GQ GMC-600 Pro
Geiger Counter
User Guide

GQ Electronics LLC
1001 SW Klickitat Way, Suite 110, Seattle WA 98134, USA
eMail: support@gqelectronicsllc.com

Revision 1.00 June-2025

EC REP

Sea&Mew Consulting GmbH
Mittenhuber Str.4, 92318 Neumarkt
Compliance.EU@outlook.com

FR
Cet appareil se recycle
À DÉPOSER EN MAGASIN
OU
À DÉPOSER EN DÉCHÈTERIE
Points de collecte sur www.quefairedemesdechets.fr
Privilégiez la réparation ou le don de votre appareil !

(**EN)** WARNING: Do not attempt to open or disassemble the device without professional knowledge. Incorrect handling may result in damage to the device, voiding of the warranty, or personal injury.

(DE) WARNUNG: Versuchen Sie nicht, das Gerät ohne Fachkenntnisse zu öffnen oder zu zerlegen. Eine falsche Handhabung kann zu Schäden am Gerät, zum Erlöschen der Garantie oder zu Verletzungen führen.

(FR) AVERTISSEMENT : N'essayez pas d'ouvrir ou de démonter l'appareil sans connaissances professionnelles. Une manipulation incorrecte peut endommager l'appareil, annuler la garantie ou entraîner des blessures corporelles.

(IT) ATTENZIONE: non tentare di aprire o smontare il dispositivo senza una conoscenza professionale. Una gestione non corretta può causare danni al dispositivo, invalidare la garanzia o causare lesioni personali.

(ES) ADVERTENCIA: No intente abrir ni desmontar el dispositivo sin conocimientos profesionales. Una manipulación incorrecta puede provocar daños en el dispositivo, la anulación de la garantía o lesiones personales.

(PL) OSTRZEŻENIE: Nie próbuj otwierać ani demontować urządzenia bez fachowej wiedzy. Nieprawidłowe obchodzenie się z urządzeniem może spowodować jego uszkodzenie, unieważnienie gwarancji lub obrażenia ciała.

(CZ) VAROVÁNÍ: Nepokoušejte se zařízení otevřít nebo rozebrat bez odborných znalostí. Nesprávná manipulace může vést k poškození zařízení, ztrátě záruky nebo zranění osob.

(TK) UYARI: Profesyonel bilginiz olmadan cihazı açmaya veya sökmeye çalışmayın. Yanlış kullanım, cihaza zarar verebilir, garantiyi geçersiz kılabilir veya kişisel yaralanmaya neden olabilir.

(JP)警告: 専門知識がない場合は、デバイスを開いたり分解したりしないでください。誤った取り扱いをすると、デバイスが損傷したり、保証が無効になったり、人身事故につながる可能性があります。

Document Revision History:

Re.1.00, Jun-2025 Initial version.

Table of Contents

Overview

The **GQ GMC-600 Series Digital Geiger-Müller Counter** is a portable and convenient device designed for a variety of applications, including industrial, commercial, research, evaluation, and scientific purposes. It can be used in environments such as industrial plants, public utilities, universities, laboratories, and electronic repair shops.

This device features both audible and visual signals to indicate radiation levels. It is suitable for radiation detection and monitoring in both indoor and outdoor settings, as well as other similar environments.

The GMC-600 Series includes automatic data recording, allowing it to continuously monitor radiation levels and log data every second into internal memory. When connected to a PC, users can download the radiation history and analyze the data later using specialized software.

The **GMC-600 Pro** model features a high-contrast black-and-white LCD display, a front LED indicator, and an analog data port. The analog port can be connected to third-party devices for data input.

Additionally, the **GMC-600 Pro** is equipped with a Wi-Fi module, enabling users to wirelessly log data via Wi-Fi.

The device also has a USB port for both communication and charging the internal rechargeable **Li-Ion 3.6V/3.7V battery**. The battery can be charged via a standard USB port, a USB charger, or a computer USB port. When connected to external power, continuous data monitoring is possible without worrying about battery charge or data loss.

For accurate time-based data logging, the main board includes a **real-time clock**.

Finally, the **GMC-600 Pro** comes with a high-sensitivity sensor to ensure precise, full-scale measurements and higher accuracy.

Specifications:

Range of dose rate indications, µSv/h	0.001 to ~4250
Range of exposure dose rate indications, mRem/h	0.001 to ~425
Reproducibility of indication	10%
Range of CPM	>1,000,000 (continuously)
Total CPM	999999999
Alarm levels by CPM	> 0 (continuously)
Alarm levels by µSv/h	0.001 to 4250
Alarm levels by mRm/h	0.001 to 425
Date indication	YYYY-MM-DD (continuously)
Time indication	HH-MM-SS (continuously)
Elapsed time indication	99 years(maximum)
Timed Count	1 Second to 256 days(programmable)
Scheduled Timed Count	0 Second to 256 days(programmable)
Sensor installed:	Pancake LND-7317
Radiation detection	Alpha, Beta, Gamma, and X-Ray
Detectable Radiation Level	Alpha (2.5 MeV), Beta (50KeV), Gamma, X-Ray (10 keV)
GAMMA SENSITIVITY CO60 (CPS/mR/HR)	58
Instrument Background	<= 2 pulses/s
Working Voltage	3.6-3.7V
Audio Jack Output Pulse:	~4V, ~200µS/click, Maximum 300KCPM
Display	LCD dot matrix, back lighted
On board Memory	1M Bytes flash memory for data storage
Power: **Consumption**	25mW – 125mW (count rate dependent)
Power: **Supply**	3.7V Li-Ion battery / USB power
Dimensions	140 x 84 x 39 mm (5.6” x 3.3” x 1.55”)

Packing List:

1. GMC-600 Pro main unit.
2. Type C USB cable
3. Quick start guide

How it works?

The GQ-600 Pro Geiger Counter installed Pancake Geiger tubes to detect radiation.

When the radiation passes through the Geiger tube, it triggers electrical pulses for the CPU to register as count. The basic count rate unit is CPM (Count Per Minute). The CPM count rate indicates the radiation level and it can be converted to other traditional radiation dose rate units, such as μSv/h or mR/h.

After unit turned on for one minute, it will show the background radiation reading. The background radiation reading (in CPM) indicates the nature radiation detected at that minute. This reading may change from time to time and location to location. To get accurate reading, user may need to get an average value over a longer time period.

Caution

1. Avoid doing measurements when battery low.
2. Do not get the Geiger counter wet. Use sealed plastic bag to void wet.
2. Avoid doing measurements in direct sunlight.
3. Avoid directly contact the radioactive material. Use sealed plastic bag if needed.
4. Turn off the unit when not in use.
5. Keep it in a protective pouch after use.
6. When the unit not in use, store it in a dry place or box. This will avoid mechanical part be oxidized, such as button or battery contacting points.

Background Safe Levels

Suggested background readings levels:

1. **Safe level**. Less than 100CPM or 0.325μSv/h. Means no worry at all.
2. **Attention level**. 101CPM – 199CPM. OR 0.326μSv/h – 0.57μSv/h. Means you need to find out why.
3. **Warning level.** More than 200CPM or more than 0.57μSv/h. Means do not stay in this area for long period.

Hardware setup

There are four buttons on the front of the unit: S1, S2, S3 and S4 (from left to right)

1. Power up the unit. Pressing the S4 (power) key for 3 seconds will turn on the unit. Check the battery level. Charge the battery fully when first time use. It may take a few hours to get the battery fully charged. Check the battery icon on the display, a fully charged battery icon will be filled with solid color, without flashing.
2. Set date/time. Press the S4 key to enter the menu and set the date and time. This is very important for time stamping the recorded data. Do not skip this step. Most of the data are related to the date and time.
3. Set the backlight timeout in second, in order to minimize the power consumption. Set the power savings mode. If the power savings mode is ON, then the LCD display will be turned off after 30 second if no key is being pressed during this period.
4. Now the unit is ready to use. You should see the background CPM rate in absence of a radioactive source.

Software set up

Before connecting the GMC-600 Pro Geiger Counter to a computer, download the application software and then install it in Windows OS computer. Download these from: http://www.gqelectronicsllc.com.

(Note: There is no USB driver installation needed on Win 10 or later Windows. Only Data Viewer application needed.)

1. GMCDataViewer.exe is for viewing the data on a computer.
2. GMC600Pro_Demo.exe is a soft copy of GMC-600 Pro demo software.

For technical questions and support, please use the forum at the following link:

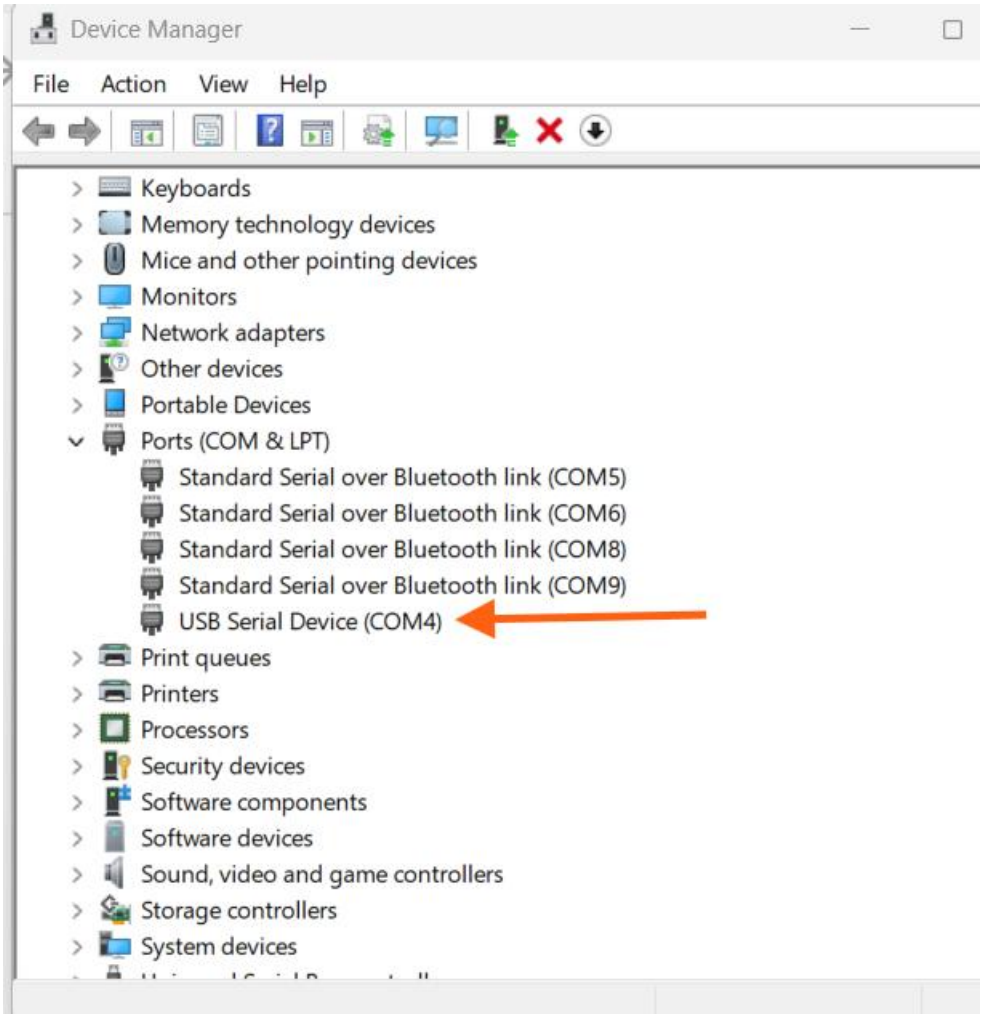
http://www.GQElectronicsLLC.com/forum

For the latest software, please visit our software download page:

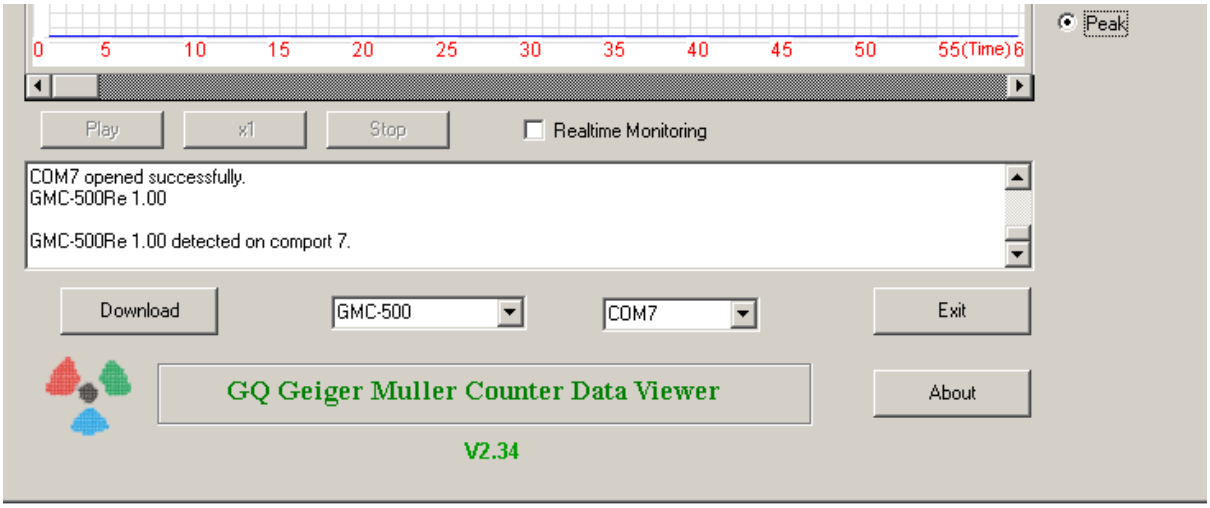
http://www.gqelectronicsllc.com/comersus/store/download.asp

Verify USB Comport in Windows

Once the GMC-600 Pro is connected to a computer, from the device manger, you should see which COM port is assigned to the unit. See the example below. Windows assigned COM4 to the GMC-600 unit in this example.

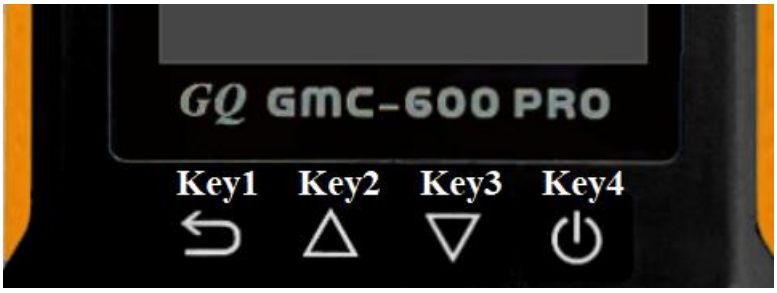


For the data viewer or the data logger software, selecting COM5 will establish the connection to the GMC-600 Geiger counter for the above example



GQ GMC Geiger Counter Multi-Function Keys

The multi-function keys, Key1, Key2, Key3 and Key4 explained:



These key's function will be reassigned dynamically based on the context of the current (sub-) menu being displayed.

Key1

1. There are four display modes: Does Rate, Graphic, Dosimeter, History and Menu mode. Pressing the Key1 toggles between these modes.
2. In the menu screen, pressing the Key1 will exit the current menu and will return back one menu level.
3 In the data input mode, pressing the Key1 will delete the last character entered.
4 Listen to the voice reading. Hold this key for two seconds will read the current value in Dose Rate mode.

Key2

1. In Does Rate and Graphic mode, pressing the Key2 will change the reading unit.
2. In menu mode, the Key2 acts as the UP key to move the highlight menu item upwards.
3. In history mode, the Key2 changes the reading unit.
4. In the menu mode, while a popup message box is opened, the Key3 changes the value by cycling through the predefined values.

Key3

1. In Does Rate and Graphic mode, pressing the Key2 will change the reading unit.
2. In menu mode, the Key3 acts as the DOWN key to move the highlight menu item downwards.
3. In history mode, the Key3 changes the reading unit.
4. In the menu mode, while a popup message box is opened, the Key3 changes the value by cycling through the predefined values.
5. Key3 is a shortcut key to menu mode. Hold the Key3 for two seconds will change the display mode to menu mode.

Key4

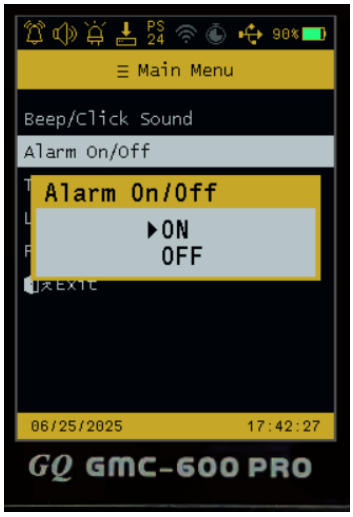
1. In power off state, only the Key4 acts as the power switch. Holding it for 3 seconds will power up the unit.
2. In Graphic mode, press Key4 will switch between Total, Max and average readings.
2. In power on state, holding Key4 for 3 seconds will switch the unit off.
3. In menu mode, Key4 is the "Confirm", "Select", "Enter" key

Power saving mode

The unit's factory default power saving mode is ON. In this mode, the unit will dim the LCD backlight to minimum after 30 seconds of idle time. It will back to normal backlight when any key is pressed.

Popup Windows

The Popup Windows will show the current status/value of selected features. The current status/value can be changed only when it is displayed in the Popup Window and the currently displayed status/value will be stored when Key4 is pressed or the Popup Window has timed out after 3 seconds if no key has been pressed.



Graphic User Interface (GUI)

Graphic Icons:

Battery Status

Battery Level

Data saving enabled (History data)

Alarm

Speaker

Vibration

USB Connection

WiFi

Timed Count

Power Saving Timer

Display Modes

There are five display modes, Dose Rate, Graphic, Dosimeter, History Mode and Menu Mode

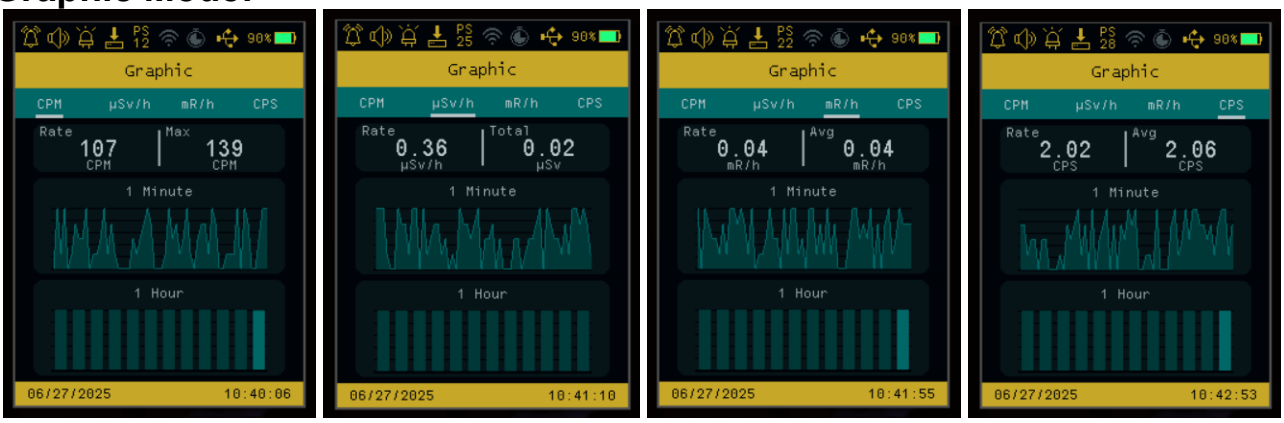
Dose Rate Mode:

In Dose Rate mode, the dose rate is displayed simultaneously in four different units. You can cycle through and select your preferred unit using the **Key2** or **Key3** buttons.

Navigation Keys

- **Key1** – **Change Display Mode**
  Cycles through the following modes:
  Dose Rate → *Graphic* → *Dosimeter* → *History Data* → *Timed Count* → *Menu* → *Dose Rate*
- **Key2** – **Unit Selection**
  Toggles between: *CPM, µSv/h, mR/h, CPS*
- **Key3** – **Unit Selection / Menu Access**
  Toggles between: *CPM, µSv/h, mR/h, CPM*
  (Hold for 2 seconds to enter Menu mode)
- **Key4** – **Power Off**
  (Hold for 3 seconds to power off the device)

Graphic Mode:



In Graphic Mode, two real-time charts are displayed:

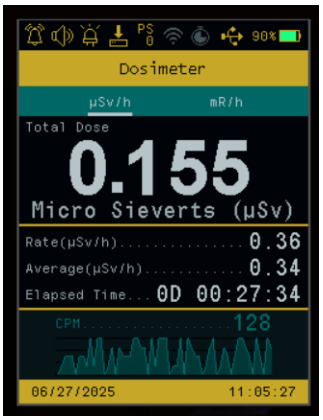
- **Top Graph:** Displays a 1-minute trend of CPS (counts per second).
- **Bottom Graph:** Displays a 1-hour history of radiation readings.

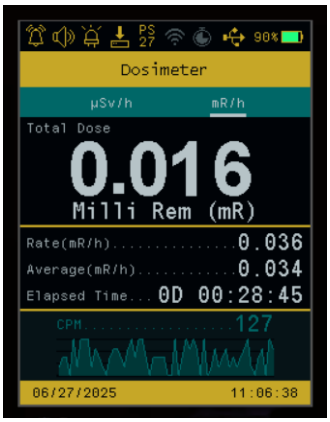
Navigation Keys

- **Key1 – Change Display Mode**
  Cycles through the following modes:
  Dose Rate → *Graphic* → *Dosimeter* → *History Data* → *Timed Count* → *Menu* → *Dose Rate*
- **Key2 – Unit Selection**
  Toggles between: *CPM, µSv/h, mR/h, CPS*

- **Key3 – Unit Selection / Menu Access**
  Toggles between: *CPM, µSv/h, mR/h, CPM*
  (Hold for 2 seconds to enter Menu mode)
- **Key4 – Reading View / Power Off**
  Toggles display between: *Total, Max, and Average readings*
  (Hold for 3 seconds to power off the device)

Dosimeter Mode:





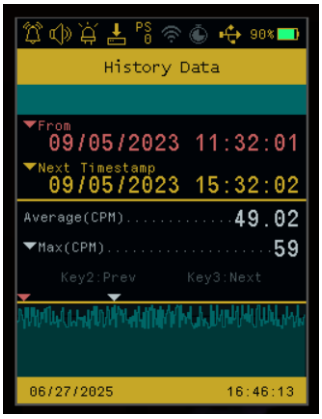
Dosimeter Mode displays the following information:

- **Accumulated Dose** measured by the device
- **Current Dose Rate**
- **Average Dose Rate**
- **Elapsed Time** taken to reach the total accumulated dose
- A 1-minute trend of CPS (counts per second).

Navigation Keys

- **Key1 – Change Display Mode**
  Cycles through:
  Dose Rate → Graphic → Dosimeter → History Data → Timed Count → Menu → Dose Rate
- **Key2 – Unit Selection**
  Toggles between: *µSv/h, mR/h*
- **Key3 –Unit Selection / Menu Access**
  Toggles between: *µSv/h, mR/h*
  (Hold for 2 seconds to enter Menu mode)
- **Key4 – Power Off**
  (Hold for 3 seconds to power off the device)

History Mode:

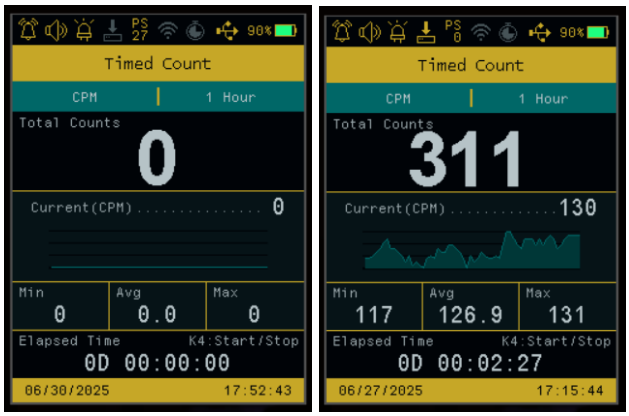


In History Mode, the device displays historical radiation data stored in its internal flash memory. It begins with the **earliest recorded timestamp** and shows **4 minutes of data** from that point onward.

Navigation Keys

- **Key1 – Change Display Mode**
  Cycles through:
  Dose Rate → Graphic → Dosimeter → History Data → Timed Count → Menu → Dose Rate
- **Key2 – Previous Timestamp**
  Press to go to the previous timestamp
  Hold to quickly scroll backward through timestamps
- **Key3 – Next Timestamp**
  Press to go to the next timestamp
  Hold to quickly scroll forward through timestamps
- **Key4 – Power Off**
  (Hold for 3 seconds to power off the device)

Timed Count Mode:



In Timed Count Mode, the user can measure radiation over a **specific, user-defined time period**. This mode is useful for controlled measurements or experiments requiring fixed-duration data collection.

Navigation Keys

- **Key1 – Change Display Mode**
  Cycles through:
  Dose Rate → Graphic → Dosimeter → History Data → Timed Count → Menu → Dose Rate
- **Key2 – Unit Selection**
  Toggles between:
  CPM, µSv/h, mR/h, CPS
- **Key3 – Set Timed Count Duration / Menu Access**
  Press to change the timed count duration
  (Hold for 2 seconds to enter Menu mode)
- **Key4 – Start/Stop Timed Count / Power Off**
  Press to start or stop the timed count
  (Hold for 3 seconds to power off the device)

Menu Display

Main Menu

Navigation keys:

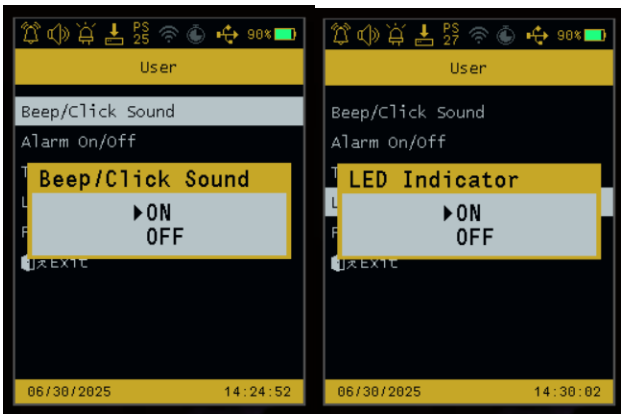
- **Key1: Back** – Go to the previous screen or cancel current action
- **Key2: Up** – Navigate up through menu options or increase a value
- **Key3: Down** – Navigate down through menu options or decrease a value
- **Key4: Select/Enter** – Confirm selection or enter submenu

User Options

Beep/Click Sound and LED Indicator

- Beep sounds are generated during power on/off and when a key is pressed.
- The LED indicator flashes with each radiation count.
- Both beep and LED indicator can be toggled **ON** or **OFF** from this menu.

Tip: Use **Key2 (Up)** and **Key3 (Down)** to highlight the option, and **Key4 (Select/Enter)** to change the setting. Use **Key1 (Back)** to return to the previous menu.



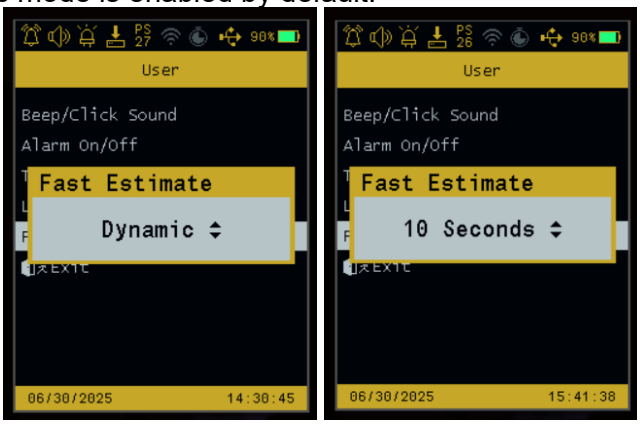
Alarm

- When the **Alarm** is set to **ON**, the device emits a beep if the CPM (Counts Per Minute) exceeds the user-defined threshold.
- The threshold value can be adjusted from this menu.
- Pressing any button while the alarm is active will temporarily silence it. The alarm will re-activate once the threshold is exceeded again.

Fast Estimate Time

- Standard CPM readings require 60 seconds for accuracy.
- The **Fast Estimate** feature allows quicker, real-time feedback by reducing the data collection time.
- Users can select from fixed intervals: **5, 10, 15, 20, 30, or 60 seconds**, or choose **Dynamic** mode.

Dynamic Mode: Automatically adjusts estimate time based on detected radiation levels, balancing speed and accuracy.
Default Setting: Dynamic mode is enabled by default.

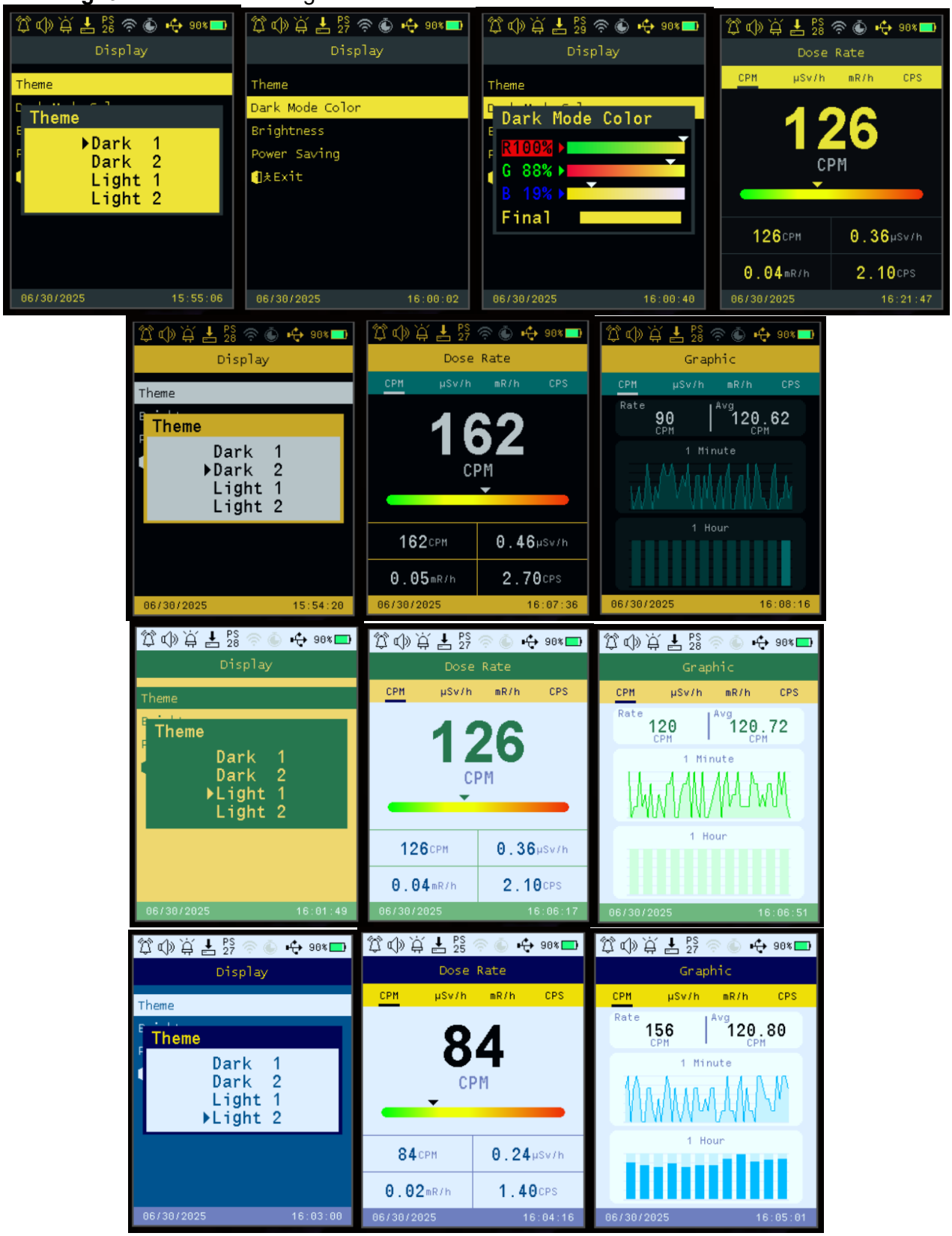


Display Options

Theme

Choose from four available themes:

- **Dark 1** – A customizable dark theme
- **Dark 2** – A fixed dark theme
- **Light 1** – A fixed light theme
- **Light 2** – Another fixed light theme

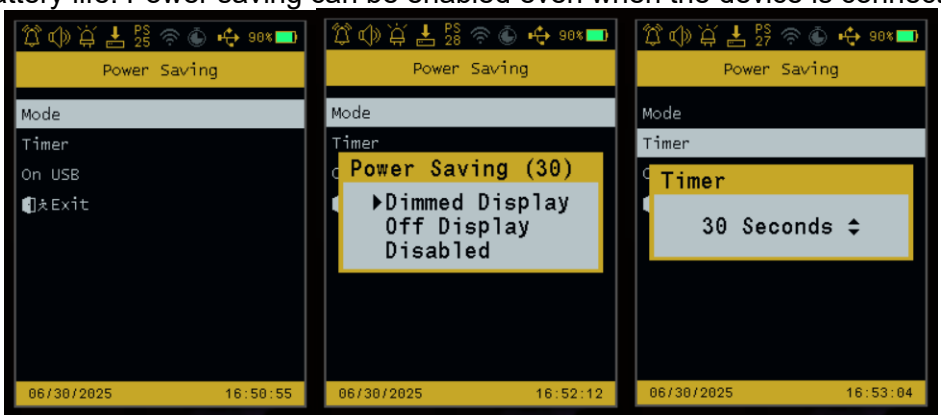


Brightness

Adjust the brightness level of the display to suit your environment or preference.

Power Saving

When enabled, this feature automatically dims or turns off the screen backlight to conserve power and extend battery life. Power saving can be enabled even when the device is connected via USB.

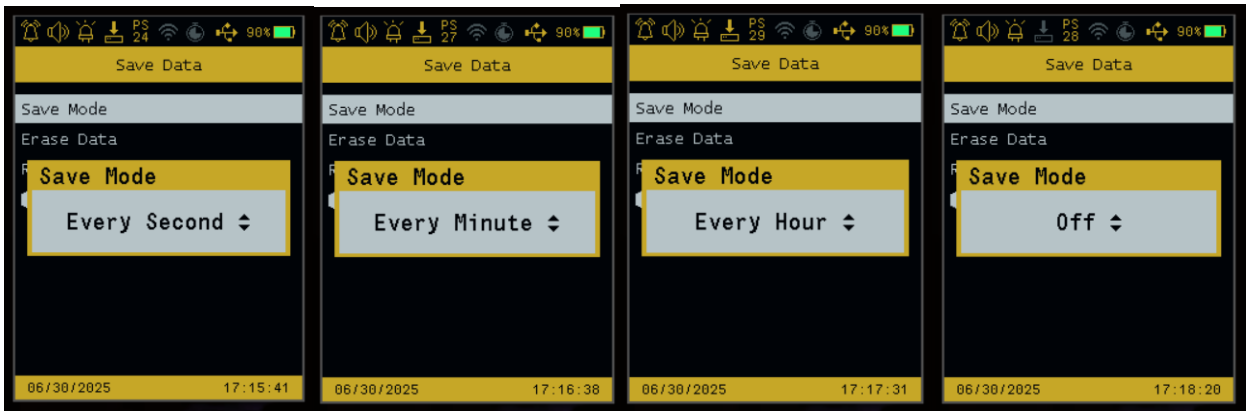


Save Data

Save Mode

Select how often the device saves data. Options include:

- Every second
- Every minute
- Every hour
- Off (disables data saving)



Erase Data

Deletes all previously saved data from the device's memory.

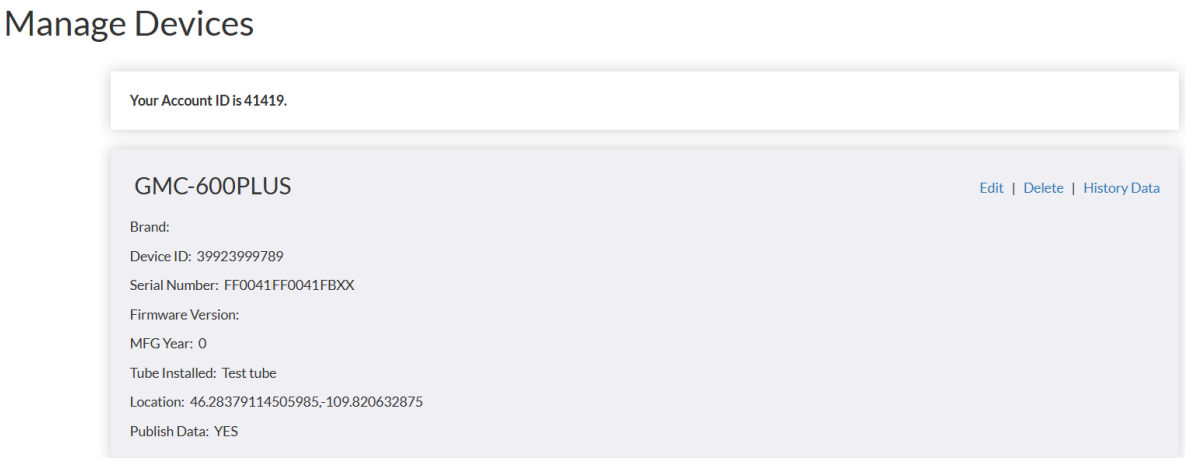
Reset Dose

Clears the accumulated dose reading in **Dosimeter Mode** only. Other modes remain unaffected.

Wi-Fi and Server

The WiFi was tested with 802.11b/g/n standards under various security modes, including WPA2-PSK (AES), WEP, WPA/WPA2-PSK (TKIP/AES), and Open.

To submit data to www.gmcmap.com, the user must enter the SSID and password to establish a WiFi connection, along with the User ID and Device ID from their gmcmap account. Once all fields are configured, use the 'Test Connection' feature to verify that the device can successfully connect and submit data to the server.



Manges Device page in GMCMAP

Wi-Fi Signal
Shows the strength of the current Wi-Fi connection.

Wi-Fi IP Address
Displays the device's IP address when connected to a Wi-Fi network.

Wi-Fi MAC Address
Displays the device's MAC address. This can be used to bypass the Wi-Fi password by configuring MAC filtering settings on the router.

Reset Wi-Fi Module
Useful for troubleshooting connectivity issues by restarting the Wi-Fi module.

Period
Defines how frequently data is sent to the server.

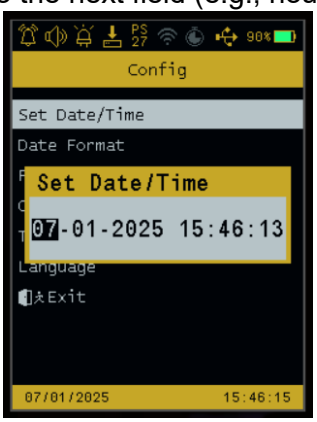
Website and URL
The default data submission website and URL are www.gmcmap.com and log2.asp.
Users can configure a custom URL to send data to their own server; however, the data parameters must follow a fixed format.

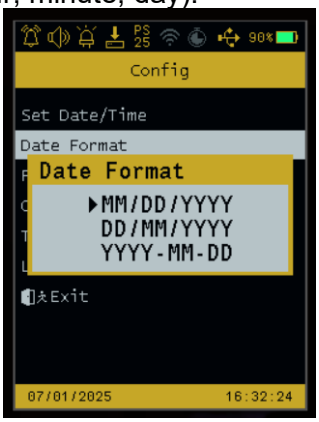
Example of a submitted URL:
http://www.gmcmap.com/log2.asp?AID=0230111&GID=0034021&CPM=15&ACPM=13.2&uSV=0.075

Config

Set Date/Time

Allows the user to set the device's date and time.
Key1: Saves the current date/time setting.
Key2: Increases the selected value.
Key3: Decreases the selected value.
Key4: Moves the cursor to the next field (e.g., hour, minute, day).





Date Format

Sets the preferred format for displaying the date.

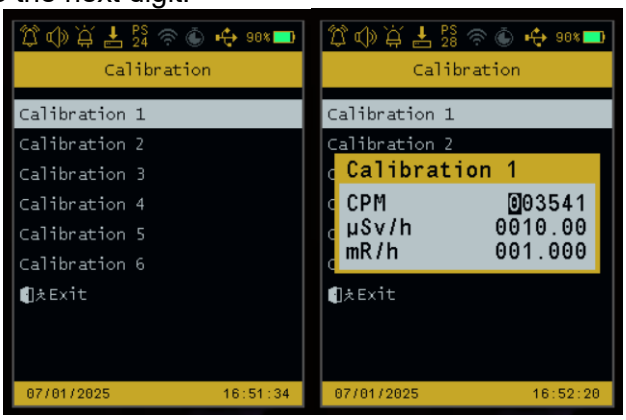
Factory Reset

Restores the device to its original default settings.

Calibration

Allows the user to set the calibration values on the device.
Key1: Saves the current values.
Key2: Increases the selected digit.

Key3: Decreases the selected digit.
Key4: Moves the cursor to the next digit.



GQ GMC-600Pro Calibration Procedure

600+ Recommended Calibration dose rate			
			CPM
Calibration 1	1 mR/h	10 µSv/h	Determined during Calibration Process
Calibration 2	10mR/h	100 µSv/h	Determined during Calibration Process
Calibration 3	50 mR/h	500 µSv/h	Determined during Calibration Process
Calibration 4	100 mR/h	1000 µSv/h	Determined during Calibration Process
Calibration 5	200 mR/h	2000 µSv/h	Determined during Calibration Process
Calibration 6	500 mR/h	5000 µSv/h	Determined during Calibration Process

Recommended Calibration Dose Rates:
For accurate calibration, the device should be calibrated at the following dose rates. The **CPM (Counts per Minute)** values will be **determined during the calibration process** based on the radiation source used.

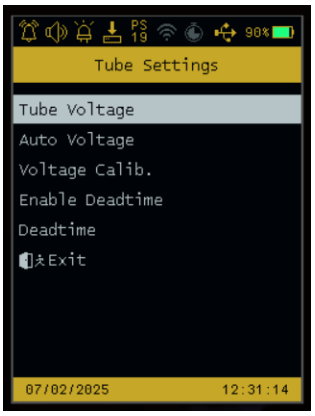
Prerequisites:
- Use a **calibration radiation source** that matches the type and energy of radiation the device is designed to measure.
- Perform calibration in a **controlled lab environment** with proper safety protocols.

Steps:
1. **Power ON the Device:**
   - Turn on the device and wait for it to initialize properly.
2. **Setup the Calibration Radiation Source:**
   - Place the calibration source in the appropriate location as per the device's user manual.
   - Ensure the radiation source is operating correctly, and the activity is known.
3. **Read and Record CPM:**
   - Wait for a stable reading, then record the **counts per minute (CPM)** from the device.
   - Compare the recorded CPM to the known calibration value, which should be provided by the radiation source in terms of **mR/h** or **µSv/h**.
4. **Update Calibration in Device:**
   - Navigate to the Main Menu on the device:
     - **Main Menu → Config → Calibration Settings.**
   - Update the device calibration by entering the corresponding CPM value for the measured **mR/h** or **µSv/h**.
5. **Repeat for 6-Point Calibration:**
   - Repeat the procedure for 6 different calibration points, ensuring that you cover the expected range of radiation intensities for accurate calibration.
   - For each point, record the CPM and adjust the settings accordingly.
6. **Final Verification:**

- After all 6 points have been calibrated, verify the accuracy of the readings by re-checking the calibration values and ensuring the device measures the known radiation levels within an acceptable margin of error.

Tube Settings

Important: Professional Calibration Only
The **tube voltage setting** is a critical parameter that directly affects the accuracy of radiation measurements. This setting is **for professional calibration purposes only**. **End users** should **not change** the tube voltage setting unless explicitly instructed to do so by a **qualified professional**.



Tube Voltage

- Purpose: The Tube Voltage setting allows you to manually adjust the voltage applied to the detector tube. This setting is crucial for ensuring that the detector operates correctly within its specified range.
    - Important Note: This setting is for professional calibration purposes. Users should not change the tube voltage unless explicitly instructed by a qualified professional.

Auto Voltage

- Purpose: The Auto Voltage feature allows the device to automatically adjust the tube voltage in response to high CPM readings. This ensures that the device maintains accurate readings even when radiation levels are fluctuating or higher than usual.
- Functionality:
    - When enabled, the device automatically adjusts the voltage to optimize the measurement process for higher CPM readings.
    - Can be turned off if manual voltage control is preferred for specific calibration needs.

Voltage Calibration

- Purpose: This feature ensures that the voltage reading on the device is accurate compared to the actual voltage being applied across the tube's positive (+) and negative (-) terminals. Accurate voltage readings are essential for maintaining calibration integrity.
- Calibration Process:
    - Check the displayed voltage reading on the device.
    - Measure the real voltage across the tube terminals with a precision meter.
    - Adjust the device settings if there's a discrepancy between the displayed voltage and the actual voltage.
- Adjustments: Only qualified technicians should perform adjustments to ensure that the calibration remains accurate.

Deadtime

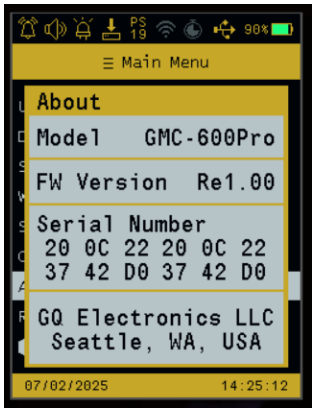
- Purpose: Deadtime correction is a feature that compensates for the deadtime (the period after each count during which the device cannot register another count) in the CPM measurements.
- Functionality:
    - When enabled, the device automatically applies deadtime correction to account for the time when the detector is processing one count and is therefore unable to register another during that period.
    - This correction is particularly useful when measuring high radiation levels, where the detector might otherwise underreport counts due to deadtime effects.

Language

The device allows users to select from different **predefined languages** for ease of use in various regions. This feature ensures that the device interface and calibration prompts are accessible to a diverse range of users.

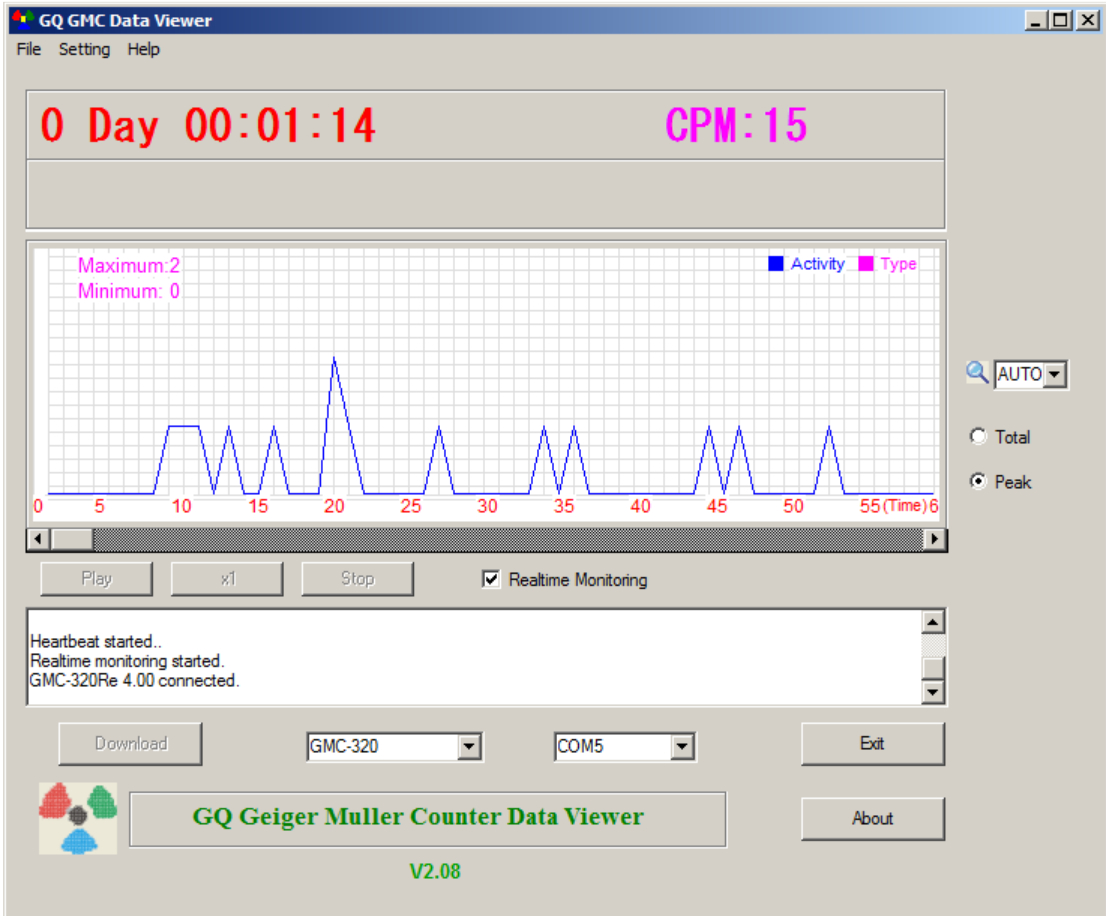
About

The **About** menu provides essential details about the device, including its **model**, **revision**, **serial number**, and **manufacturer**. This information is helpful for device identification, support, and troubleshooting.



GQ GMC Data Viewer Software

The **GQ GMC Data Viewer** software is a utility provided with the GMC-600 package for data management and real-time monitoring.

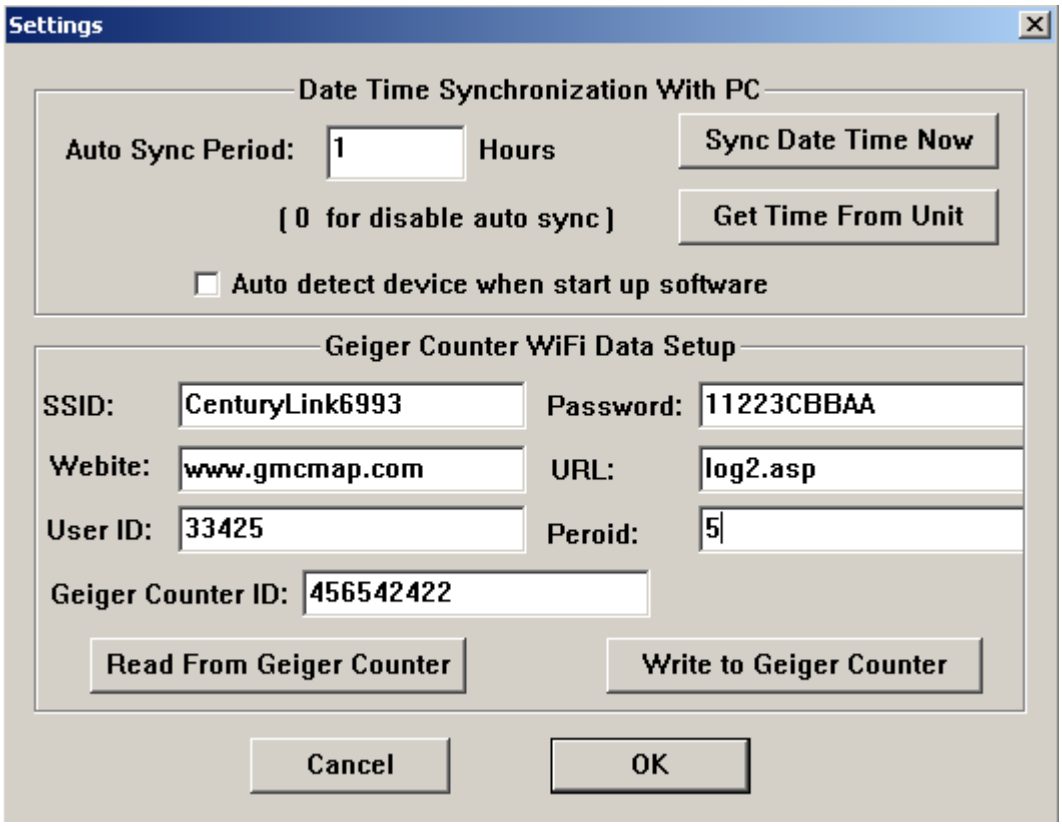


Main Features

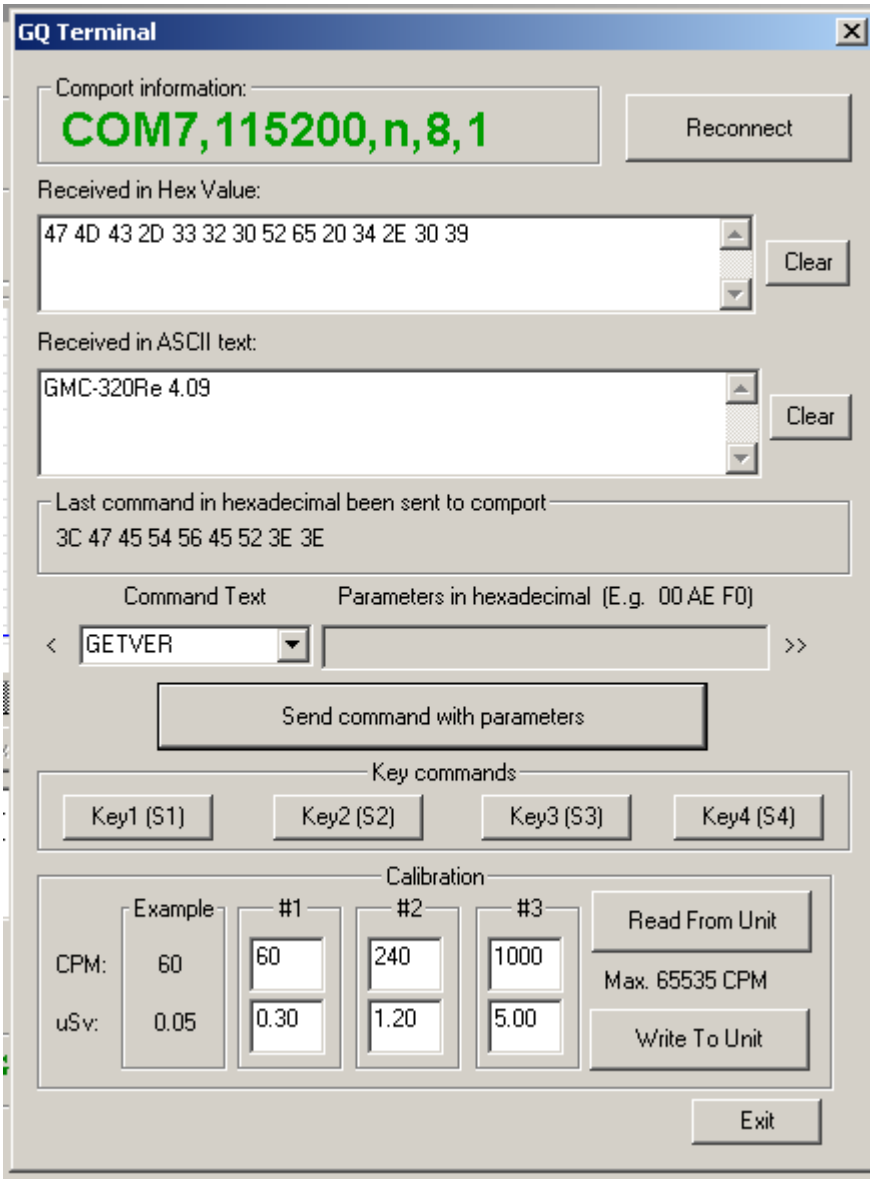
- **Download History Data**
  Retrieve saved radiation data from the GMC-600 device for analysis or backup.
- **Real-Time Monitoring**
  View live radiation levels with graphical display when connected to the GMC-600.
- **Flexible Data Export**
  Save historical data in either .bin format or as .csv files compatible with Microsoft Excel.
- **Date and Time Synchronization**
  Automatically synchronize the GMC-600Pro device's date and time with the computer's system clock.
- **Custom Sync Interval**
  Users can define the automatic synchronization interval for date and time updates.
- **GQ Terminal Utility**
  Includes a communication interface for advanced users to interact directly with the device using the GQ communication protocol.

WiFi Setup Utility

Through the Settings menu in the Data Viewer software, users can quickly and easily configure the device's WiFi connection and data logging options.



GQ Terminal



The **GQ Terminal** provides direct access to the GMC-600Pro communication protocol, allowing users to send commands and interact with the device in real time.

The software includes several **click-to-send commands**, including:
GETVER, GETSERIAL, GETCPM, KEY0, KEY1, KEY2, KEY3, SPEAKER0, SPEAKER1, ALARM0, ALARM1, GETVOLT, GETGYRO, GETCFG, GETCPS, GETTEMP, HEARTBEAT0, HEARTBEAT1, GETDATETIME, CFGUPDATE, POWEROFF, POWERON, SETDATETIME, FACTORYRESET

For commands not listed, users can manually enter them into the software's command input box.
For a complete list of supported communication protocol commands, visit:
GQ Communication Protocol Download

GQ GMC Data Logger PRO (Optional Software)
GQ GMC Data Logger PRO is an advanced, third-party-compatible software designed for use with a wide range of Geiger counters from various brands and models. It offers enhanced features ideal for experienced users.
A demo version is available on the GQ Electronics Downloads Page.

Online Geiger Counter World Map

www.GMCmap.com

The Geiger Counter World Map is free and open protocol map. Anyone can use it for free. It provides a free space to all Geiger Counter users.

As a registered user, each user can have multiple Geiger Counters at different locations. All registered Geiger Counters have free history data storage space. User is able to retrieve their history data anytime, anywhere. User is able to publish their history data to others by set the data properties.

Software

The GMCmap accepts any software automatically submitted data.

The following tested software are free for automatic submit data feature.

1. GQ Geiger Counter Data Logger PRO (works on all Geiger Counter)
2. GQ Geiger Counter Data Viewer (works on GMC-300, GMC-320, GMC-600 series Geiger Counters)

Both software can be found and downloaded from GQ Electronics LLC download page

The GMC-600 series are able to submit the data via internal WiFi connection without other software.

Auto Submit Data Protocol

In order to use automatically submit data, user has to be registered from GMCmap.com, so that to get a valid user account ID and Geiger Counter ID. Each user can have multiple Geiger Counters at the different locations.

Auto submit data url format:
http://www.GMCmap.com/log.asp?id=UserAccountID+GeigerCounterID+CPM+ACPM+uSV

At least one reading data has to be submitted.

Here: 1. UserAccountID: user account ID. This ID is assigned once a user registration is completed. 2. GeigerCounterID: a global unique ID for each registered Geiger Counter. 3. CPM: Count Per Minute reading from this Geiger Counter. 4. ACPM: Average Count Per Minute reading from this Geiger Counter(optional). 5. μSv: μSv/h reading from this Geiger Counter(optional).

Followings are valid data submission examples:

1. http://www.GMCmap.com/log.asp?id=0230111+0034021+15+13.2+0.075
2. http://www.GMCmap.com/log.asp?id=0230111+0034021+15+13.2+0
3. http://www.GMCmap.com/log.asp?id=0230111+0034021+15+0+0
4. http://www.GMCmap.com/log.asp?id=0230111+0034021+0+13.2+0
5. http://www.GMCmap.com/log.asp?id=0230111+0034021+0+0+0.075

The result will be returned immediately.

The following are the returned result examples:

1. OK.
2. Error! User is not found.
3. Error! Geiger Counter is not found.
4. Warning! The Geiger Counter location changed, please confirm the location.

If a location change warning received, the user needs to confirm the location from that Geiger Counter profile. OR create another Geiger Counter from your account. In this case, you can have two locations share one Geiger Counter.

Other Technical Details You May Want to Know

Data Port

This model features a 3.5mm analog data output port, which uses a standard 3.5mm audio stereo plug. Note: This port is not intended for use with headphones. The audio signal is designed for third-party devices and software. The signal can be directly connected to other devices or a computer microphone port.

USB Port

The USB port is a standard mini-USB port, used for data communication, external power, and battery charging.

Data Collection Time

The GMC-600Pro continuously collects radiation data. Every second, the measured data (CPS) is transmitted to the CPU for processing.

Extending Battery Operating Time

To extend battery life, activate the Power Saving mode and turn off the speaker if it is not necessary. If a fully charged battery drains in less than 5 hours of use, it may need to be replaced. The device uses a standard 18650 (18 x 65.0 mm) rechargeable Li-ion battery.

The GMC-600Pro will operate normally with a 3.7V non-rechargeable battery installed.

Third-Party Software Developers

The GMC-600+ supports an open application protocol, allowing users to develop their own software based on the published GQ-RFC1201 protocol. We encourage you to share your generic software with other users. If you have any questions, please contact support@gqelectronicsllc.com.

You can find the GQ-RFC1201 protocol on the software download page:
Download GQ-RFC1201 Protocol