

Monitor your mare
anytime, anywhere!

Congratulations and thank you for purchasing your new Smart Foal Alarm!

Welcome to the Smart Foal Instruction Manual

Please read these instructions in full

Battery care

Completing a charge/discharge cycle 1-2 times throughout the year will maintain the condition of the battery. Simply turn the transmitter on (leaving the base station off) and allow the transmitter to run flat. Then recharge and store. This is particularly important if you have a year without any use at all.



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Introduction

The purpose of this instruction manual is to help you become familiar with the setup, function and operation of your Smart Foal product.

If you want to stream your mares' data, you need to use a computer or laptop with the screen saver and sleep settings disabled. This is necessary because a tablet or phone will cut their WiFi connection once the device has been asleep for a few minutes to conserve the battery life.

If your phone won't stream the Smart Foal webapp, how do you get alarms? That's where Pushover comes in. Pushover is a third-party app that is designed for emergency warnings and alarms. Once installed and set up, Pushover allows you to configure notification sounds for different types of alarms. For example, the low battery alert could be a fairly mild noise, whereas you might like your 'lying down' alarm to wake the dead. The beauty of Pushover over SMS is that Pushover can use BOTH the mobile/cell phone network and WiFi networks. That way if you are in a remote location and don't have phone coverage - but you do have WiFi - then you will still get alarms. If you are in town and out of range of WiFi - but you have mobile phone service - then you still get alarms. We have tried to cover as many bases as possible.

But what if I don't want to use WiFi? The Smart Foal base station has a hardware alarm that you can activate. If the mare lies down the hardware alarm will sound until you turn it off, or until the mare gets back up.

There are three new features in Smart Foal HOME compared to the original version:

1. Automatic hardware alarm over ride. If you leave your alarm connected to WiFi with the switch set to AUTO and then the WiFi drops out in the middle of the night, the hardware alarm can turn itself on when the mare lies down – so you don't miss out.
2. 'Lost mare' alert. This is a copy of the same function performed by the server. If your WiFi base station can't contact a mare for 3 minutes or more the alarm will start to 'chirp'. This feature can be disabled. Details in the next section.
3. Lying down is now as sensitive as the server based alarm.

What's in the box?

Your Smart Foal box will include:

- | | |
|--------------------------------|--|
| ➤ Smart Foal transmitter | ➤ 2 x antenna |
| ➤ WiFi Base Station (Receiver) | ➤ 1 x Magnetic antenna base |
| ➤ USB charger cable | ➤ International power pack with USB output |
| ➤ Instruction manual | |

If you have ordered additional products make sure they are in the box as well.

Leather pouches are not included as part of the standard kit. They aren't necessary or mandatory but some people like having them as an option. They can protect the existing Velcro on the transmitter, or they can be used as a replacement for broken Velcro.

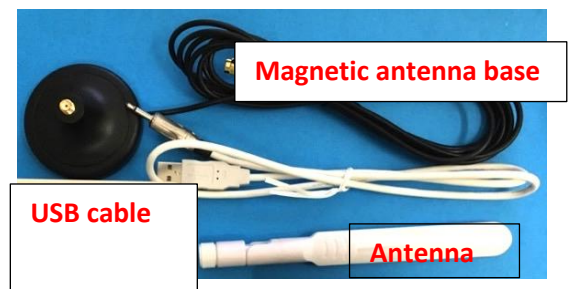
You will find the most current version of this manual in the Smart Foal VIP Club on Facebook. The video tab on the left-hand side of that page also contains setup videos.



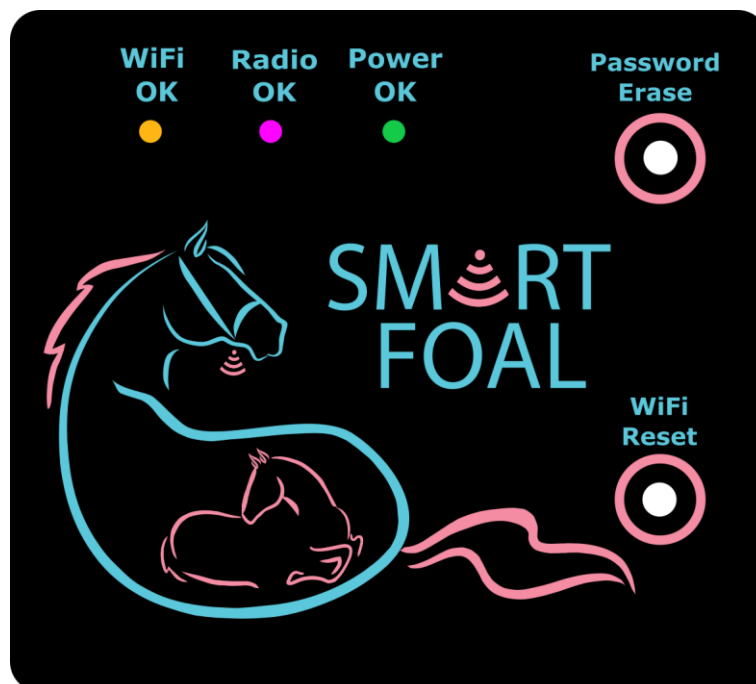
Getting to know the parts

Please proceed with the setup instructions while you are in close range of your WiFi router. It will make your life much easier.

You will need both your Smart Foal transmitter and Smart Foal WiFi Base station (also referred to as the receiver) during the setup procedure.



Smart Foal Base Station:





The **WiFi OK** (yellow) light is ON when the WiFi has successfully connected to your network. If the base station hasn't been able to connect to the network or there is a fault in the network this light will stay off.

The **Radio OK** (pink) light FLASHES every time it receives a packet of data from a transmitter. It should flash approximately twice per second, per transmitter. The more transmitters that are switched on, the faster the Radio OK light will flash.

The **Power OK** (green) light will be ON when there is power applied.

The circle with the **on/off switch** text has a strong magnet underneath it. When you hold the corresponding circle on the transmitter over the circle on the base station the transmitter will turn on/off.

The **Password Erase** button does exactly what it says. If you change your wifi router, sell your alarm or if it's the first time you are using the base station you will need to enter your password. Pressing this button erases the current settings and also opens a configuration portal.

The **WiFi Reset** button performs a simple reset on the WiFi module. This is handy if your base station isn't connected to your WiFi network but you are sure that you entered your password correctly. Sometimes when it requests an IP address from your router it may fail. Performing a reset will force it to try again. The base station is programmed to perform it's own reset after a certain time but you can speed the process up by pushing this button.

The **Mute** button has 3 functions:

1. It mutes the hardware alarm for 15 minutes once a mare has triggered it. Unlike other alarms, the mute button **ONLY** mutes the alarm for the specific mare that triggered the alarm. That way if you have multiple mares wearing alarms and one is sleeping, THEN a second mare goes into labour, the alarm will still sound for the second mare.
2. Hold this button down and apply power if you want to disable the 'lost mare' feature. Continue holding the button until the **blue light** in the button flashes then **turns off**. This is how you know if the lost mare feature is enabled or not.
3. The mute button also mutes the chirp (lost mare) alert

The **hardware alarm switch** has 3 positions:

- **On** (hardware alarm is always on)
- **Off** (hardware alarm is never on)
- **Auto** (hardware alarm will turn itself on if a fault with the WiFi network or server is detected)

If you are using the alarm without the Wifi, internet or app features, then leave the alarm set to ON.

If you have placed the alarm with the mare or a long distance from ear shot, then leave the alarm set to OFF.

In all other cases leaving the hardware alarm on AUTO is the best option.



Smart Foal transmitter



As mentioned earlier, the transmitter has a magnetic sensor that is used to turn the device on and off.

Once the transmitter has been turned on, the blue transmitting light should begin to flash. It should flash roughly twice per second.

The charging jack has a dust plug in it. Lift the dust plug out with your fingernail and insert the USB cable when you need to recharge the transmitter. When the USB cable is inserted correctly the red charging light will turn on. When charging is complete the red charging light will turn off.

Sometimes the red light doesn't come on, or it flickers. In this case, you need to jiggle the connector until the red light remains on.

WARNING

The transmitter has a small dustplug inserted in the charging socket.

PLEASE ensure that you do NOT allow children or animals to swallow the dustplug. It may be a choking hazard.



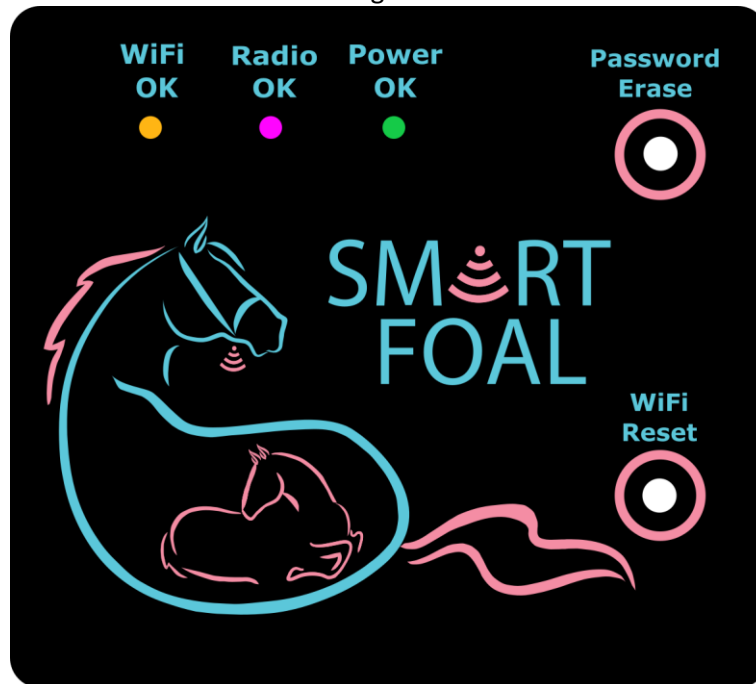
WiFi Setup

To connect your WiFi Base station to your home WiFi network you need to tell it which network you want to use and the password. To do this the base station will open an access point called "Smart Foal". The base station gives you a configuration portal in which you can select your network. Once you have chosen your network and saved your password the Smart Foal network will disappear and the base station will connect to your home WiFi network.

Handy hint: if your Radio OK (pink) light is flashing, you are not in WiFi configuration mode.

BASE STATION DIAGRAM

The elements of the base station are shown in the diagram below.



WiFi BASE STATION ANTENNAE

First attach the antennae to your WiFi base station.

- One antenna goes on the WiFi port.
- Connect the other antenna to the magnetic base.
- Connect the cable from the magnetic base to the radio port.

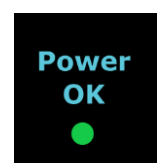


Magnetic antenna base with antenna attached

POWER PACK ASSEMBLY

Then assemble your power pack to use the adaptor that suits your country.

- Find the USB cable that came with your kit
- Insert the USB end into the power pack
- Plug the other end of the cable in to the base station via the port that says Power In.
- **The Power OK light should then turn on.**



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WiFi Setup Continued

WiFi CONFIGURATION

Now that your WiFi base station is on you need to prepare it to be configured then tell it which network to join and give it the password.

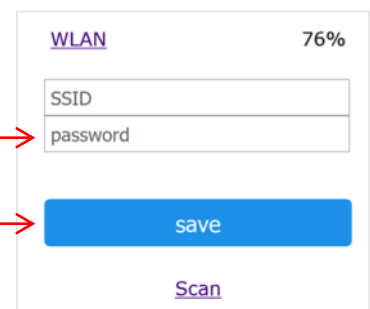
- On the base station, press the **Password Erase** button and hold it down for about 1 second. Doing this will force your base station open a WiFi access point.
To prevent it being accidentally pressed, the button is recessed below the housing level. You may need to use a pen or similar to press it.
- Using your phone (or laptop) open your WiFi settings.
You should see a list of available WiFi networks.
- Click on the **Smart Foal** network and connect to it.

If this doesn't work as described, see the [Trouble Shooting](#) section.

Now you have connected to the Smart Foal network, your phone or laptop should* open a webpage with four options.

If the portal doesn't open on its own, open your internet browser (Chrome, Safari, Firefox etc) and enter this address in the address bar: **192.168.4.1, which will open the same page.*

- Select the first button, '**Configure WiFi**' - this will scan for available networks.
- Your desired WiFi network should be listed. Click on it. This will populate the SSID text box.
- Now click inside the password text box and enter the password for your selected WiFi network.
- Once you have filled in both fields click the SAVE button. You should see the following message.



Credentials Saved

Trying to connect ESP to network

If it fails reconnect to AP to try again

If that worked*, your WiFi base station should connect to your WiFi network; and after a few minutes the WiFi OK light should turn on.

The WiFi settings are saved in permanent memory. If you turn the WiFi base station off, or there is a blackout, the base station **will still reconnect** to your network once it turns back on or once the WiFi network becomes available again.

If it hasn't worked, or there is a typo in your password, the WiFi Manager window should reopen. If it hasn't worked **and the window doesn't open, repeat the steps from the start of this page.*

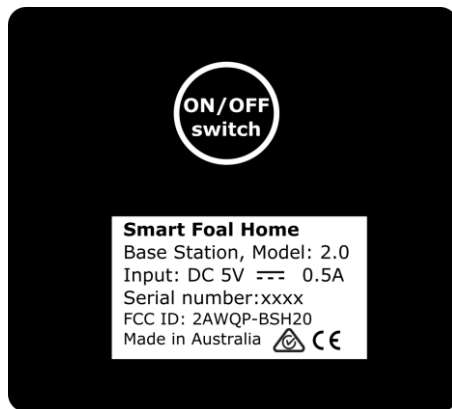
**If you are certain your password is correct then push the Wifi reset button or simply pull the USB plug out and reinsert it, then wait to see if the WiFi OK light comes on.*



MOUNT THE TRANSMITTER ON THE MARE

The transmitter now needs to be connected to the base station.

The base station and the transmitter both have a circle with the words On/Off switch in it.



- Hold the transmitter over the base station so that the on/off switch circles touch.
- Leave the transmitter in that position until the blue light on the transmitter starts flashing



Now that the transmitter is on, the blue light should flash several times per second.

If you have a look at your WiFi base station the **Radio OK** light should also be **flashing**. That means the transmitter and base station are talking to each other.





CONFIGURE THE HARDWARE ALARM TO SUIT YOUR NEEDS

The hardware alarm switch has 3 positions:

- **On** (hardware alarm is always on)
- **Off** (hardware alarm is never on)
- **Auto** (hardware alarm will turn itself on if a fault with the WiFi or server is detected)

If you are using the alarm without the Wifi, internet or app features then leave the alarm set to ON.

If you have placed the alarm with the mare or a long distance from ear shot then leave the alarm set to OFF.

In all other cases, leaving the hardware alarm on AUTO is the best option.

The **Mute** button has 3 functions:

1. It mutes the hardware alarm for 15 minutes once a mare has triggered it. Unlike other alarms, the mute button **ONLY** mutes the alarm for the specific mare that triggered the alarm. That way if you have multiple mares wearing alarms and one is sleeping, THEN a second mare goes into labour, the alarm will still sound for the second mare.
2. Hold this button down and apply power if you want to disable the 'lost mare' feature. Continue holding the button until the blue light flashes then turns off. This is how you know if the lost mare feature is enabled or not.
3. The mute button also mutes the chirp (lost mare) alert

The blue mute button will be lit when the lost mare function is enabled, it will be off when the lost mare function is disabled.

FITTING THE TRANSMITTER TO THE HALTER

You don't want the halter to be too loose on the mare. If it's too loose the transmitter will be able to swing and will give you false readings.

The Velcro straps wrap around the halter under the chin.

- Have the end **without** the lights down towards the chin/mouth
- and the end **with** the lights tucked up towards the neck.
- The nose end of the transmitter is labelled



If you are concerned about leaving a halter on your mare what you can do is use a piece of string to hold the buckle together, instead of using the buckle itself. Should the mare become tangled on something, the string will break and release her.

TESTING THE TRANSMITTER

Now is a good time to test the transmitter. The Smart Foal alarm has a hardware alarm. There is a switch on the front of the base station box on the right hand side.

- Flick the Hardware Alarm switch so that it is ON
- Now turn the transmitter so that it is on its side.

After a few seconds the hardware alarm should start screaming. If it does, everything is working.

Remember to return the hardware alarm switch to your desired setting before you forget about it.



Transmitter on its back



Transmitter on its side



Hardware alarm switch is here

POSITIONING THE WIFI BASE STATION

Position the WiFi base station somewhere in between your foaling yards and your WiFi router. Make sure the base station stays within range of your WiFi network. The radio antenna is on a long cable to enable you to position it somewhere convenient. **Higher is better, outside is better.** It has a magnetic base so you can 'stick' it to anything metallic like a metal drum, gutter, metal fence post etc.

The long antenna cable is meant to improve your reception by allowing you to put it up higher.

If you have the Antenna inside next to the base station then you will actually lose a bit of signal due to cable losses. In this case, connect the antenna directly to the base station and remove the magnetic base.

Operations

Here we will go through some of the features and functions of the app.

Transmitter

RECHARGING THE TRANSMITTER

When your transmitter gets flat or you want to recharge it between mares, all you have to do is remove the dust plug and insert the USB cable (the same cable is used for powering the base station and recharging the transmitter). Insert the USB cable until the red light comes on. When the transmitter finishes charging the red light will turn off. When it has finished charging reinsert the dust plug.

PLEASE keep the dust plug out of the reach of children and animals! It is very small and could easily be swallowed.



WARNING

The transmitter has a small dustplug inserted in the charging socket.

PLEASE ensure that you do NOT allow children or animals to swallow the dustplug. It may be a choking hazard.



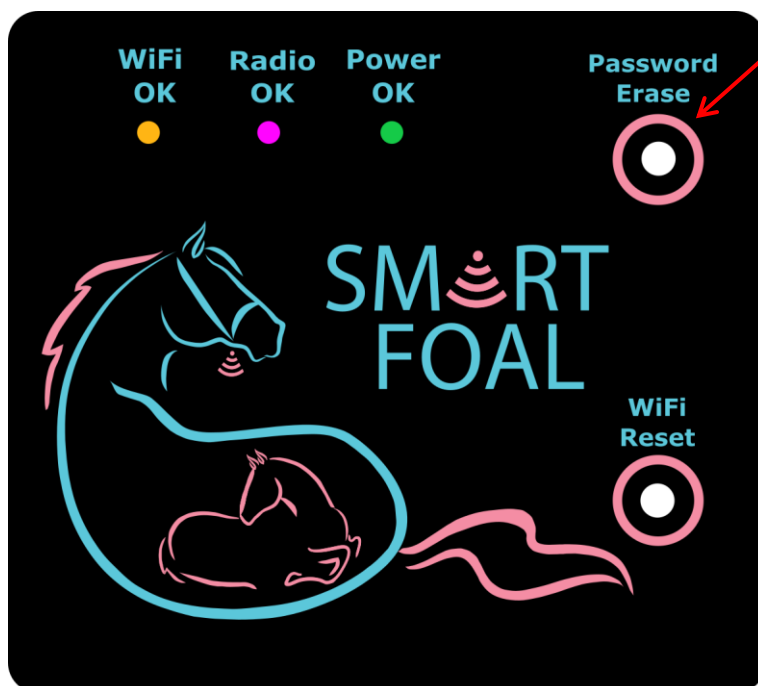
Frequently asked questions and troubleshooting

Why doesn't the Power OK light come on when I plug in the USB cable?

The most likely cause of this problem is the USB cable is faulty. Try another one if you have a spare. Similar cables to Smart Foals custom USB charger cable can be purchased from Jaycar and Jaycar stockists. The part number is **PP1985**. The TIP is positive.

I have changed my WiFi password, what do I do?

If you need to change the password saved in your WiFi base station box simply push the Password Erase button.



You will need to push it with a pen or something small (it is like that on purpose, so you don't accidentally bump it and erase all your WiFi settings). Then go through the WiFi configuration again; i.e. connect to the Smart Foal network, go to 194.168.4.1, enter your WiFi network name and new password.

Additional notes on fitting the transmitter

If you don't have a leather pouch:

After you attach the transmitter to the halter it is a good idea to wrap the transmitter Velcro with vetwrap (adhesive bandage). You want to prevent anything (like fencing wire, feed bins etc.) getting caught between the transmitter and the halter. If the mare gets caught she may panic and pull her head away. The Velcro isn't strong enough to withstand that force, so the Velcro will tear. If you use a bit of vetwrap over the Velcro you can prevent the mare getting caught in the first place and also look after your Velcro.



Battery care

Completing a charge/discharge cycle 1-2 times throughout the year will maintain the condition of the battery. Simply turn the transmitter on (leaving the base station off) and allow the transmitter to run flat. Then recharge and store. This is particularly important if you have a year without any use at all.



Additional Support

If you have any problems please get in touch. We have a trouble shooting guide here:

<https://smartfoal.com/troubleshooting-guide/>

You can contact us directly: support@smartfoal.com

You can also post questions in the **Smart Foal VIP Club** Facebook group. That is our preference. That way, if someone else has the same problem they can see the solution.

If you have any feedback about these instructions (or anything else) please let us know.

Radio Notice - FCC ID: 2AWQP-BSH20

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.

This equipment has been certified to comply with the limits for a class B computing device, pursuant to FCC Rules. In order to maintain compliance with FCC regulations, shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio and TV reception. The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.