User’s Manual

G-MEN DR01•DR20•DR100

About the "G-MEN" 3-Axis Direction Symbol

G-MEN measures the acceleration with 3 direction sensors, X, Y and Z.

Each sensor detects positive and negative force.

Graphs and CSV data depict acceleration with values of X-, Y- and Z-axes and +/- signs.

The "G-MEN" 3-Axis Direction Symbol

Note

- Copying or reproduction of this User’s Manual in part or in whole without prior authorization is strictly prohibited.
- Specifications, design and any other information included in this User’s Manual may be revised without prior notice.
- To the best of our knowledge, this User’s Manual is accurate at the time of printing, but should you encounter any omissions or inaccuracies, please contact your dealer or our Customer Support.
- This product is designed and manufactured for use within Japan.
- This product is designed to be used while attached and packaged with the object to be measured.
- Please handle with care as excessive direct impact may damage this product.
- This product is not intended for monitors and such equipment relevant to human and animal lives.
- This product is not an instrument specializing in measuring acceleration.
- This product is a data logger which records acceleration and temperature over an extended period of time.
- No event will SRIC be liable for any direct or indirect damages of any kind incurred by the results of using this product.
- This product is designed and manufactured to ensure high reliability, however, absolute operation guarantee is not possible. If this product use is intended for providing proof for compensation for damages or insurance claims of high value, the use of multiple products is recommended.
- This product is intended for use under normal living conditions, and cannot be used under condensation, oil, water or extreme temperatures. Operation and data are not guaranteed under high-energy radiation. The user is responsible for the operating environment of this product.
- This product is battery-operated. It will run stably for approximately one month with new batteries, but if you intend to record for an extended period of time, be sure to use new batteries.
- The USB (Universal Serial Bus) standard used herein is HS1. Please use Windows®/Mac® product and device.
- In this Manual marks such as TM, FR, C have been omitted.
- Usage not described in this Manual is strictly prohibited.
- Operating Systems compatible with this product is limited.
- SRIC will not be liable for any damages incurred if the user does not use the product correctly, or has handled it in any way other than described herein, or has tampered with or changed it in any way, or if it has been repaired or changed in any way by a third party.

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>G-MEN DR01</th>
<th>G-MEN DR20</th>
<th>G-MEN DR100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>(Precision ±10%)</td>
<td>(Precision ±10%)</td>
<td>(Precision ±10%)</td>
</tr>
<tr>
<td>Measurement</td>
<td>0.01G</td>
<td>0.02G</td>
<td>0.2G</td>
</tr>
<tr>
<td>Measurement</td>
<td>0.1G</td>
<td>0.1G</td>
<td>0.1G</td>
</tr>
</tbody>
</table>

- Temperature
  0°—50°C (±3°C)

- Humidity
  30—90%RH (±10%RH)

- Sampling Cycles
  5 Cycles (1 msec—2 msec—5 msec—10 msec—20 msec)

- Recording Interval
  1.5, 10, 15, 20, 30 sec, +1, +2, +3, +4, +5, 10, 15, 20, 30 minutes (Selectable)

- Display
  LCD

- Recording Capacity
  65,500 data (1 data: Date, time—X Axis—Y Axis—Z Axis—Temperature—Humidity)

- Record Saving
  EEPROM

- Connection
  USB (miniB) 2.0

- Operating System Requirement
  Windows7®/3264bit

- Power Source
  AA Alkaline Batteries (LR6) ×2

- Battery Life
  Approximately 50 days (at Sampling Cycle of 10 msec)

- Operating Temperature and Humidity Range
  0—50°C, RH less than 70% (no condensation)

- Measurement
  75.5 (H)×60.5(W)×33(D) mm

- Weight
  Approximately 135g (including batteries)

- Accessories
  USB Cable/AA Alkaline Batteries (2)/Warning Sticker/Attachment Plates (2)/Software (CD-ROM)

Attention

For your safety, please read the “Safety Precautions” and the “User’s Manual” carefully prior to use.

Usage

- This product cannot be used under water, at high altitudes, up high in the air, or where there is no gravity.
- This product cannot be used where the temperature range is under 0°C or over 50°C.
- Do not leave the product under direct sunlight, near any heat source, inside closed vehicles or freezers.

Placement

- Do not use this product in a location exposed to fluxes as it is a high precision electronic measuring instrument.
- Do not leave this product in a location exposed to high-energy radiation. The user is responsible for the operating environment of this product.

Power Supply

- Do not use or store under the following conditions.

  - Areas affected by acid, alkaline, organic solvents, corrosive gases, etc.

  - Temperature:
    - Extremly low temperatures (Under direct sunlight, near heaters)
    - Extremely low temperatures (In the refrigerator, in extremely cold weather)
    - Near water (In the bathroom, on the water, at sea, in the water, in the sea)
    - Areas affected by acid, alkaline, organic solvents, corrosive gases, etc.

  - Humidity:
    - Extremly high temperatures (Under direct sunlight, near heaters)
    - Extremely high temperatures (In the desert, in extremely hot weather)
    - Areas affected by acid, alkaline, organic solvents, corrosive gases, etc.

  - Wind:
    - Extremly high pressures (In a storm, on a mountain, in a high wind)
    - Extremely high pressures (In an air war, in a high altitude)

  - Vibration:
    - Extremly high vibrations (In a high altitude, in a high wind)
    - Extremely high vibrations (In a high altitude, a high speed)

  - Magnetic field:
    - Extremly high magnetic fields (In a magnetic field, in a high magnetic field)
    - Extremely high magnetic fields (In a magnetic field, in a high magnetic field)

  - Radiation:
    - Extremly high radiation (In a radiation area, in a high radiation area)
    - Extremely high radiation (In a radiation area, in a high radiation area)

- Do not drop the device and avoid excessive impact.
- Do not tamper with or change it in any way, or if it has been repaired or changed in any way by a third party.

Safety Precautions

Definition

Failure to follow these instructions could result in death or serious injury.

Caution

Failure to follow these instructions could result in mild or moderate injury.

Warnings

- Warning (Includes Caution). The description is shown in the pictogram. The example of left indicates “General Caution Warning Sign”.

- Caution (Prohibited). The description is shown in the pictogram. The example of left indicates “Dismantling Prohibited”.

- Reminder (Required). The description is shown in the pictogram. The example of left indicates “Remove plug-free socket”.

Symbols and Conventions

Caution

- Do not scratch the surface or spill water on the liquid crystal display panel.
- When inserting the battery, make sure the positive and negative ends are facing the correct direction.
- When not in use for an extended period of time, take the battery out before storing.
- Always hold the plug when connecting and disconnecting the USB cable provided.
- Never handle with wet hands.
- Keep the product and batteries out of reach of children.

Inquiries to Support Center

- Inquiry to Support Center are restricted to those who have registered as a user.
- Information required
  1. User’s address, name, and telephone number
  2. Product model number in use
  3. Usage environment (The model name of the apparatus connected)
  4. Present condition in detail.

Support Center

e-mail support-box@g-men.jp

Repairs

- For repairs, check the items below and contact your dealer or our Customer Support.
- As a general rule, the user is responsible for the cost of delivering the product for repairs. You will not be charged for the cost of receiving your product after repairs.
- Please attach a note stating the circumstances of the product.
- The following will void your warranty and any repairs will be subject to a fee.
  1. Failure to present the Warranty Certificate
  2. Incompatible Warranty Certificate
  3. Damage caused by incorrect use, or caused by accidents after purchase
  4. Unauthorized modification or changes to the product
**Connecting with Computer**

1. **Open the connector cover**
   Open the cover of the USB connector (MiniB).

2. **Connect the USB cable**
   Insert the USB connector (MiniB) end of the provided USB cable.

3. **Connect with your computer**
   Connect the USB TYPE-A end of the provided USB cable with the USB port on your computer.

4. **Communicate with your computer**
   Transfer data to your G-men software installed computer.

**How to Install Batteries**

1. **Open the battery chamber cover**
   Open the cover of the battery chamber (MiniB).

2. **Remove the battery chamber cover**
   Make it ready for putting in the batteries.

3. **Putting in the batteries**
   Install the AA Alkaline Batteries (LR6 x 2) correctly as indicated with ʴ/ʴ.

4. **Close the battery chamber cover**
   Put back the battery chamber cover and tighten the screw securely.

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**Display Setting**

<table>
<thead>
<tr>
<th>Display Setting</th>
<th>Model</th>
<th>Display Sample</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Setting</td>
<td>DR100</td>
<td></td>
<td>Recording Interval 1 Second</td>
</tr>
<tr>
<td></td>
<td>DR01-DR20</td>
<td></td>
<td>Recording Interval 1 Second</td>
</tr>
</tbody>
</table>

**Sampling Cycle and the Response Frequency**

<table>
<thead>
<tr>
<th>Sampling Cycle</th>
<th>Response Frequency</th>
<th>Display</th>
<th>Display When Trace Mode is On</th>
</tr>
</thead>
<tbody>
<tr>
<td>20msec</td>
<td>100Hz</td>
<td>TRC 20m</td>
<td>Alternately displayed</td>
</tr>
<tr>
<td>10msec</td>
<td>100Hz</td>
<td>TRC 10m</td>
<td>Alternately displayed</td>
</tr>
<tr>
<td>5msec</td>
<td>100Hz</td>
<td>TRC 5m</td>
<td>Alternately displayed</td>
</tr>
<tr>
<td></td>
<td>40Hz</td>
<td>TRC2 40Hz</td>
<td>Alternately displayed</td>
</tr>
<tr>
<td></td>
<td>20Hz</td>
<td>TRC4 20Hz</td>
<td>Alternately displayed</td>
</tr>
<tr>
<td>2msec</td>
<td>100Hz</td>
<td>TRC 2m</td>
<td>Alternately displayed</td>
</tr>
<tr>
<td></td>
<td>70Hz</td>
<td>TRC2 70Hz</td>
<td>Alternately displayed</td>
</tr>
<tr>
<td></td>
<td>45Hz</td>
<td>TRC4 45Hz</td>
<td>Alternately displayed</td>
</tr>
<tr>
<td>1msec</td>
<td>100Hz</td>
<td>TRC 1m</td>
<td>Alternately displayed</td>
</tr>
<tr>
<td></td>
<td>25Hz</td>
<td>TRC8 25Hz</td>
<td>Alternately displayed</td>
</tr>
<tr>
<td></td>
<td>10Hz</td>
<td>TRC 10Hz</td>
<td>Alternately displayed</td>
</tr>
<tr>
<td></td>
<td>5Hz</td>
<td>TRC 5Hz</td>
<td>Alternately displayed</td>
</tr>
</tbody>
</table>

**Threshold Setting**

- **Display during measurement**: Alternately displayed to show that the threshold has been set.
- **Trigger standing by**: Alternately displayed. The threshold triggers the trace mode to stand by.
- **Trigger measurement in progress**: Triggered to start measuring and are alternately displayed during measurement.

**Warnings**

- **Data capacity is full**: Alternately displayed.
- **Battery is low**: Recording stopped.
- **Excess over threshold detected**: Excess over the threshold is detected when the option is turned “ON”.
- **Excess over threshold measured**: Excess over the threshold is measured (displayed for 1 second).
- **Hazard measurement ends**: Displayed after 1,000 hazard recordings, and then measurement is halted.

**Starting**

- **Idle time**: Counts down for 5 seconds.
- **Magnet trigger**: Standing by for magnet start.
- **Preset**: Alternately displayed. The preset starting date and time is shown (the example at left indicates the 31st at 12:30).

**Stopping**

- **Sleeping**: Measurement is suspended.

**Display Options**

- **00**: Standard operation. Measurement conditions—Temperature and humidity
- **01**: Displays the acceleration of X and Y axes.
- **02**: ID number and the acceleration of Z axes.
- **03**: Displays the maximum measurement axis and the date and time of acceleration to date (10 6 on Z axis on August 28th at 14:11)
- **04**: Displays the current number of records
- **05**: Displays the date and time. March 30th 16:20

**Display Sample**

- **Display during measurement**: Alternately displayed maximum measurement axis and the date and time of acceleration to date (10 6 on Z axis on August 28th at 14:11)

**Part Description**

- **Front**
  - Corner Holders
  - LCD
  - 3-Axis Direction Symbol

- **Base**
  - USB Connector (MiniB)
  - Tapped holes for attachment plates
  - Battery Chamber Cover

- **Back**
  - AA Alkaline Batteries (LR6 x 2)

**LCD Display**

- **Display during measurement**: Alternately displayed to show that the threshold has been set.
- **Trigger standing by**: Alternately displayed. The threshold triggers the trace mode to stand by.
- **Trigger measurement in progress**: Triggered to start measuring and are alternately displayed during measurement.

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