

Hardware Installation Guide

TSC-7t – Networked, Table-Mounted, 7” Touchscreen Controller



TD-000508-00-B

TD-000508-00

EXPLANATION OF SYMBOLS

The term "WARNING!" indicates instructions regarding personal safety. If the instructions are not followed the result may be bodily injury or death.

The term "CAUTION!" indicates instructions regarding possible damage to physical equipment. If these instructions are not followed, it may result in damage to the equipment that may not be covered under the warranty.

The term "IMPORTANT!" indicates instructions or information that are vital to the successful completion of the procedure. The term "NOTE" is used to indicate additional useful information.



The intent of the lightning flash with arrowhead symbol in a triangle is to alert the user to the presence of un-insulated "dangerous" voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to humans.



The intent of the exclamation point within an equilateral triangle is to alert the user to the presence of important safety, and operating and maintenance instructions in this manual.



IMPORTANT SAFETY INSTRUCTIONS



EN



WARNING!: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

- 1 Read these instructions.
- 2 Keep these instructions.
- 3 Heed all warnings.
- 4 Follow all instructions.
- 5 Do not use this apparatus near water.
- 6 Do not submerge the apparatus in water or liquids.
- 7 Do not use any aerosol spray, cleaner, disinfectant or fumigant on, near or into the apparatus. Clean only with a dry cloth.
- 8 Clean only with a dry cloth.
- 9 Do not block any ventilation opening. Install in accordance with the manufacturer's instructions.
- 10 Keep ventilation opening free of dust or other matter.
- 11 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 12 Do not unplug the unit by pulling on the cord, use the plug.
- 13 Only use attachments/accessories specified by the manufacturer.
- 14 Unplug this apparatus during lightning storms or when unused for long periods of time.
- 15 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 16 Adhere to all applicable, local codes.
- 17 Consult a licensed, professional engineer when any doubt or questions arise regarding a physical equipment installation.

Maintenance and Repair



WARNING!: Advanced technology, e.g., the use of modern materials and powerful electronics, requires specially adapted maintenance and repair methods. To avoid a danger of subsequent damage to the apparatus, injuries to persons and/or the creation of additional safety hazards, all maintenance or repair work on the apparatus should be performed only by a QSC authorized service station or an authorized QSC International Distributor. QSC is not responsible for any injury, harm or related damages arising from any failure of the customer, owner or user of the apparatus to facilitate those repairs.

FCC Statement

This device complies with Part 15 of FCC Rules. Operation is Subject to following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received including interference that cause undesired operation.



NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

IC Statement

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. l'appareil ne doit pas produire de brouillage;
2. l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

Cet équipement est conforme aux limites Canada exposition aux radiations établies pour un incontrôlés environnement. Cet équipement doit être installé et utilisé avec une distance minimale de 20 centimètres entre le radiateur et votre corps.

RoHS STATEMENT

The QSC TSC-7t is in compliance with European Directive 2011/65/EU – Restriction of Hazardous Substances (RoHS2).

The QSC TSC-7t is in compliance with “China RoHS” directives. The following chart is provided for product use in China and its territories:

		Q-SYS TSC-7t				
部件名称 (Part Name)	有害物质 (Hazardous Substances)					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(vi))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
电路板组件 (PCB)	X	O	O	O	O	O
机壳装配件 (Chassis)	X	O	O	O	O	O

本表格依据 SJ/T 11364 的规定编制。

O: 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。 X:

表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。

(目前由于技术或经济的原因暂时无法实现替代或减量化。)

This table is prepared following the requirement of SJ/T 11364.

O: Indicates that the concentration of the substance in all homogeneous materials of the part is below the relevant threshold specified in GB/T 26572.

X: Indicates that the concentration of the substance in at least one of all homogeneous materials of the part is above the relevant threshold specified in GB/T 26572.

(Replacement and reduction of content cannot be achieved currently because of the technical or economic reason.)

EN

Warranty

For a copy of the QSC Limited Warranty, visit the QSC website at www.qsc.com

Introduction

The Q-SYS TSC-7t series touchscreen controllers provide remote management services for a Q-SYS audio system. The functionality of the TSC-7t touchscreen controller is defined and configured by the system designer using Q-SYS Designer. Refer to the Q-SYS Designer on line help for setup and operation. Q-SYS Designer software can be downloaded from the QSC website (www.qsc.com).

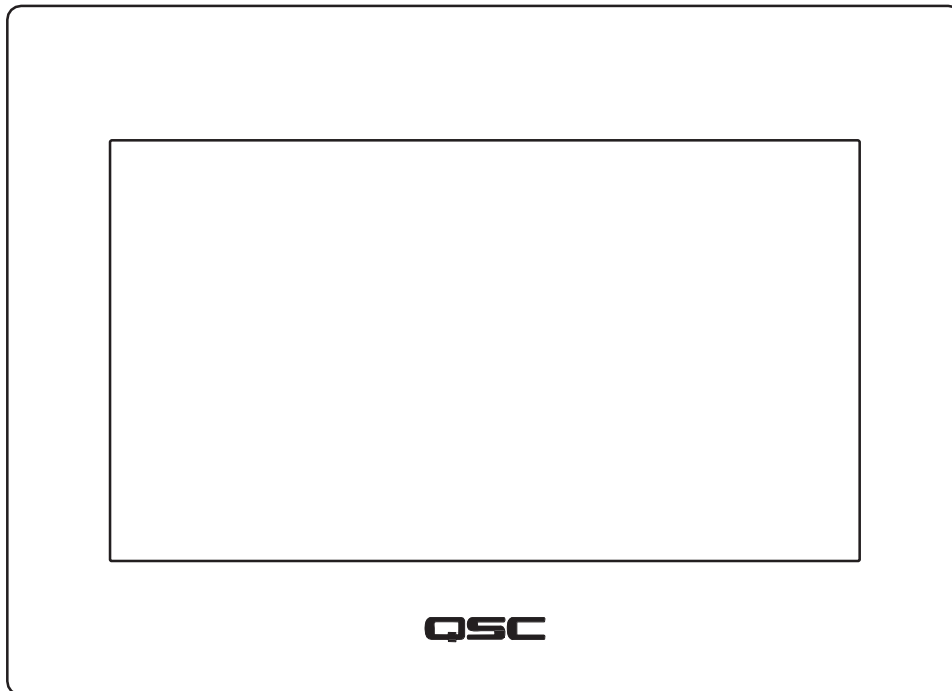
TSC-7t Features

The TSC-7t series products are network enabled, projected-capacitive touchscreen, control panels. The TSC-7t products are designed to connect to a Q-SYS system via Q-LAN or to an auxiliary network to which the system Core Processor(s) is connected. The TSC-7t products offer low latency uncompressed audio services via USB, allowing the TSC-7t products to join a Q-LAN network via standard 10/100/1000 Mbps Ethernet connections.

The TSC-7t products use a color graphics display with a 400 nit anti-glare LCD. The control surface is a capacitive touch interface that is reliable, bright, and easy to use.

The TSC-7t can be mounted on a table, desk, or other similar horizontal surface.

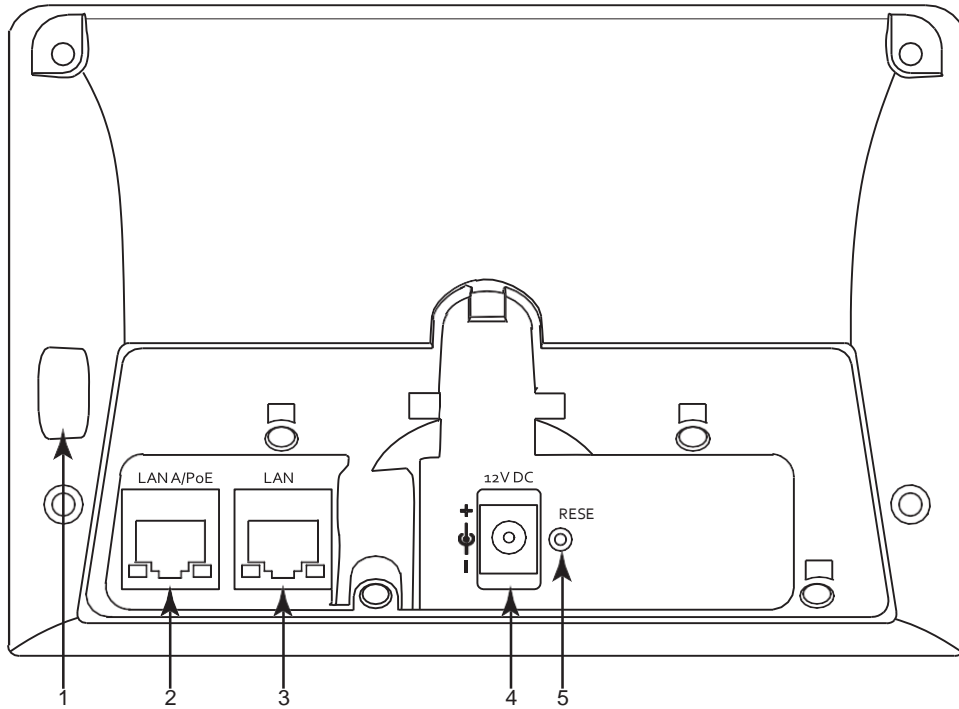
TSC-7t Front Panel Features



— Figure 1 —

1. Capacitive-touch control surface and LCD viewing area (7" diagonal)

TSC-7t Rear Panel Features



— Figure
2 —

1. USB 2.0 Micro-AB OTG interface
2. Q-SYS LAN A with PoE (RJ45)
3. Q-SYS LAN B (redundancy) (RJ45)
4. 12V DC AUX Power input (power supply not included)
5. Unit Reset Button

Touchscreen TSC-7t Packing List

1. Q-SYS TSC-7t Touchscreen assembly (1)
2. Through-the-table Mounting Pipe (1)
3. Mounting-Pipe Rubber Washer (1)
4. Mounting-Pipe Mounting Nut (1)
5. Hardware Installation Guide (TD-000508) (1)
6. Warranty Statement (TD-000453) (1)
7. USB cable (USB 2.0 Host male to USB Micro-B male) (1)

Installation

The Q-SYS TSC-7t is designed to be mounted on a table, or desk.

General Requirements

The TSC-7t

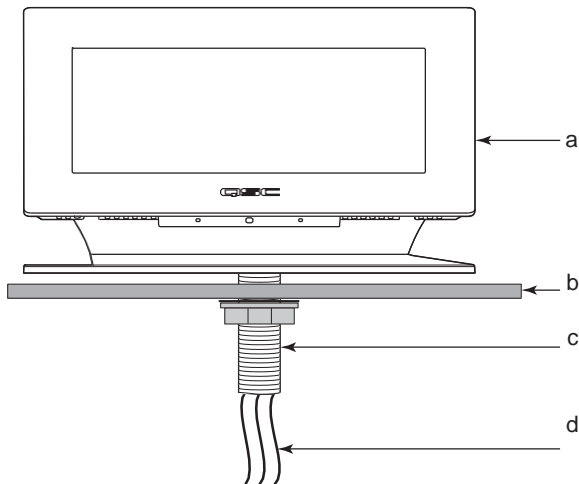
- Must have access to the Q-LAN Ethernet.
- Must be mounted with sufficient space for adequate ventilation.
- Mounting surface Thickness:
 - Maximum – 4" (102 mm),
 - Minimum – Not specified

Installation Configuration

Select one of the following:

1. Through the Table Mounting (Figure 3)

- a. TSC-7t
- b. Mounting Surface (table, desk...)
- c. Mounting Pipe - 31.6 mm (1.25 in), Nut and Washer
- d. TSC-7t Cables - through the table



— Figure 3 —

Prepare for Installation (both options)

Refer to Figure 5

1. Remove the TSC-7t from the box.
2. Remove 4 screws (1) from the bottom of the assembly. Save for later use.
3. Remove the Base (2).



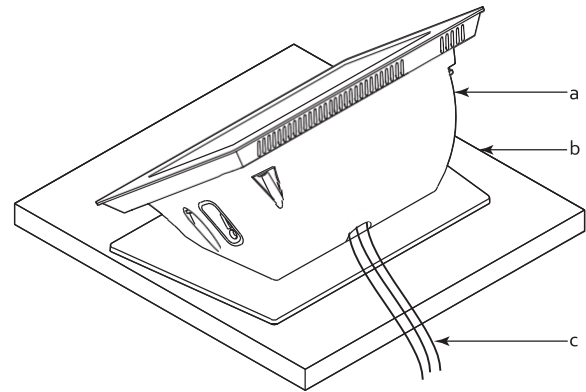
NOTE: If the Cable Cover (3) falls off during disassembly, be sure to replace it before re-installing the Base (2).

Power Source

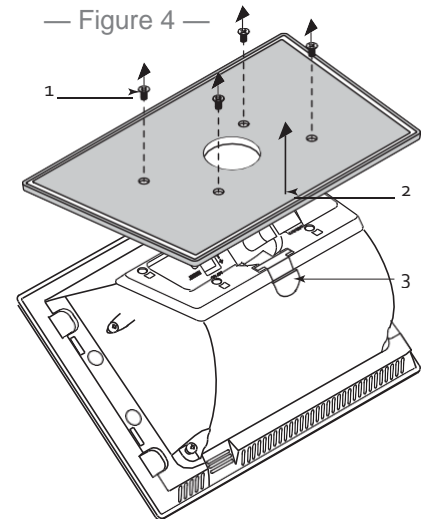
- PoE (Power over Ethernet – IEEE 802.3af class 3 device) LAN A only
- 12V DC AUX Power source (not supplied)
 - 12V DC @ 1A (12W)
 - Barrel connector:
 - » Negative contact – 5.5mm +/- 0.2mm
 - » Positive contact – 2.5mm +/- 0.2mm
 - » Length - 9.5mm +/- 0.3mm

2. Free Standing (Figure 4)

- a. TSC-7t
- b. Mounting Surface (table, desk...)
- c. TSC-7t Cables - over the table



— Figure 4 —



— Figure 5 —

Through-the-Table Mounting

1. Drill a 33.3 mm (1-5/16 inch) hole through the mounting surface in the spot where you want to mount the TSC-7t.

Refer to Figure 6

2. Screw end with fewer threads on Mounting Pipe (1) into the bottom side of the Base (2). Refer to Figure 7
3. Run the cables (1) through the Nut (2), Washer (3), mounting surface (4), and Mounting Pipe/ Base assembly (5)

Refer to Figure 8

4. Connect the cables to the proper connectors in the TSC-7t
 - a. LAN A/PoE - required for network. (PoE is optional if you use the 12V DC AUX Power source)
 - b. LAN B - optional (for redundant network)
 - c. 12V DC AUX Power input - optional (required if you are not using PoE) Refer to Figure 9

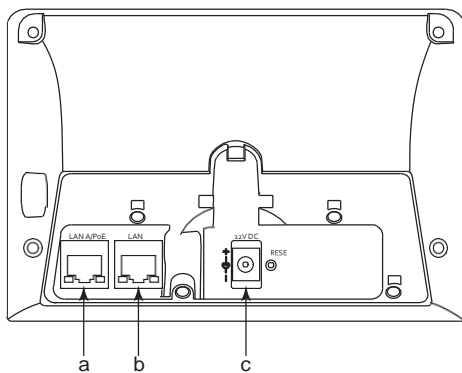


NOTE: If the Cable Cover (3) fell off during disassembly, be sure to replace it before re-installing the Base (1).

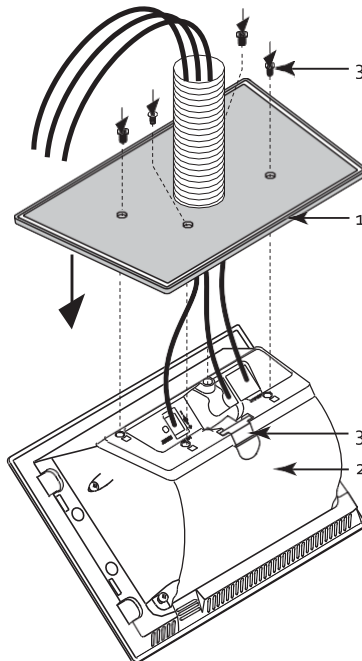
5. Carefully place the Base (1) onto the TSC-7t body (2). Make sure the cables are not pinched.
6. Secure the Base to the TSC-7t with the 4 screws (3) removed in “Prepare for Installation (both options)”.

Refer to Figure 10

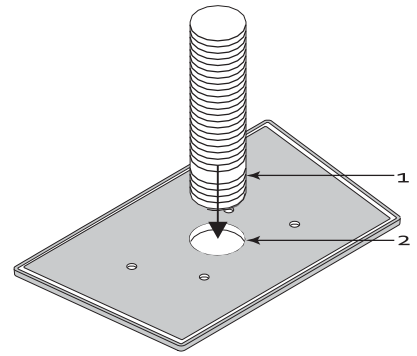
7. Feed the cables (1) through the mounting surface (2) along with the Mounting Pipe (3).
8. Move the Washer (4) onto the Mounting Pipe (3), then thread the Nut (5) onto the Mounting Pipe.
9. Tighten the Nut (5) as needed.



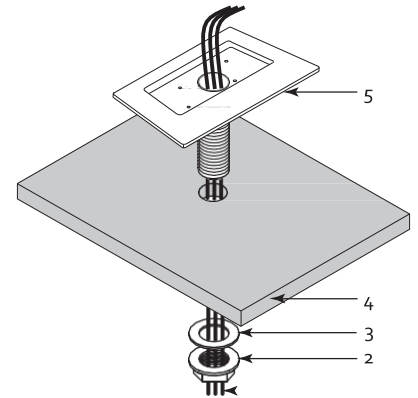
— Figure 8 —



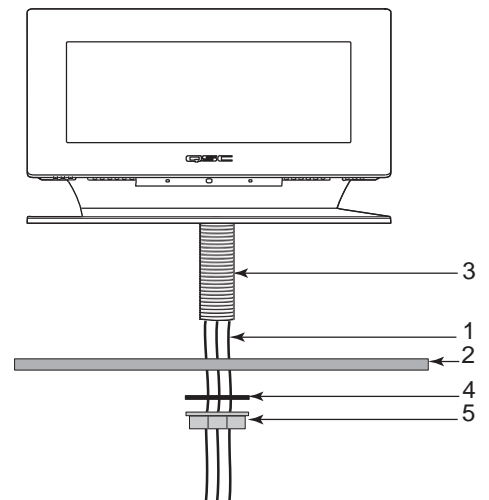
— Figure 9 —



— Figure 6 —



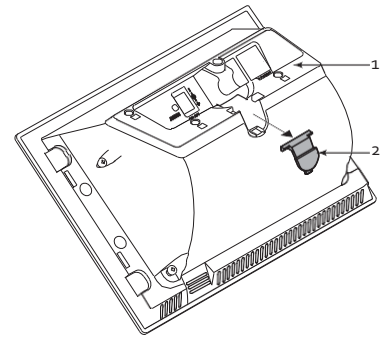
— Figure 7 —



— Figure 10 —

Free-Standing Installation

1. Perform the steps in “Prepare for Installation (both options)” on page 7. Refer to Figure 11
2. Remove the Cable Cover (2) from the TSC-7t (1). Refer to Figure 12
3. Connect the cables to the proper connectors in the TSC-7t
 - a. LAN A/PoE - required for network. (PoE is optional if you use the 12V DC AUX Power)
 - b. LAN B - optional (for redundant network)
 - c. 12V DC AUX Power input - optional (required if you are not using PoE)
4. Carefully route the cables as shown.



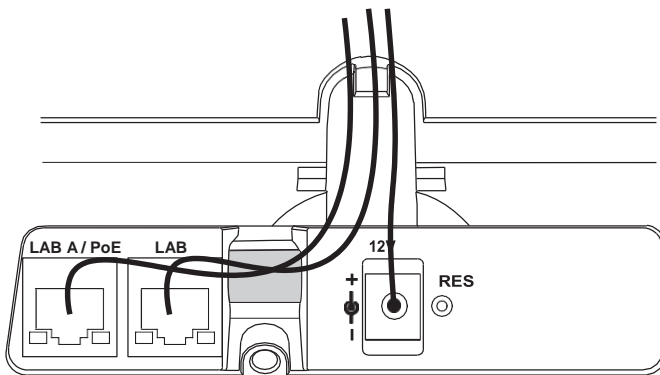
— Figure 11 —



NOTE: Some cables may have a protective boot over the RJ45 connector. The boots may not fit into the TSC-7t cable cavity.

Refer to
Figure 13

5. Carefully place the Base (1) onto the TSC-7t body (2). Make sure the cables are not pinched.
6. Secure the Base to the TSC-7t with the 4 screws (3) removed in “Prepare for Installation (both options)”.

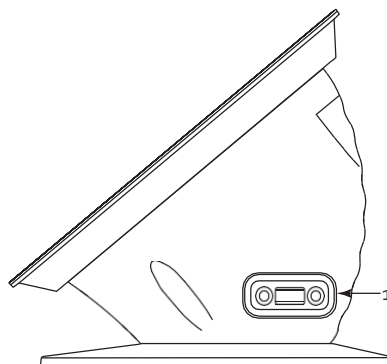


— Figure 12 —

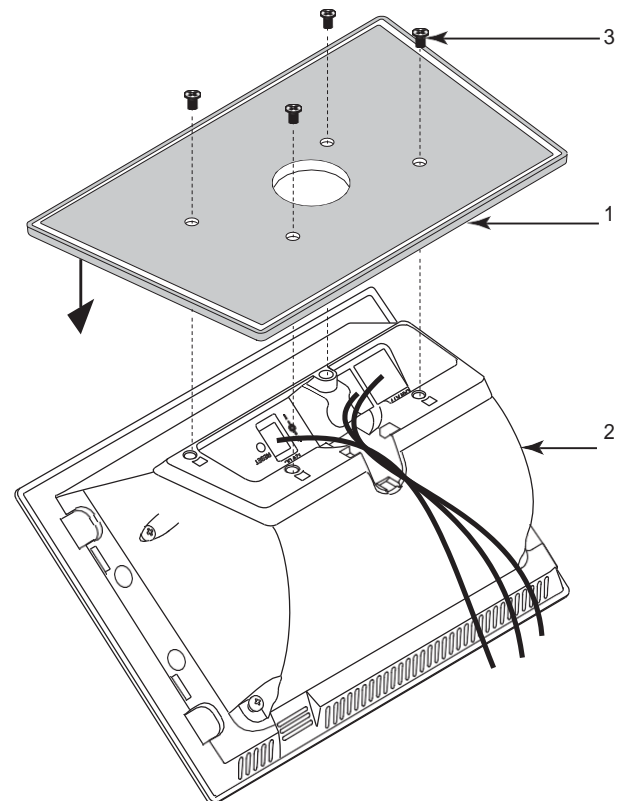
USB

Refer to Figure 14
(1)

USB 2.0 Micro-AB
interface

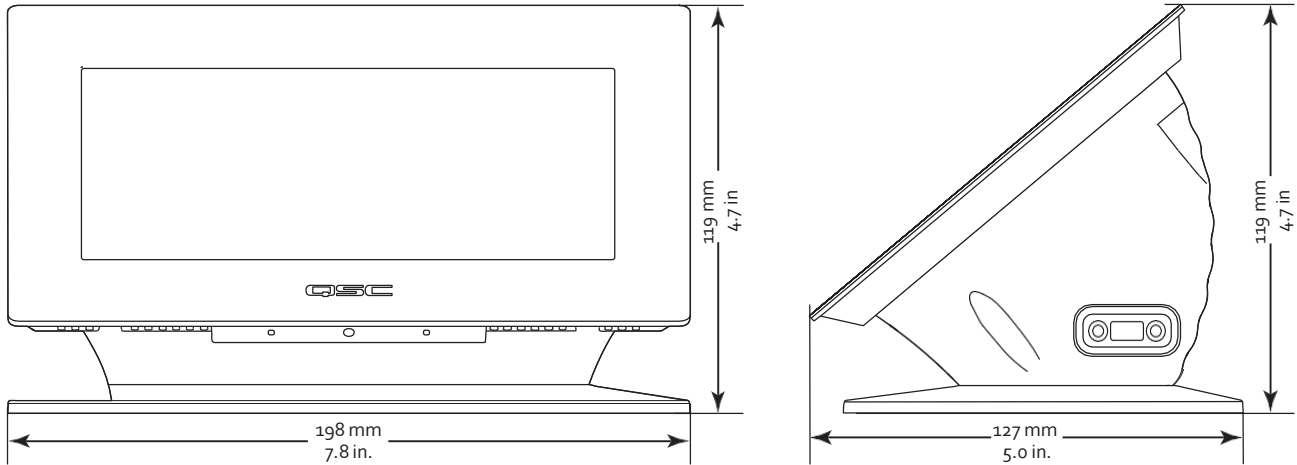


— Figure 14 —



— Figure 13 —

TSC-7t Dimensions



TSC-7t Specifications

EN

Display	
LCD	7" Projected Capacitive Touch (five coordinate simultaneous touch sensitivity)
Luminance:	400 nits (400 lumen/candela per square meter)
Resolution:	800x400
Rear Panel Control	Reset Button (Use a paper clip or similar tool to reboot the unit)
PoE (Power over Ethernet)	IEEE 802.3af class 3 device via LAN A
Optional Power Source (not included)	12V DC AUX Power source (not supplied) 12V DC @ 1A (12W) Barrel connector: Negative contact – 5.5mm +/- 0.2mm Positive contact – 2.5mm +/- 0.2mm Length - 9.5mm +/- 0.3mm
Wireless connectivity	Bluetooth 2.0 & 4.0 + HS
Rear Panel Connectors	
RJ45 (x2)	LAN A (PoE) and LAN B ports (10/100/1000 Mbps)
Barrel connector: Power inlet	Accommodates 12V DC AUX
Power source Side Connector	USB 2.0 Micro-AB OTG
Operating temperature range	0C to 50C
Dimensions (HWD)	4.7" x 7.8" x 5.0" (119 mm x 198 mm x 127 mm)
Weight	
Net	1.9 lbs. (.86 kg)
Shipping	3.1 lbs. (1.4 kg)
Environmental	
BTUs	40 max, 23 typical
Humidity	90% rh, non-condensing
Vibration	20 Grms



Mailing Address:

QSC, LLC
1675 MacArthur
Boulevard

Costa Mesa, CA 92626-1468 U.S.

Main Number: (714) 754-

6175 World Wide Web:

www.qsc.com

Sales & Marketing:

Voice: (714) 957-7100 or toll free (U.S. only)
(800) 854-4079

FAX: (714) 754-6174

E-mail: info@qscaudio.com

Q-SYS™ Customer Support

Application Engineering and Technical
Services Monday - Friday 7 AM to 5 PM
PST (Excludes Holidays) Tel. 800-772-2834
(U.S. only)

Tel. +1 (714) 957-7150

**Q-SYS 24/7 Emergency
Support***

Tel: +1-888-252-4836
(U.S./Canada)

Tel: +1-949-791-7722 (non-
U.S.)



*Q-SYS 24/7 Support is for Emergency assistance with Q-SYS systems only. 24/7 support guarantees a call back within 30 min after a message is left. Please include, Name, Company, Call Back Number and description of the Q-SYS emergency for prompt call back. If calling during business hours please use the standard support numbers above.

Q-SYS Support Email
qsyssupport@qsc.com

(Immediate email response times not
guaranteed)

QSC

Technical

Services 1675

MacArthur Blvd.

Costa Mesa, CA

92626 U.S. Tel: 800-

772-2834 (U.S. only)

Tel: +1 (714) 957-7150

FAX: +1 (714) 754-6173

EN