

Introduction

Ingenico’s iSC350 secure electronic payment devices consist of the following:

- ADA approved keypad
- Dual-head illuminated bi-directional magnetic stripe reader
- 5.7” color touch full VGA screen supporting both finger and stylus input
- Signature capture
- Optional integrated contactless card reader
- Optional backlit smart card reader
- Optional branded faceplate

For details on these features, see the *Specifications* section in this document.


Device Installation

The installation procedure includes:

- Selecting the device location
- Loosening the cable retention bar
- Connecting the stylus
- Connecting the device
- Securing the cable retention bar
- Connecting a power supply

Each step is described in the sections that follow.


Box Contents

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Carefully inspect the shipping carton and its contents for shipping damage. If the device is damaged, file a claim immediately with the shipping company and notify Ingenico.
1. Remove the contents from the box. You should have:
 - iSC350 device (with attached cable retention bar)
 - Stylus
 - This guideThe box may also include the following optional items:
 - Cable (specific to your connectivity requirements)
 - Power supply
 2. Remove the protective film from the graphical display screen.
 3. Save the carton and packing material for repackaging or moving the device in the future.

Selecting the Device Location

The iSC350 may be mounted on a flat surface, wall, or customer stand (recommended). Ingenico recommends physically securing the device to avoid theft. Power may be provided from a host Point of Sale system or from an Ingenico power supply. If using an Ingenico power supply, the device must be placed close to an easily-accessible power outlet.

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Do not place the iSC350 on a PC monitor, adjacent to an electronically active security tag deactivation system, or near other sources of magnetic fields.

The iSC350 must be at least 12 inches away from an electronically active type of security tag deactivation pad. There are two types of security tag deactivation systems:

 - An electronically active system sends out a powerful and potentially disruptive signal to deactivate the security tag. If the iSC350 is placed too close to the system’s pad, or placed above the pad, malfunction may occur.
 - A passive system is a permanent magnet type that does not send out a signal. This type does not affect the iSC350.

Loosening the Cable Retention Bar

Before connecting cables to the iSC350, you must loosen the cable retention bar from the back of the device. To do this, turn the thumbscrew counterclockwise and lift the cable retention bar up and away from the device.



Figure 1: Unscrewing the Thumbscrew

Connecting the Stylus




Figure 2: Stylus in the cradle



Figure 3: Stylus upright

1. With the stylus cable tab towards the bottom, insert the stylus connector into the iSC350 stylus port on the back of the iSC350, beneath the stylus cradle.
2. Place the stylus into the cradle on the top edge of the iSC350 device, or insert it upright into the hole in the cradle.

Connecting the Device






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Do not connect power to the iSC350 device until instructed to do so.

1. Place the iSC350 device in front of you with the bottom of the unit facing up. Be careful not to place the device on a surface where the device can be scratched or damaged.
2. Connect the interface cable to the appropriate port. Connect the other end into the POS or PC as appropriate (see Figure 4 and Table 1).



Figure 4: iSC350 Communication Ports

Table 1: iSC350 Communication Ports		
Icon	Port	Description
	SD RAM slot	Insert micro SD cards with a capacity of up to 32 GB to extend the memory of the iSC350.
	AUDIO OUT	3.5 mm stereo audio jack. Use to connect external speakers.
	ETHERNET	8-pin RJ45. Use to connect Ethernet 10/100 BASE-T.
	VGA	16-pin AVX connector that provides VGA output, an extra RS232 port, and a 5V power out.
	USB	USB 2.0 Host high speed. 5V, 500mA max. Supports peripheral USB devices.

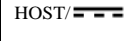

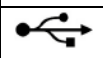
Icon	Port	Description
	HOST PORT	9-pin MiniDIN9 port. Use to connect RS-232, Tailgate (RS-485), and USB 2.0 full speed device. Use this port to connect host devices (POS or PC) directly. The iSC350 receives power through this connection. For this device to be USB-IF compliant, only use the approved USB cable from Ingenico.



Figure 5: iSC350 Side Ports

Table 2: iSC350 Side Ports

Icon	Port	Description
	AUDIO OUT	The consumer’s side-accessible headphone jack allows for audio prompting and other multimedia applications.
	USB	Side USB Port. USB 2.0 Host high speed. 5V, 500mA max. Use to manually load secure applications and files, obtaining diagnostic information, or for any secure local data transfer under the control of the terminal applications.


See Table 3 for a list of iSC350 cable options.

Cables

Table 3: iSC350 Cables		
Part #	Type	Description
295008147	Tailgate (RS-485)	Cable Power and RS485 sdl Tailgate 3m iSC350
295008233AB	USB	Cable Powered USB 5V 3m iSC350
295008212	USB	Cable Powered USB 12V 3m iSC350
295008220	USB	Cable Powered USB 24V 3m iSC350
295008241	RS-232	Cable Power and RS232 3m iSC350
CAB0199	Ethernet	10 ft. RJ45, NTKW cable, 350 MHz
CAB0200	Ethernet	15 ft. RJ45, NTKW cable, 350 MHz

Securing the Cable Retention Bar

- The cable retention bar prevents the device’s cables from becoming loosened or damaged. After all of the cables are connected to the device, secure the cable retention bar to the back of the device.
1. Lower the cable retention bar into place on the iSC350 aligning the cables in the cable slots on the cable retention bar.
 2. Turn the thumbscrew clockwise until tightened.


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To avoid accidental damage, secure cables and power cords.

Connecting a Power Supply

A separate Ingenico DC power supply (ALI0081A) is required when connecting the iSC350 device via RS-232, USB (5V), or Ethernet. When the device is powered from a POS, power may be

provided via a USB (12V or 24V) or RS-485 cable.

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Connect the cable to the HOST port before connecting the device to power. Only use the power supply provided by Ingenico.

1. If your device came with a power supply, plug the power supply connector into the jack on the host interface cable.



Figure 6: Connecting the Power Supply

2. Plug the power supply into a power outlet.
3. The iSC350 initializes when power is applied.

Operations

Powering On

After you apply power to the iSC350 device, the device is ready for use. The iSC350 device may be left on indefinitely, or may be disconnected from power as necessary.


Restarting the Device

To restart the device, press [Clear] and [-] simultaneously. Alternatively, disconnect and reconnect the device’s power source.


Swiping a Magnetic Stripe Card

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- The iSC350 device’s magnetic stripe reader reads debit, credit, and all standard magnetic stripe cards. Slide the card in either direction. For best results, slide the card in a continuous motion. There are two MSR heads facilitating card swipe with the stripe to the front or back and in any direction.


Signature Handling

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- The iSC350 device can capture an electronic image of a customer's signature for transactions that require a signature and transmit it to the POS. The signature area displays on the screen for transactions requiring a customer signature. The electronic stylus attached to the device must be used for signatures. Use a normal signing position to sign on the iSC350 device.

Contactless Card Reader (optional)

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- The iSC350 contactless card reader reads contactless payment cards. Hold the contactless payment card close to the active zone around the display. A series of green lights illuminate on the display when the contactless card has been read.

Smart Card Reader (optional)

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- When the application prompts for a smart card, the smart card slot illuminates. Insert the smart card into the slot on the front of the device with the chip facing up and towards the slot. Green LEDs in the smart card reader slot, under software control, can prompt the cardholder when to insert or remove a card. If PIN entry is required, the keypad can also be programmed to illuminate under application control.


Troubleshooting

Magnetic Card Reader Does Not Work Properly

1. Slide the card through the reader as described in *Swiping a Magnetic Stripe Card*.
2. Swipe the card at a faster or slower steady speed.
3. Swipe the card in a different direction.
4. Inspect the magnetic stripe on the card to make sure it is not scratched or badly worn.
5. To determine if the problem is with the card:
 - a. If your host device has a magnetic stripe reader, try swiping the card there.
 - b. If you have another working iSC350 device, try swiping the card there.
6. If there is still a problem, contact your internal Help Desk.

No Information is Visible on Screen

1. Make sure that the iSC350 host cable connector is fully inserted into the back of the device.
2. Restart the device (see *Restarting the Device* for more information).
3. If you are using the HOST port, unplug the device and examine the connector’s pins. If there are any pins that are bent, replace with a new cable.
4. If you have another working iSC350 device, swap the devices to determine if the problem is with the device, cable, POS, or power supply.
5. Reset the host by turning it off and back on again.

	Changes or modifications to this device not expressly approved by Ingenico will void the warranty.
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Specifications

Processors: Main Processor: Thunder (ARM9) RISC processor with multimedia decoder capability, 400 Mhz, 450 MIPS. Integrated Crypto Processor: Booster (ARM7), 50 MIPS.

Operating System (OS): Telium 2 with HTML GUI.

Display: Graphical active color glare-resistant TFT LCD 5.7” display with resolution of 640 x 480. Full 18 bit color VGA/LCD graphical multimedia with 262K colors.

Signature Capture: Electrostatic signature capture and a glass screen.

Digitizer: Electrostatic stylus digitizer. Attached inkless non-mechanical electronic stylus.

Memory: 128 MB SDRAM, 128 MB Flash NAND.

Keypad: 15 keys; raised symbols enhance usability for visually impaired customers. Backlit.

SAMs: 2 SAM slots.

Video: Full video capability. All format conversion is supported through the Integration Kit.

Audio: Internal Mono Speaker. Optional internal stereo speakers. Optional side and rear audio output jacks.

Communications: HOST port: RS-232, Tailgate (RS-485) protocol, USB, USB Host, Ethernet (TCP/IP). Optional µSD slot, audio jack, external VGA, second RS232.

Communications (side): USB Host. Optional audio jack.

Dimensions: 9.49” x 6.69” x 2.40” (241mm x 170mm x 61 mm)

Weight: 2.02 lbs (0.92 kg).

Face plate: Ingenico black. Optional customer branding.

Magnetic Stripe Card Reader: Bi-directional horizontal magnetic stripe card reader, triple track, 2 heads, backlit.

Smart Card Reader: Optional. EMV L1 approved, backlit.

Contactless: Optional integrated contactless card reader.

Power: Unit can be powered from a POS, Powered USB (12V or 24V), and standalone power supply.

Certifications: UL 60950; FCC Part 15 Class B and C, CEC, USB-IF, PCI PED 2.0 compliant, Interac FA approved.


Security: PCI PED 2.0 compliant; DES and Triple DES PIN encryption; DUKPT and Master/Session key management; Code authentication provides secure application code loading.

ANSI Standards: INCITS 92-1981 (R2003) Data Encryption Algorithm (DEA), X9.24 Key Management, X9.8-1 PIN Entry, ISO 16609 Banking - Message Authentication, X9.65 Triple DEA.

Environmental Requirements

The device is designed to operate in the following environment:

- Operating temperature of 41°F to 104°F (+5°C to +40°C)
- Operating humidity of 10% to 90% RH non-condensing
- Storage temperature of -4°F to 158°F (-20°C to +70°C)
- Storage humidity of 5% to 90% RH non-condensing


	Any liquid spill under the custom cover must be removed immediately.
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More Information

For more information on cleaning, troubleshooting, operating the device, features, specifications, and accessories, please contact your equipment’s supplier’s technical support services.

Security

Your device fulfills current applicable PCI PED security requirements.

	You are strongly advised to ensure that privileged access to your terminal is only granted to staff that have been independently verified as being trustworthy.
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Security Assurance

Perform the following tasks daily to ensure the security and compliance of your device:

Checking the Device’s Integrity

Ensure that no attempts have been made to tamper with the device, using the following method:

1. Check that there is NO external damage to the device, particularly around the keypad, display, and reader areas.
2. Keypad is firmly in place.
3. Ensure that there are NO additional cables protruding from the device or associated equipment.
4. Check that there are NO holes drilled into the device’s housing.


Alert Irruption!

1. Your iSC350 device detects any tampered state. In this state the terminal will repeatedly flash the message “Alert Irruption!” and further use of the terminal will not be possible. If you observe the “Alert Irruption!” message, you should contact your helpdesk immediately.

Checking the Installation Site

1. Ensure that there are NO security cameras focusing on the device.
2. Ensure that there are NO objects close by in which cameras could be hidden.

3. Ensure that the device CANNOT be observed from outside (any window or door) during PIN entry.

	NEVER ask the customer to divulge their PIN. Customers should be advised to ensure that they are not being overlooked when entering their PIN.
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Customer Service

If you experience trouble with your iSC350 device, or if it requires repair, contact the appropriate customer service center:

24-Hour North American Customer Support:

Tel: 888.900.8221
Fax: 905.795.9343
Email: customersfirst.us@ingenico.com

Customer Service Centers:

In the U.S.A.	Canada
6195 Shiloh Road, Suite D Alpharetta, GA 30005	6520 Gottardo Court Mississauga, Ontario, L5T 2A2

Compliance

US Federal Communications Commission Warning

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 this 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 installation guide, 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.

Canadian Department of Communications Warning

This digital apparatus does not exceed the Class A limits for radio noise emissions from the digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

iSC350 Installation and Quick Reference Guide

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