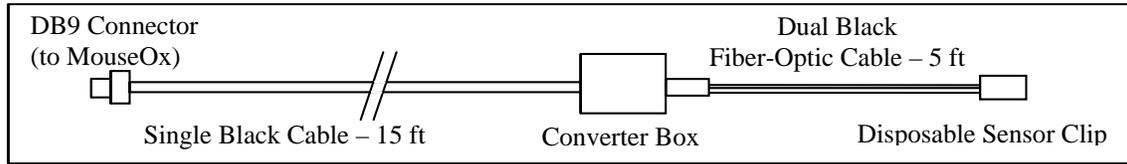


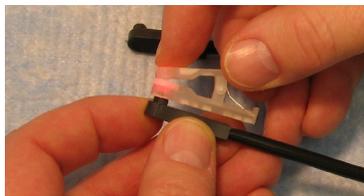
## Pulsar™ Small-Bore MRI Sensor Instruction Sheet

### Small-Bore MRI Sensor Schematic



1] Connect the DB9 Connector (9-pin connector) on the end of the thin black cable to the MouseOx® Control Box. Be sure that the MouseOx® software is not running when you do this.

2] Connect a disposable sensor clip to the fiber-optic cable. **You MUST USE a Mouse Thigh Clip for mice and a Rat Foot Clip for rats.** Place the protrusion on the end of the fiber-optic cable labeled “LED” into the hole on the clip half marked “LED,” then do the same for the side marked “PD.” Make sure that the fiber-optic cable is oriented so that it aligns over the handle as shown.



3] Connect the sensor clip to the animal:

A] **Mouse Thigh** – Place the clip on the thigh of a mouse as shown. For non-white fur, you **MUST** shave both locations of the sensor site. On white fur, shaving is not necessary, but will improve signal strength.

B] **Rat Foot** – Place the clip over the toes and locate it so that light shines through the **CENTER** of the foot. Support the clip/cable so that the animal’s foot is **NOT TWISTED** relative to its position before attaching the clip. The clip half marked “PD” should be on the bottom side of the foot.



Mouse Thigh



Rat Foot

4] After locating the clip on the animal, distribute the dual black fiber-optic cable such that it proceeds straight from the animal and that it **DOES NOT** twist the animal’s foot. Try to lay the sensor clip so that both the LED and PD cables are laying on the table.

5] Run the MouseOx® software (you should use Rev 6.0 or higher). To get to the Monitor Subject screen, choose “Anesthetized Measurements” then “Mouse Thigh” or “Rat Foot” depending on your application.

6] Other recommended guidelines:

- **Keep the body (rectal) temperature of the animal above 36°C.**
- Make sure that the Pulse Distention exceeds 20  $\mu$ m when operating the system. If the Pulse Distention is less 20  $\mu$ m, it is recommended that you try to relocate the sensor clip to improve it or **warm the animal.**
- If you are having trouble getting a good signal, try shaving the sensor location if applicable.
- **The non-ferrous spring will weaken with multiple uses. An unreasonably low oxygen saturation measurement (a healthy subject with a sat of 88% or less) is a clear sign of an over-used spring. To prevent this, and to promote infection control, replace the clip before each MRI session.**
- CAUTION: The converter box contains trace amounts of ferrous material. Keep it away from the magnet bore.