med associates inc

Instrumentation and Software for Research

ROTOMETRY

PACKAGE CONTENTS

A = MED-RRS-A   **B** = MED-RRS-EXP   **C** = MED-RRS-USB

#	SKU	DESCRIPTION	A	B	C
1	ENV-500	Rotational Activity Test Station	A		C
1	ENV-500B	Bowl Enclosure, 12" *(30.48 cm)*	A		C
1	ENV-500A	8 Station Junction Box		B	C
1	DIG-705	USB Interface Decoder Card			C
1	DIG-713A	SuperPort 16 Input Module, TTL		B	C
1	SG-7308	Small Tabletop Interface Cabinet			C
1	SOF-801	RotoRat™ Rotational Activity Software			C
1	CAB-USB-AM-BM-10	USB Type A-B, ᴹ/ₘ , 10' *(3.05 m)*			C
1	SG-210CP-2	Power Cable, 2' *(61 cm)*			C
1	SG-218-10	DB-25 Jumper Cable, ᴹ/ₘ , 10' *(3.05 m)*		B	C

ENV-500 + ENV-500B

*SG-7308 shown with a USB decode card (DIG-705)
and two SuperPort input cards (DIG-713A)*

INTERFACE EXPANSION PACKAGE

MED-RRS-EXP RAT

- Adds another SuperPort TTL Input Module, Junction Box, and cables
- Expand to 16 or 24 units in a system

ROTORAT PACKAGE

MED-RRS RAT | STARTER

- Stainless steel leash extends from the sensitive optical encoder to an animal jacket
  - Detects both clockwise and counterclockwise rotations
  - Reports movements with a sensitivity of 5.625 degrees or 64 increments for one full rotation of 360 degrees
  - Enables measurement of ipsilateral and contralateral rotations following unilateral ablation or micro-injection
- Starter package includes everything needed to run one station of rotational activity in medium sized rats (250-350 grams)
  - Alternative or additional jacket sizes are available, we carry a full range of jacket sizes to accommodate animals from 100 to 500 grams

MED-RRS-A RAT | ADD-ON

- Built for years of trouble free use, constructed of sturdy materials including a solid polypropylene base and stainless steel leash and bowl
- System is expandable to 16 or 24 units by adding an Interface Expansion Package *(MED-RRS-EXP)* for every eight (8) stations
  - Up to seven (7) additional stations can be added to the starter package *(MED-RSS)* for a total of eight (8) on one interface unit
  - Operate a maximum of 24 rotometry units per computer using Interface Expansion Packages *(MED-RRS-EXP)*
- Provides a graphical representation of the animals position at all times

Bowl Enclosure
ENV-500B

Rotational Activity
Test Station
ENV-500

ENV-500JS
150-250g

ENV-500JM
250-350g

ENV-500JL
350-500g

ROTATIONAL ACTIVITY TEST STATION

ENV-500 RAT

- An inverted "U" bracket runs over the test bowl
- Stainless steel leash extends from the sensitive optical encoder to an animal jacket
  - Detects both clockwise and counterclockwise rotations
  - Encoder reports movements with a sensitivity of 5.625 degrees or 64 increments for one full rotation of 360 degrees
  - Enables measurement of ipsillateral and contralateral rotations following unilateral ablation or micro-injection

- Built for years of trouble free use, constructed of sturdy materials including a solid polypropylene base and stainless steel leash and bowl

SPECIFICATIONS

Top: 18" OD *(45.7 cm)*

Bottom: 6" OD *(15.2 cm)*

Depth: 6" D *(15.2 cm)*

Overall (LxWxH): 21.5" x 15.75" x 19.14"
(54.61 x 40 x 48.62 cm)

BOWL ENCLOSURE

ENV-500B RAT

- Prevents animals climbing out
- Clear acrylic sheet with three white PVC supports that snap onto the test bowl

NOTE: If ordering for an existing system please include the outside diameter of the top ridge of the bowl to ensure a proper fit

REPLACEMENT JACKET

ENV-500JL	RAT	**350-500 G**
ENV-500JM	RAT	**250-350 G**
ENV-500JS	RAT	**150-250 G**
ENV-500JXS	RAT	**100-150 G**
ENV-500JXXS	RAT	**50-150 G**
ENV-500JXXXS	RAT	**25-30 G**

- Flexible fabric jacket designed to fit the torso of a rodent
- A complete tether assembly with coupler, spring tether, and jacket
- The "medium" size jacket *(ENV-500JM)* is supplied with the system by default

NOTE: when ordering these parts, it will be necessary to sew the old tether in place
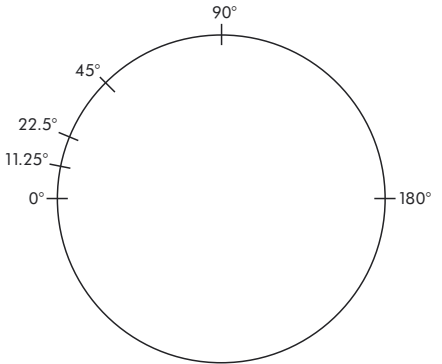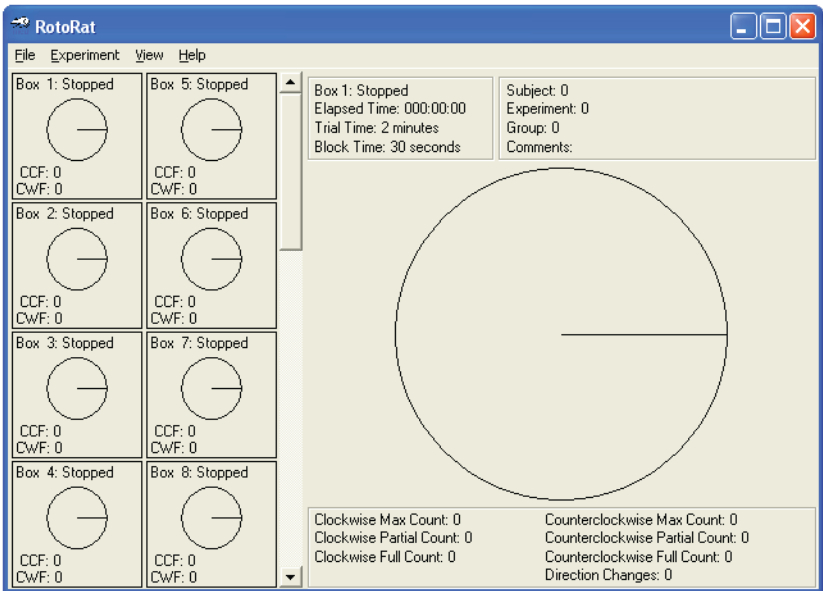
ENV-500A

ROTORAT JUNCTION BOX
8 STATION

ENV-500A RAT

- Use one junction box and one cable to connect up to eight Roto-Rat test stations to the superport TTL input module

  ◦ All connections are made with DB-9 connector

- An interface cabinet and interface connection package are also required*

*NOTE: Cables, modules, and cabinets sold separately

ROTORAT SOFTWARE

SOF-801 RAT

- User setup includes:
  - Time bins
  - Session time
  - Screen display
  - Automated data collection
- Partial counts may be set for 2/4/8/16/32 counts per revolution representing 180/90/45/22.5/11.25 degrees of rotation respectively
- "Retrace" sets the direction change criterion from one to eight
  - Each number represents 5.625 degrees of movement (8 = 45 degrees) until a direction change is recognized
  - "Zero" reference point for rotations remain fixed
- Data elements include:
  - Full revolutions clockwise *(CW)*
  - Full revolutions counter-clockwise *(CCW)*
  - User set partial counts *(CW and CCW)*

- Maximum movement (64 counts/rev) *(CW and CCW)*
  - Direction changes
- Select individual or group control of all stations
- Save data to disk without stopping experiments
- Save and load previously defined experiment configurations
- Monitor and record activity
  ◦ Display up to twenty four boxes simultaneously
  ◦ Start and stop test stations independently
- Tag each box by Experiment, Subject, and Group
- Summary data saved in an ASCII and comma-separated values (CSV) file for use with most spreadsheet program

COMPUTER REQUIREMENTS

- Windows 7, 8, or 10 *(32 and 64-bit)*
- One USB 2.0 Port *(for ENV-520USB)*
- CD ROM drive *(for installation media)*