DRAMIŃSKI
TECHNOLOGY

Pregnancy Detector for Dogs

OPERATION MANUAL

www.draminski.com

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INTRODUCTION

The DRAMINSKI Ultrasonic Pregnancy Detector for Dogs determines pregnancy in dogs by locating amniotic fluid in the uterus.

The ultrasonic probe (sensor) held against the skin of the bitch, emits ultrasonic sound waves which are reflected by the amniotic fluid in the uterus of the pregnant bitch and return to the probe. The reflected sound is then measured and analysed by the instrument.

When an airless contact is made between the head of the probe and the skin, the instrument signals this with the diode (light) pulsing and a high-frequency acoustic (sound) signalling regularly once a second.

When pregnancy is detected however, the instrument signals this with a rapid pulsing of the diode (light) and a corresponding rapid high-frequency acoustic (sound) signal.

The DRAMINSKI Ultrasonic Pregnancy Detector for Dogs is ideally suited to pregnancy determination for individual breeders, large breeding & show kennels, veterinary surgeries and commercial organisations alike.

It is designed to be easy to use, maintain and provide rapid results with maximum accuracy.

Testing can be performed from 3 weeks after mating. However the optimal time for accurate diagnosis is between days 25 & 28, because of the enlargement of the uterus at this time and its movement slightly downward, closer to the peritoneum. Testing prior to day 25 is possible, but accuracy decreases due to insufficient amniotic fluid being present to reflect the ultrasonic waves. Testing after the optimal period is also possible.

DESCRIPTION

The DRAMINSKI Ultrasonic Pregnancy Detector for Dogs consists of the following:

1. The instrument body with red and green signalling diodes, on/off button, battery compartment, probe connector-cable output terminal and a variable gain control to 'set' for the size & weight of the bitch to be tested.

2. Ultrasonic sensor probe with co-axial connecting cable.

3. Alkaline 9 volt battery inside the battery compartment of the instrument body.

4. Plastic carrying and storage case.

TEST SETTINGS

Setting the potentiometer (gain control) correctly, is a very important factor, which influences the validity of the results obtained by testing.

Bitches vary in regards of weight and size for different breeds and thus the gain must be set to the particular position relevant to the size of the bitch that is being tested.

For ease the potentiometer has been calibrated to show:

S For small bitches
M For medium size bitches
L For larger bitches
G For the giant bitches.

With usage, familiarity and experience, the gain control can be adjusted to suit the particular bitch, both in terms of breed type and actual size, so that an optimum setting is achieved to ascertain accurate results.

Examples:

S (Small)

*Yorkshire Terrier	*Chihuahua	*Pekingese
*Toy Poodle	*Dachshund	*Papillon

M (Medium)

*West Highland White Terrier		*Border Terrier
*Norwich or Norfolk Terrier		*Fox Terrier
* Whippet	* Cocker Spaniel	*Lhasa Apso
* Shih Tzu	*Corgi	

L (Large)

*****GermanShepherd	*****Border Collie	*****Rottweiler
*****Labrador / Retriever	*****AfghanHound	*****StandardPoodle
*****Doberman	*****Boxer	*****Dalmatian

G (Giant)

*****Bloodhound	*Old English Sheepdog	*****St.Bernard
*Newfoundland	*****Bernese Mountain Dog	*Irish Wolfhound

OPERATION

Before testing, ensure you know the date of mating or insemination.

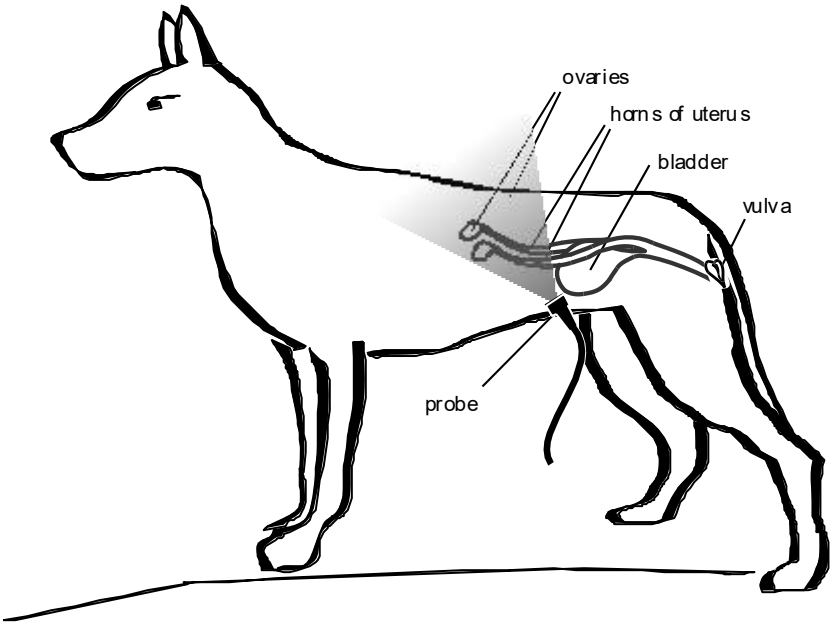
Immerse the head of the probe in the gel, oil or other suitable contact medium (excellent results via ease of use have been obtained by using any normal household cooking oil).Use a small glass jar containing the oil with a wide mouth top and dip the end of the ultrasound probe into the oil. The unit will beep & flash rapidly (effectively showing a pregnancy result). Remove the probe from the oil and gently shake of the excess, then place the probe in the correct position on the bitch and begin to test.

Hold the probe against the skin of the bitch at the position shown on the diagram. Move the probe in a sliding motion until you achieve a good airless contact, indicated by a steady flashing green pulse of light from

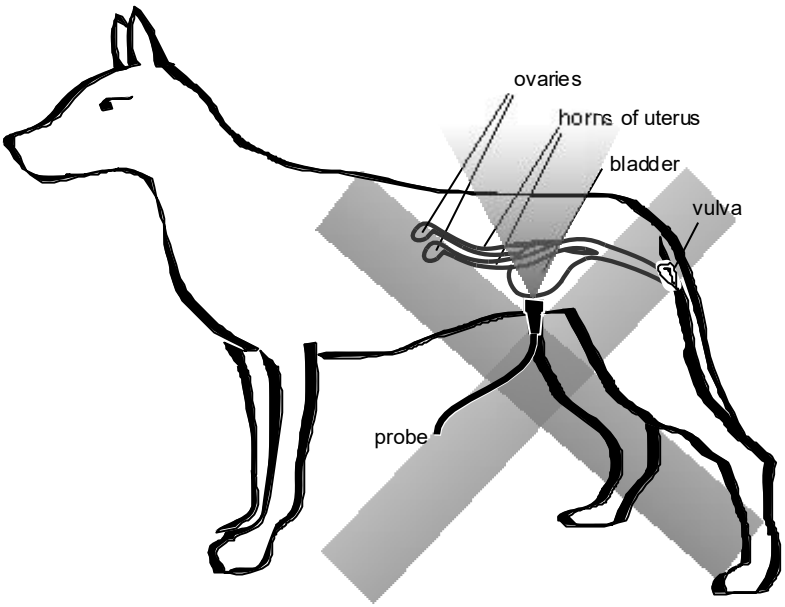
the diode and acoustic signal 'beeping' at the same frequency. (Approximately once per second).
As shown on the diagram, when placing the probe against the skin, you must direct the ultrasound waves towards the horns of the uterus. Test for pregnancy on both the left and right hand sides and commence scanning by moving the probe head around the general area, keeping the probe pressed against the skin so as not to lose the airless contact.

When good contact is achieved, proceed with the scanning. As soon as the ultrasonic waves locate the amniotic fluid in the uterus and are reflected back, the green diode and acoustic signal will change to rapid pulsing at 4 to 5 per second to indicate pregnancy.

The drawing illustrates the initial placement of the probe on the animal.



It is imperative that the probe is placed and directed as shown in the diagram pointing towards the front of the bitch at an approximate angle of 40 to 45 degrees.



If the probe is directed vertically a false reading of pregnancy could be obtained by reflection of the ultrasonic waves emanating from the urine in the bladder.

If no pregnancy signal is achieved, (ie: the frequency of the flashing diode and the acoustic signal remains at once per second) move the probe by sliding against the skin surface whilst still maintaining good contact (confirmed by the continuance of the light pulse and sound at once per second) around the general area, initially moving slightly to the rear of the bitch and then moving forward always keeping at a 40 to 45 degree angle.

In the diagram opposite, you will see the correct position to place the probe, which is directed at an angle towards the uterine horns, thus avoiding the bladder which may produce false readings, especially if the bitch has a full bladder. It is therefore important to let your bitch urinate before taking a reading.

It is prudent to note that if you also move the probe forward too far, or in the centre of the underside of your bitch, up as far as the base of the sternum, or place the probe on either side of the rib cage itself, then you may 'pick up' fluid within the kidneys, which would provide a false reading.

It is imperative therefore to achieve accurate readings that the probe is placed and tested on either side of the bitch in the position indicated and shown on the diagram.

The probe should be held firmly against the bitch's body, but not pressed so as to cause pressure to the abdominal cavity, with the ultrasound waves directed at a 40 to 45 degree angle, aiming at the spine as shown in diagram. Directing the ultrasound waves almost vertically may cause the reflection of urine in a full bladder, thus providing a false signal of pregnancy.

For accuracy the tests should be conducted on both sides, when the bitch is standing.

The best time to test the bitch is when she has an empty stomach and an empty bladder. A full stomach and/or bladder may cause false pregnancy results, by reflecting the ultrasound waves. It is best to confirm the results by testing on 3 occasions.

OBSERVATIONS

The tests can be done from 3 weeks until approximately 40 days after mating or insemination.

The most accurate results are achieved between days 25 and 28.

If a test is carried out early, we advise that the test is conducted again between the optimum test period of 25 to 28 days.

Normal scanning time is 15 to 20 seconds or a little longer, but with practice, accurate test results can be achieved in a few seconds.

Although very high rates of pregnancy accuracy are possible with practice, natural and physiological factors including re-absorption of the foetus after a positive scanning result can prevent 100% accuracy being achieved.

This unit has been designed and calibrated for pregnancy detection on dogs and is not suitable for use on humans.

CARE & CLEANING

Do not wet the detector, immerse it in water or expose to excessive moisture, as the instrument body is not designed to be totally waterproof.

Clean the instrument body, probe and cable with a damp cloth or preferably a 'wet-wipe' and dry thoroughly before use or storage.

Store the detector in its carrying case in a clean and dry place when not in use.

BATTERY REPLACEMENT

Low battery power is indicated by the red diode (light) and a new battery is required when this appears. It is recommended that a high performance alkaline battery is used for this instrument or alternatively a good quality rechargeable battery.

To change the battery:

1. Unscrew both screws, which fix the battery cover plate on the rear of the unit.
2. Remove battery from its compartment and release from terminals.
3. Renew battery, fix clasps to correct terminals and replace in battery compartment.
4. Replace battery cover plate, and replace two fixing screws.

TECHNICAL DATA

Dimensions:	(L)120mm x (W)75mm x (H)30mm
Net Weight:	250g approximately
Power Source:	Alkaline 9 volt battery (automatic battery failure signal)
Working Temperature:	From 0 ^{o}C to + 60 ^{o}C

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