



## Quick Card: Testing copper cables with Certifier

### Equipment required:

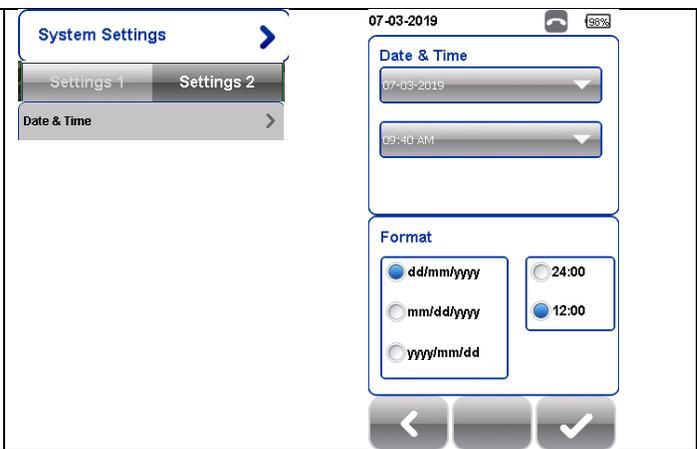
- Certifier copper kit running the latest software (<http://j-reporter.updatemyunit.net/>)
  - Includes local and remote units, channel probes, link probes and cords, power supplies

### Testing copper cables with the Certifier includes several steps:

- Set reference:
  - Only required once after a software update
  - Can be used to verify condition of consumable items (probes and cords)
- Setting up the local<sup>1</sup> instrument:
  - Date/time
  - Length unit (Ft/m)
  - Project
    - Site
    - Operator
    - Label
  - Test settings
    - Cable pairing (T568A/T568B)
    - Limit
    - Cable and connector

Note there are other options and settings. This quick card covers the most common testing performed. Additional details can be found in the user manual available at [www.VIAVISolutions.com/Certifier](http://www.VIAVISolutions.com/Certifier)

### Basic Settings:

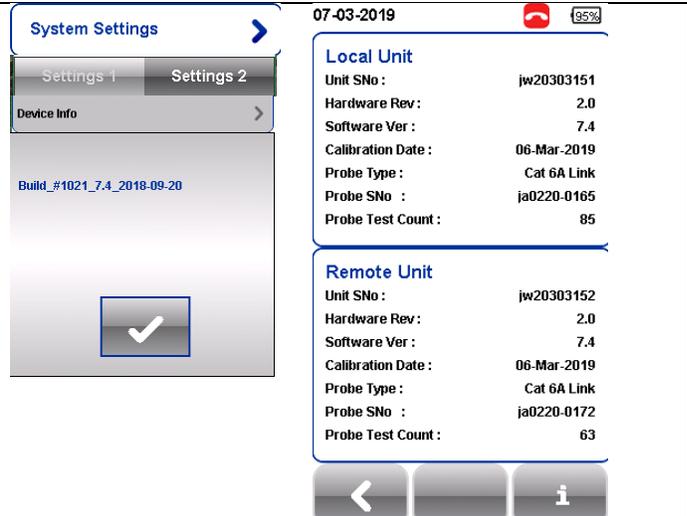
<p>Setting up Date and Time</p> <ul style="list-style-type: none"><li>• From main SETUP screen press System Settings</li><li>• Press Settings 2</li><li>• Select "Date &amp; Time"</li><li>• Configure date and time as desired</li><li>• Press the check mark</li></ul>	
<p>Setting up Length Unit (Feet or meters)</p> <ul style="list-style-type: none"><li>• From main SETUP screen press System Settings</li><li>• Press Settings 1</li><li>• Select Feet or Meters as the length unit</li></ul>	

<sup>1</sup> All test settings are configured on the local unit ONLY. They can be viewed on the remote unit after the local and remote are connected.



### Checking Software revision

- From main SETUP screen press System Settings
- Press Settings 2
- Press Device Info
  - Software Version is shown
  - If the local and remote are connected, information about BOTH instruments will be displayed
- Press the “i” to see software build details

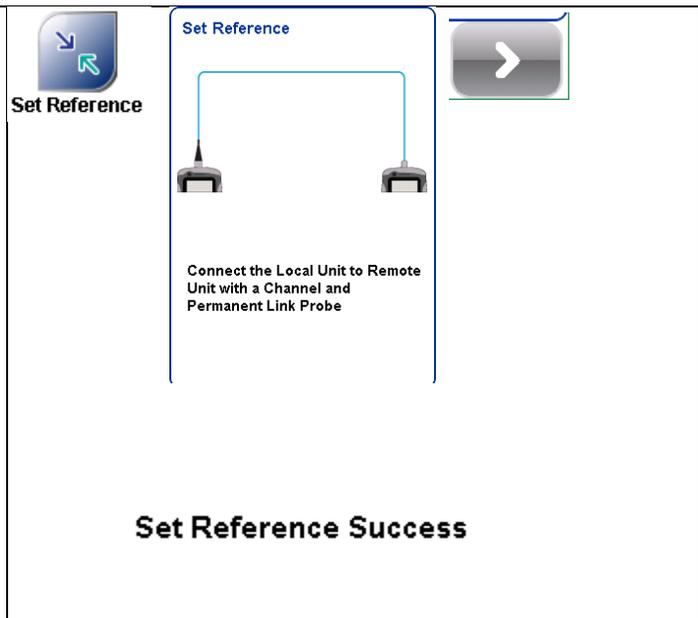


### Setting Reference

Setting reference is only required after a software upgrade.

Setting reference can be used to verify the condition of consumable items (channel and link probes, link cords)

- Press the tools icon
- Press Set Reference
- Follow the on-screen instructions
  - Connect local to remote using one link probe, one link cord, and one channel probe
- Press the right arrow
- Screen will show “Set Reference in Progress”
- Set reference success message will be displayed
- If an error message is displayed (e.g. resistance too high), set reference can be used to isolate the item with an issue. Any item causing set reference to fail should be replaced





## Project and Test Settings:

<p><b>Sites:</b></p> <ul style="list-style-type: none"><li>• From the main Setup screen press Project Settings</li><li>• Press Site</li><li>• Add new sites by pressing the +<ul style="list-style-type: none"><li>○ New Site Name is required. Site Address and Site Notes are optional. When done press the check mark</li></ul></li><li>• From this screen you can also chose an existing site and delete sites no longer needed<ul style="list-style-type: none"><li>○ To delete sites, press the gear icon, select sites to delete, then press the x</li></ul></li></ul>	
<p><b>Operator:</b></p> <ul style="list-style-type: none"><li>• From the main Setup screen press Project Settings</li><li>• Press Operator</li><li>• Add new Operators by pressing the +<ul style="list-style-type: none"><li>○ When done press the check mark</li></ul></li><li>• From this screen you can also chose an existing operator and delete operators no longer needed<ul style="list-style-type: none"><li>○ To delete operators, press the gear icon, select operators to delete, then press the x</li></ul></li></ul>	
<p><b>Labels<sup>2</sup>:</b></p> <ul style="list-style-type: none"><li>• From the main Setup screen press Project Settings</li><li>• Press Label Source</li><li>• There are many labelling options. Free Form is one of the most popular as it allows you to enter a start label and an end label. The instrument then auto-increments labels as you test.</li></ul>	

<sup>2</sup> There are many options for labels – too many for this quick card to cover. For more details on labelling please refer to the user manual or to the quick tip video. Both can be found at [www.viavisolutions.com/certifier](http://www.viavisolutions.com/certifier)



## Test Settings

<p><b>Cable Pairing</b> The cable pairing setting ensures the cable colours shown on the screen and in J-Reporter match the installed cable</p> <ul style="list-style-type: none"> <li>From the main Setup screen press “Test Settings”</li> <li>Press Test Options</li> <li>Select the appropriate Cable Pairing Type (T568A or T568B)</li> </ul>	<p>The screenshot shows the 'Test Settings' screen. Under the 'Cable' section, 'TIA - Cat 5e Permanent Link' is selected. Under 'Connector', 'Generic UTP' is selected. At the bottom, 'Cable Pairing Type' is set to 'T568' with options 'A' and 'B' visible.</p>	
<p><b>Quick Setup</b> The quickest way to set the instrument up for a test is to use the Quick Setup feature.</p> <ul style="list-style-type: none"> <li>From the main Setup screen press “Quick Setup”</li> <li>Select UnShielded or Shielded</li> <li>Select the grade (Category or Class) of the system to be tested</li> <li>The instrument will detect what type of probe is connected and set the appropriate limit and will set the instrument to generic cable and connector</li> <li>If preferred, the cable, connector and limit settings can be set manually – see the next two steps</li> </ul>	<p>The screenshot shows the 'Quick Setup' screen. 'CAT 5e' is selected. Below it, 'UnShielded' is selected over 'Shielded'. A list of other categories is shown: CAT 5e, CAT 6, CAT 6A, Class D, Class E, and Class EA.</p>	
<p><b>Cable and Connector:</b> The cable and connector settings are primarily used to ensure reports indicate the type of cable and connector tested. The NVP (Nominal Velocity of Propagation) setting does impact length measurements and should only be changed as needed. Generic settings can be used in situations where the cable and connector type does not need to be reported</p> <ul style="list-style-type: none"> <li>From the main Setup screen press “Test Settings”</li> <li>Press cable, NVP, or connector to chose different cables, NVP or connectors then shown             <ul style="list-style-type: none"> <li>Cable and connector choices are from a database. First select the vendor, then the specific cable or connector</li> </ul> </li> </ul>	<p>The screenshot shows the 'Test Settings' screen with the 'Cable &amp; Connector' section expanded. It shows 'Cable: CAT 5e UTP', 'Manufacturer: Generic UTP', 'NVP: 68.0', and 'Connector: UTP Mod. Jack 5E'.</p>	
<p><b>Test Limit:</b> The test limit is the most important setting on the instrument as it defines the pass/fail criteria.</p> <ul style="list-style-type: none"> <li>From the main Setup screen press “Test Settings”</li> <li>Press Test Limit             <ul style="list-style-type: none"> <li>Three most recently used limits will be shown at the top of the screen and can be selected</li> </ul> </li> <li>Select the Limit Standard</li> <li>Select the Limit</li> </ul>	<p>The screenshot shows the 'Test Limit' screen. At the top, 'TIA - Cat 5e Permanent Link' is selected. Below, a list of 'Recent Limit' options is shown: 'TIA - Cat 5e Permanent Link', 'TIA - Cat 6A Permanent Link', and 'TIA - Cat 6A Channel'.</p>	<p>The screenshot shows the 'Limit Standard' screen. 'TIA' is selected. Other options include 'ISO', 'Application Standards', 'AS/NZ 3080', and 'Cenelec EN'.</p>



## Test

- Connect to the link or channel to be tested
- Press Auto Test
- Instrument will indicate Pass or Fail and display summary results
- Location of worst NEXT and Return Loss can be displayed by pressing Locator
- Detailed results can be displayed by pressing the magnifying glass
- Results can be saved by pressing the save button

