



# CsCAN Interfaces for USB and PCI

## Quick Start Guide

### 1 INTRODUCTION

Horner APG has partnered with Kvaser of Sweden on two new CsCAN solutions for the personal computer (PC). The CsCAN Interface Cards (KGM) allow a personal computer loaded with the appropriate software to communicate directly with any OCS family product over CsCAN network.

- The **CsCAN USB Interface** (HE200KGM571) is a highly rugged **USB** interface that connects directly as a node on the CsCAN network.
- The **CsCAN PCI Interface** (HE200KGM561) is a **PCI** interface card that connects directly as a node on the CsCAN network.

To communicate through KGM cards, use:

- Cscape Programming Software (6.5 or later) (HE500OSW232)
- The legacy Horner OPC Server (4.20 or later) (HE200CGM510) or KEPCware OPC Server (HEOPC500).
- Windows XP Professional is the recommended personal computer operating system – although Windows 98, 2000 & ME are also supported.



Figure 1 - KGM

### 2 Package Contents

- CAN interface for USB or CAN interface for PCI
- CsCAN Adapter Cable (DE9 international to 5-pin CsCAN)
- Driver CD
- This *Quick Start Guide*

### 3 CsCAN Pinout / Cabling

Table 1 – CsCAN Port Pin-out		
Pin	Signal	Description
1	V-	Power -
2	CN_L	Signal -
3	SHLD	Shield
4	CN_H	Signal +
5	V+	Power +

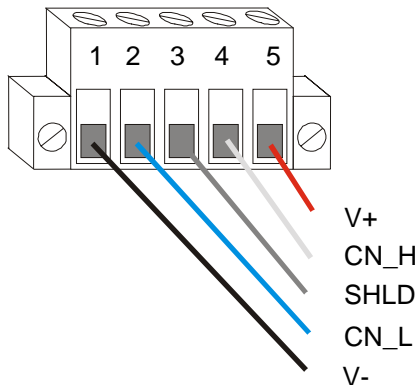


Figure 2– CsCAN Network Connector

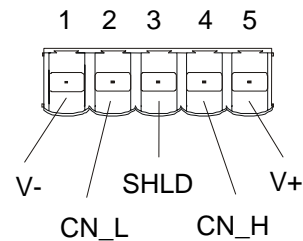


Figure 3– Cable view with Plug Removed

### 4 Installation Procedures

**NOTE:** The order in which installation steps are performed is very important – *read carefully*.

#### Step 1 – Install the Kvaser Drivers.

- The KGM cards include a CD that contains all the files required for installation.
- If you are running Windows XP or 2000, run the program “Kvaser\_drivers\_w2k\_xp.exe”.
- If you are running Windows 98 or ME, run the program “Kvaser\_drivers\_w98.exe”.
- Proceed through the installation steps.

**NOTE:** Unless you know you have old CAN drivers from Kvaser on your computer, make sure you select **No – don't try to remove old drivers** when you get to that stage in the installation. If you have old drivers, the install will be aborted and you'll have to remove them manually (through the **Add/Remove Programs** facility in the Control Panel). When the **Installation Complete** dialog box is displayed, you are done with Step 1.

#### Step 2 – Reboot Your Computer.

**Step 3 – Open the Windows Control Panel.**

In the Windows Control Panel, a new option **CAN Hardware (Kvaser)** appears. Verify it is there, and then move on to the next step.

**Step 4 – Install the KGM561 or KGM571 Hardware.**

After a few moments, the **Found New Hardware** facility starts. When given the option, make sure you select **Search for a suitable drive**. Windows will not have any trouble finding the appropriate driver – as long as the previous steps were completed. Follow the normal steps to completion.

**Step 5 – Reboot Your Computer Again.****Step 6 – Open the Windows Control Panel Again.**

In the Windows Control Panel, double-click **CAN Hardware (Kvaser)**. Double-click on this object. The **CAN Driver Configuration** dialog opens.

Verify that **USBcanII / Memorator** (for KGM571) or **PCican HS** (for KGM561) has been added to the hardware list.

**INSTALLATION IS NOW COMPLETED!****5 Using KGM Cards with Cscape Software**

1. Launch Cscape 6.5 or later.
2. From the **Tools** pull-down menu, select **Options...**
3. Click on the **Communications Port** Tab.
4. On the **Comm Ports** list, select **K Can**. Press the **OK** button.

After closing the Options dialog, Cscape returns the view to the Ladder Editing environment. The Cscape status bar now shows a Local and Target Port of 0. Find the **Target** icon – and change the target to the CsCAN ID of the unit you wish to communicate with. The local port remains 0.

**NOTE:** Cscape 6.70.00 has a bug, which causes Cscape to crash after the **K Can** option is selected from the **Comm Port** list. After re-starting Cscape, the KGM Card operates properly despite the previous crash.

## 6 Interface Features

### A. CsCAN USB Interface (KGM571)

- Has a rugged, cast metal housing – can be panel-mounted.
- Has a USB male connector to interface with Computer Type A USB Ports.
- Powered from the Computer's USB Port.

### B. CsCAN PCI Interface (KGM561)

- Has Standard PCI form factor for internal PC mounting.

### C. Common Features of USB Interface(KGM 571) and PCI Interface (KGM561)

- Integral 9-pin CAN port – International Standard pin-out.
- Included CsCAN Adapter Cable – supports CsCAN standard 5-pin connector.
- Included Drivers for Windows 98, ME, 2000, XP.
- Compatible with Cscape 6.5 or later and Horner OPC Server version 4.2 or later.

## 7 SAFETY

When found on the product, the following symbols specify:



**Warning:** Consult user documentation.



**Warning:** Electrical Shock Hazard.

**WARNING:** To avoid the risk of electric shock or burns, always connect the safety (or earth) ground before making any other connections.

**WARNING:** To reduce the risk of fire, electrical shock, or physical injury it is strongly recommended to fuse the voltage measurement inputs. Be sure to locate fuses as close to the source as possible.

**WARNING:** Replace fuse with the same type and rating to provide protection against risk of fire and shock hazards.

**WARNING:** In the event of repeated failure, do not replace the fuse again as a repeated failure indicates a defective condition that will not clear by replacing the fuse.

**WARNING:** Only qualified electrical personnel familiar with the construction and operation of this equipment and the hazards involved should install, adjust, operate, or service this equipment. Read and understand this manual and other applicable manuals in their entirety before proceeding. Failure to observe this precaution could result in severe bodily injury or loss of life.

- All applicable codes and standards need to be followed in the installation of this product.
- For I/O wiring (discrete), use the following wire type or equivalent: Belden 9918, 18 AWG or larger.

Adhere to the following safety precautions whenever any type of connection is made to the module.

- Connect the green safety (earth) ground first before making any other connections.
- When connecting to electric circuits or pulse-initiating equipment, open their related breakers. Do not make connections to live power lines.
- Make connections to the module first; then connect to the circuit to be monitored.
- Route power wires in a safe manner in accordance with good practice and local codes.
- Wear proper personal protective equipment including safety glasses and insulated gloves when making connections to power circuits.
- Ensure hands, shoes, and floor are dry before making any connection to a power line.
- Make sure the unit is turned OFF before making connection to terminals. Make sure all circuits are de-energized before making connections.
- Before each use, inspect all cables for breaks or cracks in the insulation. Replace immediately if defective.

## 6 TECHNICAL SUPPORT

For assistance and manual updates, contact Technical Support at the following locations:

### North America:

(317) 916-4274

[www.heapg.com](http://www.heapg.com)

email: [techspt@heapg.com](mailto:techspt@heapg.com)

### Europe:

(+) 353-21-4321-266

[www.horner-apg.com](http://www.horner-apg.com)

email: [techsupport@hornerirl.ie](mailto:techsupport@hornerirl.ie)

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