

STANDARD OPERATING PROCEDURES

DIVISION OF COMPARATIVE MEDICINE
UNIVERSITY OF SOUTH FLORIDA

SOP#: 1171

Date Issued: NEW

Date Revised: 9/22

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TITLE:	Rodent Metabolic Caging
SCOPE:	Animal Care Personnel
RESPONSIBILITY:	Facility Manager, Technical Staff, Veterinary Staff
PURPOSE:	To Outline the Proper Procedures for Receiving, Physical Examination, Evaluating Health Status, Handling, Care, and Husbandry Practices Related to Rodents

I. PURPOSE

1. To ensure the highest quality of animal health, and to preclude the development of spontaneous diseases or disorders which could compromise the integrity of studies, and the interpretation of results.
2. To ensure personnel handling rodents perform their duties in a manner that complies with all current governing laws, regulations, and guidelines.

II. RESPONSIBILITY

1. The Veterinarians oversee all aspects of animal health and are assisted by all program staff.
2. Facility Managers ensure implementation of all procedures.

III. PROCEDURES

1. Please **refer to SOP 400 Rodent Husbandry** for applicable aspects of animal receiving, handling and restraint, environmental enrichment and social housing, feed and watering, health surveillance, caging and cage changing, and room duties.
2. **Careful handling only with gloved hands and touching only the outer rim** of the separating cone and collection funnel (i.e., caging parts #5 and #6 in the attached image and catalog #3600M027 & #3600M012S) is required, as these parts have a special surface treatment that contributes to the collection of specimens.
 - a. **Do not touch or rub the surface with fingers.**
 - b. **Do not touch the surface with abrasive pads or tools.**
 - c. **Do not mechanically wash or autoclave these parts.**

The following parts contributing to specimen collection must **only be hand washed with gloved hands, in a mild detergent, then rinsed with water:** the separating cone, collection funnel, feces conveyor and collection tube, and the urine funnel, conveyor and collection tube (i.e., parts #7 - #10 in the attached image).

3. Other parts of the metabolic caging assembly can be mechanically washed, with small parts washed as a unit **in a wire basket**, so that all parts are retained for assembly.
4. After washing, complete each subassembly step, s 1-6 (below) always while handling with **gloved hands:**
5. **Subassembly 1:**
 - a. Snap the urine ring ears to the lugs on the collection funnel slanted nose.

- b. Place the collection funnel inside the lower chamber fitting the tab on the lower chamber rim to the slot on the collection funnel rim.
 - c. Place the separating cone on the collection funnel.
6. **Subassembly 2:**
 - a. Slide the support plate into the stand white nylon supports with the circular lip facing up.
 - b. Place the support grid on the top of the support plate. Rest the support grid handles on the four raised tabs on the plate circular lip.
7. **Subassembly 3:**
 - a. Place the upper chamber on the top of the support grid.
 - b. Lock the upper chamber to the support plate by placing the safety retainer wire over the chamber and locking the wire under the support plate.
 - c. Align the three grooves of the cage cover with the lugs at the top of the upper chamber. Rotate the cover clockwise to secure.
8. **Subassembly 4:**
 - a. Slide the feed drawer into the feeder chamber until the drawer is locked into place.
 - b. Insert the feeder chamber into the appropriate opening on the upper chamber.
9. **Subassembly 5:**
 - a. Insert the water bottle support into the appropriate opening on the upper chamber.
 - b. Place the water bottle into the support bed inserting the sipper tube into the hole.
 - c. Position the fluid collection tube with funnel into the half ring on the water bottle support.
10. **Subassembly 6:**
 - a. Fix the cage lower chamber to the cage upper chamber by inserting the three ribs on the lower chamber into the three L-shaped notches on the upper chamber.
 - b. Raise the cage and turn the lower chamber to secure it in position.
 - c. Insert the feces collection tube into the central hole on the lower chamber floor and rotate it to fix.
 - d. Insert the second fluid collection tube with funnel into the second hole on the lower chamber floor under the collection ring lip and rotate it to fix.
11. Please **refer to the attached images and diagrams.**

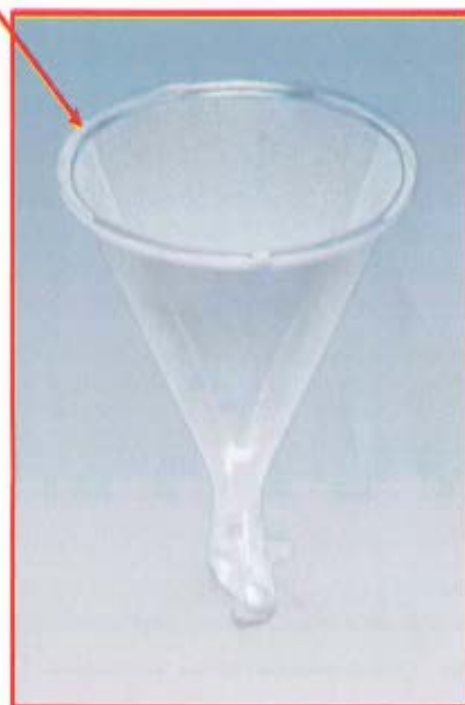
Approved:

Date:

Delicate coating: Handle only by touching outer rim



3600M027
Separating
cone



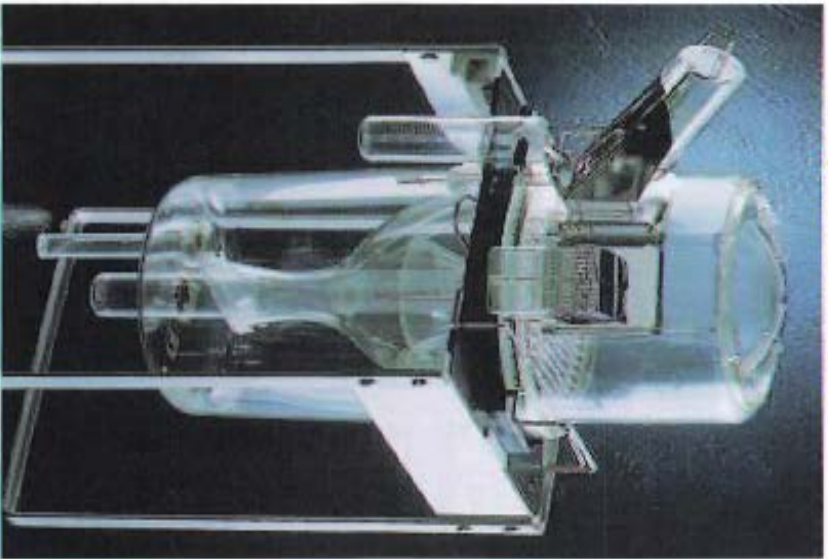
3600M012SU
Collection funnel

Order replacement if you notice liquid beading and remaining on surface

Metabolic Cage assembly guides

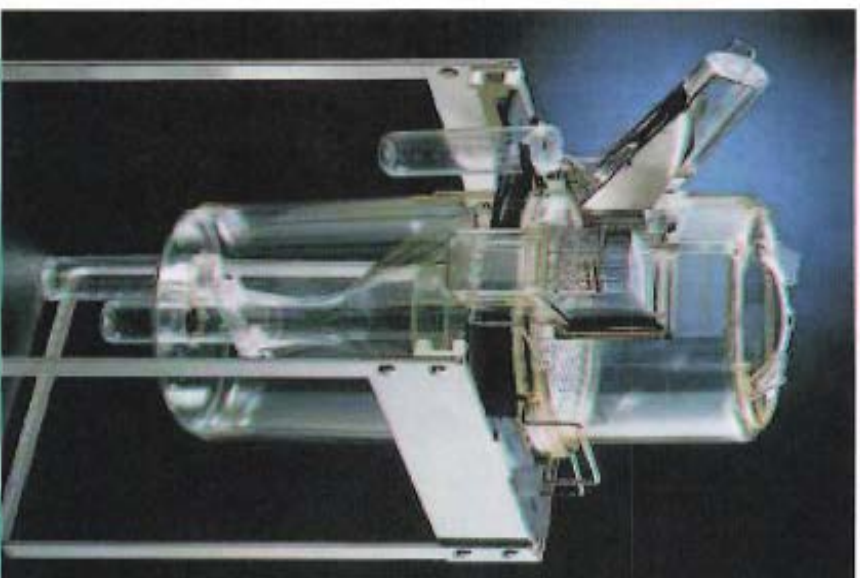
3700M022

Group housed mouse



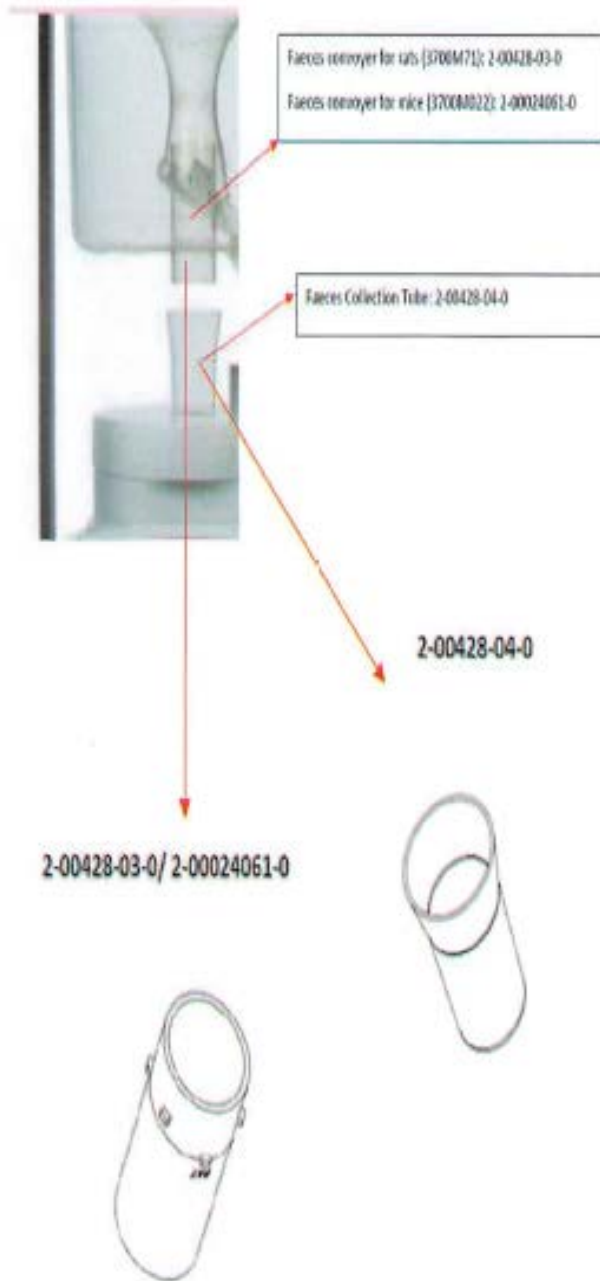
3700M071

150-300g rats

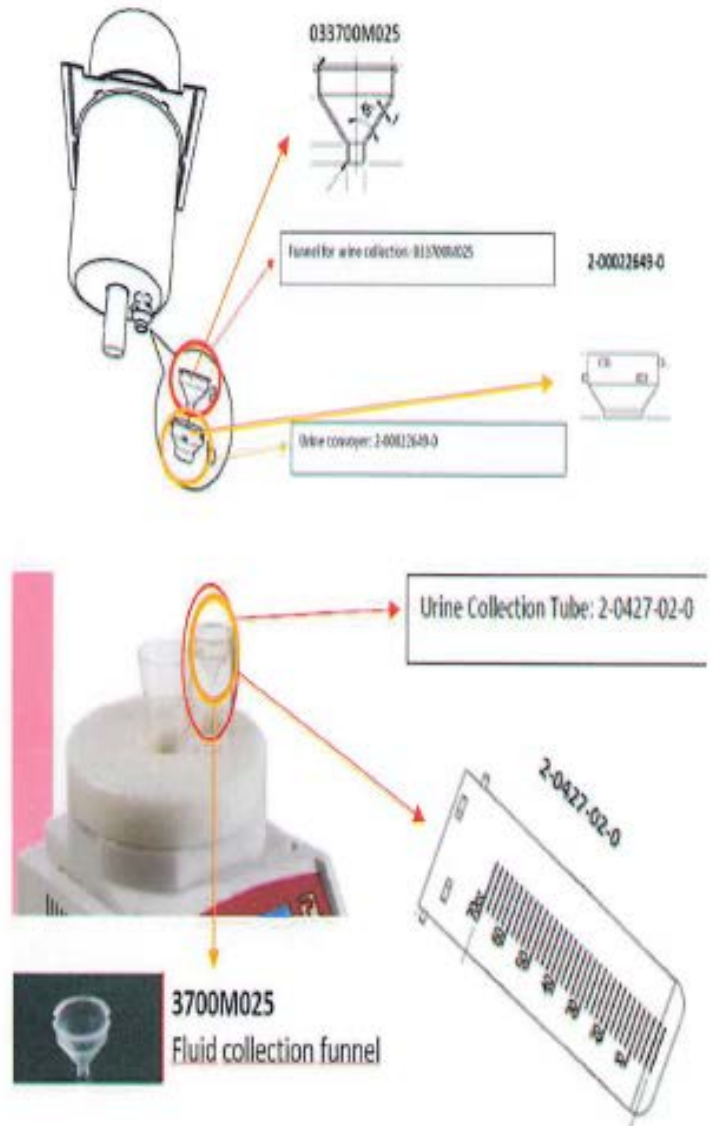


E-Chiller tube assembly with part numbers Fits all models 3700M-3701

Feces collection



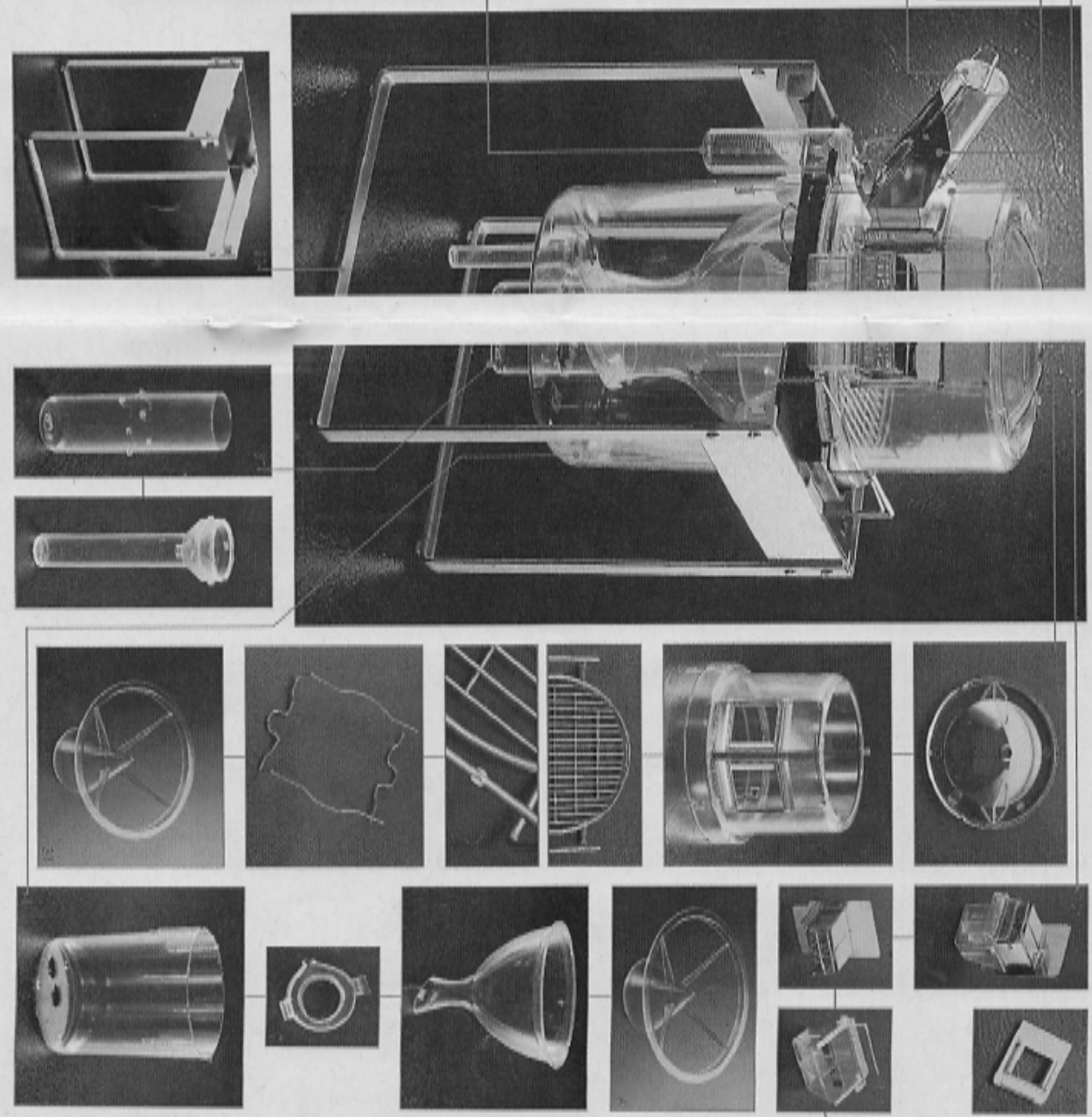
Urine collection



Remove from urine collection tube which comes with cage
and insert in Echiller collection tube



1. 3700M04 (PC) Cage Cover
2. 3700M01 (PC) Upper Chamber
3. 3700M07 (SS) Support Grid for Mice
4. 3700M011 (PC) Lower Chamber
5. 3700M012 (PM/P) Collectors Funnel
6. 3700M07 (PM/P) Separating Cone
7. 3700M014 (PM/P) Urine Bag
8. 3700M016 (PM/P) Feces Collection Tube for Mice
9. 3700M018 (PM/P) Urine Collection Tube for Mice - 15 ml
10. 3700M025 (PM/P) Field Collection Funnel
11. 3001D100 (SS) Sand Sample Cage
12. 3700M022 (SS/PC) Feeder Assembly for Mice - Decile Station
13. 3700M020 (SS) Drinking Water Bottle Support with Spring Clip
14. 4CBT0100 (PC) Drinking Water Bottle - 100 ml
15. 4OCP251 (SS) Drinking Water Bottle Cag
16. 3700M072 (SS) Food Chamber - Decile Station
17. 3700M022 (PC) Food Drawer - for Car 3700M072
18. 3700M028 (SS) Solid Feeder/Bottle Gate Filter - for Car 3700M072
19. 3700M0318 (SS) Retainer Wire
20. 3700M032 (PC) Cage Support Plate
21. 3700M017 (PM/P) Field Collection Tube - 75 ml
22. 3700M006 (PM/P) Adapter for Car ACBTH100
23. 3700M041 (SS) Adapter for Feeders up to 200 g over to 300 g for Car 3700M072



* See page 11 for suitable spare parts.

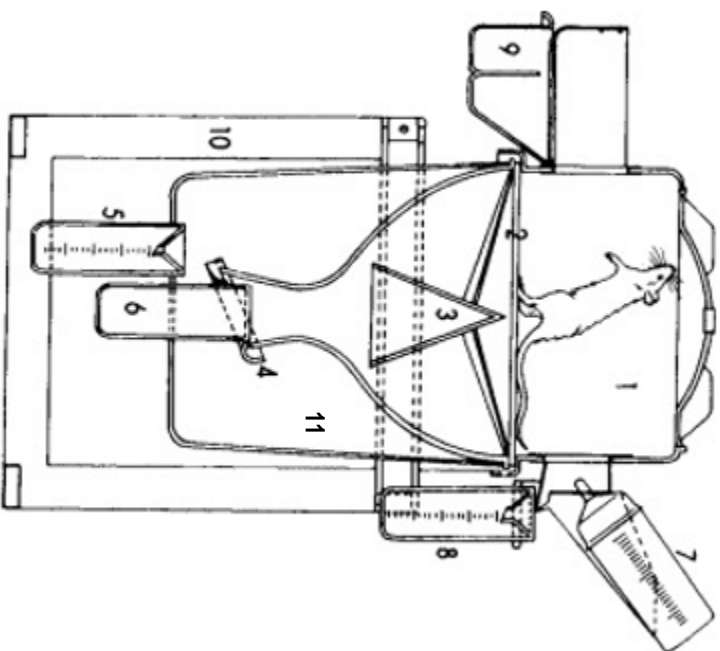


METABOLIC

Example



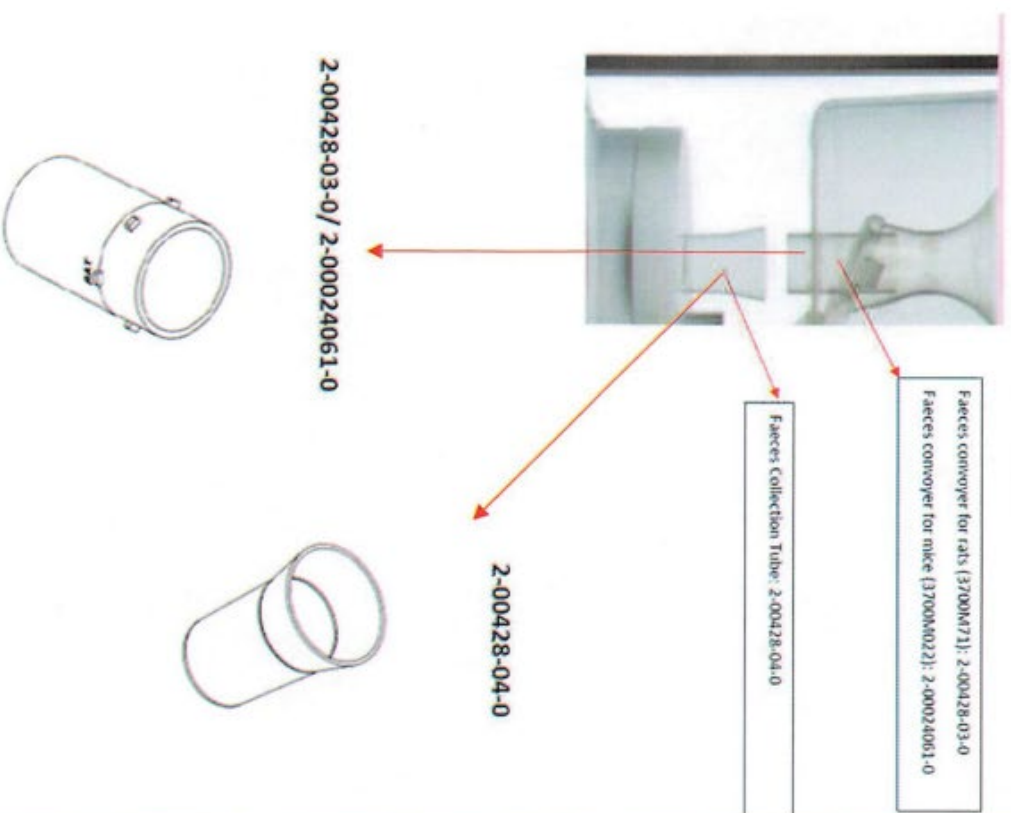
Metabolic Parts



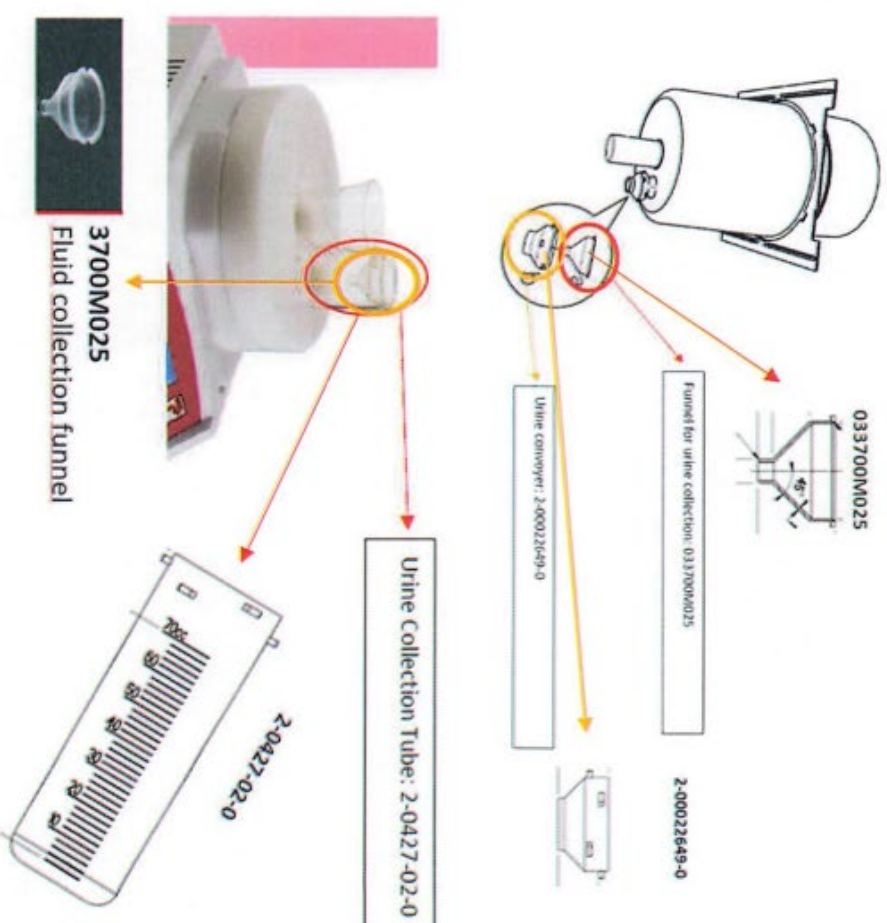
- 1) The cage
- 2) Grid floor
- 3) Feces deflector
- 4) Urine collection ring
- 5) Urine collection vessel
- 6) Feces collection receptacle
- 7) Water bottle
- 8) Water overflow collection
- 9) Food compartment
- 10) Cage Stand
- 11) Lower Chamber

E-Chiller tube assembly with part numbers Fits all models 3700M-3701

Feces collection

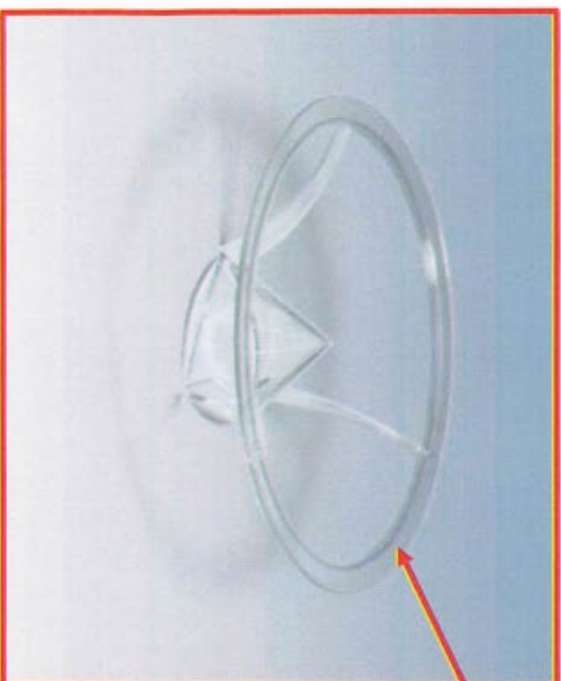


Urine collection



Remove from urine collection tube which comes with cage and insert in Echiller collection tube

Delicate coating: Handle only by touching outer rim



3600M027
Separating
cone



3600M0125U
Collection funnel

Order replacement if you notice liquid beading and remaining on surface

Washing Metabolic Parts



- ✓ Tunnel Washer
- ✓ Rack Washer



- ✓ Bin



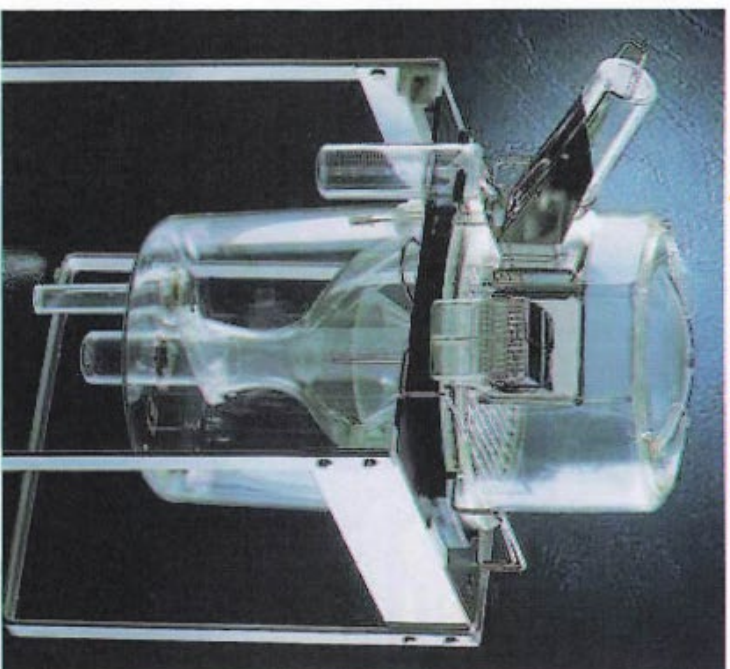
- ✓ Sink

*Leave it in soap and water until the next day then rinse.

Metabolic Cage assembly guides

3700M022

Group housed mouse



3700M071

150-300g rats

