

## Cardio Companion

Thank you for your purchase. Please visit our website at [www.avantevet.com](http://www.avantevet.com) and be sure to contact Avante Animal Health for any future needs.

### Uses

- The Esophageal ECG catheters are recommended for use in monitoring cardiac performance during anesthesia to detect the development of arrhythmias and conduction disturbances.
- Compatible with any existing ECG monitor with either alligator or snap connectors
- Not for use on animals that are not anesthetized.

### How Does it Work?

- The Esophageal ECG Catheter is inserted into the esophagus and positioned over the heart
- A distal electrode localizes behind the left ventricle and another (2<sup>nd</sup>, 3<sup>rd</sup>, or 4<sup>th</sup>) electrode behind the left atrium
- The proximal electrode functions as a ground
- Core body temperature is obtained via a thermistor in the distal portion of the catheter when used with Avante's ECG monitors

### Placement?

- Measure from the tip of the nose to the sternum and mark the spot with tape on the catheter. This tells you how deep to insert into the animal.
- Connect ECG cable to monitor. Attach the standard alligator clip set (or snap set) to the inside of the Cardio companion box and Esophageal ECG catheter to the outside of the Cardio Companion box. Ensure clips are not touching and wires are not overlapped. Select Lead II and 3 lead (regardless of 5 lead set) on the ECG monitor and insert the catheter into esophagus up to the tape mark.
- You can leave clips hooked up to the box all the time and just disconnect the catheter while you are placing it.

### Cleaning

Catheters can be wiped clean with a soft cloth and isopropyl alcohol. Electrodes will need occasional cleaning with ultra-fine sandpaper or steel wool to remove any buildup.

## Troubleshooting FAQs

1. The waveform on the monitor is inverted

Check placement of the esophageal lead in the patient, it may be inserted too far  
Check placement of the ECG cable inside the box, may need to switch red and white leads

2. The waveform is traveling on the screen

Check ECG leads to make sure connections are secure and not crossed. Traveling is caused by interference the source of which is variable by location.

### For Warranty/Repair

- Backed by complete service and support by Avante Animal Health and a 1 year warranty (box), 6 month (catheters)

\*\*\*\*\*This unit is not recommended for use during Dentals or similar procedures. The excess water traveling down the esophageal lead creates a conductive pathway that prevents the ECG signal from reaching the monitor.\*\*\*\*\*

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## Cardio Companion Directions

Select Lead II on monitor  
Always set monitor on 3 lead regardless of 5 lead set

### Cat/Exotics/Small Dogs

Use Green catheter 12 French, 36” long

3 lead connection

Red wire on 1  
White wire on 2  
Black wire on 3

5 lead connection

Red wire on 1  
White wire on 2  
Black wire on 3  
Green wire leave disconnected  
Brown wire leave disconnected

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### Dog

Use Blue catheter 18 French, 42” long

3 lead connection

Red wire on 1  
White wire on 2  
Black wire on 3 for small dogs  
Black wire on 4 for large dogs

5 lead connection

Red wire on 1  
White wire on 2  
Black wire on 3 for small/medium dogs  
Black wire on 4 for medium/large dogs  
Green wire leave disconnected  
Brown wire leave disconnected