

# **Frequently Asked Questions**

#### Don't see what you are looking for?

Contact customer care at 800-757-3856 M-F (8:30 am to 5:30 pm CST) or email us at <a href="mailto:support@protequus.com">support@protequus.com</a>

## The Problem.

### What is the problem?

Equine distress can present in many ways and stem from many factors including injury, trauma, illness, fear, and boredom. There are a number of common equine distress conditions, including colic, foaling, and being cast that can negatively impact your horse and result in unnecessary downtime, injury, or loss if not detected and addressed early.

Colic is the leading natural cause of death in horses, and it is estimated that more than 720,000 horses in the US will experience an episode of colic this year and more than 50,000 will die. However, if caught early 85-90% of these cases can be treated medically and without the need for invasive and costly surgery. Unfortunately, we can't always be there with our horses, especially overnight, to catch the signs.

#### How do I know if my horse is in distress?

The vital signs of a horse, coupled with their behavior, correlate with their wellbeing and may be indicative of pain or distress. Pain or distress is evidenced by measurable changes in their vital signs (ie, heart rate, respiration) and their activity level or behavior (eg, pawing, kicking, rising/falling, rolling +/- thrashing). When this occurs, intervention is needed to assess severity and determine whether or not the horse needs to be referred to a veterinarian.

## The Solution.

#### What is NIGHTWATCH®?

NIGHTWATCH® is a health-monitoring service for your horse that includes a FREE smart halter™ crown with your subscription to a 3-, 6-, or 12-month plan. As a NIGHTWATCH® subscriber, you'll always have 24/7 access to view, manage, and share real-time and historical insights via the NIGHTWATCH® App, receive automated alerts (text, phone, email), and remotely monitor your horse's distress, rest, and recovery.

The NIGHTWATCH® smart halter™ (crown + headstall) is an all-natural leather breakaway halter made from 1" premium appointment-quality, triple-stitched, Havana brown bridle leather with 18/8 stainless steel hardware, including a double-buckle crown and snap throatlatch with rolled leather. Made for both safety and comfort, the crown of the smart halter™ is embedded with ~2.7 ounces of technology that monitors real-time data on your horse's biometrics (heart rate and respiration) and behavior (activity level), works across 3G cellular (where available) and 2.4 GHz WiFi networks, tracks the GPS/geolocation of your horse, and learns & adapts to your horse through artificial intelligence/machine learning protocols. Optional headstalls are available as an accessory at time of purchase or provide your own 1" double-buckle leather headstall.

This patented technology (US patent nos. 9,629,340; 9,894,885; 10,154,655; AU patent no. 2015218807; CA patent no. 2940523) is offered in the United States and Canada by Protequus<sup>®</sup>.

#### Who is NIGHTWATCH® for?

NIGHTWATCH® is appropriate for owners, riders, trainers, breeders, and veterinarians who wish to monitor horses for distress while also evaluating post-exercise rest and recovery. From single horse owners and veterinary clinics to multi-national breeding and training programs, NIGHTWATCH® offers peace of mind and adds value to operations of all sizes.

## How do I use NIGHTWATCH® for my performance horse?

Use smart alerts overnight to be alerted to early signs of distress in your race or show horse to avoid unnecessary downtime, injury, or loss, all while tailoring their daily training based upon overnight activity and general wellbeing. Review your horse's overnight activity index to identify hyperactivity that may result in sub-optimal performance on the track or in the ring.

#### How do I use NIGHTWATCH® for my pregnant mare?

Use smart alerts 30 days prior to you mare's foal date and continue for at least 90 days thereafter to monitor them for complications before, during, and after foaling, and to be alerted to early signs of birth/parturition. To enable smart alerts, complete the initial learning period (~80 hours) and select an EDI® score on the scale (1=low distress, 10=high distress) representing degree of deviation in your horse's normal physiology.

## How do I use NIGHTWATCH® for my high-risk horse?

Monitor and share objective biometric and behavior insight with your careteam for more informed decision making regarding your senior, sick/injured, or post-operative horse, those who crib, windsuck, or weave, and any horse with suspect/borderline behavior or in need of rehab or step-down care. Identify changes in your high-risk horse's rest or biometric changes that could indicate a change or concern. To receive automated alerts immediately out-of-the-box, enable manual alerts and set your own threshold for any of the 3 parameters (ie, heart rate, respiration, activity level). This will allow you to bypass the learning period that is required for smart alerts.

## Features & Benefits.

#### How does NIGHTWATCH® work?

The NIGHTWATCH® smart halter™ uses a variety of sensors to collect real-time data on your horse's vital signs and behavior, while advanced computational software analyzes this data and calculates a quantifiable measure of their relative distress (ie, EDI® score) on a 10-point scale. When a user-defined threshold of distress is breached, NIGHTWATCH® will alert you via text, call, and/or email so you can intervene sooner.

#### What vital signs does NIGHTWATCH® monitor?

The NIGHTWATCH® smart halter™ uses novel radiofrequency technology (ie, ultra-wideband impulse radar [UWB-IR]) to monitor your horse's heart rate and respiration, the two most important vital signs that correlate with pain and distress in horses. UWB-IR is a safe and very low energy radio frequency technology that measures physical changes in the vasculature and soft tissue beneath your horse's skin that correlate with their heart rate and respiration.

#### What behavior does NIGHTWATCH® monitor?

The NIGHTWATCH® smart halter™ uses a variety of sensors, including an accelerometer, gyroscope, magnetometer, and an altimeter to continuously assess your horse's activity, motion, and posture. More specifically, NIGHTWATCH® identifies and flags (for evaluation) first-time novel events that may be indicative of pain or distress along with known movements that likely correlate with distress such as pawing, kicking, flank watching, repeated rising/falling, extended periods of recumbency, violent rolling with/without thrashing, etc.

#### What is the Equine Distress Index®?

The EDI® (Equine Distress Index®) is a proprietary 10-point scale, offered only by NIGHTWATCH®, used to quantify relative distress in your horse. The lower your horse's EDI® score, the happier and healthier they are.

#### What is my horse's EDI® score?

Your horse's EDI® score is an objective measure of their relative distress and general wellbeing at any given point in time. This score is a composite value derived from multiple parameters, including biometric and behavioral inputs, environmental conditions, pre-existing risk factors, and more using a proprietary Fuzzy Inference System.

#### What is the difference between smart and manual alerts?

NIGHTWATCH® offers two types of alerts (sent via text, call, and email), smart and manual.

• <u>Smart Alerts</u>: When smart alerts are enabled, NIGHTWATCH® monitors for deviation in your horse's normal physiologic parameters (ie, biometrics, behavior) that correlate with pain and distress. However, smart alerts are only available after the system learns and establishes these baseline parameters, which requires a learning period of

- approximately 80 hours depending upon their unique profile and total time spent wearing their smart halter™. Smart alerts are multivariate and specifically tailored to your horse's unique normal. NOTE: Learning period requires your horse to be healthy and in their normal and natural environment (eg, at home in their stall) vs in an elevated distress state (eg, away, in transit, or sick).
- Manual Alerts: When manual alerts are enabled, you have the ability set your own threshold(s) for any of the 3 individual parameters (ie, heart rate, respiration, and activity level) to trigger an alert. By enabling manual alerts, you can utilize your device immediately out-of-the-box and bypass the learning period that is required for smart alerts.

## **Operations & Use.**

## I am concerned about leaving a halter on my horse overnight.

We recognize some equestrians may have apprehension leaving a halter on a horse overnight or for an extended period of time, especially when they are unsupervised. For this reason, the NIGHTWATCH® smart halter™ has been specifically designed to have multiple breakaway points as we want to do everything within reason to reduce the likelihood of causing harm. Due to the low break point of all-natural leather vs nylon, we DO NOT RECOMMEND using any part of the NIGHTWATCH® smart halter™ crown in conjunction with a nylon halter.

#### Is the NIGHTWATCH® Smart Halter™ safe?

The NIGHTWATCH® smart halter™ is safe and complies with the limits for a Class B digital device, pursuant to Part 15 of the Federal Communications Commission (FCC) rules. NIGHTWATCH® further ensures compliance with Industry Canada (IC) license-exempt RSS standards, PTCRB/CTIA certification standards, and IEC (International Electrotechnical Commission) 60950 product safety standards. The smart halter™ was developed under the expert guidance of veterinarians and has been tested on many horses of various breeds and sizes across the United States for several years.

#### Do I need WiFi in my barn for my NIGHTWATCH® Smart Halter™ to work?

Yes, you need access to a WiFi (2.4 GHz) network wherever you plan to utilize the NIGHTWATCH® smart halter™ as the 3G cellular network in the United States and Canada is in the process of being phased out. While the smart halter™ does work over 3G (GSM) cellular networks today, we do not recommend that you rely upon it as your primary or exclusive connectivity method.

#### Do I need to be near my NIGHTWATCH® smart halter™ for it to work?

No, you do not need to be in close proximity to your NIGHTWATCH® smart halter™ to receive alerts or access information via the NIGHTWATCH® App. As long as your smart halter™ has WiFi connectivity, it can issue alerts and push updates to your horse's NIGHTWATCH® profile.

## How does NIGHTWATCH® learn my horse?

Every horse is different, which is why NIGHTWATCH® leverages artificial intelligence/machine learning to learn your horse's unique physiology, to adapt to them over time, and to identify novel events that may be indicative of pain or distress that warrant the attention of a caretaker. The longer your horse wears their NIGHTWATCH® smart halter™, the more refined and precise their personal distress algorithm will become.

## How does NIGHTWATCH® notify a caretaker?

When predefined threshold(s) for either smart or manual alerts are breached, NIGHTWATCH® will alert you and others via text, call, and email simultaneously as a broadcast until the alert notification is acknowledged. To acknowledge and clear an alert, launch the NIGHTWATCH® App, select the horse's profile, and tap acknowledge. If an alert is not acknowledged within 60 minutes, the device will reset itself. A status LED on the ID plate of each NIGHTWATCH® smart halter™ further offers a visual indicator of your horse's relative distress. Just look for the green light for reassurance your horse is happy and within their normal/non-distress state. This LED will illuminate red during the lockout mode triggered by an alert.

## How is the NIGHTWATCH® smart halter™ powered?

The NIGHTWATCH® smart halter™ is powered by three rechargeable lithium-polymer (LiPo) batteries, which are not the same as lithium-ion batteries. By comparison LiPo batteries are thinner, more lightweight, and safer than lithium-ion batteries, but they do cost more to manufacture and do not have the same energy density.

#### How often do I have to recharge my NIGHTWATCH® smart halter™?

The NIGHTWATCH® smart halter™ offers approximately 12 hours of power with normal use and will need to be recharged daily. Each charge cycle is estimated to be 3 hours. To conserve power, the device will automatically go into a sleep mode when it is not being worn by your horse (ie, is motionless) and is not on the charger. Each NIGHTWATCH® smart halter™ has a magnetic charging port and comes with a UL-certified charging cable and USB wall adapter.

#### How can I view my horse's data?

You can view real-time and historical information on your horse via the NIGHTWATCH® App, which is available for download in the App Store and on Google Play. In addition, you can provide shared access with other careteam members, such as your veterinarian, trainer, et al.

#### Can I share information from my NIGHTWATCH® account with others?

Yes, you can provide shared access to your horse's NIGHTWATCH® profile with other careteam members, including your veterinarian, trainer, et al via the NIGHTWATCH® App provided those members have a valid NIGHTWATCH® account, which is FREE within the App.

#### Can I use the same NIGHTWATCH® smart halter™ on multiple horses?

Yes, you can use a single NIGHTWATCH® smart halter™ on multiple horses provided you transfer your device via the NIGHTWATCH® App. Transferring your device will still allow you access to individual horse profiles, their historical data, and personalized distress algorithms.

## Can I use a NIGHTWATCH® smart halter™ I purchased second-hand?

In accordance with our <u>Terms of Service</u>, any smart halter<sup>™</sup> not originally purchased from nightwatch24.com or smarthalter.com or purchased second-hand from a 3rd-party is not protected by our warranty as we cannot attest to the function, quality, or safety of the product. If you are in possession of a second-hand smart halter<sup>™</sup> and still wish to still use this product, then you agree to do so at your own risk. Please contact Customer Care to discuss next steps of re-activation and re-assignment. Alternatively, new NIGHTWATCH<sup>®</sup> subscription plans (starting as low as \$49/month) are available for <u>purchase</u> and include new hardware (ie, smart halter<sup>™</sup> crown), which is protected by our 1-year warranty.

**NOTE:** All NIGHTWATCH® subscription plans require smart halters™ to be connected to a WiFi (single band, 2.4 GHz) network.

### Can I still use a smart halter<sup>™</sup> purchased before August 1, 2021?

Yes, smart halters<sup>™</sup> purchased between April 1, 2020 and August 1, 2021 can continue to be used in the US and Canada without interruption and at no additional cost assuming your smart halter<sup>™</sup> can be connected to a WiFi (single band, 2.4 GHz) network. Please refer to limitations of our warranty for products/services more than 1 year from the original date of purchase.

NIGHTWATCH<sup>®</sup> smart halters<sup>™</sup> purchased prior to March 31, 2020, are no longer supported on our network. We recommend purchasing a new NIGHTWATCH<sup>®</sup> subscription plan (starting as low as \$49/month) that includes new hardware (ie, smart halter<sup>™</sup> crown) protected by our 1-year warranty.

**NOTE:** All NIGHTWATCH® subscription plans require smart halters™ to be connected to a WiFi (single band, 2.4 GHz) network.

## How do I know my NIGHTWATCH® smart halter™ is working?

A LED on your NIGHTWATCH® smart halter™ is integrated into the stainless ID plate and serves as a visual indicator of either your horse's health status or operational state of your device. You can also log into your account via the NIGHTWATCH® App to view device and/or horse details at any time.

#### Does my NIGHTWATCH® smart halter™ require any special care?

The NIGHTWATCH® smart halter™ is durable but does contain sensitive electronic components so appropriate care should be given to ensure longevity and proper functionality. Although all embedded technology is enclosed within a flexible, water- and dust-resistant enclosure, excessive water exposure and submersion should be avoided. Each halter is constructed using all-natural bridle leather from Wickett & Craig that has been hand-selected by Freedman's.

Bridle leather is a traditional cowhide used in a variety of applications, from classic equestrian tack to high-end leather goods. Drum dyed and hot stuffed, bridle leather is smooth and flexible yet durable.

## What if my NIGHTWATCH® smart halter™ breaks?

Should your NIGHTWATCH® smart halter™ become inoperable or damaged outside the parameters of our warranty and return policy, a repair and service program is available by contacting customer care at 800-757-3856 or email us at <a href="mailto:support@protequus.com">support@protequus.com</a>.

## Purchasing.

#### Where can I subscribe to NIGHTWATCH®?

NIGHTWATCH® is offered exclusively by Protequus® and available as a 3-, 6-, or 12-month subscription plan at smarthalter.com or by calling customer care at 800-757-3856.

#### How does NIGHTWATCH® pricing work?

NIGHTWATCH® is available as a 3-, 6-, or 12-month subscription plan. As a NIGHTWATCH® subscriber, you'll always have 24/7 access to view, manage, and share real-time and historical insights, receive automated alerts, and remotely monitor your horse's distress, rest, and recovery. By agreeing to the terms and conditions of this subscription, you will be provided with a FREE smart halter™ crown; optional headstalls are available as an accessory at time of purchase or provide your own 1″ double-buckle leather headstall. Early termination fees do apply should you choose to cancel your subscription during your initial term.

#### What happens after the initial term (of 3, 6 or 12 months)?

After the initial term your credit card will continue to be billed \$99/month until you cancel your subscription. Promotional rates for 6- and 12-month plans expire at the conclusion of their initial term. To cancel your subscription, contact customer care in writing no less than 30 days prior to your next renewal date.

#### What happens if I cancel my monthly subscription early?

If you cancel your plan during the initial term, you may keep your smart halter™ crown, but you will be charged an early-termination fee equal to the difference between your plan's complete price (as outlined below) and monies already collected:

#### **Early Termination Fees**

3-Month Plan: \$2976-Month Plan: \$47412-Month Plan: \$588

#### If I stop my NIGHTWATCH® subscription, can I begin again later?

If you stop your subscription and wish to begin again, visit smarthalter.com to purchase a new plan to ensure you have our latest hardware and software.

#### Will NIGHTWATCH® be available outside the US and Canada?

NIGHTWATCH® is currently available for horses domiciled within the US and Canada. However, we are working to make this groundbreaking technology available in other countries/regions outside of North America. Check back for more updates.

#### Is the NIGHTWATCH® smart halter™ offered in multiple sizes?

The NIGHTWATCH® smart halter™ is offered in 3 sizes with fixed or optional adjustable chins. Each smart halter™ is made from only premium appointment quality 1" Havana brown bridle leather with 18/8 stainless steel hardware, including a double-buckle crown and snap throatlatch. Contact customer care to learn more about adjustable chin headstalls and other accessory and customization options.

## What size NIGHTWATCH® smart halter™ does my horse need?

Most horses (15.1-16.1 hands; 1,000-1,200 lbs) will best fit in a Standard sized halter, whereas smaller horses (14.1-15.1 hands; 800-1,000 lbs) such as Arabians, Morgans, and yearlings may be better suited for a Cob. Oversize halters are available for larger breeds (over 16.1 hands; >1,200 lbs). Draft and pony sizing are not available at this time.

To select the best size for your horse, we recommend you obtain two measurements as seen in this halter sizing guide. Begin by measuring the circumference of your horse's muzzle approximately 1" below their cheekbone. Second, measure the length of their head from cheekbone to cheekbone over the poll and behind the ears. Still unsure? Call customer care and we can walk you through the process and provide a recommendation.

Adjustable Chin (optional): To accommodate a diverse range of breeds, we offer an adjustable chin option for the smart halter™. The adjustable chin allows you to increase or decrease the circumference up to 1.5″ versus our fixed-chin halter.

#### Where is the NIGHTWATCH® smart halter™ made?

Our handcrafted NIGHWTATCH® smart halters™ are designed and manufactured in Toronto, Canada and Rochester, New York, while all other operations are in Austin, Texas.

## What is your customer care policy?

We are committed 100% to customer satisfaction. If you are unsatisfied in any way with NIGHTWATCH®, please call customer care at 800-757-3856 M-F (8:30 am to 5:30 pm CST) or email us at support@proteguus.com.

## Who is Protequus®?

Protequus® is a biomedical engineering and data science firm (Founded 2013, Austin, TX, USA) dedicated to equine health & safety and the developers of NIGHTWATCH®. Protequus® is committed to protecting the welfare of horses while transforming equine health through data science and predictive analytics.