



SCAN FOR
WEBSITE

SELF ADMINISTRATION

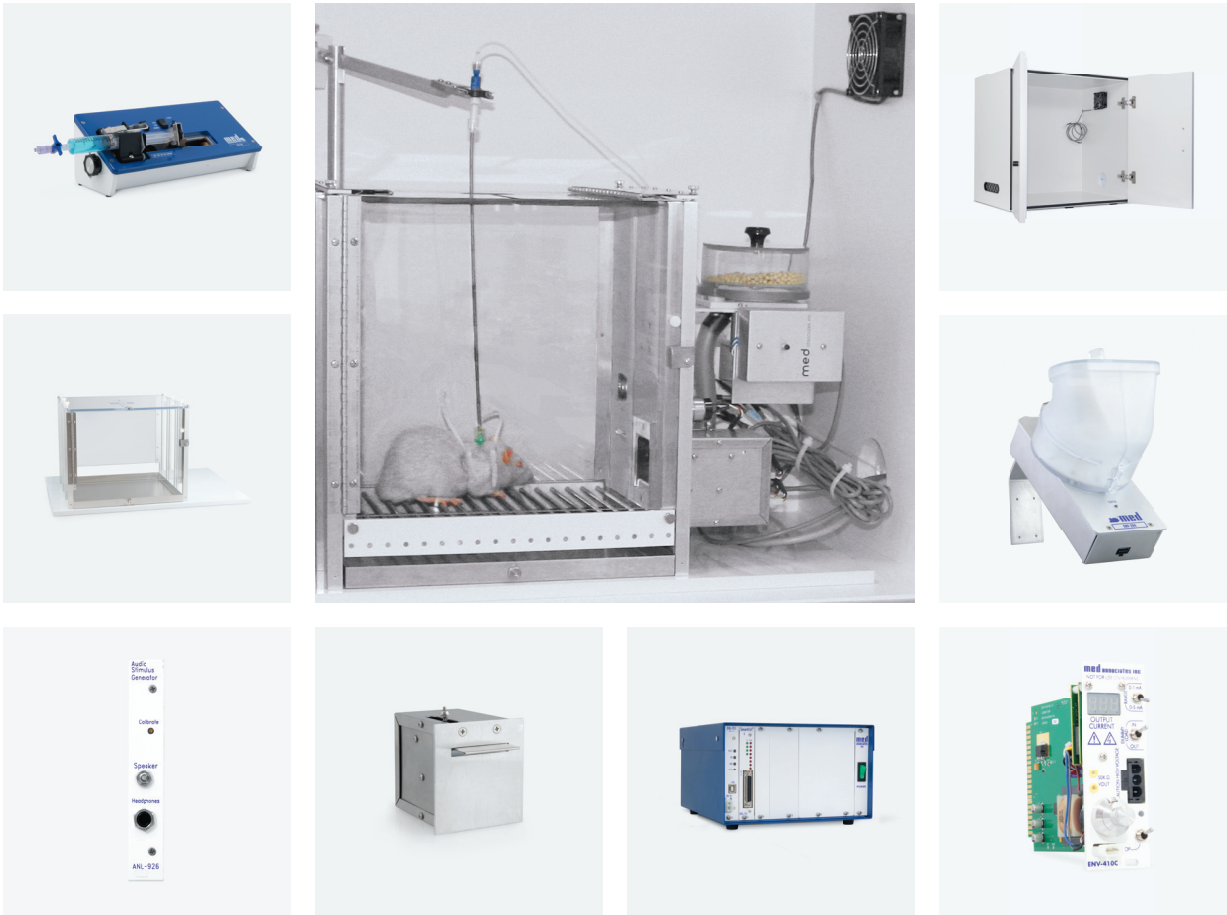
PACKAGES

Overview	2
Oral for Rat and Mouse	3
Intravenous for Rat	4-5
Intravenous for Mouse	6-7
Social for Rat	8-9

COMPONENTS & ACCESSORIES

Sound Attenuating Cubicles	10
Modular Chambers	11
Chamber Floors	12-13
Swivels & Tethers	14-16
Syringe Pumps	17-18
Software	19





Counter-clockwise from left: Single Speed Syringe Pump (PHM-200), Modular Chamber w/Modified Top (ENV-008CT), Programmable Audio Generator (ANL-926), Retractable Lever for Rat (ENV-112CM), Small Smart Interface Cabinet (SG-7308), Dual Range Constant Current Aversive Stimulator (ENV-410C), VeriFEED Pellet Dispenser (ENV-204), and Standard MDF Sound Attenuating Cubicle (ENV-018MD)

RODENT SELF ADMINISTRATION SYSTEMS

A typical self-administration package includes a syringe pump, a modular chamber with a drug infusion "modified" top to allow the tether system to enter the chamber, and a sound attenuating cubicle (SAC) to isolate the animal from environmental disturbances.

The packages in this brochure are just a few of the more common configurations that we have assembled over the years. Customize your own using any of these designs as your guide to meet virtually any research requirement by adding components like pellet dispensers, audio generators, or aversive stimulators.*

Each self administration package is a complete single test station with a SmartCtrl™ interface package.*

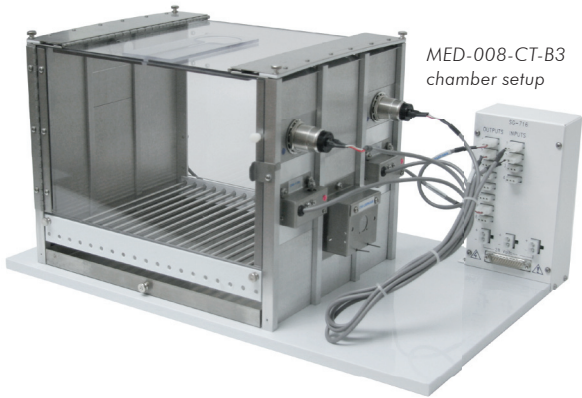
**See the Operant Conditioning & General Behavior, Power & Control Interface, and Software brochures for more info*

Order the MED-SYST-8-USB interface and software package to run up to eight test chambers or the MED-SYST-16-USB to run up to sixteen.

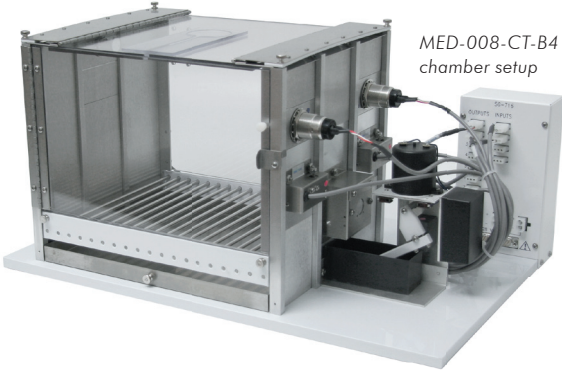
Interface, computer and software are sold separately.

PACKAGE CONTENTS					
A = MED-008-CT-B3			B = MED-008-CT-B4		
#	SKU	DESCRIPTION	A	B	
1	ENV-018MD	Extra Tall MDF Sound Attenuating Cubicle	A	B	
1	ENV-008CT	Classic Modular Test Chamber w/Modified Top	A	B	
1	ENV-005	Stainless Steel Grid Floor for Rat or Mouse	A	B	
1	ENV-215M-LED	House Light (hooded)	A	B	
2	ENV-221M-LED	Stimulus Light (white)	A	B	
2	ENV-110M	Standard Fixed Lever	A	B	
1	ENV-200R3AM	Liquid Receptacle, Dual Cup (18 gauge pipes)	A		
1	ENV-202M-S	Switchable Liquid Dipper for Rat		B	
1	DIG-716P1*	SmartCtrl Package (4 In/ 8 Out)	A	B	
2	PHM-200	Single Speed Syringe Pump	A		
2	PHM-122-18	Liquid Delivery Kit (for 18 ga tubes)	A		

*NOTE: Power cables for SmartCtrl Package sold separately, contact Sales for details.



MED-008-CT-B3
chamber setup



MED-008-CT-B4
chamber setup

ORAL DRUG SELF-ADMIN
TEST PACKAGE CUP

MED-008-CT-B3 RAT | FIXED LEVERS | LIQUID CUP

Includes everything you need to get going, with two single speed syringe pumps set to 3.33 RPM standard, other speeds are available from 0.1 to 30 RPM (see page 17).

SUMMARY OF CONTENTS

- > Extra tall MDF SAC, a classic chamber (modified top), dual liquid cups, house light and stimulus lights, fixed levers (x2), 4in/8out SmartCtrl package, single speed syringe pumps (x2), and a liquid delivery kit.

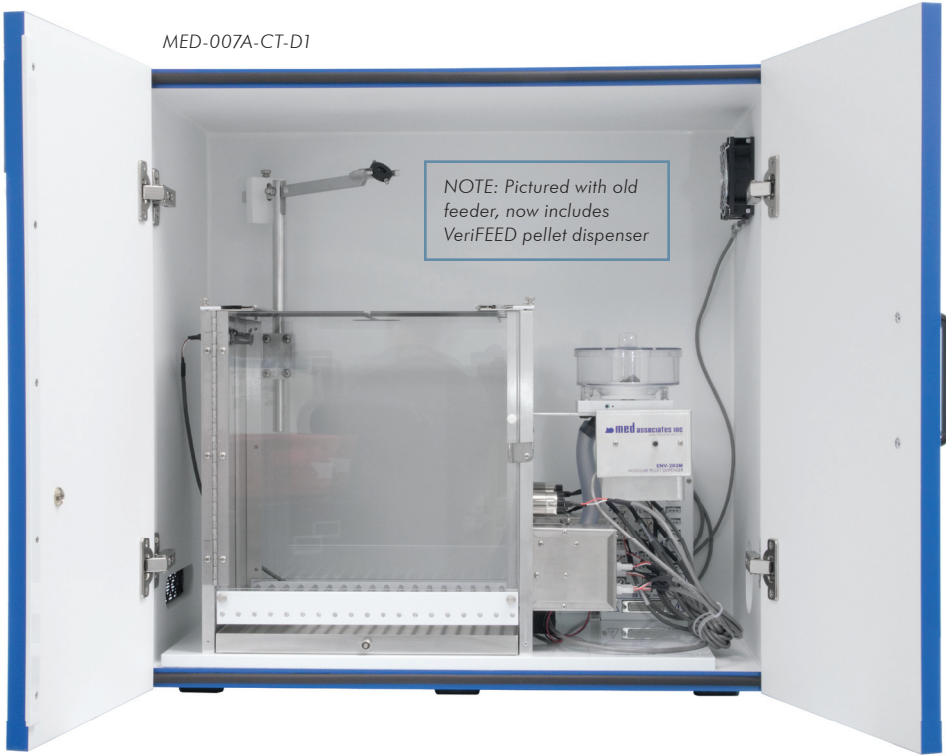
ORAL DRUG SELF-ADMIN
TEST PACKAGE DIPPER

MED-008-CT-B4 RAT | FIXED LEVERS | LIQUID DIPPER

Includes everything you need to deliver fluid orally via a liquid dipper. Optional dipper cup sizes are available to vary the amount presented.

SUMMARY OF CONTENTS

- > Extra tall MDF SAC, classic chamber (modified top), liquid dipper, house light and stimulus lights, fixed levers (x2), and a 4in/8out SmartCtrl package.



INTRAVENOUS DRUG SELF-ADMINISTRATION TEST PACKAGE BASIC

MED-007-CT-B1	RAT	FIXED LEVERS	SINGLE SPEED	XTALL CHAMBER
MED-007-CT-B2	RAT	RETRACT. LEVERS	SINGLE SPEED	XTALL CHAMBER
MED-008-CT-B1	RAT	FIXED LEVERS	SINGLE SPEED	STANDARD CHAMBER
MED-008-CT-B2	RAT	RETRACT. LEVERS	SINGLE SPEED	STANDARD CHAMBER

The basic package includes everything you need to get going, with a single speed syringe pump set to 3.33 RPM standard, other speeds are available from 0.1 to 30 RPM (see page 17).

SUMMARY OF CONTENTS

- > An extra tall MDF SAC, a standard or extra tall chamber w/modified top, house light and stimulus lights, fixed or retractable levers, pellet dispenser with a trough, single speed syringe pump, 4in/8out SmartCtrl package, drug delivery arm, and an Instech VAB setup.

INTRAVENOUS DRUG SELF-ADMINISTRATION TEST PACKAGE DELUXE

MED-007-CT-D1	RAT	RETRACT. LEVERS	VAR. SPEED	XTALL CHAMBER
MED-008-CT-D1	RAT	RETRACT. LEVERS	VAR. SPEED	STANDARD CHAMBER

The deluxe package includes everything you need to get going, with a variable speed syringe pump capable of speeds from 0.1 – 30 RPM, adjustable in 0.1 increments.

SUMMARY OF CONTENTS

- > An extra tall PVC SAC, a standard or extra tall chamber w/modified top, house light and stimulus lights, retractable levers, pellet dispenser with a trough and head entry detection, variable speed syringe pump, 8in/8out SmartCtrl package, drug delivery arm, and an Instech VAB setup.

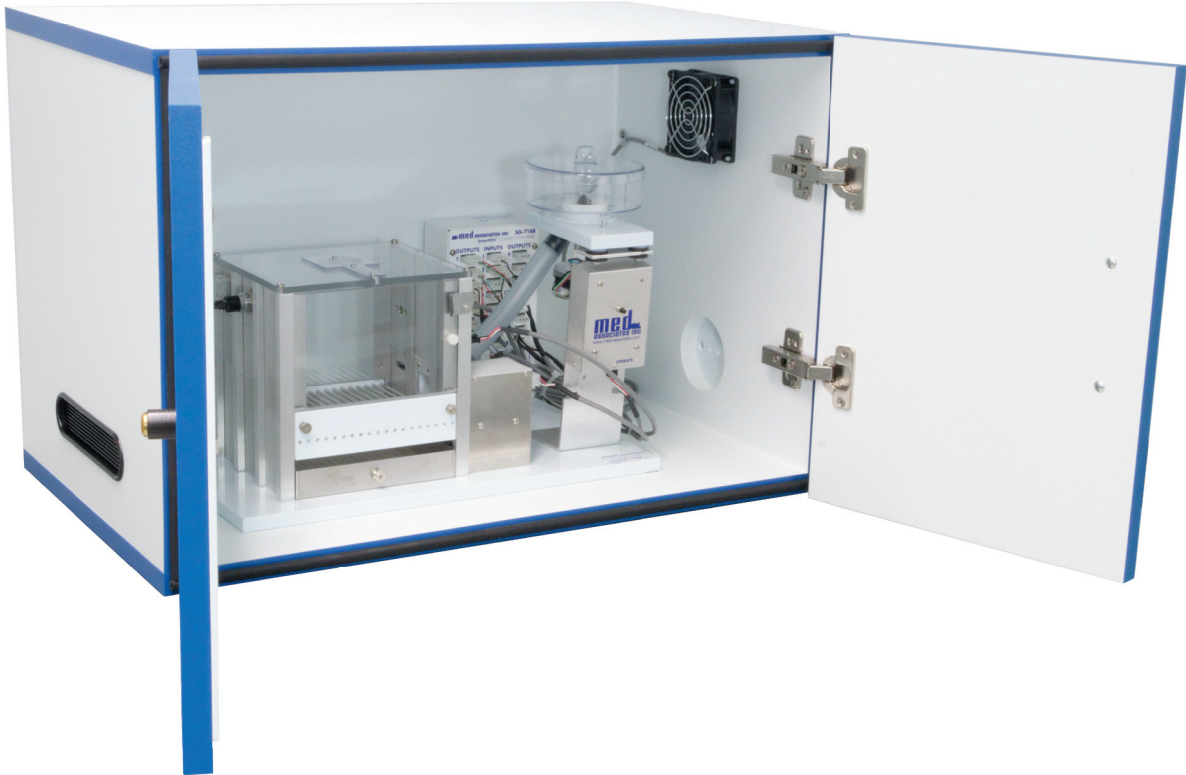
PACKAGE CONTENTS

A = MED-007-CT-B1	D = MED-008-CT-B1
B = MED-007-CT-B2	E = MED-008-CT-B2
C = MED-007-CT-D1	F = MED-008-CT-D1

#	SKU	DESCRIPTION	A	B	C	D	E	F
1	ENV-018MD	Extra Tall MDF Sound Attenuating Cubicle	A	B		D	E	
1	ENV-018V	Extra Tall Expanded PVC Sound Attenuating Cubicle			C			F
1	ENV-007CT	Extra Tall Modular Test Chamber w/Modified Top	A	B	C			
1	ENV-008CT	Standard Modular Test Chamber w/Modified Top				D	E	F
1	ENV-005	Stainless Steel Grid Floor for Rat or Mouse	A	B	C	D	E	F
1	ENV-215M-LED	House Light (hooded)	A	B	C	D	E	F
2	ENV-221M-LED	Stimulus Light (white)	A	B	C	D	E	F
2	ENV-110M	Standard Fixed Lever	A			D		
2	ENV-112CM	Retractable Lever		B	C		E	F
1	ENV-200R2M	Pellet Receptacle Trough	A	B	C	D	E	F
1	ENV-204	VeriFEED Pellet Dispenser	A	B	C	D	E	F
1	ENV-254-CB	Head Entry Detector			C			F
1	DIG-716P1*	SmartCtrl Package (4 In / 8 Out)	A	B		D	E	
1	DIG-716P2*	SmartCtrl Package (8 In / 8 Out)			C			F
1	PHM-200	Single Speed Syringe Pump	A	B		D	E	
1	PHM-210	Variable Speed Syringe Pump			C			F
1	PHM-110-SAI	Drug Delivery Arm Assembly (3/8" ID tubing)	A	B	C	D	E	F
1	PHM-KVABR1T/MED	Magnetic VAB Tether Kit for Rat (single channel)	A	B	C	D	E	F
1	PHM-VABR1B/22	Magnetic Vascular Access Button "VAB" (22 gauge)	A	B	C	D	E	F

*NOTE: Power cables for SmartCtrl Package sold separately, contact Sales for details.

MED-307A-CT-D1



NOTE: Pictured with old
feeder, now includes
VeriFEED pellet dispenser

INTRAVENOUS DRUG
SELF-ADMINISTRATION
TEST PACKAGES BASIC

- MED-307A-CT-B1MOUSECLASSICFIXED LEVERS
- MED-307A-CT-B2MOUSECLASSICNOSE POKE
- MED-307W-CT-B1MOUSEWIDEFIXED LEVERS
- MED-307W-CT-B2MOUSEWIDENOSE POKE

The basic package includes everything you need to get going, with a single speed syringe pump set to 3.33 RPM standard, other speeds are available from 0.1 to 30 RPM (see page 17).

SUMMARY OF CONTENTS

- > A standard MDF SAC, a standard or wide chamber w/modified top, house light and stimulus lights, fixed levers or nose pokes, pellet dispenser with a trough, single speed syringe pump, 4in/8out SmartCtrl package, drug delivery arm, and an Instech VAB setup.

INTRAVENOUS DRUG
SELF-ADMINISTRATION
TEST PACKAGES DELUXE

- MED-307A-CT-D1MOUSECLASSICRETRACT. LEVERS
- MED-307W-CT-D1MOUSEWIDERETRACT. LEVERS

The deluxe package includes everything you need to get going, with a variable speed syringe pump capable of speeds from 0.1 – 30 RPM, adjustable in 0.1 increments.

SUMMARY OF CONTENTS

- > A PVC SAC, a standard or extra tall chamber w/ modified top, house light and stimulus lights, retractable levers, pellet dispenser with a trough, variable speed syringe pump, 8in/8out SmartCtrl package, drug delivery arm, and an Instech VAB setup.

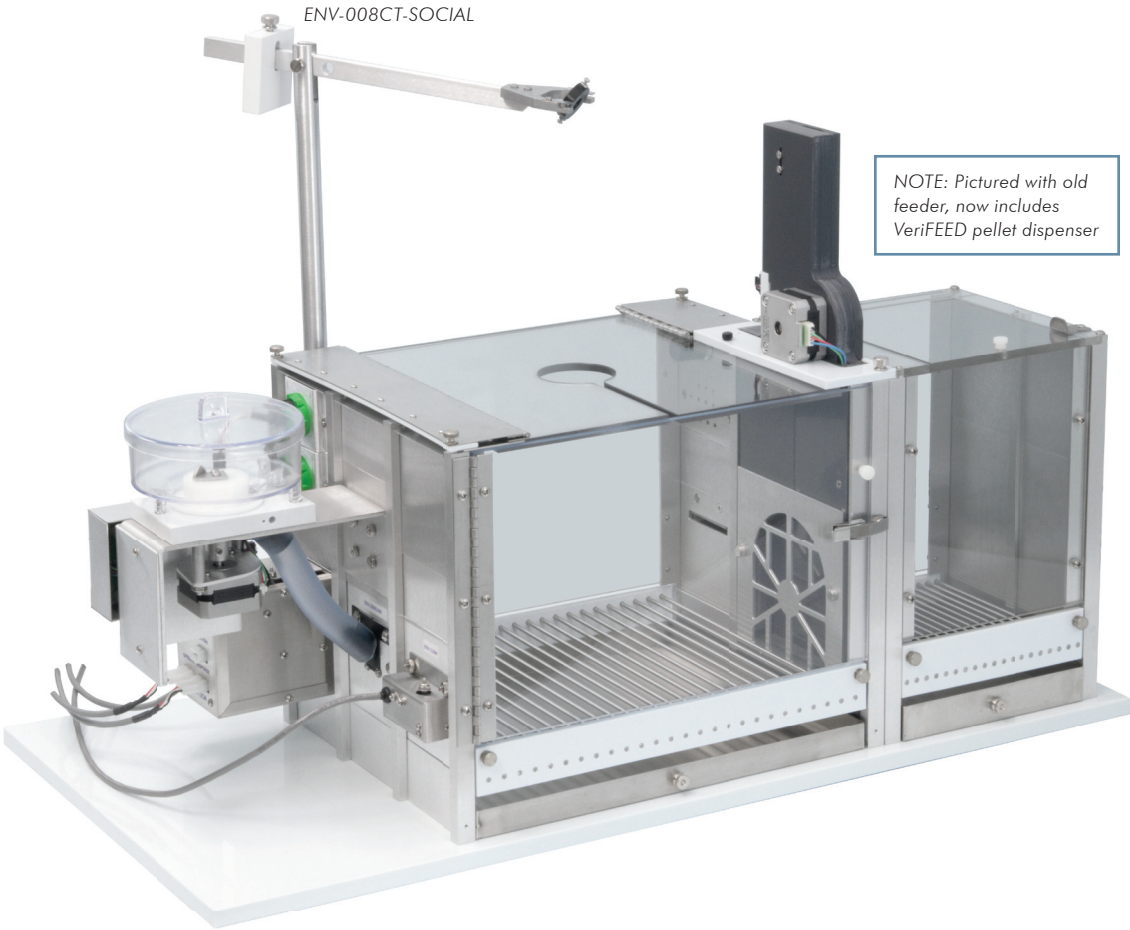
PACKAGE CONTENTS

- A = MED-307A-CT-B1
B = MED-307A-CT-B2
C = MED-307A-CT-D1
- D = MED-307W-CT-B1
E = MED-307W-CT-B2
F = MED-307W-CT-D1

#	SKU	DESCRIPTION	A	B	C	D	E	F
1	ENV-022MD	Standard MDF Sound Attenuating Cubicle	A	B		D	E	
1	ENV-022V	Expanded PVC Sound Attenuating Cubicle			C			F
1	ENV-307A-CT	Classic Mouse Modular Test Chamber w/Modified Top	A	B	C			
1	ENV-307W-CT	Wide Mouse Modular Test Chamber w/Modified Top				D	E	F
1	ENV-307A-GFW	Stainless Steel Grid Floor for Classic Mouse Chamber	A	B	C			
1	ENV-307W-GFW	Stainless Steel Grid Floor for Wide Mouse Chamber				D	E	F
1	ENV-315M	House Light for Classic Mouse Chamber	A	B	C		E	
1	ENV-315W	House Light for Wide Mouse Chamber				D		F
2	ENV-321M	Stimulus Light Module (white) (classic panel)	A		C			
2	ENV-321W	Stimulus Light Module (white) (wide panel)				D		F
1	ENV-204	VeriFEED Pellet Dispenser	A	B	C	D	E	F
1	ENV-303M	Pellet Receptacle Trough (classic panel)	A	B	C			
1	ENV-303W	Pellet Receptacle Trough (wide panel)				D	E	F
2	ENV-310M	Fixed Ultra-Sensitive Lever	A					
2	ENV-310W	Fixed Ultra-Sensitive Lever				D		
2	ENV-312-3M	Retractable Ultra-Sensitive Lever			C			
2	ENV-312-3W	Retractable Ultra-Sensitive Lever						F
1	ENV-313M	Illuminated Nose Poke Response		B				
1	ENV-313W	Illuminated Nose Poke Response					E	
1	DIG-716P1*	SmartCtrl Package (4 Input / 8 Output)	A	B		D	E	
1	DIG-716P2*	SmartCtrl Package (8 Input / 16 Output)			C			F
1	PHM-200	Single Speed Syringe Pump	A	B		D	E	
1	PHM-210	Variable Speed Syringe Pump			C			F
1	PHM-124MA	Multi-Axis Lever Arm for Mouse Classic Chamber	A	B	C			
1	PHM-124MW	Multi-Axis Lever Arm for Wide Mouse Chamber				D	E	F
1	PHM-VABM1B/25	Magnetic Vascular Access Button "VAB" (25 gauge)	A	B	C	D	E	F
1	PHM-KVABM1T/MED	Magnetic VAB Tether Kit for Mouse (single channel)	A	B	C	D	E	F

*NOTE: Power cables for SmartCtrl Package sold separately, contact Sales for details.

	BASE (L×W×H)	MAIN CHAMBER (L×W×H)	SIDE CHAMBER (L×W×H)	FITS IN SAC
ENV-008CT-SOCIAL	27" x 13.75" x 0.5" (68.58 x 34.93 x 1.27 cm)	11.63" x 9.78" x 7.35" (53.34 x 24.84 x 18.67 cm)	6.1" x 6.3" x 7.35" (53.34 x 24.84 x 18.67 cm)	SAC-302216-27
ENV-307WCT-SOCIAL	27" x 13.75" x 0.5" (68.58 x 34.93 x 1.27 cm)	8.5" x 7.12" x 5" (21.59 x 18.08 x 12.7 cm)	6.1" x 4.9" x 5" (15.5 x 12.4 x 12.7 cm)	ENV-018MD



NOTE: Pictured with old feeder, now includes VeriFEED pellet dispenser

SOCIAL SELF ADMINISTRATION PACKAGE BASIC

MED-008-CT-SOCIAL **RAT** **STANDARD** **FIXED+RETRACT. LEVERS** **SINGLE SPEED**
MED-307W-CT-SOCIAL **MOUSE** **WIDE** **FIXED+RETRACT. LEVERS** **SINGLE SPEED**

Originally created for Marco Venniro and Yavin Shaham* as a custom build, the social self-administration chamber is now available as a standard product.

This chamber was crafted to run an operant model in which the rodent engages in lever pressing, rewarded with either social interaction, or a drug infusion. This model is intended for studying the role of operant social reward in addiction, as well as addiction vulnerability.

- A chamber with a modified top for the resident (drug user) rodent is conjoined with a smaller chamber that houses their drug naïve social partner.

- The automatic door linking the two has a custom-designed grate to prevent the rodents from being able to touch, but can still see, smell, and hear each other

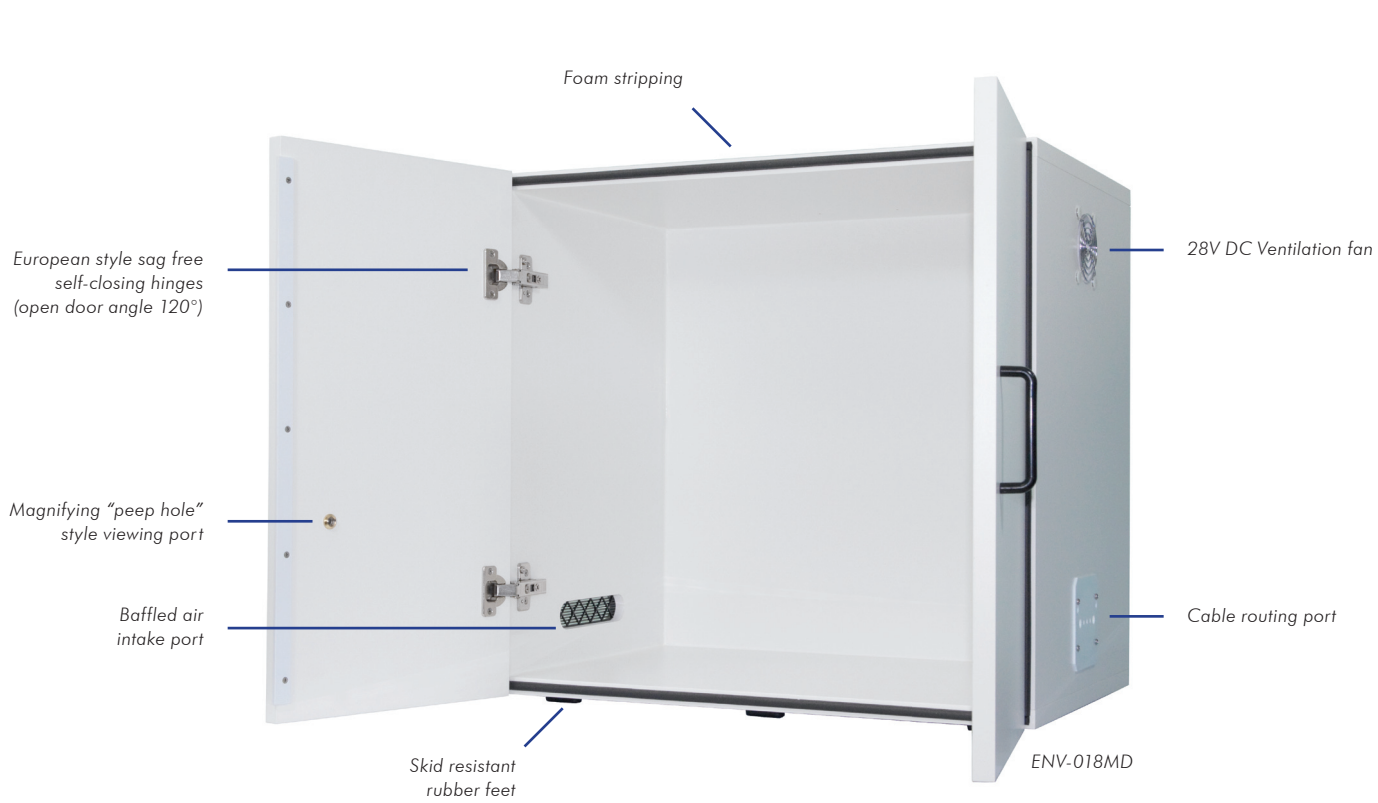
*Venniro, M., Shaham, Y. An operant social self-administration and choice model in rats. Nat Protoc 15, 1542–1559 (2020).

SUMMARY OF CONTENTS

- > An MDF SAC, a social chamber w/modified top, house light and stimulus lights, fixed lever, retractable levers (x2), pellet dispenser with a cup, single speed syringe pump, sonalert module, 8in/16out SmartCtrl package, drug delivery arm, and an Instech VAB setup.

PACKAGE CONTENTS				
A = MED-008-CT-SOCIAL		B = MED-307W-CT-SOCIAL		
#	SKU	DESCRIPTION	A	B
1	SAC-302216-27	MDF SAC	A	
1	ENV-018MD	MDF SAC - Extra Tall		B
1	ENV-008CT-SOCIAL	Social Self-Admin Chamber for Rat	A	
1	ENV-307WCT-SOCIAL	Social Self-Admin Chamber for Mouse		B
1	ENV-010B2-SOC	Auto Door for Social Chamber	A	
1	ENV-3015BD2-SOCIAL	Auto Door for Social Chamber		B
1	ENV-005	Stainless Steel Grid Floor	A	
1	ENV-307A-GFW-SOC	Stainless Steel Grid Floor	A	
1	ENV-307W-GFW-SOC	Stainless Steel Grid Floor		B
1	ENV-307A-GFW-SOC	Stainless Steel Grid Floor		B
1	ENV-215M-LED	LED House Light	A	
2	ENV-221M-LED	LED Stimulus Light White	A	
1	ENV-221RD-LED	LED Stimulus Light Red	A	
1	ENV-315W-LED	LED House Light		B
2	ENV-321W	LED Stimulus Light Yellow		B
1	ENV-321DW	Dual LED Stimulus Light Yellow		B
1	ENV-110M	Standard Fixed Lever for Rat	A	
2	ENV-112CM	Retractable Lever for Rat	A	
1	ENV-310W	Standard Fixed Lever for Mouse		B
2	ENV-312-3W	Retractable Lever for Mouse		B
1	ENV-204	VeriFEED Pellet Dispenser	A	
1	ENV-200R1AM	Pellet Cup Receptacle for Rat	A	
1	ENV-300R1AW	Pellet Cup Receptacle for Mouse		B
1	PHM-200	Single Speed Syringe Pump	A	B
1	PHM-110-SAI	Drug Delivery Arm	A	
1	PHM-110-SAI	Drug Delivery Arm		B
1	PHM-KVABR1T/MED	1 Channel Magnetic VAB Tether Kit	A	
1	PHM-KVABM1T/MED	1 Channel Magnetic VAB Tether Kit		B
1	PHM-VABR1B/22	Magnetic Vascular Access Button 22ga	A	
1	ENV-223AM	Sonalert Module w/Volume Control	A	
1	ENV-323AW	Sonalert Module w/Volume Control		B
1	DIG-716B	SmartCtrl Interface Module	A	B
1	SG-716B	SmartCtrl Connection Panel (8 In/16 Out)	A	B
1	SG-210CB	DB-25 SmartCtrl Cable, M/F, 25' (7.6 m)	A	B
5	SG-216A-2	3-Pin Mini-Molex Extension, 2' (61 cm)	A	B
3	SG-216A-3	3-Pin Mini-Molex Extension, 3' (91.4 cm)	A	B

	INTERIOR (W×H×D)	EXTERIOR (W×H×D)	USE WITH
ENV-018MD	23.5" x 22" x 16" (59.69 x 55.88 x 40.64 cm)	25" x 24" x 17.5" (63.5 x 60.96 x 42.55 cm)	ENV-007 ENV-008
ENV-018V	23.5" x 22" x 14" (59.69 x 55.88 x 35.56 cm)	25" x 23.9" x 15.5" (63.5 x 60.71 x 39.37 cm)	ENV-007 ENV-008
ENV-022MD	23.5" x 15" x 16" (55.69 x 38.1 x 40.64 cm)	25" x 17" x 17.5" (63.5 x 43.18 x 44.45 cm)	ENV-008 ENV-307
ENV-022V	23.5" x 15" x 14" (55.69 x 38.1 x 35.56 cm)	25" x 17" x 15.5" (63.5 x 43.18 x 39.37 cm)	ENV-008 ENV-307
SAC-302216-27	30" x 21" x 16" (76.2 x 53.34 x 40.64 cm)	31.5" x 24" x 18" (80.01 x 60.96 x 45.72 cm)	ENV-008CT-SOCIAL



SOUND ATTENUATING CUBICLE PVC

ENV-018V **MOUSE+RAT** | **XTALL**
ENV-022V **MOUSE+RAT** | **STANDARD**

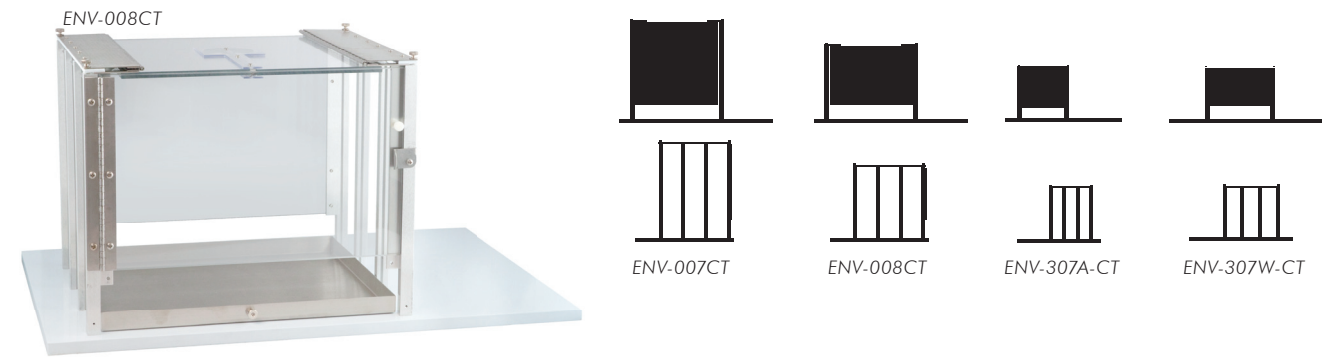
- Lighter weight than MDF cubicles
- Easy to clean, resistant to staining, moisture, and many chemicals
- Equal sound attenuation performance to MDF
- All seams are sealed

SOUND ATTENUATING CUBICLE MDF

ENV-018MD **MOUSE+RAT** | **XTALL**
ENV-022MD **MOUSE+RAT** | **STANDARD**
SAC-302216-27 **RAT** | **XTALL**

Constructed from MDF, a high density wood composite with thermally infused high pressure white laminate inside and out.

	BASE (L×W×H)	WORKING AREA (L×W×H)	FITS IN SAC
ENV-007CT	21" x 13.75" x 0.5" (53.34 x 34.93 x 1.27 cm)	11.63" x 9.25" x 10.75" (53.34 x 34.93 x 27.31 cm)	ENV-018MD / -018V ENV-022MD / -022V
ENV-008CT	21" x 13.75" x 0.5" (53.34 x 34.93 x 1.27 cm)	11.63" x 9.78" x 7.35" (53.34 x 24.84 x 18.67 cm)	ENV-018MD / -018V ENV-022MD / -022V
ENV-307A-CT	16" x 11.5" x 0.5" (40.64 x 29.21 x 1.27 cm)	6" x 5.25" x 5" (15.24 x 13.34 x 12.7 cm)	ENV-022MD / -022V
ENV-307W-CT	21" x 13.75" x 0.5" (53.34 x 34.93 x 1.27 cm)	8.5" x 7.12" x 5" (21.59 x 18.08 x 12.7 cm)	ENV-022MD / -022V



STANDARD FEATURES:

- Each modular test chamber includes a stainless steel waste pan (grid floors sold separately, see pages 12-13)
- White polypropylene base, clear polycarbonete door and rear panel
- Rat models have a unique flap top design with a clear polycarbonete center and two hinged stainless steel flaps secured with thumbscrews, which makes changing modules quick and easy
- 6 sturdy aluminum channels (3 per wall) securely hold any modular component

STANDARD MODULAR CHAMBER w/MODIFIED TOP

ENV-307A-CT **MOUSE** | **CLASSIC**
ENV-307W-CT **MOUSE** | **WIDE**

- Standard height chamber recommended for most rodent work.
- Designed to reduce distractions for the mouse to improve shaping and performance
 - Front loading door that folds down, leaving an extra high lip to contain the animal until removed

EXTRA TALL MODULAR CHAMBER w/MODIFIED TOP

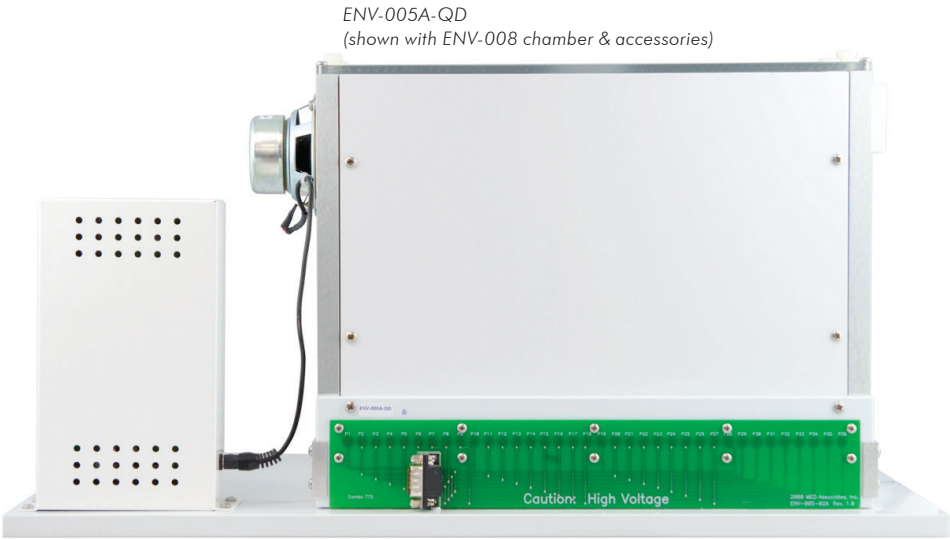
ENV-007CT **RAT** | **STANDARD**

Versatile size can accommodate pigeons, rodents, or unrestrained small primates.

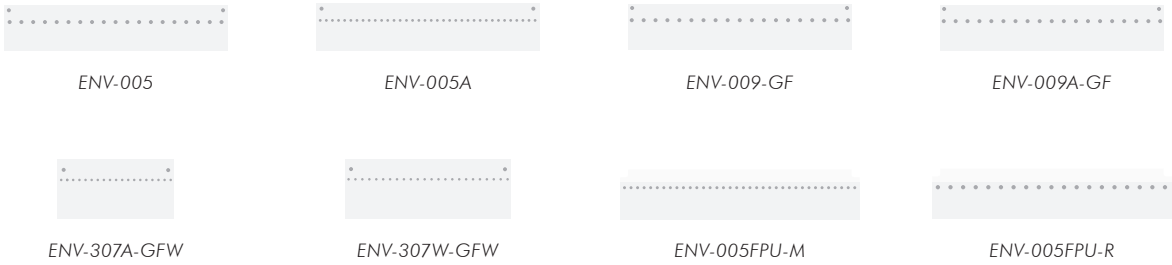
STANDARD MODULAR CHAMBER w/MODIFIED TOP

ENV-008CT **RAT** | **STANDARD**

- Standard height chamber is recommended for most rodent work.
- By combining this chamber with an extra tall sound attenuating cubicle, you will be guaranteed sufficient space for a counter balance arm and drug delivery swivel.
 - Fits into less expensive SACs and takes up less shelf space than the Extra Tall Modular Chamber (ENV-007)



ENV-005A-QD
(shown with ENV-008 chamber & accessories)



	RODS	ROD SIZE (od)	ROD SPACING	FITS CHAMBER	QUICK DISCONNECT HARNESS	WASTE PAN
ENV-005	19	0.187" (0.47 cm)	0.62" (1.57 cm)	ENV-007 / -008	ENV-005-QD	ENV-007A3
ENV-005A	36	0.125" (0.32 cm)	0.32" (0.81 cm)	ENV-007 / -008	ENV-005A-QD	ENV-007A3
ENV-005FPU-M	36	0.125" (0.32 cm)	0.31" (0.79 cm)	ENV-007 / -008	N/A	N/A
ENV-005FPU-R	19	0.19" (0.47 cm)	0.625" (1.59 cm)	ENV-007 / -008	N/A	N/A
ENV-307A-GFW	19	0.125" (0.32 cm)	0.31" (0.79 cm)	ENV-307A	ENV-307A-QD	ENV-307-07
ENV-307W-GFW	24	0.125" (0.32 cm)	0.35" (0.89 cm)	ENV-307W	ENV-307-QD	ENV-307W-07



ENV-009 chamber
with ENV-009-GF grid floor



ENV-005FPU-R

GRID FLOOR

- ENV-005 RAT STANDARD
- ENV-005A MOUSE STANDARD
- ENV-307A-GFW MOUSE CLASSIC
- ENV-307W-GFW MOUSE WIDE

Stainless steel grid rods mounted in white polypropylene supports.

- Floor is easily removed via two thumbscrews for cleaning
 - Stainless steel waste pan is autoclavable
- Add the quick disconnect harness for aversive stimulation and/or contact lickometer applications

QUICK CHANGE FLOOR
w/WASTE PAN

- ENV-005FPU-M MOUSE CLASSIC
- ENV-005FPU-R RAT STANDARD

Combines a removable stainless steel waste pan and floor into one unit.

- Floor can be changed easily between subjects for improved throughput
- Stainless steel grid rods mounted in white polypropylene supports

QUICK DISCONNECT HARNESS

- ENV-005A-QD RAT STANDARD
- ENV-005-QD RAT STANDARD

- Floor can be changed easily between subjects for improved throughput
- Spring-loaded contacts mounted in a polypropylene strip and wired in sequence to a DB-9 connector, when installed, each rod presses firmly against a contact for reliable shock delivery
- Attaches to the rear of the chamber and remains in place when the floor is removed for easy cleaning without wires

NOTE: Will not work with older floors that have been drilled and tapped.

- ENV-307A-QD MOUSE CLASSIC
- ENV-307W-QD MOUSE WIDE

- Use the:
 - SG-219G-10 | M/F DB-9 Shock Output Cable to connect with an aversive stimulator
 - SG-219G2M | Lickometer Controller Cable to connect with standard contact lickometers
 - SG-219G | M/F DB-9 Shock Output Cable to connect with switching lickometers

US Pat. No. 6412441 B1, Canadian Pat. No. 2,368,344, UK Pat. No. 1226750, Australian Patent 772111, France 1,226,750, Germany 602 05 143.6, Italy 1,226,750, The Netherlands 1,226,750, European Pat. No. 1226750, other foreign patents pending.



DRUG DELIVERY ARM
3/8" GIMBAL RING

PHM-110-SAI **RAT**

- Includes an aluminum block for mounting on most rat modular test chambers
 - The back wall on our ENV-007/-008 modular test chambers is pre-drilled for this block, or it can be mounted on a modular panel
- The post adjusts to extend up to 8" (20.3 cm) above the chamber and 7" (17.8 cm) over the center with a pivot-arm and dual action gimbal
- An adjustable counterbalance weight maintains sufficient tension to keep the leash assembly away from the test animal



DISPOSABLE PLASTIC SWIVEL
SINGLE CHANNEL

PHM-115IP **RAT** | 22 GAUGE
PHM-115IP-25 **MOUSE** | 25 GAUGE

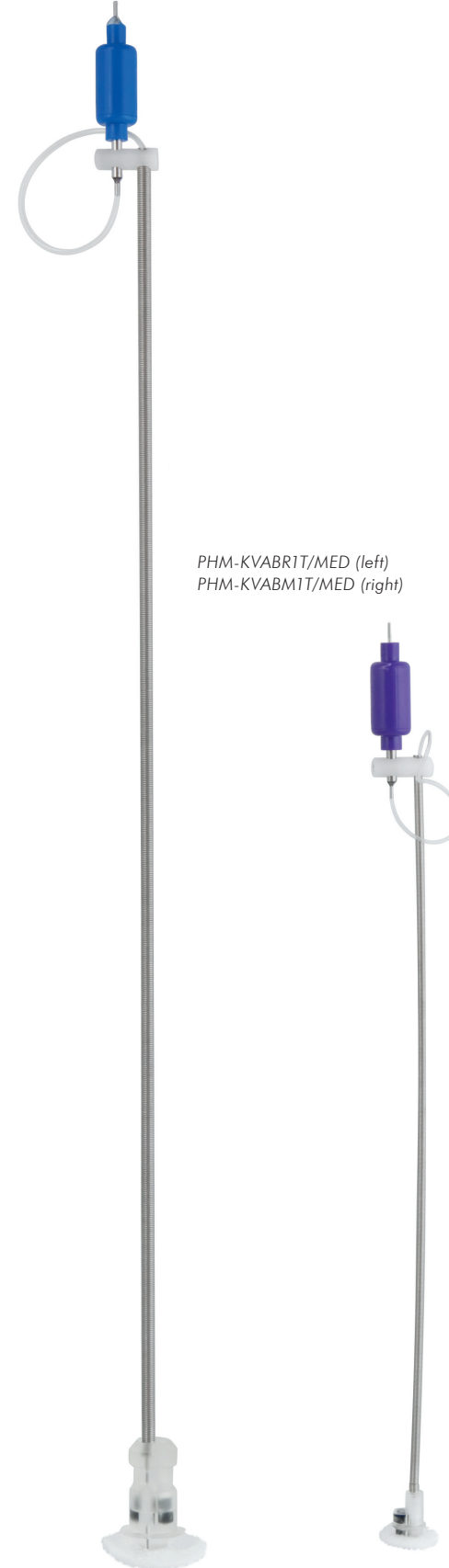
- Instech's plastic infusion swivels are designed for researchers that require components touching the fluid path to be replaced after each experiment
- Plastic swivels are shipped sterile and individually packaged
- Not autoclavable



STAINLESS STEEL SWIVEL
SINGLE CHANNEL

PHM-115I **RAT** | 22 GAUGE
PHM-124B **MOUSE** | 25 GAUGE

- Includes a universal swivel-to-tether clamp that connects to all of Instech's button, harness, and head block tethers
- Fully autoclavable



PHM-KVABR1T/MED (left)
PHM-KVABM1T/MED (right)



VASCULAR ACCESS BUTTON
INSTECH

PHM-VABM1B/25 **MOUSE**
PHM-VABR1B/22 **RAT**

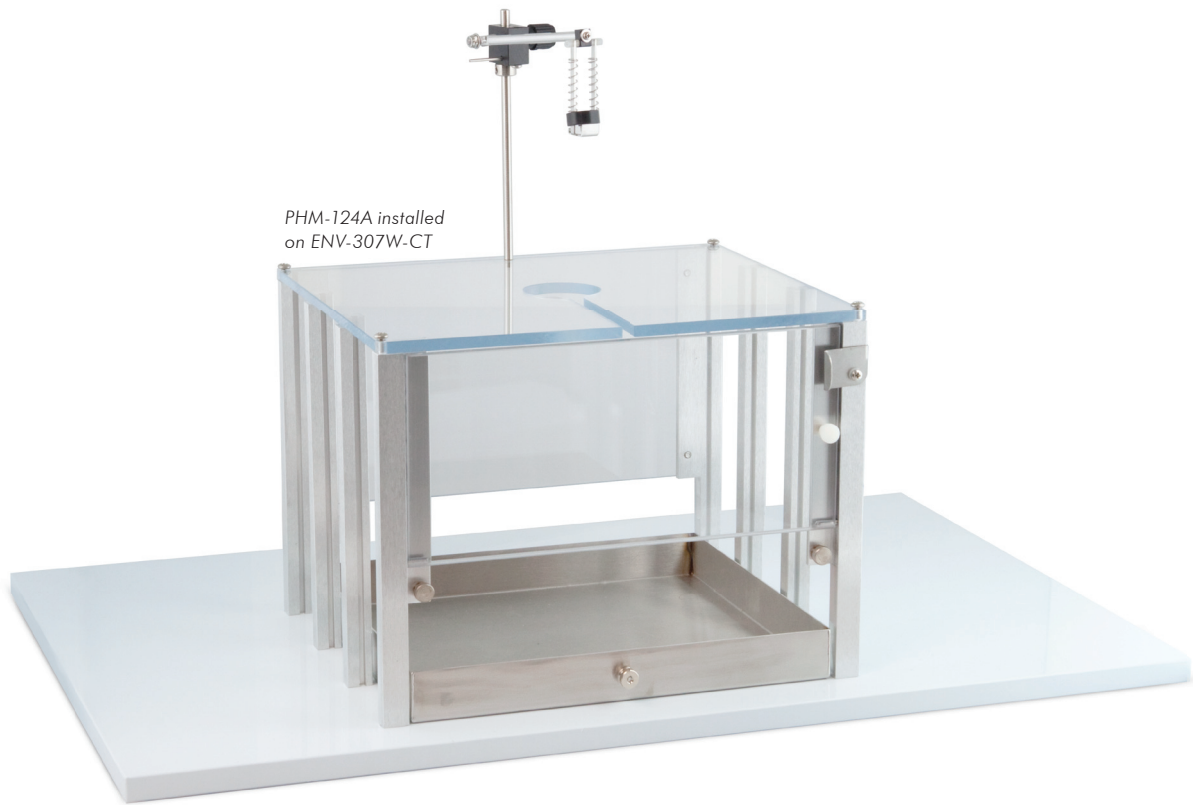
Instech's mouse VAB™ permits quick, aseptic connection and disconnection of a catheterized mouse and an infusion tether. This updated design uses magnets for ease of use and reduction of impact on animal welfare.

- Catheters attach to a 22 or 25 gauge connector under the felt, and Instech's mouse catheters are designed to be a perfect fit with these connectors
- Models are available for jugular vein, carotid artery and femoral vein/artery.
- Access the built-in port of the button using a syringe fitted with a mating PinPort or VAHLS25/30 injector
- A red aluminum cap (VABM1C) is available to protect the button stalk when group housing mice, sold separately.
- Also available in a 2 channel version for simultaneous infusion and sampling

TETHER KIT

PHM-KVABM1T/MED **MOUSE**
PHM-KVABR1T/MED **RAT**

- Septum permits aseptic technique
- Quick, low profile connection with minimal backflow



PHM-124A installed on ENV-307W-CT



PHM-124MA installed on ENV-307A-CT

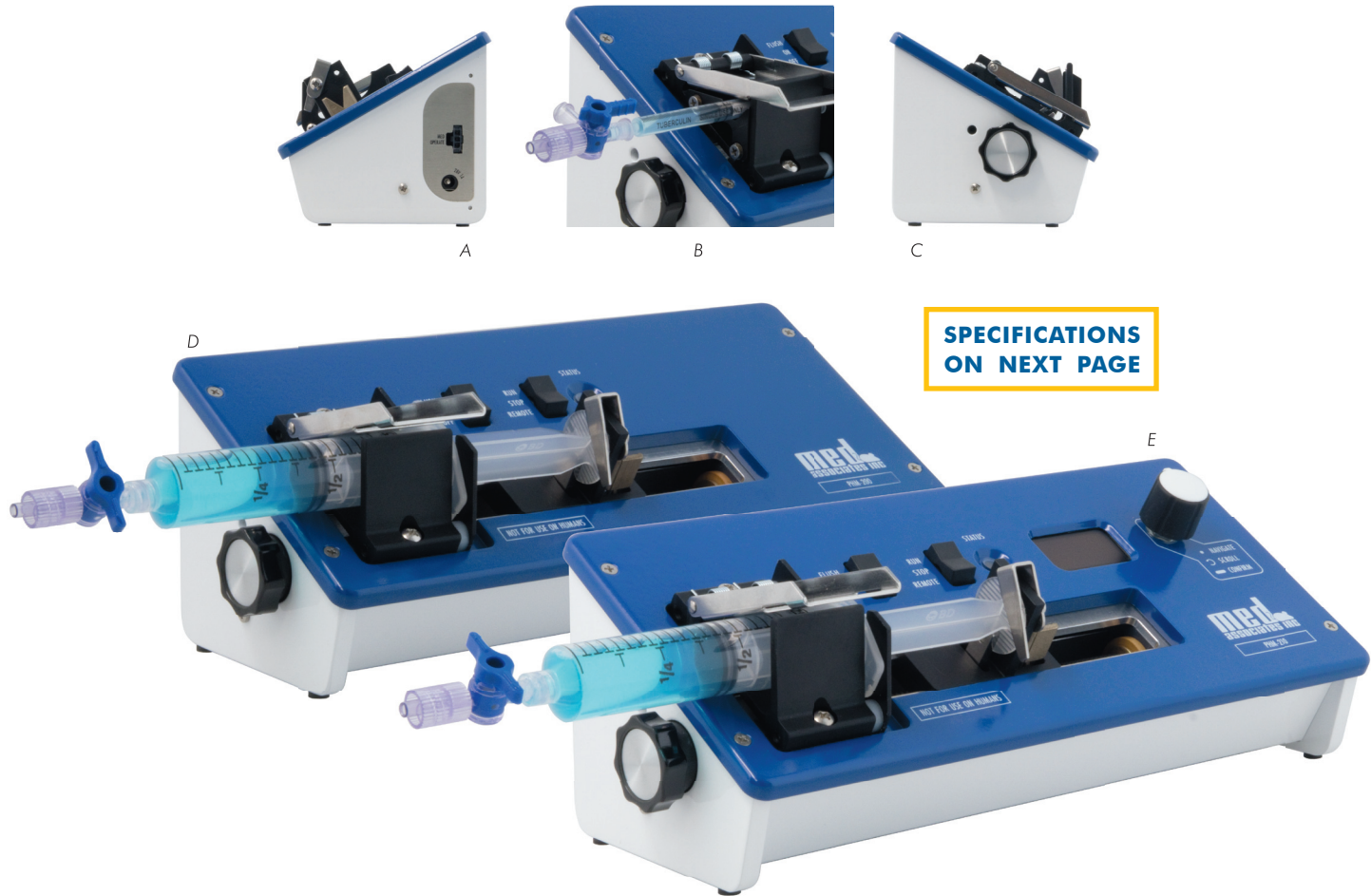
**MULTI-AXIS LEVER ARM
MODULAR PANEL MOUNT**

PHM-124MA **MOUSE** **1/4** **CLASSIC**

**MULTI-AXIS LEVER ARM
CEILING MOUNT**

PHM-124A **MOUSE** **CEILING MOUNT** **WIDE**

- Generates a light adjustable upward lift to remove tether slack which helps keep the tether out of the animal's reach while allowing unhindered motion of the swivel (sold separately) as it follows the animal
- The classic mouse chamber model is mounted on a modular panel (left), while the wide mouse chamber model is screwed into the ceiling.



**SPECIFICATIONS
ON NEXT PAGE**

The next generation of our time-tested PHM-100 series syringe pump has significant improvements, including a complete redesign of the enclosure, anti-siphoning hardware, and a purge/flush feature.

- Can be operated standalone, or activated and de-activated by a Med-PC® 28 volt output (3-pin micro-fit molex)
- Time "on" determines the dose
- A built-in limit switch disconnects power when the plunger reaches the end of the syringe
- Stainless steel and aluminum construction

NOTE: A calibration sheet is included with every pump, which supplies a formula for calculating flow rate using any syringe.

IMAGES

- A) Right side (MED control and power connections)
- B) 1mL syringe with R-ACC micro syringe adapter (sold separately)
- C) Left side (drive screw adjustment knob)
- D) Single speed syringe pump (PHM-200) shown with 30mL syringe
- E) Variable speed syringe pump (PHM-210) shown with 30mL syringe

SINGLE SPEED SYRINGE PUMP

PHM-200

The motor is single fixed speed, the speed of the motor determines the infusion rate for the syringe.

- Speeds available: 0.1, 0.5, 1, 1.5, 2, 3.33*, 5, 10, 15, 20, 30 RPM
 - *NOTE: 3.33 RPM is standard

VARIABLE SPEED SYRINGE PUMP

PHM-210

The motor speed is adjustable, the speed of the motor determines the infusion rate for the syringe.

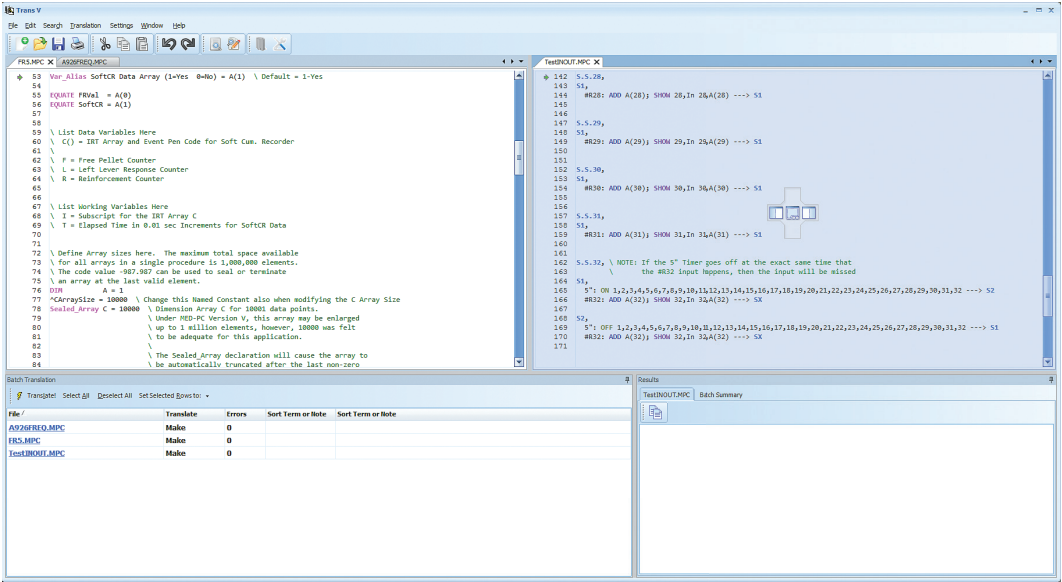
- Adjustable from 0.1 – 30 RPM in 0.1 increments



	PHM-200	PHM-210
COMPARABLE MODELS	PHM-100, PHM-108	PHM-100VS-2, PHM-107
OPERATION TYPE	◦ Standalone ◦ Remote via Med-PC, using 28 V Output (3-pin micro-fit Molex)	◦ Standalone ◦ Remote via Med-PC, using 28 V Output (3-pin micro-fit Molex)
MOTOR SPEED RANGE	Single Speed	Variable Speed
SPEED SELECTOR	3.33 RPM standard <i>(available: 0.1, 0.5, 1, 1.5, 2, 3.33, 5, 10, 15, 20, 30 RPM)</i>	0.1 - 30 RPM <i>(adjustable in 0.1 RPM increments)</i>
INFUSION RATE RANGE ¹	N/A (factory set)	1.7" display with rotary encoder
SYRINGE SIZES ²	From 0.2 mL/hr (0.1 RPM + 1mL syringe) to 32.1 mL/min (30 RPM + 50mL syringe)	From 0.2 mL/hr (0.1 RPM + 1mL syringe) to 32.1 mL/min (30 RPM + 50mL syringe)
SYRINGE TYPE	1 - 50 mL <i>(small syringes require R-ACC adapter)</i>	1 - 50 mL <i>(small syringes require R-ACC adapter)</i>
ELECTRICAL	Plastic or Glass	Plastic or Glass
ACCURACY	100V - 240V AC, 50-60 Hz, 25W	100V - 240V AC, 50-60 Hz, 25W
LIMIT SWITCH?	+/- 1.5%	+/- 1.5%
REVERSE?	YES	YES
PURGE/FLUSH SPEED	NO	YES
CONSTRUCTION	20 RPM	20 RPM
OVERALL SIZE	Stainless Steel, Aluminum	Stainless Steel, Aluminum
ACCESSORIES	10.5" L x 4.3" W x 3.5" H (26.7 x 10.9 x 8.9 cm)	10.5" L x 4.3" W x 3.5" H (26.7 x 10.9 x 8.9 cm)
	R-ACC	R-ACC

1) Infusion range is approximate, calculated using example syringes (1mL = 0.174cm² / 50mL = 5.477cm²), different syringes may yield greater or lesser infusion rates.
2) Using syringes with plunger flanges greater than 1" OD requires removal of the plunger lock, which disables the syringe reversal feature.

Flow Rate (mL/min) = 0.19538 x Motor RPM x Syringe Cross Sectional Area (cm²)



DRUG SELF INFUSION PROTOCOL

SOF-700RA-10 MOUSE+RAT

- Set test parameters including:
 - Fixed ratio
 - Session time
 - Maximum number of infusions
 - Time out following the infusion
 - Infusion time
 - Enable cumulative record data collection *(if available)*
- Collected data includes:
 - Total number of lever responses during the fixed ratio
 - Number of correct lever responses per minute during the fixed ratio
 - Infusion and time out
 - Time in the fixed ratio
 - Number of infusions

DRUG DISCRIMINATION PROTOCOL

SOF-700RA-24 MOUSE+RAT

- Includes three (3) individual protocols:
 - Food Shaping
 - Training
 - Testing
- Mimics a fixed-ratio (FR) schedule
- Starts by turning on the left & right stimulus lights and house light
- Trial requires the animal to correctly respond with a lever to receive a reward, then time-out
- The program ends when the maximum number of rewards are earned or when the session time ends
- Collected data includes:
 - Total responses
 - Total correct responses
 - Total incorrect responses
 - Percent correct responses
 - Percent incorrect responses



SCAN
FOR PDF



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