

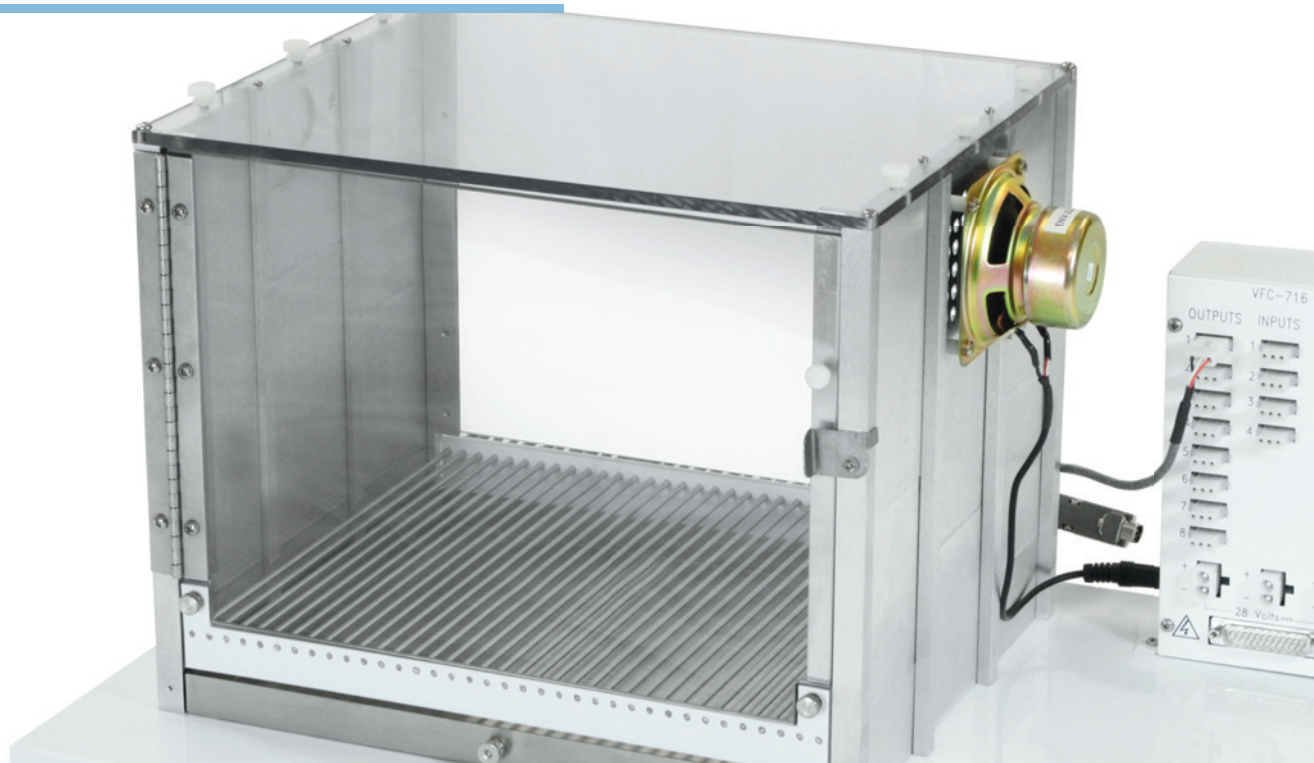
VIDEO FREEZE™ FEAR CONDITIONING

PACKAGES

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MED-VFC-USB-M



MED-VFC-USB-M



MED-VFC-USB-M

Our video fear conditioning systems are designed to be flexible with numerous stimulation and contextual insert options for your experiments. This system is designed to be flexible. Experiments can be conducted and data collected with or without bright visible lighting; instead utilizing near infrared (NIR) imaging without sacrificing video quality.

While bright visible lighting yields uniform illumination, which is effective for achieving high quality & low noise video recording of animal behavior, it also has the potential to adversely affect it. Our near infrared (NIR) imaging system eliminates the need for visible light and its influence on animal behavior. Each package includes a factory installed high quality digital video camera with an NIR lens mounted on the cubicle door to ensure proper positioning.

All Video Freeze™ packages feature:

- NIR light, which eliminates the need for bright visible light
 - Visible light can be used within a session as a cue without impacting the video recording
- Five different user-defined intensity settings of white light
- Real-time video recording (30 frames per second) allows software to distinguish between subtle movements such as whisker twitch, tail flick, and freezing behavior
- Contextual inserts, which provide additional variables when studying the effects of contextual cues on learning and memory
- Digital camera to capture high quality, low noise video

In addition, contextual packages feature:

- Foam lined cubicle
- Grid floor harnesses for all three different styles of floor (level, alternating, staggered)
- Low profile style chambers for clear view of animal during recording

NOTE: The only differences between mouse and rat packages are the spacing and size of rods in the grid floors and the grid floor aversive stimulation harness.



Standard

**STANDARD NIR VFC SYSTEM
FOR GENERAL USE**

MED-VFC-USB-M **MOUSE**
MED-VFC-USB-R **RAT**

These packages feature a standard chamber and two quick disconnect grid floors.

SUMMARY OF CONTENTS

- > Unlined sound attenuating cubicle with exhaust fan and near infrared/visible lighting system
- > Standard fear conditioning chamber with house light
- > Curved wall, A-frame, and smooth floor contextual inserts
- > Two stainless steel grid floors with a quick disconnect harness
- > Programmable tone generator, speaker, and sound calibration package
- > Aversive stimulator/scrambler and calibrator
- > Cables and connection accessories
- > Monochrome digital video camera

Contextual

**CONTEXTUAL NIR VFC SYSTEM
FOR GENERAL USE**

MED-VFC2-USB-M **MOUSE**
MED-VFC2-USB-R **RAT**

These packages feature a low profile chamber and contextual grid floors (standard, staggered, and alternating.)

SUMMARY OF CONTENTS

- > Acoustical foam lined sound attenuating cubicle with exhaust fan and near infrared/visible lighting system
- > Low profile fear conditioning chamber with house light
- > Curved wall, A-frame, and smooth floor contextual inserts
- > Standard, staggered, and alternating rods stainless steel contextual grid floors with their appropriate grid floor harnesses
- > Programmable tone generator, speaker, and sound calibration package
- > Aversive stimulator/scrambler and calibrator
- > Cables and connection accessories
- > Monochrome digital video camera

PACKAGE CONTENTS

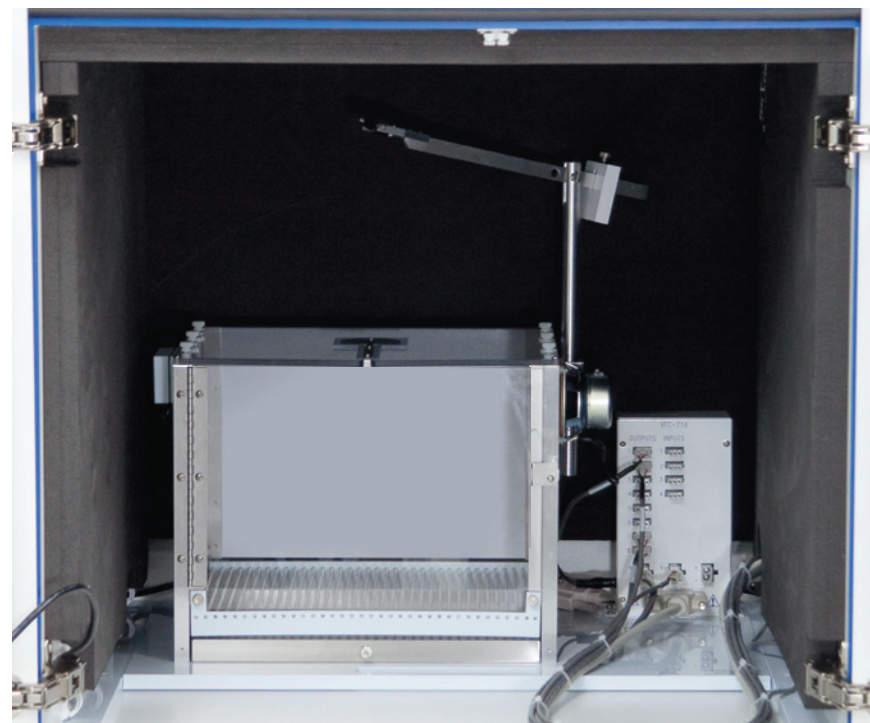
A = MED-VFC-USB-M C = MED-VFC2-USB-M
B = MED-VFC-USB-R D = MED-VFC2-USB-R

#	SKU	DESCRIPTION	A	B	C	D
1	NIR-022MD	Sound Attenuating Cubicle	A	B		
1	NIR-022SD	Sound Attenuation Cubicle w/Microcell Foam			C	D
1	VFC-008	Modular Chamber for Fear Conditioning <i>Standard</i>	A	B		
1	VFC-008-LP	Modular Chamber for Fear Conditioning <i>Low Profile</i>			C	D
1	ENV-005-GFCW	Grid Floor Cover <i>White</i>	A	B	C	D
1	VFC-008-CWI	Curved Wall Insert	A	B	C	D
1	VFC-008-IRT	A-Frame Insert	A	B	C	D
2	ENV-005FPU-M	Quick Change Floor & Pan <i>for Mouse</i>	A			
2	ENV-005FPU-R	Quick Change Floor & Pan <i>for Rat</i>		B		
1	VFC-005	Level Grid Floor <i>Low Profile</i>				D
1	VFC-005-L	Alternating Grid Floor <i>Low Profile, for Rat</i>				D
1	VFC-005-S	Staggered Grid Floor <i>Low Profile, for Rat</i>				D
1	VFC-005A	Level Grid Floor <i>Low Profile, for Mouse</i>			C	
1	VFC-005A-L	Alternating Grid Floor <i>Low Profile, for Mouse</i>			C	
1	VFC-005A-S	Staggered Grid Floor <i>Low Profile, for Mouse</i>			C	
1	ENV-229M	LED Stimulus Light 1" (2.54 cm)	A	B	C	D
1	NIR-100L2B	Light Box	A	B	C	D
1	NIR-100VR	NIR & White Light Control Box	A	B	C	D
1	ENV-224AM-3	Cage Speaker	A	B	C	D
1	VFC-100	Audio Output Combo Card	A	B	C	D
1	ENV-005-QD	Quick Disconnect Grid Harness <i>for Rat</i>		B		
1	ENV-005A-QD	Quick Disconnect Grid Harness <i>for Mouse</i>	A			
2	ENV-407A	Grid Floor Harness <i>for Mouse Level + Staggered Rods</i>			C	
1	ENV-408L	Grid Floor Harness <i>for Mouse Alternating Rods</i>			C	
3	ENV-408R	Grid Floor Harness <i>for Rat</i>				D
1	ENV-414S	Standalone Aversive Stimulator/Scrambler	A	B	C	D
1	VFC-716	Passive Connection Panel	A	B	C	D
1	NIR-101	Light Control Input Cable	A	B	C	D
2	NIR-102	Light Control Interface Cable	A	B	C	D
1	CAB-USB3-A-MB-3M	USB 3.0 cable, Type-A/Micro-B, 10' (3 m)	A	B	C	D
1	SG-210CB	DB25 SmartCtrl Cable, ^M / _F , 25' (7.62 m)	A	B	C	D
1	SG-210CP-25	Power Cable, 25' (7.62 m)	A	B	C	D
1	SG-216A-10	3 Pin Mini-Molex Extension, 10' (3.05 m)	A	B	C	D
1	SG-219G-10	DB9 Shock Output Cable, ^M / _F , 10' (3.05 m)	A	B	C	D
1	VID-CAM-MONO-5	Video Camera (USB)	A	B	C	D
1	VID-LENS-8.0C	8 mm C-Mount Lens	A	B	C	D
1	VID-LENS-NIR-1	NIR Pass Filter (for 8 mm Lens)	A	B	C	D

MED-VFC2-OPTO-USB-M



MED-VFC2-OPTO-USB-M



MED-VFC2-OPTO-USB-M



Optogenetics enables the activation of neurons using light by inserting a light-sensitive ion channel from algae into specific neurons, and is completely reversible by simply turning off the light source. To support optogenetics techniques, we now offer our Video Freeze™ fear conditioning system with an extra tall cubicle, a counterbalance arm, TTL converter, and a chamber with a modified top.

All packages for optogenetics feature:

- NIR light, which eliminates the need for bright visible light
 - Visible light can be used within a session as a cue without impacting the video recording
- Five different user-defined intensity settings of white light
- Real-time video recording (30 frames per second) allows software to distinguish between subtle movements such as whisker twitch, tail flick, and freezing behavior
- Contextual inserts, which provide additional variables when studying the effects of contextual cues on learning and memory
- Digital camera to capture high quality, low noise video

In addition, contextual packages feature:

- Foam lined cubicle
- Grid floor harnesses for all three different styles of floor (level, alternating, staggered)
- Low profile style chambers for clear view of animal during recording *(featured in photo above)*

NOTE: The only differences between mouse and rat packages are the spacing and size of rods in the grid floors and the grid floor aversive stimulation harness.



Standard

STANDARD NIR VFC SYSTEM
FOR OPTOGENETICS

MED-VFC-OPTO-USB-M **MOUSE** | **STANDARD**
MED-VFC-OPTO-USB-R **RAT** | **STANDARD**

To accommodate optogenetics studies, this package also includes a drug delivery arm, TTL adapter, and modified chamber top.

These packages feature standard chambers, quick disconnect grid floors, and an unlined SAC.

SUMMARY OF CONTENTS

- > Unlined extra tall sound attenuating cubicle with exhaust fan and near infrared/visible lighting system
- > Standard video fear conditioning chamber with a modified top and house light
- > Curved wall, A-frame, and smooth floor contextual inserts
- > Two quick change stainless steel grid floors with a quick disconnect harness
- > Programmable tone generator, speaker, and sound calibration package
- > Aversive stimulator/scrambler and calibrator
- > Cables and connection accessories
- > Monochrome digital video camera

Contextual

CONTEXTUAL NIR VFC SYSTEM
FOR OPTOGENETICS

MED-VFC2-OPTO-USB-M **MOUSE** | **CONTEXTUAL**
MED-VFC2-OPTO-USB-R **RAT** | **CONTEXTUAL**

To accommodate optogenetics studies, this package also includes a drug delivery arm, TTL adapter, and modified chamber top.

These packages feature low profile chambers, contextual grid floors (standard, staggered, and alternating), and a foam lined SAC.

SUMMARY OF CONTENTS

- > Acoustical foam lined extra tall sound attenuating cubicle with exhaust fan and near infrared/visible lighting system
- > Low profile video fear conditioning chamber with modified top and house light
- > Curved wall, A-frame, and smooth floor contextual inserts
- > Standard, staggered, and alternating rods stainless steel contextual grid floors with their appropriate grid floor harnesses
- > Programmable tone generator, speaker, and sound calibration package
- > Aversive stimulator/scrambler and calibrator
- > Cables and connection accessories
- > Monochrome digital video camera

PACKAGE CONTENTS

A = MED-VFC-OPTO-USB-M
B = MED-VFC-OPTO-USB-R
C = MED-VFC2-OPTO-USB-M
D = MED-VFC2-OPTO-USB-R

#	SKU	DESCRIPTION	A	B	C	D
1	NIR-018MD	Extra Tall Video Fear SAC	A	B		
1	NIR-018SD	Extra Tall Video Fear SAC w/Microcell Foam			C	D
1	VFC-008CT	Standard Fear Conditioning Chamber w/Modified Top	A	B		
1	VFC-008CT-LP	Fear Conditioning Chamber for Low Profile Floors			C	D
1	ENV-005-GFCW	Grid Floor Cover White	A	B	C	D
1	ENV-008CTC	Cover Insert for Modified Top	A	B	C	D
1	PHM-110	Drug Delivery Arm with 3/4" ID Gimbal	A	B	C	D
1	VFC-008-CWI	Curved Wall Insert	A	B	C	D
1	VFC-008-IRT	A-Frame Insert	A	B	C	D
2	ENV-005FPU-M	Quick Change Floor/Pan Unit for Mouse	A			
2	ENV-005FPU-R	Quick Change Floor/Pan Unit for Rat		B		
1	VFC-005	Level Grid Floor Low Profile, for Rat				D
1	VFC-005A	Level Grid Floor Low Profile, for Mouse			C	
1	VFC-005A-L	Alternating Grid Floor Low Profile, for Mouse			C	
1	VFC-005A-S	Staggered Grid Floor Low Profile, for Mouse			C	
1	VFC-005-L	Alternating Grid Floor Low Profile, for Rat				D
1	VFC-005-S	Staggered Grid Floor Low Profile, for Rat				D
1	ENV-229M	Stimulus Light, 1" LED	A	B	C	D
1	NIR-100L2B	Light Box w/High Output LED	A	B	C	D
1	NIR-100VR	Light Control Box	A	B	C	D
1	ENV-224AM-3	Cage Speaker for Rat Chamber	A	B	C	D
1	VFC-100	Audio Output Combo Card	A	B	C	D
1	ENV-005A-QD	Quick Disconnect Grid Harness for Mouse	A			
1	ENV-005-QD	Quick Disconnect Grid Harness for Rat		B		
2	ENV-407A	Grid Floor Harness for Mouse Level + Staggered Floor			C	
1	ENV-408L	Grid Floor Harness for Mouse Alternating Floor			C	
3	ENV-408R	Grid Floor Harness for Rat				D
1	ENV-414S	Standalone Aversive Stimulator/Scrambler	A	B	C	D
1	VFC-716	Passive Connection Panel	A	B	C	D
1	CAB-USB3-A-MB-3M	USB 3.0 Cable, Type-A/Micro-B, 10' (3 m)	A	B	C	D
1	NIR-101	Light Control Input Cable, 8 Pin Molex	A	B	C	D
2	NIR-102	Light Control Interface Cable, 3 Pin	A	B	C	D
1	PHM-155G	BNC Output Cable, 5' (1.5 m)	A	B	C	D
1	SG-210CB	SmartCtrl Cable, DB25, ^M / _F , 25' (7.6 m)	A	B	C	D
1	SG-210CP-25	Power Cable, 25' (7.6 m)	A	B	C	D
1	SG-216A-10	3-Pin Mini-Molex Extension, 10' (3 m)	A	B	C	D
1	SG-218A-10	Extension Cable, 3-Pin Mini-Molex, ^M / _M , 10' (3 m)	A	B	C	D
1	SG-219G-10	Shock Output Cable, DB9, ^M / _F , 10' (3 m)	A	B	C	D
1	SG-231	28V DC to TTL Adapter	A	B	C	D
1	VID-CAM-MONO-5	Monochrome Video Camera, USB 3.0	A	B	C	D
1	VID-LENS-8.0C	8 mm Lens	A	B	C	D
1	VID-LENS-NIR-1	Near Infrared Pass Filter (for 8 mm Lens)	A	B	C	D

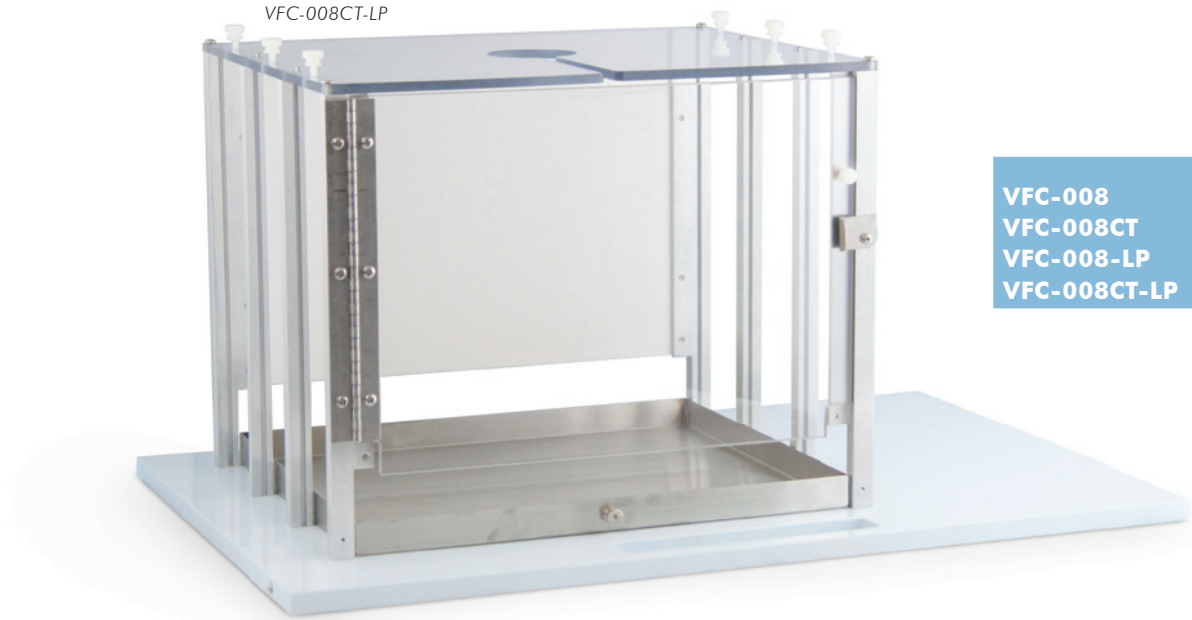
	INTERIOR (W×H×D)	EXTERIOR (W×H×D)
NIR-018MD NIR-018SD*	24.25" x 22" x 28.75" (61.6 x 55.88 x 73.03 cm)	25" x 24" x 29.5" (63.5 x 60.96 x 74.93 cm)
NIR-022MD NIR-022SD*	24.25" x 12.5" x 28.75" (61.6 x 31.75 x 73.03 cm)	25" x 14.5" x 29.5" (63.5 x 36.83 x 74.93 cm)

*NOTE: foam lining takes up 1" of space

Two NIR-018MD Cubicles, stacked with the SAC-001 Stacking Block Kit



NIR-018MD



VFC-008CT-LP

	INTERIOR (W×H×D)
VFC-008 VFC-008CT VFC-008-LP VFC-008CT-LP	9.5" x 12" x 8.25" (24.1 x 30.5 x 21 cm)

General Use

VIDEO FEAR SAC STANDARD

- NIR-022MD **MOUSE+RAT** | **UN-LINED**
- NIR-022SD **MOUSE+RAT** | **FOAM LINED**

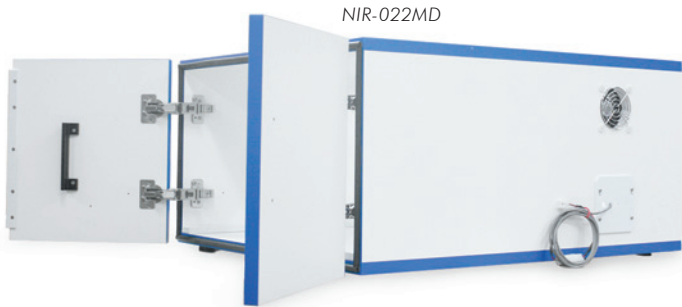
Optogenetics

VIDEO FEAR SAC EXTRA TALL

- NIR-018MD **MOUSE+RAT** | **UN-LINED**
- NIR-018SD **MOUSE+RAT** | **FOAM LINED**

This specially designed SAC is built to accommodate NIR video recording and limit the effects of outside stimulation on test animals.

- Durable medium density fiberboard (MDF) construction with high pressure laminate
- Factory installed 28V DC ventilation fan (ENV-025F)
- Guide rails to ensure proper chamber positioning
- Top opening for our IR/white light source (NIR-100L2B)



NIR-022MD

Optional *not included with any system

STACKING BLOCK KIT*

- SAC-001 **MOUSE+RAT**

- Attaches to the top of a sound attenuating cubicle for stacking with another cubicle
- Provides 4.13" (10.48 cm) of clearance for NIR light source or other equipment between stacked cubicles

Standard

FEAR CONDITIONING CHAMBER STANDARD

- VFC-008 **MOUSE+RAT** | **FLAP TOP**
- VFC-008CT **MOUSE+RAT** | **MODIFIED TOP**

Contextual

FEAR CONDITIONING CHAMBER LOW PROFILE

- VFC-008-LP **MOUSE+RAT** | **FLAP TOP**
- VFC-008CT-LP **MOUSE+RAT** | **MODIFIED TOP**

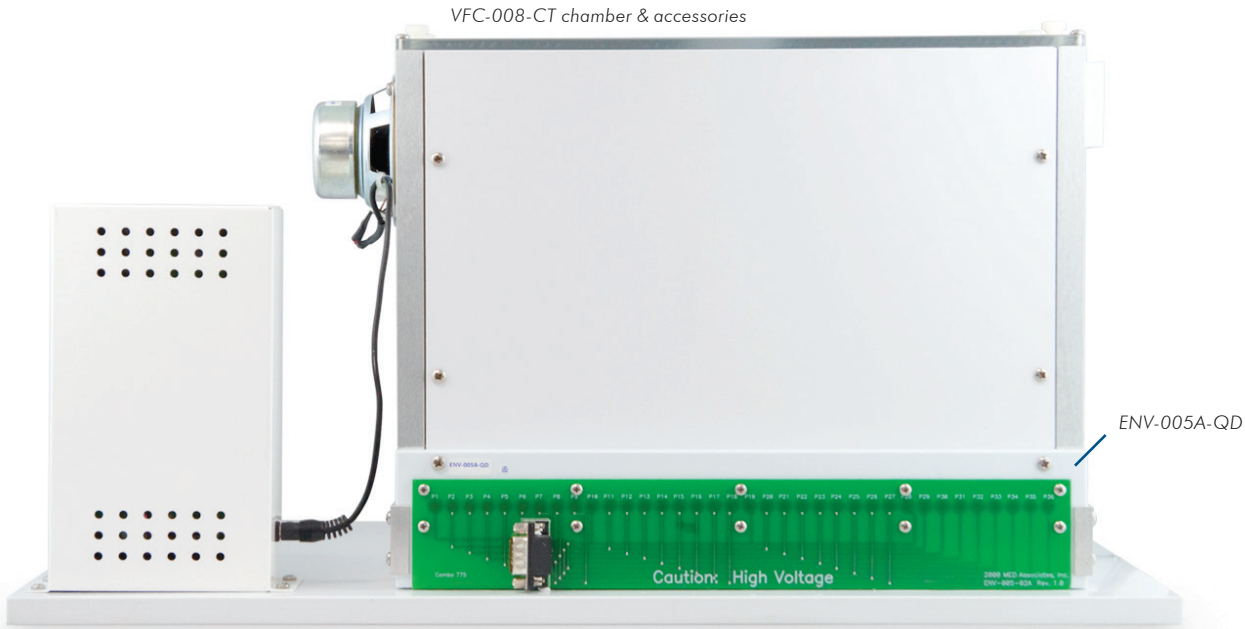
- Specialized base plate ensures proper positioning within the SAC
- Convenient handle to pull towards the opening of the SAC for easy loading and unloading of animals
- Roller wheels in chamber base reduce static electricity build-up



Standard



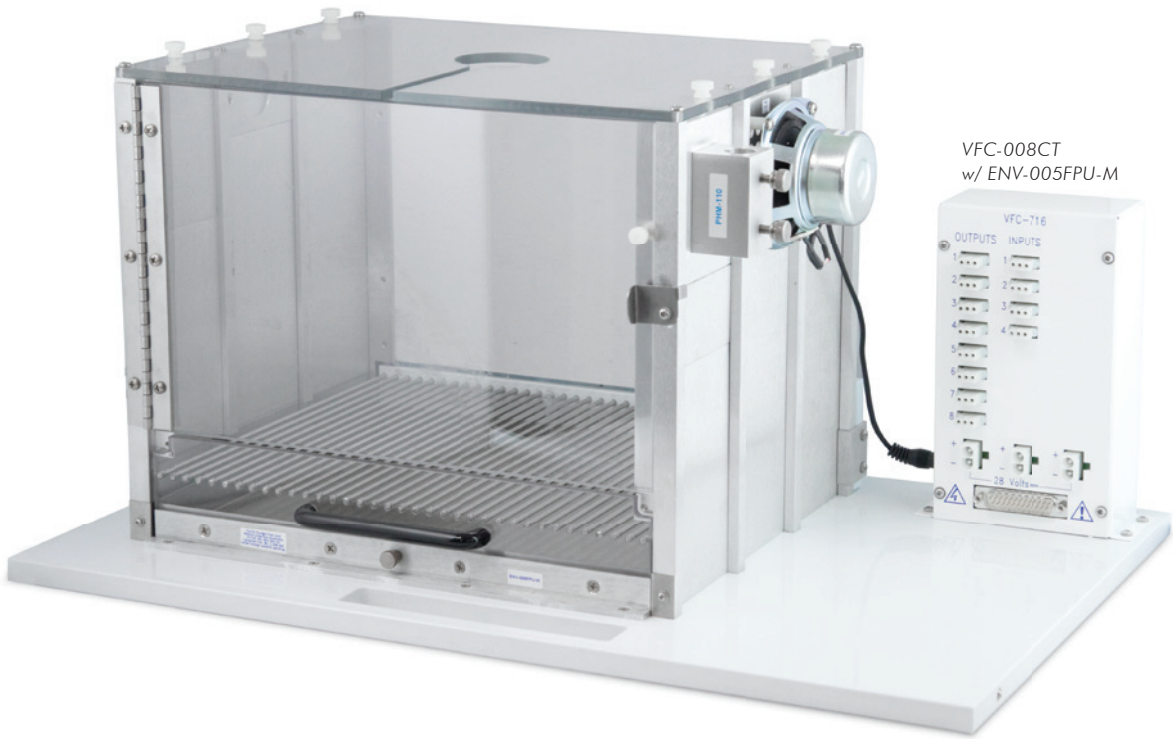
Low Profile



Quick Disconnect Harness:
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.



	RODS	SPACING	SIZE	HARNESS
ENV-005FPU-M	36	0.31" (0.79 cm)	0.125" (0.32 cm)	ENV-005A-QD
ENV-005FPU-R	19	0.625" (1.59 cm)	0.19" (0.47 cm)	ENV-005-QD



Standard

QUICK DISCONNECT HARNESS

ENV-005A-QD **MOUSE**
ENV-005-QD **RAT**

- Fits standard fear conditioning chambers (VFC-008)
- Compatibility is detailed in the chart (left)
- 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.

Standard

QUICK CHANGE FLOOR
w/WASTE PAN

ENV-005FPU-M **MOUSE**
ENV-005FPU-R **RAT**

- 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



VFC-008-LP
shown with: ENV-224AM,
ENV-229M, VFC-005A,
VFC-716



LEVEL

	SPECIES	RODS	SPACING	SIZE	HARNESS
VFC-005A	Mouse	36	0.31" (0.79 cm)	0.125" (0.32 cm)	ENV-407A
VFC-005	Rat	19	0.625" (1.59 cm)	0.1875" (0.48 cm)	ENV-408R



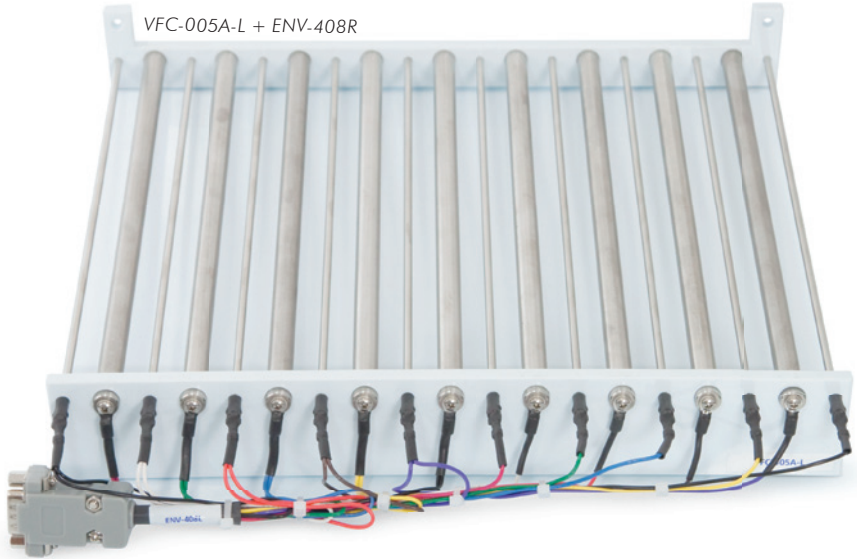
STAGGERED

	SPECIES	RODS	HORIZ. SPACING	VERT. SPACING	SIZE	HARNESS
VFC-005A-S	Mouse	36	0.125" L (0.32 cm)	0.2" H (0.51 cm)	0.1875" (0.48 cm)	ENV-407A
VFC-005-S	Rat	19	0.625" L (1.59 cm)	0.2" H (0.51 cm)	0.1875" (0.48 cm)	ENV-408R



ALTERNATING

	SPECIES	RODS	SPACING	SIZE	HARNESS
VFC-005A-L	Mouse	19	0.62" (1.56 cm)	10 @ 0.125" (0.32 cm) 9 @ 0.375" (0.95 cm)	ENV-408L
VFC-005-L	Rat	19	0.62" (1.56 cm)	10 @ 0.1875" (0.48 cm) 9 @ 0.375" (0.95 cm)	ENV-408R



VFC-005A-L + ENV-408R



ENV-408L

Contextual

LEVEL GRID FLOOR
LOW PROFILE

VFC-005A **MOUSE**
VFC-005 **RAT**

STAGGERED GRID FLOOR
LOW PROFILE

VFC-005A-S **MOUSE**
VFC-005-S **RAT**

ALTERNATING GRID FLOOR
LOW PROFILE

VFC-005A-L **MOUSE**
VFC-005-L **RAT**

- 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 appropriate harness for aversive stimulation

Contextual

GRID FLOOR HARNESS

ENV-407A **MOUSE**
ENV-408L **MOUSE**
ENV-408R **RAT**

- Attaches the grid floor to an aversive stimulus generator.
- Terminates in DB-9 connector
 - Appropriate harness for each grid floor is detailed in the chart (left)



Optional *not included with any system

STRIPED WALL & CEILING COVER PANELS*

ENV-008-CS1 **MOUSE+RAT**

Black plastic sheets with cut out stripes to cover the back wall and ceiling.

POLKA-DOTTED WALL & CEILING COVER PANELS*

ENV-008-CS2 **MOUSE+RAT**

Clear plastic sheets with applied polka dots to cover the back wall and ceiling.

BLANK WALL & CEILING COVER PANELS*

ENV-008-CS3 **MOUSE+RAT**

Create custom contextual cues with the use of stickers, drawings, paint, or other media.

All

A-FRAME INSERT

VFC-008-IRT **MOUSE+RAT**

Black IRT acrylic insert.

- Allows unhindered transmission of NIR light
- Creates a sloped roof within the chamber from floor to ceiling on two sides
- Shields subjects from white light

CURVED WALL INSERT

VFC-008-CWI **MOUSE+RAT**

White plastic panel bends to create a curved wall.

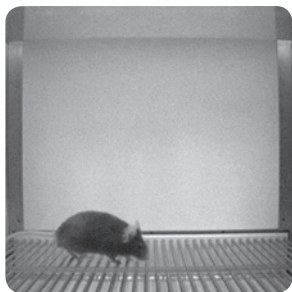
- Cutouts to allow unobstructed transmission of both sound and NIR light

SMOOTH FLOOR COVER

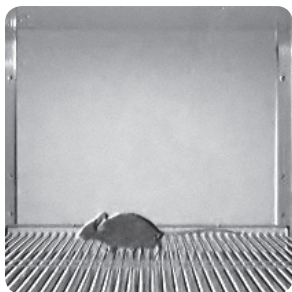
ENV-005-GFCW **MOUSE+RAT**

Removes contextual cue created by the grid floor.

ENV-229M



Recording under infrared light



Recording under visible light

PACKAGE CONTENTS

A = NIR-100V

#	SKU	DESCRIPTION	A
1	NIR-100L2B	NIR VFC Light Box	A
1	NIR-100VR	NIR/White Light Control Box	A
1	NIR-101	Light Control Input Cable	A
2	NIR-102	Light Control Interface Cable	A

NIR-100VR



All

LED STIMULUS LIGHT

ENV-229M **MOUSE+RAT** | 1/8 |

- Fits chambers: VFC-008 / -008-LP
- Designed for distinct conditioned stimulus presentation
- Standard white diffuser included
- 28V DC LED expected life of 100,000 hours

SPECIFICATIONS

- Light diameter = 1" (2.54 cm)



All

NIR/WHITE LIGHT PACKAGE

NIR-100V **MOUSE+RAT**

SPECIFICATIONS

- Visible Light Temperature = 6000K "cool white"
- Visible Light Intensity = Five user adjustable settings (illumination levels vary by cubicle size)
- NIR wavelength = 940nm



All

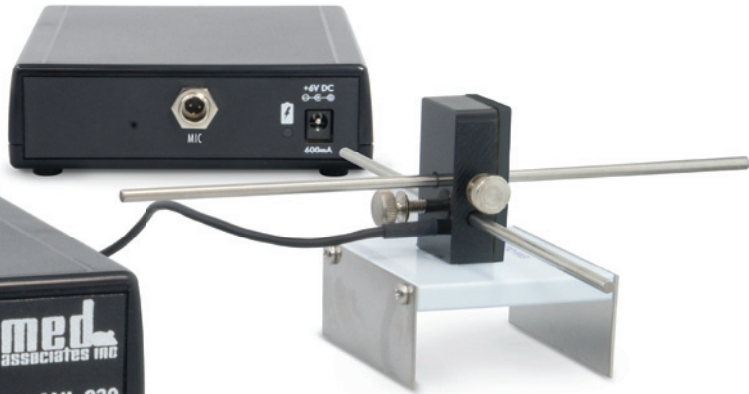
CAGE SPEAKER

ENV-224AM-3 MOUSE+RAT 1/4

- Use with the programmable audio generator (VFC-100) or other white noise / audio amplifier (ANL-926).
- Speaker output 20 - 100 dB from 1kHz to 7 kHz (using VFC-100 or ANL-926)

ANL-930 (back)

ANL-930 (front)



All

SOUND PRESSURE LEVEL MEASUREMENT PACKAGE

ANL-930 MOUSE+RAT

- Provides detailed measurements of either noise or pure tone signals, displaying the sound level (dB) and frequency in real time
- Portable design provides the convenience of having a sound pressure level measurement solution untethered from a computer or power source due to its onboard processor and rechargeable battery.
- We offer this product at a fraction of the cost of typical sound pressure level measurement equipment
- Offers a level of stimulus verification and calibration unavailable with sound level meters
- The unique design of the included microphone holder ensures consistent microphone placement from chamber to chamber and get readings outside of the cubicle for a true measurement
- Operate plugged in to outlet or with rechargeable battery
 - Rechargeable 18650 3500mAh 3.7V lithium-ion battery with an average life of 8 hours (USA only)

SPECIFICATIONS

Dynamic Range = 60 – 120dB

Frequency Range = 100 – 35,000 Hz



All

AVERSIVE STIMULATOR/
SCRAMBLER STANDALONE

ENV-414S MOUSE+RAT

- Combines a shocker (ENV-410C) and scrambler (ENV-412C) into one unit
 - Less expensive than buying them individually
 - Provides scrambled foot aversive stimulation
- Maintains constant current levels even if a connection to a grid rod is lost
- Continuous regulation at a lower voltage (250 Vrms, 440V max) eliminates the possibility of tissue damage due to arcing
- Current shown on a digital LED display and indicator
- Dummy load/subject switch
- Adjust current using a two position range switch and adjustment knob
- Control via:
 - 28V DC to ground signal
 - 5V TTL signal
 - Remote switch closure

SPECIFICATIONS

Overall Size (WxHxD): 8.25" x 2.75" x 9"
(21 x 7 x 22.9 cm)

Power Source: 115V AC, 60 Hz (also available in 230V)

NOTE: DB-9 cable connecting the harness to a grid floor scrambler is sold separately (SG-219G-10).

ENV-421-B (back)



ENV-421-B (front)

All

AMMETER

ENV-421-B MOUSE+RAT

- Shows the amount of current produced by an aversive stimulator.
- Two clip leads connect to the grid rods
 - Unit displays the actual current at aversive stimulation site
 - Digital panel displays the RMS current corresponding to the aversive stimulator detected
 - Range = 0.05 – 6.5 mA
 - NOTE: Currents below 0.05 mA are displayed as 0.0 mA to avoid incorrectly reading noise as a stimulus



VID-CAM-MONO-5



VID-LENS-8.0C



VID-LENS-NIR-1

All

MONOCHROME VIDEO CAMERA
HIGH-SPEED

VID-CAM-MONO-5 **MOUSE+RAT**

- Captures images at up to 30 frames per second (fps) at full resolution
- Can be used for both visible light and near infrared recording
- For continuous recording under day/night conditions
- Uses same CS-mount lenses and filter as the FireWire model (VID-CAM-MONO-4)
- Can run alongside FireWire cameras in a system
- Less expensive than its FireWire predecessor

SPECIFICATIONS

Functional Frame Rate = 30 fps
Functional Resolution = 320 x 240 px
Interface = USB 3.0

All

8MM NIR PASS FILTER

VID-LENS-NIR-1 **MOUSE+RAT**

- NIR lens filter blocks more than 99.9% visible light under 800 nanometers so changes in visible lighting conditions will not effect the recorded video
- Can be used with our NIR sensitive digital cameras when supplemental near infrared light is used for illumination
- Fits our 8 mm C-Mount Lens (VID-LENS-8.0C)

8MM C-MOUNT LENS

VID-LENS-8.0C **MOUSE+RAT**

- Provides a moderate viewing angle with very little optical distortion

SPECIFICATIONS

Focal Length = 8 mm
Lens Mount Type = C
Focus = Varifocal

PACKAGE CONTENTS

A = MED-SYST-VFC-USB2

#	SKU	DESCRIPTION	A
1	ANL-930-B	Sound Pressure Level Measurement Package	A
1	COM-106R2-PC	Computer Package	A
1	COM-MDP-HDMI-CABLE	Mini DisplayPort to HDMI Cable, 6' (1.83 m)	A
1	COM-MONITOR-LCD	LED Monitor, 19.5" (49.53 cm)	A
1	DIG-705	USB Interface Decoder Card	A
1	DIG-QUADRO-P400	PNY Quadro P400 Video Card	A
1	ENV-421-B	Aversive Stimulation Current Test Package	A
1	SG-7308	Small Tabletop Cabinet w/Power Supply	A
1	CAB-USB-AM-BM-10	USB Cable, Type A-B, ^M / _M , 10' (3.05 m)	A
1	SG-210CP-2	Power Cable, 2' (61 cm)	A
1	SG-210CP-Y	Power "Y" Cable, 2-Pin, ^M / _{FF}	A
1	SOF-843	Video Fear Conditioning Software	A



SG-6080D



COM-106V

All

VFC INTERFACE PACKAGE

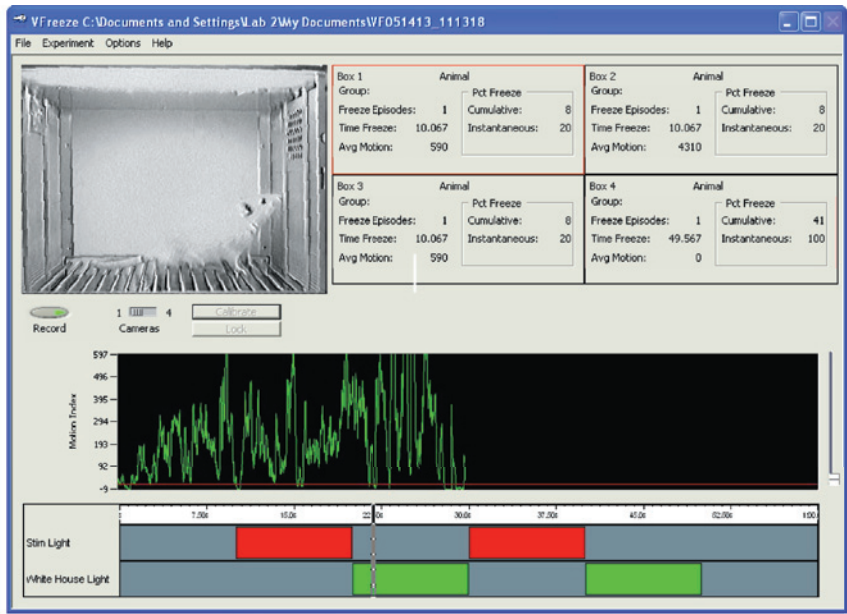
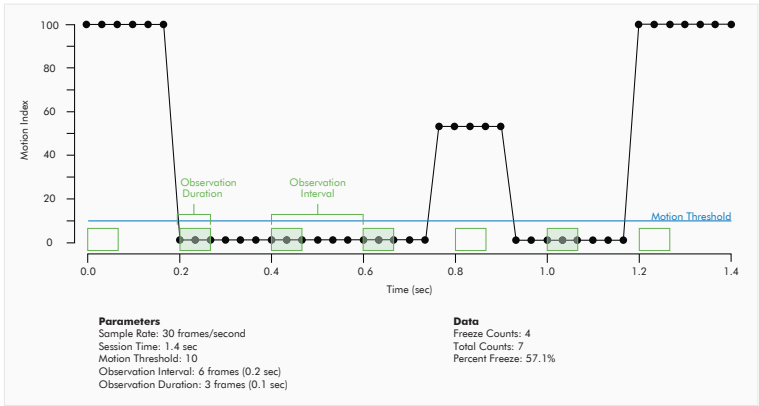
MED-SYST-VFC-USB2 **MOUSE+RAT**

Our custom-built computer is ideal for interfacing between software and hardware components to facilitate experimental control and data collection.

- Designed to support up to four NIR video fear conditioning chamber packages
- Interface cabinet has a built-in 28V DC power supply

SPECIFICATIONS

Windows 10 (64-bit)
USB 3.0 (x4), USB 2.0 (x2)
PCI (x1) / PCIe X16 (x1) / PCIe X1 (x2)
HDMI (x1) / DisplayPort (x2) / VGA (x1)
Widescreen monitor w/speakers
Wired keyboard and mouse



All

VIDEOFREEZE™ VIDEO FEAR CONDITIONING SOFTWARE

SOF-843 MOUSE+RAT

Our software provides a reliable and automated means to monitor the effects of fear conditioning in rodents.

- User-defined:
 - Stimulus intensities and durations
 - Inter-trial intervals
 - Inter-stimulus intervals
 - Session durations
 - Number of trials per session

- Freezing is represented in the data file by:
 - Total time spent motionless during the session
 - Percent of time motionless
 - Number of freezing episodes or occurrences
 - Average index of motion

COMPUTER REQUIREMENTS

Windows® 7, 8, 10, or 11 (32 or 64-bit)

Optional *not included with any system

PRIZMATIX FIXED RATIO PROTOCOL

SOF-732-6 MOUSE+RAT

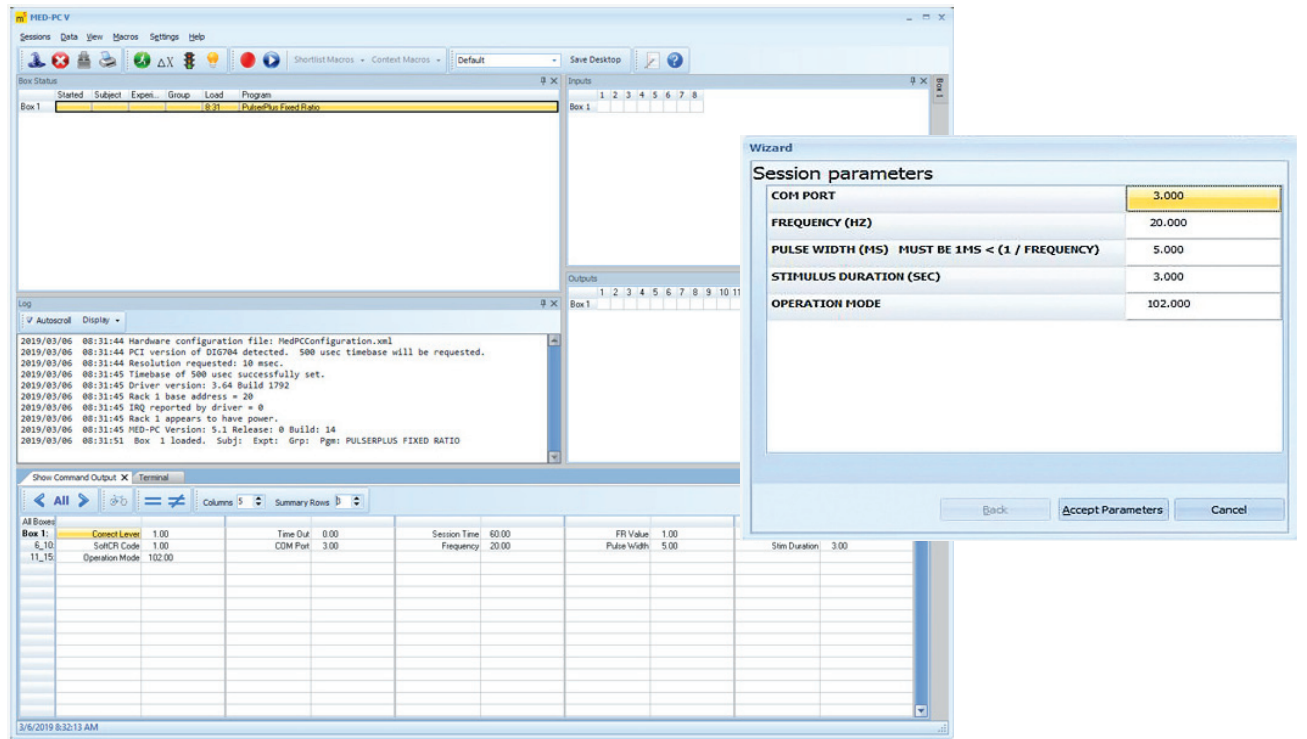
- For pulsing LEDs, lasers and shutters in Optogenetics experiments using Med-PC® protocols and our hardware, while simultaneously collecting experimental data.
- Requires a TTL output from the Med Associates interface to operate at 1ms resolution
 - Pulser can be triggered with MedState Notation commands via USB cable connection (~0.007 s), or with a TTL trigger signal for faster response times (~0.001 s)
- Enables Med-PC® to:
 - Program trains of pulses
 - Create groups of trains
 - Add various triggering conditions

- Includes sample code that may be added to any protocol, as well as a Fixed Ratio protocol
- Simplified control of pulse interval, duration, and train duration
- Converts calculations automatically
- Control stimulus parameters mid-session: stimulus duration, frequency, and pulse width

COMPUTER REQUIREMENTS

Windows® 7, 8, or 10 (32 or 64-bit)

*NOTE: Requires a Prizmatix USB Pulser or PulserPlus unit, available from Prizmatix via Goldstone Scientific





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