

SMART Board® 7000 and 7000 Pro series interactive displays

INSTALLATION AND MAINTENANCE GUIDE

SBID-7275-V2 | SBID-7286-V2 | SBID-7275P-V2 | SBID-7286P-V2
SBID-7075 | SBID-7086 | SBID-7275 | SBID-7286 | SBID-7375 | SBID-7386
SBID-7075P | SBID-7086P | SBID-7275P | SBID-7286P | SBID-7375P | SBID-7386P
ID7075-2 | ID7086-2 | ID7075-1 | ID7086-1



Learn more

This guide and other resources for SMART Board 7000 and 7000 Pro series interactive displays are available in the Support section of the SMART website (smarttech.com/support). Scan this QR code to view these resources on your mobile device.

Licenses

The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.

The Bluetooth word mark is owned by the Bluetooth SIG, Inc. and any use of such marks by SMART Technologies ULC is under license.

Trademark notice

SMART Board, SMART Notebook, SMART Meeting Pro, SMART TeamWorks, SMART Ink, SMART kapp, HyPr Touch, Pen ID, smarttech, the SMART logo and all SMART taglines are trademarks or registered trademarks of SMART Technologies ULC in the U.S. and/or other countries. Intel is a trademark of Intel Corporation in the U.S. and/or other countries. Microsoft and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. Mac and AirPlay are trademarks of Apple Inc., registered in the U.S. and other countries. Google and Google Cast are trademarks of Google Inc. All other third-party product and company names may be trademarks of their respective owners.

Copyright notice

© 2017–2019 SMART Technologies ULC. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system or translated into any language in any form by any means without the prior written consent of SMART Technologies ULC. Information in this manual is subject to change without notice and does not represent a commitment on the part of SMART.

This product and/or use thereof is covered by one or more of the following U.S. patents:

www.smarttech.com/patents

September 17, 2019

Important information

WARNING

- Failure to follow the installation instructions included with the display could result in injury and product damage which may not be covered by the warranty.
 - Do not open or disassemble the display. You risk electrical shock from the high voltage inside the casing. Opening the casing also voids the warranty.
 - Do not stand (or allow children to stand) on a chair to touch the surface of the display. Rather, mount the product at the appropriate height.
 - To reduce the risk of fire or electric shock, do not expose the display to rain or moisture.
 - If the display requires replacement parts, make sure the service technician uses replacement parts specified by SMART Technologies or parts with the same characteristics as the original.
 - Ensure that any cables that cross the floor to the display are properly bundled and marked to avoid a trip hazard.
 - Do not insert objects inside the cabinet ventilation holes, because they could touch dangerous voltage points and cause electric shock, fire or product damage which may not be covered by the warranty.
 - Do not place heavy objects on the power cable. Damage to the cable could cause shock, fire or product damage which may not be covered by the warranty.
 - Use only extension cords and outlets that can fully accommodate the display's polarized plug.
 - Use the power cable provided with the display. If a power cable is not supplied, contact your supplier. Use only power cables that match the AC voltage of the power outlet and that comply with your country's safety standards.
 - If the glass is broken, do not touch the liquid crystal. To prevent injury, handle glass fragments with care when disposing of them.
 - Do not move or mount the display by connecting rope or wire to its handles. The display is heavy, and failure of the rope, wire or handle could lead to injury.
 - Use only VESA-approved mounts.
-

IMPORTANT INFORMATION

- Disconnect all of the display's power cables from the wall outlet and seek assistance from qualified service personnel if any of the following occur:
 - The power cable or plug is damaged
 - Liquid is spilled into the display
 - Objects fall into the display
 - The display is dropped
 - Structural damage, such as cracking, occurs
 - The display behaves unexpectedly when you follow operating instructions
-

CAUTION

- Turn off the display before cleaning its screen. Otherwise, you may scramble the desktop icons or inadvertently activate applications when you wipe the screen.
- Avoid setting up and using the display in an area with excessive levels of dust, humidity, and smoke.
- Make sure an electrical socket is near the display and remains easily accessible during use.
- The display should be used only with European TN and TT power distribution systems.

It is not suitable for older, IT-type power distribution systems found in some European countries. “This system (IT-type) is widely used isolated from earth, in some installations in France, with impedance to earth, at 230/400V, and in Norway, with voltage limiter, neutral not distributed, at 230V line-to-line.”

Contact qualified personnel if you're uncertain of the type of power system available where you're installing the display.

- The accessory slot's maximum available power is 60 W. The slot is not a limited power source. To reduce the risk of fire, make sure that accessories connecting to the slot satisfy the fire enclosure requirements of IEC 60950-1.
 - You must connect the USB cable that came with the display to a computer that has a USB compliant interface and that bears the USB logo. In addition, the USB source computer must be compliant with CSA/UL/EN 60950 and bear the CE mark and CSA and/or UL Mark(s) for CSA/UL 60950. This is for operating safety and to avoid damage to the display.
 - Wait five minutes before removing the AM50 appliance from the display to allow the appliance to cool.
-

! IMPORTANT

- The following are the normal operating power requirements for the display:

Model	Power requirements
SBID-7000-V2 models	
SBID-7275-V2	100V to 240V AC, 50 Hz to 60 Hz, 140 W
SBID-7286-V2	100V to 240V AC, 50 Hz to 60 Hz, 160 W
SBID-7275P-V2	100V to 240V AC, 50 Hz to 60 Hz, 140 W
SBID-7286P-V2	100V to 240V AC, 50 Hz to 60 Hz, 160 W
SBID-7000 models	
SBID-7075	100V to 240V AC, 50 Hz to 60 Hz, 135 W
SBID-7086	100V to 240V AC, 50 Hz to 60 Hz, 159 W
SBID-7275	100V to 240V AC, 50 Hz to 60 Hz, 141 W
SBID-7286	100V to 240V AC, 50 Hz to 60 Hz, 165 W
SBID-7375	100V to 240V AC, 50 Hz to 60 Hz, 150 W
SBID-7386	100V to 240V AC, 50 Hz to 60 Hz, 174 W
SBID-7075P	100V to 240V AC, 50 Hz to 60 Hz, 135 W
SBID-7086P	100V to 240V AC, 50 Hz to 60 Hz, 159 W
SBID-7275P	100V to 240V AC, 50 Hz to 60 Hz, 141 W
SBID-7286P	100V to 240V AC, 50 Hz to 60 Hz, 165 W
SBID-7375P	100V to 240V AC, 50 Hz to 60 Hz, 150 W
SBID-7386P	100V to 240V AC, 50 Hz to 60 Hz, 174 W

- For additional requirements and other information, refer to the display's specifications (see *More information* on page 10).

Federal Communication Commission interference statement

FCC

Supplier's Declaration of Conformity

47 CFR § 2.1077 Compliance Information

Unique Identifier: SBID-7075, ID7075-1, ID7075-2, ID7086-1, ID7086-2

Responsible Party – U.S. Contact Information

SMART Technologies Inc.

1505 Westlake Ave N, Suite 700

Seattle, WA 98109

compliance@smarttech.com

This device complies with Part 15 of the FCC Rules. 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.
-

NOTE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CAUTION

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Restriction

Operations in the 5.15-5.25GHz band are restricted to indoor usage only.

IEEE 802.11b or 802.11g operation of this product in the USA is firmware limited to channels 1 through 13.

Radiation exposure statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the antenna of this device and all nearby persons. This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

Innovation, Science and Economic Development Canada statement

This device complies with RSS-247 of the Innovation, Science and Economic Development Canada Rules. 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.

⚠ CAUTION

- (i) the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;
 - (ii) the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall comply with the e.i.r.p. limit; and
 - (iii) the maximum antenna gain permitted for devices in the band 5725-5825 MHz shall comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate.
 - (iv) Users should also be advised that high-power radars are allocated as primary users (i.e., priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.
-

Radiation exposure statement

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the antenna of this device and all nearby persons. This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

Cet appareil est conforme à la norme ISED CNR-247 pour les appareils radio agréés. Son fonctionnement est soumis aux deux conditions suivantes:

1. le dispositif ne doit pas produire de brouillage préjudiciable, et
2. ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

⚠ AVERTISSEMENT

- (i) les dispositifs fonctionnant dans la bande 5 150-5 250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;
 - (ii) le gain maximal d'antenne permis pour les dispositifs utilisant les bandes 5 250-5 350 MHz et 5 470-5 725 MHz doit se conformer à la limite de p.i.r.e.;
 - (iii) le gain maximal d'antenne permis (pour les dispositifs utilisant la bande 5 725-5 825 MHz) doit se conformer à la limite de p.i.r.e. spécifiée pour l'exploitation point à point et non point à point, selon le cas.
 - (iv) De plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5 250-5 350 MHz et 5 650-5 850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.
-

Déclaration d'exposition aux radiations

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps. Cet émetteur ne doit pas être co-implantés ou exploités conjointement avec une autre antenne ou émetteur.

IMPORTANT INFORMATION

EU declaration of conformity

Hereby, SMART Technologies ULC declares that the radio equipment type Interactive Display SBID-7075, SBID-7075P, SBID-7086, SBID-7086P, ID7075-1, ID7086-1, SBID-7075-V2, SBID-7075P-V2, SBID-7086-V2, SBID-7086P-V2, ID7075-2, ID7086-2 and the interactive pen SBID-7000-PEN, SBID-7000P-PEN are in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following Internet address: smarttech.com/compliance

WARNING

Operation of this equipment in a residential environment could cause radio interference.

Regulatory models: ID7075-1, ID7086-1:

Transmitting Band (MHz)	Maximum Transmit Power EIRP (dBm)
2402–2483.5	19

Regulatory models: ID7075-2, ID7086-2:

Transmitting Band (MHz)	Maximum Transmit Power EIRP (dBm)
2402–2483.5	19
5150–5350	16
5470–5725	16

Restrictions in: AT/BE/BG/CZ/DK/EE/FR/DE/IS/IE/IT/EL/ES/CY/LV/LI/LT/LU/HU/MTNL/NO/PL/PT/RO/SI/SK/TR/FI/SE/CH/UK/HR – 5150MHz-5350MHz is for indoor use only.

For optimal performance any support equipment connected to this device must be CE compliant.

Compliance to Malaysia specification

The SMART Technologies ULC Interactive Display SBID-7075, SBID-7075P, SBID-7075-V2, SBID-7075P-V2, wireless Pen models SBID-7000-PEN and SBID-7000P-PEN meet the Malaysian requirements as defined by the Certifying Agency, SIRIM QAS International.



IMPORTANT INFORMATION

United Arab Emirates – TRA registration details

Pen – Regulatory models SBID-7000-Pen and SBID-7000P-PEN

TRA
REGISTERED No: ER62928/18
DEALER No: DA0076339/11

Panel 75" – Regulatory models SBID-7075 and ID7075-1

TRA
REGISTERED No: ER63077/18
DEALER No: DA0076339/11

Panel 86" – Regulatory model ID7086-1

TRA
REGISTERED No: ER62714/18
DEALER No: DA0076339/11

Panel 75" – Regulatory model ID7075-2

TRA
REGISTERED No: ER70206/19
DEALER No: DA0076339/11

Panel 86" – Regulatory model ID7086-2

TRA
REGISTERED No: ER70207/19
DEALER No: DA0076339/11

Microsoft® statement regarding Windows® 10 operating system

Windows 10 is automatically updated, which is always enabled. ISP fees may apply. Additional requirements may apply over time for updates.

Contents

Important information	i
Federal Communication Commission interference statement	iv
Innovation, Science and Economic Development Canada statement	v
EU declaration of conformity	vi
Compliance to Malaysia specification	vi
United Arab Emirates – TRA registration details	vii
Microsoft statement regarding Windows 10 operating system	vii
Chapter 1: Welcome	1
About this guide	1
Identifying your specific model	2
Features	4
Components	5
Accessories	9
More information	10
Chapter 2: Installing the display	11
Moving the display to the installation site	11
Installing the display on a wall	14
Installing the display on a stand	21
Chapter 3: Connecting power and devices	23
Connecting power	24
Connecting to a network	24
Connecting the Intel Compute Card or SMART PCM 8 series OPS PC	25
Connecting cables for room computers, guest laptops and other input sources	26
Connecting an external display	29
Connecting an external audio system	29
Connecting room control systems	30
SBID-7000-V2 connectors reference	31
SBID-7000 connectors reference	33
Appliance reference	34
SMART PCM8 series OPS PC reference	37
Other connectors	38
Chapter 4: Turning on the display for the first time	39
Chapter 5: Maintaining the display	41
Checking the display installation	41

CONTENTS

Cleaning the screen	42
Maintaining ventilation	42
Preventing condensation	43
Replacing the pens and eraser	43
Turning the display off and back on	43
Resetting the display	44
Removing and transporting the display	44
Updating system software	45
Chapter 6: Troubleshooting	47
Resolving issues with power	48
Resolving issues with the occupancy sensors	48
Resolving issues with video	49
Resolving issues with image quality	49
Resolving issues with audio	51
Resolving issues with touch and digital ink	52
Resolving issues with the iQ experience	52
Resolving issues with the Intel Compute Card	53
Resolving issues with the SMART PCM8 series OPS PC	53
Resolving issues with software	53
Referring to the SMART knowledge base for additional troubleshooting information	54
Contacting your reseller for additional support	54
Appendix A: Adjusting iQ settings	55
Network settings	55
Personalization	56
Application settings	56
System settings	58
Appendix B: Remotely managing the display	63
Connecting multiple displays	64
Configuring the computer's serial interface settings	66
Power states	67
Commands and responses	67
Power state commands	70
Input commands	70
Brightness commands	71
Freeze commands	71
Screen shade commands	72
Volume commands	72
Mute commands	72
Firmware version commands	73
Serial number commands	73
Part number commands	73

CONTENTS

Resolving issues with remote management	74
Appendix C: Hardware environmental compliance	75
Waste Electrical and Electronic Equipment (WEEE)	75
Batteries	75
More information	75

Chapter 1

Welcome

About this guide	1
Identifying your specific model	2
Identifying your SMART Board 7000 or 7000 Pro series interactive display model	2
Identifying your appliance model	3
Features	4
Components	5
Screen	6
IR and occupancy sensors	7
Home button	8
Pens and eraser	8
Convenience panel	8
Accessory slot	8
Internal speakers	9
Accessories	9
SBA-100 projection audio system	9
SMART Audio 400 classroom amplification system	9
Stands	10
USB extenders	10
Embedded Windows 10 experience hardware	10
More information	10

This chapter introduces the SMART Board® 7000 and 7000 Pro series interactive displays.

About this guide

This guide explains how to install and maintain a SMART Board 7000 or 7000 Pro series interactive display. It includes the following information:

- How to install the display
- How to connect power and devices
- How to turn on the display for the first time and configure the iQ experience
- How to maintain the display for years of use
- How to troubleshoot issues with the display

In addition, this guide includes information on the display's settings and remote management support.

This guide is intended for those who install and maintain displays in their organizations. Other documentation and resources are available for those who use displays (see *More information* on page 10).

Identifying your specific model

SMART offers several different models of the SMART Board 7000 and 7000 Pro series interactive display and appliance.

Identifying your SMART Board 7000 or 7000 Pro series interactive display model

The following models of SMART Board 7000 and 7000 Pro series interactive display are available:

Model	Location of convenience and connector panels	Frame style	Screen size	iQ	Embedded Windows 10 experience
SBID-7000-V2 models					
SBID-7275-V2	Left side	White	75"	Yes	No
SBID-7286-V2	Left side	White	86"	Yes	No
SBID-7275P-V2	Left side	Black White	75"	Yes	No
SBID-7286P-V2	Left side	Black White	86"	Yes	No
SBID-7000 models (discontinued)					
SBID-7075	Right side	White	75"	No	No
SBID-7086	Right side	White	86"	No	No
SBID-7275	Right side	White	75"	Yes	No
SBID-7286	Right side	White	86"	Yes	No
SBID-7375	Right side	White	75"	Yes	Yes
SBID-7386	Right side	White	86"	Yes	Yes
SBID-7075P	Right side	Black White	75"	No	No
SBID-7086P	Right side	Black White	86"	No	No

Model	Location of convenience and connector panels	Frame style	Screen size	iQ	Embedded Windows 10 experience
SBID-7275P	Right side	Black White	75"	Yes	No
SBID-7286P	Right side	Black White	86"	Yes	No
SBID-7375P	Right side	Black White	75"	Yes	Yes
SBID-7386P	Right side	Black White	86"	Yes	Yes

Refer to the specifications for detailed technical information for these models, including product dimensions and weights (see *More information* on page 10).

NOTES

- Functional differences between SBID-7000-V2 models and SBID-7000 models are highlighted throughout this guide.
- The easiest way to differentiate SBID-7000-V2 and SBID-7000 models is the location of the convenience and connector panels. On SBID-7000-V2 models, the panels are on the left side of the display. On SBID-7000 models, they are on the right.



Identifying your appliance model

AM40 and AM50 appliances are installed in the accessory slots of some interactive display models.

Use the [Identifying your appliance model wizard](#) to identify the specific model of appliance installed in your display.

Features

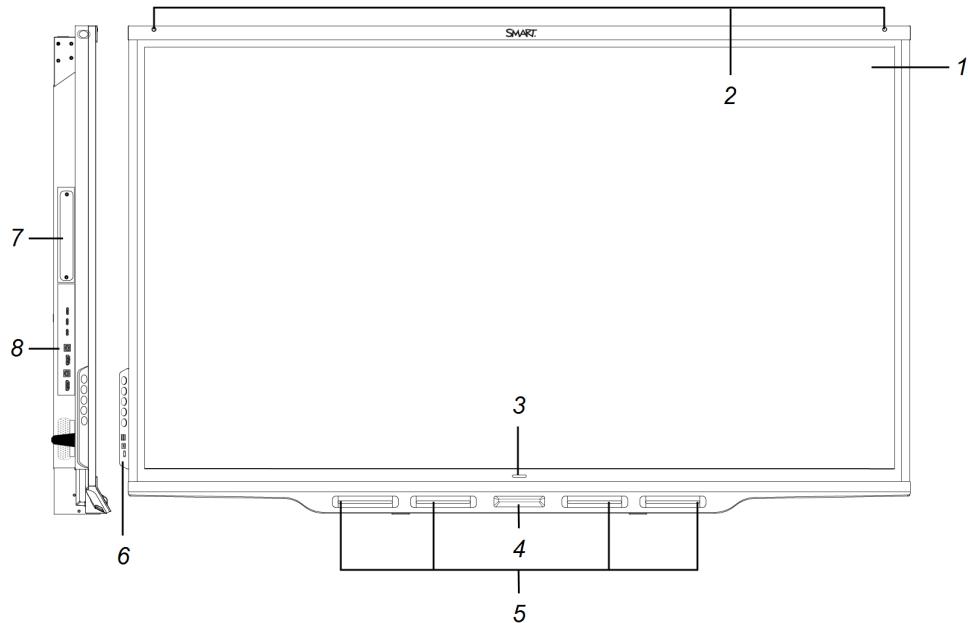
The SMART Board 7000 or 7000 Pro series interactive display is the hub of your classroom or meeting room. PC-free embedded computing provides one-touch access to collaborative tools, including a whiteboard, wireless screen sharing and a web browser. There's no need for wires, cables or manual software and firmware updates.

The display includes the following features:

Feature	Description
iQ experience	<p>The iQ experience provides one-touch access to collaborative tools, including a whiteboard, wireless screen sharing and a web browser.</p> <p>The iQ experience is embedded in SBID-7000-V2 models and is available with the installation of an AM40 or AM50 appliance for SBID-7000 models.</p>
Embedded Windows 10 experience	The optional AM50 appliance with an Intel® Compute Card or SMART PCM8 series OPS PC provides a fully functional Windows 10 solution at your fingertips, without the need for an external PC or cabling.
Touch support	Users can do everything on the display that they can do at their computers—open and close applications, meet with others, create new documents or edit existing ones, visit websites, play and manipulate videos, and so on—by touching the display's surface.
Writing and drawing support	Users can write over applications in digital ink using one of the supplied pens, and then erase the digital ink using their palms, the eraser or the erasers on the pens.
Audio support	The display includes integrated speakers for presenting audio from connected input sources.

Components

The display consists of the following components:



No.	Name	More information
Pictured		
1	Screen	Page 6
2	IR and occupancy sensors	Page 7
3	Home button	Page 8
4	Eraser	Page 8
5	Pen (x4)	Page 8
6	Convenience panel	Page 8
7	Accessory slot	Page 8
8	Side connector panel	Page 31
Not pictured		
9	Bottom connector panel	Page 31
10	AC power inlet, outlet and switch	Page 39

No.	Name	More information
11	RS-232 connectors	Page 20 Page 63
12	Speakers	Page 9

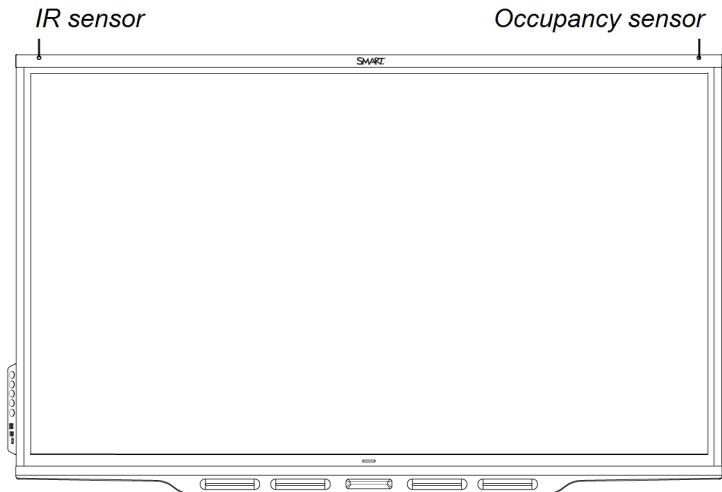
Screen

The following are the dimensions of the screen:

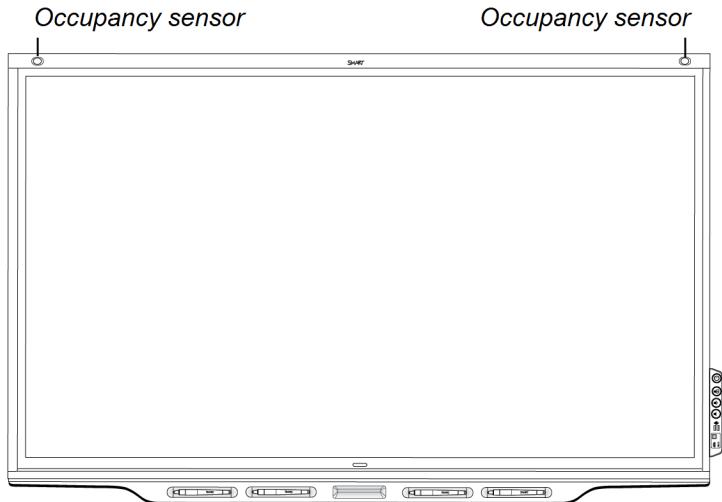
Model	Diagonal	Width	Height
SBID-7000-V2 models			
SBID-7275-V2	75"	65" (165.2 cm)	38 5/8" (93 cm)
SBID-7286-V2	86"	74 7/8" (190.3 cm)	42" (107 cm)
SBID-7275P-V2	75"	65" (165.2 cm)	38 5/8" (93 cm)
SBID-7286P-V2	86"	74 7/8" (190.3 cm)	42" (107 cm)
SBID-7000 models			
SBID-7075	75"	65" (165.2 cm)	38 5/8" (93 cm)
SBID-7086	86"	74 7/8" (190.3 cm)	42" (107 cm)
SBID-7275	75"	65" (165.2 cm)	38 5/8" (93 cm)
SBID-7286	86"	74 7/8" (190.3 cm)	42" (107 cm)
SBID-7375	75"	65" (165.2 cm)	38 5/8" (93 cm)
SBID-7386	86"	74 7/8" (190.3 cm)	42" (107 cm)
SBID-7075P	75"	65" (165.2 cm)	38 5/8" (93 cm)
SBID-7086P	86"	74 7/8" (190.3 cm)	42" (107 cm)
SBID-7275P	75"	65" (165.2 cm)	38 5/8" (93 cm)
SBID-7286P	86"	74 7/8" (190.3 cm)	42" (107 cm)
SBID-7375P	75"	65" (165.2 cm)	38 5/8" (93 cm)
SBID-7386P	86"	74 7/8" (190.3 cm)	42" (107 cm)

IR and occupancy sensors

SBID-7000-V2 models have an IR sensor (for an optional remote control) in the top-left corner of the frame and an occupancy sensor in the top-right corner.



SBID-7000 models have occupancy sensors in the top-left and top-right corners of the frame.



The occupancy sensors can detect people up to 16' (5 m) away when the display is in Standby mode.

When the occupancy sensors detect people in the room, the display either turns on or is ready to turn on, depending on how it's configured.

If the room is empty for a specified period, the display returns to Standby mode.

Home button

Tap the Home button to open the Home screen. From the Home screen, you can open the iQ experience apps as well as the settings.

Pens and eraser

The display comes with black, red, blue and green pens. Each pen has an attached eraser and an indicator light.



In addition to the pens, the display includes an eraser, which you can use when you want to erase a large area on the screen.



Convenience panel

The convenience panel contains buttons for turning the display on and off, controlling the volume, freezing and unfreezing the screen, and showing and hiding a screen shade. It also includes connectors for USB peripherals and a computer or other input source.

Accessory slot

The optional AM50 appliance with an Intel® Compute Card or SMART PCM8 series OPS PC provide a fully functional Windows 10 solution at your fingertips, without the need for an external PC or cabling.

CAUTION

The accessory slot's maximum available power is 60 W. The slot is not a limited power source. To reduce the risk of fire, make sure that accessories connecting to the slot satisfy the fire enclosure requirements of IEC 60950-1.

TIP

Use the [Identifying your appliance model wizard](#) on the SMART support site to identify your appliance model.

Internal speakers

The display includes two 10 W integrated speakers. You can also connect an external audio system (see *Connecting an external audio system* on page 29).

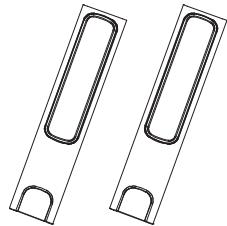
Accessories

Accessories for the display include:

- SBA-100 projection audio system
- SMART Audio 400 classroom amplification system
- Stands
- USB extenders
- Embedded Windows 10 experience hardware

SBA-100 projection audio system

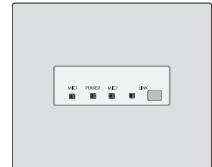
Available for education models, the SBA-100 projection audio system consists of two 14 W speakers and is intended for wall-mounted displays. You can control volume using the display's convenience panel or the digital volume controls in a connected computer's operating system.



For more information, see the *SBA-100 projection audio system specifications* (smarttech.com/kb/171146).

SMART Audio 400 classroom amplification system

Available for education models, the SMART Audio 400 classroom amplification system provides high-quality audio amplification. The system comes with a teacher microphone and optional student microphone. Multiple speaker options are available, including wall- and ceiling-mounted speakers. The amplifier receives audio signals from the microphones and translates them into crystal-clear sound through the speakers.



For more information, see the *SMART Audio 400 classroom amplification system specifications* (smarttech.com/kb/171137).

Stands

If you want to move the display from place to place, you can install it on a SMART mobile stand.

Alternatively, if you are installing the display on a wall that cannot support the display's full weight, you can install the display on a SMART floor stand.

For more information about SMART mobile and floor stands, see smarttech.com/accessories.

USB extenders

As noted in *Connecting cables for room computers, guest laptops and other input sources* on page 26, the USB connection between the display and computer should be no longer than 16' (5 m). If you need to connect a computer that is more than 16' (5 m) from the display, use one of the following USB extenders:

Extender	Specifications
USB-XT	smarttech.com/kb/119318
CAT5-XT-1100	smarttech.com/kb/170202

Embedded Windows 10 experience hardware

The optional AM50 appliance with an Intel® Compute Card (smarttech.com/kb/171164) or SMART PCM8 series OPS PC (smarttech.com/kb/171429) provide a fully functional Windows 10 solution at your fingertips, without the need for an external PC or cabling.

More information

In addition to this guide, SMART provides other documents for the display in the Support section of the SMART website (smarttech.com/support). Scan the QR code on the cover of this guide to view links to SMART Board 7000 and 7000 Pro series interactive display documents and other support resources.

Chapter 2

Installing the display

Moving the display to the installation site	11
Using transportation aides	12
Accommodating doorways, hallways and elevators	12
Dealing with cracked, chipped or shattered glass	13
Saving the original packaging	13
Installing the display on a wall	14
Choosing a location	14
Choosing a height	16
Assessing the wall	17
Selecting mounting hardware	17
Selecting a wall mount	17
Mounting the display	18
Mounting multiple displays	20
Installing the display on a stand	21
Using SMART mobile stands	21
Using a third-party stand	21

SMART recommends that only trained installers install the display.

This chapter is for installers. Installers should read this information along with the installation instructions included with the display before they begin the installation.

WARNING

Improper installation of the display can result in injury and product damage.

Moving the display to the installation site

After your organization receives the display, you need to move it to the place where you plan to install it.

On occasion, you might also need to move the display to another location after initially installing it.

! IMPORTANT

- Move the display at your own risk. SMART cannot accept liability for damages or injury that occur during the display's transportation.
- When moving the display
 - Follow local safety regulations and standards.
 - Keep the display in its original packaging, including the pallet.
 - Move the display so that its top frame faces up.
 - Have at least two people move the display.

TIP

Display packaging may be labeled to indicate which side is the front. Look for "FRONT" on the packaging to help orient the box during transportation.

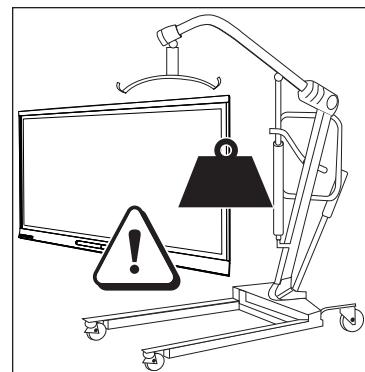
Using transportation aides

You can use the following aides to move the display:

- Cart
- Furniture dolly
- Mechanical lift

NOTE

Larger, heavier models feature eyebolt mounting holes for use with a mechanical lift. Refer to these models' installation instructions for information about using a mechanical lift.



Accommodating doorways, hallways and elevators

In some situations, you might need to remove the display from its packaging to move it through narrow doorways or hallways or on to an elevator. In these situations, SMART recommends that

you keep the foam pieces on the bottom corners of the display. These foam pieces protect the display if you need to set it down during transportation.

You might also need to rotate the display so that its top frame faces to the side. You can do this during transportation, but when you install the display, it must be in landscape orientation (with the top frame facing up).

Dealing with cracked, chipped or shattered glass

The display contains safety-tempered glass. Although this glass is heat-strengthened to help withstand impacts, the glass can crack, chip or shatter if struck with enough force. (Safety glass is designed to break into small pieces rather than sharp shards if it is broken.) Temperature changes can cause a minor crack or chip to become worse, possibly causing the glass to shatter. See the knowledge base article, [Shattered glass on an interactive display](#), for information about conditions that can cause the display's glass to shatter even when it's not in use.

If the display's glass is cracked or chipped, have it professionally inspected and repaired at a SMART authorized repair center. If the display's glass shatters, carefully clean up the area and have the display repaired or replaced.

CAUTION

For safety and to prevent further damage, do not continue to install or use the display if its glass is cracked, chipped or shattered.

Saving the original packaging

Save the original packaging to repack the display with as much of the original packaging as possible in case you need to move the display after you initially install it. This packaging was designed to provide the best possible protection against shock and vibration.

CAUTION

Move the display only in the original packaging or replacement packaging purchased from your authorized SMART reseller. Moving the display without correct packaging can lead to product damage and voids the warranty.

NOTE

If the original packaging isn't available, you can purchase the same packaging directly from your authorized SMART reseller (smarttech.com/where).

Installing the display on a wall

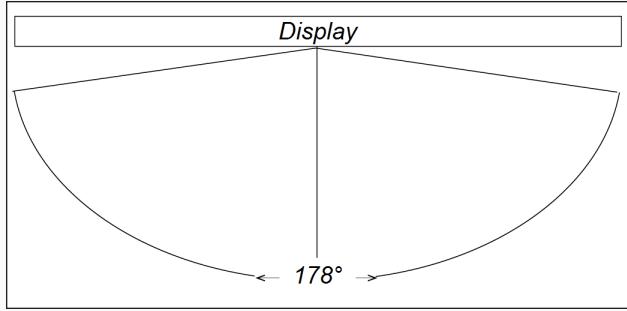
Typically, you install the display on a wall in a classroom or meeting space.

Choosing a location

A display is typically installed at the room's focal point, such as at the front of a classroom or meeting space.

Selecting an appropriate location for the display is crucial for ensuring the best possible experience with the product. Consider the following factors as you choose a location:

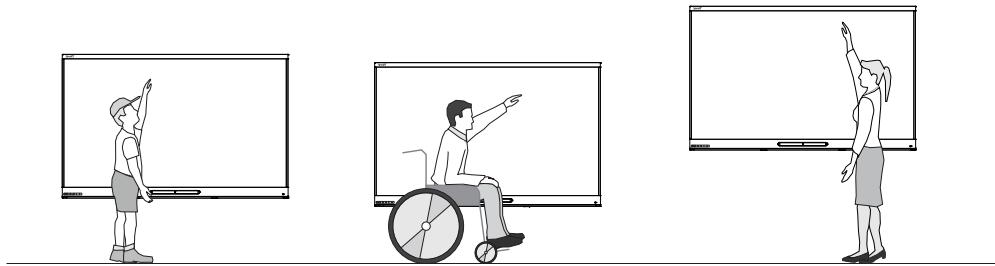
Factor	Considerations
Room setup	<ul style="list-style-type: none">The location allows users, including those in wheelchairs, access to the display. Refer to local regulations regarding accessibility.The location allows for multiple users to access the display at the same time.The location accommodates room traffic patterns, and there are no tripping hazards.The display is not installed where it could be hit by a door or gate.There are no nearby heat sources directed at the display like a radiator or heat vent.There are no nearby shelving units, desks or other furniture that has doors or drawers that could hit the display.Furniture, wall décor and other room features, such as light switches and thermostats, do not block the display and are not blocked by it. (You might be able to move some of these room features to accommodate the display.)

Factor	Considerations
Power and other connections	<ul style="list-style-type: none"> • The location is close to <ul style="list-style-type: none"> ◦ A power outlet ◦ A network outlet (if you plan to use a wired network connection) ◦ A room computer (if you plan to connect a room computer) ◦ External audio systems and other devices that you want to connect to the display
Visibility	<p>NOTES</p> <ul style="list-style-type: none"> ◦ If the location is not near a power outlet, consult an electrician for the power setup you need. ◦ Determine if you'll need additional equipment, such as power bars, additional cables, or cable extenders. <hr/> <ul style="list-style-type: none"> • The location is not where the mains power supply enters the building.
	<p>The display's screen is clearly visible to all users in the room. SMART recommends users sit within a 178° viewing area:</p>  <p>A diagram illustrating the 178° viewing angle for a display. At the top, a horizontal rectangle is labeled "Display". From its center, two lines extend downwards and outwards at an angle. The angle between these two lines is marked with a double-headed arrow and labeled "178°".</p> <p>NOTE</p> <p>The viewing area depends on the display's resolution and a variety of other factors. For more information, see the knowledge base article, Recommended viewing distances and viewing angles for SMART Board interactive flat panels.</p>

Factor	Considerations
Lighting	<p>The location is not near bright light sources, such as windows or strong overhead lighting.</p> <p>Light sources can cause glare on the display's screen, reducing its visibility.</p> <p>TIP</p> <p>To reduce light interference, install blinds or shades on windows or skylights and install switches to dim or turn off any lights shining directly on the display's screen. Keep in mind that sunlight can come through windows at different angles at different times of the year.</p>
Acoustics	<p>The room has good acoustics (see Configuring your SMART Board 7000 or 7000 Pro for the best audio performance).</p>
Environment and ventilation	<ul style="list-style-type: none">The location meets the environmental requirements in the display's specifications (see <i>More information</i> on page 10).The display isn't subjected to strong vibrations or dust.Ventilation systems don't blow air directly on the display.There is adequate ventilation or air conditioning around the display so that heat can flow away from it and the mounting equipment. SMART recommends at least 2" (5 cm) of space on all sides of the display for proper airflow.If you plan to install the display in a recessed area, there is at least 4" (10 cm) of space between the display and the recessed walls to enable ventilation and cooling.

Choosing a height

Consider the general height of the user community when you choose the height for the display.



SMART recommends that you mount the display so that its top is 6' 5" (1.9 m) from the floor.

NOTE

If participants will be sitting at a steep angle (such as in a lecture hall), you may have to adjust the installation height or angle.

Assessing the wall

Be sure the wall you're installing the display on can support the weight of the display and mounting equipment. If the wall can't support the weight of the display and mounting equipment, consider using a SMART wall stand to transfer some of the weight from the wall to the floor (see smarttech.com/accessories).

NOTE

Refer to the display's specifications for its weight (see *More information* on page 10).

In some situations, you may need to request an engineering analysis to determine if the wall can support the display.

Selecting mounting hardware

The mounting hardware required for installation varies according to the type of wall onto which the display is being mounted.

Refer to *Installation best practices for SMART products* (smarttech.com/kb/171035) for the mounting hardware required for the display.

Selecting a wall mount

It is always best to mount the display on a wall. If the wall can't support the display's weight, you can use additional hardware to transfer some of the weight to the floor.

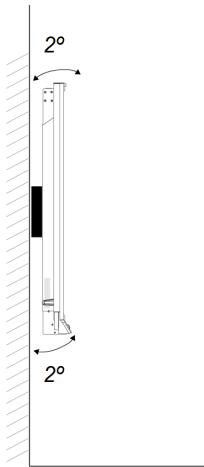
Contact your authorized SMART reseller (smarttech.com/where) for information on SMART's mounting options.

If you choose a third-party option rather than one of SMART's mounting options, be sure the wall mount can accommodate the display's dimensions and support the display's weight as well as the weight of any attached accessories.

Mounting the display

Mount the display following the included installation instructions. In addition, consider the following:

- Mount the display vertically (90° relative to the floor plus or minus 2° for tolerance) and in landscape orientation. SMART doesn't support mounting the display at other angles or in portrait orientation.



- Use a standard VESA mounting plate.

- Use M8 bolts (not included) to fasten the wall bracket.

Bolt length	$12 \text{ mm} + x \text{ mm} < M8 < 45 \text{ mm} + x \text{ mm}$ where x is the combined thickness of the wall bracket and washer
Fasten force	97.36–177.01 in-lb. (11–20 N·m) ⚠ CAUTION Do not over-tighten the bolts.

NOTE

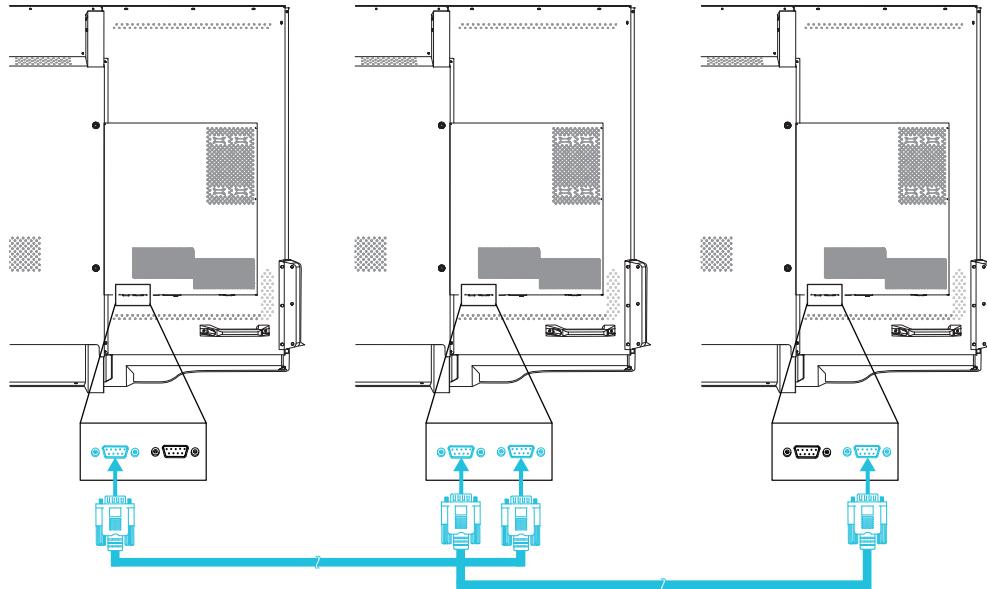
SMART recommends M8 × 30 mm mounting bolts for standard installations where the total wall mount bracket and washer thickness is less than 7 mm.

-
- Because the receptacles might not be easily accessible after you mount the display, consider connecting cables for power, room computer and other devices while the display is still in its packaging (see *Chapter 3: Connecting power and devices* on page 23).

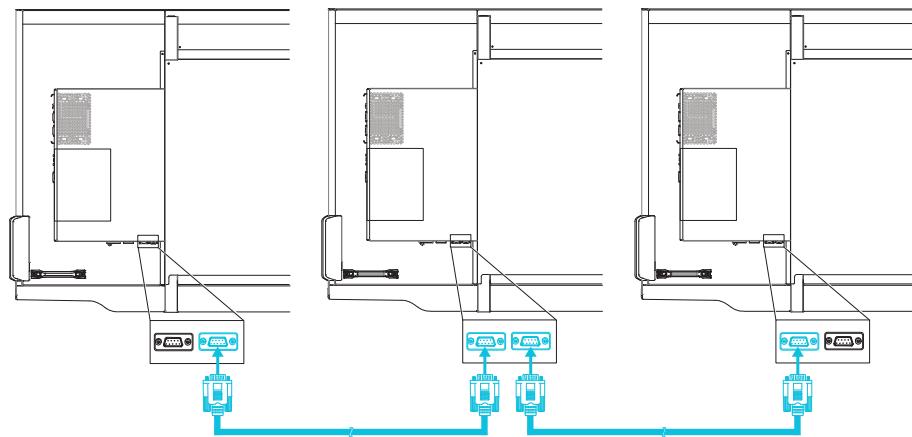
Mounting multiple displays

If you mount multiple displays side by side, you can connect them with RS-232 cables to turn on, turn off and otherwise operate all of the displays from the first display's convenience panel:

- When connecting SBID-7000-V2 models, the leftmost display (when viewed from the front) is the first display.



- When connecting SBID-7000 models, the rightmost display (when viewed from the front) is the first display.



 **IMPORTANT**

Use only standard RS-232 cables. Do not use null modem cables. Null modem cables typically have ends of the same type.

NOTE

For more information on using RS-232 cables for remote management, see *Appendix B: Remotely managing the display* on page 63.

Installing the display on a stand

If you want to move the display from place to place or if it's not possible to install the display on a wall, you can install it on a stand.

Using SMART mobile stands

SMART mobile stands are designed for SMART interactive displays. They are height-adjustable. Some models include integrated speakers, a locking cabinet to secure equipment, and casters that swivel and lock for easy movement.

For more information about SMART mobile stands, see smarttech.com/accessories.

Using a third-party stand

For information on selecting and using a third-party stand, see [Installing your SMART Board 7000 or 7000 Pro on a stand](#).

Chapter 3

Connecting power and devices

Connecting power	24
Connecting to a network	24
Connecting the Intel Compute Card or SMART PCM 8 series OPS PC	25
Connecting cables for room computers, guest laptops and other input sources	26
Connecting an external display	29
Connecting an external audio system	29
Connecting room control systems	30
SBID-7000-V2 connectors reference	31
SBID-7000 connectors reference	33
Appliance reference	34
SMART PCM8 series OPS PC reference	37
Other connectors	38

Connect the display to power after you install it but before you turn it on for the first time and configure the iQ experience. You can also connect cables for room computers, guest laptops or other input sources as well as for external audio systems and room control systems.

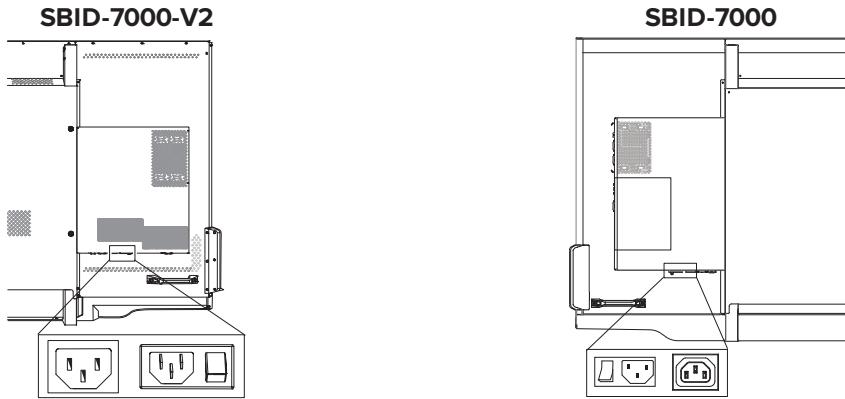
By installing cables in advance, you make use of connectors that might not be accessible after the display is wall-mounted. You can then run the cables across floors or behind walls as needed.

 **WARNING**

Ensure that any cables that cross the floor to the display are properly bundled and marked to avoid a trip hazard.

Connecting power

Connect the supplied power cable from the AC power inlet on the bottom of the display to a power outlet.

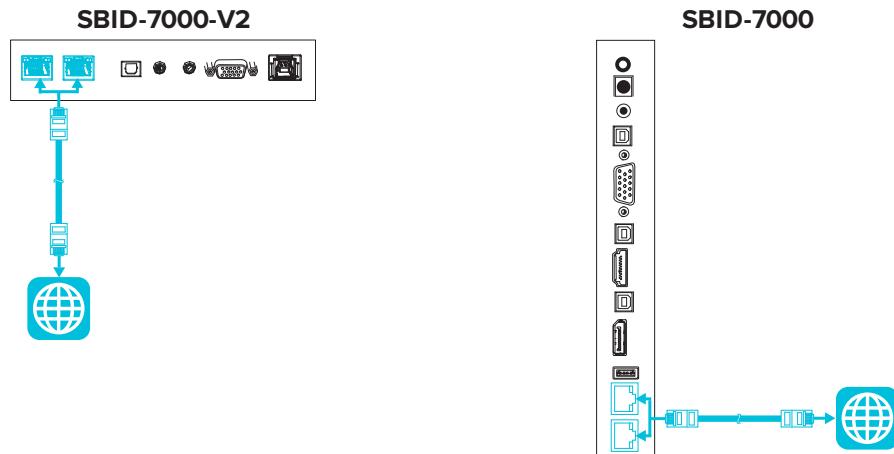


NOTE

Refer to the display's specifications for power requirements and power consumption information (see *More information* on page 10).

Connecting to a network

The display requires a network connection for downloading software and firmware updates, and a number of the iQ apps require a network connection as well. You can connect to a network using a Wi-Fi connection or one of the RJ45 jacks on the display (pictured). For more information about the display's network connection and configuration, see [Connecting to a network](#).

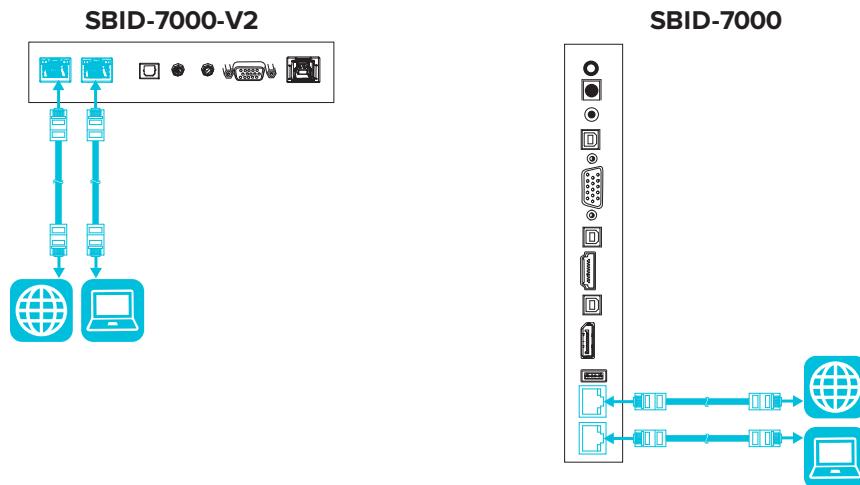


! IMPORTANT

Do not use the RJ45 jack on the appliance or the SMART PCM8 series OPS PC to connect to a network.

TIPS

- If you're using one of the display's RJ45 jacks to connect to a network, you can connect the other RJ45 jack to a computer to provide network access for the computer. This is particularly useful if there is only one wired network connection in the room.



- This feature is available when the display is on or in Standby mode but not when it's in Power Save mode.

Connecting the Intel Compute Card or SMART PCM 8 series OPS PC

If an AM50 appliance with an Intel Compute Card or a SMART PCM8 series OPS PC is installed in the accessory slot, you can access an embedded Windows 10 experience from the display.

NOTE

By default, the HDMI output extends the Windows desktop, and this can cause display problems in certain configurations. If you experience issues, set the HDMI out to a mirrored desktop rather than the default extended desktop. Right click, select **Display settings**, and set the secondary display to mirror the first.

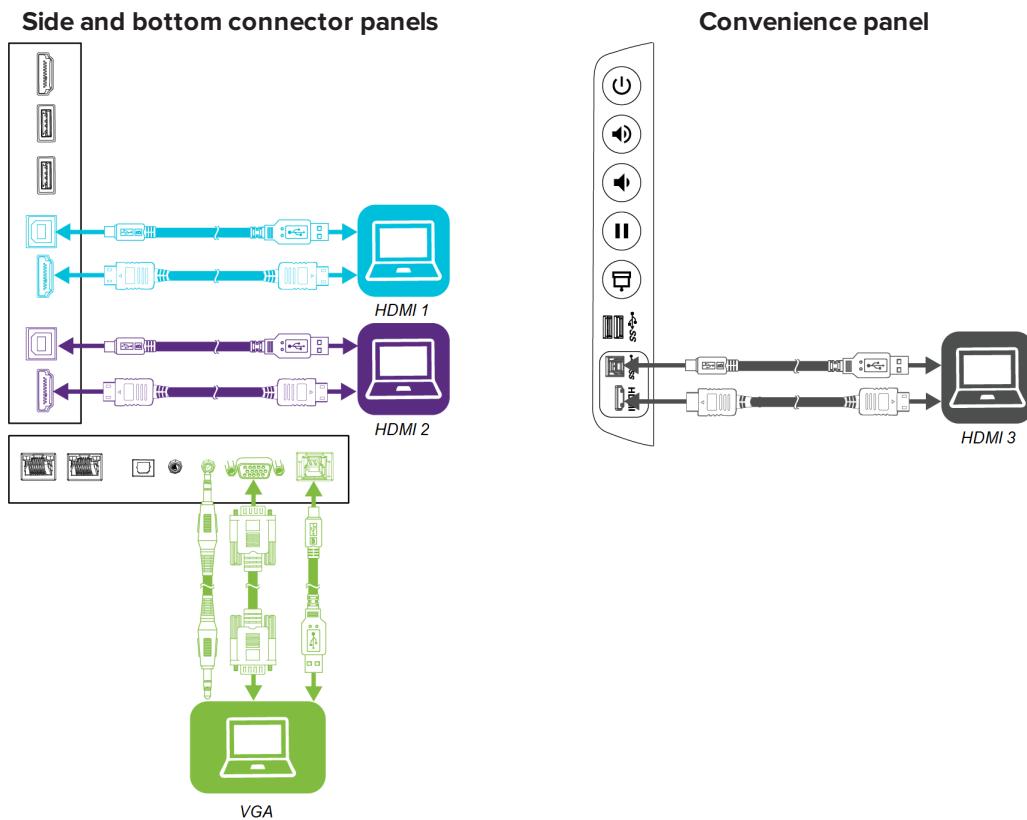
TIP

You can connect peripherals, such as a keyboard or mouse, to the embedded Windows 10 experience using the USB receptacles on the AM50 appliance or the OPS PC.

Connecting cables for room computers, guest laptops and other input sources

You can connect cables to the display so that users can connect and use room computers, guest laptops or other devices, such as Blu-ray™ disc players.

The following diagrams and table show the computer connectors on SBID-7000-V2 models:



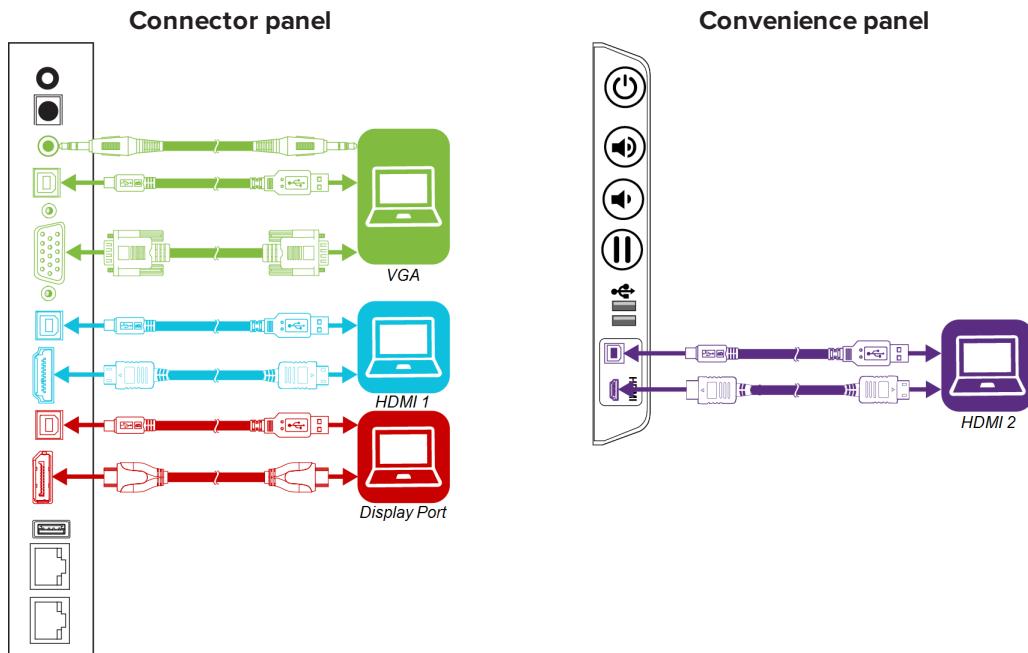
Input	Video/audio	Touch
HDMI 1	HDMI 2.0	USB 3.0
HDMI 2	HDMI 2.0	USB 3.0

Input	Video/audio	Touch
HDMI 3	HDMI 2.0	USB 3.0
VGA	VGA (video) Stereo 3.5 mm (audio)	USB 3.0

TIP

There is limited space between the side connector panel and the back of the convenience panel. When making connections within the limited space, use flexible, high-quality cables that do not include a larger strain relief feature.

The following diagrams and table show the computer connectors on SBID-7000 models:



Input	Video/audio	Touch
HDMI 1	HDMI 2.0	USB 2.0
HDMI 2	HDMI 1.4	USB 2.0
Display Port	Display Port	USB 2.0
VGA	VGA (video) Stereo 3.5 mm (audio)	USB 2.0

 **IMPORTANT**

Do not connect computers or other devices to the connectors on the appliance. SMART Board 7000 series and 7000 Pro series interactive displays do not support the use of these connectors.

SMART recommends the following varieties of cable:

Cable type	Maximum length	Recommendation
HDMI	23' (7 m) ¹	Use only certified HDMI cables that have been tested to support the performance standard you require.
Display Port	23' (7 m)	Use Display Port 1.2 compliant or better cables.
VGA	23' (7 m)	Use VGA cables with all pins in their connectors fully populated and wired.
Stereo 3.5 mm	20' (6 m)	[N/A]
USB 2.0	16' (5 m)	Use a USB extender if the distance between the computer and the display is greater than 16' (5 m). For more information, see <i>USB extenders</i> on page 10.
USB 3.0	9' (3 m)	SMART supports only installations that use a 9' (3-m) direct connection or a 49' (5-m) connection using an AC-adapter-powered active USB extender. You might be able to use higher grade cables that are longer than 9' (3 m). If you have problems with such a cable or an extender of any type, test the connection with a 9' (3-m) or shorter cable before contacting SMART Support.

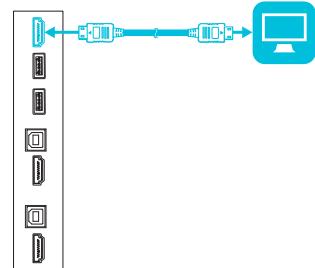
Using cables that exceed these maximum lengths may produce unexpected results, degraded picture quality or degraded USB connectivity.

SMART software should be installed on any computers users connect to the display. For information on installing SMART software and viewing a connected computer's input on the display, see the *SMART Board 7000 and 7000 Pro series interactive displays user guide* (smarttech.com/kb/171163).

¹The performance of cables longer than 23' (7 m) is highly dependent on the cable's quality.

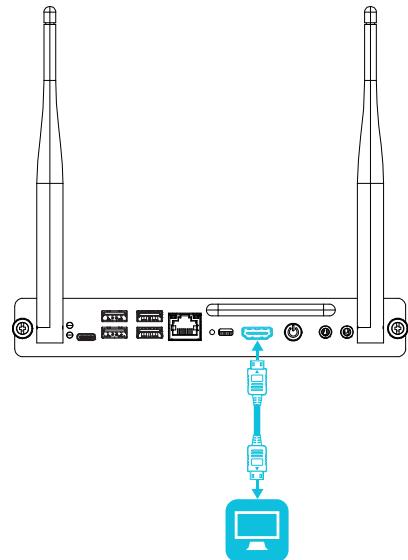
Connecting an external display

You can connect an external display to an SBID-7000-V2 model using the HDMI 2.0 out connector on the side connector panel (pictured). The external display will show the same image as the SBID-7000-V2 model. This is useful when you're using the SBID-7000-V2 model in an auditorium or other large space where it would be beneficial to have a second display.



TIP

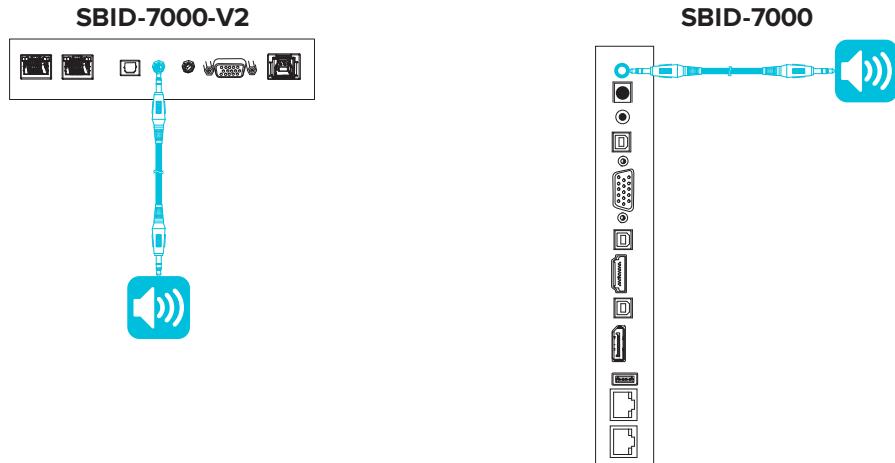
If a SMART PCM8 series OPS PC is installed in the accessory slot, you can connect an external display to the HDMI 1.4 out connector on the OPS PC rather than the one on the display. Doing so allows you to either duplicate or extend the OPS PC's desktop to the external display.



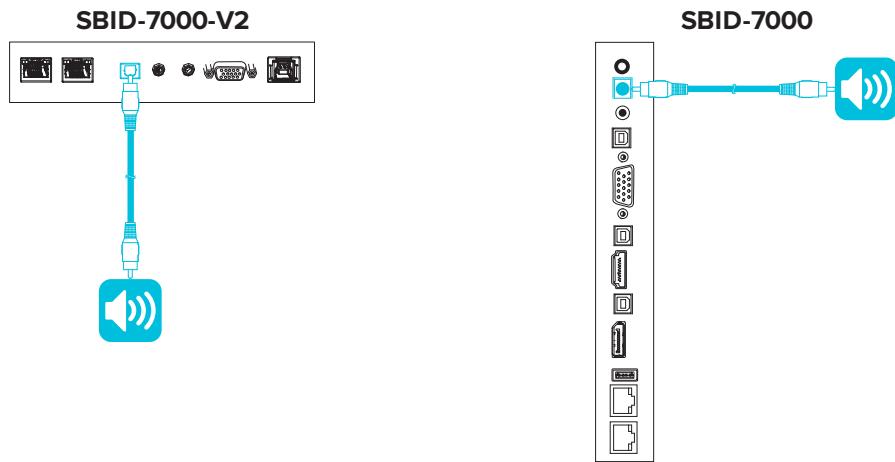
Connecting an external audio system

The display includes two 10 W speakers, which are designed to provide sound at the front of a room. You might want to connect the SBA-100 projection audio system (see *SBA-100 projection audio system* on page 9) or a third-party external audio system if you're providing sound in a larger space.

You can connect an external audio system to the display using the stereo 3.5 mm out connector (pictured). Alternatively, you can connect an external audio system directly to a room computer.



In addition to the stereo 3.5 mm out connector, the display provides a Sony/Philips Digital Interface (S/PDIF) out connector. S/PDIF is a digital audio transmission medium. You need an audio receiver that supports S/PDIF to decode this connection to analog for use with an external sound bar or other audio system.



Connecting room control systems

A room control system enables users to control a room's lighting, audio system and, possibly, the display. Some installations may require you to integrate the display with a room control system.

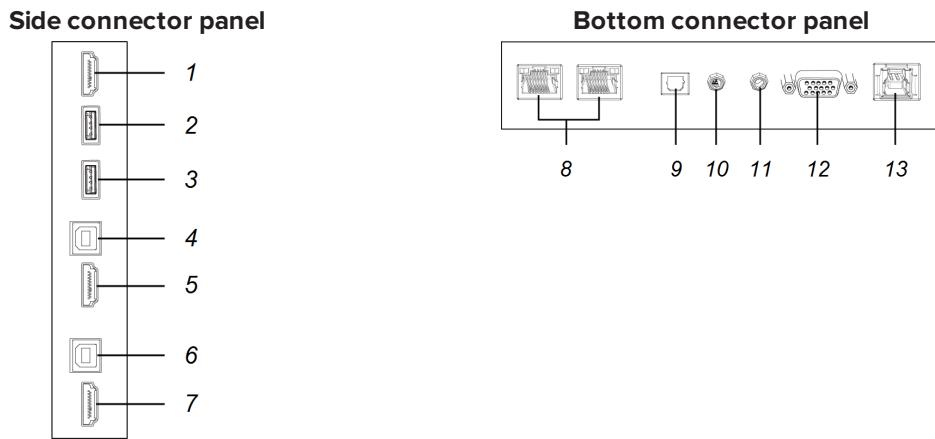
You can use the display's RS-232 connector to connect a third-party external control system to the display (see *Appendix B: Remotely managing the display* on page 63).

NOTE

Displays are not compatible with centralized remote control systems, such as a universal remote control.

SBID-7000-V2 connectors reference

The following diagrams and table present the connectors on SBID-7000-V2 models' connector panels:



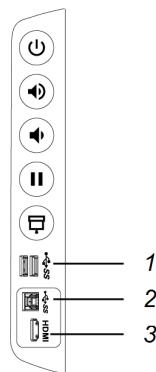
No.	Connector	Connects to	Notes
1	HDMI 2.0 out	External display	See Connecting an external display on page 29.
2	USB Type-A	[N/A]	This connector is a service port.
3	USB Type-A	Supported peripherals	See USB cables and connectors .
4	USB Type-B	HDMI 1 input (touch)	See page 26 and USB cables and connectors .
5	HDMI 2.0 in	HDMI 1 input (video and audio)	See page 26 and HDMI cables and connectors .
6	USB Type-B	HDMI 2 input (touch)	See page 26 and USB cables and connectors .
7	HDMI 2.0 in	HDMI 2 input (video and audio)	See page 26 and HDMI cables and connectors .

No.	Connector	Connects to	Notes
8	RJ45 ($\times 2$)	Network	See page 24 and Ethernet (network) cables and connectors .
9	S/PDIF out	Digital audio output	See page 29 and Digital audio cables and connectors .
10	Stereo 3.5 mm out	External audio system	See page 29 and Analog audio cables and connectors .
11	Stereo 3.5 mm in	VGA input (audio)	See page 26 and Analog audio cables and connectors .
12	VGA in	VGA input (video)	See page 26 and VGA cables and connectors .
13	USB Type-B	VGA input (touch)	See page 26 and USB cables and connectors .

TIP

There is limited space between the side connector panel and the back of the convenience panel. When making connections within the limited space, use flexible, high-quality cables that do not include a larger strain relief feature.

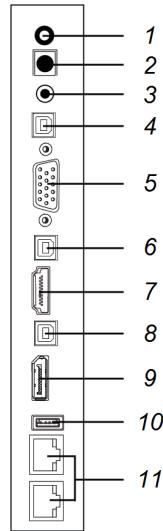
The following diagram and table present the connectors on SBID-7000-V2 models' convenience panels:



No.	Connector	Connects to	Notes
1	USB Type-A ($\times 2$)	Supported peripherals	See USB cables and connectors .
2	USB Type-B	HDMI 3 input (touch)	See page 26 and USB cables and connectors .
3	HDMI 2.0 in	HDMI 3 input (video and audio)	See page 26 and HDMI cables and connectors .

SBID-7000 connectors reference

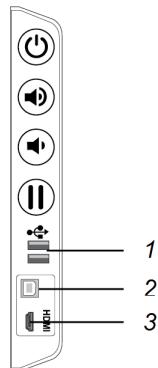
The following diagram and table present the connectors on SBID-7000 models' connector panels:



No.	Connector	Connects to	Notes
1	Stereo 3.5 mm out	External audio system	See page 29 and Analog audio cables and connectors .
2	S/PDIF out	Digital audio output	See page 29 and Digital audio cables and connectors .
3	Stereo 3.5 mm in	VGA input (audio)	See page 26 and Analog audio cables and connectors .
4	USB Type-B	VGA input (touch)	See page 26 and USB cables and connectors .
5	VGA in	VGA input (video)	See page 26 and VGA cables and connectors .
6	USB Type-B	HDMI 1 input (touch)	See page 26 and USB cables and connectors .
7	HDMI 2.0 in	HDMI 1 input (video and audio)	See page 26 and HDMI cables and connectors .
8	USB Type-B	Display Port input (touch)	See page 26 and USB cables and connectors .
9	Display Port in	Display Port input (video and audio)	See page 26 and Display Port cables and connectors .
10	USB Type-A	[N/A]	This connector is a service port.

No.	Connector	Connects to	Notes
11	RJ45 (x2)	Network	See page 24 and Ethernet (network) cables and connectors .

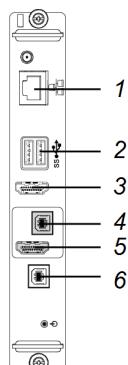
The following diagram and table present the connectors on SBID-7000 models' convenience panels:



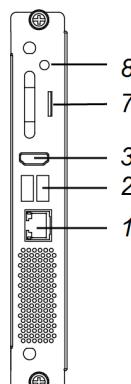
No.	Connector	Connects to	Notes
1	USB Type-A (x2)	Supported peripherals	See USB cables and connectors .
2	USB Type-B	HDMI 2 input (touch)	See page 26 and USB cables and connectors .
3	HDMI 1.4 in	HDMI 2 input (video and audio)	See page 26 and HDMI cables and connectors .

Appliance reference

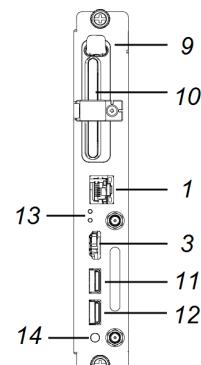
The following diagram and table present the connectors on the iQ appliance:



AM30



AM40



AM50

No.	Connector	Connects to	Notes
1	RJ45	Network	Do not use this jack. Use the jacks on the display instead. See page 24.
2	USB Type-A (x2)	Supported peripherals	[N/A]
3	HDMI out	External monitor	This receptacle is HDCP-encrypted HDMI. See HDMI cables and connectors .
4	USB Type-B	OPS/HDMI input (touch)	Do not use this receptacle. Use the receptacles on the display instead. See page 26.
5	HDMI in	OPS/HDMI input (video and audio)	Do not use this receptacle. Use the receptacles on the display instead. See page 26.
6	USB Type-B	[N/A]	This receptacle is a service port.
7	Micro SD	[N/A]	This receptacle is a service port.
8	LED	[N/A]	LED lights green when the iQ appliance is inserted in the accessory slot and turned on.
9	Eject button	[N/A]	This button ejects the Intel Compute Card. See Ejecting the Intel Compute Card .
10	Intel Compute Card	[N/A]	For iQ appliance (AM50) only.
11	USB Type-A	Supported peripherals	For iQ appliance (AM50) only. Supported peripherals connected to this receptacle are available in the Windows 10 operating system. See Using Input .
12	USB Type-A	Supported peripherals	For iQ appliance (AM50) only. Supported peripherals connected to this receptacle are available for the iQ experience. See page 26.

No.	Connector	Connects to	Notes
13	Lock and Eject LEDs	[N/A]	The Lock LED lights when the iQ appliance (AM50) shouldn't be removed from the display. The Eject LED lights when it is safe to remove the iQ appliance (AM50) from the display. See Ejecting the Intel Compute Card .
14	Power button and LED	[N/A]	LED lights when the iQ appliance is inserted in the accessory slot and turned on. Press the Power button to start up Windows 10 on the Intel Compute Card.

Not pictured

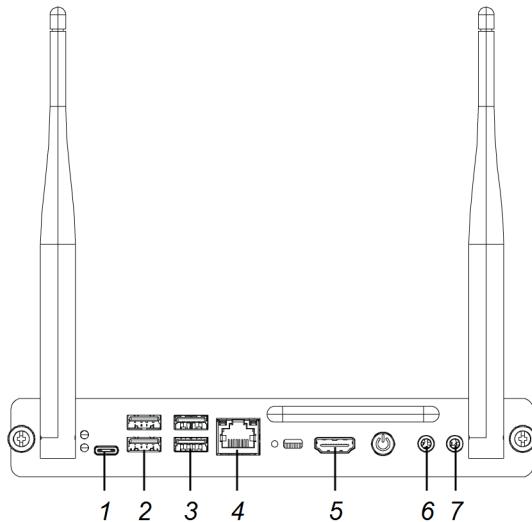
13	Intel Compute Card label	[N/A]	For iQ appliance (AM50) only The label for the Intel Compute Card. The label is titled "Assembly, PC, AM50".
13	iQ appliance (AM50) label	[N/A]	For iQ appliance (AM50) only The label for the iQ appliance (AM50). The label is titled "Model / AM50".

NOTE

Older models of the iQ appliance (AM30) don't have all the connectors.

SMART PCM8 series OPS PC reference

The following diagram and table present the connectors on the optional SMART PCM8 series OPS PC:



No.	Connector	Connects to	Notes
1	USB Type-C	Supported USB drives, peripherals, and other devices	See USB cables and connectors .
2	USB 2.0 Type-A (x2)	Supported USB drives, peripherals, and other devices	See USB cables and connectors .
3	USB 3.0 Type-A (x2)	Supported USB drives, peripherals, and other devices	See USB cables and connectors .
4	RJ45	[N/A]	The OPS PC uses the display's network connection (if available), so you typically don't need to connect the OPS PC directly to a network.
5	HDMI out	External display	See Connecting an external display on page 29 and HDMI cables and connectors .

No.	Connector	Connects to	Notes
6	Stereo 3.5 mm out	External speakers or headphones	[N/A]
7	Stereo 3.5 mm in	Microphone	[N/A]

Other connectors

There are additional connectors on the bottom of the display (see *Mounting multiple displays* on page 20 and *Appendix B: Remotely managing the display* on page 63).

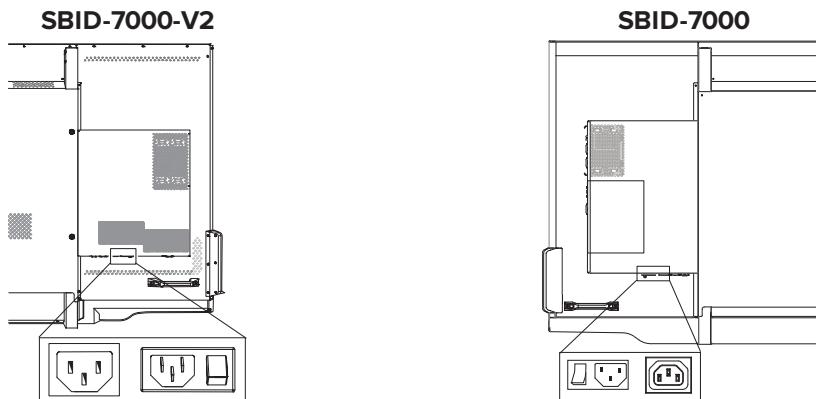
Chapter 4

Turning on the display for the first time

Turn on the display after mounting it and connecting power and devices.

To turn on and set up the display for the first time

1. Flick the switch beside the AC power inlet to the ON (I) position.



2. Select your preferred language, and then tap **Next**.
3. Select your country, and then tap **Next**.
4. Select your time zone, and then tap **Next**.
5. Set the date, and then tap **Next**.
6. Set the time, and then tap **Next**.
7. Name the display, and then tap **Next**.

8. If the display isn't using a wired network connection, select a wireless network, and then tap **Next**.

 **IMPORTANT**

The display needs an internet connection for downloading and installing important updates. Ask the network administrator to confirm that the network has been correctly configured for the iQ experience. For more information about network configuration, see [Connecting a SMART display with the iQ experience to a network](#).

9. Select the list of applications that will appear in the launcher, and then tap **Next**. For more information about the apps, see the *SMART Board 7000 and 7000 Pro series interactive displays user guide* (smarttech.com/kb/171163)
10. Select the apps you want to appear in the Apps Library, and then tap **Next**.

TIP

To change which apps appear in the Apps Library, see *Launcher* on page 56.

11. Tap **Finish**.

The *Welcome* screen appears.

Chapter 5

Maintaining the display

Checking the display installation	41
Cleaning the screen	42
Maintaining ventilation	42
Preventing condensation	43
Replacing the pens and eraser	43
Turning the display off and back on	43
Resetting the display	44
Removing and transporting the display	44
Updating system software	45
Applying an automatic system software update manually	45
Updating system software manually	46

With proper maintenance, the display will provide years of use.

Checking the display installation

Inspect the display installation frequently to ensure that it remains securely installed.

- Check the mounting location for signs of damage or weakness that can occur over time.
- Check for loose screws, gaps, distortions or other issues that could occur with the mounting hardware.

If you find an issue, contact a trained installer.

Cleaning the screen

Follow these instructions to clean the screen without damaging its anti-glare coating or other product components.

CAUTION

- Do not use permanent or dry-erase markers on the screen. If dry-erase markers are used on the screen, remove the ink as soon as possible with a lint-free, non-abrasive cloth.
 - Do not rub the screen with dense or rough material.
 - Do not apply pressure to the screen.
 - Do not use cleaning solutions or glass cleaners on the screen, because they can deteriorate or discolor the screen.
-

To clean the screen

1. Turn off the display (see *Turning the display off and back on* on the facing page).
 2. Wipe the screen with a lint-free, non-abrasive cloth.
-

NOTE

Alternatively, you can use a damp cloth with a drop of dish soap.

Maintaining ventilation

The display requires proper ventilation. Dust buildup in the ventilation holes compromises cooling and can lead to product failure.

- Clean accessible ventilation holes monthly with a dry cloth.
- Use a vacuum cleaner with a narrow hose end fitting to clear the back ventilation holes regularly. You might have to remove the display from the wall.

For more information on removing the display, see *Removing and transporting the display* on page 44.

CAUTION

Avoid setting up or using the display in an area with excessive levels of dust, humidity, or smoke.

Preventing condensation

If the display has been moved from a colder environment to a warmer environment (for example, from storage to the installation site), let the display sit for a few hours so that it can acclimate to the new temperature. Failing to do so can cause humidity to build up in the space between the front glass and the LCD.

If condensation appears under the screen after you turn on the display, select an active video source and leave the display on for 48 hours. If the condensation doesn't dissipate, contact SMART Support if the display is still under warranty.

If there is enough moisture between the layers to cause the moisture to drip and run, remove power immediately and contact SMART Support if the display is still under warranty.

Replacing the pens and eraser

To prevent damage to the display's anti-glare coating, replace a pen if its nib or eraser pad become worn. You can purchase replacement pens and erasers from the Store for SMART Parts (see support.smarttech.com/parts-store).

Turning the display off and back on

In most situations, you can put the display to sleep when not using it following the instructions in the *SMART Board 7000 and 7000 Pro series interactive displays user guide* (smarttech.com/kb/171163).

In some situations, such as when you need to transport the display or clean its screen, you need to turn off the display for a period of time. You can turn it back on after.

To turn the display off

1. Press the **Power** button  on the convenience panel for four seconds.
A slider appears on the screen.
2. Move the slider to the right.

NOTE

Wait at least 30 seconds before turning the display back on.

To turn the display back on

Press the **Power** button  on the convenience panel.

Resetting the display

You can reset the display and the iQ appliance using the convenience panel.

To reset the display

Press and hold the **Power** button  on the convenience panel for 10 seconds.

The display and iQ appliance reset.

Removing and transporting the display

If the display is wall mounted, you might need to remove it from its current location and transport it to another location on occasion.

To remove the display safely, use two or more trained installers.

WARNING

- Do not attempt to move the display by yourself. The display is very heavy.
 - Do not move the display by connecting a rope or wire to the handles on the back. The display can fall and cause injury and product damage.
-

IMPORTANT

Follow any documentation included with the third-party mounting hardware.

To remove the display

1. Turn off any connected computers.
2. Turn off the display (see *Turning the display off and back on* on the previous page).
3. Flick the switch beside the AC power inlet to the OFF (O) position.
4. Remove all accessible cables and connectors.
5. Remove the iQ appliance from the accessory slot.

6. Lift the display from its mounting location.

 **WARNING**

Do not place the display on a sloping or unstable cart, stand or table. The display could fall, resulting in injury and severe product damage.

 **CAUTION**

Do not leave the display face up, face down or upside down for an extended period. This could cause permanent damage to the screen.

7. Remove the mounting brackets.

To transport the display

See *Moving the display to the installation site* on page 11.

Updating system software

When an update to the system software or firmware is available, the display downloads the update in the background then waits for four hours of inactivity. When that happens, the display shows a two-minute countdown before beginning the update. The countdown can be interrupted at any time. The update begins when the countdown finishes. The display shows a blank screen for four minutes. When the update is complete, the display shows the Whiteboard and any content that was on Whiteboard before the update.

NOTE

You can configure your organization's network to allow or prevent automatic system software and firmware updates (see [Connecting to a network](#)).

Applying an automatic system software update manually

If the display has downloaded the system software update but hasn't yet applied the update, you can start the update process manually from Settings.

To apply an automatic system software update manually

1. From the Home screen, tap **Settings** .
2. Scroll to **Auto Update**.

3. Under *Check for Updates Now*, tap **Apply Update Now**.

The display turns off and then turns back on. The display then applies the update.

If there is an update for the pen firmware, the pen's indicator light will flash green or amber.

Leave the pen in the tray until the pen's light is a solid color.

Updating system software manually

You can download system software updates at smarttech.com/downloads and update your display using a USB drive.

Chapter 6

Troubleshooting

Resolving issues with power	48
Resolving issues with the occupancy sensors	48
Resolving issues with video	49
Resolving issues with image quality	49
Resolving issues with audio	51
Resolving issues with touch and digital ink	52
Resolving issues with the iQ experience	52
Resolving issues with the Intel Compute Card	53
Resolving issues with the SMART PCM8 series OPS PC	53
Resolving issues with software	53
Referring to the SMART knowledge base for additional troubleshooting information	54
Contacting your reseller for additional support	54
Finding the display serial number	54
Finding the appliance serial number	54
Finding serial numbers in iQ settings	54

This chapter explains how to resolve a variety of common issues with the display, including issues with:

- Power
- Occupancy sensors
- Video
- Image quality
- Audio
- Touch and digital ink
- iQ experience
- Embedded Windows 10 experience
- Software

Resolving issues with power

Issue	Solutions
The display doesn't turn on and its power light isn't lit.	<ul style="list-style-type: none"> Make sure the power cable is securely fastened to the power outlet and the display. <p>NOTE</p> <p>If the power cable is connected to a power bar, make sure the power bar is securely fastened to the power outlet and turned on.</p>
The display turns on, its power light is lit, but nothing shows on the screen.	<ul style="list-style-type: none"> Make sure the switch beside the AC power inlet is in the ON (I) position. Make sure the power outlet is working by testing it with a different device. Make sure the power cable is working by testing it with a different device. Pick up a pen or press the Power button. See <i>Resolving issues with video</i> on the facing page. Restart the display. <p>See <i>Turning the display off and back on</i> on page 43.</p>
The display doesn't turn on when you use a connected computer's mouse or keyboard.	<ul style="list-style-type: none"> Make sure the computer is on. Pick up a pen or press the display's Power button.
You're experiencing other issues with power, or the previous solutions don't resolve the issue.	See <i>Referring to the SMART knowledge base for additional troubleshooting information</i> on page 54.

Resolving issues with the occupancy sensors

Issue	Solutions
The display doesn't turn on or enter Ready mode when users enter the room.	<ul style="list-style-type: none"> Make sure all cables are securely connected. Make sure nothing is blocking the occupancy sensor (SBID-7000-V2 models) or occupancy sensors (SBID-7000 models).
The display turns on enters Ready mode when it shouldn't.	<ul style="list-style-type: none"> Check for and, if possible, move the display away from the following: <ul style="list-style-type: none"> Direct sunlight Bright lights Forced air ducts Plasma displays Infrared audio systems and other infrared sources Polished floors, glass walls, or other reflective surfaces Be aware that the occupancy sensors' range is 16' (5 m).
You're experiencing other issues with the occupancy sensors, or the previous solutions don't resolve the issue.	See <i>Referring to the SMART knowledge base for additional troubleshooting information</i> on page 54.

Resolving issues with video

Issue	Solutions
You're experiencing the following or similar issues with video: <ul style="list-style-type: none">• The video is distorted.• There is visual noise.• The image is dim.	<ul style="list-style-type: none">• Make sure any connected computers are on and not in Standby mode.• If the display has an appliance, make sure the appliance is securely installed in the accessory slot and its power light is on.• Set connected computers' resolution and refresh rate to values that the display supports.• Restart the display and any connected computers. <i>See Turning the display off and back on on page 43.</i>• Replace the video cable connecting the computer to the display to determine if the issue is with the cable.
The display is on, but nothing shows on the screen.	<ul style="list-style-type: none">• Make sure any connected computers are on and not in Standby mode.• Make sure the screen is working by pressing the Home button (below the screen) to open the launcher.• Restart the display and any connected computers. <i>See Turning the display off and back on on page 43.</i>• Replace the video cable connecting the computer to the display to determine if the issue is with the cable.
A computer is connected to the display, but only a "Looking for a connection" message appears on the screen.	Make sure the computer is connected to the currently selected input.
You want to output video to another display.	<ul style="list-style-type: none">• Be aware that only SBID-7000-V2 models and SBID-7000 models with newer AM30 or AM40 appliances support video output.• See Using a secondary display.
You're experiencing other issues with video, or the previous solutions don't resolve the issue.	<i>See Referring to the SMART knowledge base for additional troubleshooting information on page 54.</i>

Resolving issues with image quality

Issue	Solutions
You're experiencing the following or similar issues with image quality: <ul style="list-style-type: none">• There are lines or snow on the screen.• The image is flickering or flashing.	<ul style="list-style-type: none">• Set the connected computer's resolution and refresh rates to values that the display supports.• Open the iQ experience. If it appears correctly, the issue is with the video input.• Restart the display. <i>See Turning the display off and back on on page 43.</i>
There are bright spots on the screen.	<ul style="list-style-type: none">• Open the iQ experience. If it appears correctly, the issue is with the video input.• Take a photograph of the screen and send it to SMART support. If SMART support determines that the issue is with the screen and the display is under warranty, you may be eligible for a replacement.

CHAPTER 6
TROUBLESHOOTING

Issue	Solutions
Colors don't appear correctly.	<ul style="list-style-type: none">Be aware that if two or more displays are mounted side-by-side, there could be minor differences in colors across the displays. This issue is not unique to SMART products.If you're using a VGA video input, use a different cable or connect a different source to see if the issue is with the cable or input source.
The image is cut off or shifted to the left or right.	<ul style="list-style-type: none">Adjust any connected computers' video settings, particularly zoom, crop and underscan. See the computer's operating system documentation.If the computer's desktop is entirely black, change it to dark gray or a different color.If the computer's background is extended across multiple screens, duplicate the desktop across the screens or set the display as the only screen.
The image doesn't fill the entire screen.	<p>Adjust any connected computers' video settings, particularly overscan. See the computer's operating system documentation.</p>
A persistent image appears on the display.	See Image persistence or burn in on LCD displays .
You're experiencing other issues with image quality, or the previous solutions don't resolve the issue.	See Referring to the SMART knowledge base for additional troubleshooting information on page 54.

Resolving issues with audio

Issue	Solutions
You're experiencing the following or similar issues with audio: <ul style="list-style-type: none">• No sound is coming from the speakers.• Sound is coming from the speakers, but the volume is low.• The sound is distorted or muffled.	<ul style="list-style-type: none">• If you're using an external audio system, make sure it is turned on.• Make sure the cables connecting the display to the computer are securely fastened. <p>NOTES</p> <ul style="list-style-type: none">◦ The display's stereo 3.5 mm in connector works with the VGA input.◦ Connecting an audio cable to the display's stereo 3.5 mm out connector disables the internal speakers.◦ If you're using the display's S/PDIF out connector to connect a sound bar or receiver for external speakers, see <i>Connecting an external audio system</i> on page 29. <ul style="list-style-type: none">• If you're using the display's stereo 3.5 mm out connector, adjust the volume on the display and the connected computer and make sure neither are muted.• If you're using the display's S/PDIF out connector, adjust the volume on the external audio system and make the audio system isn't muted.• Adjust the display's audio settings. <i>See Audio</i> on page 58.• If you're using the integrated speakers, set the volume for the computer and any running applications to 80%, and then adjust the display's volume. <p>OR</p> <p>If you're using an external audio system, set the volume for the computer, any running applications and the display to 80%, and then adjust the external audio system's volume.</p> <ul style="list-style-type: none">• Be aware that these sounds are normal. All displays emit some electrical noise. Such sounds may be more noticeable with some displays than with others. However, if you hear noise from the front of the display, further investigation is required.• Connect all devices to the same power outlet or power bar.
There is a whine or buzzing sound coming from the back of the display.	
You're experiencing other issues with audio, or the previous solutions don't resolve the issue.	<p><i>See Referring to the SMART knowledge base for additional troubleshooting information</i> on page 54.</p>

Resolving issues with touch and digital ink

Issue	Solutions
You're experiencing the following or similar issues with touch and digital ink: <ul style="list-style-type: none">• When users touch or write on the screen, the pointer or digital ink appears in the wrong place.• Touch and digital ink are intermittent.• Digital ink disappears as you write.• Digital ink colors change unexpectedly.	<ul style="list-style-type: none">• Restart the display. See <i>Turning the display off and back on</i> on page 43.• Confirm with the installers that the computer is connected to the display with only a single cable.• Make sure SMART Product Drivers and SMART Ink are installed and running on any connected computers.• Use a known working pen from another display to check if the issue is being caused by the pen.• Remove infrared sources such as incandescent or arc lights, desk lamps and infrared audio devices or move the display to another location in the room.• Update the firmware.
The display responds to touch but not to writing with a pen.	Reinstall or update SMART Product Drivers .
The display doesn't respond to touch or writing with a pen.	Make sure any connected computers have detected the display's USB connection and installed drivers. On Windows computers, open Device Manager and make sure there is no red X or yellow exclamation mark (!) over the display's icon. On Mac computers, open System Information and ensure there are no error messages in the display's row.
You're experiencing issues with one or more of the display's pens.	<ul style="list-style-type: none">• Use only SMART Board 7000 series or 7000 Pro series interactive display pens with the display. Pens from other interactive displays aren't compatible.• Return the pen to its magnetic holder to calibrate it.• Make sure the pen's pressure sensitive switch isn't damaged or dirty.• If one pen isn't working, make sure the pen is paired with the display and is fully charged.• If all pens aren't working, return the pens to their magnetic holders and restart the display.• Test the pens with another SMART Board 7000 series or 7000 Pro series interactive display (if available).
You can't write or draw in Microsoft Office.	<ul style="list-style-type: none">• Make sure Microsoft Office 2013 or later is installed.• Reinstall or update SMART Product Drivers and SMART Ink.
You're experiencing other issues with touch and digital ink, or the previous solutions don't resolve the issue.	See <i>Referring to the SMART knowledge base for additional troubleshooting information</i> on page 54.

Resolving issues with the iQ experience

For information on resolving issues with the iQ experience, including the Whiteboard, SMART Notebook® Player, Browser, Input and Screen Share apps, see [Troubleshooting iQ system software](#).

Resolving issues with the Intel Compute Card

For information on resolving issues with the Intel Compute Card, including the drivers, see [Troubleshooting Windows 10 on Intel Compute Card](#).

Resolving issues with the SMART PCM8 series OPS PC

Symptom	Troubleshooting steps
The on-screen keyboard isn't visible.	<ul style="list-style-type: none">• Enable the on-screen keyboard:<ol style="list-style-type: none">a. Select Start > Settings. The Settings window appears.b. Tap Ease of Access, and then tap Keyboard.c. Enable Use the On-Screen Keyboard.<p>For more information, see Use the On-Screen Keyboard (OSK) to type.</p><ul style="list-style-type: none">• Enable tablet mode:  Tap the notification icon  in the bottom-right corner of the screen and then select Tablet mode. For more information, see Turn tablet mode on or off.
Windows 10 or the OPS PC are unresponsive.	<ul style="list-style-type: none">• Restart the OPS PC:<ol style="list-style-type: none">a. Press and hold the power button on the OPS PC.b. Wait two minutes.c. Press the power button to turn on the OPS PC.<ul style="list-style-type: none">• If restarting the OPS PC doesn't resolve the issue, contact SMART support.
There is an issue with Bluetooth.	<p>See Fix Bluetooth problems in Windows 10: FAQ.</p>
There is an issue with the network connection.	<p>See Fix network connection issues in Windows.</p>

Resolving issues with software

For information on resolving issues with SMART software, see the following pages in the Support section of the SMART website:

- [Troubleshooting SMART Notebook 18](#)
- [Troubleshooting SMART Learning Suite Online](#)
- [Troubleshooting SMART Meeting Pro® 4](#)
- [Troubleshooting SMART TeamWorks™](#)

- Troubleshooting SMART Ink 5
- Troubleshooting SMART Product Drivers 12

Referring to the SMART knowledge base for additional troubleshooting information

Refer to the SMART knowledge base for additional troubleshooting information:

community.smarttech.com/s/topic/0TO0P0000001ORIWAY/7000-series

Contacting your reseller for additional support

If an issue you're experiencing with the display persists or isn't covered in this chapter or the knowledge base, contact your authorized SMART reseller (smarttech.com/where) for support.

Your reseller might ask you for the serial number for the display or the appliance (if one is installed).

Finding the display serial number

The display's serial number is located in the following places:

- On the bottom frame
- On the back of the display

Finding the appliance serial number

The appliance's serial number is located on the appliance.

NOTE

You need to remove the appliance from the display to find the serial number.

Finding serial numbers in iQ settings

For SBID-7000-V2 models, the iQ settings include the serial number for the display.

For SBID-7000 models, the iQ settings include the serial number for the appliance.

See *Appendix A: Adjusting iQ settings* on page 55 for more information.

Appendix A

Adjusting iQ settings

Network settings	55
Personalization	56
Application settings	56
System settings	58

You can access settings using the  icon on the Home screen.

Network settings

Option	Values	Function	Notes	User or system setting
• Wi-Fi	[N/A]	Shows which wireless network the display is connected to.	Turn on Wi-Fi to discover networks.	System
• [Wi-Fi network name]	[N/A]	Shows information about the wireless network the display is connected to.	[N/A]	System
• Wi-Fi MAC address	[N/A]	Shows MAC address for the network the display is connected to.	[N/A]	System
• Wi-Fi IP address	[N/A]	Shows IP address for the network the display is connected to.	[N/A]	System
► SMART iQ Ethernet				
• Static IP	[N/A]	Shows information about the network the display is connected to.	[N/A]	System
• Proxy	[N/A]	Shows information about the network the display is connected to.	[N/A]	System
• MAC address	[N/A]	Shows information about the network the display is connected to.	[N/A]	System
► SMART Board scaler ethernet				
• MAC address	[N/A]	Shows information about the network the display's scaler is connected to.	[N/A]	System

APPENDIX A
ADJUSTING IQ SETTINGS

Option	Values	Function	Notes	User or system setting
• IP address	[N/A]	Shows information about the network the display's scaler is connected to.	[N/A]	System
• Bluetooth	[N/A]	Shows information about the display's Bluetooth	[N/A]	System
► SMART Cloud				
• SMART Cloud Status	[Status]	Shows the status of SMART Cloud	[N/A]	System
• Service Region	[N/A]	Shows the service region	[N/A]	System

Personalization

Option	Values	Function	Notes	User or system setting
• Wallpaper	[Wallpapers]	Select the wallpaper that appears in the background.	<ul style="list-style-type: none"> 1920 × 1080 images work best The display supports .png and jpg file formats See Changing the display's wallpaper 	User

Application settings

Option	Values	Function	Notes	User or system setting
► Launcher				
• SMART Notebook Player	On Off	Enables or disables SMART Notebook Player in the Apps Library	[N/A]	User

APPENDIX A
ADJUSTING IQ SETTINGS

Option	Values	Function	Notes	User or system setting
• Browser	On Off	Enables or disables Browser in the Apps Library	[N/A]	User
• Input	On Off	Enables or disables Input in the Apps Library	[N/A]	[N/A]
• Screen Share	On Off	Enables or disables Screen Share in the Apps Library	[N/A]	User
► SMART Whiteboard				
• Whiteboard Storage	[N/A]	[N/A]	[N/A]	User
• Library	On Off	Enables or disables saving whiteboard sessions	[N/A]	User
• Save Whiteboards in Library	For 1 week For 1 Month Indefinitely	Sets how long whiteboard sessions are saved	[N/A]	User
• Mobile App				
• Saving Whiteboards	On Off	Enables or disables the Capture function in the SMART kapp app	If this option is off, the QR code is not visible. The SMART kapp app is unable to connect to the display and your mobile device is unable to save snapshots of the display in the app.	User
• Sharing Whiteboards	On Off	Enables or disables the Invite function on the SMART kapp app	If this option is off, you're unable to invite people to your session.	User
• Annotation				
• Enable annotation layers	On Off	Enables or disables annotations on the Browser and Screen Share app	[N/A]	User
► Screen Share				
• Require Permission	On Off	Enables or disables a device automatically connecting and sharing its screen.	[N/A]	System
• AirPlay	On Off	Enables or disables the AirPlay protocol.	AirPlay is enabled by default.	System
• Google Cast	On Off	Enables or disables the Google Cast protocol.	Google Cast is enabled by default.	System

APPENDIX A
ADJUSTING IQ SETTINGS

Option	Values	Function	Notes	User or system setting
• Miracast	On Off	Enables or disables the Miracast protocol.	Miracast is enabled by default.	System
• Miracast Connection Handling	On Off	When enabled, when a device shares its screen using Miracast, the display disconnects from the network. After the device stops sharing its screen, the display reconnects to the network.	SMART recommends enabling this setting for areas with high network saturation or busy networks. IMPORTANT When this is enabled, devices using AirPlay and GoogleCast can't connect.	System
• Reset Screen Share	[N/A]	Closes and restarts the Screen Share app and its discovery services	You can restart Screen Share as a troubleshooting step if a mobile device or computer can't find or connect to the display.	System

System settings

Option	Values	Function	Notes	User or system setting
► Display				
• Screen Adjustment				
• Brightness	0–100	Sets the overall brightness of the image	[N/A]	System
• Contrast	0–100	Sets the difference in brightness between the lightest and darkest parts of the image	[N/A]	User
• Power Management				
• Turn on when people are nearby	On Off	Sets the display to turn on if the presence detection sensors detect users in the room	This option is off by default.	System
► Audio				
• Speakers				

APPENDIX A
ADJUSTING IQ SETTINGS

Option	Values	Function	Notes	User or system setting
• Built-in Speakers	On Off	Enables or disables the display's internal speakers	When analog speakers are connected to the display, the display's internal speakers are disabled automatically.	System
• Audio Properties				
• Balance	0–100	Sets the audio output from the speakers	Drag the slider all the way to the left to have all audio from the left speaker. Drag the slider all the way to the right to have all the audio from the right speaker.	System
• Bass	0–100	Sets the bass level	[N/A]	System
• Treble	0–100	Sets the treble level	[N/A]	System
► Date & Time				
• Automatic Date & Time	On Off	Sets the display's date and time automatically	Configure the network to allow Network Time Protocol (NTP) requests to Internet time servers. See Connecting to a network .	System
• Date	[N/A]	Sets the display's date	Disable Automatic date & time to set the date manually.	System
• Time	[N/A]	Sets the display's time	Disable Automatic date & time to set the time manually.	System
• 24 Hour Time	On Off	Shows the display's time using the 24-hour clock	[N/A]	User
• Time Zone	[N/A]	Sets the display's time zone	[N/A]	System

APPENDIX A
ADJUSTING IQ SETTINGS

Option	Values	Function	Notes	User or system setting
• Language	[Languages]	Sets the language for the settings menu	[N/A]	User
• Country	[Countries]	Sets the display's country	[N/A]	System
► Diagnostics				
• Factory Reset	[N/A]	Resets all options to their default values	Only administrators should reset the display.	[N/A]
• Save Log File	[N/A]	Copy diagnostic logs to a USB drive	[N/A]	[N/A]
• Improve the Experience	On Off	Sends usage statistics and error reports to SMART	[N/A]	User
• Support ID	[Support ID]	Shows the support ID associated with the display	[N/A]	[N/A]
► Security				
• Lock Down Settings	[N/A]	Lock down the display's settings using a certificate on a USB drive.	See Locking down the Settings app for more information.	System
• Install certificates	[N/A]	Install certificates to connect to a network	[N/A]	System
• Clean up				
• Clean Up Policy	Disabled Manually reset with the Clean Up button in the launcher 1 hour 2 hours 3 hours 1 day	Sets how often the display cleans up	[N/A]	User
• Clean Up the whiteboard	[N/A]	Saves the Whiteboard session to the Library and erases the Whiteboard	[N/A]	User
• Clean Up the browser	[N/A]	Closes the browser tabs and clears the history, cache and cookies	[N/A]	User
• Clean Up other applications	[N/A]	Closes open applications	[N/A]	User

APPENDIX A
ADJUSTING IQ SETTINGS

Option	Values	Function	Notes	User or system setting
► Auto Update				
• Updates Channel	Stable Channel Beta Channel	Sets which iQ system software updates the display receives	When switching from the Beta channel to the Stable channel, a factory reset occurs. See page 60 for more information about factory reset. For more information about the Beta Channel, see Switching to the Beta channel .	System
• System Updates Channel	Stable Channel Beta Channel	Sets which display updates the display receives	[N/A]	System
• Check for Updates Now	[N/A]	Checks for updates to the system software	NOTE The display must be connected to the Internet to check for system software updates.	If an update is available, the text changes to Apply update now .
► About				
• Board Name	[N/A]	Select a name for your display	[N/A]	System
• Help	[N/A]	Shows the SMART support site	[N/A]	[N/A]
• Send Feedback	[N/A]	Send feedback to SMART about the display experience	[N/A]	[N/A]
• Board Details	[N/A]	[N/A]	[N/A]	[N/A]
• Build Number	[N/A]	Shows the iQ system software's version number	[N/A]	[N/A]
• Serial Number	[N/A]	Shows the iQ appliance serial number Shows the iQ appliance serial number (SMART Board 7000 and 7000 Pro) Shows the display's serial number (SMART Board 7000-V2 and 7000-V2 Pro)	[N/A]	[N/A]

APPENDIX A
ADJUSTING IQ SETTINGS

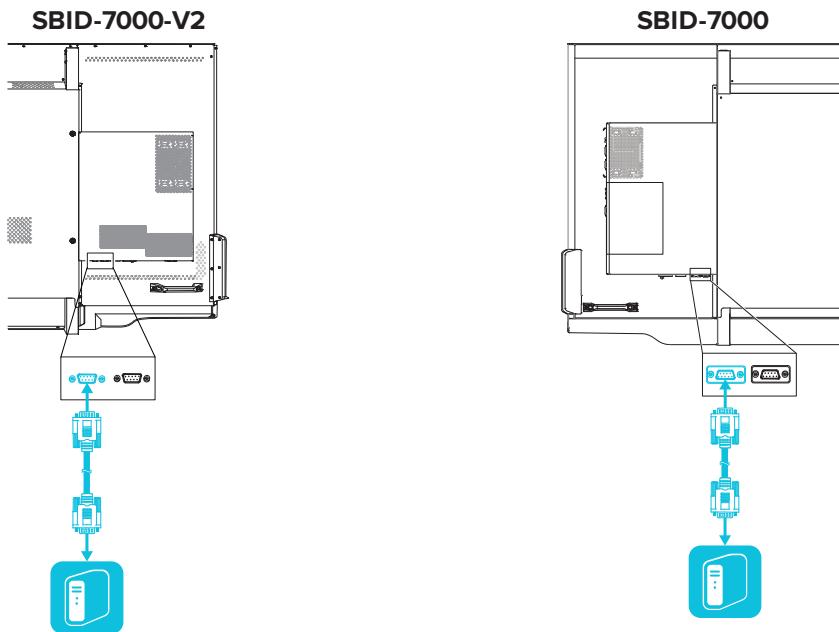
Option	Values	Function	Notes	User or system setting
• Firmware Details	[N/A]	[N/A]	[N/A]	[N/A]
• Legal Information	[N/A]	[N/A]	[N/A]	[N/A]
• End User License Agreement	[N/A]	Shows the SMART end user license agreement	[N/A]	[N/A]
• Open Source Licenses	[N/A]	Shows the open source licenses	[N/A]	[N/A]
• SMART Intellectual Property	[N/A]	Shows the SMART intellectual property information	[N/A]	[N/A]

Appendix B

Remotely managing the display

Connecting multiple displays	64
Configuring the computer's serial interface settings	66
Power states	67
Commands and responses	67
Power state commands	70
Input commands	70
Brightness commands	71
Freeze commands	71
Screen shade commands	72
Volume commands	72
Mute commands	72
Firmware version commands	73
Serial number commands	73
Part number commands	73
Resolving issues with remote management	74

You can connect an RS-232 cable from the computer's serial output to the RS-232 IN connector on the bottom of the display to remotely select video inputs, turn the display on or off and get information about the display's current settings, such as volume and power state.



! IMPORTANT

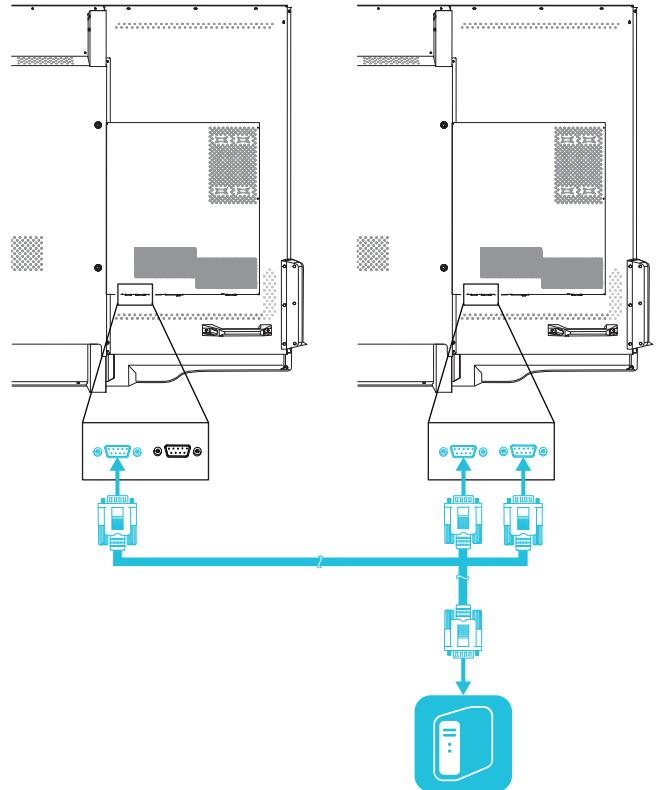
Use only a standard RS-232 cable. Do not use a null modem cable. Null modem cables typically have ends of the same type.

Connecting multiple displays

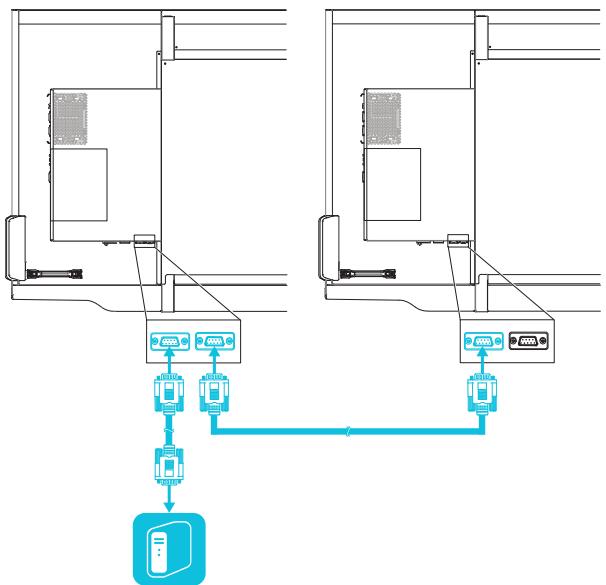
You can connect up to ten displays to a room control system by connecting a RS-232 cable from the computer's serial output to the first display's RS-232 IN connector and then connecting another RS-232 cable from that display's RS-232 OUT connector to the next display's RS-232 IN connector.

NOTES

- When connecting SBID-7000-V2 models, the leftmost display (when viewed from the front) is the first display in the chain, the display to the right of that display is the second display in the chain, and so on.



- When connecting SBID-7000 models, the rightmost display (when viewed from the front) is the first display in the chain, the display to the left of that display is the second display in the chain, and so on.



- When you connect displays in this manner, they behave as a single unit (see *Mounting multiple displays* on page 20).
 - With the exception of the `get input`, `set input`, and `get fwver`, all remote management commands apply to all connected displays.
-

Configuring the computer's serial interface settings

Configure the computer's serial interface before sending commands to the display.

To configure the computer's serial interface

1. Turn on the display.
2. Turn on the computer, and then start the serial communications program or terminal emulation program.
3. Activate local echo.
4. Configure the serial interface settings using the following values, and then press ENTER.

Baud rate	19200
Data length	8
Parity bit	None
Stop bit	1

A command prompt (>) appears on the following line, and the display can now accept commands from the computer.

NOTE

If no message appears or an error message appears, the serial interface isn't configured correctly. Repeat steps 3 and 4.

Power states

The display has six power states:

Power state	Description
ON	The display is in normal operating mode.
READY	The screen is off, but the display is ready to turn on when the following occurs: <ul style="list-style-type: none">A user presses the Power button  on the convenience panel.A user picks up a pen or the eraser.You send the <code>set powerstate=on</code> command.
STANDBY	The screen is off, and the display is in a low power state. The display enters READY or ON state when the following occurs: <ul style="list-style-type: none">The presence detection sensors detect people in the room.A user presses the Power button  on the convenience panel.You send the <code>set powerstate=ready</code> or <code>set powerstate=on</code> command.
POWERSAVE	The screen is off, and the display is a very low power state. The display enters READY or ON state when the following occurs: <ul style="list-style-type: none">A user presses the Power button  on the convenience panel.You send the <code>set powerstate=ready</code> or <code>set powerstate=on</code> command.
UPDATEON	The display is updating firmware. Do not turn off the display.
UPDATEREADY	The display is updating firmware while the screen is off. Do not turn off the display.

With the exception of `get powerstate` and `set powerstate`, commands are available only when the display is in READY or ON power state.

Commands and responses

To access display information or to adjust display settings using the room control system, type commands after the command prompt (>), and then wait for the response from the display.

CORRECT

```
>get volume
volume=55
>
```

If you type a command that the room control system doesn't recognize, you will receive an invalid command response.

In the example below, the user used `=-50` instead of `-50`.

INCORRECT

```
>set volume=-50
invalid cmd: setvolume=-50
>
```

NOTES

- Use ASCII formatted commands.
 - Commands aren't case-sensitive and extra spacing is ignored.
 - You can use the BACKSPACE key when typing commands.
 - Review each entry carefully before you press ENTER.
 - Don't send another command until you receive the response and the next command prompt.
-

To identify the current value of a setting

Use a `get` command.

This example shows how to get the volume:

```
>get volume
volume=55
>
```

To assign a value to a setting

Use a `set` command.

This example sets the volume to 65:

```
>set volume=65
volume=65
>
```

To increase or decrease the value of a setting

Use the `set` command to increase or decrease the value by a designated number.

This example increases the volume by 5:

```
>set volume+5
volume=70
>
```

This example decreases the volume by 15:

```
>set volume-15
volume=55
>
```

To identify or assign a value for a specific display

Start the command with `[Display]@`, where `[Display]` is the display you want to apply the command to.

This example sets the input for the first display in the chain to HDMI 2:

```
>A,@ set input=hDMI2
@,A input=hDMI2
>
```

NOTES

- The first display in the chain is labeled A, the next display is labeled B, and so on.
 - You can identify a specific display for only the `get input`, `set input` and `get fwversion` commands.
-

Power state commands

Get command	Set command	Response
get powerstate	<p>set powerstate[<i>Value</i>] Where [<i>Value</i>] is one of the following:</p> <ul style="list-style-type: none"> • =on • =ready • =standby • =powersave <p>NOTE If the display is in UPDATEON or UPDATEREADY state, it might not change power states after receiving the command.</p>	<p>powerstate=[<i>Value</i>] Where [<i>Value</i>] is one of the following:</p> <ul style="list-style-type: none"> • on • ready • standby • powersave • updateon • updateready

Input commands

Get command	Set command	Response
If one display is connected		
get input	<p>set input[<i>Value</i>] Where [<i>Value</i>] is one of the following:</p> <ul style="list-style-type: none"> • =hdmi1 • =hdmi2 • =hdmi3 • =dp1 • =vga1 • =ops1 • =ops1cc 	<p>input=[<i>Value</i>] Where [<i>Value</i>] is one of the following:</p> <ul style="list-style-type: none"> • hdmi1 • hdmi2 • hdmi3 • dp1 • vga1 • ops1 • ops1cc • none

Get command	Set command	Response
If multiple displays are connected		
<p>[Display],@ get input Where [Display] is the display's label (A, B, and so on).</p>	<p>[Display],@ set input[Value] Where</p> <ul style="list-style-type: none"> • [Display] is the display's label (A, B, and so on). • [Value] is one of the following: <ul style="list-style-type: none"> ◦ =hdmi1 ◦ =hdmi2 ◦ =hdmi3 ◦ =dp1 ◦ =vga1 ◦ =ops1 ◦ =ops1cc 	<p>@,[Display] input=[Value] Where</p> <ul style="list-style-type: none"> • [Display] is the display's label (A, B, and so on). • [Value] is one of the following: <ul style="list-style-type: none"> ◦ hdmi1 ◦ hdmi2 ◦ hdmi3 ◦ dp1 ◦ vga1 ◦ ops1 ◦ ops1cc ◦ none

NOTES

- HDMI 3 (hdmi3) input is not available on SBID-7000 models.
- Display Port (dp1) input is not available on SBID-7000-V2 models.

Brightness commands

Get command	Set command	Response
get brightness	<p>set brightness[Value] Where [Value] is one of the following:</p> <ul style="list-style-type: none"> • +[Value] • -[Value] • =[5-100] 	<p>brightness=[Value] Where [Value] is a number between 5 and 100</p>

Freeze commands

Get command	Set command	Response
get videofreeze	<p>set videofreeze[Value] Where [Value] is one of the following:</p> <ul style="list-style-type: none"> • =on • =off 	<p>videofreeze=[Value] Where [Value] is one of the following:</p> <ul style="list-style-type: none"> • on • off

Screen shade commands

Get command	Set command	Response
get screenshade	set screenshade[<i>Value</i>] Where [<i>Value</i>] is one of the following: <ul style="list-style-type: none">• =on• =off	screenshade=[<i>Value</i>] Where [<i>Value</i>] is one of the following: <ul style="list-style-type: none">• on• off

NOTE

Screen shade commands are available only for SMART Board 7000-V2 models.

Volume commands

Get command	Set command	Response
get volume	set volume[<i>Value</i>] Where [<i>Value</i>] is one of the following: <ul style="list-style-type: none">• +[<i>Value</i>]• -[<i>Value</i>]• =[0-100]	volume=[<i>Value</i>] Where [<i>Value</i>] is a number between 0 and 100

Mute commands

Get command	Set command	Response
get mute	set mute[<i>Value</i>] Where [<i>Value</i>] is one of the following: <ul style="list-style-type: none">• =on• =off	mute=[<i>Value</i>] Where [<i>Value</i>] is one of the following: <ul style="list-style-type: none">• on• off

Firmware version commands

Get command	Response
If one display is connected	
get fwversion	fwversion=[Value] Where [Value] is the firmware version.
If multiple displays are connected	
[Display],@ get fwversion Where [Display] is the display's label (A, B, and so on).	@,[Display] fwverversion=[Value] Where <ul style="list-style-type: none"> • [Display] is the display's label (A, B, and so on). • [Value] is the firmware version.

Serial number commands

Get command	Response
get serialnum	serialnum=[Value] Where [Value] is the serial number.
NOTE	
If multiple display are connected, the response includes the serial numbers for all displays separated by commas.	

Part number commands

Get command	Response
get partnum	partnum=[Value] Where [Value] is the part number, including the revision.
NOTE	
If multiple display are connected, the response includes the part numbers for all displays separated by commas.	

Resolving issues with remote management

The following table presents common issues with remote management and explains how to resolve them:

Issue	Solutions
You're experiencing general issues with remote management.	<ul style="list-style-type: none">Make sure all the cable connections are secure.Restart the display and the remote management system. See <i>Turning the display off and back on</i> on page 43.Configure the serial interface settings. See <i>Configuring the computer's serial interface settings</i> on page 66.
You're experiencing other issues with remote management, or the previous solutions don't resolve the issue.	See <i>Referring to the SMART knowledge base for additional troubleshooting information</i> on page 54.

Appendix C

Hardware environmental compliance

SMART Technologies supports global efforts to ensure that electronic equipment is manufactured, sold and disposed of in a safe and environmentally friendly manner.

Waste Electrical and Electronic Equipment (WEEE)

Electrical and electronic equipment contain substances that can be harmful to the environment and to human health. The crossed-out wheeled bin symbol indicates that products should be disposed of in the appropriate recycling stream and not as regular waste.



Batteries

The pens contain rechargeable lithium batteries. The AMx0 appliance module contains a CR2032 coin cell. Recycle or dispose of batteries properly.

Perchlorate material

The CR2032 coin cell contains perchlorate material. Special handling may apply. See dtsc.ca.gov/hazardouswaste/perchlorate.

More information

See smarttech.com/compliance for more information.

SMART TECHNOLOGIES

smarttech.com/support

smarttech.com/contactsupport

smarttech.com/kb/171164