

TB9100 base station

Release Notes



Base station version 01.02
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Note: For the addresses and phone numbers of the above regional offices refer to the Tait-World website.

This technical note contains late-breaking information to accompany the 01.02 release of the TB9100 base station.

1 What's New in This Release

This is the first customer release of the new Tait TB9100 base station. This base station can operate in dual mode (analog FM and digital P25). It is equipped with an analog line for connecting to legacy dispatcher equipment and a digital line for connecting to other TB9100 base stations in a TaitNet P25 network.

The Customer Service Software (CSS) is a new product. To install and operate it, you need a CD key.

2 Compatibility

The following table specifies all compatible configurations of the TB9100 base station and the related software. A configuration is compatible if an unchanged base station, the CSS, and the calibration software have compatible versions. If changes are made to the hardware or firmware of a base station, you need to check whether the hardware and firmware versions of the individual modules are compatible.

- Each row in the table identifies a compatible base station configuration.
- Each cell within a row contains the hardware, firmware, or software version number that is compatible with the other versions in the row. If a cell contains more than one version number, more than one version is compatible.
- Table footnotes indicate any restrictions imposed on a particular combination by the hardware, firmware, or CSS version.
- Any other combination is **not** compatible and not supported.

Base Stn	Calib s/w	CSS	Data-base	Module Hardware					Module Firmware			
				Digital Board	Network Board	PMU	PA	Control Panel	Digital Board	N/W board	PMU	PA
01.02	2.03	01.01	02.08	00.03	00.00	00.01	00.01	TBA2040	01.02	01.02	02.03	02.03

3 Upgrading the Customer Service Software

A PC can have multiple versions of the CSS installed. Simply install the new version alongside any existing versions of the CSS. You can only run one instance of the CSS at a time.

4 Known Issues and Limitations

Alarms: QoS jitter alarm may not clear

Tait reference: Under certain circumstances, the QoS jitter alarm does not clear.
TIMS00041884

Work-around: Disable the alarm and monitor QoS jitter in Monitor > Interfaces > Digital Line.

Analog line: MDC 1200 product-specific variations

Tait reference: Contact Tait Electronics Ltd. for details of compatibility information with
your MDC 1200 console.
TIMS00043248

Analog line: Multi-console re-voting is not supported

Tait reference: If two consoles are on the same channel group and console A wins the vote
over console B, the base stations in the channel group may go silent until the
end of the over.
TIMS00041866

Work-around: If necessary, use only one console in the channel group at a time.

Base station: Limited digital inputs and outputs

Tait reference: The TB9100 currently supports digital inputs 0-3.

TIMS00038599,
TIMS00034777,
TIMS00040119,
TIMS00042205,
TIMS0003296

A future firmware upgrade will add a digital output and another digital input.

Base station: Limited support for shared receiver frequency voting

Tait reference: TIMS00041906 When using a multi-site network using wide area calling, sometimes there will be speech break-up during call handovers.

Work-around: This applies only to digital P25 mode when the channel group is set to 'Receivers use the same frequency'.

Base station: Power start-up voltage is used as the shutdown voltage

Tait reference: TIMS00040300 The Configure > Base Station > Miscellaneous screen in the CSS provides configurable thresholds for the DC voltage at which the base station shuts down, and the voltage at which it will start up. The two thresholds allow a hysteresis. The base station uses the start-up voltage setting for both shutdown and start up.

Work-around: Set the start-up voltage value to be a little lower than the minimum battery input voltage.

Calibration software: Limited support for TB9100 and TB8100 Calibration software installed on the same computer

Tait reference: TIMS00042627 You can have the TB9100 calibration software and the TB8100 Calibration Kit installed in the same computer. However, uninstalling the TB9100 calibration software may disable the installed TB8100 Calibration Kit, and vice-versa. If TB8100 and TB9100 have different versions, installing the second application may disable the first.

Work-around: Be sure to reinstall the software you wish to keep after uninstalling one of them. If possible, keep both items at the same version.

Configuration: Cloning overwrites base station name

Tait reference: TIMS00042952 When programming one base station's configuration into another base station, the base station's name is overwritten. You are given the option of keeping the existing IP address and network mask, but not of keeping the existing base station name.

Work-around: After programming the configuration into the base station, read the configuration back, and if necessary, change the host name back to its proper value.

Configuration: Receiver analog muting enhancements intended

Tait reference: TIMS00030377 Tait intends to improve the performance of the analog mute. These improvements will affect both the SINAD and RSSI mute and will change the amount of hysteresis seen when bench testing the base station receiver.

Work-around: Do not rely on the exact number of dB of hysteresis for SINAD mute.

Diagnostics: Caution needed with transmission test

Tait reference: TIMS00038765
The transmission test does not default to the currently configured frequency and power. If you start a transmission test without setting these parameters, you might transmit at full power on someone else's frequency.

Work-around: Always check the transmitted frequency and power before running the test.

Firmware download: 'Fail' message on DC power supply

Tait reference: TIMS00033419, TIMS00042738
On base stations with a DC power supply, the CSS will report that the activation process has failed.

Work-around:

1. Save the base station configuration file before beginning.
2. Carry out the download / activate. The CSS will report that the activation has failed. Actually the activate has succeeded.
3. Program the saved configuration data into the base station.

Firmware download: Safe practices

Tait reference: TIMS00042939, TIMS00038985
The process of loading firmware from the CSS to the base station is very reliable. The base station and CSS perform many checks during the process, and the likelihood of corrupt firmware on the base station is very low. Still, remote communications can occasionally go wrong, and checks sometimes fail. Here are some practical steps to take to ensure the best likelihood of success.

Although the download process will save, and restore the base station configuration data, you should always make sure that you have saved a copy of the base station configuration data.

Until you gain confidence in the overall process, upgrade firmware locally at the base station, rather than remotely via a communications link.

All communication links have occasional transmission errors. If a download fails before the activation process begins, then resetting the base station will clear all loaded files, and allow you to try again. The activation process does not begin until the files have been successfully transferred to the base station.

Even if the CSS reports that something failed, do not panic. Restart the base station (if necessary) and use the download screen to see what is on the base station. You can try the download again, and if necessary use the 'Force download' option to force the files to be transferred again.

Monitoring: Display of speech transport options is incorrect

Tait reference: TIMS00042015 The digital line monitoring screen is supposed to display the speech transport settings of the current channel group. Instead, it shows settings of the RF interface.

Work-around: View the configuration data settings instead.

Monitoring: Screens stop updating

Tait reference: TIMS00040893 Monitoring screens normally refresh their values several times a second. Occasionally (after a long period of time) the values stop updating.

Work-around: Change to another screen, and then return to the original one.

Network: Setting QoS

Tait reference: TIMS00036859, TIMS00033691. Tait has specific supported configurations for QoS. Any deviation from the Tait-specified configuration may degrade system performance.

PMU: Occasional auxiliary output problem

Tait reference: TIMS00039021 Occasionally, the auxiliary output of the PMU doesn't turn on. The conditions that create the problem are rare and not well known.

Work-around: Run a Task Manager statement to "unlock" (turn on) the auxiliary output from time to time. Do not use the auxiliary output to power equipment which is sensitive to short-term power disruptions.

Receiver: Limited frequency offset in supplementary service messages

Tait reference: TIMS00041098 The base station can miss supplementary service messages (such as radio inhibit and uninhibit, status query, short data message, radio check, call alert, and emergency alarms) if the sending subscriber unit is at extremes of frequency offset.

Work-around: Ensure that subscriber units are properly tuned to the correct frequency.

Receiver: Adjacent channel rejection marginally below target

Tait reference: In digital mode, the adjacent channel rejection is marginally below our
TIMS00041793 target. This problem will be resolved in the next firmware release.

This issue only applies when:

- The received signal is digital (P25), and
- The adjacent channel has a digital signal, and
- The channel spacing is 12.5 kHz.

Receiver: Dual mode sensitivity enhancements intended

Tait reference: TB9100 meets all relevant sensitivity (range, inbound) specifications.
TIMS00025757, However, Tait intends to increase the sensitivity in dual mode when using
TIMS00041185 25 kHz channels.

Transmitter - Analog FM: Over-deviation limiter may constrain deviation

Tait reference: An overload test input will cause a transmitter deviation of only 80 percent
TIMS00031363 of full system deviation.

Work-around: Normal FM signals are not affected.

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5 Issuing Authority

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6 Publication History

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