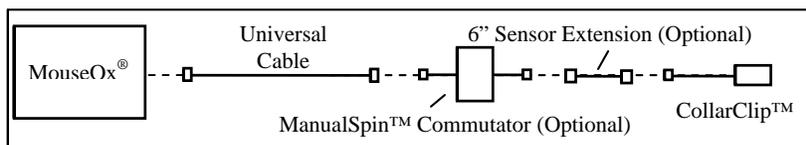


# Rat CollarClip™ Instruction Sheet – Sizes M, L, XL and 2XL

**The Rat CollarClip™ can be used on AWAKE or ANESTHETIZED rats**



## Rat CollarClip™ Sizing

Animal Weight Range (gm)	Clip Size
31 – 100	M
101 – 300	L
301 - 500	XL
500 +	2XL

Note that the Clip Size is engraved on the back of the clip handles.

## CollarClip™/ThroatClip™ Differentiation

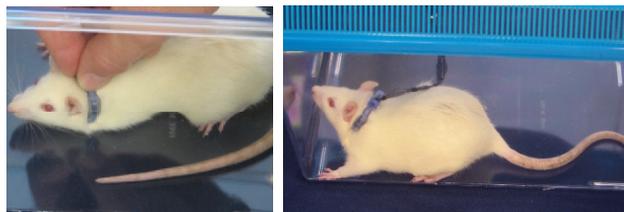
The CollarClip™ is colored blue, while the ThroatClip™ is colored black. **It is important that you use the correct clip for the correct application.**

## Collar Training

Each Clip Pack comes with a Blank Clip that matches the size of the sensor clip. It can be used for training an animal to accept the CollarClip™ by simply placing the clip on the animal for a period of time prior to your experiments. A minimum of 1 hour is recommended, but longer (3-6 hrs.) is preferred.

## Attaching the Collar and Making Measurements (Awake Animal)

- 1] Connect the MouseOx®, Universal Cable, Optional ManualSpin™ Commutator, Optional 6" Sensor Extension and CollarClip™ as shown in the figure above.
- 2] Remove the lid from whatever cage is being used, and slide the CollarClip™ sensor through an access on the top of the lid, then set it on the bench.
- 3] If you are using an animal with non-white fur, you MUST either shave the entire sensor site WELL, or use a depilatory product such as Nair® (See Chemical Hair Removal below).
- 4] Put the animal inside the cage. Pull enough cable through the lid so that you can move it around to attach the clip to the animal. Place the sensor on the animal from the back of its neck as shown below. Keep in mind the following:
  - Place the clip **BEHIND** the ears and in **FRONT** of the paws. **Do not capture the ears under the clip!**
  - Center the clip handle on the vertebral column of the animal.
  - Make sure that the clip is pushed straight down on the back of the neck.
  - Once the clip is in place, squeeze the tines around the animal's neck to assure good contact.



- If the animal grabs the clip assembly out of your hand, DO NOT try to pull it back out. Release the tension on the cable and the animal will release the clip.

- 5] Once the clip is in place, re-assemble the lid back onto the cage, then pull the cable out of the box until there is just enough length for the animal to move freely in its cage without pulling the clip off. **Make sure that you pull enough cable out of the cage so that it does not hang in the animal's face, as the animal may try to chew on the loose cable.**

- 6] Check that the wiring assembly is connected to the MouseOx®, then start the software. You MUST USE Revision 6.3 or higher with the CollarClip™. Follow the menu of buttons, choosing those appropriate to your measurement conditions.
- 7] If you are making unanesthetized measurements and are using the Optional ManualSpin™ Commutator, you can release rotation in the cable manually at any time while the system is running.
- 8] If signals do not come in quickly, or performance degrades over time, try the following:
  - Re-position the sensor
  - Replace the sensor
  - Shave the animal

**NOTE: When using the 2XL clip, it is recommended that the animal be shaved regardless.**

## Attaching the Collar and Making Measurements (Anesthetized Animal)

Anesthetize the animal, then simply follow steps 4, 6 and 8 above.

## When to Replace Sensor Clips

The clips are designed to be disposable. You should replace them in the following situations:

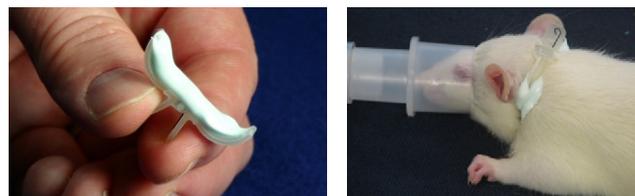
- 1] significant buildup of hair or material covering the clip faces,
- 2] good signals (data values on the software screen are in color) take an inordinately long time to appear,
- 3] presence of any mechanical defect in the sensor.

## Chemical Hair Removal

The Blank Clips that come with each Clip Pack can also be used to chemically remove hair from the CollarClip™ sensor site on the animal. This method is preferred over shaving, although not necessary unless the animal has dark fur. If you do use a depilatory, we suggest that you do so a few hours to a day before you will be conducting tests on your animals.

**NOTE: You MUST remove hair from the sensor site of non-white animals.**

- 1] It is recommended that you anesthetize the animal for hair removal.
- 2] Lay a bead of depilatory cream (e.g., Nair®) around the entire inside of the Blank Clip as shown.



- 3] Place the clip on the animal [as described in Step 4 above], and let the clip and depilatory cream remain in place for the duration specified by the manufacturer.
- 4] Remove the clip, then carefully wash the cream completely off of the animal using swabs and a small water dish. The hair will be removed with the cream when you do this.