



FlexPay 6 A2-05 (G6-500) Indoor Payment Terminal Installation Guide

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S2 Security Level Guide

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CHAPTER 1 - Introduction to OPT

The Invenco® FlexPay 6 A2-05 (Outdoor payment terminal) is an industrial multimedia device tailor-made for the outdoors. It is a feature rich cost-effective product that includes contact and contactless card readers with a touch screen for display prompts and PIN-entry.

The form factor of the FlexPay 6 A2-05 makes it suitable for use in the petroleum market, EV Charging stations, quick service restaurants, drive through lanes, or as a replacement for the UPC and SCC (and APC as well) for the FlexPay 6 M1-15. The payment terminal features the ability to use an external display allowing retailers to engage with their customers through targeted advertising or in-store sales.

The Payment terminal is designed to be durable and tough, yet simple and secure to use. To get the best use out of the FlexPay 6 A2-05, it should be installed correctly and properly maintained.

This guide will walk you through installation and correct care for your new FlexPay 6 A2-05.

Note: If you are installing an OPT using an approved retrofit kit, the instructions with the kit supersede the instructions in this guide.

1.1. Where can the FlexPay 6 A2-05 OPT be Installed?

The FlexPay 6 A2-05 is a multi-purpose Outdoor Payment Terminal (OPT) designed for unattended use.

It operates in a range of outdoor environments in temperatures from -30°C (-22°F) through to +70°C (158°F).

The focus of this guide is for installation into fueling dispensers. However, this guide should be seen as encompassing for all energy dispensers.

Specific steps and precautions for fueling dispenser installation are highlighted.

Please, **always** use safety precautions when installing our products.

CHAPTER 2 - Safety & Compliance Information

STOP There are hazards and safety precautions associated with installing, inspecting, maintaining or servicing this product.

Important: Before you start, READ! You need to understand the safety information in this manual. Hazards and safety precautions for tasks are always listed.

Fire, explosion or electrical shock could occur and cause death or serious injury if these safe service procedures are not followed.

2.1. Preliminary Precautions

Fuel stations can be a dangerous place to work - there are flammable fuels, vapors and high voltages.

You should only install, inspect, maintain or service this equipment when you are fully trained and authorized to do so.

2.2. Safely Accessing a Fuel Pump

2.2.1 Evacuation and Barricading

If you need to access a pump/dispenser head, then you **must**:

- Evacuate all unauthorized persons and vehicles.
- Use safety tape or cones as a barricade to the affected unit(s).

2.2.2 Total Electrical Shut-Off

Before accessing the electrical components or the electronics of a pump/dispenser, you **must** carry out a total electrical shut-off of that unit.

To shut off electricity find the switch or circuit breaker and turn it to the "off" position.

If you can't turn off the power, STOP. Do not continue until the electricity has been safely turned off by you or someone else.

2.2.3 Read the Manual

Read, understand and follow this manual and any other labels or related materials supplied with this equipment. If you do not understand a procedure, call an Invenco-authorized service contractor.

WARNING: For your own safety and that of others, you must understand the procedures before beginning work.

2.3. Follow the Regulations

Regulations exist to keep everyone safe.

You are expected to follow:

- OSH regulations.
- National regulations and codes.
- State regulations and codes.
- Local regulations and codes.

Note: If you do not install, inspect, maintain or service this equipment in accordance with these codes, regulations and standards, it may affect the safe use and operation of the equipment, or lead to legal citations with penalties.

2.4. Replacement Parts

Use only genuine Invenco replacement parts and retrofit kits on your installation.

Using parts other than genuine Invenco replacement parts could create a safety hazard and violate both, legal and certification requirements. This is not an approved practice.

2.5. Safety Symbols and Warning Words

Throughout this guide you will see warnings and notes in boxes like below. These are used to let you know when you need to take extra caution in order to avoid hazards and/or potential injury to yourself or another person.

Always follow these instructions!

WARNING: This alerts you to a hazard or unsafe practice that could result in death or serious injury.

Note: This designates a hazard or unsafe practice which may result in minor injury or a legal issue.

2.6. Prevent Explosions and Fires

Fuels and their vapors will become explosive if ignited.

All fuels cause vapors when they are exposed to air and transferred between containers, spilled or leaking fuels cause even more vapors.

When a customer's tank is filled, vapors leak into the air around the tank and island, and these vapors can potentially catch fire or explode if they are exposed to a spark or flame.

This is why every single person on a fuel station forecourt must be aware of the danger of sparks and open flames and take precautions to avoid explosions and fires.

2.6.1 No Open Flames

Open flames from matches, lighters, welding torches or other sources can ignite the fuel and vapors present on forecourts.

There should **never** be an open flame on a fuel station forecourt for any reason.

2.6.2 No Sparks - No Smoking

Sparks can also start a fire or cause an explosion on a forecourt. Be safety conscious!

Do not:

1. Smoke.
2. Light a match.
3. Use a lighter.
4. Use a mobile phone outside of your car.
5. Start or use power tools.
6. Create a flame of any kind.

Also beware of:

1. Static electricity.
 - Always touch the metal of your vehicle after you get out of it to discharge any electrostatic charge before you approach the dispenser island.

2.7. Working Alone

2.7.1 Best Practice

Always work with at least two people if possible; one to actively work and one as an assistant/backup.

Ideally if you are working around high voltages, the backup/assistant should be trained in providing Cardiopulmonary Resuscitation (CPR).

2.7.2 Safety First!

Whether working alone or with someone else:

1. Advise station personnel where you will be working.
2. Warn station personnel not to turn the power back on while you are working on the equipment.
3. Use the OSH tag out and lock out procedures.
 - If you are not familiar with this requirement, refer to the information in the service manual and the OSH documentation.

2.7.3 Installer Certification

Many countries' authorities require people working in hazardous environments to hold additional qualifications that prove they are suitably skilled to perform work on fuel station forecourts.

Please ensure that you have the relevant certifications and that they are current, before attending to any site to perform installation work.

2.8. Safety First: Working with Electricity

Always:

1. Use safe and established practices.
2. Follow OSH Lock-Out and Tag-Out requirements before carrying out any service or installation work.
3. Check all devices before use.
 - Is the wiring in good condition?
 - Is the grounding connection firmly attached?
 - Are all sealing devices and compounds intact and in place?

Never:

1. Use devices if they have any damage.
2. Skip over safety procedures for any reason.
 - Faulty wiring or unsafe procedures can cause a fire, explosion or electrical shock.

Station employees and service contractors must understand and comply with these guidelines completely to ensure safety while the equipment is down.

2.9. Hazardous Materials

Some materials present inside electronic enclosures may present a health hazard if not handled correctly.

- Always wear gloves if practical to do so.
- Keep your hands away from your eyes and mouth during installation.
- Wash your hands as soon as possible.

2.10. In an Emergency

Contact your country's emergency number immediately.

Emergency personnel will need the following information:

- Location of accident (e.g., address, front/back of building).
- Nature of accident (e.g., possible heart attack, run over by car, burns).
- Approximate age of victim (e.g., baby, teenager, middle-age, elderly).
- Whether or not victim has received first aid (e.g., stopped bleeding by pressure).
- Whether or not victim has vomited (e.g., if swallowed or inhaled something).

WARNING: Oxygen may be needed at scene if gasoline has been ingested or inhaled. Seek medical advice immediately.

2.11. Computer Programs and Documentation

All Invenco Group Ltd. software (including software on discs and within memory chips) and documentation are copyrighted by, and shall remain the property of, Invenco Group Ltd.

The duplication, disclosure, modification, or unauthorized use of software programs or documentation is strictly prohibited unless otherwise licensed by Invenco Group Ltd.

CHAPTER 3 - Approvals

Invenco develops and maintains its hardware and software products using industry-standard quality processes and is audited by the MasterCard TQM (Terminal Quality Management) scheme.

The FlexPay 6 A2-05 has the following safety approvals:

Hazardous Location Safety Certification

CSA C22.2 No. 213-17 (Hazardous location safety – Class I Division 2).

UL 121201 and CAN/CSA C22.2 No. 213-17, Non-incendive Electrical Equipment (Class I Division 2, Groups A, B, C and D).

USA: AZOW2.E480135.

Canada:

AZOW8.E480135.

Ordinary Location Safety Certification

IEC/EN/AS/NZS/UL 62368-1 & CSA C22.2 No. 62368-1-14 (Safety - Audio/video, information, and communication technology equipment).

USA: AZOT.E469526.

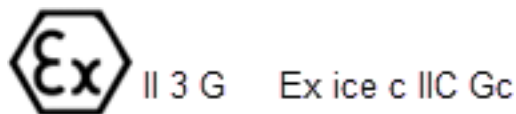
Canada: AZOT7.E469526.

ATEX Certification (Potentially Explosive Atmospheres)

EN IEC 60079-0

EN IEC 60079-7

EN 60079-11



Retrofit Safety Certification

UL 1238, UL 87 & CSA C22.2 No. 213-17, CSA B346-M1980, CSA C22.2 No. 22 (Retrofit assemblies). USA: ERKQ.MH61528.

Canada: ERKQ7.MH61528.

EMC

EN 300 300 & ETSI 301 489-3 (in conjunction with ETSI 301 489-1) for Radio.

FCC certification 47 CFR Part 15C.

IC certification (RSS-Gen & RSS-210).

SIRIM (Malaysia) certified: IDM20000040.

Environmental Compliance:

RoHS compliance with Directive 2011/65/EU & Commission delegated directive (EU) 2015/863 and The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012.

EMV Certification

The terminal is certified by EMV Co for EMV L1 Contact, L2 Contact, L1 Contactless.

It also has certifications for performing EMV transactions as defined by Visa, Mastercard, Discover, Amex, Interac, JCB, CUP, ECB and Pure schemes.

PCI -PTS -POI (Payment Card Industry) - PCI 6.X.

3.1. European Directives

The FlexPay 6 A2-05 complies with the necessary European Directives for the CE mark.



3.2. UK Conformity Assessed

The FlexPay 6 A2-05 complies with the necessary UK Conformity Assessments for the UKCA mark.



3.3. Australia and New Zealand Compliance

The FlexPay 6 A2-05 complies with the necessary Australia and New Zealand compliance requirements for the RCM mark.



3.4. Industry Canada

IC ID: 12614A-G6500

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

1. This device may not cause interference; and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

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

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

3.5. FCC

FCC ID: 2AC7B-G6500

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: The grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

CHAPTER 4 - Product Features

4.1. Location of Features



FlexPay 6 A2-05 Contactless Card Reader.



FlexPay 6 A2-05 ICC Reader



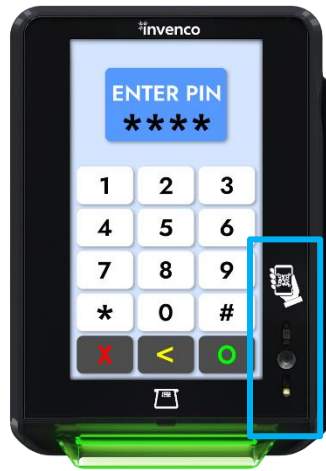
Pin on Glass



FlexPay 6 A2-05 Speaker.



Magstripe Reader



Barcode Reader



The FlexPay 6 A2-05 Rear View (Mounting is EVA Compliant, mounting plate optional)

CHAPTER 5 - Location of Mounting Points

Red highlights show the standard mounting points for a new installation. Each mounting point has an M4 screw that screws the FlexPay 6 A2-05 to the pump.
See the Drawings at the end of this guide for panel cut-out information.



Location of Mounting Points (in red)

CHAPTER 6 - Installation

6.1. Installing a Brand New OPT

In most cases a new installation must be done by the pump manufacturer, not a third party. Each pump has safety certifications that can be invalidated if anyone other than the manufacturer modifies it. Before a FlexPay 6 A2-05 can be installed, the pump enclosure must meet the following standards:

1. **Fire.** The enclosure must be designed to meet the requirements of ISO/EN 60950-1 for fire enclosures.
2. **ATEX (Explosive Atmospheres).** The FlexPay 6 A2-05 has openings that prevent it being gas-tight. Because of this, it should be installed away from all hazards. Refer to local laws and regulations for hazardous zones to work out the best mounting place for the FlexPay 6 A2-05. The pump or cabinet that the FlexPay 6 A2-05 is mounted in should also be designed to prevent a dangerous build-up of explosive gases.
3. **Security.** The pump or cabinet should offer physical security to protect the public from the hazards within, and to reduce the ability of anyone to tamper with the OPT.
4. **Power & Data.**
 - a. The pump or cabinet must provide mains power. The requirements are:
 - i. A permanently wired connection or a socket to plug it into.
 - ii. A protective earth connection.
 - iii. The outlet may be switched if it is a socket and must be switched if it is permanently wired.
 - iv. We recommend one Power Supply Unit (PSU) per FlexPay 6 A2-05.
 - b. The pump or cabinet must provide an Ethernet data connection. The requirements are:
 - i. Capable of at least 10Mbps (preferably 100Mbps).
 - ii. The connection must be either a socket into which a standard Ethernet patch cable can be connected, or a cable that is terminated in a standard RJ45 plug suitable for direct connection into the OPT LAN socket.
 - iii. Minimum cable standard should be Cat5e.
 - iv. The enclosure may provide an alternative data connection for terminals that have optional communications modules installed. Please consult with Invenco for what options are available.
5. **Accessibility.** The enclosure must be designed and mounted at a height so disabled persons are able to operate the device. Height must be compliant with PCI 6.X standards. The FlexPay 6 A2-05 has an optional ADA key- pad that can be purchased and installed if required to meet this compliance.
6. **Materials.** The enclosure and all its components must be constructed of durable materials suitable for the intended location.
7. **Door cut-out.** The edge of the cut-outs should be smooth and free of burrs, and the surface of the door around the cut-out should be clean, and planar within ± 1 mm.
8. **Water-Tightness.** The FlexPay 6 A2-05 is rated for IPX6 on the customer facing side. The parts sitting inside the pump/pedestal enclosure are designed to reduce the likelihood of water entering the electronics but the enclosure must provide protection from water. The door should have a water seal against the enclosure, and there should be good drainage and/or a system to reduce excessive condensation build-up and dripping.
9. **Protection from Weather Extremes.** While the FlexPay 6 A2-05 is intended for use outdoors, exposure to direct sunlight and/or heavy rain can affect customers' experience using the product. The pump or enclosure should provide a canopy that prevents the OPT from being exposed to direct sunlight and heavy rain. If the OPT cannot be protected from direct sunlight, a warning sign should be provided close to the OPT advising that the screen may become too hot to touch.

10. In humid climates where the temperature regularly falls below 5°C it is probable that occasional condensation will occur overnight inside the OPT cabinet, which can cause printer paper jams. In this case, it is recommended, in the absence of any other heat source, that a thermostatic heater is installed inside the cabinet, with attention to possible overheating.
11. **Placement.** The FlexPay 6 A2-05 must always be installed in an upright (semi-vertical) position.

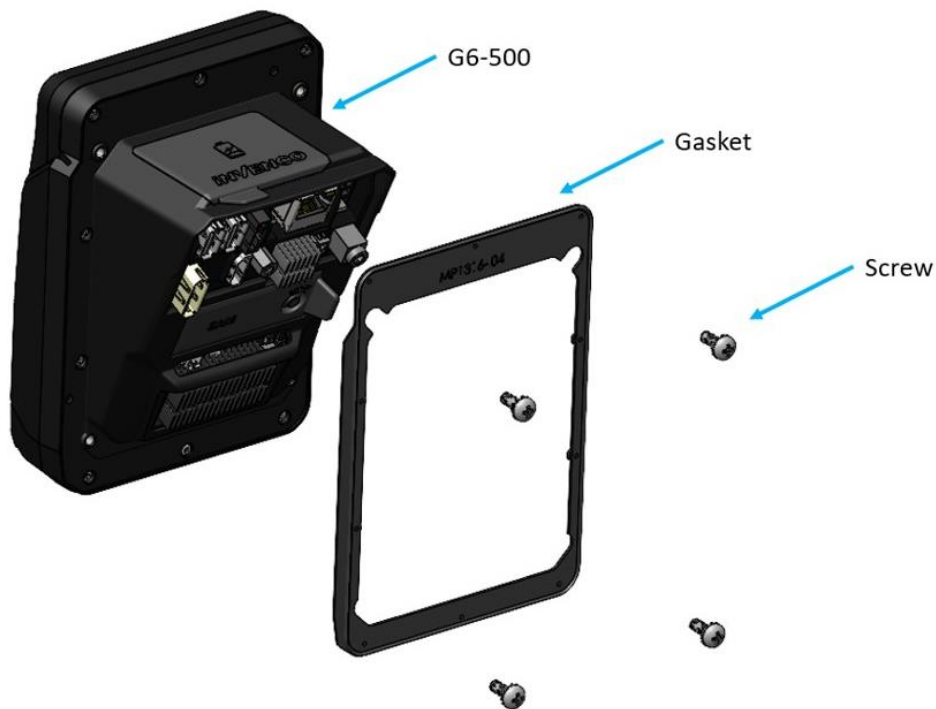
CHAPTER 7 - Tools Required to Mount the FlexPay 6 A2-05

- 4 x M4 screws of the correct length to attach the OPT to your pump/cabinet.
- A 2.5mm Hex driver or Allen Key to fit the M4 screws.
- Philips #1 or Flat 5mm screwdriver – for connections on the power supply.
- Philips #2 screwdriver for connecting the M4 screws to the OPT.
- Small adjustable spanner – for earth connections inside the cabinet.
- Cable ties.
- Side cutters – to trim the cable tie(s).
- You may require other tools if retrofitting into a non-standard enclosure.

WARNING: Do not use power tools if working on a fuel station forecourt. Any spark could cause a fire or explosion.

CHAPTER 8 - Installing into a New Pump or Cabinet

Step	Instructions
1.	Unpack the FlexPay 6 A2-05 as per the Invenco Shipping Guide.
2.	Open the pump/cabinet door.
3.	Attach the gasket to the back of the unit, following the separate instructions below.
4.	Hold the FlexPay 6 A2-05 outside the pump/cabinet and locate at least one of the top mounting screws. Loosely screw it in.
5.	Start several of the remaining support screws around the edge of the FlexPay 6 A2-05.
6.	Check that the FlexPay 6 A2-05 is aligned with any features on the pump/cabinet door and then tighten the screws.
7.	Insert and tighten all remaining screws.
8.	Once the FlexPay 6 A2-05 is secure, move onto the wiring section to complete installation.



Attaching the Gasket to the Device

CHAPTER 9 - Power Supply Considerations

The FlexPay 6 A2-05 has been certified using a one-to-one ratio of FlexPay 6 A2-05 to power supply unit. All other configurations are not certified.

There is one power supply certified for use worldwide the FlexPay 6 A2-05.

- EZ0853

This power supply also requires a UL-listed Barrier Block with an approved Fire Enclosure, for connecting its output to the EK0171 low-voltage DC cable. This power supply may also require a Barrier Block or other UL-approved connector block for mains connection if its pre-installed wires cannot be connected directly into the cabinet mains wiring.

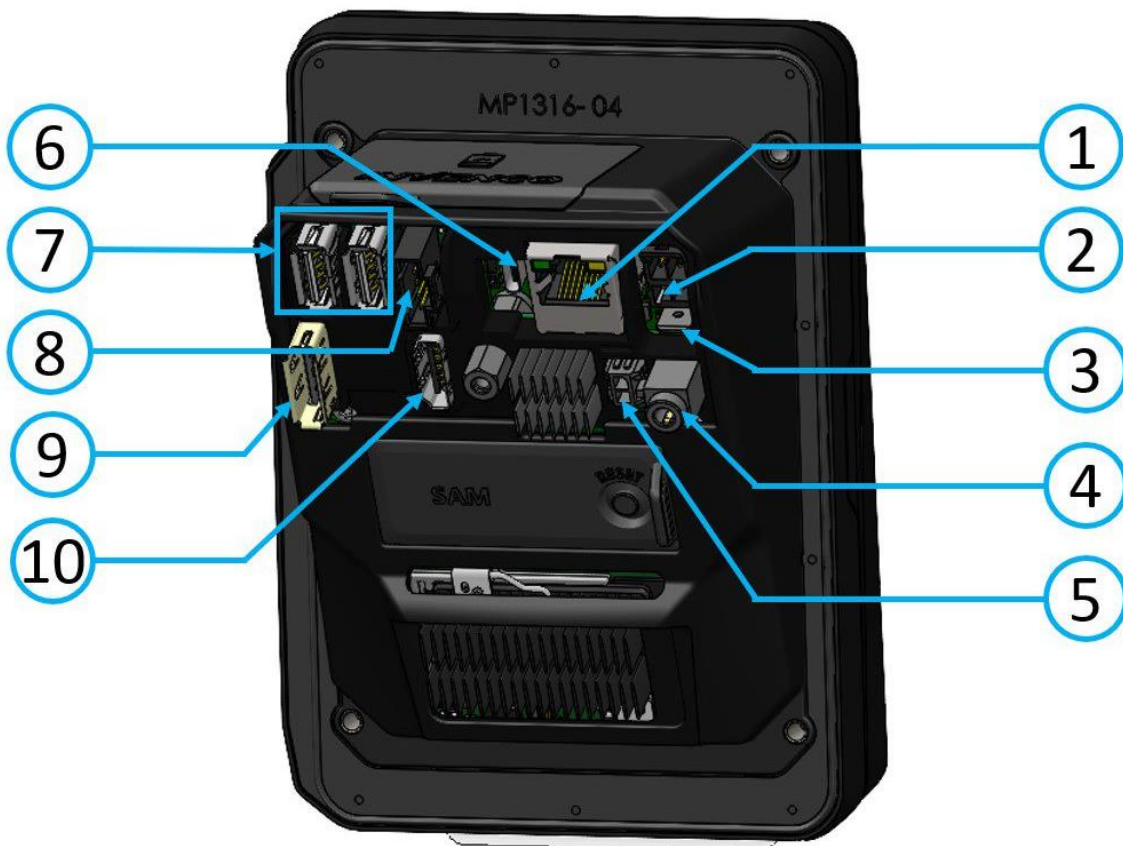
Suitable barrier blocks are:

- TE Connectivity "Buchanan" 1546670-4
- Marathon "Kulka" 601 GP 04

CHAPTER 10 - FlexPay 6 A2-05 Wiring

The FlexPay 6 A2-05 has the following seven hardware interfaces:

1. Ethernet 10/100Base.
2. DC Power Supply input.
3. Earth tab.
4. Audio Jack (mic-In/Line-Out).
5. Audio Output / External Speaker.
6. USB-C.
7. 2 x USB.
8. External Serial Connection / Printer.
9. External Display.
10. HDMI Output.

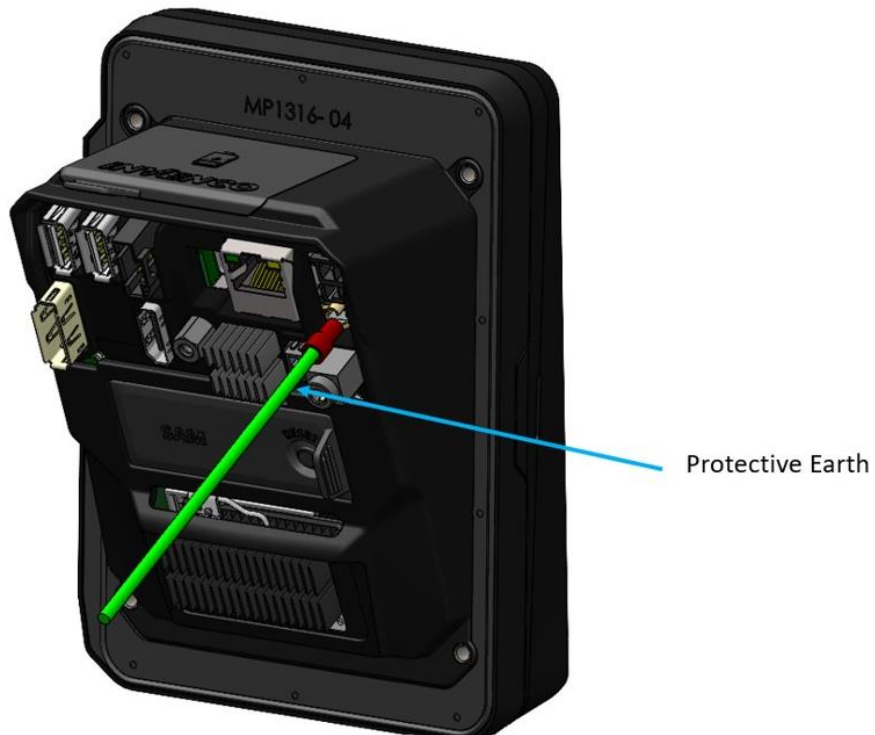


FlexPay 6 A2-05 - Connections

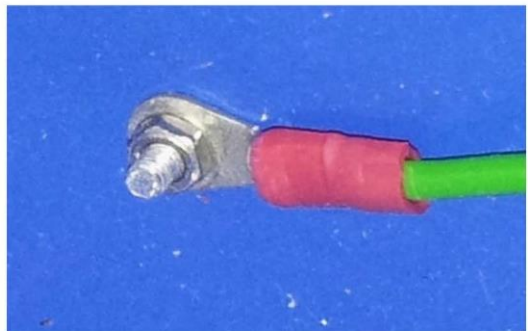
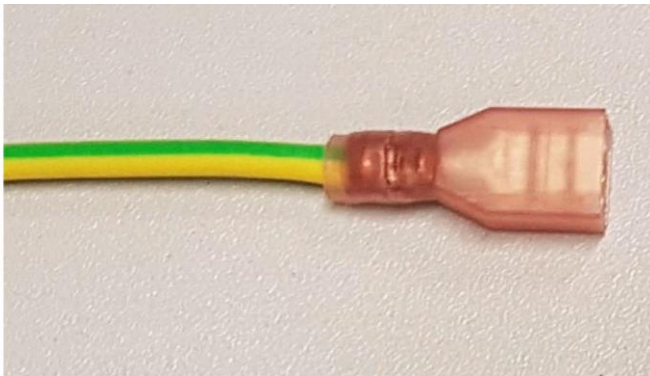
10.1. Protective Earth

The FlexPay 6 A2-05 is provided with an Earth Tab and is recommended to be earthed.

The tab must be connected to the pump (or cabinet) frame to provide protection from both power faults and static discharges. The earth wire thickness must be minimum 1.5 mm² (or 16awg) and both it and the earth stud must meet local regulations.



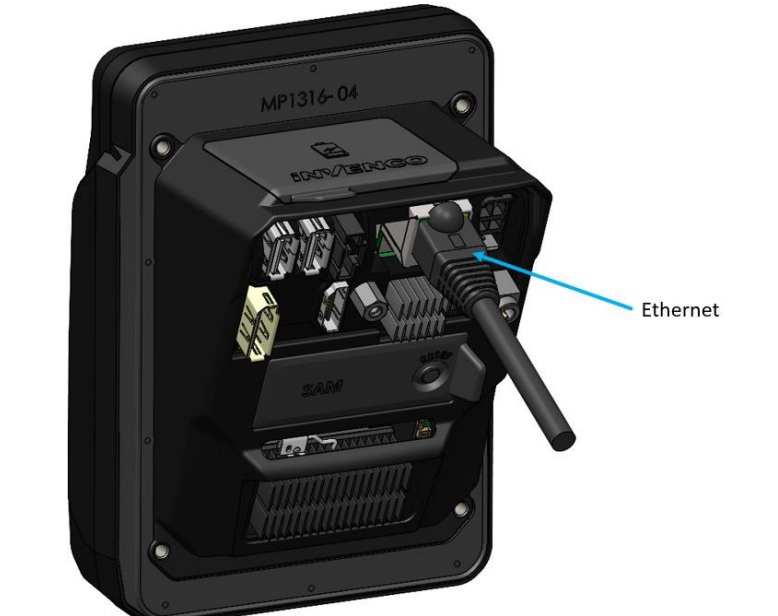
Protective Earth



Protective Earth

10.2. Ethernet LAN

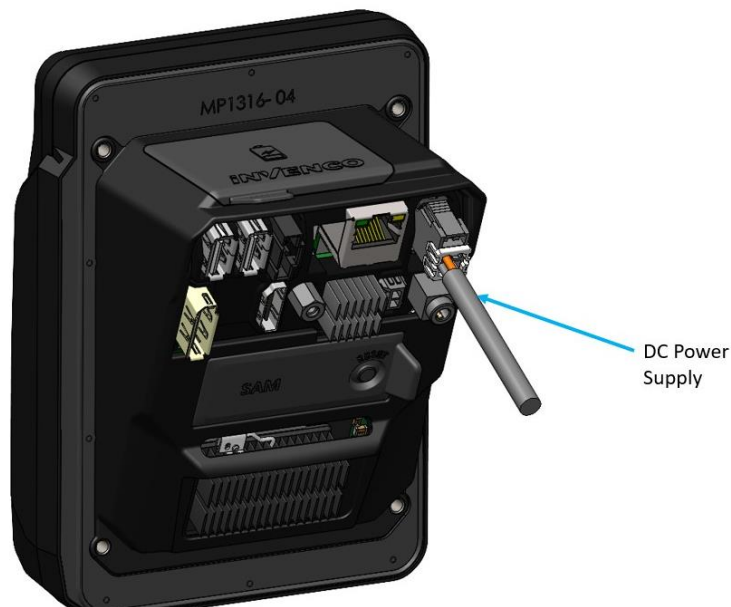
The Ethernet cable (Ethernet 10/100 Base-T) is plugged into the correct connector on the rear of the FlexPay 6 A2-05:



Ethernet Connection

10.3. DC Power IN

The low-voltage DC Cable is plugged into the correct connector on the rear of the FlexPay 6 A2-05.



Power Supply

The low-voltage DC cable carries the part number EK0171, and it can be obtained from Invenco partner companies.

CHAPTER 11 - Main Power Supply Wiring

Depending on the specific installation, the primary power supply connections require 24 V DC and an Earth connection.

CHAPTER 12 - Wiring Completion

When all the cables have been installed, use cable ties to provide strain relief.

Ensure that all cables are tidy and cannot become snagged or pinched when the door of the cabinet is opened and closed.

WARNING: Local regulations may also require that the installation is electrically tested and certified BEFORE switch-on, and periodically over the life of the unit.

CHAPTER 13 - First Power - Up

Once the installation is complete and the wiring is certified (if necessary), the main power can be switched on.

13.1. Normal Start-Up

The FlexPay 6 A2-05 takes a couple of minutes to complete its start-up phase. During this, several standard information screens will display.

There may be other screens as well, depending on customer configuration.

Start-up screen:



FlexPay 6 A2-05 Start up screen

Connecting to Ethernet screen:



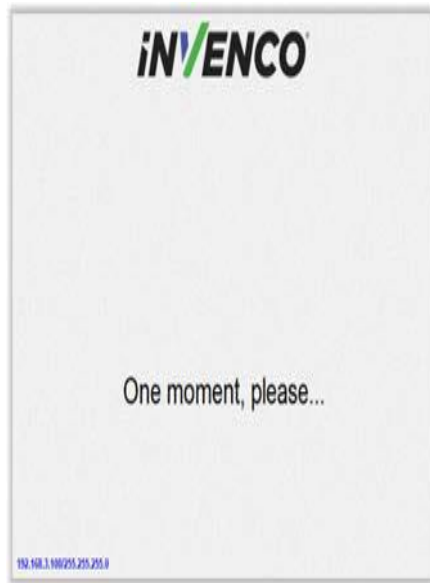
Trying to establish Ethernet connection.

When the terminal has successfully connected to the Ethernet LAN it will display the following screen:



Ethernet connection established.

After this the start-up will continue. The screens that are presented will vary depending on individual customer configuration.



Service App settings are available.

13.2. Edit Configuration

The FlexPay 6 A2-05 should have been configured during staging; however sometimes things change, and you may need to modify various settings.

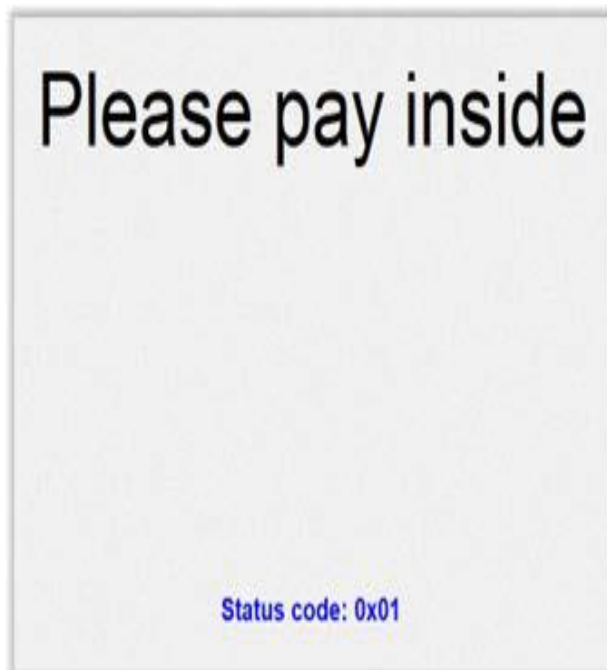
CHAPTER 14 - Tamper-Detection

The FlexPay 6 A2-05 is a secure device, and it contains various technologies that help it detect if someone tries to tamper with it.

The terminal includes several tamper detection mechanisms such as temperature extremes, backup battery removal, dis-assembly, and severe conditions, including mishandling or dropping the device may cause a tamper event.

If, on power-up or at any time when the FlexPay 6 A2-05 is powered, a tamper is detected, the FlexPay 6 A2-05 will immediately lock out of “normal” operation and enter a “tampered” state. When this happens, the FlexPay 6 A2-05 will not process any transactions and, depending on the nature of the tamper it may be almost completely unresponsive.

If a tamper has been detected, after power-up the FlexPay 6 A2-05 will display this screen:



Tamper Detection

The lights in the Card Reader slot will flash RED at about five times per second (i.e., rapid) if a Destructive Tamper has been detected:

A Destructive Tamper cannot be restored on-site and requires the FlexPay 6 A2-05 to be returned to the factory for service/ repair.

CHAPTER 15 - Basic Maintenance

15.1. Cleaning

The FlexPay 6 A2-05 is designed to be low maintenance.

Daily cleaning:

Wipe with a soft damp cloth using only water.

If dirt or grime builds up:

- Use a diluted mild detergent and wipe with a soft cloth.
- Dry the screen using a lint-free or microfiber cloth.

Things to watch out for:

- Always clean off excess detergent.
- Do not use a high-pressure water stream to clean your FlexPay 6 A2-05. Water pressure may damage the card reader or printer chute.
- Do not rub the display if it is dry – dust or dirt can scratch the anti-reflective coating.
- Do not use petroleum based solvent cleaners, they will damage the surface and shorten the life of your product.

CHAPTER 16 - Security Checks

16.1. Built in Security

The FlexPay 6 A2-05 has built-in tamper detections, but you should also regularly check your FlexPay 6 A2-05 for signs of tampering or alteration.

If it looks different to normal, then there could be a hidden camera or PIN-disclosing bug – you might have a problem that threatens customer security.

16.2. Extra Security Checks

Use this section to carry out extra security checks, and if you're still not sure about your FlexPay 6 A2-05 then call Customer Support.

The following pages include photos and descriptions of what the FlexPay 6 A2-05 components should look like. If your FlexPay 6 A2-05 looks different in any way, DO NOT use it.

Follow the escalation procedure below if you have any doubts at all about the integrity of your OPT.

16.3. Escalation

If you think that your FlexPay 6 A2-05 has been tampered with:

- Contact the vendor's security person or support desk immediately.
- If neither of those contacts are available, contact Invenco's security officer at the Auckland address detailed at the end of this document.
- Notify local law-enforcement immediately.

CHAPTER 17 - Inspection

The FlexPay 6 A2-05 has a smooth finish with an uninterrupted surface. Any breaks or uneven surfaces should be inspected as a potential security concern.

17.1. Card-Reader Slot

What to check for:

- Are there any wires of any kind coming out of the Card Slot?

There should be no visible wires at all on or around the Card Slot.

- Is the OPT finish uninterrupted and consistent across the Card Slot?

There should be no cracks, holes or bumps of any kind.

- Does the card slot acceptor light:

Flash green when it is ready and waiting to accept a card?



Front of Card Reader Slot

17.2. Contactless Reader

- Does the Contactless Reader:

Show one steady green light when ready to accept a payment?

When the contactless reader is armed, there should be a logo and simulated LEDs displayed similar to that shown in the figure below. This display may be customized for different applications.



Front of Contactless Reader

17.3. Magstripe



Magstripe

CHAPTER 18 - Removal & Re installation

18.1. How to Uninstall a FLEXPAY 6 A2-05

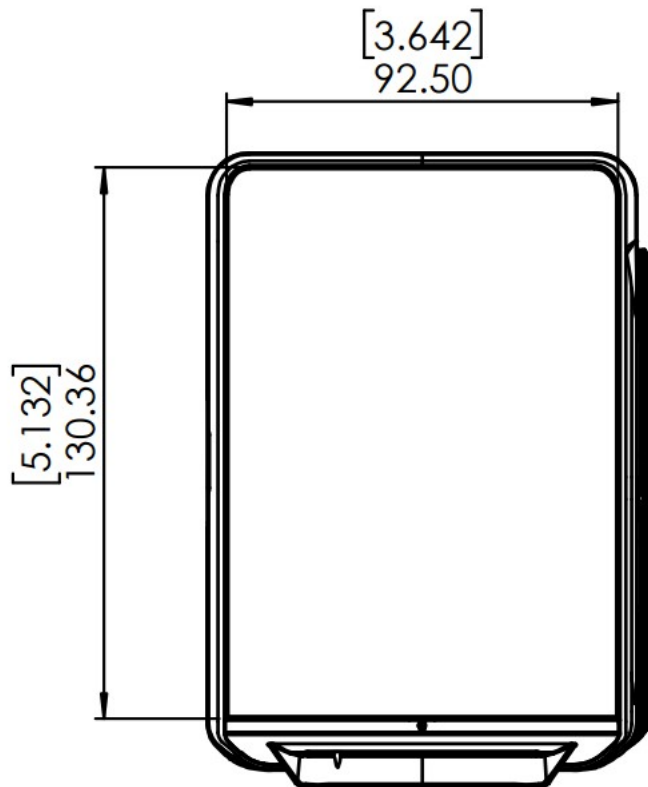
Step	Instructions
1.	To remove an existing Invenco Outdoor Payment Terminal (OPT):
2.	Make sure that the terminal is not in use.
3.	Open the enclosure door.
4.	Use the reverse paper feed button to feed the paper out of the terminal, then remove the paper roll. (Models with printer only).
5.	Switch off the mains power.
6.	Carefully cut the cable ties holding cables in place to the existing OPT. Do not cut any other cable ties.
7.	Remove the ground wire and unplug the Ethernet and low-voltage power cables.
8.	Unscrew the 4 x M4 screws holding the OPT to the door.
9.	Carefully lift the OPT out of the enclosure and package it for disposal or return.

18.2. How to Reinstall a FlexPay 6 A2-05

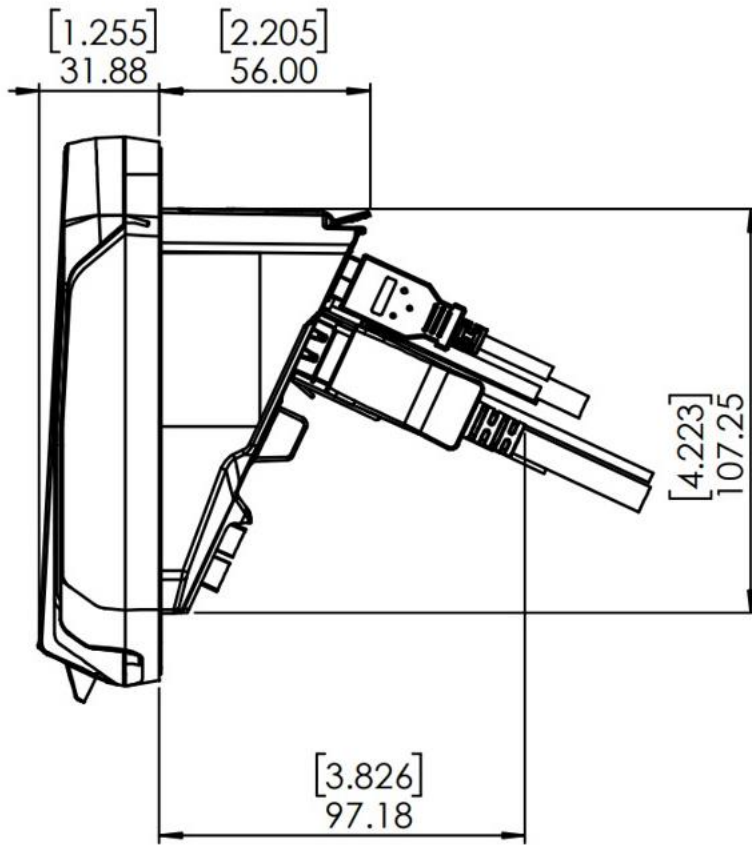
Step	Instructions
1.	Prepare the terminal by removing any traces of existing sealing gasket with a soft scraper and/or isopropyl alcohol.
2.	Remove the FlexPay 6 A2-05 from its packaging and inspect it for damage.
3.	Place the FlexPay 6 A2-05 face down on a soft, clean surface, and attach the new sealing gasket.
4.	Place the FlexPay 6 A2-05 carefully into the cut-out in the door and align it with the screw-holes (or brackets if there has been a previous retrofit).
5.	Loosely place all the screws, check the alignment is correct and then tighten the screws.
6.	Plug in the power cable and the LAN cable.
7.	Connect the Ground wire.
8.	Use new cable ties to gather all cables together, then close the door making sure not to snag or pinch any of the cables.
9.	Check that the FlexPay 6 A2-05 has come Online correctly, then close the cabinet/pump door.
10.	If this is a replacement FlexPay 6 A2-05 (i.e. not the same one removed) you may need to configure it for proper operation.

CHAPTER 19 - Drawings

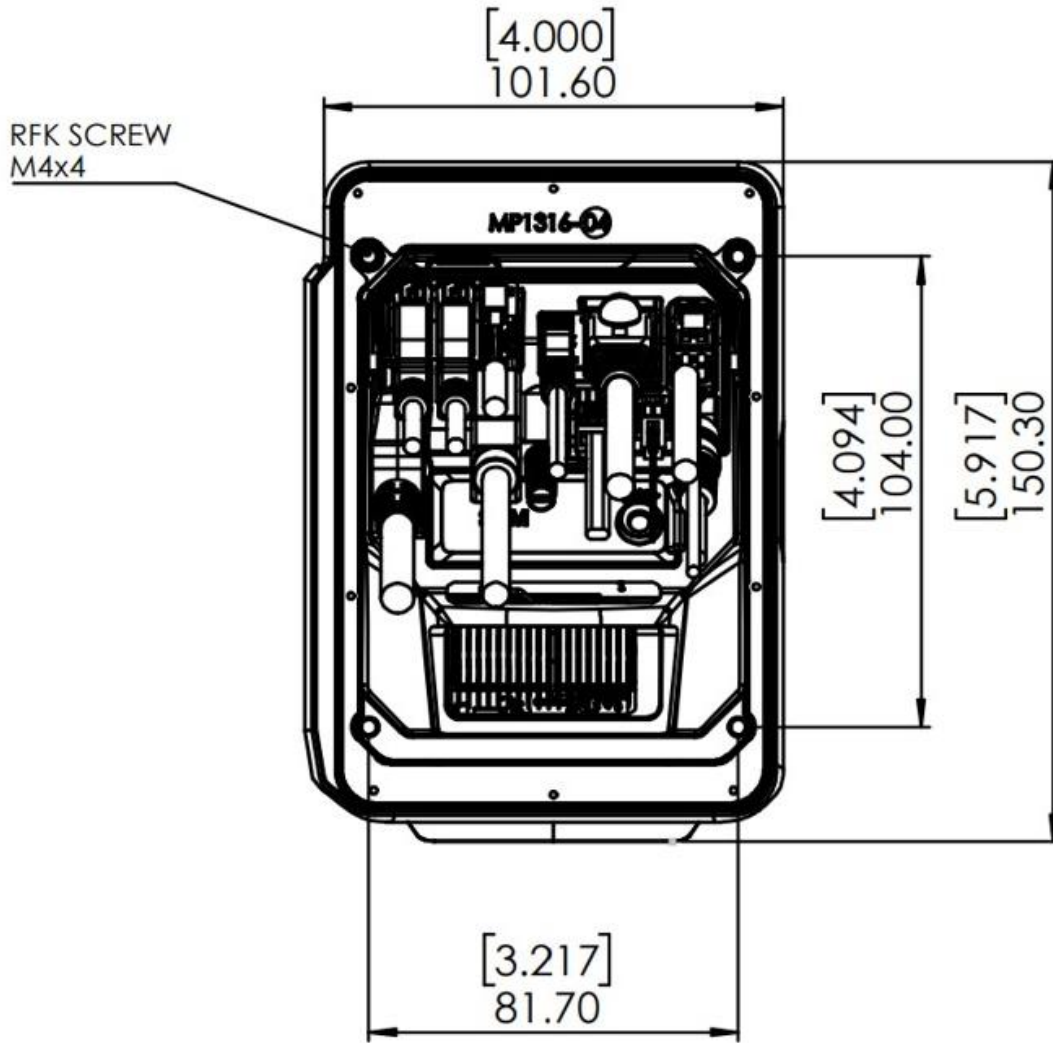
19.1. Dimensions



Dimensions FlexPay 6 A2-05 Front View

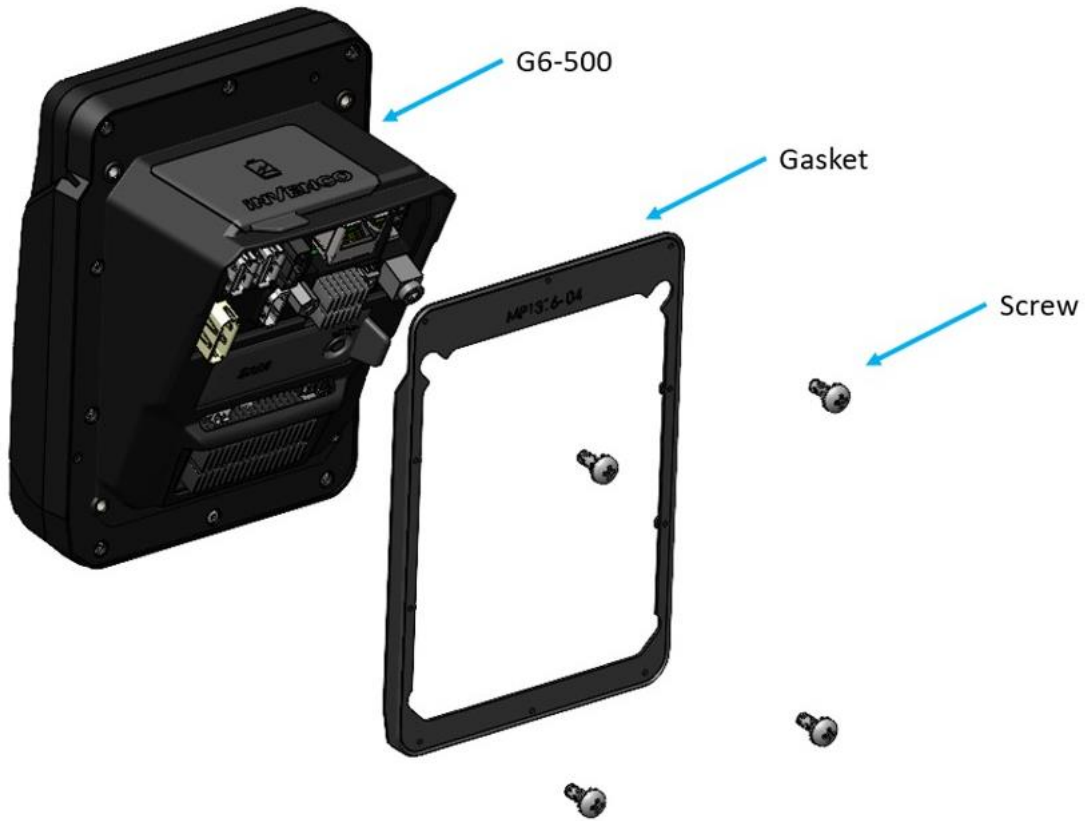


Dimensions FlexPay 6 A2-05 Side View

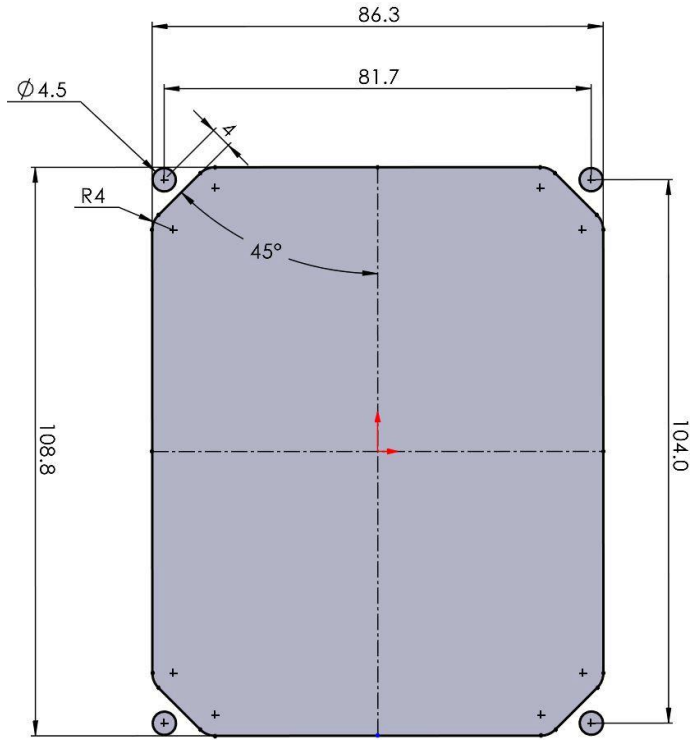


Dimensions FlexPay 6 A2-05 Rear View & Mounting Points

CHAPTER 20 - Mounting - New Installation



Exploded View, Mounting to Panel



Panel Cutout Detail, FlexPay 6 A2-05

CHAPTER 21 - Typical Wiring

The schematic below shows the standard and typical wiring for the FlexPay 6 A2-05. We recommend that you use this wiring for safety and correct performance.

AC-DC Power Supply:
 -Universal-input (90-305Vac), output 24 VDC, 60W capacity.
 -Recommended = Meanwell HLG-60H-24.

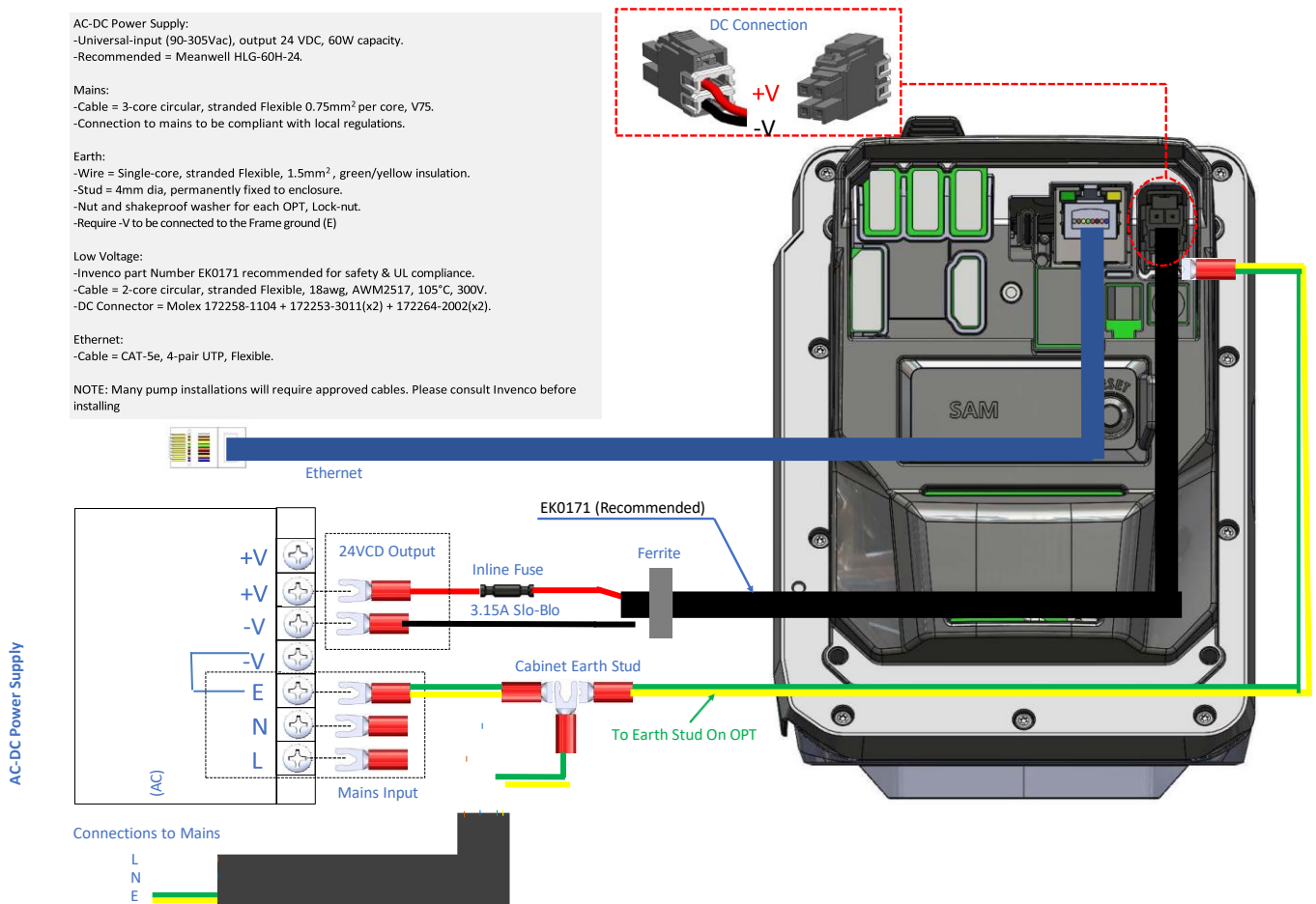
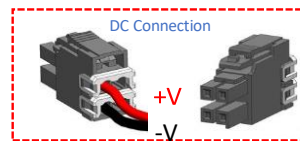
Mains:
 -Cable = 3-core circular, stranded Flexible 0.75mm² per core, V75.
 -Connection to mains to be compliant with local regulations.

Earth:
 -Wire = Single-core, stranded Flexible, 1.5mm², green/yellow insulation.
 -Stud = 4mm dia, permanently fixed to enclosure.
 -Nut and shakeproof washer for each OPT, Lock-nut.
 -Require -V to be connected to the Frame ground (E)

Low Voltage:
 -Invenco part Number EK0171 recommended for safety & UL compliance.
 -Cable = 2-core circular, stranded Flexible, 18awg, AWM2517, 105°C, 300V.
 -DC Connector = Molex 172258-1104 + 172253-3011(x2) + 172264-2002(x2).

Ethernet:
 -Cable = CAT-5e, 4-pair UTP, Flexible.

NOTE: Many pump installations will require approved cables. Please consult Invenco before installing



FlexPay 6 A2-05 Wiring Diagram



FlexPay 6 I1-05 (G6-500) Indoor Payment Terminal Installation Guide

DCV-00694 S2 R02

First Published: Sept 25 2023

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S2 Security Level Guide

No Restrictions apply: Customer-facing document.

Document History

Issue	Date of Issue	Description	Originator
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R02	2023-11-13	Updated content for IPT	SD

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CHAPTER 1 - Introduction to FlexPay 6 I1-05

The FlexPay 6 I1-05 is a part of the FlexPay family of payment terminals, tailor-made for the indoor use. This provides a single payment experience across this family of devices. It is a feature rich cost-effective product that includes contact and contactless card readers with a touch screen for display prompts and PIN-entry.

The FlexPay 6 I1-05 can be used on the benchtop, or in combination with the HAVIS backplate can be used in a pole-mount configuration. In addition, the FlexPay 6 I1-05 is compatible with VESA 75 x 75, allowing for flexibility of mounting options.

The FlexPay 6 I1-05 is designed to be durable and tough, yet simple and secure to use. To get the best use out of the FlexPay 6 I1-05, it should be installed correctly and properly maintained.

This guide will walk you through installation and correct care for your new FlexPay 6 I1-05.

Note: If you are installing an OPT using an approved retrofit kit, the instructions with the kit supersede the instructions in this guide.

1.1. Where can the FlexPay 6 I1-05 be Installed?

The FlexPay 6 I1-05 is designed for attended use. It operates in a range of indoor environments in temperatures from -10°C (14°F) through to +50°C (122°F).

CHAPTER 2 - Safety & Compliance Information

STOP There are hazards and safety precautions associated with installing, inspecting, maintaining or servicing this product.

Important: Before you start, READ! You need to understand the safety information in this manual. Hazards and safety precautions for tasks are always listed.

Fire, explosion or electrical shock could occur and cause death or serious injury if these safe service procedures are not followed.

2.1. Preliminary Precautions

2.1.1 Read the Manual

Read, understand and follow this manual and any other labels or related materials supplied with this equipment. If you do not understand the procedure, call an Invenco-authorized service contractor.

Follow the Regulations

Regulations exist to keep everyone safe.

You are expected to follow:

- OSH regulations.
- National regulations and codes.
- State regulations and codes.
- Local regulations and codes.

Note: If you do not install, inspect, maintain or service this equipment in accordance with these codes, regulations and standards, it may affect the safe use and operation of the equipment, or lead to legal citations with penalties.

2.1.2 Replacement Parts

Use only genuine Invenco replacement parts and retrofit kits on your installation.

Using parts other than genuine Invenco replacement parts could create a safety hazard and violate both legal and certification requirements. This is not an approved practice.

2.1.3 Safety Symbols and Warning Words

Throughout this guide you will see warnings and notes in boxes like below. These are used to let you know when you need to take extra caution in order to avoid hazards and/or potential injury to yourself or another person.

Always follow these instructions!

WARNING: This alerts you to a hazard or unsafe practice that could result in death or serious injury.

Note: This designates a hazard or unsafe practice which may result in minor injury or a legal issue.

2.1.4 In an Emergency

Contact your country's emergency number immediately.

Emergency personnel will need the following information:

- Location of accident (e.g., address, front/back of building).
- Nature of accident (e.g., possible heart attack, run over by car, burns).
- Approximate age of victim (e.g., baby, teenager, middle-age, elderly).

- Whether or not victim has received first aid (e.g., stopped bleeding by pressure).
- Whether or not victim has vomited (e.g., if swallowed or inhaled something).

2.1.5 Computer Programs and Documentation

All Invenco Group Ltd. software (including software on discs and within memory chips) and documentation are copyrighted by, and shall remain the property of, Invenco Group Ltd.

The duplication, disclosure, modification, or unauthorized use of software programs or documentation is strictly prohibited unless otherwise licensed by Invenco Group Ltd.

CHAPTER 3 - Approvals

Invenco develops and maintains its hardware and software products using industry-standard quality processes and is audited by the MasterCard TQM (Terminal Quality Management) scheme.

The FlexPay 6 I1-05 has the following safety approvals:

Ordinary Location Safety Certification

IEC/EN/AS/NZS/UL 62368-1 & CSA C22.2 No. 62368-1-14 (Safety - Audio/video, information, and communication technology equipment).

USA: AZOT.E469526.

Canada: AZOT7.E469526.

EMC

EN 300 300 & ETSI 301 489-3 (in conjunction with ETSI 301 489-1) for Radio.

FCC certification 47 CFR Part 15C.

IC certification (RSS-Gen & RSS-210).

SIRIM (Malaysia) certified:HIDM20000040.

Environmental Compliance:

RoHS compliance with Directive 2011/65/EU & Commission delegated directive (EU) 2015/863 and The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012.

EMV Certification

The terminal is certified by EMV Co for EMV L1 Contact , L2 Contact, L1 Contactless.

It also has certifications for performing EMV transactions as defined by Visa, Mastercard, Discover, Amex, Interac, JCB, CUP, ECB and Pure schemes.

PCI -PTS -POI (Payment Card Industry) - PCI 6.X.

3.1. European Directives

The FlexPay 6 I1-05 complies with the necessary European Directives for the CE mark



3.2. UK Conformity Assessed

The FlexPay 6 I1-05 complies with the necessary UK Conformity Assessments for the UKCA mark.



3.3. Australia and New Zealand Compliance

The G7-100 complies with the necessary Australia and New Zealand compliance requirements for the RCM mark.



3.4. Industry Canada

IC ID: 12614A-G6500

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

1. This device may not cause interference; and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

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

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

3.5. FCC

FCC ID: 2AC7B-G6500

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: The grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

CHAPTER 4 - Product Features

4.1. Location of Features



FlexPay 6 I1-05 Contactless Card Reader.



FlexPay 6 I1-05 ICC Reader



Pin Pad



Speaker

FlexPay 6 I1-05 Speaker.



Magstripe Reader

Magstripe Reader



Barcode Reader



The FlexPay 6 I1-05 Full View

CHAPTER 5 - Accessories

5.1. In the Box

Depending on the variant ordered, you can have:

- SC0206 (desk mount) OR
- SC0207 (pedestal/ pole mount)

SC0206: Inside the box are the below items



FlexPay 6 I1-05 Module.



Power Supply.



Power Cord



ENS Flexipole VESA Backplate



4 X MS0176 M4X10 Button Head Fasteners

CHAPTER 6 - Location of Mounting Points

Set up Option for the SC0206

1. Desk (Free Standing)



Desk (Free standing)

Mounting Options for the SC0207

2. Pedestal (Havis (ENS) Flexipole POS Mounts)



Pedestal Mount

The unit is supplied with a backplate CST00162 compatible with

FLEXIPOLE
STANDS



	PLUS	COMPLETE	COMPACT	CONNECT	CONTOUR	DRIVE THRU HANDLE
QUICK RELEASE	ASS40121	ASS30121	ASS90121	ASS80121	ASSC0121	ASSD0121A
LOCKING	ASS20121	ASS10121	ASS60121	ASS50121	ASSB0121	X

3. Havis (ENS) MM-1000 Modular Mounts

The FlexPay 6 I1-05 supports VESA 75X75 mounting so it is compatible with

-MM-10-301



-MM-10-302



-MM-10-401 (Requires included backplate CST00162)



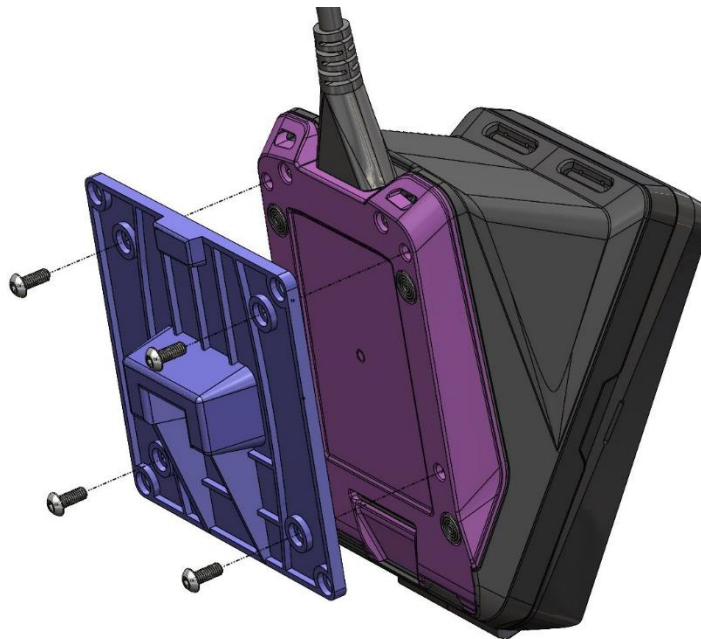
CHAPTER 7 - Tools required to mount the FlexPay 6 I1-05

- For the Pedestal/Pole

A 2.5mm Allen Key to fit the M4 screws.

CHAPTER 8 - Fitting the backplate / VESA Mounts

Step	Instructions
1.	For the FlexPay 6 I1-05: Unpack the FlexPay 6 I1-05 and accessories from packaging
2.	For the pedestal/pole mounts:s Fit the backplate or the VESA 75X75 compatible plate to the FlexPay 6 I1-05 and secure with 4 X M4 screws using 2.5mm Hex Drive / Allen Key



Attaching the Backplate to the Device

CHAPTER 9 - Power Supply Considerations

The FlexPay 6 I1-05 has been certified using a single power supply unit for each FlexPay 6 I1-05. Any other configurations are not certified.

The certified power supply for installations worldwide is limited power source power supply that is supplied with the product.

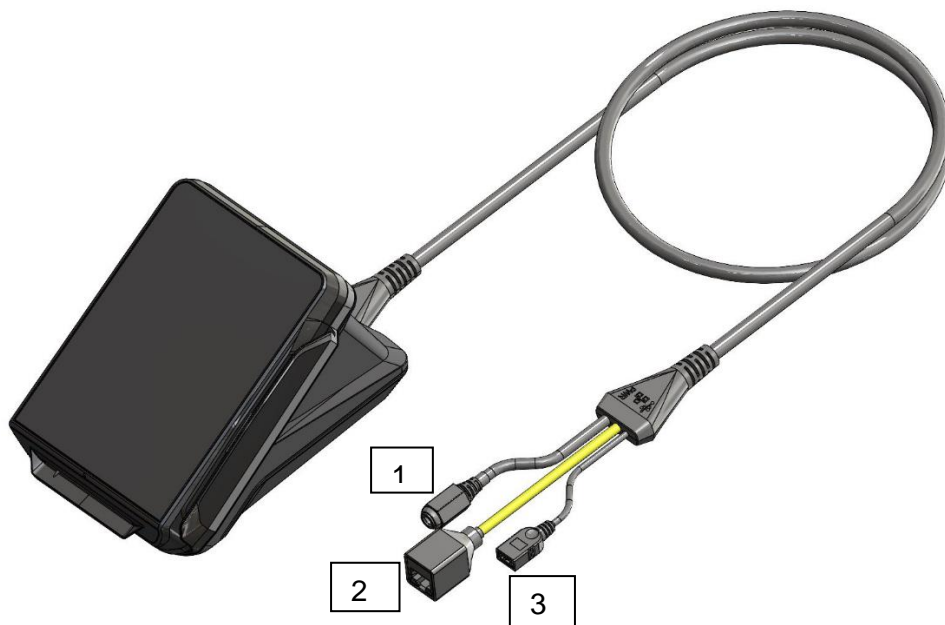
GST40A24- GP1J	
DC Voltage	24V
Rated Current	1.67A
Rated Power	40W



CHAPTER 10 - FlexPay 6 I1-05 Wiring

The FlexPay 6 I1-05 has the following hardware interfaces:

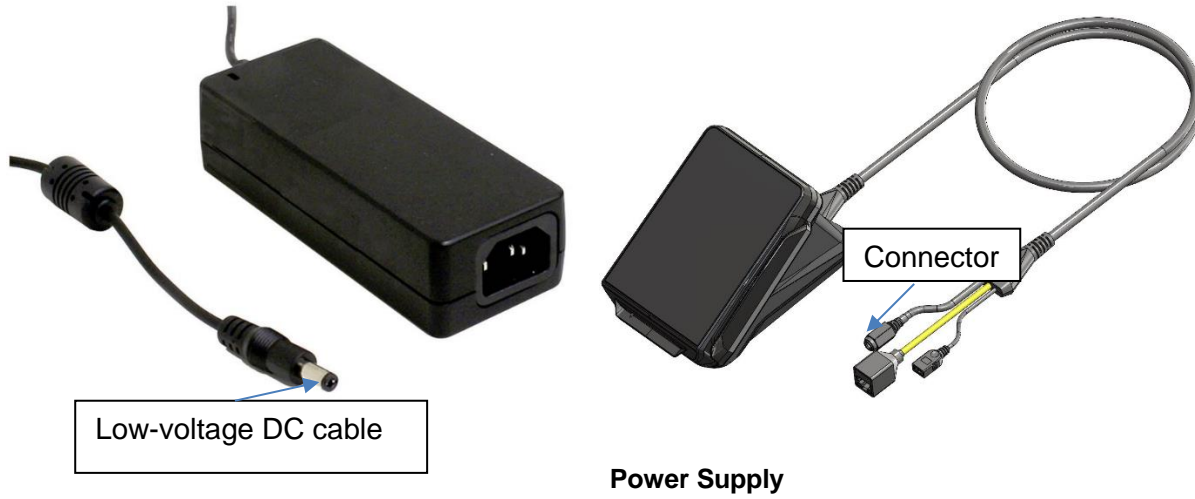
1. DC Power IN.
2. Ethernet 10/100Base-T.
3. USB-C (USB 2.0).



FlexPay 6 I1-05– Connections

DC Power IN

The low-voltage DC Cable is plugged into the correct connector labelled below.



The low-voltage DC cable carries the part number EK0171, and it can be obtained from Invenco partner companies.

CHAPTER 11 - First Power - Up

Once the installation is complete and the wiring is certified (if necessary), the main power can be switched on.

11.1 Normal Start-Up

The FlexPay 6 I1-05 takes a couple of minutes to complete its start-up phase. During this phase, several standard information screens will be displayed. There may be other screens as well, depending on customer configuration.

Start-up screen:



FlexPay 6 I1-05 Start up screen

Connecting to Ethernet screen:



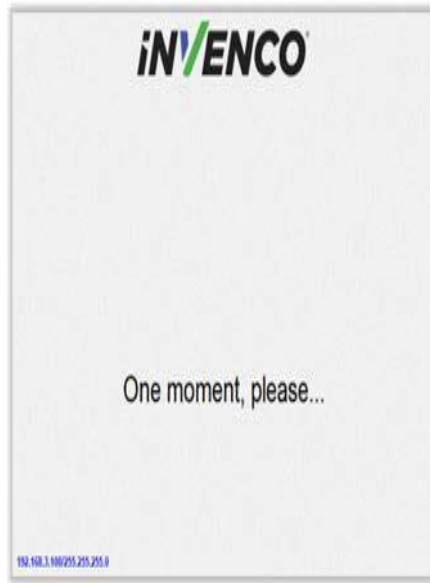
Trying to establish Ethernet connection.

When the terminal has successfully connected to the Ethernet LAN it will display the following screen:



Ethernet connection established.

After this the start-up will continue. The screens that are presented will vary depending on individual customer configuration.



Service App settings are available

11.2 Edit Configuration

The FlexPay 6 I1-05 should have been configured during staging; however sometimes things change, and you may need to modify various settings.

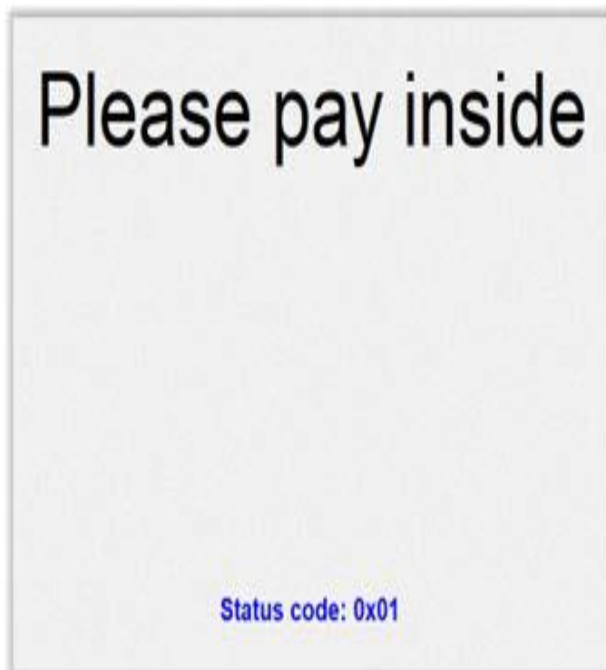
CHAPTER 12 - Tamper-Detection

The FlexPay 6 I1-05 is a secure device, and it contains various technologies that help it detect if someone tries to tamper with it.

The terminal includes several tamper detection mechanisms such as temperature extremes, backup battery removal, dis-assembly, and severe conditions, including mishandling or dropping the device may cause a tamper event.

If, on power-up or at any time when the FlexPay 6 I1-05 is powered, a tamper is detected, the FlexPay 6 I1-05 will immediately lock out of “normal” operation and enter a “tampered” state. When this happens, the FlexPay 6 I1-05 will not process any transactions and, depending on the nature of the tamper it may be almost completely unresponsive.

If a tamper has been detected, after power-up the FlexPay 6 I1-05 will display this screen:



Tamper Detection

The lights in the Card Reader slot will flash RED at about five times per second (i.e. rapid) if a Destructive Tamper has been detected:

A Destructive Tamper cannot be restored on-site and requires the FlexPay 6 I1-05 to be returned to the factory for service/ repair.

CHAPTER 13 - Basic Maintenance

13.1 Cleaning

The FlexPay 6 I1-05 is designed to be low maintenance.

Daily cleaning:

Wipe with a soft damp cloth using only water.

If dirt or grime builds up:

- Use a diluted mild detergent and wipe with a soft cloth.
- Dry the screen using a lint-free or microfiber cloth.

Things to watch out for:

- Always clean off excess detergent.
- Do not use a high-pressure water stream to clean your FlexPay 6 I1-05. Water pressure may damage the card reader or printer chute.
- Do not rub the display if it is dry – dust or dirt can scratch the anti-reflective coating.
- Do not use petroleum based solvent cleaners, they will damage the surface and shorten the life of your product.

CHAPTER 14 - Security Checks

14.1 Built in Security

The FlexPay 6 I1-05 has built-in tamper detections, but you should also regularly check your FlexPay 6 I1-05 for signs of tampering or alteration.

If it looks different to normal, then there could be a hidden camera or PIN-disclosing bug – you might have a problem that threatens customer security.

14.2 Extra Security Checks

Use this section to carry out extra security checks, and if you're still not sure about your FlexPay 6 I1-05 then call Customer Support.

The following pages include photos and descriptions of what the FlexPay 6 I1-05 components should look like. If your FlexPay 6 I1-05 looks different in any way, DO NOT use it. Follow the escalation procedure below if you have any doubts at all about the integrity of your OPT.

14.3 Escalation

If you think that your FlexPay 6 I1-05 has been tampered with:

16.3.1 Contact the vendor's security person or support desk immediately.

16.3.2 If neither of those contacts are available, contact Invenco's security officer at the Auckland address detailed at the end of this document.

16.3.3 Notify local law-enforcement immediately.

CHAPTER 15 - Inspection

The FlexPay 6 I1-05 has a smooth finish with an uninterrupted surface. Any breaks or uneven surfaces should be inspected as a potential security concern. The cable of the FlexPay 6 I1-05 should not have any damage to the insulation or strain relief.

15.1 Card-Reader Slot

What to check for:

- Are there any wires of any kind coming out of the Card Slot?

There should be no visible wires at all on or around the Card Slot.

- Is the OPT finish uninterrupted and consistent across the Card Slot?

There should be no cracks, holes or bumps of any kind.

- Does the card slot acceptor light:

Flash green when it is ready and waiting to accept a card?



Front of Card Reader Slot

15.2 Contactless Reader

Does the Contactless Reader:

Show one steady green light when ready to accept a payment?

When the contactless reader is armed, there should be a logo and simulated LEDs displayed similar to that shown in the figure below. This display may be customized for different applications.



Front of Contactless Reader

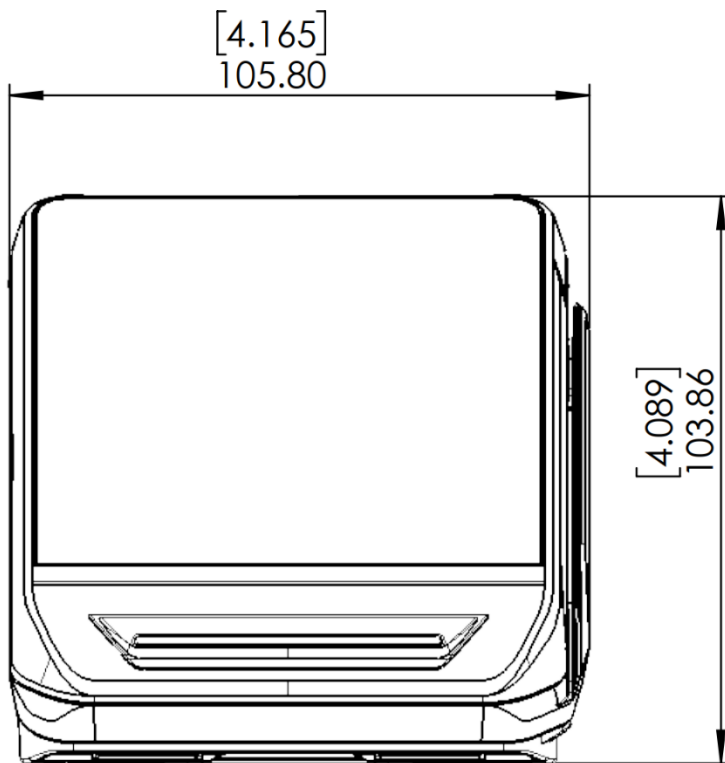
15.3 Magstripe



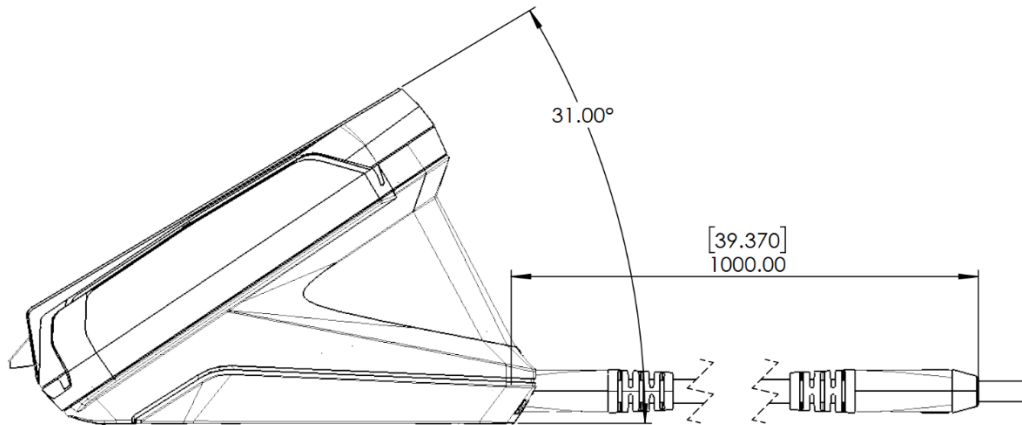
Magstripe

CHAPTER 16 - Drawings

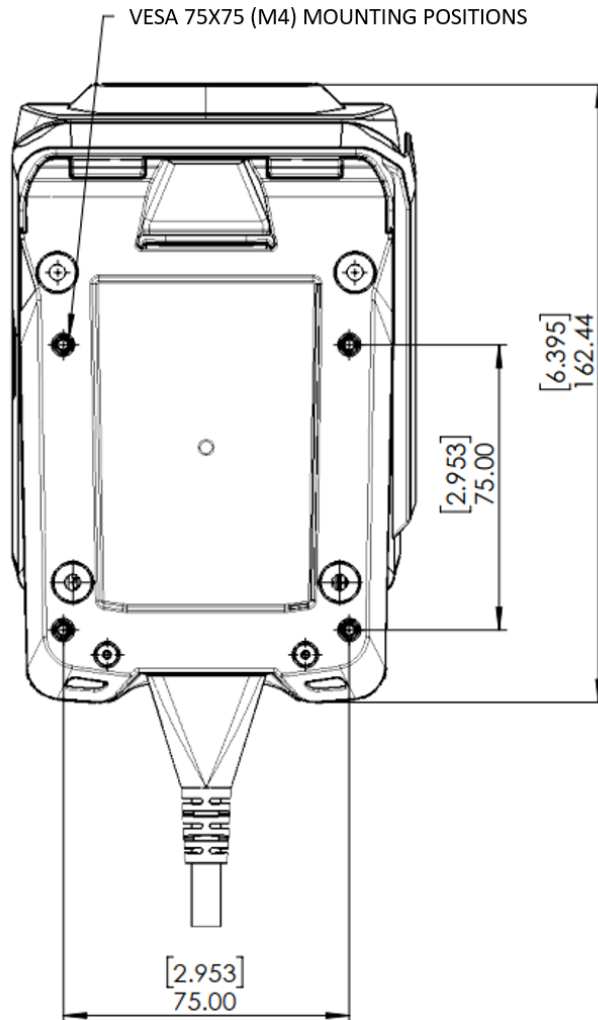
16.1 Dimensions



Dimensions FlexPay 6 I1-05 Front View

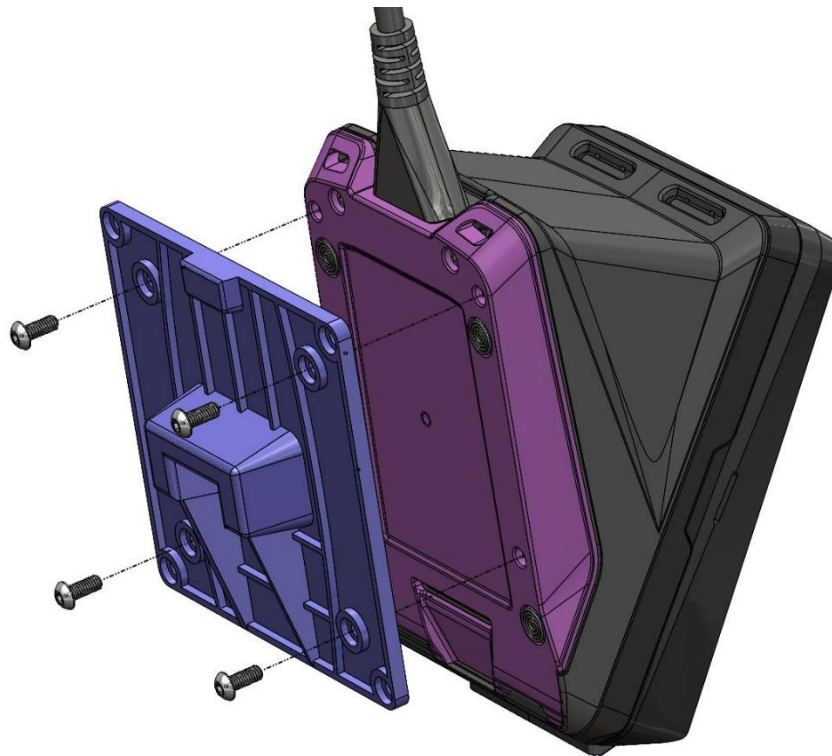


Dimensions FlexPay 6 I1-05 Side View



Dimensions FlexPay 6 I1-05 Rear View & Mounting Points

CHAPTER 17 Mounting - New Installation



FlexPay 6 I1-05 / Pedestal Mount if the supplied backplate is used

CHAPTER 18 Replacing FlexPay 6 I1-05 cable

Follow the below steps when replacing a damaged FlexPay 6 I1-05 cable.

1. Remove the two screws highlighted below using a T10 torx driver.



2. Hinge the bottom part open to expose the wires.



3. Disconnect the old cable and replace it with a new one.
4. Locate the new cable into the plastic part before hinging the bottom part back in.
5. Ensure the cable is retained in the plastics before driving the two screws back.



Replacing the FlexPay 6 I1-05 cable