

PATHWAY®

MR-20 Dual Channel
EMG System with
Alpha/Numeric LCD Display
(Part #9710)



Made in the U.S.A.





One Washington Street, Suite 3171
Dover, New Hampshire 03820 U.S.A.
Tel: 1.800.442.2325
Fax: 603.749.0511
theprogrp.com | info@theprogrp.com



CONTACT INFORMATION

The Prometheus Group®

One Washington Street, Suite 3171
Dover, New Hampshire 03820 U.S.A.

Tel: 603-749-0733

Toll Free: 1-800-442-2325

Fax: 603-749-0511

theprogrp.com | info@theprogrp.com

FOR ASSISTANCE, CALL YOUR LOCAL SALES REPRESENTATIVE,
DISTRIBUTOR, OR THE PROMETHEUS GROUP® AT 800.442.2325 IN THE
U.S. AND CANADA
OR +1 (011) 603-749-0733 INTERNATIONAL.

FOR TELEPHONE TECHNICAL SUPPORT CALL 800.272.8492
IN THE U.S. AND CANADA
OR +1 (011) 603-742-6053 INTERNATIONAL.

Copyright © 2013 The Prometheus Group®. All rights reserved.

This document contains confidential and proprietary information that is the property of The Prometheus Group®, Inc. and is protected by the copyright laws of the United States, international copyright treaties, and all other applicable national laws. Any unauthorized use, reproduction or transfer of any information in this document is strictly prohibited. This document contains information regarding technology that is protected under one or more United States patents and other pending United States and foreign patents. The Prometheus Group® logo and combinations thereof, Pathway® and Telesis® are registered trademarks of The Prometheus Group®, Inc., One Washington Street, Suite 3171, Dover, NH 03820. Easytrode™ is a trademark of Multi Bio Sensors Inc. All other brand and product names are used for identification only and are the property of their respective holders. Specifications are subject to change without notice.

Printed in the U.S.A.



52_075bEN





Technical Support:

Tech Support Phone:
1-800-272-8492
Tech Support Email:

Support@theprogrp.com

Fax: 603-749-0511

Our support team is available Monday - Friday, between 8:30 AM - 5:00 PM EST. There is never a charge for Telephone Technical Support.

Dear Valued Customer,

On behalf of The Prometheus Group®, we would like to personally thank you for your recent purchase.

The Prometheus Group® is recognized for providing exceptional products, outstanding customer service, and unparalleled technical support.

Because our goal is to build a long-term partnership with your company, our dedicated team is here to make sure you get the most from your investment.

Feel free to contact our technical support team to answer any questions that you may have concerning the installation or operation of your equipment. Our products are user friendly, and most training and questions can be handled effectively over the phone.

The technical support line may be used as an invaluable tool at your convenience.

We value our relationship and look forward to working with you and your company for years to come.

Respectfully,

The Prometheus Group® Technical Support Team

One Washington Street, Suite 3171, Dover, NH 03820
info@theprogrp.com | theprogrp.com | Phone: 1-800-442-2325 | Fax: 603-749-0511



TABLE OF CONTENTS

NOMENCLATURE.....	7
SERVICE INFORMATION.....	7
INDICATIONS FOR USE.....	8
CONTRAINDICATIONS.....	8
APPLICATIONS.....	8
Cautions.....	8
Warnings and Prohibitions.....	9
Contents of Kit.....	12
CHAPTER 1: PHYSICAL/MECHANICAL OVERVIEW.....	13
Front and Bottom Panels.....	13
Top Panel.....	14
Rear Panel.....	15
Installing & Replacing the Battery.....	16
CONNECTING THE PATHWAY® PREAMPLIFIER CABLES (PART #2583) TO:	
Pathway® Electrodes (Part #6750).....	17
Pathway® Adapter (Part #3660).....	19
Pathway® Intracavity Sensors.....	20
Pathway® Vaginal EMG/Stimulation Sensor (Part #6330).....	20
Pathway® Vaginal/Rectal EMG Sensor (Part #6320).....	20
Pathway® Rectal EMG/Stimulation Sensor (Part #6340).....	22
24" Electrode Lead Wire Set (Part #5328).....	23
Disposable Lead Wire Electrodes (Part #7400).....	25
CHAPTER 2: OPERATION.....	27
Display Modes.....	27
Start-up Display.....	27
Standard Modes.....	29
Goals.....	29
STIM.....	32



Max Display.....	32
Ratio Display Mode.....	34
Special Functions Chart.....	35
Obsolete Functions.....	35
Selecting WORK/REST MODE.....	36
Display Data.....	38
Clear Data.....	40
Response Time.....	41
Lock Mode.....	42
Software Available.....	43
Telesis® Software for the Pathway® MR Series (Sold Separately).....	43
CONNECTING THE PATHWAY® MR-20 TO A COMPUTER.....	45
Recall Mode.....	45
CHAPTER 3: TROUBLESHOOTING.....	46
Erratic Readings.....	46
High Baseline Readings.....	48
Battery Check.....	49
Lock Mode.....	49
Pathway® MR-20 Care and Maintenance.....	50
Storage.....	50
Cleaning.....	51
CHAPTER 4: PATHWAY® MR-20 TECHNICAL SPECIFICATIONS.....	52
To Order Accessories.....	53
Quick Reference Guide.....	54
STANDARD WARRANTY SERVICE AGREEMENT.....	55



NOMENCLATURE

In this Operator's Guide, **NOTES**, **CAUTIONS**, and **WARNINGS** are included, which have the following implications.

NOTE: A procedural emphasis - usually something regarding preparation for a process or a reminder that some bit of information recorded here will be used later for another purpose.



CAUTION: A hazard to a piece of equipment or property – for example, potential for an electrical short, water damage, or some other danger to the equipment but not the operator or patient. Can also be a reference to HIPAA or another medical legal requirement.



WARNING: A hazard to a person - a potential danger to the operator or patient such as electrical shock or some other potential danger.



GENERAL PROHIBITION: To signify a prohibited action.

SERVICE INFORMATION



CAUTION: There are no serviceable parts within this device. The user should not attempt to service the instrument beyond that described in the Pathway® MR-20 Operator's Guide. Refer all other servicing to The Prometheus Group® qualified Technical Support personnel. Please call 1-800-272-8492 in the U.S.A. and Canada, or +1 (011) 603-742-6053 international, or e-mail support@theprogrp.com.



The device should be serviced by The Prometheus Group® qualified Technical Support personnel when:

- Any cable, cord, or plug has been damaged.
- The device does not appear to operate normally or exhibits a marked change in performance.
- The instrument has been dropped, or the casing is damaged.
- Fluid has been spilled on the device, or it has been immersed, and it appears that fluid has entered the housing.



INDICATIONS FOR USE

Surface electromyography is a safe and effective technique for **relaxation training** and muscle **re-education**.

When using internal sensors such as the Pathway® Vaginal EMG Sensor:

EMG biofeedback is a safe and effective technique for the assessment and treatment of pelvic floor dysfunction and monitoring the performance of Kegel exercises. The pelvic floor muscles include the levator ani group as well as the pubococcygeus (PC), iliococcygeus, and coccygeus. These are skeletal muscles which respond to re-education, strengthening, endurance training, and relaxation. Conditions that can be assessed or treated using this technique include **stress incontinence**, **mixed incontinence**, and **urge incontinence**.



CONTRAINDICATIONS

Do not use this device for treatment of incontinence in the presence of: **bladder infection**, **vaginal infection**, or **during pregnancy**.

APPLICATIONS



For **Pelvic Floor** and **Orthopedic** rehabilitation.

CAUTIONS





	<p>Prior to using this device, be sure to read the Pathway® MR-20 Dual Channel EMG System with Alpha/Numeric LCD Display Operator's Guide for installation, maintenance, cleaning, technical data, service, and warranty information.</p>
	<p>Federal law (USA) restricts this device for sale by or on the order of a licensed medical practitioner, licensed by law in the state in which they practice.</p>



CAUTIONS (CONTINUED)










	<p>When using the Pathway® MR-20 device with Telesis® software, be sure that the USB Serial Interface Cable is no longer than 3 meters, as it may affect EMG readings and data transmission.</p>
	<p>Skin irritation may develop beneath or around electrode sites.</p>

WARNINGS & PROHIBITIONS

	<p>This device is NOT intended for use with anesthetic gases mixed with air, oxygen or nitrous oxide. Danger of electrical ignition.</p>
	<p>Be sure to read this operator's manual before using this device.</p>
	<p>Use by improperly trained personnel or non-licensed healthcare professionals may cause damage to the equipment or harm to the patient.</p>
	<p>Use only electrodes and accessories from The Prometheus Group® with the Pathway® MR-20 device. Any other electrodes or accessories may not be compatible with the Pathway® MR-20 device and will void the device warranty.</p>





WARNINGS & PROHIBITIONS (CONTINUED)

	<u>DO NOT</u> immerse any part of this device in any fluid.
	To reduce the risk of electrical shock, <u>DO NOT</u> connect any preamplifier, lead wire, electrode, or any other component to a wall outlet.
	<u>DO NOT</u> leave electrodes attached when device is not in use.
	To reduce the risk of electrical shock, <u>DO NOT</u> open the device housing. Refer all servicing to The Prometheus Group® qualified Technical Support personnel.
	<u>DO NOT</u> prematurely unpack electrodes as prolonged exposure to air may cause the electrode adhesive to dry out.
	<u>DO NOT</u> use electrodes or other consumables with an expired shelf-life.
	<u>DO NOT</u> clean and re-use single use consumables such as electrodes.
	<u>DO NOT</u> clean and re-use single patient use sensors on multiple patients. Please refer to the instructions included with each sensor.
	Disassembly of equipment by anyone other than The Prometheus Group® qualified Technical Support personnel will void the device warranty.



WARNINGS & PROHIBITIONS (CONTINUED)

	Use only heavy-duty 9V alkaline batteries with this device, <u>DO NOT</u> use any type of line-powered adapter.
	For the treatment of relaxation training and muscle re-education. <u>DO NOT</u> attempt to use this device simultaneously with stimulation being supplied from an electrical muscle stimulator.



CONTENTS OF KIT

Before using the Pathway® MR-20 for the first time, carefully open the box and confirm that all equipment and accessories listed below are included and agree with the packing list or invoice. If there are questions about the contents, or you wish to order additional supplies, please call Customer Service, Toll-Free: 1-800-442-2325 in the U.S.A. and Canada, +1 (011) 603-742-6053 international, or Fax: 1-603-749-0511. Customer Service Representatives are available between 8:30 AM and 5:00 PM EST.

The Pathway® MR-20 kit contains the following items:

- (1) Pathway® MR-20 Dual Channel EMG System with Alpha/Numeric LCD Display Module providing Two Channels of EMG
- (1) Operator's Guide
- (1) Carry Pouch
- (1) Heavy-Duty 9V Alkaline Battery

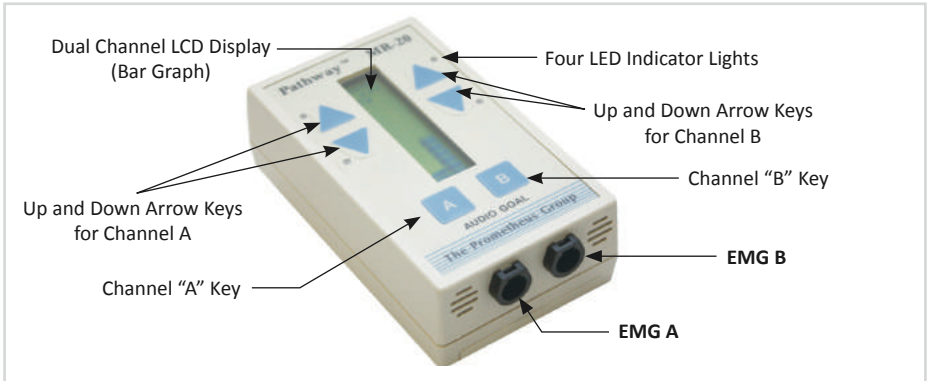
Starter Accessory Package:

- (2) – Pathway® Preamplifier, Available in White or Gray, 5' (Part #2583)
- (1) – Pathway® Electrodes Sample Packet, (Rectangular, 3 Snaps in a Row Style) (Part #6750)



CHAPTER 1: PHYSICAL/MECHANICAL OVERVIEW

Front and Bottom Panels



The device pictured above is the Pathway® MR-20 Dual Channel EMG System with Alpha/Numeric LCD Display. Note EMG input Channels A & B.

EMG A: Is the primary EMG Channel and the input for the Pathway® Preamplifier (Part #2583).

EMG B: Is the secondary or accessory EMG Channel and the input for the Pathway® Preamplifier (Part #2583).

Dual Channel LCD Display (Bar Graph): Displays Channel options, moving bar graphs, goal level, goal direction, and microvolt levels.

Four LED Indicator Lights: To signal goal success.

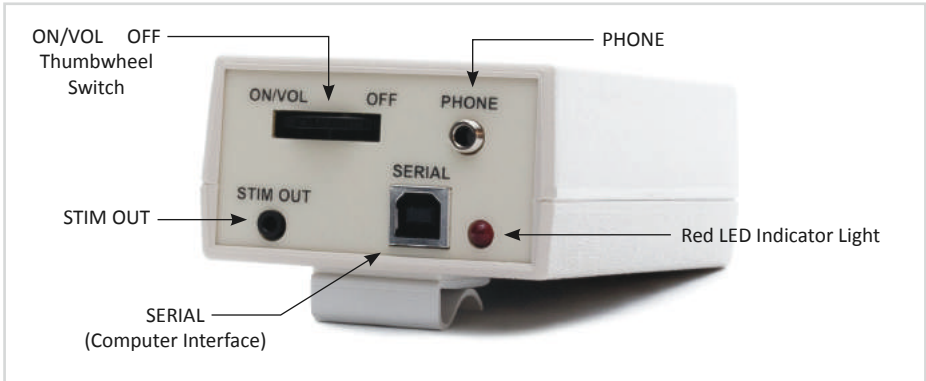
Up and Down Arrow Keys: Two sets of Up and Down Arrow Keys to position the goal arrow on the LCD display for each Channel.

Channel "A" and Channel "B" Keys: Define display type, direction, and control special functions.



CHAPTER 1: PHYSICAL/MECHANICAL OVERVIEW

Top Panel



ON/VOL OFF: This thumbwheel switch turns the power on and off and adjusts the volume. Looking directly at the front panel of the Pathway® MR-20, power the device on by rotating the thumbwheel switch clockwise and power off by rotating the switch counterclockwise.

PHONE: This output allows the user to connect an optional headset with a mono mini plug and will allow the audio feedback to be heard only by the person wearing the headset.

STIM OUT: This output requires a stimulation interface cable (not included), and will accept any functional stimulator that has an accessory or manual input jack for activating EMG controlled stimulation. **A FUNCTIONAL STIMULATOR IS A SEPARATE DEVICE FOR STIMULATION AND IS NOT AVAILABLE FROM THE PROMETHEUS GROUP®.**

NOTE: The Pathway® MR-20 DOES NOT produce electrical stimulation.

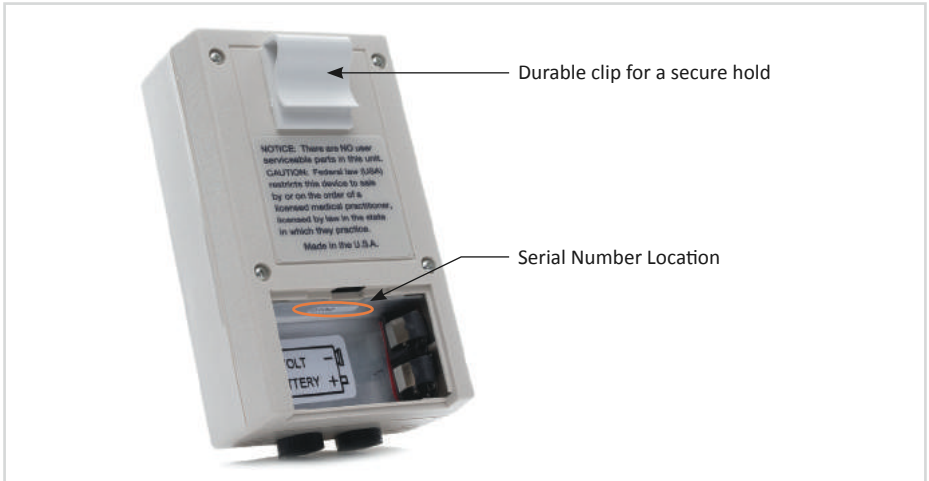
SERIAL (Computer Interface): Interfaces the Pathway® MR-series device to the laptop or desktop computer using the provided USB cable, (if purchased with software).

Red LED Indicator Light: Indicates that a serial connection has been established via the USB cable. It does not indicate power to the device.

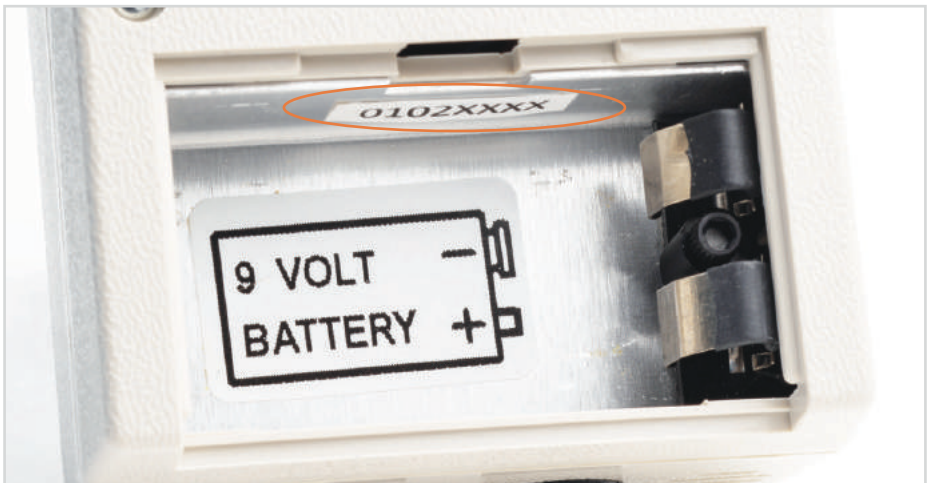


CHAPTER 1: PHYSICAL/MECHANICAL OVERVIEW

Rear Panel



The serial number of the device is located inside the battery compartment. See above diagram for exact location.



The above image is a close up view of the battery compartment with the serial number location highlighted.



CHAPTER 1: PHYSICAL/MECHANICAL OVERVIEW

Installing and Replacing the Battery

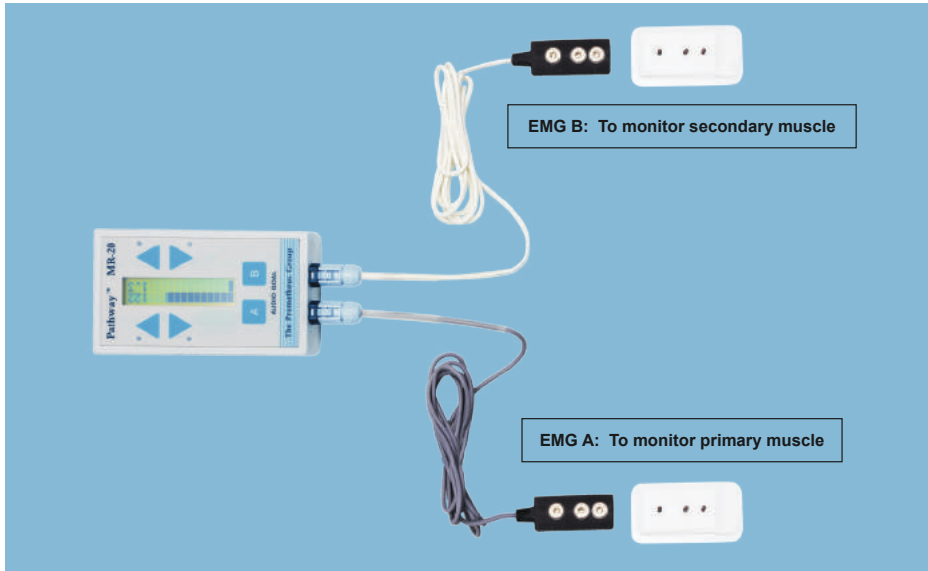




To install or change the battery, remove cover by pressing down on the designated area of the compartment cover and slide it in the direction indicated. Place the new battery in compartment, noting orientation of battery terminals. Replace the cover, snapping firmly into place. Each heavy-duty 9V alkaline battery should last 20-25 hours.



CHAPTER 1: PHYSICAL/MECHANICAL OVERVIEW

Cable Connections for Orthopedic: Connecting the Pathway® Preamplifier(s) (Part #2583) to Pathway® Electrodes (Part #6750)



	
Pathway® Preamplifier, Available in White or Gray, 5' (Part #2583)	Pathway® Electrode (Rectangular, 3 Snaps in a Row Style) (Part #6750)

NOTE: *The Pathway® Preamplifiers (Part #2583) are color coded white and gray. Either preamplifier can be used for EMG A or EMG B.*

To obtain best EMG results, the following steps should be taken:

Connecting the Pathway® Preamplifier(s) to the Pathway® MR-20: First, plug the Pathway® Preamplifier(s) connector ends into the corresponding inputs for EMG A and EMG B on the Pathway® MR-20.



CHAPTER 1: PHYSICAL/MECHANICAL OVERVIEW

Cable Connections for Orthopedic: Connecting the Pathway® Preamplifier(s) (Part #2583) to Pathway® Electrodes (Part #6750)

Connecting Pathway® Electrode(s) to Pathway® Preamplifier(s): The Pathway® Preamplifiers (Part #2583) have three female snap on electrode positions: two labeled **(ACT)** for active electrodes and one **(GND)** for the ground electrode. Verify the male tabs of the Pathway® Electrodes (Part #6750) are snapped into the corresponding female snaps of the Pathway® Preamplifier (Part #2583).

Skin Preparation: Prepare the skin with an alcohol pad to avoid high impedance artifact. Wipe dry with a tissue or cloth.

Pathway® Electrode Preparation: With the Pathway® Electrode (Part #6750) attached to the Pathway® Preamplifier (Part #2583), use the white tab on the Pathway® Electrode (Part #6750), to carefully remove the mylar backing being cautious to keep the hydrogel adhesive strips intact on the surface of the electrode.

Pathway® Electrode Placement: Place the two active **(ACT)** electrodes over the bulk of the muscle. Make sure the length of the Pathway® Electrode (Part #6750) is placed parallel with the muscle fibers as shown in Figure 1 below.

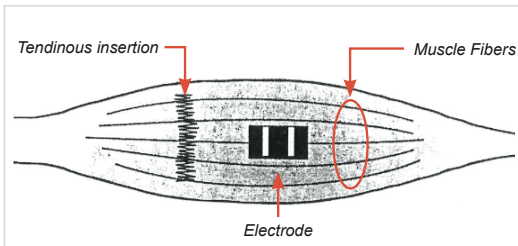


Figure 1. The preferred electrode location is between the motor point (or innervation zone) and the tendinous insertion, with the detection surfaces arranged so that they intersect as many muscle fibers as possible.

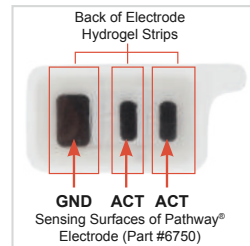


Figure 2. Back of Pathway® Electrode (Part #6750) showing placement of sensing surfaces and adhesive gel strips.

Example: Electrode Placements for VMO / VL Deficiency

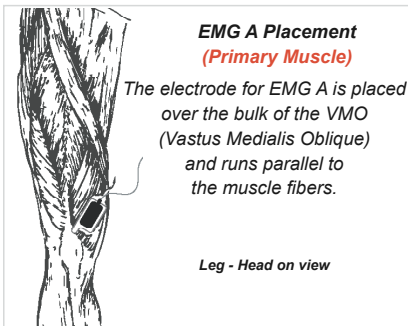


Figure 3.

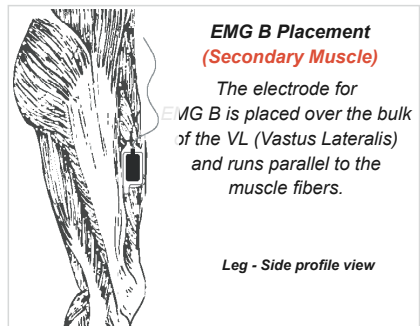
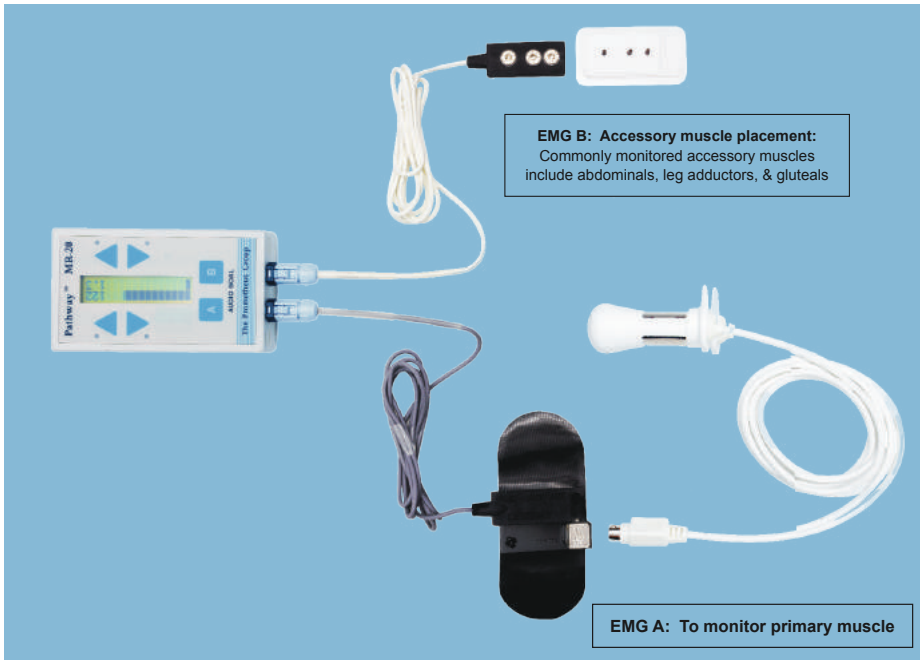


Figure 4.

CHAPTER 1: PHYSICAL/MECHANICAL OVERVIEW

Cable Connections for Internal Pelvic Floor: Connecting the Pathway® Adapter (Part #3660) to the Pathway® Intracavity Sensors (Part #6330, Part #6320, and Part #6340)



Pathway® Adapter (Part #3660)



When connected with the Pathway® Preamplifier, (Part #2583), the Pathway® Adapter (Part #3660) allows the EMG device to accept the intracavity sensors or an electrode lead wire set.

To obtain best EMG results, the following steps should be taken:



CHAPTER 1: PHYSICAL/MECHANICAL OVERVIEW

Connecting the Pathway® Preamplifier to the Pathway® Adapter: Open the Velcro sleeve of the Pathway® Adapter (Part #3660), and match the female snaps on the end of the Pathway® Preamplifier (Part #2583) with the male snaps of the Pathway® Adapter (Part #3660), connect and tightly re-wrap the Velcro sleeve ensuring the Pathway® Preamplifier stays secure.

Pathway® Intracavity Sensors (Part #6330, Part #6320, and Part #6340)

		
Pathway® Vaginal EMG/ Stimulation Sensor (Part #6330)	Pathway® Vaginal/Rectal EMG Sensor (Part #6320)	Pathway® Rectal EMG/ Stimulation Sensor (Part #6340)

Connecting the Pathway® Sensor(s) to the Pathway® Adapter: To connect the sensor(s) into the Pathway® Adapter (Part #3660), take the sensor plug end (male six-pin mini din connector) with flat side up, then take the Pathway® Adapter (Part #3660), noting the notched top of the connector input (also flat side up), push sensor plug end straight into the Pathway® Adapter connector input to make the male/female connection. **Push firmly and do not twist.**

Lubrication: Refer to the “*Directions for Use*” section of the Pathway® Sensor packaging product insert for lubrication instructions.

Pathway® Sensor Placement (Part #6330 & Part #6320): For proper orientation of the sensing surfaces, insert the Pathway® Vaginal EMG/Stimulation Sensor (Part #6330) or the Pathway® Vaginal/Rectal EMG Sensor (Part #6320) into the vagina so the sensor base rests up against the labia and the tab is pointed up toward the pubis. (See Figure 5 below).

Pathway® Intracavity Sensor Orientation

Female Vaginal Sensor Placement

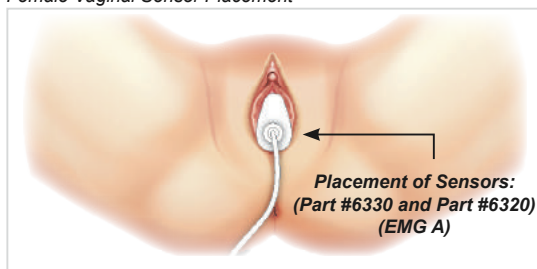


Figure 5.

For Pathway® Sensor (Part #6330)

The two active (**ACT**) sensing surfaces are located at 10 and 2 o'clock.
The single ground (**GND**) sensing surface is located at 6 o'clock.

For Pathway® Sensor (Part #6320)

The two active (**ACT**) sensing surfaces are located at 9 and 3 o'clock.
The single ground (**GND**) sensing surface is located at 12 o'clock.



Pathway® Intracavity Sensors (Part #6320)

Pathway® Vaginal/Rectal EMG Sensor (Part #6320) Rectal Placement: For proper orientation of the sensing surfaces, insert the Pathway® Vaginal/Rectal EMG Sensor (Part #6320) into the rectum so the sensor base rests up against the anus and the tab is pointed up toward the pubis. (See *Figures 6 and 6A below*).

Pathway® Intracavity Sensor Orientation

For Pathway® Sensor (Part #6320)

The two active (**ACT**) sensing surfaces are located at 9 and 3 o'clock.

The single ground (**GND**) sensing surface is located at 12 o'clock.

Female Rectal Sensor Placement

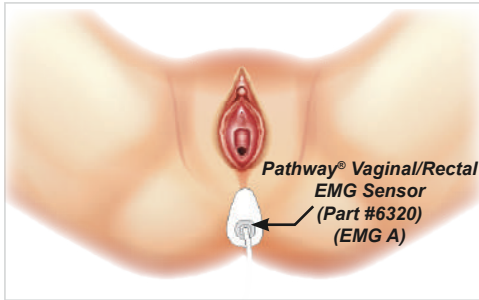


Figure 6

Male Rectal Sensor Placement

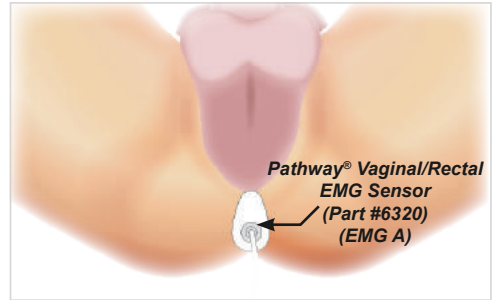


Figure 6A



Pathway® Intracavity Sensors (Part #6340)

Pathway® Rectal EMG/Stimulation Sensor (Part #6340) Placement: For proper orientation of the sensing surfaces, insert the Pathway® Rectal EMG/Stimulation Sensor (Part #6340) into the rectum so the sensor base rests up against the anus and the longer tab labeled “FRONT” is pointed up toward the pubis. (See Figures 7 and 7A below).

Pathway® Intracavity Sensor Orientation

For Pathway® Sensor (Part #6340)

The two active (**ACT**) sensing surfaces are located at 10 and 2 o'clock.

The single ground (**GND**) sensing surface is located at 6 o'clock.

Female Rectal Sensor Placement

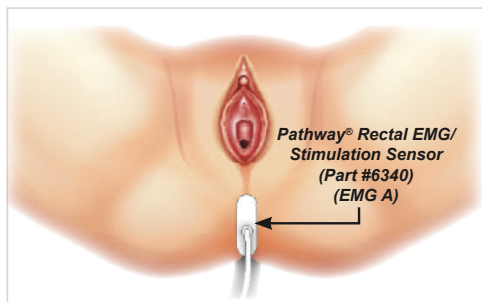


Figure 7

Male Rectal Sensor Placement

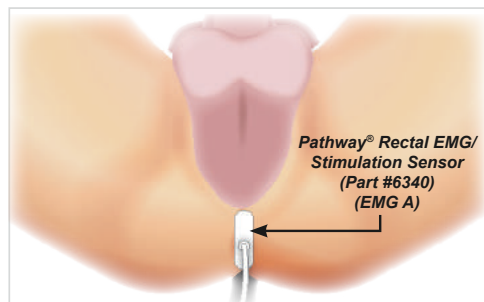


Figure 7A

NOTE: For complete information regarding the Pathway® Intracavity Sensors, refer to the product packaging insert which includes:

- Cautions
- Cleaning
- Directions for Use
- Indications for Use
- Contraindications for Use
- Warranty Information

Additional cleaning instructions can also be found on page 51 at the back of this Operator's Guide.

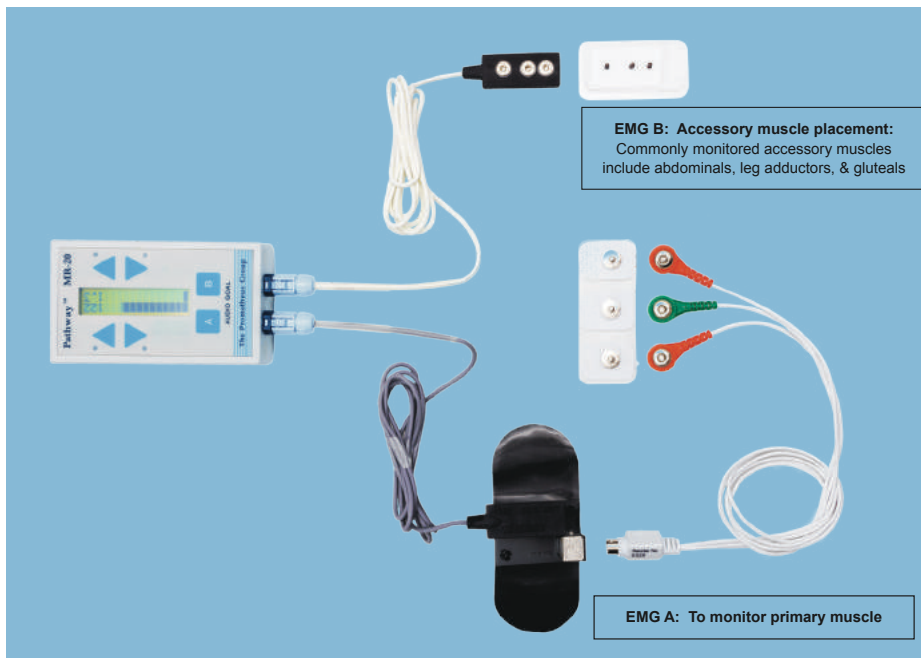
NOTE: ALL PROMETHEUS GROUP® SENSORS ARE RESTRICTED TO SINGLE PATIENT USE ONLY.





CHAPTER 1: PHYSICAL/MECHANICAL OVERVIEW

Cable Connections for External Pelvic Floor:

Connecting the Pathway® Adapter (Part #3660) to the 24" Electrode Lead Wire Set (Part #5328), and Easytrode™ Pregelled Electrodes (Part #6801)



	
<p>24" Electrode Lead Wire Set Use with Easytrode™ Pregelled Electrodes (Part #5328)</p>	<p>Easytrode™ Pregelled Electrodes, Bag of 150 (Square Individual Snap Style) Use with 24" Electrode Lead Wire Set or 6" Electrode™ Lead Wire Set (Part #6801)</p>

Note: The 24" Electrode Lead Wire Set (Part #5328) consists of two red (active) lead wires and one green (ground) lead wire.

To obtain best EMG results, the following steps should be taken:

Connecting 24" Electrode Lead Wire Set to Pathway® Adapter: To connect the 24" Electrode Lead Wire Set (Part #5328) into the Pathway® Adapter (Part #3660),



CHAPTER 1: PHYSICAL/MECHANICAL OVERVIEW

External Pelvic Floor Placement of Easytrode™ Pregelged Electrodes (Part #6801)

take the 24" Electrode Lead Wire Set plug end (male six-pin mini din connector), with flat side up, then take the Pathway® Adapter (Part #3660), noting the notched top of the connector input, (also flat side up), push 24" Electrode Lead Wire Set plug end straight into the Pathway® Adapter connector input to make the male/female connection. **Push firmly and do not twist.**

Skin Preparation: Gently wipe down the area around the perineum using a moist, disposable, towelette and allow area to dry completely.

Connecting the 24" Electrode Lead Wire Set to Easytrode™ Pregelged Electrodes

Electrodes: Take the 24" Electrode Lead Wire Set (Part #5328), and snap the two red (active) lead wires and one green (ground) lead wire to the Easytrode™ Pregelged Electrodes (Part #6801).

Easytrode™ Pregelged Electrode Preparation: With the 24" Electrode Lead Wire Set (Part #5328) attached to the Pathway® Adapter (Part #3660), gently peel off the Easytrode™ Pregelged Electrodes (Part #6801) to carefully remove the mylar backing, being cautious to keep the hydrogel adhesive intact on the surface of the electrodes. Remove the Easytrode™ Pregelged Electrodes (Part #6801) individually.

Surface Electrodes (External Pelvic Floor) Placement

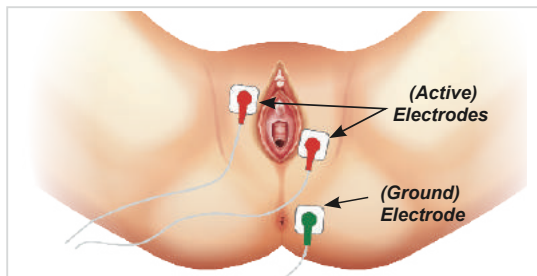


Figure 8.

24" Electrode Lead Wire Set Used with Easytrode™ Pregelged Electrodes (Part #6801)

The two active (ACT) surface electrodes are placed at 10 and 4 o'clock.

The single ground (GND) surface electrode is placed on the gluteal muscles.

NOTE: For complete information regarding the 24" Electrode Lead Wire Set (Part #5328), refer to the product packaging label which includes:

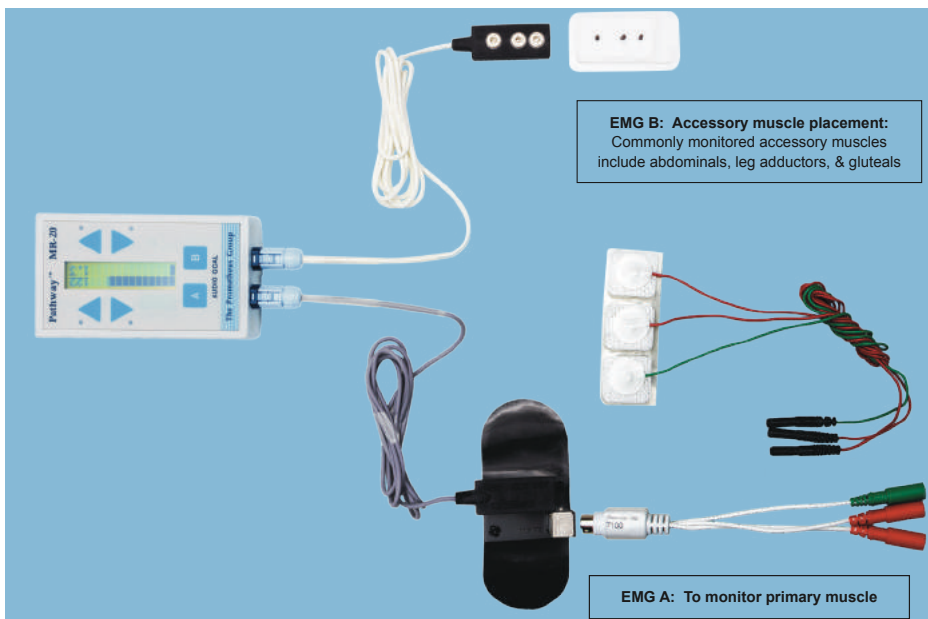
- Cautions
- Cleaning
- Directions for Use



Additional cleaning instructions can also be found on page 51 at the back of this Operator's Guide.



CHAPTER 1: PHYSICAL/MECHANICAL OVERVIEW

Cable Connections for External Pelvic Floor: Connecting the Pathway® Adapter (Part #3660) to the Adapter for Disposable Lead Wire Electrodes (Part #7100) to the Disposable Lead Wire Electrodes (Part #7400)



	
<p>Adapter for 7400 Disposable Lead Wire Electrodes (Part #7100)</p>	<p>Disposable Lead Wire Electrodes, Bag of 75 / 25 Patients, Square Electrode, 24" Lead Wire, .060 Female Pin (Part #7400)</p>

To obtain best EMG results the following steps should be taken:

Connecting the Adapter for Disposable Lead Wire Electrodes to the Pathway® Adapter: Take the Adapter for Disposable Lead Wire Electrodes (Part #7100) plug end (male six-pin mini din connector), with flat side up, then take the Pathway® Adapter (Part #3660), noting the notched top of the connector input, (also flat side up), push Adapter for Disposable Lead Wire Electrode plug end straight into the Pathway® Adapter connector input to make the male/female connection. **Push firmly and do not twist.**



CHAPTER 1: PHYSICAL/MECHANICAL OVERVIEW

Surface Perineal Placement of Disposable Lead Wire Electrodes (Part #7400)

Connecting Disposable Lead Wire Electrodes to the Adapter for Disposable Lead Wire Electrodes: Insert the Disposable Lead Wire Electrodes (Part #7400) into the Adapter for Disposable Lead Wire Electrodes (Part #7100) ensuring the two red (active) lead wires and the single green (ground) lead wire are inserted completely and match the color on the Adapter for Disposable Lead Wire Electrodes (Part #7100).

Skin Preparation: Gently wipe down the area around the perineum using a moist, disposable, towelette and allow area to dry completely.

Disposable Lead Wire Electrode Preparation: With the Disposable Lead Wire Electrodes (Part #7400) attached to the Adapter for Disposable Lead Wire Electrodes (Part #7100) carefully remove the mylar backing being cautious to keep the hydrogel adhesive intact on the back of the electrodes. Remove the Disposable Lead Wire Electrodes (Part #7400) individually.

Surface Electrodes (External Pelvic Floor) Placement

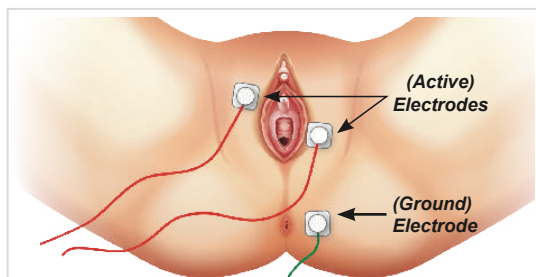


Figure 9.

Disposable Lead Wire Electrodes (Part #7400)

The two active (**ACT**) surface electrodes are placed at 10 and 4 o'clock.

The single ground (**GND**) surface electrode is placed on the gluteal muscles.

NOTE: For complete information regarding the Adapter for Disposable Lead Wire Electrodes (Part #7100), refer to the product packaging insert which includes:

- Cautions
- Cleaning
- Directions for Use

Additional cleaning instructions can also be found on page 51 at the back of this Operator's Guide.



Display Modes

To Start Up the Display

- Turn the device **ON** by rotating the thumbwheel switch clockwise. The thumbwheel switch also adjusts the volume.
- The device will display **SELF TEST** upon power up.
- After the **SELF TEST** has been completed, 4 LEDs will be activated in sequence, the device will sound a tone which can be used to adjust the volume level.



On the display:

A. **VER:** Refers to the current version of firmware. **Please note, these numbers may be different on your device.**

B. **9.4V** refers to the voltage level of the heavy-duty 9V alkaline battery. (These numbers may be different on your device).

C. **MODE:** The Pathway® MR-20 has two basic modes: **UNLOCKED** and **LOCKED**. In the **UNLOCKED MODE**, goal type, goal direction, and goal position can be changed by the user. In the **LOCKED MODE**, these parameters cannot be changed.



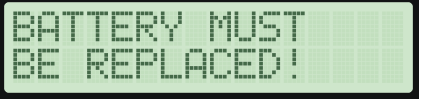
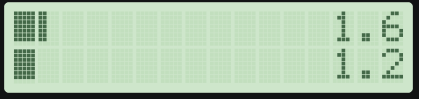
The device is shipped in the **UNLOCKED MODE**. See page 42 for further instructions on locking and unlocking the device.

The **LOCKED MODE** is used to perform the preset training protocol. In this case, the device would display -- **MODE: LOCKED**.



CHAPTER 2: OPERATION

Display Modes

<p>After a few seconds, a screen showing the CURRENT SESSION IS # will appear. In this example, the current session is 1.</p>	
<p>Following this screen, there may be a battery voltage warning screen. BATTERY LOW! REPLACE SOON! This warning indicates you can complete the current session and then replace the battery prior to additional use.</p>	
<p>The message BATTERY MUST BE REPLACED! This warning indicates that the voltage is too low for use and the battery needs to be replaced immediately.</p>	
<p>Next, the device will then go into CONTINUOUS MODE (which is the default mode).</p> <p>The numeric display indicates the microvolt level for EMG A and EMG B and the LCD Bar Graph represents the visual display.</p>	



CHAPTER 2: OPERATION

Standard Modes


Standard Modes Menu			
Press the "A" Key:		Press the "B" Key:	
1x	_____	No Goal Set	_____
2x	_____	Above Tone	_____
3x	_____	Below Tone	_____
4x	_____	Stim Above Tone	_____
5x	_____	Stim Below Tone	_____
6x	_____	Max Display	_____
7x	_____	Ratio A/B B Channel Off	_____

The Channel A key is used to set the feedback mode for EMG A and the Channel B key for EMG B. Since the EMG A is the primary Channel, set up the mode for EMG A first, then EMG B. Pressing the Channel A key once will display **NO GOAL SET**. To change the mode, continue to press the Channel A key or Channel B key until the desired mode is displayed.

Goals

Setting goals can help assist the timing and control of the muscles by giving visual and auditory feedback when a goal is reached. Goals can be increased or decreased based on the patient's performance.

Goals can be set on EMG A or EMG B.

<p>Press the A or B key 1x</p> <p>NO GOAL SET</p>	
--	---

NO GOAL SET (CONTINUOUS MODE)



CHAPTER 2: OPERATION

Goals (Continued)

Press the A or B key 2x-

ABOVE TONE



A = ABOVE TONE
B = ABOVE TONE

ABOVE TONE: Is used to provide the patient with auditory and visual goals for contracting the muscle.

Press the A or B key 3x-

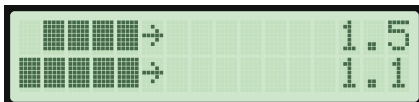
BELOW TONE



A = BELOW TONE
B = BELOW TONE

BELOW TONE: Is used to provide the patient with auditory and visual goals for inhibiting or relaxing the muscle.

This image shows the arrows for the
ABOVE TONE MODE



■ ■ ■ ■ → 1.5
■ ■ ■ ■ → 1.1

The arrow serves a dual function. The position of the tip of the arrow on the display represents an absolute microvolt goal. The default goal is $10\mu\text{V}$. The direction of the arrow shows the goal direction. If **ABOVE TONE** is selected, an arrow pointing up will appear, prompting a contraction goal. If **BELOW TONE** is selected, an arrow pointing down will appear, prompting a relaxation goal.

The length of the LCD Bar Graph shows either the change in level needed to reach the goal, or if the goal has been reached, the amount the goal has been exceeded.


If a goal is selected for either EMG A or EMG B and the EMG activity meets or exceeds the goal, an audible tone will be heard. If goals are selected for **BOTH** EMG A and EMG B and the EMG activity meets or exceeds the goals for **BOTH** Channels simultaneously, then an audible tone will be heard (matrixed).



CHAPTER 2: OPERATION

Goals (Continued)

Changing the Goal Value From the Default of 10 μV

Use the Up and Down Arrow Keys to change the goal value for EMG A and EMG B. 

Single key presses will incrementally increase or decrease the goal value.

Use the Up Arrow Key to increase the goal value, and the Down Arrow Key to decrease the goal value. Press and hold down the Up or Down Arrow Keys for larger changes.

Pressing the Up or Down Arrow Keys once will momentarily show the current setting on the numeric display rather than the current EMG activity. Goals above 10 μV are changed in increments of 1 μV , goals below 10 μV are changed in increments of 0.1 μV . Both the digital display and the position of the goal arrow will change to reflect the current goal. When the desired goal is displayed, release the Up or Down Arrow Key. The Pathway® MR-20 will return to the active display in a few seconds.



CHAPTER 2: OPERATION

Stim

NOTE: The Pathway® MR-20 DOES NOT produce electrical stimulation.

Working with a Functional Stimulator

In order to use the Pathway® MR-20 to control a functional stimulator, it must be configured properly, and the device must be connected via the stim interface cable. **Stim menu options are not operational without connecting to a functional stimulator device.**

Press the A or B key 4x-

ABOVE STIM



A = ABOVE STIM
B = ABOVE STIM

Press the A or B key 5x-

BELOW STIM



A = BELOW STIM
B = BELOW STIM

Max Display

Press the A or B key 6x-

MAX DISPLAY



A = MAX DISPLAY
B = MAX DISPLAY

In the **MAX DISPLAY MODE**, the top of the LCD Bar Graph will display the current level of EMG activity and a marker will represent the highest microvolt reading for that Channel. Any time that marker is exceeded, it will adjust to the new maximum level, and the numeric value will display the new maximum level. The maximum display can be reset by either pressing the Up or Down Arrow Keys for the selected Channel. This will reset the numeric display and the marker.





CHAPTER 2: OPERATION

Max Display (Continued)

The **MAX DISPLAY MODE** can be used for either or both Channels, and either Channel may be set to the **MAX DISPLAY MODE** while the other Channel is set to any of the other functions.

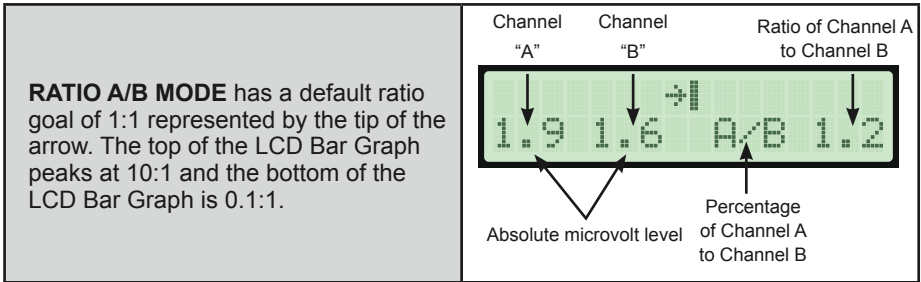
Ratio Display Mode

<p>Press the A key 7x-</p> <p>RATIO A/B</p>	
<p>Press the B key 7x = CHANNEL OFF (Select this mode if only EMG A is to be utilized (single Channel mode).</p>	



CHAPTER 2: OPERATION

Ratio Display Mode



RATIO A/B MODE: In the example above, the 1:1 ratio has been exceeded and the LCD Bar Graph is above the tip of the arrow resulting in an audible tone. 1.9 and 1.6 represents the absolute microvolt level of Channel A and Channel B respectively. A/B and 1.2 represents the percentage value of EMG A to EMG B.

To change the ratio goal, press the Up Arrow Key for Channel A to increase, to decrease, press the Down Arrow Key for Channel A. When adjusting the ratio goal, A/B will change to GL=. Use single key presses to increase or decrease the ratio goal by 0.1 μ V. Hold the key down for larger changes. Release the key when the desired ratio goal value is displayed in the GL=. The position of the goal arrow will change to reflect the new ratio goal. The Pathway[®] MR-20 will return to the newly established ratio in a few seconds.

The numeric display shows the individual EMG A and EMG B microvolt levels as well as the ratio of EMG A to EMG B. This function generates a very clear comparison of the activation of one muscle to another. It may be used in bilateral training, or to train activation of one muscle while inhibiting an opposing muscle.

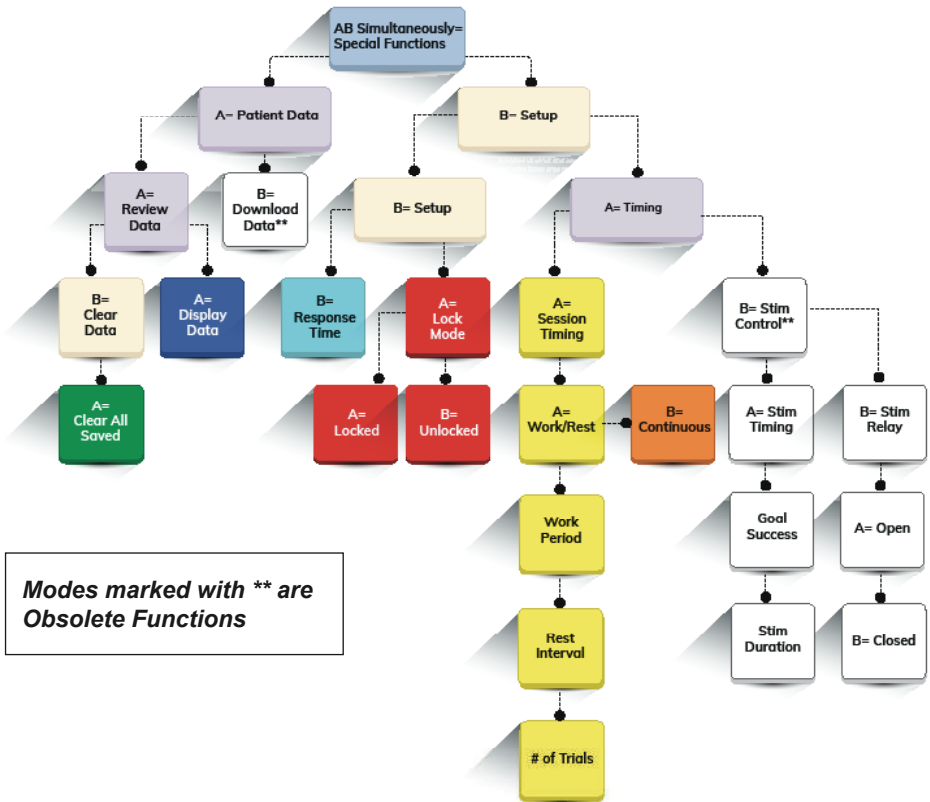
In **RATIO A/B MODE**, pressing either of the B arrow keys temporarily halts the operation of the device, freezing the display. This allows the values at any point in time to be easily recorded. Press either of the B arrow keys to resume operation.



CHAPTER 2: OPERATION

Special Functions Chart

To enable special functions, press the A & B keys simultaneously and hold for a few seconds.



*Modes marked with ** are Obsolete Functions*

Obsolete Functions

Download Data: This was used with a legacy software that is no longer supported. This function will not work with the current Pathway® MR-20.

Stim Control: **STIM CONTROL** can only be used with a functional stimulator device. **THE PATHWAY® MR-20 DOES NOT PRODUCE STIMULATION.** For details on the operation of the **STIM FUNCTION**, see page 32 for details, or contact The Prometheus Group® at 1-800-272-8492.

NOTE: Special functions time out after 5 seconds.



CHAPTER 2: OPERATION

Special Functions

NOTE: If a goal is desired, it **MUST** be set before the Work/Rest Mode.

Selecting the WORK/REST Mode

Press the Channel “A” and the Channel “B” keys simultaneously for approximately 3 seconds.





A = Patient Data **B** = Setup

B SETUP	<pre>A = PATIENT DATA B = SETUP</pre>
A TIMING	<pre>A = TIMING B = SETUP</pre>
A SESSION TIMING	<pre>A=SESSION TIMING B=STIM CONTROL</pre>
A WORK/REST	<pre>A = WORK/REST B = CONTINUOUS<-</pre>
Use either set of Up and Down Arrow Keys to adjust the WORK/REST between 3 and 180 seconds.	<pre>WORK PERIOD: 10 SECONDS</pre>




CHAPTER 2: OPERATION

Selecting the WORK/REST MODE (Continued)

Use the Up and Down Arrow Keys to adjust between 0 and 180 seconds.	
Use the Up and Down Arrow Keys to set the number of trials (combination of work and rest intervals) between 1 to 20 trials.	

The device will return to the active screen and **IMMEDIATELY** start a session prompting the patient to work and rest for (the set number of seconds). During the **WORK/REST MODE**, a **WORK INTERVAL** is signaled by three short beeps and the **REST INTERVAL** is signaled by one long beep. If an error is made when configuring the **WORK/REST INTERVALS**, simply wait for the device to enter the active screen and repeat the **WORK/REST MODE** key sequence.

When the session is complete, END OF SESSION will be displayed.	
--	---

In the **WORK/REST MODE** the session can also be completed by turning the device off before the number of completed trials.



CHAPTER 2: OPERATION

Display Data

Press the “A” and the “B” keys at the same time or approximately 3 seconds.



<div style="border: 1px solid black; padding: 2px; display: inline-block;">A</div> PATIENT DATA	
<div style="border: 1px solid black; padding: 2px; display: inline-block;">A</div> REVIEW DATA	
<div style="border: 1px solid black; padding: 2px; display: inline-block;">A</div> DISPLAY DATA	
<p>Press the Up or Down Arrow Keys to show the SESSION #.</p>	
<p>Press the Channel A and Channel B Keys to display individual Channel values.</p>	
<p>Current Session # will always be displayed. TIME OF SESSION will be displayed if Continuous.</p> <p>Average EMG will be displayed. (A= μV) # OF TRIALS is displayed if WORK/REST MODE is used;</p> <p>% SUCCESS will be displayed (if a goal was set) NO GOAL (if no goal was set).</p>	



Display Data

Patient Data Menu

The Pathway® MR-20 is capable of saving up to 32 training sessions in the memory storage area. This memory will be preserved **IF THE BATTERY IS DISCONNECTED**.

In the **CONTINUOUS MODE**, the Pathway® MR-20 will store a training session if the device is on for more than one minute, signified by an audio chirp, or in the **WORK/REST MODE** when the first **WORK/REST** interval is completed.

In order to review all patient stored data, the Channel A Key (**A=PATIENT DATA**), must be selected prior to one minute in the **CONTINUOUS MODE**. After one minute, only the current session will be displayed.

If no key is pressed for a few seconds, the Pathway® MR-20 will return to the active EMG display and continue with the current session.

NOTE: *When turning on the Pathway® MR-20, the current session will advance to the next session.*

No Stored Data

If there are currently no training sessions stored. (**NO DATA HAS BEEN SAVED!**) Will be displayed. The Pathway® MR-20 will return to the active EMG display in a few seconds.



NO DATA HAS
BEEN SAVED!



CHAPTER 2: OPERATION

Clear Data

NOTE: Individual sessions cannot be erased.

NOTE: If sessions are cleared, they cannot be recovered.

Press the “A” and the “B” keys at the same time or approximately 3 seconds.



<div style="border: 1px solid black; display: inline-block; padding: 2px 5px;">A</div> PATIENT DATA	<div style="border: 2px solid black; padding: 5px; background-color: #e0ffe0;"> A = PATIENT DATA B = SETUP </div>
<div style="border: 1px solid black; display: inline-block; padding: 2px 5px;">A</div> REVIEW DATA	<div style="border: 2px solid black; padding: 5px; background-color: #e0ffe0;"> A = REVIEW DATA B = DOWNLOAD </div>
<div style="border: 1px solid black; display: inline-block; padding: 2px 5px;">B</div> CLEAR DATA	<div style="border: 2px solid black; padding: 5px; background-color: #e0ffe0;"> A = DISPLAY DATA B = CLEAR DATA </div>
<div style="border: 1px solid black; display: inline-block; padding: 2px 5px;">A</div> CLEAR ALL	<div style="border: 2px solid black; padding: 5px; background-color: #e0ffe0;"> A = CLEAR ALL SAVED DATA </div>
<p>This screen will appear taking the position of the CURRENT SESSION #.</p> <p>The device will store 32 sessions of non-volatile memory.</p> <p>When device is turned on, it advances to the next session.</p> <p>If you have exceeded 32 training sessions in memory total, and MEMORY FULL! NOT SAVING DATA! appears, this does not prohibit the user from utilizing the device, only for storing data for that session.</p>	<div style="border: 2px solid black; padding: 5px; background-color: #e0ffe0;"> MEMORY FULL! NOT SAVING DATA! </div>



CHAPTER 2: OPERATION

Response Time

Press the Channel “A” and the Channel “B” keys at the same time or approximately 3 seconds.



RESPONSE TIME is an algorithm used by the Pathway® MR-20 to calculate the response of the EMG signal. Rapid movements may require a faster response time to show change on the LCD Bar Graph. Slow or more sustained contractions may require a smoothed or slower response time. The **RESPONSE TIME** may be set from 1 - 15 where 1 is the fastest and 15 is the slowest. The default **RESPONSE TIME** is 7.

B SETUP	A = PATIENT DATA B = SETUP
B SETUP	A = TIMING B = SETUP
B RESPONSE TIME	A=LOCK MODE B=RESPONSE TIME
Use the arrows up or down to increase or decrease the RESPONSE TIME .	RESPONSE TIME: 7 1-15 (1=FASTEST)



CHAPTER 2: OPERATION

Lock Mode

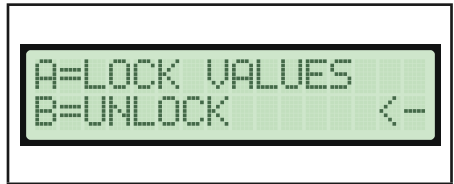
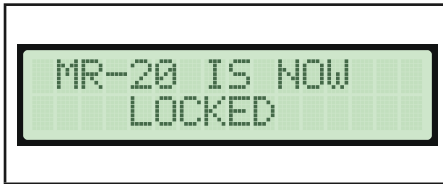
Press the Channel “A” and the Channel “B” keys at the same time
or approximately 3 seconds.



Lock the Pathway® MR-20

Unlock the Pathway® MR-20

B SETUP	A = PATIENT DATA B = SETUP	B SETUP
B SETUP	A = TIMING B = SETUP	B SETUP
A LOCK MODE	A=LOCK MODE B=RESPONSE TIME	A LOCK MODE
A LOCK VALUES	A=LOCK VALUES B=UNLOCK <-	B UNLOCK



Note that the start-up screen now reads **MODE: LOCKED** and the keys are not active. In this mode, the patient cannot change the goal parameters established by the therapist. Notice that when device is **LOCKED**, the digital microvolt values are no longer displayed. In addition, the one minute session chirp is not made. The device may be **UNLOCKED** in a similar manner by selecting **B = UNLOCK**. The device will then return to the active screen.

NOTE: When the Pathway® MR-20 is LOCKED, all parameters CANNOT be changed.



CHAPTER 2: OPERATION

SOFTWARE AVAILABLE

Telesis® Software for the Pathway® MR Series (Sold Separately)

Telesis® Software Complements the PATHWAY® MR Series by Enhancing Assessment, Performance, and Providing Documentation

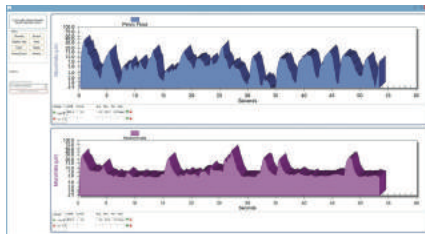
Multiple Display Options - Extensive library of treatment displays to include animated video clips, color graphics, and the ability to modify application protocols.

Premier Privacy & Compliance - Password protection, multi-level access, patient identifiers and audit management included.

File Path Transfer of Records to EMR - Automatic and manual database backups, database encryption, and file paths for document transfer.

Program Generated Documents - Produce comprehensive chart note and narrative format reports.

Please refer to the Telesis® Software for the Pathway® MR Series Operator's Manual for software installation instructions and operation.



3D Area Scrolls



Blooming Rose



CHAPTER 2: OPERATION

Minimum Computer Requirements for Telesis® Software

Windows 10 Professional

64 Bit Operating System

Intel i5 Processor or Higher CPU

RAM: 8 GB RAM

500 GB Minimum Available Hard Drive Space (To allow for database expansion)

NOTE: Software must be purchased in order to use the Pathway® MR-20 device with a computer. A USB cable will be included with software purchase.



CHAPTER 2: OPERATION

Connecting the Pathway® MR-20 to a Computer

Connect the Pathway® MR-20 to the computer using the USB cable provided with software purchase. Connect the USB cable into the port on the top of the device labeled “**SERIAL**”. Connect the other end of the USB cable into the computer utilizing an available USB port. The device is now ready for use with the computer after the software has been installed.

NOTE: *Ensure proper orientation when inserting the USB cable into both the Pathway® MR-20 device and the computer. Incorrect orientation can damage both the device and computer.*

Recall Mode

The Pathway® MR-20 offers an alternative **START-UP MODE; RECALL MODE**. To program **RECALL MODE**, turn on the device while holding down the Channel “B” Key.

Normally, when the Pathway® MR-20 is turned on (in the unlocked mode) it reverts to the **CONTINUOUS MODE**. The **RECALL MODE** recalls the previously programmed settings prior to the conclusion of the last session.



CHAPTER 3: TROUBLESHOOTING

Erratic Readings

“My Pathway® MR-20 is giving me unstable readings and I don’t know what’s wrong?”

1. **Test the Pathway® Preamp (Part #2583)**, as it may be worn:
 - A. Perform a preamp test to verify that both cables are functioning properly. This is done by simply testing one cable at a time using a Pathway® Electrode (Part #6750) placed on the forearm.
 - B. With arm laying on desk palm side up, place one Pathway® Electrode (Part #6750) in the center of the forearm parallel to the muscle fiber of the arm.
 - C. Connect one Pathway® Preamp (Part #2583) cable to the Pathway® Electrode (Part #6750) and the other end to into the EMG A input jack. Leave EMG B open (no cable connected).
 - D. Hang arm loosely at side and observe what the **(REST)** reading is for EMG A.
 - E. Contract muscle and observe what the **(WORK)** reading is for EMG A.
 - F. With arm hanging loosely at the side and the Pathway® Preamp (Part #2583), plugged into the device, gently wiggle the area where the heat shrink tubing (plastic straw), meets the cable as it comes out of the device to see if readings are influenced.



Erratic Readings (Continued)

- G. Repeat steps A through H using the second Pathway® Preamplifier (Part #2583) and EMG B.
- H. If either Pathway® Preamplifier (Part #2583) shows signs of instability while you are performing the “stress test” then the preamplifier cable fails and would require replacement.

2. Make sure the Pathway® Electrode (Part #6750) is snapped properly into the Pathway® Preamplifier (Part #2583) and is firmly attached to the forearm.

If the cable passes the first test, and you still have high or unstable readings, try a new electrode. This may solve the problem.

3. Test the Pathway® Adapter (Part #3660):

If the Pathway® Preamplifier (Part #2583) passes the previous tests, and readings are still erratic, try replacing the Pathway® Adapter (Part #3660). Reconnect device, accessories and consumables, and if the readings continue to be unstable, it could be the adapter.

4. Test the Sensor (Pathway® Intracavity Sensors Part #6330, Part #6340, and Part #6320)

If the Pathway® Preamplifier (Part #2583) passes the previous tests, and readings are still erratic, try replacing the Pathway® Intracavity Sensor(s) (Part #6330, Part #6340, or Part #6320). Reconnect device, accessories and consumables, and if the readings continue to be unstable, then the sensor was causing the issue.

For further assistance, please contact The Prometheus Group®
at 1-800-272-8495.



CHAPTER 3: TROUBLESHOOTING

High Baseline Readings

“My patient is getting higher than normal readings at rest.”

1. If utilizing a powered exam table, disconnect power once patient is situated. Check rest readings.
2. If using a laptop with a good battery, disconnect the laptop power supply from both the wall and the computer. Check rest readings. If rest readings are acceptable when laptop power supply is disconnected, there is a possibility that the laptop power supply and line cord may be radiating electrical noise.
3. Check surroundings for other devices connected to power (wall outlets and/or power strips). Disconnect one device at a time and observe rest readings as these could radiate electrical noise.
4. Lighting or plugged in lamps may also radiate electrical noise.
5. Keep cell phones and other electronics away from the device, as these can elevate the baseline readings.



CHAPTER 3: TROUBLESHOOTING

Battery Check

“My Pathway® MR-20 won’t turn on or keeps shutting off.”

1. Disconnect the Pathway® Preamp(s) (Part #2583) and power the device off and then on again. If the device powers on, then it may be the Pathway® Preamp(s) (Part #2583).
2. To test the battery voltage, turn the device off and then on again. The first screen that appears on the Pathway® MR-20 has the voltage level (**see page 27**). If the level reads below 8.0, then change the battery.
3. If the device does not turn on at all, try changing the battery first. Make sure the battery is oriented in the compartment, and properly inserted.

Lock Mode

“The keys on the Pathway® MR-20 don’t work.”

The unit could be locked. **See page 42** to learn how to unlock your device.



CHAPTER 3: TROUBLESHOOTING

PATHWAY® MR-20 CARE AND MAINTENANCE

STORAGE

1. Store your Pathway® EMG device in the carry pouch provided to keep the device safe, dry, and clean.
2. Detach and discard electrodes from the Pathway® Preamplifier (Part #2583) when not in use. Not detaching electrodes after use can damage the Pathway® Preamplifier (Part #2583).
3. Unplug and detach all Pathway® Preamplifier cables from the Pathway® MR-20 device when not in use. Cables can be unplugged from the Pathway® MR-20 by gently pushing on the plastic connector thumb tab and gently pulling cable out of device.
4. To extend cable life, it is recommended to:
 - A. Hang all cables by plastic connector
 - B. Loosely coil cables
 - C. Wrap the cables as they came (a total of 7 times) after each use. **DO NOT TIE OR TWIST CABLES AFTER USE.**
5. **DO NOT** leave the battery installed when the device is stored for long periods of time. This can cause damage.
6. Turn the device off at the end of each session.



CHAPTER 3: TROUBLESHOOTING

PATHWAY® MR-20 CARE AND MAINTENANCE

CLEANING, DISINFECTION, AND STERILIZATION

Pathway® Devices (MR-Series): To clean the device, a damp cloth should be used. Clean the device with a soft, non-abrasive cloth. The preamp snaps and battery connector should also be cleaned with isopropyl alcohol if necessary, but **Do Not** immerse them.

When disinfection is required, a cloth wipe using disinfectants such as isopropyl alcohol for use on polyurethane, chlorine bleach in water (no stronger than a 1:10 ratio mixture), or a 2% glutaraldehyde solution (such as Cidex) is recommended. After cleaning, the device should be wiped with water using a clean, damp cloth and then a clean dry cloth.

Never immerse, soak, or clean with harsh chemicals such as acetone. To avoid permanent damage, **Do Not** expose the metal components (pins, sockets, etc.) to isopropyl alcohol, chlorine bleach, or glutaraldehyde solution.

Accessory Cables (Electrode Lead Wire Sets, Pathway® Preamplifier Cables, and Adapters for Disposable Lead Wire Electrodes (Part #5328, Part #7100, and Part #2583):

The recommended cleaning method for cables and lead wires is a cloth wipe using ordinary alcohol-free hand soap or USP green soap tincture. After cleaning, the cables and lead wires should be wiped with water using a clean, damp cloth and then a clean dry cloth.

When disinfection is required, a cloth wipe using disinfectants such as isopropyl alcohol for use on polyurethane or TPR wires only, chlorine bleach in water (no stronger than a 1:10 ratio mixture), or 2% glutaraldehyde solution (such as Cidex) is recommended. After disinfection, wipe the cable and lead wires with water using a clean damp cloth and then a clean dry cloth.

Prometheus Group® cables and lead wires are reusable and are provided non-sterile. When sterilization is required, they may be sterilized with ethylene oxide gas.

Pathway® Intracavity Sensors (Part# 6320, Part #6330, Part #6340):

This sensor should be cleaned before the first use and immediately after each subsequent use. Wash and lather your hands with soap and flowing luke-warm water in the sink, then apply the same lather to the sensor and wash it thoroughly. Completely rinse hands and sensor of all soap residue and then wipe the sensor dry with a clean cloth or paper towel. Allow the sensor to air-dry and when you are sure it is completely dry, store the sensor in the original bag. **Do Not** use abrasive cleaners on the sensor. **Do Not** expose the sensor to high temperatures. **Do Not** submerge or use sensor in water. **Do Not** get sensor plug or cable wet. **Do Not** attempt to sterilize the sensor by any method.



SPECIFICATIONS

- Active Electrode Preamplifier
- Two Channel EMG
- 1 - 800 Microvolt Range
- One Logarithmic Display Range
- Above/Below Goals
- True RMS Conversion
- Reading Rate: Every 100 Milliseconds
- 20 to 500 Hz Bandpass
- No Notch Filter
- Input Common Mode Rejection greater than 110dB
- Input Noise Level of <1 Microvolt
- Active Electrode Impedance of 10 GΩ
- Accuracy of 2% +/- 2 μV (Less Than 500 μV)
- Isolated Computer Port
- Belt/Pocket Clip
- Dimensions: 4.6" x 2.7" x 1.5"
- Weight: 8 Ounces
- Power: Heavy-Duty 9V Alkaline Battery

Electromagnetic Compatibility and Interference

The Pathway® MR- 20 has been tested for Electromagnetic Compatibility and Electromagnetic Interference and complies with the requirements set forth in EN 60601-1-2:1993, to include EN55011:1991 for radiated emissions, IEC 801-2:1991, and IEC 801-3:1991 (Draft).



TO ORDER ACCESSORIES

To re-order accessories and consumables for any Pathway® device, please call your local distributor or The Prometheus Group® sales office at 1 (800) 442-2325 in the U.S. and Canada, or +1 (011) 603-749-0733 for international.

- 6320 Pathway® Vaginal/Rectal EMG Sensor

- 6330 Pathway® Vaginal EMG/Stimulation Sensor

- 6340 Pathway® Rectal EMG/Stimulation Sensor

- 5328 24" Electrode Lead Wire Set, Use with Easytrode Pregelled Electrodes

- 6801 Easytrode Pregelled Electrodes, Bag of 150 (Square Individual Snap Style), Use with 24" Electrode Lead Wire Set or 6' Electrode Lead Wire Set

- 6750 Pathway® Electrodes, Bag of 100 (Rectangular 3 Snaps in a Row Style)

- 7400 Disposable Lead Wire Electrodes, Bag of 75 / 25 Patients, Square Electrode, 24" Lead Wire, .060 Female Pin

- 7100 Adapter for 7400 Disposable Lead Wire Electrodes

- 3660 Pathway® Adapter

- 2583 Pathway® Preamplifier, Available in White or Gray, 5'



PATHWAY® MR 20 QUICK REFERENCE GUIDE

To set an **A Channel GOAL**, press the **A** key 2x or 3x. To change **GOAL A**, press the **UP AND DOWN ARROWS**.

To set a **B Channel GOAL**, press the **B** key 2x or 3x. To change **GOAL B**, press the **UP AND DOWN ARROWS**.



To access the **SPECIAL FUNCTIONS MENU**, press the **A** and **B** keys at the same time for about 3 seconds.



This will accomplish the following four things:

1. **REVIEW AND DISPLAY DATA** (Push **A**, **A**, **A**) Then use up/down arrows to select session.
2. **CLEAR ALL SAVED DATA** (Push **A**, **A**, **B**, **A**)
3. **WORK/REST MODE** (Push **B**, **A**, **A**, **A**) then use up/down arrows to select **WORK TIME, REST TIME, AND NUMBER OF SESSIONS**.
Session automatically begins.
4. **LOCK/UNLOCK** (Push **B**, **B**, **A**, (Then **A** or **B**))

Notes:

1. Turn Pathway® MR-20 off to save the session. (Session must be at least 1 min if device is in **CONTINUOUS MODE**).
2. When using **WORK/REST**, set goal **FIRST**, then **WORK/REST**, because session automatically begins. (If goal is desired).



STANDARD WARRANTY SERVICE AGREEMENT

The Prometheus Group® warrants equipment of its own manufacture to be free from defects in material and workmanship as follows:

One (1) year from the date of shipment to the original purchaser, subject to the terms, conditions, limitations, and exclusions specified herein.

1. **Service:** The Prometheus Group® of New Hampshire, Ltd., hereafter “The Prometheus Group®”, shall provide, for the term of this warranty, repair of defective Prometheus Group® units. This warranty shall include all parts and labor charges. The purchaser must obtain a Return Authorization Number and must return the defective unit, at the purchaser’s own expense to The Prometheus Group®. The Prometheus Group® may, at its option, repair and return the unit or provide a replacement unit. Should The Prometheus Group® elect to provide a replacement unit, then this warranty is automatically transferred to the replacement unit. The Prometheus Group® shall return, at The Prometheus Group’s® own expense, the repaired or replacement Prometheus Group® unit.
2. **Exclusions:** The following conditions are excluded from service under this warranty:
 - A. Preventative maintenance. Preventative maintenance, defined as maintenance performed for the purpose of preventing a malfunction, is excluded from service under this warranty.
 - B. Repair of damage or malfunction of Prometheus Group® equipment resulting from abuse, accident, modification, usage of accessories, consumables and components not supplied or approved by The Prometheus Group®, or other cause other than normal usage, including but not limited to operator error, failure of other user-supplied equipment, and equipment operation in excess of design specifications is excluded from service under this warranty.
 - C. Loss due to fire, flood, robbery, burglary, theft, vandalism, radioactive contamination, or other natural disasters or Acts of God is excluded from service under this warranty.
 - D. Replacement of batteries, accessories and expendables such as electrodes, are excluded from service under this warranty.
 - E. Commercial Equipment made by others, such as computers and printers.

NOTE: The Prometheus Group® provides no warranty on these items, and any service required must be obtained from the original manufacturer.



3. **Optional Warranty Extension:** This warranty may be renewed or extended by written agreement and acceptance of both parties. The price for such extension shall be the price in effect at the time the extension is put in force. The Prometheus Group® shall waive any inspection and conditional repair requirements for uninterrupted warranty extensions.

4. **Limitation of Remedy:** The Prometheus Group® shall not be liable for any damages caused by the delay in furnishing warranty services or other performance under this warranty. The service warranty expressed in paragraph 1 represents the sole and exclusive remedy for any warranty claims under expressed or implied warranties, including without limitation any warranty of merchantability or fitness. This warranty specifically limits the liability of The Prometheus Group®, including liability for negligence claims by users and disclaiming any other claims of non-performance by The Prometheus Group®. In no event shall The Prometheus Group® be held liable for any incidental or consequential damages of any kind.

5. **Assignment:** This warranty shall not be assigned by the purchaser without prior written consent of The Prometheus Group®. The warranty shall be binding upon all of the parties and their successors and assigns.





One Washington Street, Suite 3171
Dover, New Hampshire 03820 U.S.A.
Tel: 1.800.442.2325
Fax: 603.749.0511
theprogrp.com | info@theprogrp.com





52_075bEN



