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# **U232 USB Upgrade Manual**

## **RS-232-USB Conversion Upgrade Kit**

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Installation Manual



# WARRANTY

## **TIMEWAVE TECHNOLOGY INC. LIMITED ONE YEAR WARRANTY**

### **WHO IS COVERED**

This warranty is extended only to the original purchaser of the A.05101, A.5103 or A.05105 U232..

### **WHAT WE WILL DO**

If your U232 fails in normal use because of a defect in workmanship or materials within one year of the date of purchase, we will repair or replace (at our option) the U232 at our factory without charge to you.

### **WHAT YOU MUST DO**

First, double check your connections and operating procedure. If you're certain that the U232 is faulty, notify Timewave Customer Service immediately. If Timewave is unable to resolve the problem by telephone or email, we will give you an RMA number and ask you to return the U232. You must pay all shipping and insurance charges for returning the unit to our factory.

### **WHAT IS NOT COVERED**

We cannot be responsible for damage caused by accidents, abuse, misuse, improper installation, or unauthorized attempts to repair the unit. This warranty does not cover any parts other than the U232

### **SERVICE WARRANTY**

Timewave service work performed in connection with this warranty is warranted to be free from defects in materials and workmanship for 30 days from the date of repair. All other terms of the limited warranty apply to the service warranty.

### **HOW TO CONTACT TIMEWAVE**

Contact Timewave Customer Service by telephone at (651) 489-5080 or by FAX at (651) 489-5066.

Mailing and shipping address is 1025 Selby Ave., Suite 101, St.Paul, MN 55104

email: sales@timewave.com  
techsupport@timewave.com  
service@timewave.com

web: www.timewave.com

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**Please read before installing this upgrade kit.**

Be sure to review how to order information at <http://www.timewave.com> to be certain that you have received the correct upgrade kit.

**1. Do not attempt to install this RS-232 to USB conversion kit unless you are an experienced electronics technician. Specifically, you must be able to remove a DB-25 or DB-9 connector from a PC board without damaging the traces, vias or the circuit board. If you are not sure you can complete that task, DO NOT ATTEMPT TO INSTALL THIS KIT! Timewave is not responsible for damage caused by improper removal and installation technique.**

**2. Be sure to download the latest driver software for the U232™ upgrade kit from <http://www.timewave.com>**

Thank you for purchasing the U232 RS-232 to USB conversion module. The Timewave part number of this kit is A.05101, A.05103 or A.05105

This manual has two sections:

- 1. RS-232-to-USB interface module Hardware Installation**
- 2. RS-232-to-USB interface module Software Installation**

## **Section 1**

### **RS-232-to-USB Interface Module Hardware Installation**

You may need the following tools to complete this upgrade:

**Solder pencil and solder**

**Needle nose pliers**

**Small adjustable wrench or nut driver for hex jack screws**

**Phillips Screw driver**

**Small straight-blade screwdriver**

**Solder removal tools (de-soldering braid, de-soldering vacuum pump, etc.)**

√ Installation steps

\_\_\_ 1) Remove all cables and power from your unit.

\_\_\_ 2) Dis-assemble your unit so that you can remove the PC board that has the DB-9 or DB-25 connector.

**Do not attempt the following steps if you do not have experience de-soldering multi-pin connectors from PC boards!**

\_\_\_ 8) Carefully de-solder and remove the DB-9 or DB-25-pin connector from your PC board. **Do not burn the PC board with excess heat! Do not damage the vias or traces on the PC board!**

\_\_\_ 9) Clean all excess solder from the vias for the DB-25 or DB-9 connector. **Do not burn the PC board with excess heat! Do not damage the vias or traces on the PC board!**

\_\_\_ 10) Insert the RS-232-to-USB interface module into the DB-25 or DB-9 connector vias from the same side of the PC Board that had the DB connector. Mount the USB connector facing the edge of the PC Board.

\_\_\_ 11) Hold the RS-232-to-USB interface module firmly against the PC Board. Carefully solder the pins of the module to the pads and vias. Use no-clean solder or clean the board with the correct solvent for your solder after the soldering is finished.

12) Carefully inspect all solder joints on the pins of the RS-232-to-USB interface module for cold solder joints and missed or partially soldered pins.

13) Re-assemble your unit.

14) Proceed to software driver installation before re-connecting the your converted unit.