

## Dear ROLL-LARM purchaser,

***Congratulations!*** You've just purchased the best system available for alerting you and assuring you the opportunity to witness your mare giving birth to her next foal...perhaps, even, your next champion. You understand that complications during the equine delivery (parturition) are commonplace in the equine reproduction process. But, now you can relax in the comfort of knowing that you will be at the foaling pen to witness this miraculous event, and, on hand to assist the mare in the event of complications.

ROLL-LARM will alert you prior to parturition; the point nearing delivery when the mare rolls in her stall in response to the unborn foal's physical movements through the birth canal. The ROLL-LARM is a non-invasive parturition detection device and as an equine inverted posture alarm it can be used over and over again.

The ROLL-LARM consists of three integral components: Monitor, Transmitter, and Harness Assembly. The Harness Assembly is constructed of sturdy seatbelt material, incorporated with an expansion zone of elastic material for maximum wear comfort. A breast collar has been provided in the event that the system is to be used to monitor a slender specimen such as a colic patient. The harness was also designed to maintain the transmitter in proper relative position for accurate operation. The Transmitter is constructed of durable physical materials and state-of-the-art electronic components. It was developed to sense the equine's inverted posture (rotating body along the longitudinal axis from +/- degrees 90 to 270, zero being body standing upright). The Transmitter operates on a common household 9-volt battery and can be switched off when stored to preserve battery life. The Monitor operates with common household power. Its features include multiple function and mode positions. In the normal function the alarm will activate only when an activation signal is present, while in the continuous function the alarm will activate and remain activated until the system is reset. Since studies indicate that approximately 85% of equine mares foal during hours of darkness, the continuous function may be particularly useful to alert attendants who may be asleep. The mode switch allows selection of lite, or lite *and* audible alarm activation.

This product was proudly manufactured in the USA. U.S. Patent #6,536,377.

Best regards,

Dennis Beaver  
President, Equinomix LLC

## User Instructions:

### 1. Inspect System:

Remove ROLL-LARM items from package and inspect: MONITOR, TRANSMITTER, HARNESS ASSEMBLY with optional-use breast collar, instruction sheet, warranty and service cards.

**WARNING: Potential Shock Hazard--MONITOR must be operated and always stored in a dry environment to prevent accidental shock and for proper operation.**

### 2. Test system MONITOR (Refer to images):

NOTE: Ensure tamper-proof seal is affixed to MONITOR enclosure. This seal, when intact, insures serviceability, reliability and warranty of the unit. While the TRANSMITTER may be occasionally opened for battery replacement, there are no user parts in the MONITOR, and disassembling the MONITOR enclosure may compromise the integrity of the system as well as void the warranty.

- A. Ensure MONITOR power <ON/OFF> switch is <OFF>.
- B. MONITOR "normal" function. Position function switch—normal/continuous <NORM/CONT> to <NORM> (Selecting the normal, <NORM>, position allows the alarm to activate and remain activated for only the amount of time that the inversion signal is present, e.g., when the activated TRANSMITTER is inverted, or, tested, or, when the MONITOR is tested.
- C. On MONITOR, position the mode switch to <LITE>.
- D. Connect MONITOR power cable to household receptacle.
- E. Position MONITOR <ON/OFF> switch to <ON>.

NOTE: Power lite illuminates. MONITOR is in the 'armed' and 'idle' state.

- F. Position alarm mode <MODE> switch to <LITE>. (Selecting the <LITE> mode position enables the lite only to illuminate when the alarm is activated, selecting the <AUD> mode position enables the lite

to illuminate *as well* as the audible signal to sound when the alarm is activated.

G. On MONITOR, momentarily hold the press-to-test, <P/T/T> button.

F. On MONITOR, reposition the mode switch to <AUD>.

G. Again, momentarily press the press-to-test (P/T/T) button.

NOTE: Lite *and* audible alarms activate, and de-activate when press-to-test button is released.

H. MONITOR “continuous” alarm function. When the continuous, <CONT>, function is selected, and when the alarm is activated, the alarm will remain activated until the system is physically reset.

NOTE: To physically reset continuous activation of the MONITOR:

a. Set MONITOR switch to <NORM>, or, momentarily position the power switch to <OFF> then back <ON>.

b. If alarm is still activated, locate and remove inversion signal. (Note posture of TRANSMITTER which may be culprit).

### 3. Test system TRANSMITTER:

NOTE: Ensure MONITOR is on.

A. Hold TRANSMITTER in approximate upright position (Harness attachment is up).

B. Remove any shipping tape from TRANSMITTER on-off switch, and position switch to on (up; white lite blinks).

NOTE: Power-on micro-lite illuminates.

C. Momentarily press-to-test micro-button switch on TRANSMITTER.

D. Momentarily rotate Transmitter in spacial plane noting activation (Transmitter micro red lite on) when Transmitter exceeds approximately 90-degrees through approximately 270-degrees of rotation.

NOTE 1: MONITOR alarm activates respective of MONITOR settings.

NOTE 2: If MONITOR was set to function continuously, <CONT>, reset MONITOR to armed/idle state as outlined in above step 2. H.

#### **4. Analyze HARNESS ASSEMBLY for specimen application:**

NOTE: This HARNESS ASSEMBLY has been manufactured to fit the averaged-sized mature horse specimen. While this surcingal harness is retrofitted with several buckle adjustments, minor tailoring may be required for other than averaged-sized horses, i.e., miniatures or drafts.

- A. Dry-fit harness to horse. Adjust buckles evenly and equally so that TRANSMITTER hangs freely, yet snugly, at the bottom of the mare's girth area (elastic comfort/expansion band centered on top of back). Proper tension of harness surcingal strap must be maintained for maximum comfort. It should be snug, yet not binding as to restrict normal respiration. (The elasticized area of harness surcingal aids in that respect).
- B. Routinely check the HARNESS ASSEMBLY for proper fit as pregnant mare's abdomens, and respective girth areas tend to increase in size drastically, especially during the final phase of pregnancy.
- C. Routinely test the electrical portion of the ROLL-LARM system from the foaling area by pressing the test micro-button on the TRANSMITTER (when installed on mare), or, by tilting TRANSMITTER beyond 90 degrees to 270 degrees. (If testing is to be done while alone, it may be necessary to set the function switch on the MONITOR to continuous, <CONT>, mode during the test to substantiate proper operation.

NOTE: If the distance, or any obstructions—particularly metal—between the foaling pen and MONITOR location exceeds the operating capacity of the system, then the situation must be corrected. It may be most logical and cost effective to purchase an optional AUXILLIARY ALARM EXTENSION UNIT, which easily and quickly plugs into the back of the MONITOR and then is hard-wired to attendant's observation post.

- D. Optional-use breast collar. The breast collar (included) easily and quickly attaches around the horse's breast to the forward collar buckles of the HARNESS ASSEMBLY. It is provided for use particularly during colic situations when the patient horse may be too thin to naturally maintain the HARNESS ASSEMBLY in proper position: just behind wither on top side, and forward girth area on bottom side. (A mare, in

her final stages of pregnancy appears to encounter no problems maintaining the HARNESS ASSEMBLY in the ideal position). Our studies have shown that equine specimens that have never worn an apparatus, to include saddles, etc., do not balk at the installation of the ROLL-LARM HARNESS ASSEMBLY, particularly during final stages of pregnancy, or, if colicking).

#### **5. AUXILIARY ALARM EXTENSION UNIT (Optional Accessory):**

While the ROLL-LARM system was designed to operate to distances of nearly one-quarter mile, it is not uncommon for certain barriers, i.e., metal barn walls, to interfere with the signal strength from the transmitter. If you experience this problem it can be easily corrected with the use of the AUXILIARY ALARM EXTENSION UNIT (sold separately). When using this unit, simply place the MONITOR within proximity of the foaling area (Insure that it is protected from rain or moisture.), plug in this unit to the rear of the MONITOR, utilizing enough cabling (sold separately) to reach your bedroom or the attendant's sleep area. Select <LITE> on the Monitor if you *do not* want the Monitor's alarm to sound when the system activates. (The AUXILIARY ALARM EXTENSION UNIT will sound when the system activates, regardless of the Mode position you select).

#### **6. Telephone/pager Automatic Dialer Unit (Optional Accessory):**

This small unit connects to the existing jack on the rear of the MONITOR and allows the quick connection of a TELEPHONE AUTOMATIC DIALER component (sold separately) as well as a continuance connection for an AUXILIARY ALARM EXTENSION UNIT, if required.

#### **7. Battery Replacement:**

NOTE: To enhance battery life, the TRANSMITTER was designed so that no appreciable power is consumed while it is on and not activated ('armed but idle'). A single battery may prove adequate for an entire foaling season with multiple mares. It is imperative that the power switch of the TRANSMITTER remain off when not in use to preserve battery life. Be sure to test the TRANSMITTER for proper operation prior to each use.

- A. The TRANSMITTER is powered by a 9-volt standard-type battery, similar to that used in household smoke detectors. To change the battery, simply remove the TRANSMITTER cover plate (four screws), and carefully disconnect and remove and replace the battery from its clip. Reinstall cover plate. Test TRANSMITTER.

- B. Remove TRANSMITTER battery prior to lengthy storage as some batteries may excrete corrosive and damaging chemicals under certain conditions.