



### Thermal Pain Tester

- Allow 15-60 minutes for animal room acclimation
  - Do not perform the test if:
    - Animal cannot move legs
    - Animal has obvious signs of damage to paws
- Clean chambers with 70% ethanol
- Adjust the settings:
  - Set the "IR Intensity" to 50 (50% of max output)
- Testing
  - Place each animal in a segment of the Perspex isolation arenas. A maximum of 6 mice or 3 rats can be tested at a time (one species at a time).
  - After 3 to 5 minutes of acclimation, position the IR radiation source under the glabrous (hairless) portion of a paw (typically the hind paw) and press the start button on the IR radiation source. The stimulus will shut off automatically when the paw moves (or after 20 seconds to prevent tissue damage).
    - Note: There is only a momentary period of slight pain or distress. The intensity of the heat stimulus remains constant throughout all experiments. Elicited paw movement is expected to occur at a latency of approximately 10-14 seconds in control mice.
  - Proceed to testing of the next animal and then repeat the assay in a round-robin (1,2,3,4 -> 1,2,3,4) fashion to collect between 5 and 10 data points per animal.
  - Thermal stimuli will be delivered at approximately 5-6 minute intervals. Because the response to the first stimulus is highly variable, do not include that data point in the analysis.
- Cleaning
  - After a testing session is complete, apply disinfectant to the area and glass pane and let stand for a minimum disinfection time of 5 minutes. Subsequently, wipe the disinfectant away, apply alcohol and allow the surfaces to air dry. Repeat the cleaning process after each animal or group of animals is tested.
- Monitoring
  - Few, if any, adverse reactions are expected, as the test involves only a momentary period of discomfort. Regardless, the animal will be closely monitored for any sign of distress, in which case the test will be terminated. Signs of clinical distress include disturbance in motor function and grooming abnormalities (i.e., self-mutilation, lack of grooming, and general poor appearance), abnormal social interaction (i.e., over-aggressiveness toward cage mates) and/or tissue damage on the plantar surface of the paw