Model SSTT-SW (iTVM)

Self Service Ticketing Terminal

Installation Guide

Contents

General Information

The iTVM Model SSTT-SW is a rail industry self-service ticketing terminal designed for use at indoor locations only beyond the 3m boundary.

The delivered SSTT-SW unit is a two-part construction consisting of an equipment cabinet that is bolted onto a metal plinth.

The front face of the unit is designed as the "**Public Interface Area**."

The inside of the unit is designated an "**Authorized Staff Access Only Area**."

A key is required to unlock front door panel and enable the use of a lever to pull the door open.

SSTT-SW Mass, Dimensions, and Fixing at Site

The SSTT-SW has an approximate mass of 640-660kg (varies with coin volume).

The table below summarizes the typical overall dimensions of a unit with front door closed and opened. Please request the drawing pack to obtain complete and latest version dimensional details.

Unit Aspect	Width in mm	Depth in mm
Base Contact Area (footprint)	1040	730.50
Occupied Area with door closed	1040	782.68
Occupied Area with door open	1040	1603.30

Worldline professional installers will bolt the metal plinth to agreed concrete floor surface, and use lifting equipment to place the SSTT-SW cabinet onto the metal plinth prior to bolting these two items together.

Fixing instructions within this document assume that:

- **Worldline will be permitted to drill four 200mm deep holes into floor surface**
- **Concrete support surface (slab/base) is at least 200mm thick**
- **Support surface is flat, level, and flush with the surround floor surface**

⚠ **A 50mm minimum gap is required around units to be fitted in an alcove(s)**

Climatic and Ventilation Requirements

Do not position the SSTT-SW near a radiator; heat register; air heater vents; wall panel heating systems; direct sunlight, spot lights, or on underfloor heating system.

Do not block or cover the air vent openings of the unit, and do ensure that a 150mm open air gap is maintained between such vents and nearby equipment or building structures. Failure to follow these guidelines can cause overheating and/or affect the performance of the unit.

The equipment is intended for use within temperature-controlled environments.

Environment	Temperature	Humidity
Operating Environment	0° C to 35° C (32° F to 95° F)	10% to 95% (Non condensing)
Non-Operating Environment	-10° C to 60° C (14° F to 140° F)	10% to 95% (Non condensing)
Optimum operating Temperature	21° C to 23° C (70° F to 73.5° F)	45% to 50% (Non condensing)

Front View of Unit

Please refer to your order for actual device features.

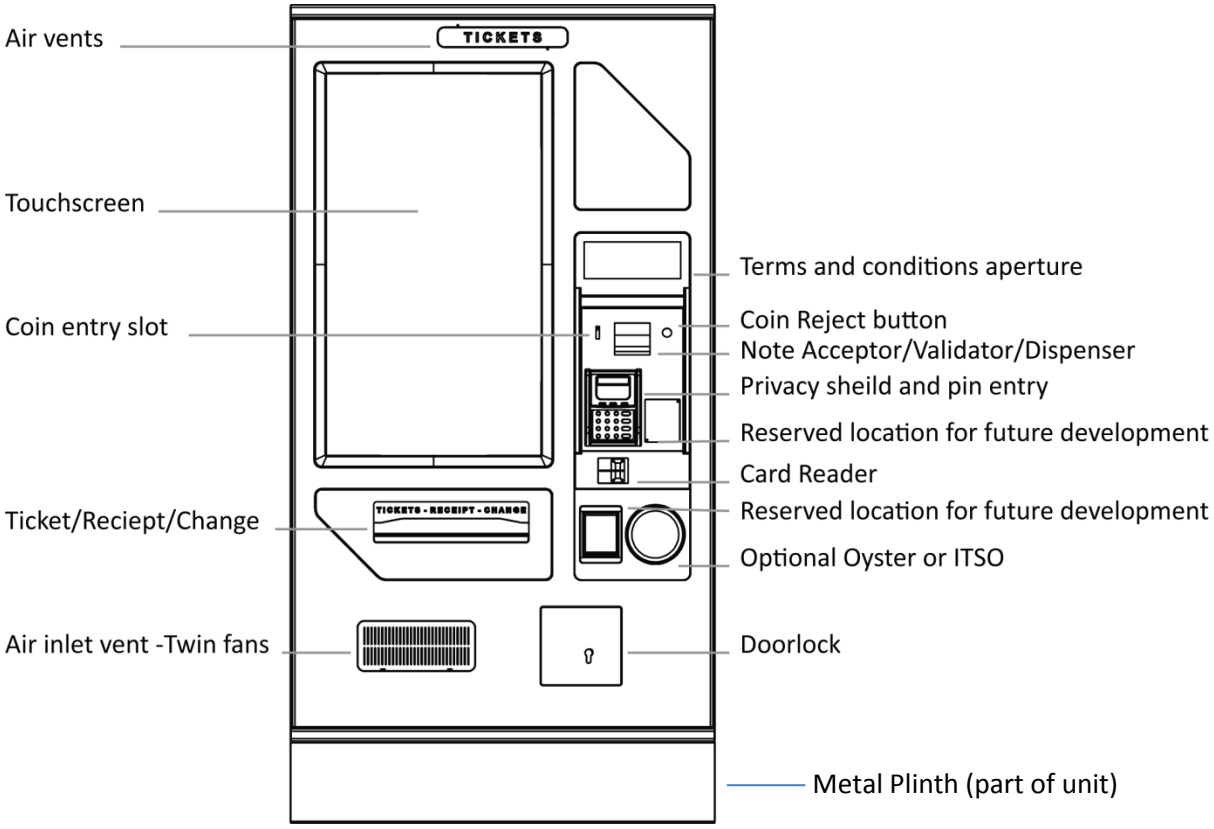


Figure 1

Concrete Support Surface Requirements

To ensure secure unit fixing, a concrete floor or other equivalent non-combustible mounting surface that is suitable to drill into is to be **provided by the equipment operator.** The support surfaces must be flat; level, and flush with the surrounding floor surface. Examples of suitable mounting surfaces are:

- Existing concrete floor slab having minimum thickness of 200mm, or
- Purpose made concrete base/slab, having minimum thickness of 200mm, whose top is made flush with the surrounding floor/ground level (**see below for additional base dimensions**).

The standard single unit base fixing requirements are illustrated here. Alternative fixing configurations are only possible by advance discussion and agreement in writing with Worldline prior to manufacture of the unit(s).

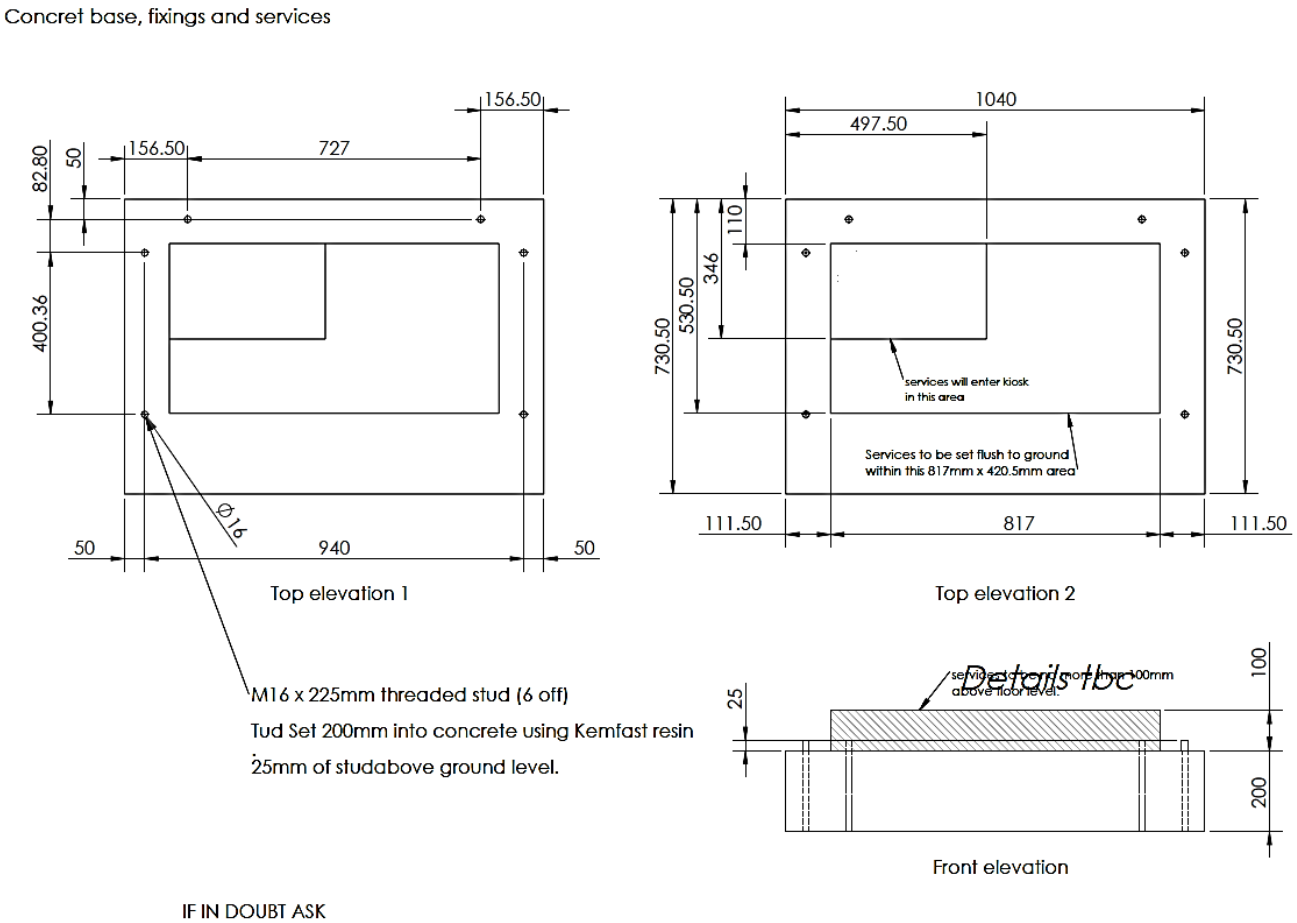


Figure 2

Metal Plinth Installation

Metal plinth will be fitted to concrete floor and bolted to SSTT-SW cabinet by Worldline professional installers, unless otherwise agreed. The standard single unit fixing requirements are illustrated below. Alternative fixing configurations are only possible by advance discussion and agreement in writing with Worldline prior to manufacture of the unit(s).

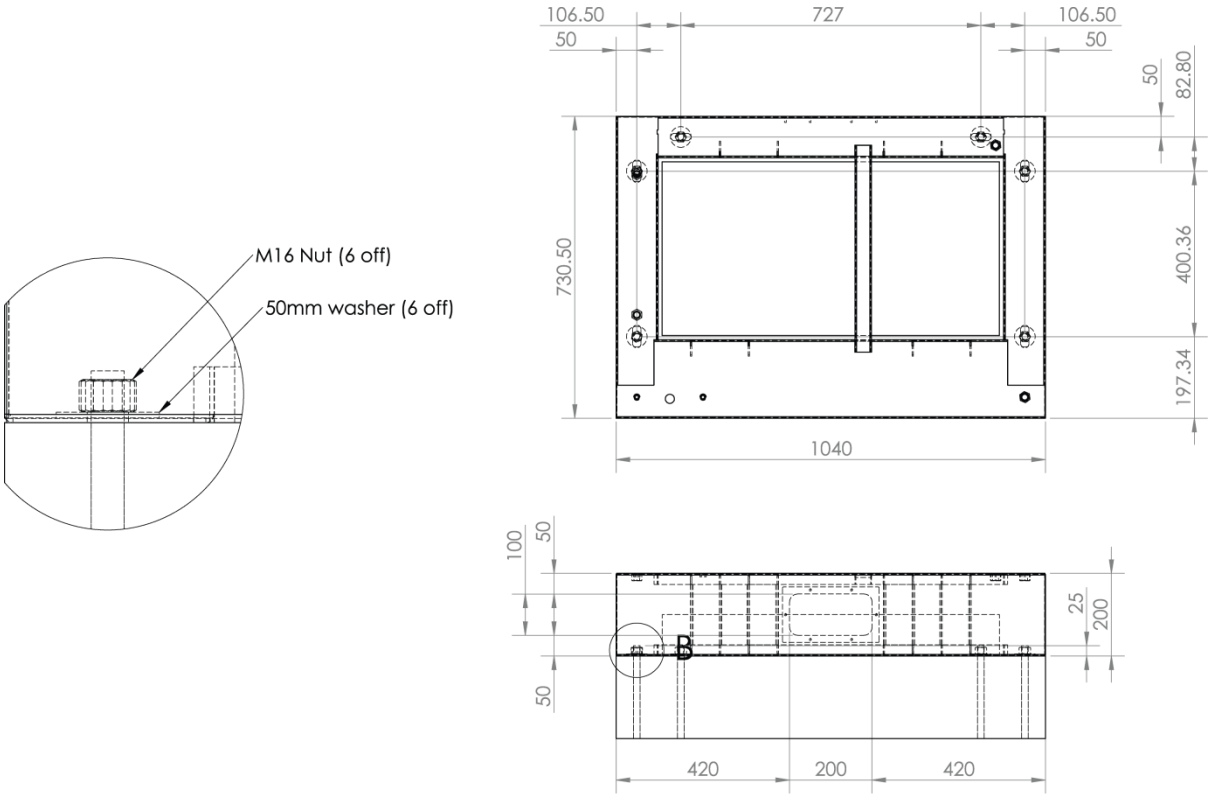


Figure 3

Dimensions for Clearances, Closed Door

Figure 4 shows External Dimensions of the SSTT-SW.

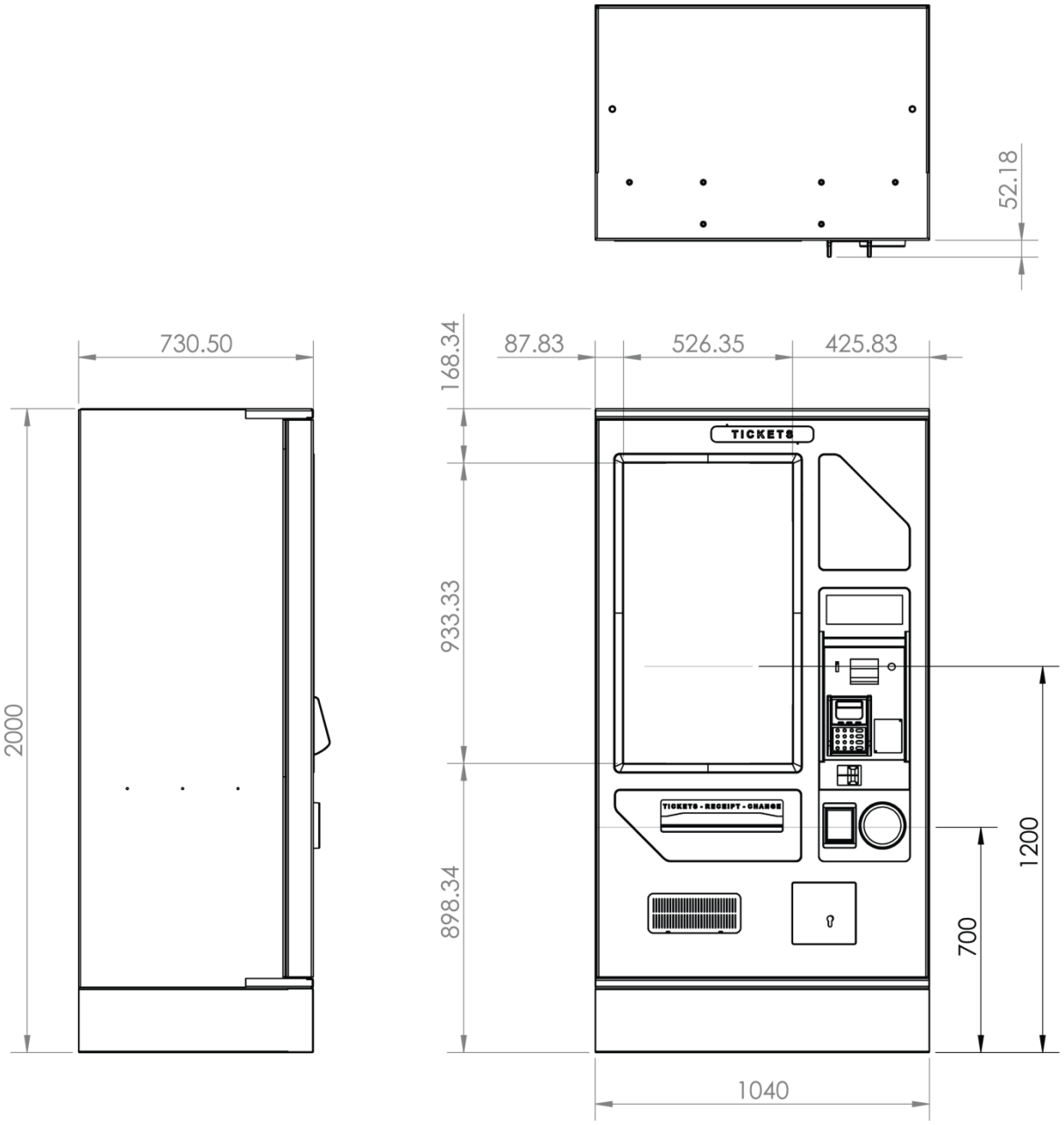


Figure 4

Dimensions for Clearances, Open Door

Figure 5 shows External Dimensions of the product with the door open, this shows floor space required to perform maintenance or any service operation.

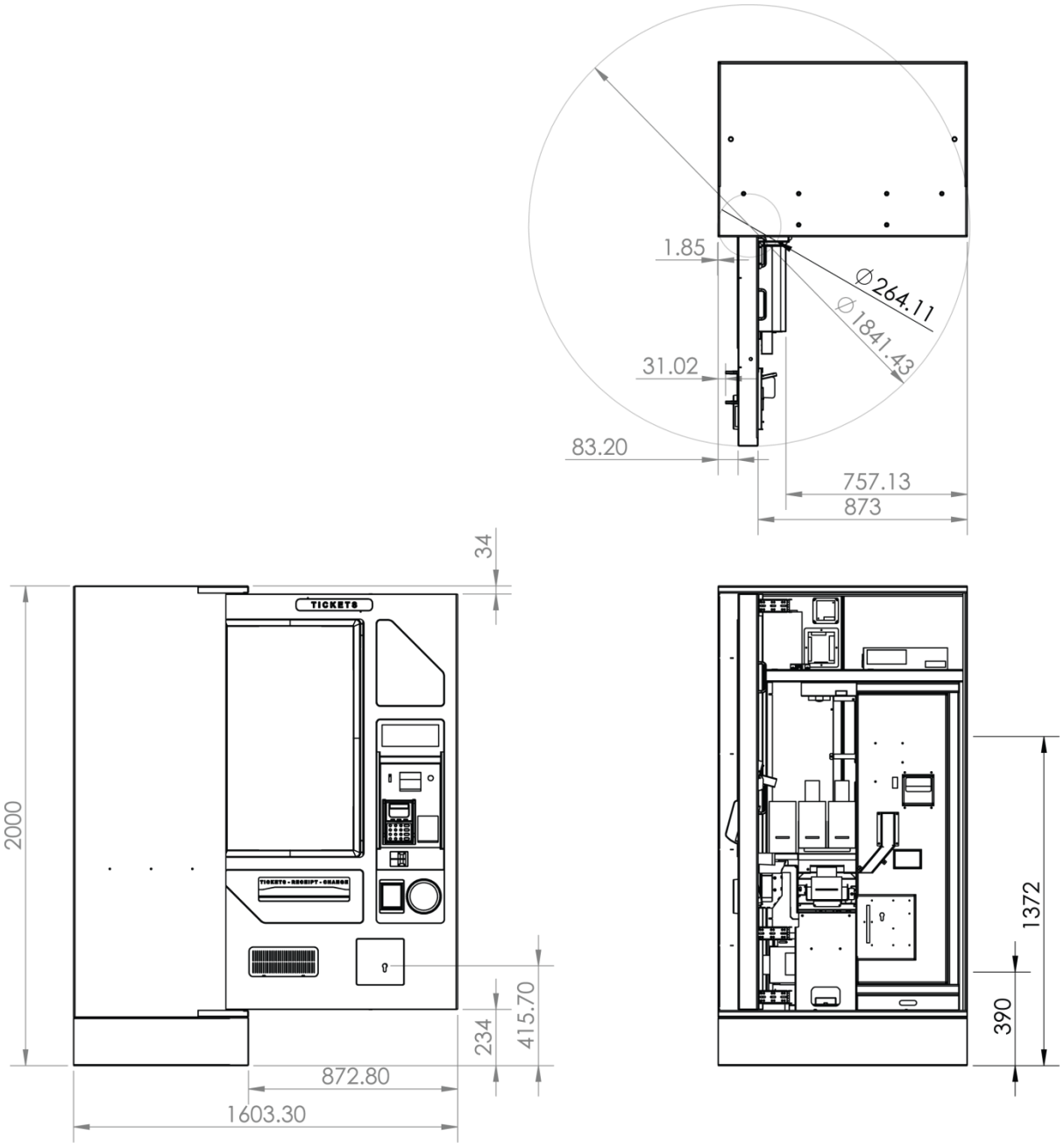


Figure 5

Unit Positioning Rules

Please review all tables and figures in this document very carefully.

The equipment operator must ensure that installation site is designed to have sufficient clearance around the SSTT-SW.

Advance planning of site layout will allow for:


The full swing of the front door for safe unit access,


Ease of fan air inlet filter inspection and unit cooling


Sufficient electrician's access to the rear of unit (as needed), and


Permit full swing of the doors at locations where two or more units are located in a line up together or building structures are located door hinge side of the unit.


The SSTT-SW is to be fixed to a level concrete floor at rail station locations beyond the 3m boundary.


The unit is to be located close to ac mains supply, reliable earth connection point, and five network connection ports suitable for shielded cables.

Example of Three SSTT-SW unit line up within an Alcove

⚠ 50mm minimum gap required around unit(s) fitted in an alcove(s)

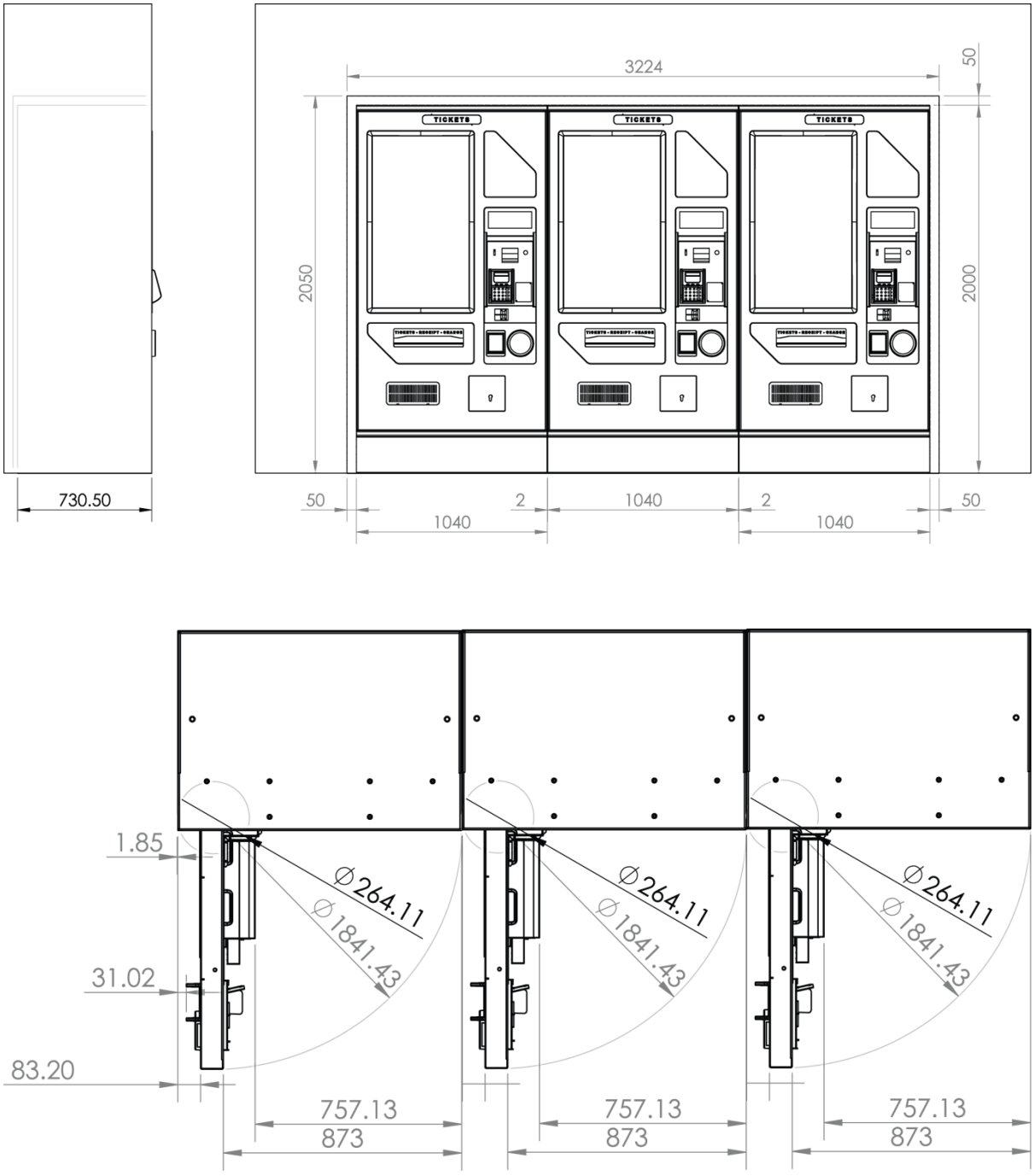


Figure 6

Services Requirements

Services Entry Methods

The SSTT-SW is designed to work with single-phase power system having an earthed neutral conductor. AC mains (with earth) cable, and network cables are to be connected by an electrician and network engineer to SSTT-SW's ***Services and Emi-Filter Box*** (Fig.9), see also ***Electricians + Network Engineers Wiring Instructions***.

Each unit has two services entry point options:

a. Route services through concrete floor up into metal plinth's void area, see Fig. 7

b. Route services through the rear of SSTT-SW's metal plinth (remove rectangular plate) see Fig. 8

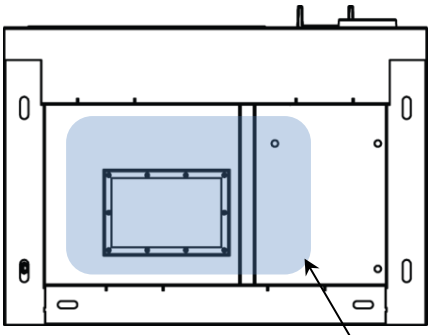


Figure 7
Bottom up view from of metal plinth
Option/Method A Entry Point Area

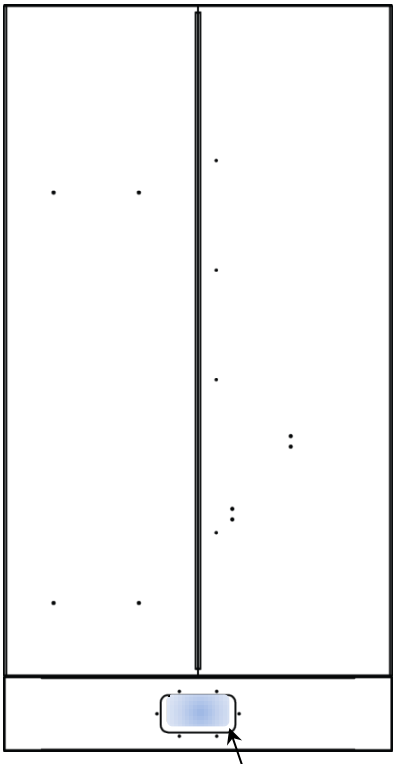


Figure 8
Rear view of metal plinth
Option/Method B Entry Point

Services Entry Methods continued

Worldline Recommendation …

Worldline strongly recommends that services are chased through concrete floor and up into the SSTT-SW's metal plinth's void under the cabinet (**Method A**).

Where concrete floor chasing is not permitted, the conduits may be passed through the service entry point at the rear of the SSTT-SW's metal plinth (**Method B**).

Method B permits the equipment operators to pass flexible metal conduit (Kopex) over the metal plinth's "threshold," and into the plinth's void area, as needed.

When **Method B** is selected, the equipment operator must ensure that there is a minimum of 150mm air gap between the rear of the unit and any building structures, to permit the electrician to run services to the rear, as needed.

Figure 9

AC Supply Connection Requirements

For electrical safety and network performance

Worldline requires that the ac mains cable is routed to the unit separately from the site network cables. The power cable is to be routed to the unit through one earthed conduit, and the operator's network/Ethernet cables shall be routed to the unit through other earthed conduits.

A qualified electrician shall route "ac mains and earth cable" through the power conduit, and then securely connect this cable's leads to the L, N, E contacts of the terminal block located within the ***services box***.

Equipment operator is required to supply a 2* metre length of 3 core flexible power cable in the plinth void area to ease preparation of cable end for connection to terminals within the ***Services Box.***

**2m is measured from exit point of conduit or exit point of wiring box that has been placed within the metal plinth's void by the operator*

A Qualified Electrician is required to comply with national and locally applicable wiring regulations and electrical codes during the connection of this unit to normal building wiring, see ***Electricians + Network Engineers Wiring Instructions***.

Electrician shall select mains wiring type that is approved and correctly rated for the intended application having given careful consideration to the following:


Unit is intended for connection to 230Vac, 50Hz, single phase, ac mains (earthed at source neutral).


The equipment's electrical rating label will state 230Vac, 50Hz, 5A max (actual power consumption 260W)


AC mains + earth building wiring are to be permanently connected to the terminals of a 3 pole (L, N,E) terminal block located inside the ***services box*** described within this document.


The electrical rating label is fixed to a surface near the ***services box***.


WARNING - Unit must be connected to a reliable earth

Dedicated External Overcurrent Protection Required for each unit in the form of:


Fused Connection Unit fitted with a 5A, 10A or 13A BS1362 Cartridge Fuse

OR

Dedicated branch circuit protected by a 10A or 16A max Circuit Breaker

AC Supply Connection continued

 Equipment requires "clean" ac mains, and low impedance earth conductor on site for equipment connection. Equipment operator shall supply quality tested neutral; quality tested earth; segregation of ac cables from signal/data cables (maintain separation distance on cable trays - use two separate earthed metal conduits one for ac mains routing and the other for network cable routing).

Electrical Ratings and Load to Supply

Nominal Supply and Current rating:	230V ac, 5A max, 50Hz
Nominal Operational Load:	260W at 230V ac 50Hz

Cable Grip Gland

Location:	fitted to 20mm hole side of ***services box***
Type/Size:	M20 1.5, IP68 Rated
Gripping Range:	10 mm to 14 mm O.D.

3 Pole Terminal Block

Location:	Fitted to plate inside the ***Services Box***
Terminal Block Mfr. and Part Number:	Wago 862 -1503
Terminal Block's Contact type:	Spring Cage Clamps
Contacts Accepts Lead Sizes:	1.5 mm^2; 2.5 mm^2; 4 mm^2
Method to Open Spring Contacts:	Use Screwdriver to press and hold open spring contacts via push-buttons above each pole on terminal block

Disconnect Devices

To fully isolate the unit from the ac mains power supply, open the external isolator (the switch on an external switched fuse spur, or the unit's associated external circuit breaker (mcb), or other equivalent external disconnect device).

The rocker type switch on the 5 way power distribution block is only a disconnect device within the unit cabinet.

Rocker in "I" (on) position: power is passed into the equipment cabinet

Rocker in "0" (off) position: power is present on wiring before the switch, but not passed into the cabinet.

Network Cables – Construction and Connections Requirements

Each unit requires One screened Ethernet network connections and IP addresses (for FAST PC, Display PC, IP addressable Power Outlets box, Payment Terminal Card reader and a spare).

Ethernet over Twisted Pair (10/100BaseT)

To ensure compliance to applicable EMC regulations and the optimum operation of the unit, the equipment operator shall select and use network cables that meet the following specification.

Cable Construction: Reliably earthed[1] Shielded Twisted Pair type S/FTP[2], rated to meet local codes

Performance Class: Cat 5e minimum (up to 100MHz bandwidth)

[1] this is an earth reference connection also referred to as a functional earth

[2] S/FTP = braided Screen over Foil wrapped Twisted Pairs

Equipment operator is required to supply a 2*metre length of specified S/FTP network cable in the plinth void area to enable connection to RJ45 coupler/port on the underside of the ***Services Box***

**2m is measured from exit point of conduit or exit point of network box that has been placed within the metal plinth's void by the operator*

The operator's network engineer shall connect the network cable meeting this specification to the RJ45 coupler, see ***Electricians + Network Engineers Wiring Instructions***.

Application Specific Broadband W/ LAN Connection Speed,

FAST: 512 kbit/s

Other: 1Mbit/s minimum[3] during normal rail operating hours

[3] assumes that database, software, and other large downloads happen between 2am and 4am

EU - Notice

Directives Compliance:

Low Voltage Directive: ITE Safety Standard EN 60950-1, as applicable

EMC Directive: Rail Sector EMC Standard EN 50121-4*, as applicable

CE Marking Directive: Unit is CE marked (DoC available upon request)

iTVM Model ID: SSTT-SW

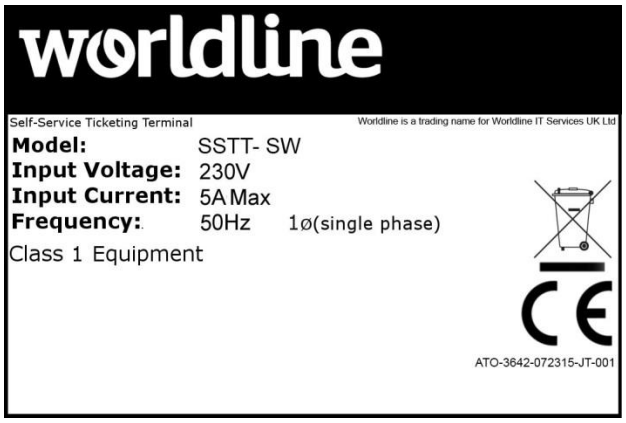
Warning: This is a Class A ITE product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Modification of Equipment Restriction

Do not make mechanical or electrical modifications to the equipment. Modification may impact the regulatory compliance status of the equipment and/or affect its performance.

Immediately inform Worldline IT Services UK Ltd of any planned future building works or refurbishments in the area of the equipment.

Ratings & Warning Labels



Authorised Access Only
Personnel Trained to Safely Complete Assigned Task(s) May Enter

Follow these instructions to prevent personal injury or damage to the unit:

Ensure that door open slider-latch is fully engaged before starting work.

Mind your head when working within the unit.

Take care not to snag cables during your tasks or closing the door.

Keep hands and fingers away from all moving parts (exposed gears).

Ensure fingers are clear of door hinges and seals when opening and closing.

Use care around sliding parts and metal edges.

Only use "identified" pull/push/latch points in the unit as 'handles'.

Care of Equipment:

Self-Service Ticketing Terminals have a very long in-service life.

To ensure continued safe and reliable performance of the unit, it is essential that you are vigilant during your door open activities.

Immediately notify your supervisor and take appropriate actions should you ever discover or experience the following when you open the unit's door.

- You are hit with very hot air rushing out of the unit.
- The covering of any cable has become worn through or otherwise damaged.
- There is water or other liquid dripping into unit from above, coming up through the base of unit, and/or water pooling on any of the electrical parts and cables.
- There is significant accumulation of dust within the unit, on uncased devices or clogging equipment air inlet vents.
- There is smoke or strong smell of melted plastic.

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