Philips Stress Vue (older)
Tango+ Interface Notes

To setup Tango+ with the Stress Vue, simply follow the directions below.

1. Verify Correct RS-232, ECG Trigger, and TTL Cables

- **RS-232 Cable** – used to communicate with the Stress Vue. This cable enables the Stress Vue to prompt Tango+ when it needs a BP measurement, and allows the Tango+ BP reading to be transferred to the Stress Vue's display and reports.
    - o SunTech Part Number = 91-0013-00
    - o Connection Ends:

<table>
<tr><td align="center">Stress Vue Connection
9 pin female</td><td align="center">Tango+ Connection
9 pin female</td></tr>
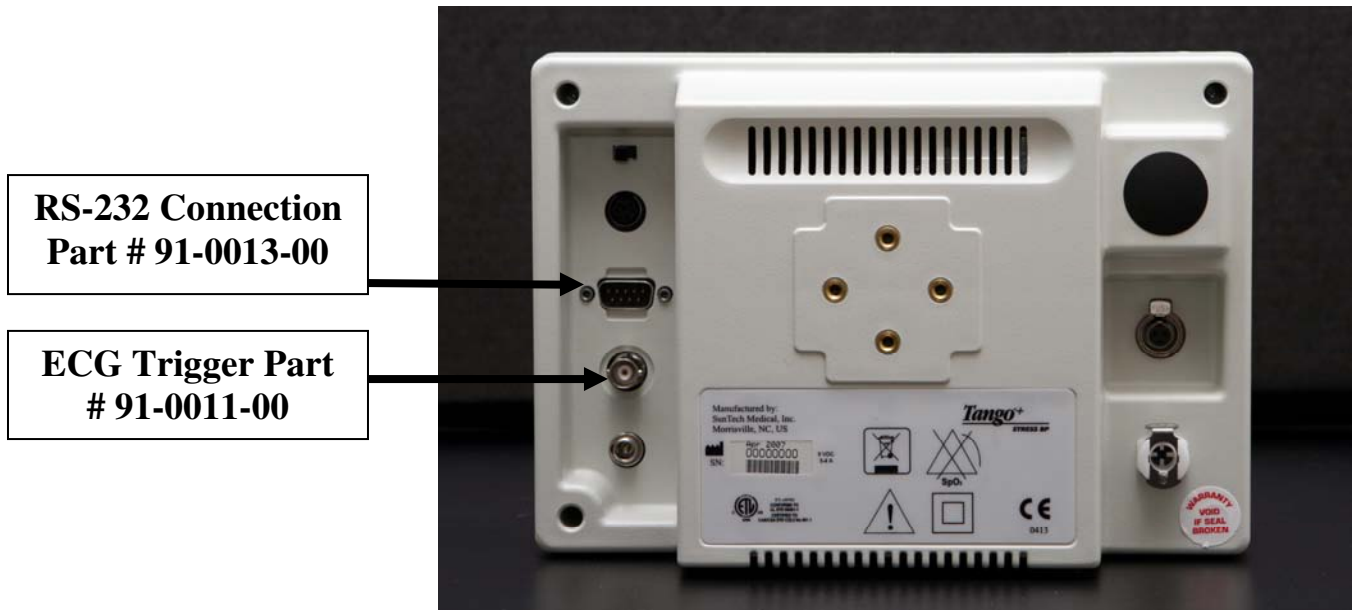<tr><td></td><td></td></tr>
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- **ECG Trigger Cable** – provides the ECG signal from the Stress Vue to the Tango+.
    - o SunTech Part Number = 91-0011-00
    - o Connection Ends:

<table>
<tr><td align="center">Stress Vue Connection
BNC male</td><td align="center">Tango+ Connection
BNC male</td></tr>
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Tango+ Monitor

RS-232 Connection
Part # 91-0013-00

ECG Trigger Part
91-0011-00

- **TTL Cable – used for connection to both the treadmill/ergometer and Tango+**
  - SunTech Part Number = 91-0080-00

2. Connect the RS-232 Cable
From: the RS-232 connection on the rear panel of the Tango+.
To: the COM 2 port on the back of the Stress Vue.

3. Connect the ECG Trigger Cable
From: the BNC External ECG connection on the rear panel of the Tango+.
To: the BNC T connector (the remaining connector can be connected to an echocardiograph).

4. Connect the TTL Cable
To: the COM 1 port on the back of the Stress Vue (see picture below).

SYSTEM PREPARATION

Interface to SunTech Tango NIBP Monitor via TTL Output and RS232 input

The **TTL cable** (Com 1)
is used for connection to both
the treadmill/ergometer and Tango.

The **RS232** cable (Com 2)
from SunTech Medical
connects to the Tango unit.

The **Treadmill / Ergometer Cable**
connects to the TTL connector.

The **BNC Connector**
connects to the Tango cable
from SunTech Medical.

A BNC T connector can be used for
simultaneous Echo and Tango TTL Output.

5. Tango+ Monitor Setup
   a. When the operating screen is displayed, press the **SELECT** button 2 times.   This will bring up the **MAIN MENU** screen.
   b. Using the UP or DOWN arrows, highlight **MONITOR SET UP** and press the **SELECT** button.
   c. Using the UP or DOWN arrows, highlight **STRESS SYSTEM** and press the **SELECT** button.
   d. Using the UP or DOWN arrows, scroll through the list until **Stress Vue** is highlighted and press the **SELECT** button to confirm the choice.
   e. Using the UP or DOWN arrows, select **EXIT** twice to return to the operating screen.

5. Stress Vue System Setup
   a. Select **Configure**.
   b. Click on the **Exercise** tab.
   c. Click **NIBP**.
   d. Choose **SUNTECH TANGO+**.
   e. Click on **Save protocol**.
   f. Click **Yes**.
   g. Click on **Done**.

During the test, click on the BP button or press F3 to prompt a BP. Please note that the first measurement taken by the Tango+ during the test does not automatically transfer to the stress system software. All subsequent measurements will transfer as expected.

FAQs for Tango+

Q. The Tango+ displays a status message. What does it mean and what do I do?
A. See the Quick Set-Up guide (that is attached to your Tango+) or the Troubleshooting section in your User's Guide for details on the Status Message and solution.

Q. The Tango+ monitor returns results of 0/0 after blood pressure measurements. What do I need to do to get a BP reading?
A. There are certain noisy conditions where the Tango+ cannot accurately measure BP. When the Tango+ encounters these situations, it returns a reading of 0/0. Placement of the microphone attached to the cuff is critical for reliable operation of the Tango+. Follow the instructions in the **Cuff Tutorial** (located on the SunTech Medical website under Products → Tango+) for correct microphone placement. Follow steps 1 and 2 in Conducting the Stress Test in the User's Guide to provide the best conditions to obtain a measurement.

Q. Can I use a heart rate or blood pressure simulator to test whether the Tango+ is working correctly with my stress system?
A. You cannot use a heart rate or blood pressure simulator to test whether the Tango+ is working with your stress system. The Tango+ monitor requires that the ECG signal and the Korotkoff sounds, collected by the microphone in the cuff, originate from the same source, meaning the patient.

Q. I cannot clearly see the Tango+ display. How do I fix this?
A. If you cannot clearly read Tango+, you can adjust the contrast of the display by following these steps:
1. When the operating screen is displayed, press the **SELECT** button 2 times.   This will bring up the **MAIN MENU** screen.
2. Using the UP or DOWN arrows, highlight **MONITOR SET UP** and press the **SELECT** button.
3. Using the UP or DOWN arrows, highlight **CONTRAST** and press the **SELECT** button.
4. Using the UP or DOWN arrows, modify the contrast of the screen. When you are finished, and press the **SELECT** button to confirm the choice.
5. Using the UP or DOWN arrows, select **EXIT** twice to return to the operating screen.

Q. My Tango+ displays a message, "Please VERIFY CALIBRATION" or "Equipment Maintenance and Calibration Required." What do I do?
A. Verification of Pressure Calibration
    Equipment Required:
1. Calibrated electronic manometer or equivalent.
2. 500mL volume or the Orbit-K Adult Plus cuff wrapped around something that will not break or crush (no glass).
3. Hand Inflation Bulb with bleed valve.
4. Tubing, Tee pieces, and miscellaneous connectors or you can order the T-Tube Kit (SunTech Part # 98-0030-00).

    Procedure:
5. When the operating screen is displayed, press the **SELECT** button 2 times. This will bring up the **MAIN MENU** screen.
6. Using the UP or DOWN arrows, highlight **MONITOR SET UP** and press the **SELECT** button.
7. Using the UP or DOWN arrows, highlight **VERIFY CALIBRATION** and press the **SELECT** button. The monitor will close its bleed valves and will display on its screen the pressure applied to the patient hose connector.
8. Verify the Tango+ calibration by manually inflating and checking the manometer against the pressure reading on the Tango+ display.
9. Once the calibration has been completed, use the UP or DOWN arrows to select **EXIT** twice and return to the operating screen.