BIAMP®

Vocia®

TTS-1 and TTS-1nc

Operation Manual

January 2013

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VOCIA TEXT-TO-SPEECH SERVER 1 (TTS-1)

The TTS-1 is a networked text-to-speech engine that supports the creation of browser-based courtesy announcements. The TTS-1nc performs the same functions as the TTS-1 in addition it is able to integrate to TAP enabled nurse call systems. The TTS-1 and TTS-1nc use Ethernet-based control protocols in conjunction with A Vocia Message Server 1 to function within a Biamp® Vocia® system and constructs announcements using a set of user-defined templates.

FEATURES

TTS-1 and TTS-1nc

- Text-to-speech announcement creation from any computer with appropriate network access
- Announcements in multiple languages and voices
- User-defined templates
- CobraNet audio/control with dynamic use of available bundles over a single Ethernet cable
- Status LED
- Rotary switches for unit identification
- Rack mountable (1RU)
- **CE** marked and **RoHS** compliant
- Covered by BIAMP Systems' warranty

TTS-1nc Specific Features

- Interface to nurse call system via RS-232C
- Ability to create rules and groups for delivery of messages via a Vocia MS-1

TTS-1 SETUP AND USE

Overview

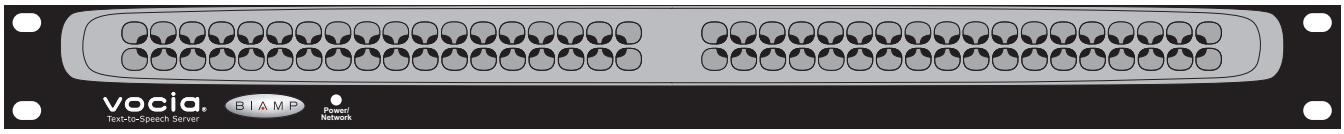
The Vocia Text to Speech Server 1 (TTS-1) and The Vocia Text to Speech Server 1 Nurse Call (TTS-1nc) are designed to work in conjunction with a Vocia Message Server 1 (MS-1) to enable text to speech messaging as part of a Vocia system solution.
Voice fonts are available to suit regional languages.

The TTS-1nc also facilitates integration via RS-232 to Nurse call systems that make use of the TAP protocol. Rauland Responder 4 and 5 are supported natively.

Setup and Use

The Vocia software provides an intuitive interface for configuration of the TTS-1. In addition, the Vocia Text-to-Speech server supports a web brower to enable user configuration of custom text strings. The information supplied by this manual relates to physical connections and assignment. For more details on software setup, please consult the Vocia Help File.

TTS-1 FRONT PANEL

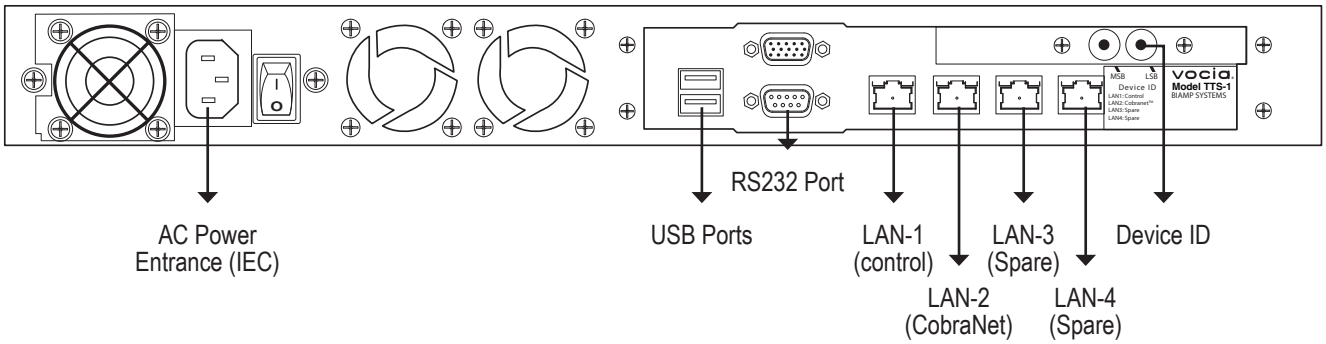


Front Panel

The TTS-1 features one power indication LED on the front panel:

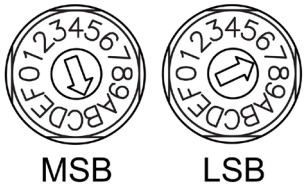
1. Not illuminated: The device is not powered.
2. Flashing green: The unit is receiving power but not data, or the unit has not been configured correctly.
3. Solid green: The unit is operational. Power supply and network traffic are functional.

TTS-1 REAR PANEL



Device ID

The rotary ID switches are located on the back of the TTS-1 and give the unit a unique Device ID. The switches are in hexadecimal format. All TTS-1 units must have a unique Device ID to function properly within a Vocia Paging World (i.e., it is not possible to have two TTS-1 units with the same Device ID of hex 07). To assign a Device ID of hex 07, turn the LSB switch to 7 and leave the MSB switch on 0. To create an ID of hex B7, turn the LSB switch to 7 and turn the MSB switch to B. Device ID switches should be set using a 0.1 inch (2.5mm) to 0.12 inch (3.0mm) flat blade screwdriver. More information on setting IDs and the hexadecimal numbering scheme used in Vocia can be found in the Vocia Help File.



Please note: Changes made to the Device ID while connected to the network require a power cycle in order to take effect.

Network Connection

The TTS-1 has four RJ45 Ethernet connectors located on the rear panel (Control, Vocia Network, and Spare). Each connector has two green LEDs, which display Ethernet Link (left LED) and Activity (right LED).

LAN-1 Connector (Control)

This port connects the TTS-1 to a control network. This should be separate to the LAN that is being used by the CobraNet port either physically or through the use of managed switches and VLANs. The TTS-1 can be configured in the Vocia software via this port, and as such it should be connected to the same network as any Vocia Message Server 1 (MS-1) devices and computer running Vocia Software. The Default IP address is 192.168.1.201.

LAN-2 Connector (CobraNet)

This port is used to communicate with local Vocia devices and as such should be connected to the same network as the local Vocia system. The data from the CobraNet network should be placed on its own LAN, either physically or through the use of managed switches and VLANs.

LAN-3 and LAN-4 Connectors (Spares)

These ports are inactive at this time.

AC Power Entrance (IEC)

The IEC power entrance provides for connection of the appropriate power cord (included with unit). An internal universal switching power supply accepts 100–240VAC @ 50/60Hz, with a maximum power consumption of 350 watts.

CAUTION: Do not remove or defeat the ground prong on the power cord, as this will constitute a shock hazard. Equipment should be connected to a mains socket outlet with a protective earthing connection. This plug is the main disconnecting device and should remain readily operable. There are no user interchangeable parts. Please contact Biamp Technical Support or your local distributor for all service requirements.

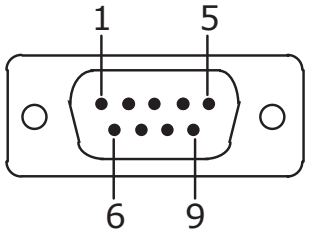
USB Ports

These ports are inactive at this time.

RS-232 Port

This port is is not used for the TTS-1.

This port is used for the TTS-1nc to facilitate interfacing to a external nurse call system. The port interfaces to a TAP enabled device in order to generate Text to Speech or recorded messages or play specified configured Vocia Page Codes. The Vocia software allows customization of the rules and messages. Please refer to the RS-232 Physical connections section for cabling details.

 Male DB-9 **On TTS-1**	1 DCD Carrier Detect 2 RxD Receive Data 3 TxD Transmit Data 4 DTR Data Terminal Ready 5 SG Signal Ground 6 DSR Data Set Ready 7 RTS Request To Send 8 CTS Clear To Send 9 RI Ring Indicator	**Default Settings:** Baud Rate 9600 Stop Bits 1 Parity None Data Bits 8 RTS Enabled DTR Enabled Flow Control RTS

Nurse Call RS-232 Serial Port Options supported settings:

- Baud Rate can be set to - 300, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200.
- Stop bits can be set to 1 or 2.
- Parity can be set to None, Odd, Even, Mark, Space.
- Data Bits can be set to 7 or 8.
- RTS and DTR can be enabled or disabled.
- Flow Control can be None, XOn/XOff, RTS and RTS XOff/RTS XOn.

VGA Port

This port is inactive at this time.

Please note: connection of external devices to inactive ports is not required or recommended.

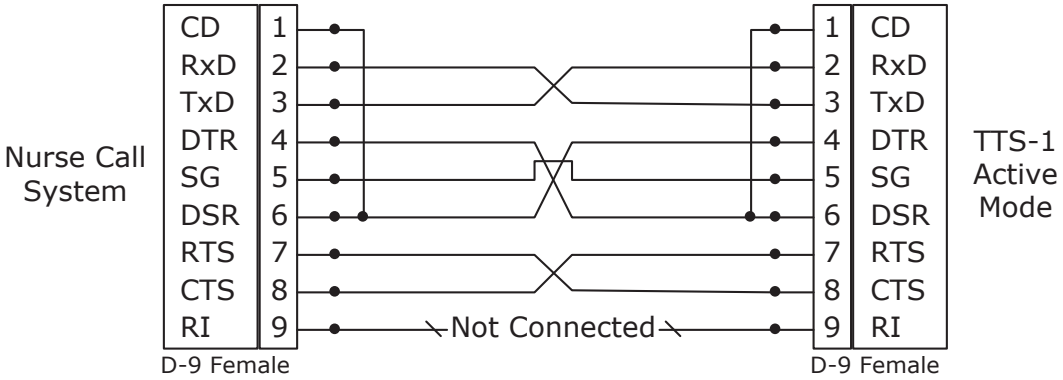
WARNING: Replacing the Lithium Battery

Incorrect replacement of the lithium battery may lead to a risk of explosion. The lithium battery must be replaced with an identical battery or a battery type recommended by the manufacturer. Do not throw lithium batteries into the trash can. They must be disposed of in accordance with local regulations concerning special waste.

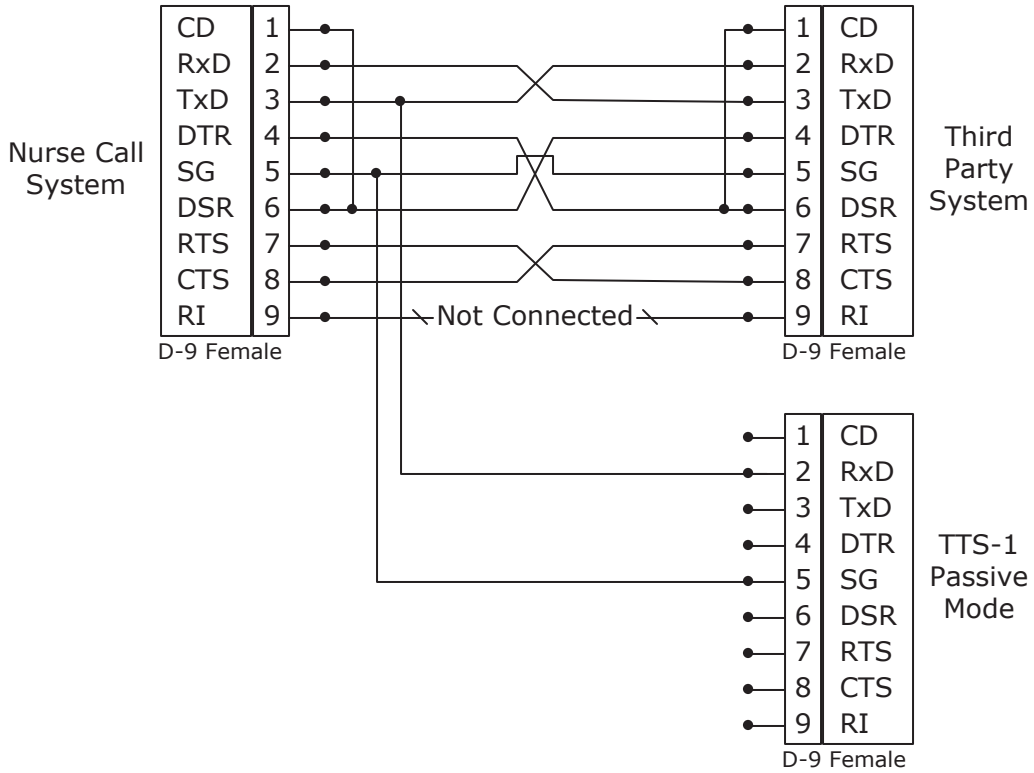
RS-232 Nurse Call Physical Connection

The TTS-1nc allows interfacing to Nurse call systems via RS-232 and supports the TAP protocol. Currently the TTS-1nc supports Rauland Responder 4 and 5 natively. Two connection modes are supported. Active Mode is supported where the TTS-1nc and Nurse call system are the only devices used. This provides a fully monitored connection between the Nurse call system and the TTS-1.
Passive mode is supported where existing connections already exist between the Nurse Call system and a third party system. This provides an unmonitored connection between the Nurse call system and the TTS-1.

Wiring requirements of Active Connection



Wiring requirements of Passive Connection



The enclosed diagram is indicative. Connection wiring may vary depending on the interfacing hardware. Suitable isolating and

Installation

The TTS-1 requires one 1.75 inch (44.45 mm) high and 19 inch (483 mm) wide rack space with 17inch (432 mm) depth. Mounting the unit using four screws with washers will prevent marring of the front panel. PVC or nylon washers are appropriate.

When installing the rack ears, please note that the hardware is not symmetrical. Please install the rack ear labeled “left” on the left side of the TTS-1 (when looking at the equipment facing the front plate) and the rack ear labeled “right” to the right of the unit.

- First, remove the screw from the TTS-1 chassis (with a Phillips P2 screw driver)
- Attach the appropriate rack ear and re-affix the Phillips screw to the chassis and 4 additional Philips screws supplied with the rack ears.

Please install the unit away from heat sources, such as vents and radiators, and in rooms with adequate ventilation. Ensure that air can circulate freely behind, beside, and above the unit. Do not exceed the maximum ambient operating temperature of 113 degrees F (45°C). Be aware of conditions in an enclosed rack that may cause the temperature to exceed ambient room conditions.

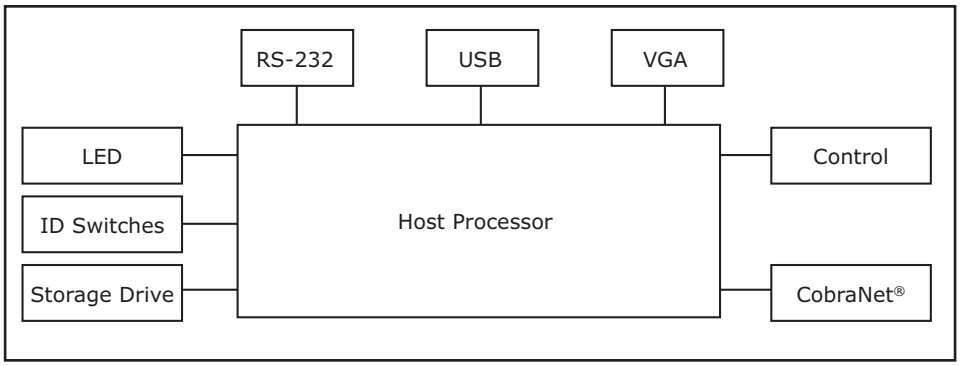
Text-to-Speech Server 1 SPECIFICATIONS

Default IP address	192.168.1.201	**Weight:**	12 lb (5.4 kg)
Power Consumption (100–240VAC 50/60Hz):	< 350 watts	**Ambient Operating Temperature Range:**	32-113 degrees F (0-45 degrees C)
Dimensions:	0.75 inches (44.5 mm)		
Height:	19 inches (483 mm)	**Compliance:**	EU Directive 2002/95/EC, RoHS directive CE marked
Width:	17.5 inches (444 mm)		
Depth:			

RS-232 Port

Default Settings		**Supported Settings**	
Baud Rate	9600	Baud Rate	300, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200
Stop Bits	1	Stop Bits	1 or 2
Parity	None	Parity	None, Odd, Even, Mark, Space
Data Bits	8	Data Bits	7 or 8
RTS	Enabled	RTS	Enabled or Disabled
DTR	Enabled	DTR	Enabled or Disabled
Flow Control	RTS	Flow Control	None, XOn/XOff, RTS and RTS XOff/RTS XOn

Text-to-Speech Server 1 Block Diagram



TTS-1 WARRANTY

BIAMP SYSTEMS IS PLEASED TO EXTEND THE FOLLOWING 5-YEAR LIMITED WARRANTY TO THE ORIGINAL PURCHASER OF THE PROFESSIONAL SOUND EQUIPMENT DESCRIBED IN THIS MANUAL

1. BIAMP Systems warrants to the original purchaser of new products that the product will be free from defects in material and workmanship for a period of 5 YEARS from the date of purchase from an authorized BIAMP Systems dealer, subject to the terms and conditions set forth below.

2 If you notify BIAMP during the warranty period that a BIAMP Systems product fails to comply with the warranty, BIAMP Systems will repair or replace, at BIAMP Systems' option, the nonconforming product. As a condition to receiving the benefits of this warranty, you must provide BIAMP Systems with documentation that establishes that you were the original purchaser of the products. Such evidence may consist of your sales receipt from an authorized BIAMP Systems dealer. Transportation and insurance charges to and from the BIAMP Systems factory for warranty service shall be your responsibility.

3. This warranty will be VOID if the serial number has been removed or defaced; or if the product has been altered, subjected to damage, abuse or rental usage, repaired by any person not authorized by BIAMP Systems to make repairs; or installed in any manner that does not comply with BIAMP Systems' recommendations.

4. Electro-mechanical fans, electrolytic capacitors, gooseneck microphones, cords connecting handheld microphones, hard-drives, displays, and normal wear and tear of items such as paint, knobs, handles, keypads and covers are not covered under this warranty. All server-based devices are warranted for 3 years only.

5. This warranty is in lieu of all other warranties, expressed or implied. BIAMP Systems disclaims all other warranties, expressed or implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose.

6. The remedies set forth herein shall be the purchaser's sole and exclusive remedies with respect to any defective product.

7. No agent, employee, distributor or dealer of BIAMP Systems is authorized to modify this warranty or to make additional warranties on behalf of BIAMP Systems. Statements, representations or warranties made by any dealer do not constitute warranties by BIAMP Systems. BIAMP Systems shall not be responsible or liable for any statement, representation or warranty made by any dealer or other person.

8. No action for breach of this warranty may be commenced more than one year after the expiration of this warranty.

9. BIAMP Systems shall not be liable for special, indirect, incidental, or consequential damages, including lost profits or loss of use arising out of the purchase, sale, or use of the products, even if BIAMP Systems was advised of the possibility of such damages.

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(This information is presented to comply with the requirements of Chinese law SJ/T11363-2006)"

有害物质表

Biamp Systems Corporation

算机 (Computer)

Vocia TTS-1

部件名称	有毒有害物质或元素					
	Pb 铅	Hg 汞	Cd 镉	Cr+6 六价铬	PBB	PBDE
设备机箱 (Equipment Chassis)	X	O	X	O	O	O
电源线 (Power Cord)	O	O	O	O	O	O
安装硬件 (Installation Hardware)	O	O	O	O	O	O
光盘(CD ROM)	O	O	O	O	O	O
手册和其他书面文档 (Manual and Paper Documents)	O	O	O	O	O	O
包装箱和所有包装材料 (Box and Packing Materials)	O	O	O	O	O	O

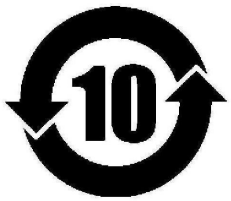
0：表示该部件所有均质材料中的这种有毒有害物质低于 SJ/T11363-2006 的限制要求.

X：表示该部件中至少有一种均质材料所含的这种有毒有害物质高于 SJ/T11363-2006 的限制要求.

在电触头和（或）镀镉所含的均质材料中，镉及其化合物的含量可以超过 0.01%，但欧盟指令 91/338/EEC（根据欧盟指令 76/769/EEC）限制销售和使用某些危险物质和制剂部分中所禁止的用途除外

在以下一种或多种物质所含的均质材料中，铅及其化合物的含量可以超过 0.1%:

1) 电子元器件中玻璃内所含的铅
2) 铅在钢材中是作为一种合金元素，含量可达 0.35%
3) 铅在铝材中是作为一种合金元素，含量可达 0.4%
4) 铅在铜材中是作为一种合金元素，含量可达 4%
5) 高熔点类焊料中的铅（即铅料合金，铅含量超过 85%）
6) 电子陶瓷部件内的铅
7) 由两种以上元素组成的焊料中所含的铅，用于连接针脚和微处理器包装，其中铅的含量超过 80% 但低于 85%
8) 顺应针连接系统内的铅
9) 倒装芯片封装中半导体芯片及载体之间形成可靠连接所用焊料中的



在正常使用情况下，中国环保使用期限为 10 年，条件是：

- 环境温度为 0-40C (32-104°F)
- 湿度为 0-95%，无凝结
- 海拔高度为 0-10,000 英尺
- 气流不受阻碍
- 没有水或其他液体进入任何部件
- 电源为 100-240 V~, 50/60 Hz
- 部件没有损坏（损坏部件应立即修理）
- 由工厂授权人员使用批准的材料进行所有维修

EU RoHS COMPLIANT

This Biamp product, including all attendant cables and accessories supplied by Biamp, meets all requirements of EU Directives 2002/95/EC of January 27, 2003, and 2005/618/EC of August 18, 2005, the EU RoHS Directives. An EU RoHS Materials Content Declaration document may be obtained at www.biamp.com