



MyoSystem 1200

Operation & Technical Manual

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1. MyoSystem 1200 Product Summary

*The **MyoSystem[®] 1200** is a small, portable, lightweight sEMG fixed cable Instrument ideal for clinical settings.*

Noraxon's **MyoSystem 1200** sEMG instrument is the perfect fixed cable partner. This instrument is provided as a 4 or 8 channel unit. It includes Noraxon's internationally patented signal processing technology to provide a clear, consistent, reliable data during any type of isometric or dynamic exercise. The **MyoSystem 1200** is very small and lightweight, making it ideal for evaluations at remote or on-site locations. The **MyoSystem 1200** is the clear economic and scientific choice for clinicians. Simply turn the instrument on and begin measuring sEMG, no other adjustments are necessary.

Thank you for choosing Noraxon's **MyoSystem 1200!** If you have any questions regarding the unit, please do not hesitate to call us at (001-480)-443-3413, or toll-free at (001-800)-364-8985.

2. Technical Information/Equipment Type

DC Offset:	-60~+60mVDC	
AC Base Line:	<1.8mVrms	
CMR:	>100dB	
RAW EMG Channel Gain:	Average Gain	960~1040
	343~364mVrms (Input =1mVp-p /200Hz Sinewave)	
	655~730mVrms (Input =2mVp-p /200Hz Sinewave)	
	1372~1456mVrms (Input =3mVp-p /200Hz Sinewave)	
EMG Channel Bandwidth:	Low 3dB Frequency	8~14Hz
	High 3 dB Frequency	470~535Hz
Input Impedance:	>10M Ω	
Size:	280(H) x 200 (W) x 60 (H) (mm)	
Input Power:	12VDC 1.5A	
Fuse:	1A 250V Fast Acting	

Equipment Type:	Class I, Type BF
IPX Rating:	Non-waterproof (i.e. Ordinary equipment)
Restricted Use:	The <i>MyoSystem 1200</i> is not intended for use in the presence of flammable anesthetizing agents or substances.
Operation Mode:	Continuous Operation

3. Operation, Transport and Storage conditions

Operation Environmental Conditions:

Ambient temperature: +10 degrees C to +35 degrees C
Relative humidity: 30% to 95%
Atmospheric pressure: 700 hPa to 1060 hPa

Transport Environment Condition:

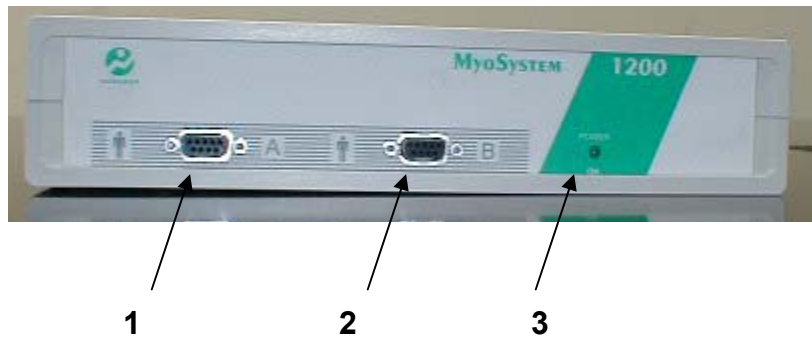
Ambient temperature: -40 degrees C to +70 degrees C
Relative humidity: 10% to 100%
Atmospheric pressure: 500 hPa to 1060 hPa
Packing: original packing package

Storage Environmental Conditions:

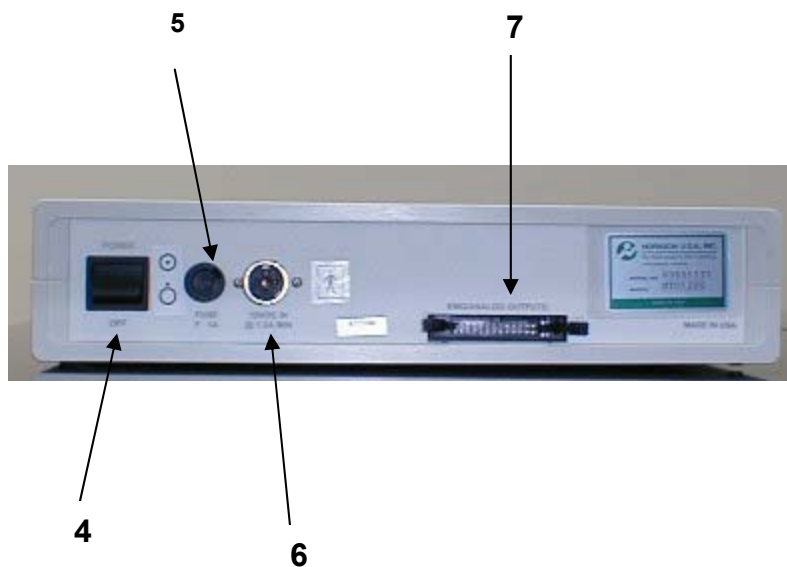
Ambient temperature: -40 degrees C to +70 degrees C
Relative humidity: 10% to 100%
Atmospheric pressure: 500 hPa to 1060 hPa

4. Front Panel and Rear Panel

Front Panel



Rear Panel



- 1. EMG Channel Input Connector A**
- 2. EMG Channel Input Connector B**
- 3. Power Indicator**
- 4. Instrument Power Switch**
- 5. Fuse Holder**
- 6. DC Power Inlet**
- 7. Data Outputs Connector**

5. MyoSystem1200 Installation and Setup

The Noraxon MyoSystem 1200 is a state-of-the-art, modular EMG data collection system. The Myosystem 1200 offers raw and integrated outputs for each EMG input channel with the capability of expanding up to 8 EMG input channels.

The setup and installation are actually quite simple. Check to see that you have all the proper part and components.

Step #1 – unpack all items and check inventory

The following items should be included with the MyoSystem 1200. (See Figure 1)

- a) MyoSystem 1200 Cabinet – White case that contains EMG input connectors on the front.
- b) 12VDC desk-mount power pack.
- C) EMG Cables – one cable per 4 EMG channels according to the number of channel.

Step #2 – Connecting the Equipment

- 1) Place the MyoSystem 1200 cabinet on a level tabletop or a stand adjacent to you computer and patient testing area.
- 2) The MyoSystem 1200 was supplies with an external power source that must be connected for the unit to operate. Plug the round connector end into the jack on the rear of the unit marked “12VDC”. Note that there are three pins in the connector on the unit. Match it to the connector on the end of the cable, plug it in securely and screw it down to lock it in place.
- 3) Plug the numbered electrode set into the respective input jack(s) on the front of the MyoSystem1200. The left jack is for the first 4 channels and the right jack is for the second 4 channels, if applicable. Please note that each electrode cable has 9 snap connectors attached. There are two snap connectors for each muscle channel. There is one single snap for the reference electrode. This is to provide an electrical reference to the patient. The electrode connected to this snap must be placed on a non-muscular area or bony prominence, such as the back of the wrist. This snap must be used

regardless of how many EMG channels are being monitored. Only one is required for any number of channels.

- 4) The unit now being connected to any data acquisition system by use of the output Computer Interface connector on the rear of the instrument.

a) **MyoSystem 1200** Cabinet



b) 12VDC desk-mount power pack



c) EMG Cables



Fig 1. **MyoSystem1200** Components

6. About Surface Electrodes

The noraxon MyoSystem 1200 provides absolutely the finest signal quality available in surface EMG instrumentation. In some cases clinicians require signal levels literally at the lowest end of achievable amplitude. Skin surface always contains contaminants that can affect good contact, i.e. dead skin, oils, etc. With this in mind we suggest that you always use some type of skin preparation. A light abrasion and alcohol rub at each electrode site will assure the very optimal in signal quality.

Also, we suggest that a very good quality electrode be utilized in conjunction with the preparation procedure. Noraxon periodically tests many different brands of electrodes. We confidently offer excellent quality electrodes for you use. Please call us for information.

NOTE: Insure that the electrodes you use are within the date code shown on the package, they can dry out. Complete the skin preparation defined above for each electrode site for optimal performance. Noraxon cannot be responsible for signals obtained while utilizing outdated and inferior electrodes or improper skin preparation.



Advisory on Use of Surface Electrodes

- 1) **Noraxon provided disposable electrodes is strongly recommended.**
- 2) **Noraxon discourages any attempt to reuse a disposable electrode.**
- 3) **It is important not to use expired or low quality electrodes.**

7. Cleaning of Electrode Cables

The electrode cables can and do make physical contact with the individual. For sanitary purposes it is advisable to clean the cables on a regular basis. Electrode cables can be cleaned with a solution of mild soap or detergent and water.

8. Equipment Maintenance and Cleaning

Routine maintenance

1. The instrument case and cables can be wiped down with a damp cloth using a mild soap or detergent and water.
2. Check the following connections every other month. Make sure these connections are in good condition:

Electrodes cable and MyoSystem1200

A/D converter and MyoSystem1200

A/D converter and computer

3. Check all cable connections each quarter.

Troubleshooting

Troubleshooting must be performed by Noraxon or special service center.

If your system has any problems please contact Noraxon or your Agency immediately.

9. Explanation of Symbols and Markings

Symbols and Markings

Description



Type BF Equipment



Power "ON"



Power "OFF"

A

EMG Channel A

B

EMG Channel B

10. Fuse Replacement

- 1) Unplug the power cord first.
- 2) Using the flat head screwdriver press down fuse cover and rotate it anti-clockwise till the fuse holder pop out.
- 3) Replace a new 1A 250VAC fast acting type fuse.
- 4) Using the flat head screwdriver rotate the fuse cover clockwise till put the fuse holder back.

11. Contact Information

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