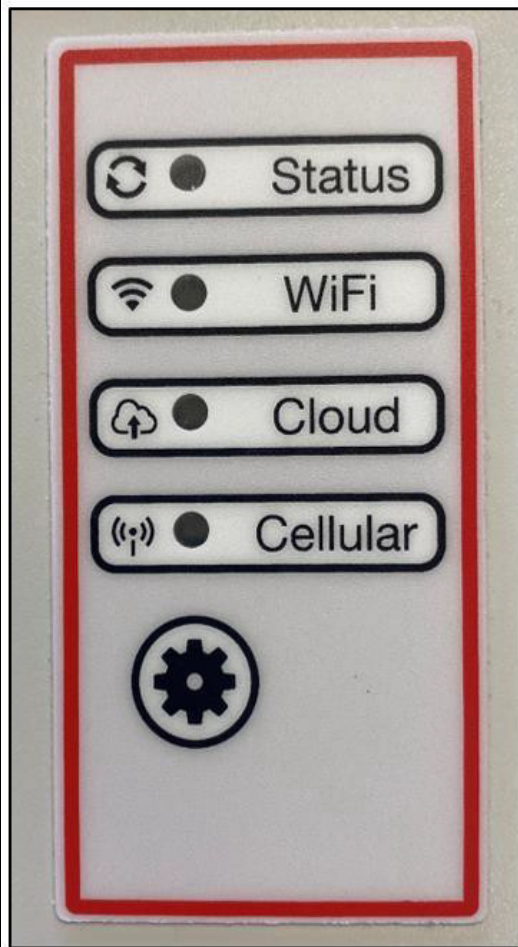


Location / Installation

- The Base Station can be installed on a pole, sturdy fence or on treated wood at least 6 feet off the ground. Make sure the Base Station is in a location with a clear line of site to the area the cattle are roaming. Buildings, hills and trees can reduce range. Use attached mounting feet or optional Pole Mounting Kit.
- The Base Station should be installed within 1,000 feet of the Outdoor Power Module as the Base Station requires DC power from the Outdoor Power Module. The Power Cable will need to be routed between the two units and must be protected from damage. Power cable should be buried about 6 inches when possible. Seal all connections with Coax-Seal.



Base Station Indicator Panel



Status

Off: No Power
Red: System Off but has Power
Flashing Yellow: System Booting
Green: System Ready
Winking Green: Transmitter Event Received

WiFi

Off: WiFi Disabled
Red: Connected to WiFi - Poor Signal
Flashing Red: Looking for WiFi Hotspot
Yellow: Connected to WiFi - Ok Signal
Green: Connected to WiFi - Strong Signal

Cloud

Red: Unable to Reach AccuBreed Cloud
Flashing Red: No Internet
Yellow: Connecting to AccuBreed Cloud
Flashing Yellow: Attempting to Reach AccuBreed Cloud
Green: Connected to AccuBreed Cloud
Winking: Transmitter Event Sent to AccuBreed Cloud

Cellular

Off: No Cellular Access
Red: Connected to Cell Network - Poor Signal
Flashing Red: Attempting to Connect to Cell Network
Purple: Connected to Cell Network - Signal Usable
Yellow: Connected to Cell Network - Signal OK
Green: Connected to Cell Network - Strong Signal
Wink: Data Transfer Detected

Push Button

Hold for 5 Seconds: Reboot
Push and Release: Send a Base Station Check-In to Cloud



Attach Power Cable

BASE STATION ANTENNA

Location / Installation

- A. The Base Station Antenna should be installed about 8 feet above the Base Station. Use Antenna Surge Protector.
- B. The Base Station Antenna will be mounted using the L Bracket.
- C. The Base Station Antenna will be connected to the antenna port located on the side of the Base Station using the Base Station Antenna Cable. Seal all connections with Coax-Seal.
- D. In some cases, the Base Station Antenna may be tilted to cover hills / valleys.



CELLULAR CONNECTION

Location / Installation

- A. Connect Whip Cellular Antenna to "Cell Aux" on Base Station. Seal Connection with Coax-Seal.
- B. Connect Whip Cellular Antenna or optional SureCall Antenna to "Cell Main" on Base Station.

If using optional SureCall Antenna, mount antenna 6 feet above the Base Station using SureCall Mounting Kit. Connect SureCall Cellular Antenna Cable into "Cell Main". Seal all connections with Coax-Seal.



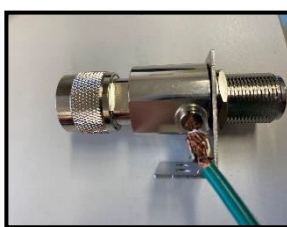
GROUNDING THE SYSTEM

About Grounding the System

Proper grounding of the antennas and metal poles is imperative to prevent equipment damage. Electrical code requires antennas and metal poles to be properly grounded.

Location / Installation (Check Local Codes)

- A. Customer will provide grounding rods and grounding clamps where needed. (See Connection Illustration on Page 7).
- B. Properly hook up antennas using Antenna Surge Protectors and grounding wire.



ACCUBREED™ REPEATERS

About AccuBreed™ Repeaters

AccuBreed™ Repeaters extend the range of the system. AccuBreed™ Repeaters may be necessary for pastures where the Base Station cannot cover the full range. The Base Station with a clear line of site will be reliable up to 2,000 feet. If there are hills or other obstacles blocking the signal, it will impact the performance of the Base Station and Repeaters are needed. Repeaters are optional equipment.



Location / Installation

- A. The Repeater Module can be installed on a pole, sturdy fence or on treated wood at least 4-6 feet off the ground. Make sure the Repeater is in a location with a clear line of site to the area the cattle are roaming and clear line of site to the Base Station or other Repeaters. Buildings, hills, and trees can reduce range.
- B. The Repeater Antenna (similar to the Base Station Antenna) should be installed about 8 feet above the Repeater Module. Connect Repeater Antenna to antenna port on the Repeater Module.
- C. The Solar Antenna can be attached to the same pole, fence or treated wood that the Repeater is attached to. Make sure the solar panel has a clear line of site to the sun.
- D. Connect the solar panel to the repeater.
- E. Repeater is ready once connected properly.



Antenna Port



About AccuBreed™ Transmitters

AccuBreed™ Rechargeable Wireless Transmitters are placed on cattle and stream data to the Base Station. The data includes Cow ID, mount time and date, mount duration, check-ins, low battery, low signal, etc). Transmitters will also perform an internal diagnostic routine every hour and will alert the user of low battery, cow out of range and any potential mechanical problems.

When the transmitters are removed from their magnetic holding plate, they will start communicating with the base station.

Ensure these transmitters are in communication with base station by logging into your AccuBreed™ Cloud Account before applying to cattle. Ensure transmitters are fully charged prior to application.



Preparing Patch / Transmitter

- A. Use double-sided tape on the bottom of Transmitter, then center the Transmitter on the Orange Base Layer.
- B. Place the plastic cup over the Transmitter.
- C. Remove backing from top layer.
- D. Apply top layer and firmly press down on all sides.



PATCH APPLICATION ONTO CATTLE

The ideal location for placement on the cow is between the hip and tailhead with the AccuBreed™ patch evenly spaced perpendicular to the spine. The following method is the best way to apply patches onto cattle. **If one step is skipped or missed, the patches will fall off the cattle.** If applying patches in cold weather, patches may need to be heated up before applying to cattle.

- A. Brush the hair with the grain using a Rubber Brush. Do not attempt to use a metal brush. Brush may be purchased at <https://www.maianimalhealth.com/>



- B. Blow the hair using a livestock show blower or an air compressor with blow gun nozzle to remove all dirt, dust and dander.



- C. Wipe the hair using a tack cleaning cloth. Tack cleaning cloth may be purchased at <https://www.maianimalhealth.com/>



- D. Using 3M Super 77 Spray™, spray a light, even coat of adhesive onto the hair where patch will be applied. Wait 30-45 seconds after spraying adhesive before next step.




- E. Peel the back of the prepared AccuBreed™ patch and stick on cow.



TROUBLESHOOTING



Follow all safety information while attempting any of the following recommendations.

Issue	Likely Cause	Recommendations
No light on Base Station LEDs. (No light when power is applied).	No power to the Base Station or Outdoor Power Module.	Check that the cable is plugged in at the Base Station and Outdoor Power Module. Indicator light should be ON at Outdoor Power Module. Check that there is power to outlet and GFCI is reset.
	Power Cable is not fully connected.	Check cable.
	Fuse blown inside Base Station.	Check fuse and replace if needed. Be sure to use same type of fuse and rating.
No Power indicator on Outdoor Power Module .	No power at outlet.	Check that there is power to outlet and GFCI is reset.
	Fuse blown inside Outdoor Power Module.	Check fuse and replace if needed. Be sure to use same type of fuse and rating.
Power Indicator on Outdoor Power Module keeps cycling On and Off.	Power Cable is not fully connected.	Check cable
Base Station Cellular LED is flashing red.	Antennas are not connected or have poor connections.	Make sure that "Cell Main" and "Cell Aux" on bottom of Base Station have antennas and that all antenna connections are snug.
	Cellular signal at Base Station is too weak.	"Cell Main" may require optional SureCall Antenna for signal boost.
AccuBreed™ Cloud Online Set up issues or AccuBreed™ Cloud Online Troubleshooting.		Read the AccuBreed™ Cloud Quick Start Guide by clicking  on "Dashboard" page after logging in.
Transmitter Status Issue. "Stuck Transmitter" messages.	Transmitter may be damaged due to excessive mounting.	If cow has already been added to "Standing Heat" list and is ready to be bred, transmitter can be removed and returned for service.
	Cow could be laying on transmitter.	Stuck transmitter message could be a cow laying on transmitter for an extended period.
Transmitter Status Issue. "Low Signal" or "Failed Check In" messages.	Cow could be out of range of Base Station.	Make sure Base Station has a clear line of sight. User may need repeater to extend range.
	Transmitter / Patch could have fallen off cow.	Locate cow and determine if it still has a transmitter.
Transmitter Status Issue. "Low Battery".		Transmitter needs charging soon.



ACCUBREED™ PARTS GUIDE

Customers must e-mail all **Purchase Orders** & inquiries to Questions@AccuBreedCloud.com
Labor for repairs is billed at \$75/hr & each repair is subject to 0.6 hour minimum (\$45)

For immediate assistance,
please call **715.953.2417**

60 DAY & 90 DAY LEASE ITEMS	PART #
AccuBreed™ Cloud System 60 Day Lease Includes Transmitters (QTY 10), Base Station w/ SIM Card (QTY 1), Base Station Antenna (QTY 1), Base Station Antenna Cable (10'), Antenna Mounting Hardware (QTY 1), Outdoor Power Module (QTY 1), Transmitter Charger (QTY 1), Intact™ Peel & Stick Patch Kit (QTY 25), 3M 77 Spray (QTY 1), Power Cable (50'), SureCall Antenna Mounting Kit (QTY 1), SureCall Cell Antenna Cable (QTY 1), Whip Cellular Antenna (QTY 2), Antenna Surge Protector (QTY 2), Ground Wire (20'), Coax-Seal (4'), Pole Mounting Kit (QTY 1), Tack Cleaning Cloth (QTY 1), Rubber Brush (QTY 1), Activation Fee, Yearly Service Fee.	79051
Additional Transmitter (60 Day Lease)	79054
Repeater w/ Solar Antenna	79067
AccuBreed™ Cloud System 90 Day Lease Includes Transmitters (QTY 10), Base Station w/ SIM Card (QTY 1), Base Station Antenna (QTY 1), Base Station Antenna Cable (10'), Antenna Mounting Hardware (QTY 1), Outdoor Power Module (QTY 1), Transmitter Charger (QTY 1), Intact™ Peel & Stick Patch Kit (QTY 25), 3M 77 Spray (QTY 1), Power Cable (50'), SureCall Antenna Mounting Kit (QTY 1), SureCall Cell Antenna Cable (QTY 1), Whip Cellular Antenna (QTY 2), Antenna Surge Protector (QTY 2), Ground Wire (20'), Coax-Seal (4'), Pole Mounting Kit (QTY 1), Tack Cleaning Cloth (QTY 1), Rubber Brush (QTY 1), Activation Fee, Yearly Service Fee.	79052
Additional Transmitter (90 Day Lease)	79056
Repeater w/ Solar Antenna	79067
PURCHASE ITEMS	PART #
AccuBreed™ Cloud System Purchase Includes Transmitters (QTY 10), Base Station w/ SIM Card (QTY 1), Base Station Antenna (QTY 1), Base Station Antenna Cable (10'), Antenna Mounting Hardware (QTY 1), Outdoor Power Module (QTY 1), Transmitter Charger (QTY 1), Intact™ Peel & Stick Patch Kit (QTY 25), 3M 77 Spray (QTY 1), Power Cable (50'), SureCall Antenna Mounting Kit (QTY 1), SureCall Cell Antenna Cable (QTY 1), Whip Cellular Antenna (QTY 2), Antenna Surge Protector (QTY 2), Ground Wire (20'), Coax-Seal (4'), Pole Mounting Kit (QTY 1), Tack Cleaning Cloth (QTY 1), Rubber Brush (QTY 1), Activation Fee, Yearly Service Fee. <i>Additional Items such as additional Transmitters, Patch Kits, Repeaters, Extra Cable are sold separately and listed below.</i>	79050
Base Station w/ SIM Card (QTY 1)	79086
Base Station Antenna (QTY 1)	79070
Base Station Antenna Cable (10 Feet)	79072
Antenna Mounting Hardware (L Bracket) (QTY 1)	79071
Outdoor Power Module (QTY 1)	79077
Transmitter (QTY 1)	79053
Transmitter Charger w/ Power Supply (QTY 1)	79079
Intact™ Peel & Stick Patch Kit (QTY 25)	79061
3M 77™ Spray (QTY 1)	79085
Repeater w/ Solar Antenna (QTY 1)	79067
Power Cable (50 Feet)	79078
SureCall Cell Antenna w/ Mounting Kit (QTY 1)	79082
SureCall Cell Antenna Cable (QTY 1)	79083
Whip Cellular Antenna (QTY 2)	79075
Antenna Surge Protector (QTY 2)	79073
Ground Wire (20 Feet)	79074
Coax-Seal (4 Feet)	79076
Pole Mounting Kit (QTY 1)	79084
Tack Cleaning Cloth (QTY 1)	78500
Rubber Brush (QTY 1)	78400
FEES	PART #
Yearly Service Fee (SIM Card Management, AT&T 2GB Rate Plan, Software Updates) – Due Every Year	79091
One-Time Activation Fee (Cloud Access)	79090



79086
Base Station w/ SIM Card



79077
Outdoor Power Module



79067
Repeater w/ Solar Antenna



79082
SureCall Cell Antenna w/
Mounting Kit



79079
Transmitter Charger w/ Power Supply



79070
Base Station Antenna



79074
Grounding Wire (20 Feet)



AccuBreed™
Transmitter



79071
L Bracket



78500
Tack Cleaning Cloth



79085
3M 77™ Spray



78400
Rubber Brush



79061
Intact™ Peel & Stick Patch Kit