



# HOW TO FIT A HOLTER MONITOR TO A DOG

VVS guide to fit the Holter monitor and electrodes to your canine patients.

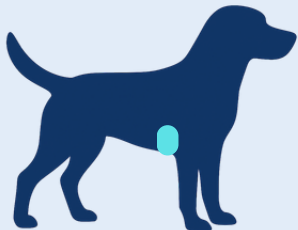
## 1. PREPARATION AND ELECTRODE PLACEMENT

1. Clip **three patches** of hair from the patient, large enough to accommodate the adhesive ECG patches - see below.
2. Clean the skin with surgical spirit using the alcohol wipes provided to **remove any grease and dirt**.
3. Allow the skin to **dry completely**.
4. Take the ECG pads and peel off the plastic backing, one at a time.
5. Place a pad on each of the clipped and cleaned areas of skin.
6. Press firmly around the flat adhesive edges - **avoid pressing on the central gel area**, as pressure may disperse the gel and **reduce adhesion**. Keep press stud of sticker pointing upwards.



### One pad on the right side:

Over or just behind the apex beat (i.e. where the heart beat can be felt, behind the right elbow).

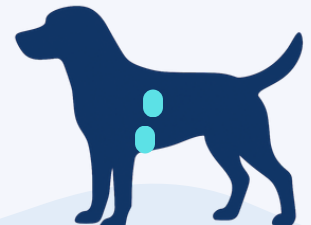


RIGHT SIDE



### Two pads on the left side:

Upper pad at the caudal border of the scapula.  
Lower pad over or just behind the apex beat.



LEFT SIDE

## 2. THE HOLTER UNIT

**Open the Holter monitor** by gently pulling the tab on the front of the monitor, above the grey cable found at the bottom.

The digital CF recording card is preloaded - **you do not need to remove it.**

**Load the battery**, which has been supplied.

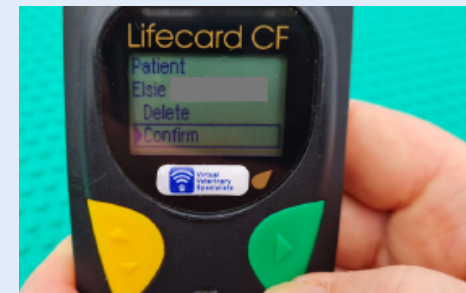
**Close the unit gently by connecting the top hinge.** Close the two halves and then close the bottom tab - this is the same tab you used to open the Holter monitor. You should then hear the monitor beep.

Select your Holter recording length. Use the **YELLOW** buttons to scroll up or down and the **GREEN** button to select the correct option.

- For 24-48 hour Holters select START
- For 7 day Holters select START WEEK

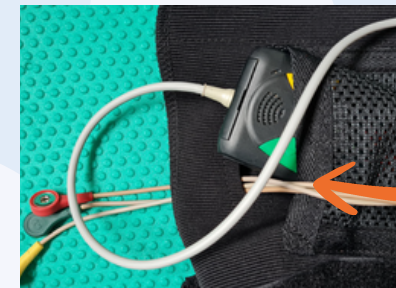


The name of the patient will appear on the screen. Use the **YELLOW** buttons to scroll up or down to view the patient details. Press the **GREEN** button to “Confirm” the patients details are correct

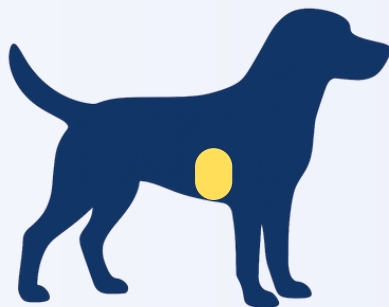


The next screen will ask if you want to start a “Speech Recording”. You do NOT need to record any speech, so scroll down to “Continue” using the **YELLOW** buttons, then select it with the **GREEN** button.

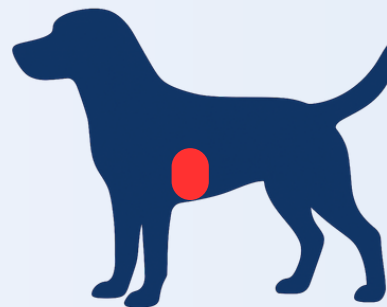
Pass the leads through the hole in the vest from the outside towards the inside, before connecting the leads. It may be easier at this point to have the patient step into the leg holes of the vest, as detailed in section 3 below.



**Connect the different coloured leads to the ECG pads as follows:**



RIGHT SIDE - YELLOW



LEFT LOWER - RED



LEFT UPPER - GREEN

An ECG trace will now appear on the screen.

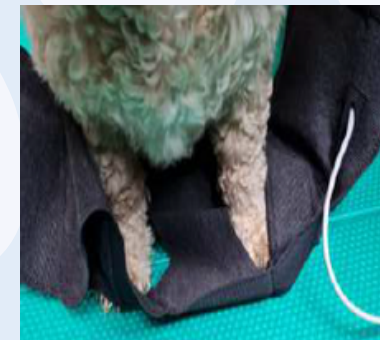
Please scroll through the different ECG lead options using the **YELLOW** buttons to ensure you have at least **one lead** with a **good ECG signal**.

If none of the leads give a good signal, try repositioning one or more of the pads - make sure to use a new pad when doing this.

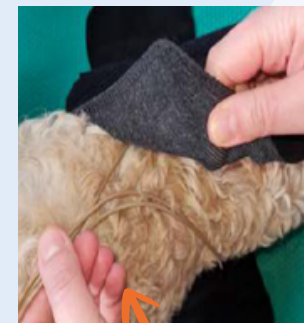


### 3. SECURING THE LEADS, HOLTER UNIT AND ELECTRODES

Using the holter vest provided, make sure the leads have been passed through the small opening in the vest. Have the patient step in to the leg holes of the vest. **Ensure the leads are attached as previously described.**



**Ensure enough slack** where the leads attach to the electrodes, otherwise they may detach when the patient moves. Close the Holter vest around the patient using the Velcro to ensure a snug but comfortable fit. **Ensure the patient can still move freely.**



Gather excess lead length and loop this together and store this underneath the monitor in the pocket. Wrap the remaining flap of the vest over the top of the Holter pocket and secure with Velco.



Ensure no leads or electrodes are visible to ensure the patient **cannot chew or scratch** the leads. If there is a risk, a buster or comfy collar should be used. Observe the patient regularly to ensure comfort and that the monitor and leads are not being damaged.

## 4. AFTER FITTING THE MONITOR

Fill in the information at the top of the Holter **activity diary**, at the fitting. Give the Holter activity diary to the patient's owner to complete whilst the Holter is in place, and explain how to record activity and any episodes.

Make a note of the **start time displayed** on the Holter monitor screen and the time on the owner's watch or mobile phone for comparison. We need to be aware of any **time differences** between the monitor clock and the owner's time when interpreting abnormalities seen on the trace that the owner has recorded on the activity diary.



The Holter recording is more likely to be reflective of the actual patient's heart rate and rhythm if walked as normal, so this is encouraged. Please just makes sure the Holter monitor and vest do not get wet, so swimming and walking in the rain must be avoided.

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It can be helpful to give any spare stickers to the owner to replace any that become loose or detached at home.  
**Arrange an appointment** for the patient to come back for the Holter monitor to be removed. We will then arrange for the Holter to be returned to VVS using our courier service.

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## 5. REMOVAL OF THE HOLTER MONITOR

Undo the Velcro strips to open the vest.

Disconnect the leads from the adhesive ECG pads.

- Spirit can help loosen pads that are fixed firmly to the patient's skin.
  - Apply a gentle topical product if the skin under the patches looks red or irritated.
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Leave the **monitor running** and in the vest pocket. If the vest is **wet or soiled**, then remove the monitor from the vest and pack separately.

Fill in the Holter diary header with the time that the Holter was removed and pack everything in the zipped case and place in the addressed shipping envelope ready for collection.

**Email [info@vvs.vet](mailto:info@vvs.vet) to notify VVS that the recording is complete and we will set up courier collection.**

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