Diagnosing IST Scoreboard Problems

- **Problem: The scoreboard is completely blank.**
  - Check for power.
    - Is the circuit breaker for the scoreboard blown?
    - Are the fuses in the end of each scoreboard line blown?
    - **NOTE:** If you are using a Fair-Play, Colorado or Daktronics numeric scoreboard, you should see some of the digits light up when power is turned on.
- **Problem: The scoreboard has power (displays IST or 00) but Diagnostics, Messages or Timing Data sent by IST software are not displayed on the scoreboard.**
  - 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 that data cable that connects the CTI to the scoreboard plugged into the Scoreboard connector on the back of the CTI and to the top socket on the scoreboard? If the cable is connected, unplug both ends and check for corrosion on the connectors or broken/loose wires. If the connections are slightly corroded, you may be able to clean them up by simply plugging them in and out several times. **Note: IST scoreboard cables are wired "straight through" while most phone or network cables are wired "crossed over". To check the wiring, hold the connectors from both ends of the cable side by side with the clips facing down. The colors of the wires in each end should be the same from left to right if the cable is wired "straight through". If the colors are opposite on one end, the cable is wired "crossed over" and it will not work with an IST scoreboard.**
    - Is the USBA/B cable or 25 pin connector of the serial cable plugged in to the Computer socket on the back of the CTI?
    - Is the USBA/B cable or 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 and you have an older CTI that uses the serial cable, 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.**
  - Check the Software settings (on MEETWARE or TIMEWARE).
    - Go to www.istime.com and visit the Customer Service page and select Software Updates for Users. Be sure that you have newest update for your software. Your current version number and date are displayed at the very top of the IST software screen
    - Under Utilities, select System and verify that the current System settings match the configuration of your pool and scoreboard. If your scoreboard is numeric, the Numeric box must be checked. If your scoreboard does not have (or is not) a scrolling line, the number of scroll lines must be set to 0. The Split Mode box can only be used by customers with 32 character scoreboards with 2 master boards.

- Under Meets, select Diagnostics/Scoreboard. Does the initial Test pattern match the number of lines and characters on your scoreboard? If it does match your expectations but is not displayed on the scoreboard, continue with testing. If it does not match your expectations, recheck the settings in Utilities/System. **NOTE:** If you are using a Fair-Play, Colorado or Daktronics numeric scoreboard, you must click CONTINUE to start the diagnostic.
- To check the communication between the computer and the CTI, go to the Meets menu and select Diagnostics/Deck Cable. Next to MARKER you should see **T(#)** where the **#** changes from 0 through 9 once a second. If you do not see the **T(#)**, or there is a message next to ERROR (eg., **E9 no data**) your computer does on see the CTI on the currently selected serial port (see below). **NOTE:** MEETWARE3, TIMEWARE3, and all subsequent versions will automatically check the COM ports for you and give you information on how to resolve the problem. You can also try the steps below.
- 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 available port should have a black dot indicating the current port. If more than one COM port is available, try selecting a different one. Go back to Meets/Diagnostics/Deck cable to see if the **T(#)**is displayed after changing the COM port. If the **T(#)** is now shown, go to Diagnostics/Scoreboard to see if the Diagnostic is now displayed on your scoreboard.
- You can also check the status of COM ports through Windows. From your Desktop, right-click on My Computer and select Properties. Click on the Hardware tab and select Device Manager. Click on the **+** in front of Ports. You will now see a listing of the available COM and LPT ports. If you are using a USB to Serial Adapter, it will also be listed and the assigned COM port number will be shown. This number should match the COM port selected in Hardware Setup. If the USB port is displayed with a question mark (**?**), the computer cannot communicate with it. Try reinstalling the software that came with your USB to Serial Adapter.
- If you are still unable to send data to the scoreboard, you may have a faulty serial cable (or USB to Serial Adapter), serial/USB port on your computer, scoreboard cable, scoreboard master circuit board or CTI. Call IST for further assistance.

➢ Check the Software settings (on POLOWARE).
- Go to www.istime.com and visit the Customer Service page and select Software Updates for Users. Be sure that you have newest update for your software. Your current version number and date are displayed at the very top of the IST software screen
- From the main menu, select Preferences and verify that the current System settings match the configuration of your pool and scoreboard. If your scoreboard is numeric, the Numeric box must be checked. If your scoreboard is the 4 foot period/score board, the Period/Score box must be checked. The Split Mode box can only be used by customers with 32 character scoreboards with 2 master boards.
- Under Match, select Hardware Diagnostic. Does the initial Test pattern match the number of lines and characters on your scoreboard? If it does match your expectations but is not displayed on the scoreboard, continue with testing. If it does not match your expectations, recheck the settings in Preferences.

- To check communications with the Polo Interface, return to Hardware Diagnostics. Do your shot or game clocks show the numbers displayed on the diagnostic screen? If not, continue testing.
- Under Preferences, you will see the available COM ports on your computer in black type. Unavailable COM ports will be gray. One available port should have a black dot indicating the current port. If more than one COM port is available, try selecting a different one. Go back to Hardware Diagnostic to see if the Diagnostic is now displayed on your scoreboard.
- You can also check the status of COM ports through Windows. From your Desktop, right-click on My Computer and select Properties. Click on the Hardware tab and select Device Manager. Click on the **+** in front of Ports. You will now see a listing of the available COM and LPT ports. If you are using a USB to Serial Adapter, it will also be listed and the assigned COM port number will be shown. This number should match the COM port selected in Hardware Setup. If the USB port is displayed with a question mark (**?**), the computer cannot communicate with it. Try reinstalling the software that came with your USB to Serial Adapter.
- If you are still unable to send data to the scoreboard, you may have a faulty serial cable (or USB to Serial Adapter), serial/USB port on your computer, scoreboard cable, scoreboard master circuit board or Polo Interface. Call IST for further assistance.

❖ **Problem: The scoreboard has power and is receiving data from IST Software, but not all the data is correct.**

➢ Reset power to the scoreboard.
- Unplug the scoreboard or turn off the circuit breaker for at least 15 seconds and then turn power back on. This will clear the memory in the scoreboard's master circuit board which may clear out bad data.

➢ Check and clean the data connections.
- The main data cable runs from the Computer Timing interface (CTI) to the top RJ11 (phone style) connector on the top line of the scoreboard. "Daisy" cables go from the bottom RJ11 connector on the top line to the top RJ11 connector on the next line down, and so on. Inspect the RJ11 plugs on the cables and the sockets on the scoreboard. Broken pins on the plugs or sockets indicate the need for replacements.
- Corrosion or oxidation on these connectors may interfere with the data transmission. Clean the RJ11 plugs and 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 corrosion or oxidation.

➢ Check the Software settings (on MEETWARE or TIMEWARE).
- Go to www.istime.com and visit the Customer Service page to connect to Software Updates for Users. Be sure that you have newest update for your software. Your current version is displayed at the very top of the IST software screen

- Under Utilities, select System and verify that the current System settings match the configuration of your pool and scoreboard. If your scoreboard is numeric, the Numeric box must be checked. If your scoreboard does not have (or is not) a scrolling line, the number of scroll lines must be set to 0. The Split Mode box can only be used by customers with 32 character scoreboards with 2 master boards.
- Under Meets, select Diagnostics/Scoreboard. Does the initial Test pattern of numbers shown on the screen match the number pattern displayed on the scoreboard? Check the pattern ***very*** carefully.
  - If there more or fewer rows of numbers on the screen than are shown on your scoreboard, you do not have the correct settings in Utilities/System for the number of lines on your scoreboard.
  - If there are more or fewer columns of numbers on the screen than are shown on your scoreboard, you do not have the correct settings in Utilities/System for the number of characters per line on your scoreboard.
  - If any part of the number pattern on the scoreboard still shows **IST or 00** it indicates an LED panel or panels is not receiving any data from the scoreboard's master circuit board. Remove and reconnect the connector/s for that panel several times to remove corrosion. If it still does not display the proper data, the LED panel may need to be repaired or replaced.
  - If any part of the number pattern on the scoreboard shows the wrong numbers, it indicates an LED panel or panels on the scoreboard does not have the correct "address". Refer to IST's document "Personality Module Replacement" for instructions on correcting or replacing the Personality Module.

For additional assistance, call IST at 800/835-2611.