SMART Board MX series
interactive displays

USER'S GUIDE

SBID-MX265 | SBID-MX275 | SBID-MX286
SBID-MX365 | SBID-MX375 | SBID-MX386

SMART®

Learn more

This guide and other resources for SMART Board MX 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.

Important information

⚠️ **WARNING**

- 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.

- To reduce the risk of fire or electric shock, do not expose the display to rain or moisture.

- 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.

- If the glass is broken, do not touch the liquid crystal. To prevent injury, handle glass fragments with care when disposing of them.

- 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

- Before inserting or removing the iQ appliance from the display, turn off the display using the switch at the back of the display. See Open Pluggable Slot computer (OPS) disclaimer for more information.

ENERGY STAR®

ENERGY STAR is the government-backed symbol for energy efficiency, providing simple, credible, and unbiased information that consumers and businesses rely on to make well-informed decisions. ENERGY STAR-certified products are the simple choice for energy efficiency, making it easy for consumers and businesses to make purchases that save them money and protect the environment. The U.S. EPA ensures that each product that earns the label is independently certified to deliver the quality, performance, and savings that users have come to expect.

As shipped, your display delivers ENERGY STAR performance and savings. However, changing some settings may increase energy consumption beyond the limits required for ENERGY STAR certification. For example, increased brightness and contrast will increase power consumption.

Please consider the environment when you choose non-ENERGY STAR settings.

Federal Communication Commission interference statement

FCC
Suppliers Declaration of Conformity
47 CFR § 2.1077 Compliance Information
Unique Identifier: IDX65-1, IDX65-2, IDX75-1, IDX75-2, IDX86-1, IDX86-2
Responsible Party – U.S. Contact Information
SMART Technologies Inc.
2401 4th Ave., 3rd Floor
Seattle, WA 98121
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.

⚠ **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 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.

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.

⚠ **ADVERTISSEMENT**

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.
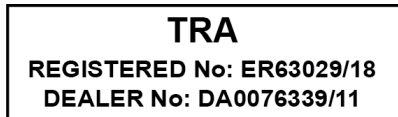
Compliance to Malaysia specification

The SMART Technologies ULC Interactive Display SBID-MX265, SBID-MX275, and SBID-MX285 meet the Malaysian requirements as defined by the Certifying Agency, SIRIM QAS International.
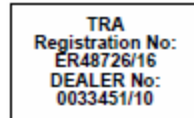
MCMC
CIDF17000247

United Arab Emirates – TRA registration details

Regulatory model SBID-MX065, SBID-MX065, SBID-MX075, SBID-MX086

TRA
REGISTERED No: ER63029/18
DEALER No: DA0076339/11

OPS – Regulatory model AM40

TRA
Registration No:
ER48726/16
DEALER No:
0033451/10

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Welcome

This chapter introduces the SMART Board® MX series interactive displays.

Identifying your specific model

SMART offers several different models of the SMART Board MX series interactive display and iQ
appliance.

Identifying your SMART Board MX series interactive display model

The following models of SMART Board MX series interactive display are available:

Model	Screen size (approximate)
SBID-MX365	65" (165 cm)
SBID-MX375	75" (190 cm)
SBID-MX386	86" (218 cm)
SBID-MX265	65" (165 cm)
SBID-MX275	75" (190 cm)
SBID-MX286	86" (218 cm)

Refer to the specifications for detailed technical information for this model, including product dimensions and weights (see *More information* on page 15).

Identifying your iQ appliance model

The iQ appliance is installed in the accessory slot to enable iQ functionality. SMART offers several different iQ appliance models. Use the Identifying your iQ appliance model wizard to identify the specific model of iQ appliance installed in your display.

Features

The SMART Board MX 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	More information
iQ technology	The display's iQ appliance provides one-touch access to collaborative tools, including a whiteboard, wireless screen sharing and a web browser.	Page 22
Intel® Compute Card	Models with an AM50 appliance can use an Intel Compute Card to provide a complete Windows 10 solution at your fingertips, without the need for an external PC or cables.	Page 26

Feature	Description	More information
Touch support	You can do everything on the display that you can do at your computer—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. You can use an array of gestures within applications, including panning, scaling, rotating and zooming in and out. The display's support for up to 10 simultaneous touch, writing and erase points enables you and other users to interact with objects on the screen at the same time.[1]	Page 20
Writing and drawing support	You can write over applications in digital ink using one of the supplied pens, and then erase the digital ink using your palm. Up to two users can write or draw digital ink on the screen at the same time.	Page 21
Remote control	You can use a remote control with the SMART Board MX series interactive display.	Page 19
Audio support	The display includes integrated speakers for presenting audio from connected input sources.	N/A

Components

The display consists of the following components:

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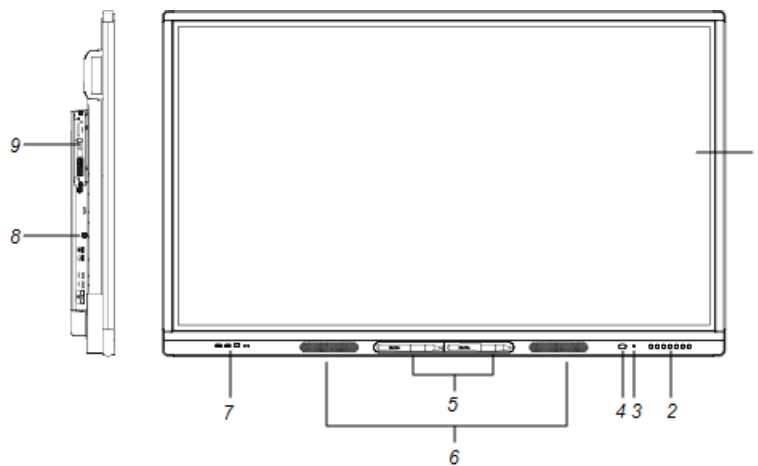
[1]Requires SMART Product Drivers to be installed. Some applications might not support all touch points.

No.	Name	More information
Pictured		
1	Screen	Page 12
2	Front control panel	Page 13
3	Light sensor	Page 14
4	Remote control sensor / status light	Page 13
5	Pen (×2)	Page 12
6	Speakers	Page 14
7	Front connector panel	Page 13
8	Side connector panel	See *SMART Board MX series interactive displays installation and maintenance guide* (smarttech.com/kb/171257).
9	iQ appliance (and Intel Compute Card)	Page 11
Not pictured		
10 9	AC switch	See *SMART Board MX series interactive displays installation and maintenance guide* (smarttech.com/kb/171257).
11	Bottom connector panel	See *SMART Board MX series interactive displays installation and maintenance guide* (smarttech.com/kb/171257).
12	Remote control	Page 13

iQ appliance (and Intel Compute Card)

The iQ appliance is inserted in the accessory slot on the back of the following models:

- SBID-MX265
- SBID-MX275

- SBID-MX286

- SBID-MX365

- SBID-MX375

- SBID-MX386

Take advantage of iQ technology and access collaborative tools.

With the SBID-MX365, SBID-MX375, and SBID-MX386 models, you can insert an Intel Compute Card in the appliance to provide a complete Windows 10 solution at your fingertips, without the need for an external PC or cables.

TIP

Use the Identify your iQ appliance model on the SMART support site to identify your model of iQ appliance.

For more information about the iQ experience, see *Chapter 3: Using the iQ experience* on page 22.

Screen

The following are the dimensions for the display:

| Model	Diagonal	Active touch area	Active image area
SBID-MX365	64 1/2" (163.9 cm)	57 3/8" × 32 3/4" (145.7 cm × 83.3 cm)	56 1/4" × 31 5/8" (142.9 cm × 80.4 cm)
SBID-MX375	74 1/2" (189.3 cm)	66 1/2" × 38" (168.8 cm × 96.6 cm)	65" × 36 1/2" (165 cm × 92.8 cm)
SBID-MX386	85 5/8" (218.4 cm)	76 3/8" × 43 3/4" (194.1 cm × 111.2 cm)	74 5/8" × 42" (189.5 cm × 106.6 cm)
SBID-MX265	64 1/2" (163.9 cm)	57 3/8" × 32 3/4" (145.7 cm × 83.3 cm)	56 1/4" × 31 5/8" (142.9 cm × 80.4 cm)
SBID-MX275	74 1/2" (189.3 cm)	66 1/2" × 38" (168.8 cm × 96.6 cm)	65" × 36 1/2" (165 cm × 92.8 cm)
SBID-MX286	85 5/8" (218.4 cm)	76 3/8" × 43 3/4" (194.1 cm × 111.2 cm)	74 5/8" × 42" (189.5 cm × 106.6 cm)

Pens

The display comes with two pens.

The display's bottom frame includes magnetic holders for the pens. Remove a pen from its holder and use the pen to draw digital ink.

> ⚠️ **CAUTION**
>
> When you return a pen to the magnetic holder, make sure it's centered in its holder to keep it from falling and being damaged.

Front connector panel

The front connector panel includes connectors for USB peripherals and a computer or other input source.
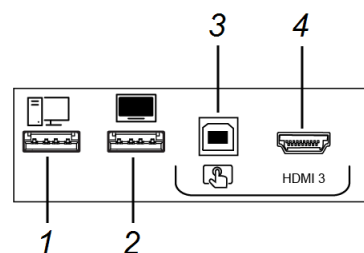
No.	Name	Procedure
1	USB 2.0 Type-A connector	Connect USB drives and other devices that you want to use with the currently selected input source.
2	USB 2.0 Type-A connector	Connect a USB drive to update the display's firmware.
3	USB 2.0 Type-B connector	Connect a USB cable to the display and computer to provide touch control of the computer connected to HDMI 3.
4	HDMI 3 input connector	Connect a computer or other input source to the display (see page 29).

Front control panel

The front control panel contains the Power, Input Select, Menu, Freeze, Mute and volume control buttons.

For more information about the front control panel, see *Using the front control panel* on page 17.

Remote control

The remote control is an alternative to the front control panel for controlling the display.

For more information about the remote control, see *Using the remote control* on page 19.

Remote control sensor

The status light blinks green and red when it registers a button being pressed on the remote control.

Status light

The status light blinks green and red when it registers a button being pressed on the remote control.

When the status light is red, the display is in a low power state. To wake the display, press the **Power** button ⏻ on the front control panel or **POWER** on the remote control.

Ambient light sensor

The ambient light sensor can detect the room brightness and adjust the display's brightness. Make sure **Auto** is enabled in Brightness and volume in the display's settings. See *SMART Board MX series interactive displays installation and maintenance guide* (smarttech.com/kb/171257).

Internal speakers

The display includes two 10 W rms integrated speakers. You can also connect external speakers.

Accessories

Accessories for the display include the following:

- SBA-100 projection audio system
- SMART Audio 400 classroom amplification system
- USB extenders
- SMART PCM8 series OPS PC

SBA-100 projection audio system

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 front control 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).
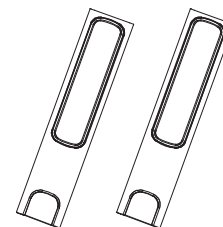
SMART Audio 400 classroom amplification system

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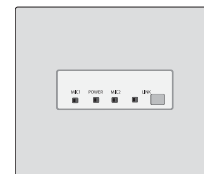
For more information, see the *SMART Audio 400 classroom amplification system specifications*
(smarttech.com/kb/171137).

NOTE

The SMART Audio 400 classroom amplification system is available only in Canada and U.S.

USB extenders

As noted in the *SMART Board MX series interactive displays installation and maintenance guide*
(smarttech.com/kb/171257), 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

SMART recommends only using USB extenders with the USB connectors on the side and bottom
connector panels on the display.

For more information, see:

- Troubleshooting and extending the USB 2.0 and USB 3.0 connection to your SMART interactive
  display
- USB cables and connectors

SMART PCM8 series OPS PC
The optional 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 the following documents for the display:

Document	Link
SBID-MX165, MX175, MX186, MX265, MX275, MX286, MX365, MX375, and MX386 installation instructions	smarttech.com/kb/171274
Installation and maintenance guide	smarttech.com/kb/171257

Document	Link
SBID-MX265 specifications	smarttech.com/kb/171240
SBID-MX275 specifications	smarttech.com/kb/171259
SBID-MX286 specifications	smarttech.com/kb/171260
SBID-MX365 specifications	smarttech.com/kb/171369
SBID-MX375 specifications	smarttech.com/kb/171367
SBID-MX386 specifications	smarttech.com/kb/171368
Comparison	smarttech.com/kb/171161

These documents are available in the Support section of the SMART website (smarttech.com/support).
Scan the QR code on the cover of this guide to view the SMART Board MX series interactive displays
pages in the Support section.

Getting started

This chapter explains how to wake the display when it's asleep, how to view connected computers' input and how to interact with the display.

Waking up the display and putting it back to sleep

To wake the display, press the **Power** button ⏻ on the front control panel.

To return the display to a partial sleeping state, press the **Power** button ⏻ on the front control panel.

For information about turning the display off, see *SMART Board MX series interactive displays installation and maintenance guide* (smarttech.com/kb/171257).

Using the front control panel

The front control panel contains the Power, Input Select, Menu, Freeze, Mute and volume control buttons.
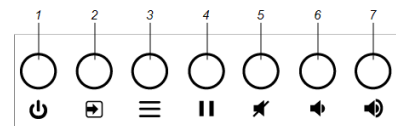
No.	Name	SMART Board MX procedure
1	Power	Press to wake the display. Press to again enter Sleep mode.
2	Input select	Press to switch input source.

No.	Name	SMART Board MX procedure
3	Menu	Press to open the display's settings.
4	Freeze	Press to freeze and unfreeze the screen. See *Freezing the screen* below
5	Mute	Press to mute or unmute the volume.
6	Volume decrease	Press to turn down the volume.
7	Volume increase	Press to turn up the volume.

Adjusting audio

You can use the buttons on the front control panel to increase and decrease the volume. You can also use the buttons on the remote control.

Freezing the screen

You can temporarily freeze the image on the screen by pressing the **Freeze** ❚❚ button on the front control panel (see *Front control panel* on page 13).
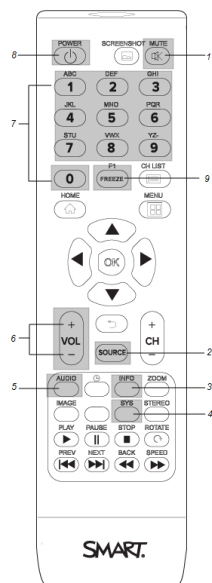
NOTES

- Freezing the screen does not pause any applications that are running on the connected computer. It simply freezes the display of those applications.

- Touch and ink are still active.

To unfreeze the screen, press the **Freeze** ❚❚ button on the front control panel again.

Using the remote control

The table below lists the functions available for the remote control.

NOTE

The buttons listed in this table and highlighted in gray in the image above are the only ones that have an effect on the display. Pressing the other buttons will make the remote control sensor flash, but they have no effect.

No.	Name	Function
1	MUTE	Mute or unmute the volume
2	SOURCE	Open the input source menu
3	INFO	Press to show the display's detected resolution and refresh rate for the current input source
4	SYS	Open the display's settings
5	AUDIO	Change the display's audio mode
6	VOL + / VOL -	Increase or decrease volume
7	[Number buttons]	Press buttons on the number pad to customize settings

| No.	Name	Function
8	POWER	Wake the display. Enter Sleep mode.
9	FREEZE	Freezes the screen. Freezing the screen does not pause any applications running on the connected computer. It simply freezes the display of those applications.

Using touch

By touching the display's surface, you can do everything on the display that you can do at your computer. You can also use an array of gestures within applications.
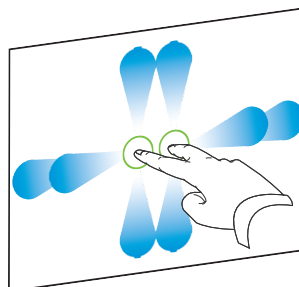
NOTE

Not all gestures work in all applications. Refer to an application's documentation to learn which gestures it supports.
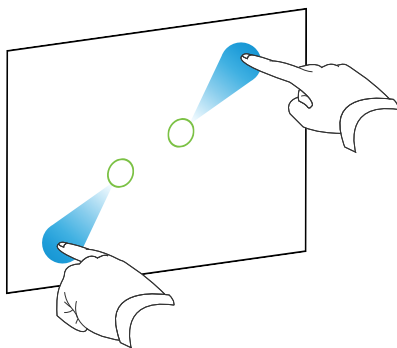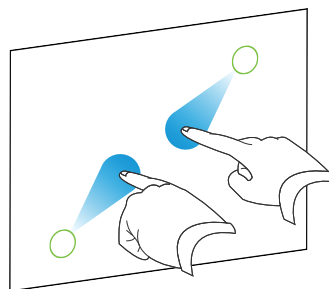
Pan (one finger)
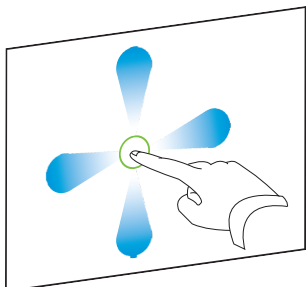
Pan (two fingers) / scroll

Pinch to zoom in / scale (enlarge)

Pinch to zoom out / scale (reduce)

Rotate   *Flick*
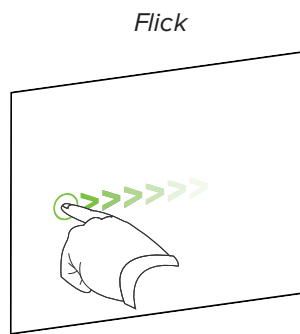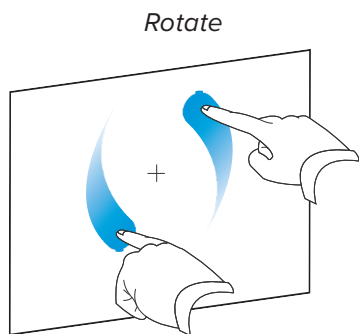
Writing, drawing and erasing

The display includes two pens, which you can use to write or draw in digital ink. You can erase digital ink using gestures or the eraser tool in the apps.

NOTE

When you're viewing a connected computer's input, SMART Ink enables you to write or draw in digital ink over applications, files, folders, websites and any other open window on the computer.

To write or draw in digital ink

1. Pick up one of the display's pens.

2. Use the pen to write or draw in digital ink.

To erase digital ink

Move your fist or palm over the digital ink you want to erase.

Chapter 3

Using the iQ experience

Switching to the iQ experience

1. Press **Input** ⬒ on the front control panel.

   The Input selection menu appears.

2. Tap **OPS**.

   The iQ experience appears on the display's screen.

To view a connected computer's input, see *Viewing a connected computer's input* on page 29.

Using the Home screen

The Home screen in the iQ experience shows recent files and favorite apps and files. You can also start sharing with the display by tapping 🔲 in the upper right corner. You can change the display's background to personalize the display.

To show the Home screen

Tap the **Home** button ▬ at the bottom of the screen.

To learn how to use the other features of Home screen, see Understanding the Home Screen.

Using the Apps Library

The Apps Library contains the Browser, SMART Notebook Player and kapp Whiteboard apps. You can also add apps from the web and SMART's app store or install third-party apps.

To open the Apps Library

From the Home screen, tap **Apps Library** ⊞ .

To learn how to use the other features of Apps Library, see Understanding the Apps Library.

Using the Files Library

The Files Library contains kapp Whiteboard sessions, whiteboards, SMART Notebook files that have been shared with the display, PDFs, and screenshots. If a USB drive is connected to the display, the files on the USB drive are also available in the Files Library. Although these files can be viewed on the display, they are not saved on the display.

To open Files Library

From the Home screen, tap **Files Library** ▢ .

To learn how to use the other features of Files Library, see Understanding the Files Library.

Using kapp Whiteboard

For Pro models only

Using kapp Whiteboard, you can write and erase notes on the display just as you do on a traditional dry erase board. You can also save your notes for later reference and share them using the SMART kapp® app.

To learn how to use the display's pens and eraser to write, draw and erase in Whiteboard, see *Writing, drawing and erasing* on page 21.

To learn how to use the other features of kapp Whiteboard, see Using the kapp Whiteboard.

Using SMART Notebook Player

🎓 **For education models only**

Use SMART Notebook Player to open, view, and interact with SMART Notebook software files. Notebook Player makes it easy to present SMART Notebook files and play SMART lab™ activities on the display. SMART Notebook Player is also the default whiteboard for education models.

You can also install the Notebook Player app on your iOS device to view and control SMART Notebook files from the device.

To learn more about SMART Notebook Player, see Working with SMART Notebook files and whiteboards on your display.

Using Browser

You can use Browser to view web sites on the display.

To learn more about Browser, see Browsing the internet on your display.

Using Screen Share

You can share the screens from computers and mobile devices on the display wirelessly using Screen Share.

Screen Share supports the following devices:

- Chromebook™ laptops, using Google™ Cast Chrome™ browser extension
- Windows computers, using Miracast[1], Google Cast Chrome browser extension, or AirParrot
- Mac computers and iOS devices, using AirPlay
- Android™ devices, using Cast Screen

To learn how to use the other features of Screen Share, see Sharing your device's screen to the display.

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[1]Windows 10 operating system only

Using screenshots

When using the Browser or Screen Share apps, you can write or draw on an annotation layer and save the screenshot to the Files Library.

To learn more about screenshots, see Writing and drawing over apps.

Installing third-party apps

You can install third-party apps from the Google Play Store using SMART Remote Management.

To learn more about installing third-party apps, see Deploying third-party apps on your display.

Cleaning up the display

After you've finished using the display, open the launcher and tap **Clean Up** ↺ to clean up the display for the next user.

To learn more, see Preparing the display for the next user.

Connecting and using the Intel Compute Card

With the SBID-MX365, SBID-MX375, and SBID-MX386 models, you can insert an Intel Compute Card in the compute card's slot on the AM50 iQ appliance and then view the Intel Compute Card's Windows 10 operating system on the display.

> ⚠️ **CAUTION**
>
> Install the AM50 iQ appliance and Intel Compute Card before turning on the display for the first time.

> ❗ **IMPORTANT**
>
> If you're installing an AM50 iQ appliance in a display, make sure the display's firmware is updated to 1.8.7 or later. The display may not function properly if the display's firmware is not updated. See the *SMART Board MX series interactive displays installation and maintenance guide* (smarttech.com/kb/171257).

> **TIP**
>
> If the Intel Compute Card meets the minimum requirements for SMART software, you can install the SMART software included with the display on the Intel Compute Card. For more information about installing software, see *Chapter 5: Connecting and using computers* on page 27.

To switch to the Intel Compute Card

1. Press **Input** ➡️ on the front control panel.

   The Input selection menu appears.

   > **NOTE**
   >
   > Inputs with devices connected are blue, and inputs without a connection are black.

2. Tap **Compute Card**.

Connecting and using computers

Installing SMART software on computers you want to connect to the display

The displays come with a one-year subscription for SMART Learning Suite (including SMART Notebook software and SMART Learning Suite Online). You can download SMART Notebook software from smarttech.com/downloads and install it on a room computer.

You can purchase additional copies of SMART software to install on other computers. Contact your authorized SMART reseller (smarttech.com/where) for more information.

NOTE

In addition to SMART Notebook software, you need to install the following software on any computers you connect to the display:

Software	Description
SMART Product Drivers	Enables connected computers to detect input from the display
SMART Ink	Enables you to write and draw in digital ink over applications, files, folders, websites and any other open window

Setting the resolutions and refresh rates of computers you want to connect to the display

The following table presents the recommend resolutions and refresh rates for the display's input sources:

Input source	Resolution	Refresh rate
HDMI 1 and HDMI 2	3840 × 2160	60 Hz
HDMI 3	1920 × 1080	60 Hz
VGA	1920 × 1080	60 Hz

If possible, set connected computers to these resolutions and refresh rates. See the connected computers' operating system documentation for instructions.

Connecting computers to the display

You can connect computers to the display and then view the computers' input on the display's screen.
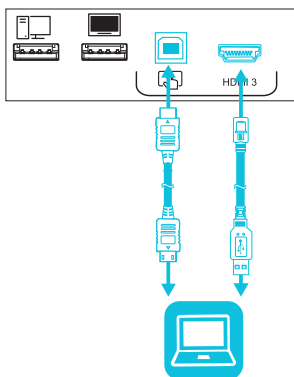
NOTES

- To connect computers using the side and bottom connector panels, see *SMART Board MX series interactive displays installation and maintenance guide* (smarttech.com/kb/171257).

- For full interactivity, connect a USB cable to the associated USB Type-B receptacle on the connector panel or convenience panel (as shown in the above diagrams and install SMART Product Drivers and SMART Ink on the connected computer).

- If your display is configured with firmware 2.0.6 (and later), you can configure the HDMI version for each HDMI connector as either HDMI 1.4 or HDMI 2.0. This allows you to connect HDMI 1.4 devices that are incompatible with HDMI 2.0 connectors and would otherwise appear as DVI devices, see the SMART Board MX series interactive displays installation and maintenance guide (smarttech.com/kb/171257).

- Your organization's installers might have connected cables to the side and bottom connector panels or the front control panel and run the cables behind a wall or under the floor to a desk or table where you can place your computer.

Viewing a connected computer's input

To view a connected computer's input

1. Connect a device to the display's HDMI 1, HDMI 2, HDMI 3, or VGA connectors.

   NOTE

   To enable touch control of the device, connect a USB cable to the associated USB port.

2. Press **Input** ➡ on the front control panel.

   The Input selection menu appears.

   NOTE

   Inputs with devices connected are blue, and inputs without a connection are black.

3. Tap the input you want to view.

   The display looks for a connection, and the computer's desktop appears on the display's screen.

Using SMART software on connected computers

After you've connected a computer to the display and used the Input app to view its input on the display, you can use the SMART software to present content and enable collaboration.

For information on SMART Learning Suite (including SMART Notebook software), see SMART Notebook 18.

Chapter 6

Troubleshooting

The following information helps you resolve a variety of common issues with the display, including issues with:

- Remote control

- Power

- Video

- Image quality

- Audio

- Touch and digital ink

- Remote management

- iQ experience

- Intel Compute Card

- Software

- SMART PCM8 series OPS PC

Resolving general issues

Issue	Solutions
You've forgotten the lock screen password.	Contact SMART Support.
You forgot the Settings security password.	Contact SMART Support.
The display can't connect to a 5 GHz wireless network.	The wireless network may be operating on bands that the display doesn't support. Contact your network administrator.
The message "The board is not compatible with the inserted iQ appliance" appears on the screen.	See "The board is not compatible with the inserted iQ appliance" message appears on a SMART Board MX series interactive display.
The pen is broken.	Contact SMART Support.
The Freeze button is not working.	See The Freeze button is not working on SMART Board MX series interactive displays.

Resolving issues with power

Issue	Solutions
The display doesn't turn on and its power light isn't lit.	• Make sure the power cable is securely fastened to the power outlet and the display. **NOTE** If the power cable is plugged into a power bar, make sure the power bar is securely fastened to the power outlet and turned on. • Make sure the switch on the back of the display 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.
The display turns on but nothing shows on the screen.	• Press the Power button to wake the display. **NOTE** The status light is red when the display is in a low power state. • If the status light is solid green, see *Resolving issues with image or video quality* on the next page. • Restart the display.
The display doesn't turn on when you use a connected computer's mouse or keyboard.	• Make sure the computer is on. • If the status light is red, press the display's Power button to wake the display.
You're experiencing other issues with power, or the previous solutions don't resolve the issue.	See *Referring to the SMART knowledge base for additional troubleshooting information* on page 39.

Resolving issues with image or video quality

Issue	Solutions
You're experiencing the following or similar issues with image quality: • There are lines or snow on the screen. • The image is flickering or flashing.	• Make sure the display's firmware is updated to 1.8.7 or later. The display may not work properly if the display's firmware is not updated. See the *SMART Board MX series interactive displays installation and maintenance guide* (smarttech.com/kb/171257).
You're experiencing the following or similar issues with video: • The video is distorted. • There is visual noise. • The image is dim.	• Make sure any connected computers are on and not in Standby mode. • Set the connected computers' resolution and refresh rate to values that the display supports. • Restart the display and any connected computers. • Make sure the cable is not longer than the maximum specified in the display's specifications. • Make sure the cable is securely connected to the video connectors on the display and the computer. • If the video connection uses and extender or goes through a wall socket, try connecting the display and computer directly. • Replace the video cable to determine if the issue is with the cable. • Make sure the iQ appliance is securely installed in the accessory slot and its power light is on. • Make sure your computer's video driver is up to date.
There are bright spots on the screen. **NOTE** It is normal for some areas of the screen to be slightly brighter than other, but these variations should be minor.	• Open the on-screen display menu. If it appears correctly, the issue is with the video input. • Take a photograph of the screen that shows the variation in brightness 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. • Make sure the cable is not longer than the maximum specified in the display's specifications. • Make sure the cable is securely connected to the video connectors on the display and the computer. • If the video connection uses and extender or goes through a wall socket, try connecting the display and computer directly.

Issue	Solutions
Colors don't appear correctly.	• Minor differences in colors across displays are common. 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. • Make sure the cable is not longer than the maximum specified in the display's specifications. • Make sure the cable is securely connected to the video connectors on the display and the computer. • If the video connection uses and extender or goes through a wall socket, try connecting the display and computer directly. • Perform a factory reset. • Take a photograph of the screen that shows the issue with color 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.
The image is cut off or shifted to the left or right.	• Adjust the connected computers' video settings, particularly zoom, crop, underscan and overscan. See the computer's operating system documentation. • If the computer's desktop is entirely black, change it to gray or a different color. • If the computer's desktop is extended across multiple screens, duplicate the desktop across the screens or use the display as the only screen. • Make sure the cable is not longer than the maximum specified in the display's specifications. • Make sure the cable is securely connected to the video connectors on the display and the computer. • If the video connection uses and extender or goes through a wall socket, try connecting the display and computer directly.
The image doesn't fill the entire screen.	Adjust the connected computers' video settings, particularly underscan or overscan. See your computer's operating system documentation.
A persistent image appears on the display.	See Image persistence or burn in on LCD displays.
The display is on, but nothing shows on the screen.	• Make sure any connected computers are on and not in Standby mode. • Make sure the screen is working by pressing **Input** ⮕ on the front control panel and selecting the correct input source for your device. • Restart the display and any connected computers. • Replace the video cable connecting the computer to the display to determine if the issue is with the cable. • If the video source is HDCP-protected, make sure it's connected to an HDMI port that supports a compatible version of HDCP. The HDMI 3 port supports only HDCP 1.4. Be sure to connect devices that use HDCP 2.2 to the HDMI 1 or HDMI 2 port.

Issue	Solutions
A computer is connected to the display, but only a "No Signal" message appears on the screen.	• Connect the computer to one of the display's video input connectors. **NOTE** In the input source menu, video input connectors that have a device connected are blue. • Make sure the computer is the currently selected input. • Make sure the connected computer's video connector is configured to output a supported video signal. See No video display output from a laptop. • If you're using two connected video cables, use one longer cable or move the computer so it's within a single cable length of the display. Make sure the cable length is within the maximum length specified in the display's specifications. • The computer is using a video resolution or refresh rate that the display doesn't support. Set the computer to a supported resolution and refresh rate. • Make sure the computer hasn't entered Sleep mode. Press a key on your computer's keyboard to wake it up.
If an AM50 iQ appliance with an Intel Compute Card is installed in the display and a "No Signal" message appears on a blue screen.	Make sure the Windows operating system on the Intel Compute Card hasn't entered Sleep mode. Tap the display's screen to wake up the operating system.
No image appears on a device you've connected to the display's HDMI OUT connector.	See Using a secondary display.
The image from a device connected to the VGA port is cut-off or not centered.	• Make sure the computer's background is not a dark or solid-black image. • Switch to a different video input source, then switch back to the VGA input.
You're experiencing other issues with video or image quality, or the previous solutions don't resolve the issue.	See *Referring to the SMART knowledge base for additional troubleshooting information* on page 39.

Resolving issues with audio

Issue	Solutions
You're experiencing the following or similar issues with audio: • No sound is coming from the speakers. • Sound is coming from the speakers, but the volume is low. • The sound is distorted or muffled.	• Turn up the computer's volume. • If you're using external speakers, make sure the speakers are turned on. • Make sure the cables connecting the display to the computer are securely fastened. **NOTES** ○ 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 *SMART Board MX series interactive displays user's guide* (smarttech.com/kb/171257). • Adjust the volume on the display and the connected computer, and make sure both are not muted. • Make sure the display is set as the default audio device for the connected computer. See the connected computer's operating system documentation. • If you're using the display's integrated speakers, set the volume for the computer and any running applications to 80%, and then adjust the display's volume. OR If you're using external speakers, set the volume for the computer, any running applications and the display to 80%, and then adjust the speakers' volume. • If you're connecting a computer to the VGA connector, make sure an analog audio cable is also connected from your computer's audio output to the display's analog audio input.
A whine or buzzing sound is coming from the back of the display.	• 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, contact SMART Support. • Make sure all devices are connected to the same power outlet or power bar. • If the computer is connected to the display with analog audio cables (for example, 3.5 mm audio cable with the VGA video input), make sure you are using high-quality cables with electromagnetic interference (EMI) protection. Make sure audio cables don't run alongside power cables. • Use a digital HDMI connection for video and audio. Audio hum is far less common with digital connections than it is with analog.
You're experiencing other issues with audio, or the previous solutions don't resolve the issue.	See *Referring to the SMART knowledge base for additional troubleshooting information* on page 39.

Resolving issues with touch and digital ink

Issue	Solutions
You're experiencing the following or similar issues with touch and digital ink:	• If you're using two pens, make sure they're at least 2" (5 cm) apart.

Issue	Solutions
• When users touch or write on the screen, the pointer or digital ink appears in the wrong place. • Touch is not working or is not accurate. • Touch control and digital ink are intermittent. • The display only responds to touch on part of the screen. • Digital ink disappears as you write.	• Make sure you are not holding the pen near its tip, and that the pen is at a right angle (90°) to the screen. • Restart the display. • If touch interactivity is slow, close some open applications on the computer. • Make sure the pen nib is not worn. Replacement pens are available from the Store for SMART Parts (see smarttech.com/Support/PartsStore). • Make sure you are using a SMART Board MX series interactive display pen. • Use a known working pen from another SMART Board MX series interactive display to check if the issue is being caused by the pen. • Clean the optical touch sensors. See the *SMART Board MX series interactive displays installation and maintenance guide* (smarttech.com/kb/171257). • Make sure SMART Product Drivers and SMART Ink are installed and running on any connected computers, and orient your display. See the *SMART Board MX series interactive displays installation and maintenance guide* (smarttech.com/kb/171257). • Update the firmware. • Confirm with the installers that the computer is connected to the display with only a single cable. • If touch interactivity is slow, close some open applications on the computer. • Make sure the USB cable is securely fastened to both your computer and the display. • Make sure the USB cable is not longer than the maximum specified in the display's specifications. • Use a USB 2.0 cable and make sure it's connected to the correct USB connector that's associated with the video input source. See the *SMART Board MX series interactive displays installation and maintenance guide* (smarttech.com/kb/171257). • Make sure the latest version of SMART Product Drivers is installed on your computer. SMART Board MX series interactive displays require SMART Product Drivers 12.10 or later. See smarttech.com/downloads. • Remove any USB cable extenders. For best results, use a USB cable that's no longer than 16' (5 m). • Remove any external infrared light sources such as sunlight, incandescent or arc lights, desk lamps and infrared audio devices or move the display to another location in the room. • Remove the display from the wall, calibrate it and confirm if this resolves the issue. If it does, check the wall and wall mount for issues.
The display responds to touch but not to writing with a pen.	• Make sure you are using a SMART Board MX series interactive display pen. • Make sure the pen nib is not worn. A worn pen nib might be interpreted as a finger touch. Replacement pens are available from the Store for SMART Parts (see smarttech.com/Support/PartsStore). • Reinstall or update SMART Product Drivers.

Issue	Solutions
The display doesn't respond to touch at all.	• A red X appearing on the SMART Product Drivers icon in your Windows task bar or Mac menu bar indicates that no display is connected. If a red X appears, open SMART Settings and use the connection wizard for assistance. • 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 explanation 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 can't write or draw in Microsoft® Office.	• Make sure you're using Microsoft Office 2013 or later. • Reinstall or update SMART Product Drivers and SMART Ink. • Refer to the *SMART Ink user's guide* (smarttech.com/kb/171190) for more information about inking in Microsoft applications.
You're experiencing other issues with touch and digital ink, or the previous solutions don't resolve the issue.	See *Referring to the SMART knowledge base for additional troubleshooting information* on page 39.

Resolving issues with remote management

Issue	Solutions
You're experiencing general issues with remote management.	• Make sure all the cable connections are secure. • Be aware that some commands work only when the display is on. • Restart the display and the remote management system. • Configure the serial interface settings.
Using the command `set powerstate=on` doesn't turn on the display	• Add spaces around the operator symbol (=). • Ensure **Power on RS232** is enabled in the display's on-screen settings menu (≡). If the display's firmware is version 1.9.2 or earlier, disable **Power saving mode** in the display's on-screen settings menu. See the *SMART Board MX series interactive displays installation and maintenance guide* (smarttech.com/kb/171257) for more information.
• The display doesn't respond to a control command • Commands are not followed by a command prompt that indicates the display is ready to receive the next command.	• The display is in a Power Saving mode in which the RS-232 control system is not yet operating. Ensure the display is in a power state in which the RS-232 control system is ready to receive commands. Ensure **Power on RS232** is enabled in the display's on-screen settings menu (≡). If the display's firmware is version 1.9.2 or earlier, disable **Power saving mode** in the display's on-screen settings menu. • The display's firmware has not been updated to version 1.8.4 or later. Check the firmware version in the display's on-screen settings menu. See the *SMART Board MX series interactive displays installation and maintenance guide* (smarttech.com/kb/171257). • Commands might have been incorrectly terminated with a carriage return (0x0d) and a line feed (0x0a). Terminate commands with only a carriage return (0x0d).
You're experiencing other issues with remote management, or the previous solutions don't resolve the issue.	See *Referring to the SMART knowledge base for additional troubleshooting information* on page 39.

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

Issue	Solutions
An AM50 iQ appliance with Intel Compute Card is installed in the display but you can't select Intel Compute Card from the Input Selection Menu.	• Make sure the display's firmware is updated to 1.8.7 or later. The display may not work properly if the display's firmware is not updated. See the *SMART Board MX series interactive displays installation and maintenance guide* (smarttech.com/kb/171257). • Make sure the Intel Compute Card is properly installed in AM50 iQ appliance's Compute Card port. Eject and reinsert the Intel Compute Card. See Ejecting and inserting the Intel Compute Card. • The AM50 iQ appliance may have been installed after the display was turned on for the first time. Restore the display's factory settings. See *SMART Board MX series interactive displays installation and maintenance guide* (smarttech.com/kb/171257). **NOTE** Restoring factory settings resets all options to their default values.

An AM50 iQ appliance with Intel Compute Card is installed in the display but you can't connect to a network.	Connecting the AM50 iQ appliance to a network:
	   ○ wirelessly,
	   ○ connect an Ethernet cable to the AM50 iQ appliance's RJ45 jack from a network switch on the wall, or
	   ○ connect an Ethernet cable to the AM50 iQ appliance and to the display that is connected to a network with a wired or wireless connection.

For information on resolving issues with the Intel Compute Card, including the drivers, see Troubleshooting the iQ appliance (AM50) and Intel Compute Card.

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 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/0TO0P000000Xt5yWAC/mx-series

Contacting your reseller for additional support

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

Your reseller might ask you for the serial number for the display or the iQ appliance.

Finding the display's serial number

You can find the display's serial number in the following ways:

- Look on the bottom frame

- Look on the back of the display

- In the display's settings, under *About*.

  NOTE

  You can access the display's settings using the **Menu** ≡ button on the front control panel.

Finding the iQ appliance serial number

You can find the iQ appliance's serial number in the following ways:

- In the iQ settings. See *SMART Board MX series interactive displays installation and maintenance guide* (smarttech.com/kb/171257).

- Look on the iQ appliance

  NOTE

  You need to remove the iQ appliance from the display to locate the serial number.

Finding the Intel Compute Card serial number

You can find the Intel Compute Card's serial number in the following ways:

- Look on the label on the back of the Intel Compute Card. For information about ejecting the Intel Compute Card from the iQ appliance, see Ejecting and inserting the Intel Compute Card.

  NOTE

  The serial number appears after *S/N*.

- From the Intel Compute Card's command prompt, execute the `wmic bios get serialnumber` command.