

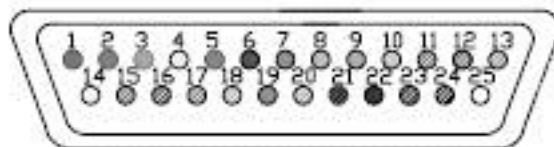
Diagnosing Touchpad/Backup Button/Deck Cable Problems

When the TIMEWARE or MEETWARE Software fails to record a start, touchpad or backup button, the problem could be in the SWIMSTART, the start cable, a touchpad or backup button, the deck cable or in the Computer Timing Interface (CTI). The following procedure will help you determine which of these components needs to be repaired or replaced.

Before you begin testing, connect all components and open your TIMEWARE or MEETWARE Software and go to Meets/Diagnostics/Deck cable.

- **Problem: When the Deck cable Diagnostic is selected, there is an error “Timing port did not initialize” OR the MARKER box on the diagnostic screen is blank OR there is a message next to ERROR (eg., E9 no data).**
 - Check the Software settings (on MEETWARE or TIMEWARE).
 - Under Utilities, select Setup Hardware. Under Timer Port, you will see the available COM ports on your computer in black type. Unavailable COM ports will be gray. One port should have a black dot indicating the current port.
 - If more than one COM port is available, try selecting a different one.
 - **Be sure that the same COM port** is not assigned to the Alternate Scoreboard Port or Results Port.
 - Go back to Meets/Diagnostics/Deck cable to see if the **T(#)** is displayed in the Marker box after changing the COM port.
 - Check the Timing Port assignment in Windows
 - Minimize the IST software you are using
 - On your Desktop, right-click on My Computer and select Manage
 - Under System Tools, select Device Manager
 - Click on the **+** in front of Ports. You will now see a listing of the available COM and LPT ports and one of the following:
 - For a USB to Serial Adapter: **Prolific USB-to-Serial Com Port (COM#)** with # being the port number (or something similar if you didn't buy your adapter from IST)
 - For a USB A to USB B Cable: **USB Serial Port (COM#)** with # being the port number
 - Maximize MEETWARE or TIMEWARE 2, go to Utilities/Setup Hardware and set the Timer Port to the COM# from above. To test the port, in MEETWARE or TIMEWARE 2 go to Meets/Diagnostics/Deck Cable. If the Status is OK and you see the changing number in the Marker box, you're ready to go.
 - you may have a faulty serial cable (or USB to Serial Adapter), serial/USB port on your computer, or CTI. Call IST for further assistance.
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- **Problem: The TIMEWARE or MEETWARE software is not getting any data from the start, touchpads or backup buttons.**
 - Check all connections.
 - Is the Computer Timing Interface (CTI) connected to an 110v GFI outlet?

- Is the Power light on the front of the CTI lit continuously? If not, check to be sure the outlet or power strip is working properly.
 - Is the Data light on the front of the CTI flashing? If it is off or not flashing, disconnect the CTI from power, wait 15 seconds and reconnect. If the Data light is still off or not flashing, you may have a faulty CTI.
 - Is the 25 pin connector on the deck cable screwed firmly into the Deck Cable socket on the back of the CTI? If this connector is not firmly seated in the socket, some pad or backup inputs may not work correctly. Remove and reseat the connector several times and then screw it firmly into the socket.
 - If you are using a serial cable (older CTI's), is the 25 pin connector plugged in to the Computer socket on the back of the CTI? Is the 9 pin connector of the serial cable plugged in to the computer's serial port? **Note: If your computer does not have a serial port, you must use a USB to Serial Adapter to connect to a USB port on the computer. You must ALSO have the software driver that came with your USB to Serial Adapter loaded on your computer.**
 - If you are using a USB-A to USB-B cable (newer CTI's), is the USB-B (square) connector plugged in to the Computer socket on the back of the CTI? Is the USB-A (flat) connector of the serial cable plugged in to a USB port on the computer? **Note: If you are using a USB port you MUST have the software driver that came on your TIMEWARE or MEETWARE CD loaded on your computer.**
- Inspect the 25 pin connector on the CTI.
- Look at the Touchpad/Deck Cable on the back of the CTI to be sure that all 25 pins are the same length. Sometimes forcing the deck cable on when it's not fully aligned will cause a pin to be pushed in so it doesn't make good contact. If you see a bad pin, you can CAREFULLY pull it back out with small needle nose pliers, or call IST for a Return Material Authorization (RMA) number for repair of the CTI.
 - Clean the connector with a spray made specifically for cleaning and protecting electrical contacts, like Ridox Protective Spray (Part Number HW2112-6S, available from IST). This cleans and coats connections to prevent future buildup of chemicals and oxidation.
- Test the 25 pin Connector on the CTI
- This test will allow you to check each pin on the 25 pin Touchpad/Deck Cable connector on the back of the CTI.
 - The CTI must be plugged in to power and connected to the computer with the USB-A to USB-B cable, Serial Cable or Serial Cable with USB adaptor. Do not connect the deck cable. Verify that the Power LED is on steadily and the Data LED is flashing.
 - From the TIMEWARE or MEETWARE software, go to Meets/Diagnostics/Deck cable. Turn the CTI so that you have access to the back and are able to see the Diagnostic screen on the computer.
 - The pins on the 25 pin Touchpad/Deck Cable connector on the back of the CTI are numbered from left to right as shown in the drawing below.
 - Pins 1-10 are for Pads 1-10, pins 11-20 are for Backups 1-10, pin 21 is for the Start Device, pin 22 is for the Backup Start, pins 23 and 24 are ground and pin 25 is not used.



- You will need a piece of conductive wire (or a paper clip straightened out) to use for testing. Touch one end of the wire to Pin 23 or 24 and then touch the other end to Pin 1. On the Diagnostic screen, you should see **1** in the “I/O number” box and **Pad 1** in the “Device” box.
- Keeping the wire on Pin 23 or 24, move the other end to Pin 2. You should now see **2** in the “I/O number” box and **Pad 2** in the “Device” box. Repeat for the remaining pins, verifying that the I/O number and Device match the description of that pin. If any pin fails to produce a result, make a note of the pin number and proceed with the rest of the pins.
- Repeat the entire test a second time to verify that each pin reacts the same way as before.
- If certain pins fail consistently, contact IST for an Return Material Authorization (RMA) Number so the CTI can be returned to IST for repair.
- Check the banana sockets on the Deck Cable
 - Clean the sockets with a spray made specifically for cleaning and protecting electrical contacts, like Ridox Protective Spray (Part Number HW2112-6S, available from IST). This cleans and coats connections to prevent future buildup of chemicals and oxidation.
 - If the connector boxes on the deck cable are cracked or broken, they may need to be replaced. Call IST for a quote on the repairs.
- Check the banana plugs on the touchpads and backup buttons.
 - Check the prongs on the banana plugs to see if the springs are cracked or broken. The entire plug can be replaced. Call IST for a quote on the repairs or a do-it-yourself repair kit.
 - Clean the banana plugs with a spray made specifically for cleaning and protecting electrical contacts, like Ridox Protective Spray (Part Number HW2112-6S, available from IST). This cleans and coats connections to prevent future buildup of chemicals and oxidation.