

The **PREG-TONE II PLUS** emits high frequency sound waves called ultrasound from the transducer (see diagram). The transducer must make proper skin contact with the sow in order for ultrasound to penetrate. Proper skin contact will be made when an oil is used between the skin of the sow and surface of the transducer. An intermittent tone is emitted when proper skin contact is made and the button is pressed and held on.

The sow's uterus fills with amniotic fluid during pregnancy. When the ultrasound contacts the amniotic fluid in the uterus it produces an echo. These echoes are received and processed by the electronic circuits of the **PREG-TONE II PLUS** and a continuous audible tone (beep) is sounded indicating pregnancy

TEST RESULTS

When the transducer is applied to the skin though a sufficient amount of coupling fluid, an intermittent tone (beeping) is heard, which indicates good skin contact. Pregnancy will then be indicated by a change to a continuous tone. If after scanning, the tone does not change to a continuous tone the intermittent tone indicates an open sow. It is possible to get the continuous tone without first getting the intermittent tone.

You can begin testing sows as early as 18 days and as late as 75 days after breeding and obtain accurate results. The testing done at 18 days should be repeated at 30 days after breeding to assure an accurate test result.

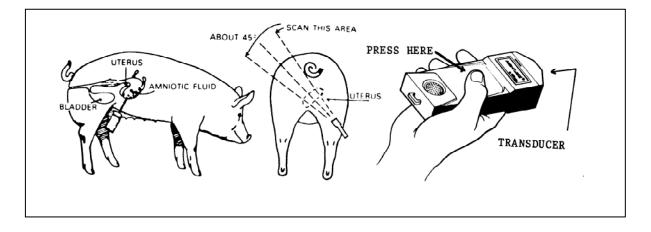
PRETEST TO CHECK FOR PROPER OPERATION

Turn the instrument on by squeezing and holding with your thumb on the front center of the case as shown in the diagram. An audible tone will sound, which indicates the unit is working properly. If no sound is heard, read the instructions regarding malfunctions.

TESTING PROCEDURES

You will need a contact fluid, such as mineral oil or vegetable oil. During testing, isolate and quiet the animal (feed her). Testing will take 15-30 seconds at first and about 5 seconds after skill is developed.

Testing should first be done on the right side of the sow. Put a liberal amount of oil on the on the sow, turn the instrument on, and place the transducer on the sow in the location shown in the diagram. The best site for testing is located one inch above the nipple line and two inches in front of the rear leg. Aim the ultrasound into the sow's body to scan across the uterus. This is an angle of about 45 degrees forward and 45 degrees to the side. Aim for a spot above the left front shoulder. Rotate and press the instrument against the skin to express air bubbles *ultrasound cannot penetrate air*. Move the instrument so as to scan an arc across the uterus. You should hear an intermittent beep that indicates good skin contact. If sow is pregnant, it will turn into a continuous beep. Remember to apply oil every time you test a sow. If the sow tests open when you test on the right side, repeat the testing procedure on the left side, to be sure the test is correct.



TESTING PROBLEMS

1. NO "CONTACT" TONE: Squeeze the case as shown and hold during the entire test for each sow. Use more oil to make a better skin contact. The oil is used to exclude any air from between the transducer and the sow's belly. <u>Besides the air bubbles, it is important to</u> <u>remove and all dirt, manure, and excess hair that might cause an improper skin contact</u>. If you fail to get a good contact beep, try to use the instrument on the palm of your bare hand. If you can not get a contact beep, retry the **PRE-TESTING PROCEDURE** or read and follow the instructions regarding malfunctions.

2. GET "CONTACT" TONE BUT NEVER A "PREGNANT" TONE WHEN USED ON PREGNANT SOWS: First, squeeze and hold the case as shown to turn the unit on. After you have heard the contact tone, aim the unit towards the rear of the animal. This should aim the ultrasound in the direction of the bladder. A full bladder will simulate a pregnant uterus, and produce the continuous tone. If still no sound, read and follow the instructions for malfunctions.

3. ALWAYS GET THE PREGNANT TONE, EVEN ON NON-BRED SOWS: Examine the diagram and make sure you are aiming the instrument forward of the bladder. The bladder will always give the continuous tone, seemingly indicating pregnancy. If this fails to get the correct results, read the instructions for a malfunctioning unit.

4. NO SOUND AT ALL: Go to instructions for malfunctions.

WHAT TO DO WITH A MALFUNCTIONING INSTRUMENT AND SOME "SELF-TESTS" TO DO BEFORE YOU CALL RENCO

1. Squeeze to turn on. A brief beep will sound. A self-diagnostic test checks the internal circuits. This test can be done over and over but you must wait 5 seconds between tests. If there is no beep, replace the battery. If still no beep, call us.

2. Wet transducer head with water. Place the head on the palm of your bare hand, squeeze and hold to turn on. An intermittent beep will sound. If no beep is heard, retry the test using more water. Still no beep is heard, replace the battery. If it still doesn't work call the factory.

3. If you have problems feel free to contact your dealer or the factory.

HOW TO REPLACE THE BATTERY

Remove two screws from the case. Gently separate case from the transducer head to expose the battery. It is not necessary to completely remove the case. Unsnap battery and replace it with new 9-volt battery. Close unit, pressing the transducer head into the case, taking care not to pinch the rubber gasket or the wires to the battery. Replace screws and do pretest procedures.

CLEANING, MAINTENANCE AND CARE: Do **NOT** immerse the PREG-TONE II PLUS completely under water. Clean with a soft towel and mild detergent. If the sounder holes become plugged, remove the case and clean the holes with a toothpick. If the unit becomes wet on the inside, remove the cover and allow to dry completely before using. Unit may not operate accurately in temperatures outside of the range of $-10^{\circ} - 70^{\circ}C$ ($20^{\circ} - 115^{\circ}F$).

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