

Tele-View® TV-500 & TV-506 Dynamic Equine Exercise Endoscope Frequently Asked Questions

1. How do the Tele-View Equine Exercise Endoscopes work?

This innovative product allows the customer to quickly and easily record video of airway restriction problems during a horse's normal workout. The Tele-View Exercise Endoscope is a self-contained light weight harness that is worn by the horse. This system does not impair the horse in any manner. The system is also 'rider independent' meaning the rider is not required to do anything except complete a normal workout of the horse. Also, as the product is light weight (about 5lbs/2.2kg), it allows for the horse to run with its head in a 'normal' position.

The endoscope insertion tube is placed in the Pharynx and then secured with the harness securing straps. The system automatically records high resolution video and audio to the SD card during the normal workout. Once the workout is complete, the video can be viewed either on the 3.5" LCD screen of the recording camera or on a computer (by removing the SD card from the recording camera and placing in the computer port).

2. What is the difference between the TV-500 and the TV-506 Equine Exercise Endoscopes?

The TV-500 is the non-articulating version of the exercise endoscope whereas the TV-506 is the articulating version. For the TV-500, the insertion tube is a semi-rigid tube with a slight bend at the distal portion of the insertion tube. For final positioning after placement, the insertion tube is manipulated from the outside of the horse's nostril. For the TV-506, a small Control Body is built into the insertion tube allowing for a 90 degree 'up/down' manipulation after insertion.

For the TV-500, the slight bend in the distal portion of the insertion tube increases the time it takes to place the insertion tube as compared to placing a straight insertion tube. For the TV-506, the insertion tube is straight before placement and articulated after placement, making it a little easier to get into the pharynx than the TV-500 insertion tube. Final positioning of the TV-506 is a little easier than the TV-500 as the distal tip of the insertion tube can be articulated with the control body. Both insertion tubes are then locked in place with the harness securing straps.

3. What is included in the Tele-View TV-505 and TV-506 Equine Exercise Endoscope packages?

The Tele-View Equine Exercise Endoscope package contains the following:

One Piece Tele-View Equine Exercise Endoscope includes:

- Custom built synthetic leather harness
- Custom built endoscope insertion tube
- Digital recording camera with 3.5" TFT LCD screen and SD card
 - Records both audio and video
- Irrigation to clean the lens upon insertion with syringe
- Elastomeric bulb flushing system with Dial-A-Flow meter
- Rechargeable battery packs

One piece USB cable and one piece Video Cable
Two pieces AC Adaptors (one for auxiliary LED light source and one for the digital recording camera)
One piece Hard-Sided Pelican Carrying Case
One piece User Manual

4. What is the difference between the Tele-View Equine Exercise Endoscopes and the competitive products on the market?

- Some of the competitive products are priced around US\$50,000. The cost of the TV-500 and the TV-506 are a fraction of this price.
- The competitive products are also very complicated systems which includes a saddle bag that is worn by the horse and is connected to the insertion tube. As the Tele-View Equine Exercise Endoscopes are simple systems, everything is contained in the harness. Also, the more complicated the system, the greater chance of a problem with the system.

5. Is the endoscope insertion tube difficult to place?

For the new model TV-506, the insertion tube is just like placing a standard endoscope insertion tube. The insertion tube is straight and the diameter is 11.5mm, much like a standard endoscope/gastroscope. The tip is articulated to give the desired view by the Control Body resting on the face of the horse.

For the older model TV-500, the best analogy of placing the endoscope insertion tube is that it is like placing a stomach tube. The TV-500 insertion tube diameter is 11.5mm. However, with the slight bend at the end of the insertion tube, the overall diameter becomes more similar to the diameter of a stomach tube. Present users have told AMC that there is a 'learning curve' in placing the curved TV-500 insertion tube. It becomes easier to place over time.

For both systems, present users also tell AMC that it is best to either 1) twitch the horse or 2) give the horse a light sedative such as Xylazine before placement. This makes insertion tube placement easier of either model easier and less time consuming. If you use a light sedative, you will want to walk to horse until the sedative wears off before the workout.

6. How does the horse tolerate the endoscope insertion tube?

The most difficult part is the placement of the endoscope insertion tube. After placement, users have found that most horses tolerate the insertion tube well. During the workout, there is usually no problem with the insertion tube resting inside the pharynx.

7. What is required of the rider?

Nothing except the usual morning workout! Unlike competitive products, the rider does not have to wear a backpack, press any buttons and is not connected to the horse.

8. Is there a backpack or anything else that needs to be attached to the horse?

No. The harness for both models of the Tele-View Equine Exercise Endoscope is self-contained. The only thing that is placed on the horse is the leather harness on the horse's head. There is nothing else that is required to be attached or connected to the horse.

9. What components are in the TV-500/TV-506?

The Tele-View Equine Exercise Endoscopes are self-contained and they include the leather harness, the endoscope insertion tube, the endoscope cable, the irrigation flushing system, the LED light source, the video recording camera with an SD card and a battery pack.

10. Can the user watch the video while it is being recorded during the workout?

No, the user can only look at the video of the larynx during placement of the endoscope insertion tube on the LCD screen of the digital recording camera. As the horse wears the digital recording camera and there is no wireless feature of the system, the workout must be completed and saved to the SD card for the user to view the video. After the workout, the recorded video can be viewed on the LCD of the digital recording camera or on a computer by removing the SD card from the recording camera and inserting it into the computer. The video can be viewed on the LCD of the recording camera either with the harness on or off the horse.

11. How do I secure the endoscope insertion tube to prevent movement of the insertion tube in the pharynx during the workout?

The integrated harness includes securing straps that allow the user to tighten down the endoscope cable and insertion tube to prevent movement once the insertion tube is placed into the pharynx. Also, the Tele-View insertion tube has a unique design that stabilizes the insertion tube during the workout which prevents the tip from flopping (fluttering) during the run. The recorded image is very stable and, in most cases, is much more stable than the competitive product's video.

12. How long does it take to install the harness and place the endoscope insertion tube into the pharynx?

Present users tell us that after they have become familiar in working with the systems, they can usually place it in 10-15 minutes. However, please keep in mind that it is always easier to place when using either a twitch or a light sedative.

13. How does the irrigation system work?

The irrigation system can be utilized in two different ways. First, a syringe can be used to flush water to clean the camera lens during placement of the insertion tube. For cleaning of the camera lens during the workout, an elastomeric bulb and a dial-a-flow meter are utilized. The elastomeric bulb acts as a pressure pump and can be filled with 60ml of water or saline solution. The dial-a-flow meter can be adjusted to increase or decrease the flow. As the flow should only be a few drops of water or saline every 5-10 seconds, the dial-a-flow usually needs to be set at the lowest possible setting.

14. Will the irrigation system remove condensation and/or mucous during the workout?

Yes and no. This system works great to flush condensation or small amounts of mucous from the camera lens. However, if a horse has lots of mucous, the system will probably not be able to flush a large mucous plug off the camera lens. In this case, the horse's mucous problem needs to be treated before the Exercise Endoscope is used on the horse.

Another option to reduce potential condensation and mucous during the workout is to use an 'anti-fog' solution on the camera tip. There are a number of these solutions that are available such as the brands that are used on scuba diving masks. They can minimize condensation and possibly enable the mucous to slide off the camera lens.

15. In what format is the video captured and how long can the system record video?

The file is recorded as an .avi file. A five minute video will usually take up about 35 Megabytes of space on the SD card. The digital recording camera includes a 2 GB SD card. Theoretically, the camera could record about 50-60 minutes of video on one 2 GB SD card. AMC recommends that you use a different SD card for each procedure so you don't mix up the recordings.

16. What video program is best to watch the video on my computer?

There is a free download of an excellent media player called VLC. This is better than Windows Media Player and AMC suggests that you download and use VLC. It can be found at <http://www.videolan.org/>.

17. Can I manipulate and edit the video?

Yes, the .avi video can be manipulated and edited with either **Windows Live Movie Maker** or **Google Picassa** editing software. Both are available as a free download over the internet. AMC recommends editing the video to eliminate the beginning and end of the video and saving the minutes of the video of the horse under 'full work.' This will probably be about 3-4 minutes of video. Some versions of Windows Live Movie Maker may not recognize and play the .avi file. If this occurs, you will need to convert the .avi file to a .wmv file. This can be accomplished with a free file converter such as converterlite which can be downloaded over the internet.

18. What maintenance is required of the Tele-View Equine Exercise Endoscope?

The only maintenance is to keep the product clean and not damaged. The insertion tube tip and endoscope cable can be cleaned and sterilized with a cold sterilization product such as gluteraldehyde after usage. The irrigation line should be flushed after sterilization with distilled or demineralized water to prevent minerals from blocking the irrigation nozzle. There are two batteries that need to be recharged: one for the digital recording camera and one for the auxiliary LED lights. It is recommended to charge both of these overnight to have a full charge for the morning endoscopic procedures.

19. How long do the batteries last between charges?

The battery for the digital recording camera should last about 2.5 hours. The batteries for the LED lights should last about 8 hours.

20. When do the batteries need to be replaced?

Both sets of batteries (for the digital recording camera and the auxiliary LED lights) should last between two and three years. To replace the batteries in the digital recording camera, the camera will need to be returned to AMC. The charge to replace the battery in the camera will be \$300.00. For the battery pack for the auxiliary LED lights, the battery pack can be replaced by the user. AMC can ship a new battery pack to you at a cost of \$50.00.

21. How long is the warranty on the Tele-View Equine Exercise Endoscope?

The warranty on the Equine Exercise Endoscope is for 12 months from date of purchase. The warranty covers manufacturing related defects. It does not cover malfunction or damage that is the result of misuse, abuse or intentional damage to the product. An extended warranty service agreement can be purchased before the end of the first year and the cost is US\$3,000 per year.

22. How do you handle repairs and/or replacement of malfunctioning product?

As the Tele-View Equine Exercise Endoscope is a component based system, if one of the components breaks, AMC can send a new component to the customer. The customer replaces the component at their facility and then returns the defective component to AMC. If the customer is unable to fix the system, the system would then be returned to AMC for repair. AMC suggest using DHL for repair returns. The Company usually receives the product within 2-3 days of shipment and can usually have the scope repaired in 3-5 business days. For product repair or replacement, please contact Advanced Monitors Corporation toll free at 1-877-838-8367 x102 or at 01-858-536-8237 x102 or at support@admon.com. You will then be issued an RGA number for return of the product. The product needs to be shipped to Advanced Monitors Corporation, 7098 Miratech Drive, #130, San Diego, California, 92121, USA.