



# Ethernet WEB-GATEWAY RMG/941C

ORIGINAL INSTALLATION INSTRUCTIONS



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## Addresses, identification and notes

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### Product identification

Ethernet WEB-GATEWAY RMG/941C  
Model Number: 618845  
  
Country of Origin: Germany  
Symbol: CE

### Customer Service

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### Document identification

Original installation instructions Ethernet WEB-GATEWAY RMG/941C  
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# 1 Safety

Before installing the WEB-GATEWAY RMG/941C in the battery system, read these instructions carefully.

Please follow the safety and warning instructions carefully to avoid damage to persons, objects and the environment.

 <b>CAUTION</b>	
 	<p><b>Risk of burns if you fail to adhere to the safety instructions.</b></p> <p>During operation, heat can be generated by live parts, overload, arc or short circuit. Touching hot surfaces can cause minor burns.</p> <ul style="list-style-type: none"><li>► Read the operating instructions carefully before using the modular battery.</li></ul>

## 1.1 Important notes on this manual

### 1.1.1 Purpose

This document describes the installation of the WEB-GATEWAY RMG/941C in a BMZ Hyperion battery system.

### 1.1.2 Target group

The installation instructions are intended exclusively for qualified electricians.

## 1.2 Symbol explanations

### 1.2.1 Explanations regarding safety instructions and warnings




Safety instructions are universally valid and can be found in a safety chapter or at the beginning of a chapter.

**Safety  
Instructions**

## Warnings







Warnings are placed directly before the instructions of the respective action. They help you to avoid dangers during the upcoming action. They consist of the following elements:

Table 1: Warnings

<b>Warning triangle</b>	indicates all hazards with regard to death or injury along with a signal word.
<b>Signal word</b>	<div>  <b>DANGER</b> </div> denotes a hazard with a high degree of risk. Failure to avoid exposure to it will result in death or serious injury. <div>  <b>WARNING</b> </div> denotes a hazard with a medium degree of risk. Failure to avoid exposure to it can result in death or serious injury. <div>  <b>CAUTION</b> </div> denotes a hazard with a low degree of risk. Failure to avoid exposure to it can result in a minor injury. <div> <b>NOTICE</b> </div> indicates hazard concerning objects. Failure to avoid exposure to it can result in damage to property.
<b>Type and source of the danger</b>	states the nature of the danger and what causes it
<b>Consequence</b>	indicates what can happen if you do not follow the warning
<b>Call for action</b>	describes what you must do to protect yourself from the danger
<b>Additional symbols, pictograms</b>	can be used in addition to the warning triangle. Warning signs (yellow) indicate the danger. Prohibition signs (red) and mandatory signs (blue) represent remedial measures.

### 1.2.2 Explanation of pictograms and symbols

Table 2: Explanation of the symbols used

Symbols	Declaration
	General warning sign. Note additional information.
	Warning of dangerous voltage
	Warning of dangers from batteries that are being charged
	Warning of flammable substances
	Hot surface warning
	Warning of hand injuries



No access for persons who have pacemakers or implanted defibrillators



Manual lifting prohibited.



General commandment sign  
Note additional information.



Adhere to instructions.



Use foot protection.



Use hand protection.



Do not dispose of batteries with household garbage.

### 1.3 Main hazards

You can expect zero danger from the battery under normal conditions. The battery corresponds to the state of the art in science and technology. However, it is impossible to completely exclude risks if the battery is misused or in the event of technical failure. In case of lithium-ion batteries, these generally include fire, explosion, chemical burns, and electric shock.

The product-specific risk of hazards is elevated by

- water (e. g. flooding),
- heat exposure (> 70 °C), and
- failure or malfunction of the control system due to electromagnetic radiation.



Electric shock

Touching live components may cause an electric shock when modular batteries are connected in series. The electric shock can have thermal or muscle paralysing effects. The latter can lead to ventricular fibrillation, cardiac arrest or respiratory paralysis, or death.



Fire

Overload, short circuit or arcing can cause a lithium-ion fire with thermal runaway. People can be hit by electrolyte or molten material. In the event of fire, there is a risk of suffocation due to lack of oxygen and a risk of poisoning due to toxic fumes.

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## 1.4 Qualification of the users

Only the electricians qualified by BMZ GmbH or BMZ GmbH itself may install the battery system.

### Children

Do not leave the children unattended or allow them to be near the battery system.

### People with implants



High currents have effects on medical implants.

- ▶ People with implants must be careful not to be in the direct vicinity of the battery during operation.

## 1.5 Personal protective equipment (PPE)

Use foot protection and hand protection during assembly.

## 1.6 Emergency instructions

### 1.6.1 Measures in case of fire

- ▶ Do not inhale smoke and vapours.
- ▶ Report a lithium-ion fire to the fire department.
- ▶ If possible: close the doors.
- ▶ If possible: cool the modular battery with water. Avoid contact with the extinguishing water!

### 1.6.2 Measures after gases or liquids have escaped

#### Inhalation

Escaping gases can cause respiratory problems.

- ▶ Ventilate immediately or go out into the fresh air, in more extreme cases, call a doctor immediately.

#### Skin contact

Skin contact may cause skin irritation.

- ▶ Wash skin thoroughly with soap and water.

#### Eye contact

Eye contact may cause irritation to the eyes.

- ▶ Immediately rinse eyes thoroughly with water for 15 minutes, then consult a doctor.

### 1.6.3 Measures after electric shock

Ensure that the system is at zero voltage.

- ▶ **For unconscious patients:** Ensure respiration and cardiovascular function. If necessary, initiate cardiopulmonary resuscitation immediately.
- ▶ **For responsive patients:** Cool burn injuries and cover them by dressing the wound.

## 2 Product description

### 2.1 Information about the product

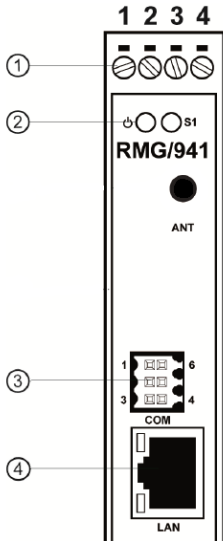
The Remote Maintenance Gateway (RMG/941) is an optional device to the ESS HV batteries intended to allow remote software update and diagnostic. Such services are performed directly by the battery manufacturer in order to keep the system performance on its latest standard.\*

(\*)Device registration and acceptance of general terms and conditions in registration portal by the end-customer is necessary.

### 2.2 Scope of delivery

- 1x Ethernet WEB-GATEWAY RMG/941C
- 1x Installation Manual
- 1x Sub-D Cable

### 2.3 Interface overview

	① Screw terminals: Position: 1- CAN-LOW 2- CAN-HIGH 3- Vin+ (12Vdc to 27Vdc) 4- Vin- (Ground)
	② Power LED (ON/OFF)
	③ Service Port (not in use)
	④ Ethernet Interface (LAN)

### 2.4 Technical data

Table 3: Technical data

Supply voltage	12 Vdc to 27 Vdc
Power Consumption	≤ 12W
Weight	< 150 g
Dimensions (W x H x D)	112 mm x 100 mm x 22.5 mm
Operating temperature	0 °C to 60 °C
Storage temperature	-40 °C to 85 °C
EMC Standards	CE, EN 61000-6-2, EN 61000-6-4
Environmental Standards	RoHS, WEEE



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## 3 Commissioning

### 3.1 Safety Instructions

#### Guidelines

The installation may only be carried out by qualified electricians according to IEC 60204-1 (International Electrotechnical Commission).

### 3.2 Installation

#### 3.2.1 Mounting

#### Requirement

The RMG/941C should be mounted on the DIN Rail profile inside the Hyperion housing.

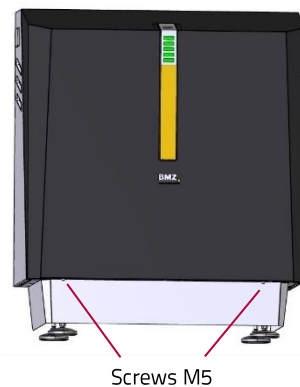
#### Instructions

Assembly steps:

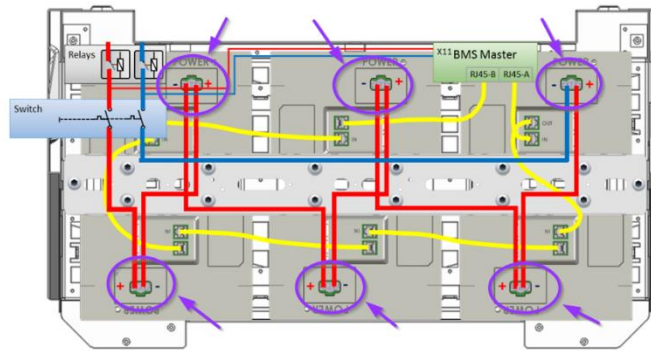
1. Switch off the battery's main DC Circuit Breaker



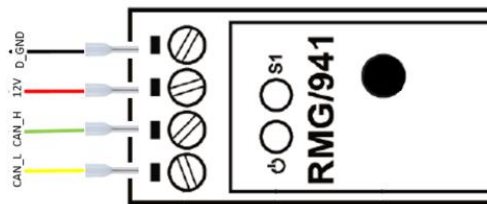
2. Disconnect the Inverter from MAINS and also all the inverter cables connected to the battery
3. Unscrew 2 screws (4 mm Allen key) at the front bottom of the system housing.



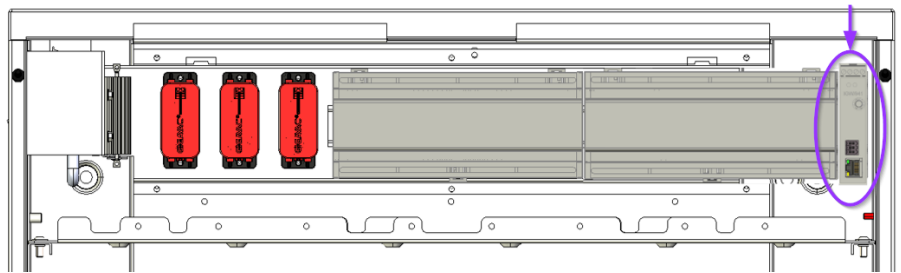
4. Remove the hood from the system housing base.
5. Disconnect all battery power cables from the system



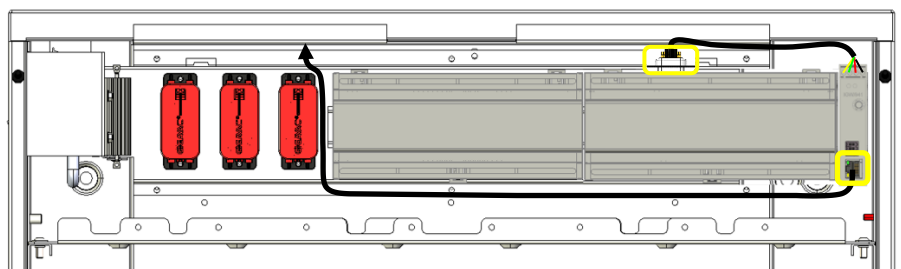
6. Connect the SUB-D cable to the RMG/941C as follows.



7. Remove the socket from the DIN Rail and insert the RMG/941C on the right hand side of the DIN Rail.



8. Connect the RMG/941C cable to the Hyperion board and the RJ45 Cable to the pass-thru socket.



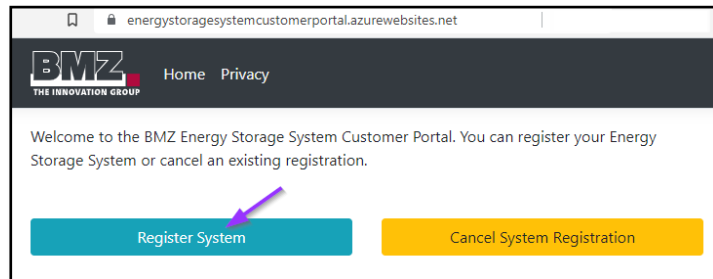
9. The RJ45 network cable must be connected to the internet router from end-user's home and be able to reach the internet (\*make sure no firewall will restrict its communication).
10. Reconnect all battery cables and close the housing
11. Reconnect all the inverters cables and turn all the switches back on.

### 3.2.2 Registering and Activating

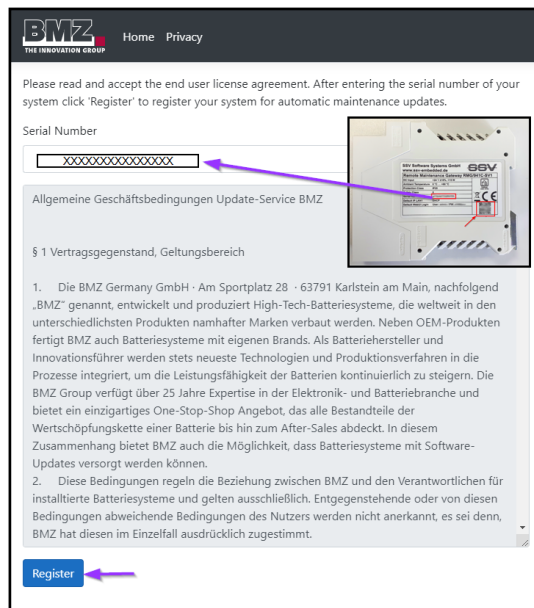
Once the RMG/941C is installed the last necessary step is the online registration thru the following procedure:

1. Go to a web-browser (thru an internet connected laptop or smartphone), access the registration webpage and click on 'REGISTER SYSTEM'

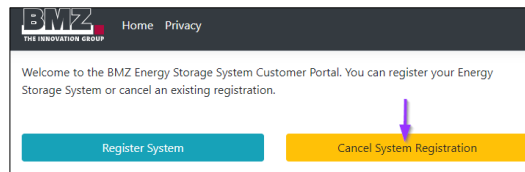
<https://energystoragesystemcustomerportal.azurewebsites.net/>



2. Input the device serial number and accept the general terms and conditions by clicking in 'CONFIRM':



3. Congratulations, now the registration is successfully done!  
The following step is not mandatory but advisable.
4. Please take note of the registration code and store it in a safe place.  
This code will allow the deactivation of auto-updates and further services in case that is wished for in the future.  
Such procedure can be done thru the same portal by clicking on 'Cancel System Registration' and inputting the registration code.



## 4 Repair

The product may only be opened and repaired by the manufacturer.

Defective products must be sent to the manufacturer's service department.

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## 5 Further directories

### 5.1 Glossary

Term	Definition
BMS	battery management system
damage	physical injury or damage to the health of persons, or damage to property or the environment
ESS HV	Energy Storage System (High-Voltage)
hazard	potential source of damage
PPE	personal protective equipment
qualified personnel	an individual who, on the basis of his or her relevant professional education, training and/or experience, is capable of identifying risks and preventing hazards arising from the use of the product
user	individual who uses the product

### 5.2 List of tables

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