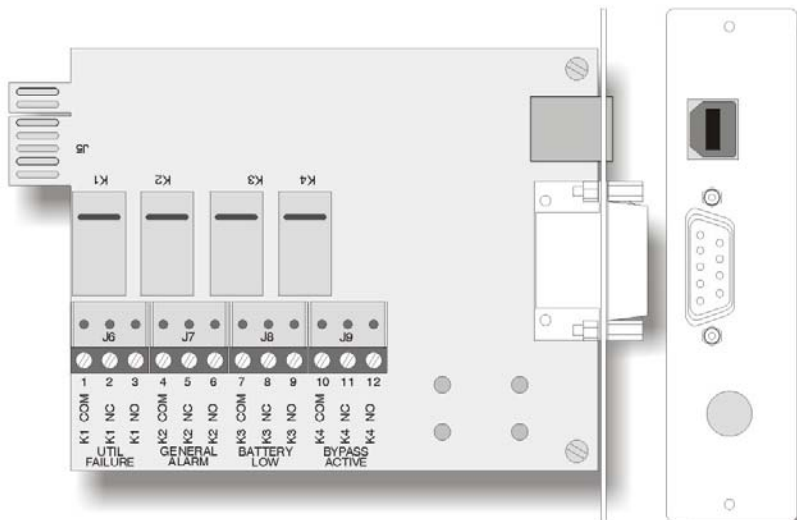


GE  
Consumer & Industrial

# Installation manual

## Digital Energy™ USB / RS232 / Relay Interface Card

for use with GE Digital Energy  
VH Series UPS 700 - 3000 VA



GE Consumer & Industrial SA  
General Electric Company  
CH - 6595 Riazzino (Locarno)  
Switzerland  
T +41 (0)91 / 850 51 51  
F +41 (0)91 / 850 51 44  
[www.gedigitalenergy.com](http://www.gedigitalenergy.com)



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# Installation manual

## Digital Energy™ USB / RS232 / Relay Interface Card

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VH Series UPS 700 - 3000 VA

Please read these instructions carefully before installation of the interface card. Keep this manual in a safe place for future reference.

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# 1 - Important safety instructions

## 1.1 Save these instructions

This manual contains all necessary information about the correct installation of the USB/RS232/Relay Card into the Digital Energy™ VH Series UPS. Before attempting to install or operate the equipment, carefully read this manual.

Full understanding of and compliance with the safety instructions and warnings contained in this manual are the

### **ONLY CONDITIONS**

to avoid any dangerous situation during installation, operation and maintenance work, and to preserve the maximum reliability of the UPS system.

GE refuses any responsibility in case of non-observance, unauthorized alterations or improper use of the delivered UPS.

While every care has been taken to ensure the completeness and accuracy of this manual, GE accepts no responsibility or liability for any loss or damage resulting from the use of the information contained in this document.

This document shall not be copied nor reproduced without the permission of GE.

Due to technical improvements, some of the information contained in this manual may be changed without notice.

## 1.2 Safety rules



### **CAUTION**

There may be damage to the equipment if procedures and practices are not strictly observed and followed.



### **NOTE**

The installation and cabling of the option "USB/RS232/Relay Card" must be performed by a qualified service person\*.  
Please refer to the "Safety Rules" included in the "Operating Manual" of the UPS.  
If any problems are encountered with the description of this installation guide, please contact the nearest Service Centre before proceeding.  
For the installation and cabling of the card in USA use only type DP (DP1, DP1-P or DP2, DP2-P) or equivalent cable.

\* Qualified, skilled personnel are persons who (because of their training, experience, and position as well as their knowledge of appropriate standards, regulations, health and safety requirements and working conditions) are authorised to be responsible for the safety of the equipment, at all times whilst carrying out their normal duties and are therefore aware of, and can report, possible hazards (observe IEC 364, DIN VDE 0105 and national wiring regulations and accident prevention rules).

## 2 - Introduction

### 2.1 Introduction

The USB/RS232/Relay interface card enables advanced communication between the UPS and the computer (software required). The card is to be installed in the option slot of the Digital Energy™ VH Series UPS models. The card is provided with an USB connector, a 9-pole sub-D connector and four potential free changeover contacts, representing: mains failure, general alarm, battery low and bypass active. The identification number of the USB/RS232/Relay Card is 18802.

### 2.2 Intended use

- The USB/RS232/Relay interface card is to be installed in the option slot of the Digital Energy™ VH Series UPS models.
- The technical data can be found in this document and shall be strictly observed.

### 2.3 Warranty

GE Consumer & Industrial SA, operating through its authorized agents, warrants that the standard products will be free of defects in materials and workmanship for a period of 36 months after the date of invoice, or such other period as may be specified.



#### NOTE

This warranty does not cover failures of the product which result from incorrect installation, misuse, alterations by persons other than authorized agents, or abnormal operating conditions.

## 3 - Installation

### 3.1 Package contents

The USB/RS232/Relay Card kit contains the following items:

- ESD-proof bag with USB/RS232/Relay Card (PCB IM0131A1, article ID# 18802)
- plastic bag with two screws
- USB cable
- RS232 cable
- this manual

Inspect the card for damage after unpacking. If any damage is present please immediately notify the carrier and place of purchase.

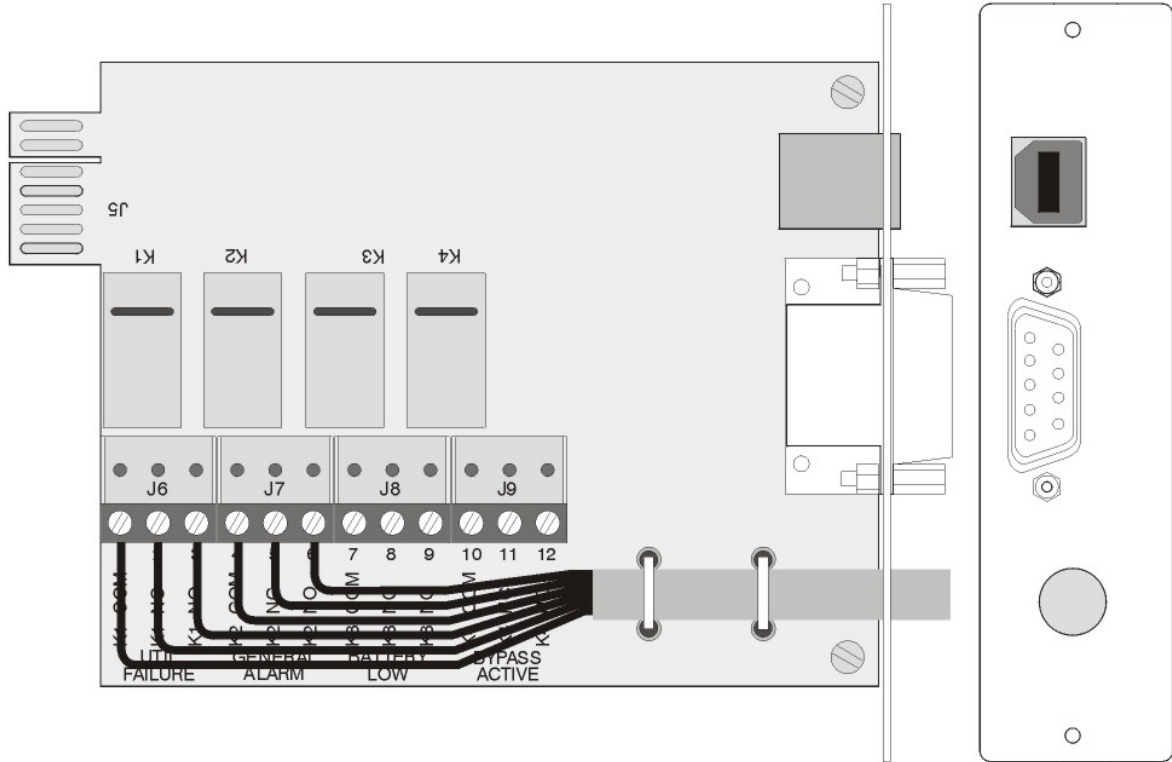


**WARNING!** In case of recognizable damage do not insert the card in the UPS

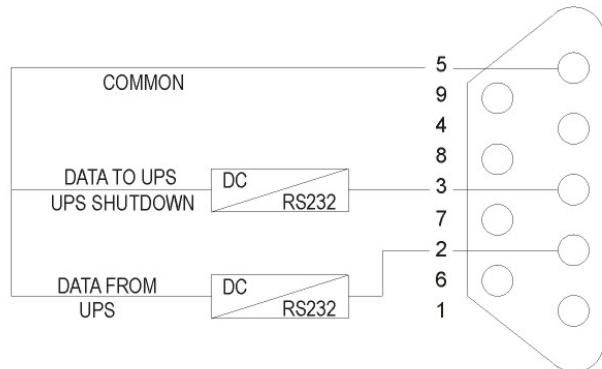
## 3.2 Installation procedure

Be sure that you have read and fully understood Chapter 1 "Important Safety Instructions".

### Step 1 Make all necessary connections



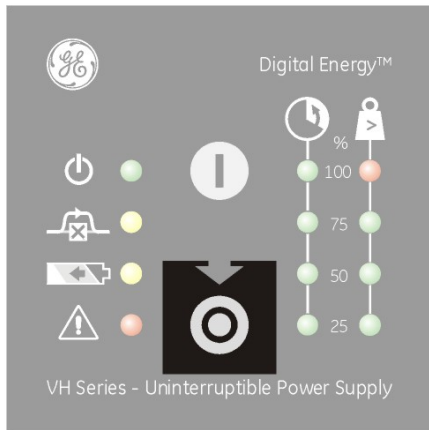
K1 COMMON	1	
ON COMMERCIAL AC	2	
UTILITY FAILURE	3	
K2 COMMON	4	
GENERAL ALARM	5	
!GENERAL ALARM	6	
K3 COMMON	7	
!BATTERY LOW	8	
BATTERY LOW	9	
K4 COMMON	10	
!BYPASS ACTIVE	11	
BYPASS ACTIVE	12	



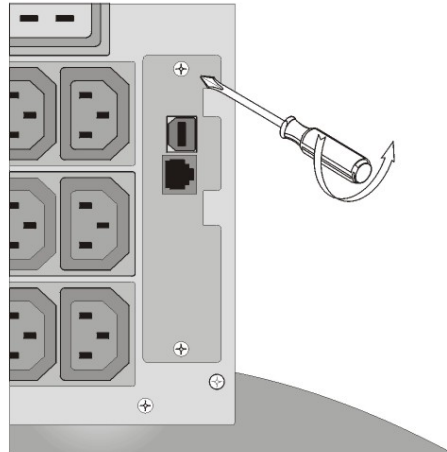
#### NOTE

The text 'NO' and 'NC' (normally open resp. normally closed) printed on the card reflects the 'cold' situation, i.e. when the card comes out of the box. After installation, and during normal operation, pins 4-5 are open and 4-6 are closed.

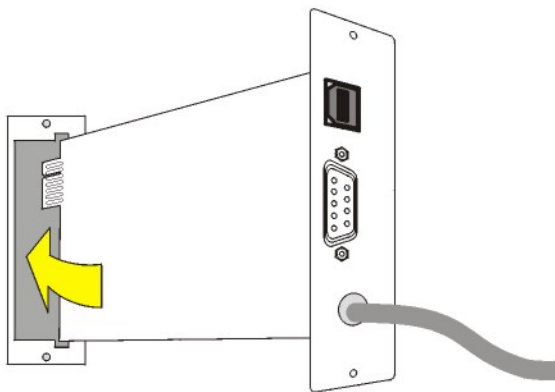
## Step 2 Switch off the UPS



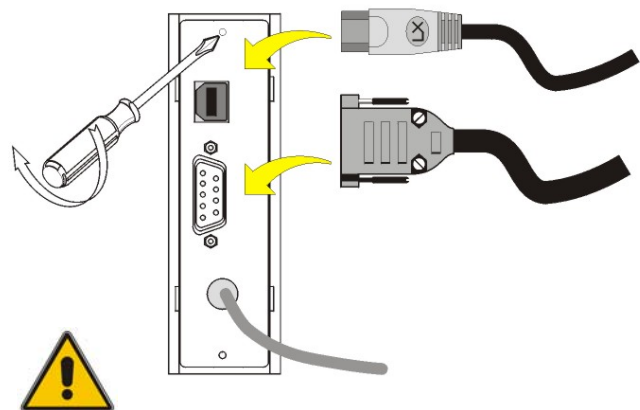
## Step 3 Remove existing card



## Step 4 Insert new option card

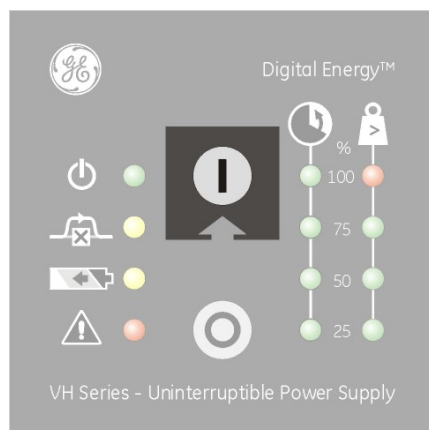


## Step 5 Fix card and connect data cable(s)



**NOTE:**  
USB and RS232 cannot be used simultaneously.  
When both ports are used, USB will override the RS232 connection.

## Step 6 Switch on the UPS



## 4 - Specifications

Power Supply	:	8-18V
Max. input power	:	2W all relays closed
Signal inputs	:	on state 2.4V; 1.35mA min.
Output	:	relay, screw terminal
- Voltage rating	:	60 Vdc or 42 Vac RMS
- Current rating	:	1.25 A max (50 VA max)
Operating temp.	:	-10 ~ +40°C
Storage temp.	:	max. 60°C