Owner’s handbook

HUB SA

ZEAG

REV 2

Contents

Introduction

HUB Parking provides Smart parking technologies that enable and facilitate parking revenue generation.

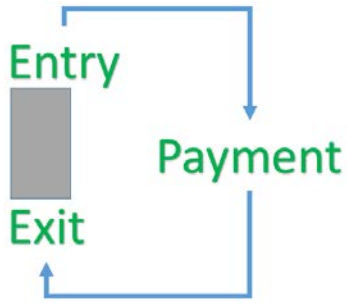
This is done by simply issuing a parker with a type of media (Commonly tickets) that tracks the duration and area of the parker and upon the end of the visit, the client can pay for the associated cost.

Historically the payment occurred at the exit station however due to increased traffic and relative costs, Pay-on-foot was created. Pay-on-foot allows the customer to pay for their parking before entering their car. This stream lines the payment segment to allow customers to rapidly exit the parking.

Full Circle Parking

Full circle parking is when a customer exits with the same media (Ticket) that they entered with. This is beneficial as;

1. Movement details are stored
2. Associated costs can be calculated
3. Reduces risk of free parking tickets



(NB: To move to Full circle parking, you will need to migrate from cashiers to validators)

Ticket handling hardware

The paper ticket, often referred to as a KP ticket or casual parker ticket, is the media of choice when issuing a 'Token' to a short term parker as the 'Token' has little physical value and as such, can easily be issued and/or replaced.

The Universal Card Handling Device (UCD) is the heart of the ZEAG line. The UCD controls the coding of all tickets.

However instead of a ticket, proximity tags, barcodes and/or license plates can be used as a form of media to access a parking.

ZEAG Stations

Overview

The ZEAG product line is a **modular** product and designed to allow for station customisation. This however is restricted by the physical station and the mounting points. This restriction on the physical design amongst other factors have led to the evolution of differing iterations of the ZEAG station. Even though the physical station has changed, the components within these stations are highly modular and result in differing stations with similar internals.

Orion stations

This is the foundation to all current ZEAG equipment. The P900 was discontinued as result of the lack of credit card acceptance amongst other factors. This resulted in the development of the UCD and PCU to support this functionality.

Pay station

Entry

Exit

XR stations

XR stations are the second generation of the ZEAG stations. Internally these stations are similar to the older Orion station sharing much of the internals.

Pay station **Entry** **Exit**

XRi stations

(Manufactured in RSA)

There are no pay stations in the XRi range. This was developed as a low cost alternative to the European variant (XR) and as such did not support additional mounting points for additional equipment such as Barcode scanners…

Entry Exit

ZEAG New

The ZEAG new design was developed in Bologna by the HUB Parking team. The new design supports multiple plugins due to the additional mounting and blank surfaces within these units. This is the first iteration of the ZEAG stations

Pay Station

Lane station

Jupiter

Jupiter is the latest and most innovative iteration of the HUB Parking stable. Jupiter comes not only with an appealing design, but also with an intuitive set of icons, touch points, and guidance elements that turn the human-machine interaction into a rational and flawless process.

Entry

Exit

Automatic pay Exit

Automatic Pay station

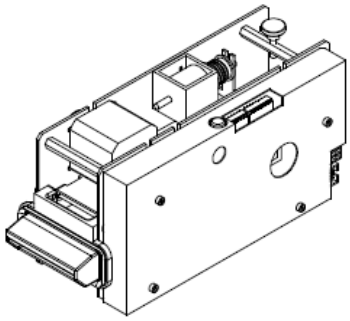
ZLC Stations

The ZLC (Zeag Lane controller) is used only for control of access tags (Nortech, HID, NEDAP…). The ZLC can be mounted in different configurations and the reader extended to the necessary location.

ZEAG components

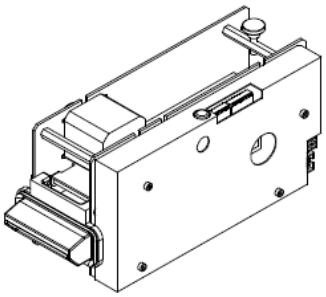
As the ZEAG product line is modular, some of the components below may/will overlap different generations of the ZEAG product line.

Ticket handling



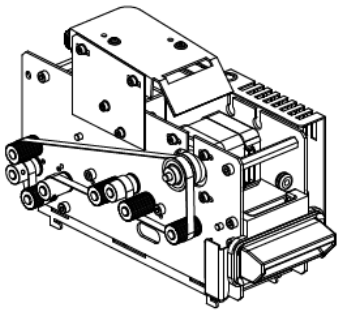
UCD05 (with printer) – Codes magnetic stripe and prints info onto ticket

Application: Entry and Pay station (Magstripe)



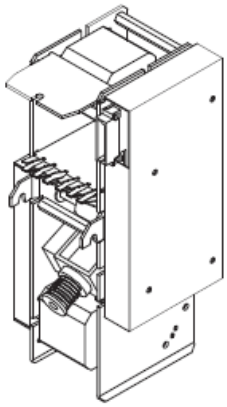
UCD05 (Without printer) - Codes magnetic stripe info onto ticket

Application: Exit station (Magstripe)



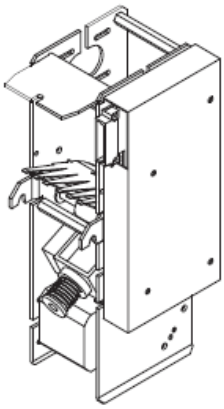
UCD BC – Reads barcode tickets and prints info onto ticket

Application: Entry and Pay station (Barcode)



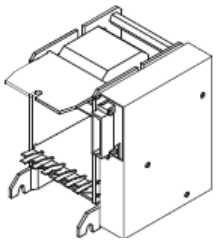
Feder02 (with escrow) – Feeds tickets into the UCD and provides a holding area for tickets when utilising Credit Cards.

Application: Entry and Pay station (Magstripe & Barcode)

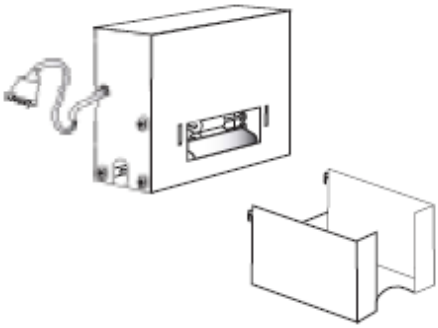


Feeder02 without escrow – Feeds tickets into the UCD

Application: Entry and Pay station (Magstripe & Barcode)



Escrow05 - Provides a holding area for tickets when utilising Credit Cards.



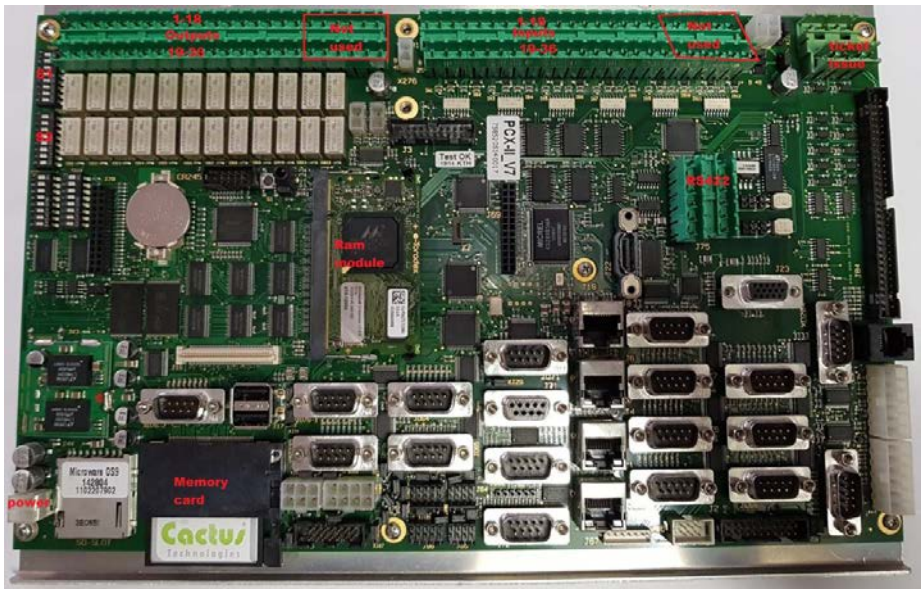
Ticket extractor for UCD05 – This can be placed on the front of a cashier stations UCD to remove ticket when mass production is used

PCX

The PCX is the central control for all ZEAG peripheral devices (i.e. Entry/Exit/APS…) and the central connection for linking devices.

The PCX is the direct replacement for the PCU.

Voltage: 24v DC Relays: 24v DC 8mA Communication: Rs422 or TCP/IP



Money Processing System

The Money Processing system is any unit that assists in the processing of a payment.
There are 4 main processing areas;

Coins

CF7000

This unit is a self-replenishing unit. The acceptor and dispenser are located within the unit. This CF7000 is replaced by the Currenza C2.

Currenza C2

This is the direct replacement for the CF7000. It contains 6x coin tubes and an improved dispenser.

CF9528

This unit is only a coin acceptor. This unit simply counts and routes coins to the correct path.
It is used in conjunction with the Coin hopper.
The CF9528 is replaced by the Eagle V2

NB: The end of life for the CF9528 is the 31st May 2020

Coin Hopper

The 'Hopper' is used as a recycling unit for coins. Once a coin is accepted it can be directed to the safe of the hopper. If a coin is directed to the hopper, it can be used to issue the next customer change.

Coin configuration

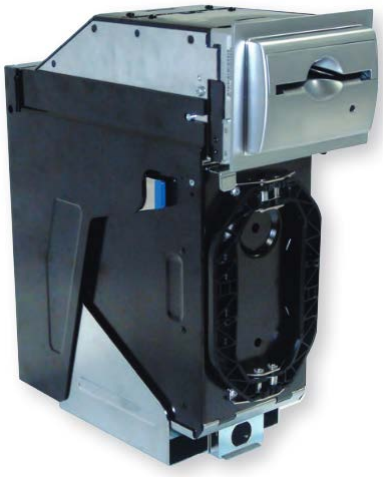
Coin Set

A coin set is configured by the manufacturer. The coin set has a detailed description/read window for coins resulting in better acceptance and improved discrimination of false coins. Once the coin unit has been programmed, the configuration is stored in its memory.

Token

A token is configured in house on a coin unit when the manufacturer does not have a coin set for the prescribed coins. This results in a smaller description/read window.
The token configuration must be performed continuously when the unit is serviced.

Notes/Bills



MFL note reader

This is a standard note acceptor. This unit can only read and either, accept or reject the note.
It uses the same reader hardware as the Bill-to-Bill however the software package differs.

Bill-to-Bill

Utilizes the MFL note reader with a different software package. This has the ability to accept notes and dispense 3x notes.
The 3x notes can be the same or differing. It is imperative that the note configuration be correctly defined from the beginning. Should the note safe need to be changed, it takes approximately 30min per unit.
Lockable cassettes are available upon special request.

Ticket – physical structure

Access readers

The Radio Frequency Identification tag, often referred to as a 'prox card', tenant card, VVC, etc.… is the media of choice when issuing a 'Token' to a long term parker as the 'Token' has a longer lifespan, full reporting, multi-functionality cards, etc..

Below are the 3x main types of RFID tags used is Southern Africa.

RFID Readers

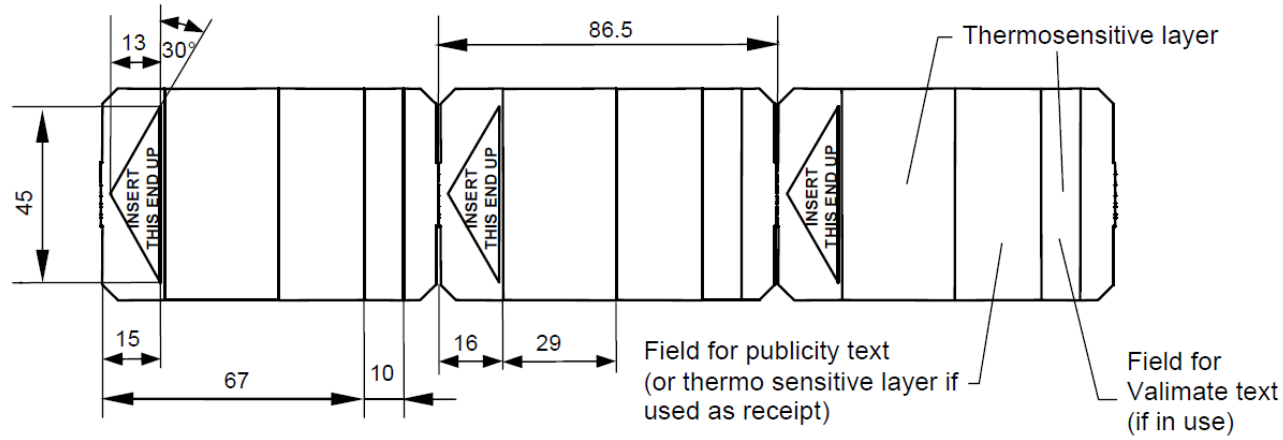
	Description	Service component	Notes
Proximity readers	Nortech Scanner (PR 125P)	N	125kHZ Frequency
			RS232
			*Impro cards are not sequential
			Nortech supplies cards
	HID Scanner (5352A)	N	125kHZ
			Softcon supplies cards
			RS232
			***Softcon codes cards number to individual sites**
	Nedap Long Ranger reader	N	865-868 MHz
			Nortech supplies tags

For an RFID tag to be utilised on ZEAG equipment the reader must;

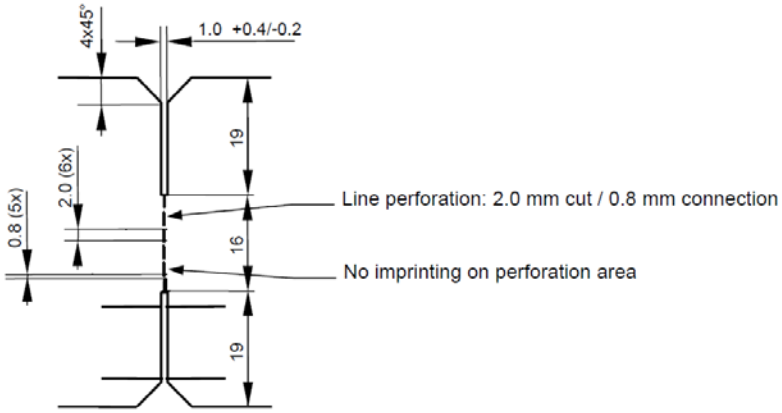
- Communication: RS232
- Protocol: ZEAG

RFID tags come in many shapes and forms. The frequency of the tag determines if it works or not and not the shape, please check with your local support team for compatibility details.


Ticket dimensions



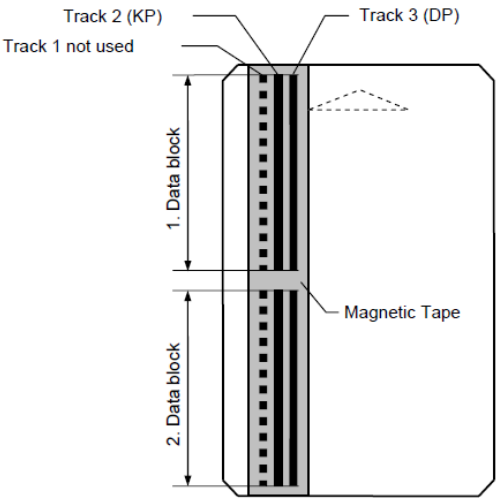
Ticket perforation



Ticket specifications

- Weight: 170gsm
- Perforation Break point: 20NM
- Paper protection: Advised

Ticket coding



- Track 1 is used by the clearing (banking) sector.
- On ZMS/JMS, Physical track 2 and 3 will be referenced as Track 1 and 2 respectively

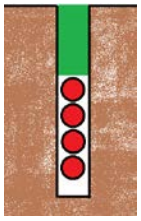
Inductive loops

Inductive loops are the “Sensors” embedded into the floor below a barrier arm to detect vehicles (Metallic objects).

An inductive loop works by laying cabling into the roadway to form a coil (Normally rectangular). The Detector in the barrier charges this coil and monitors the induction. When a vehicle drives over the “Coil”, the vehicle becomes the “Core” (As a simplified electromagnet) and changes the induction.

As a detector monitor the change in induction, it is imperative for the loop to be calibrated to avoid false readings.

An inductive loop is installed by cutting a groove slightly thicker than the loop cable into the roadway. The machine on the right is typical of a tool that is used to cut inductive loop grooves.



Once the slot is cut in the roadway, the cable is laid into the slot and then sealed.

- Red circles – Cable
- Brown – Roadway
- Green – loop sealant

The number turns in the loop will be determined by the loop size.

Barriers

As HUB Parking South Africa, we primarily utilise 3x types of barriers

Barrier Comparison

Magnetic Barrier

BoomGate Systems Barrier

Centurion Sector

Category	Magnetic	Boomgate	Centurion
Opening time	1,3s	2,1s	1,2s
Specified number of cycles	10 Mio		1.8 Mio
Collision apparatus	Breakaway flange	Shear plate	Pin latch
LED barrier arm	Optional	No	No
Material/Finish	Stainless steel with aluminium profiling	Mild steel / Powder coated	Mild steel / Zinc-passivated
Colour	Customisable (RAL)	White/Red and White/Blue	Yellow/Red
Error log	Yes	No	No
Detector type	Internal	External	External
Outputs	Reconfigurable	Hardwired	Relay board optional
Input Voltage	85-264v	220v	220v
Duty cycle	100%	100%	80%
Power consumption	25w	80w	37w
Battery pack	Optional	Optional	Standard
Ambient temperature range	-30c to 50c		Relay board optional
Protection class	IP 54		IP 54

Barrier Overview

Magnetic Barriers

The magnetic barrier operates via a motor connected to a gearbox that drives the barrier arm. To improve efficiency and decrease wear, a multi spring setup is used as a counter balance.

Front View

Rear View

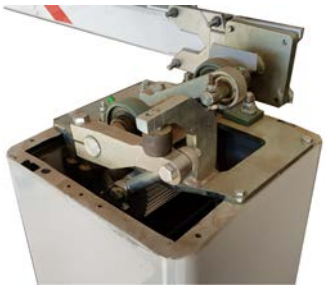
Controller

BoomGate Barriers

The BoomGate barrier operates via a motor connected to a gearbox that drives the barrier arm, very similar to the magnetic barrier. The BoomGate Barrier utilises a spring as a counter balance for the barrier arm

Front View

Top View



Electronic Payments

Ingenico Chip and Pin

This is the primary unit that HUB Parking utilises for Chip and Pin credit card clearing.

This unit can only be utilised on a TCP/IP network

This unit supports TLS1.2

The Tap-in and Tap-out unit features the contact-less reader and pin pad only.

Please contact your relevant software team member to clarify if your system and clearing house can support Tap-in/Tap-out

(The Ingenico Unit works via the chip and pin gateway as per below)

eServices

The ZMS Socket connection is used for 3rd party vendors to process payments. The socket connection allows for 3rd party users to process payments without a physical pay station. This is done by applying a payment directly to the ZMS Database.

(NB: This system will have to be a fully online system with a public static IP.)

Passby Stations

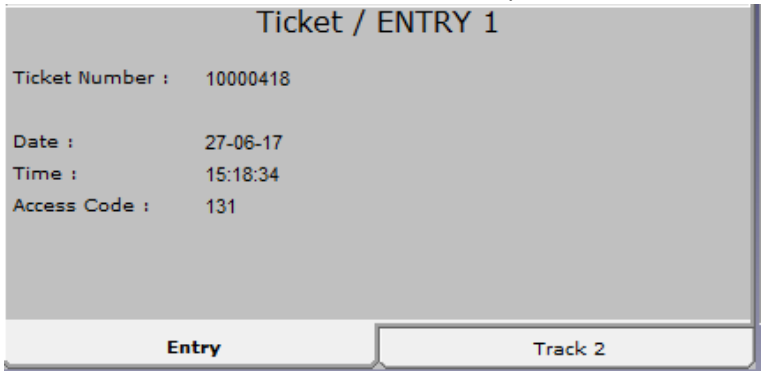
The purpose of a passby station is to allow movement between segmented areas of a car park. This is done by changing the PH (park house) number of a ticket.

(NB: a passby station utilises similar hardware to an exit station)

(NB: The standard configuration setup is that a ticket cost must be paid in the area incurred before the customer can proceed to another area)

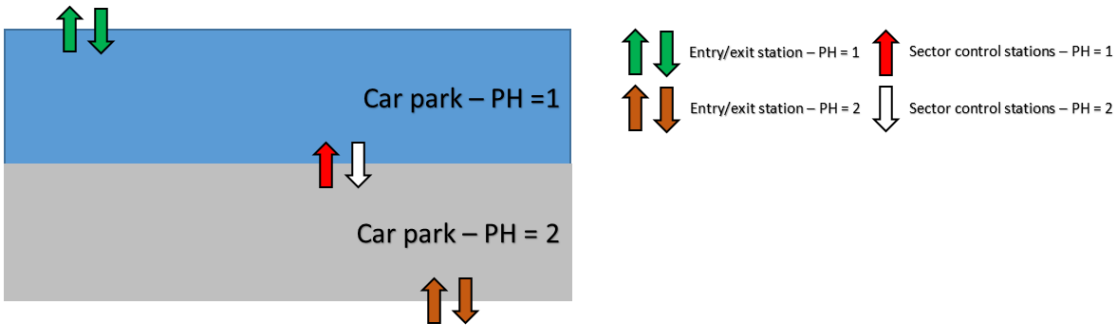
Upon entry a ticket is assigned a PH number. The PH number in turn will be assigned to a tariff and charge accordingly.

The PH number can be viewed on the ZMS pc in the alarms module as 'access code'.



When going through a passby, the passby will switch the PH number to the PH number of the car park being entered.

Example:



Process

When a customer enters a car park, they will receive a ticket.

This ticket will then be inserted into the passby station.

- If a ticket has not incurred a charge the ticket will be read and recoded, the ticket will then be ejected and the barrier opened to enter the next car park.

If a ticket has incurred a charge it will not allow the ticket to proceed into the next car park, it will display 'Return to pay station' and will not open the barrier. Once the charge has been paid it will allow the customer to proceed into the next car park.

Upon entering the new car park, the customer ticket will be recoded to the PH number of the car park being entered. The new PH number will be used for tariff calculations

Validations

Overview

A validation is process of altering the cost structure of a ticket.

The change can occur in 2x methods

Method 1 – validation index

Method 2 – Online Validation set

Method 3 – PH number change *(This is the same principal as a passby station – only available on Vali-HS)*

Hardware

Valimate

Method 1

Customer inserts their ticket into the mouth piece of the validator and a validation index is added to the ticket. No validation amounts/costs/percentages/durations are processed at the Valimate.

NB: this unit can only be used with magnetic strip tickets

Dependent on the type of validator purchased, up to 4x validation types can be configured.

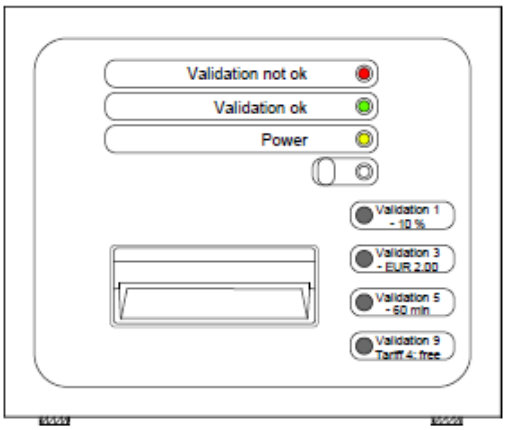
The relevant validation can be selected by pressing one of the four push button on the front of the Valimate

Validations for Valimate's are reported on the peripheral equipment (i.e. Exits/APS's)

Example:

If a customer enters and incurs a R10 charge. The customer then validates their ticket at a validator and proceeds to a pay station. If the validation was set to 50% the customer will be asked to pay R5.

The reporting would then display a R5 validation at the APS and a R5 payment at the APS.



When a validator is switched on, the 'Power' light (Yellow) and 'Validation not ok' light (Red) will switch on however after 5 seconds, the 'Validation not ok' light will switch off. Once the light has switched off it will be ready for use.

If a ticket is inserted and the 'Validation not ok' light appears, the ticket has not been validated. Check for a ticket jam and/or insert a cleaning card.

The Valimate is an offline device (i.e. it does not need to be continuously connected to the local network for it to work)

Valiprint / Valiprint XT

Method 2

The Valiprint has been phased out and the Valiprint XT will be the replacement.

The Valiprint and Valiprint XT are processed in the same method.

In order for the Valiprint units to be used, peripheral devices will need to be equipped with Valiscans.

The Valiprint units are equipped to issue 4x types of validations.

To validate a ticket a Valiprint will print a receipt with a barcode on it. The customer will need to insert their ticket first and then scan their validation barcode on the ValiScan.

The Valiprint and ValiprintXT are offline devices (i.e. it does not need to be continuously connected to the local network for it to work)

Vali-HS

Method 3

Customer inserts their ticket into the mouth piece of the validator and the PH number of the ticket is changed. This unit acts in the same manner as a Passby station however this unit can be placed inside a building/store ECT.

NB: This unit can be used with magnetic strip tickets and barcode tickets

Dependent on the type of configuration this unit can;

Reassign a ticket to a new PH number

Reject a ticket validation if outside of a specified period

Limit grace period once validated

Have a time track on tickets processed at station

Can be used for proximity tag (Nortech/HID) monitoring

NB: reporting for this unit is only available via Web Reports

The Vali-HS can be used offline on magnetic ticket but must be online on a barcode site. IT is strongly suggested that the unit be online (i.e. connected to the local network) for accurate reporting.

External Validations

HUB Parking SA have interfaced with various retailers to allow retailers to print their own validation barcodes. These barcodes will be printed on the customers POS receipt from the store.

The receipt will then be processed in the same manner as the valiprint receipt.

This functionality will need the 'Extended barcode licensing' please contact your local support team for clarification.

The following entities can / do utilise the external validation functionality on receipts

Pick n Pay

Dischem

Checkers (Extended barcode)

Woolworths (Extended barcode)

Game (Extended barcode)

Validation types

When using a Valimate, Valiprint or Valiprint XT the following types of validations can be used;

Cost – A specified amount can be deducted from the total fee applicable on the ticket

Example – if a ticket has a total cost of R10 and has received a R5 validation, the cost at a pay station will be R5.

Minutes – The duration of a ticket can be discounted altering the applicable fee.

Example – if a ticket has been in the carpark for 100min but has been validated with a 30min validation, the associated cost would be as if the parker had only been in the car park for 70min.

Percentage – A percentage of the total cost of a ticket can be discounted

Example – A ticket with the cost of R100 and a validation of 50% will only charge R50

Tariff – This changes the tariff of the ticket (**Preferred method)**

Example – if a park enters on tariff 1 however due to them validating their ticket it can change the tariff to an alternative tariff with a different cost table.

Networks

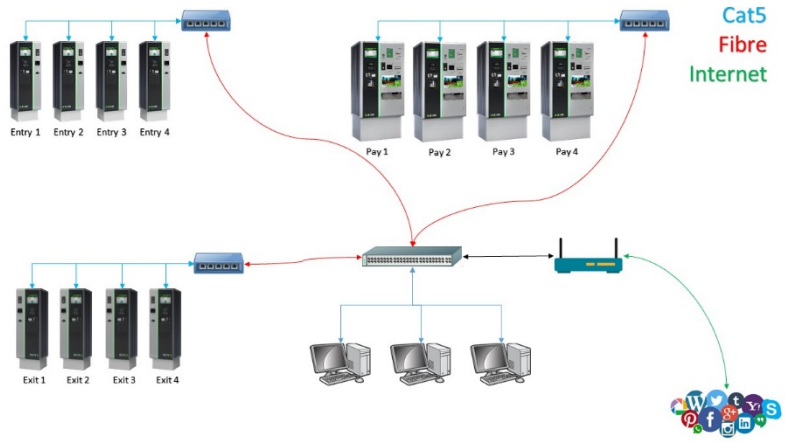
Overview – The typical layout of a IP network that supports our parking system is a mix of differing topologies. Below are 2x examples of the most common types of networks used.

Network Topology

Within the Parking Industry, typically 2x types of network configurations which are a blend of differing network topologies, commonly referred to as hybrid networks;

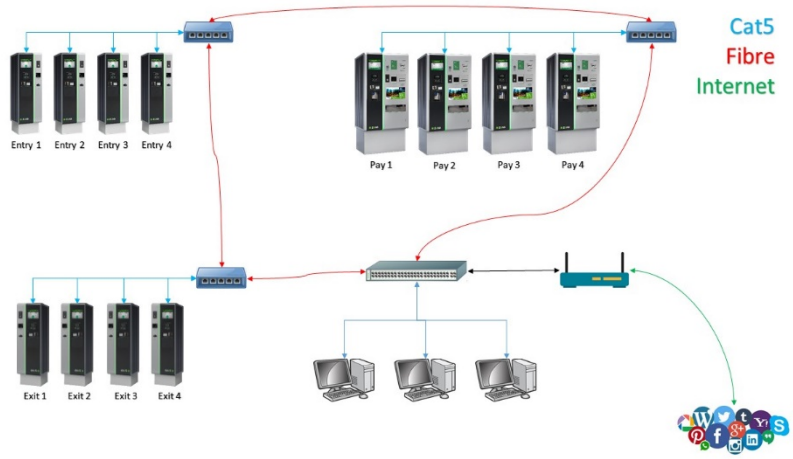
Hybrid network 1

- A star network is a local area network (LAN) in which all devices are directly connected to a common central switch.
- A Bus network is the central cable, the main wire that connects all devices on a local-area network (LAN).



Hybrid Network 2

- A Ring network is, all of the devices are connected in a closed loop
- A Bus network is the central cable, the main wire that connects all devices on a local-area network (LAN).



Uninterruptable power supply/source

Overview - An uninterruptable power supply/source (Commonly known as UPS) is an electrical device that provides emergency power to a load when the mains fails.

Emergency power, backup power and generators are different to UPS's in that these devices do not have a near-instantaneous switching time.

The main aim of an ups is to provide almost immediate power whilst the backup/generator power kicks in.

Switching time when referring to a UPS is the time between the mains failure and the UPS activation.

Rational for a UPS

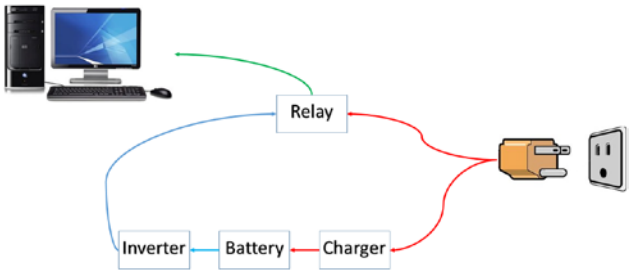
1. Mains failure – Where the main power feed is stopped
2. Voltage spikes – When the main power feed supplies higher than normal voltage
3. Voltage reduction – When the main power feed does not provide adequate voltage
4. Noise – unwanted disturbance generated by other electrical signals/devices

UPS types

There are 3x types of UPS's namely, on-line, line-interactive and offline/standby.

Offline/Standby UPS's

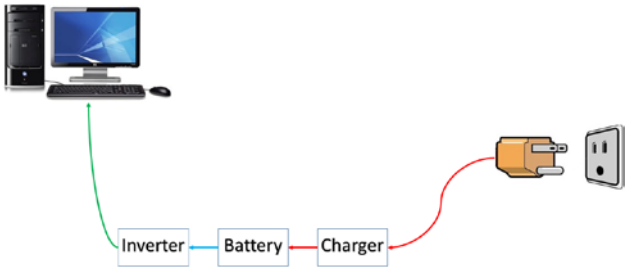
These are the most basic type of UPS's and provides limited protection. The equipment connected to the UPS feeds directly off the mains. When the mains voltage detours from the predetermined parameters, its internal 'DC to AC' inverted it activated and the mains deactivated. The switching time can vary upto 25ms.



Line-interactive UPS's are similar to offline/standby UPS's however the relay is replaced with a multi-tap variable transformer. The transformer then interacts with the mains and battery power to provide the optimal power to the load (PC).

On-line UPS's

An on-line UPS's load (PC) is connected directly to the inverter so that no power switches are needed resulting in an "Electrical firewall". This type of UPS is also commonly referred to as a 'double conversion UPS'.



Tariff configuration.

On a ZEAG system, when a vehicle enters a car park, the ticket will be assigned to a PH (Park House) number. The PH number is then assigned to a tariff and the cost will be determined from the tariff.

A tariff can be configured by the following aspects;

Cycle, Daily profile, phases and conditions. *(Phases and conditions cannot be used together)*

The below is a brief overview on how the tariff configuration is done to assist when drafting your tariff.

- Cycle – most tariffs are based on a daily rate (24hrs).

  Example:

  If a customer enters at 18:00 on the 1st Jan and pays on the 2nd Jan at 02:00

  Based on the tariff on the right, the customer will be charged;

  1st Jan = R60 (6hrs)

  2nd Jan = R20 (2hrs)

  Total cost = R80

Duration	Cost
0-1	R 10
1-2	R 20
2-3	R 30
3-4	R 40
4-5	R 50
5-6	R 60
6-24	R 200

- Daily profile – if there are different charges per day it can be configured as a different daily profile

  Example:

  If a customer enters on Monday and pays on Wednesday

  The customer will be charged;

  Monday = R10

  Tuesday = R20

  Wednesday = R10

  Total cost = R40

Monday	R 10
Tuesday	R 20
Wednesday	R 10
Thursday	R 20
Friday	R 30
Saturday	R 50
Sunday	R 50

- Phases – after a cycle time has been determine, phases in the cycle can be added to give specific charges for specific time frames.

  Example:

  If a customer enters on a Friday at 13:00 and pays on Saturday at 13:00 the customer will be charged;

  Friday phase 1 = R30 (3hrs)

  Friday phase 2 = R100 (8hrs)

  Saturday phase 3 = R20 (13hrs - flat rate)

  Total cost = R150

		Duration	Cost
Phase 1	Weekdays 00:00 - 16:00	0-1	R 10
		1-2	R 20
		2-3	R 30
		3-4	R 40
		4-5	R 50
		5-6	R 60
		6-8	R 200
Phase 2	Weekdays 16:00 - 00:00	0-1	R 5
		1-2	R 10
		2-3	R 15
		3-4	R 20
		4-5	R 30
		5-6	R 40
		6-8	R 100
Phase 3	Weekend	0-24	R 20

- Conditions – a condition can be specified if a customer enters at a specified time and/or exits within a specified time a different charge must be applied.

  If a customer enters before 18:00 and/or exits after 23:00, they will be charged Tariff 1.

  If a customer enters after 18:00 and exits before 23:00 They will be charged Tariff 2

	Duration	Cost
Tariff 1	0-1	R 10
	1-2	R 20
	2-3	R 30
	3-4	R 40
	4-5	R 50
	5-6	R 60
	6-8	R 200
Tariff 2	Entry after 18:00 and exit before 23:00	R 20

Notes

It is strongly advised to avoid using phases and conditions together to avoid calculation issues. The above is a guide line to tariff setups to assist you in drafting a tariff, please liaise with a ZEAG representative to assist with tariff configuration.

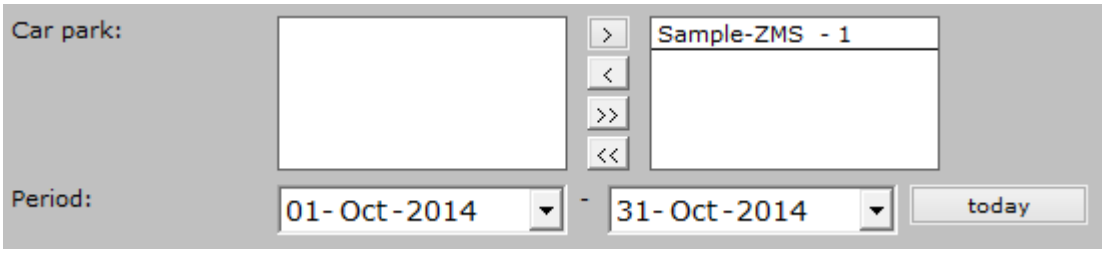
The KIS (Keep it simple) principle should be applied when drafting tariffs as complex tariffs can Cause reporting irregularities when multiple variable tariff costs are added together.

All tariff changes/amendments must be communicated via email to a relevant HubParking Representative clearly. No tariff changes/amendments will be accepted without following this procedure.

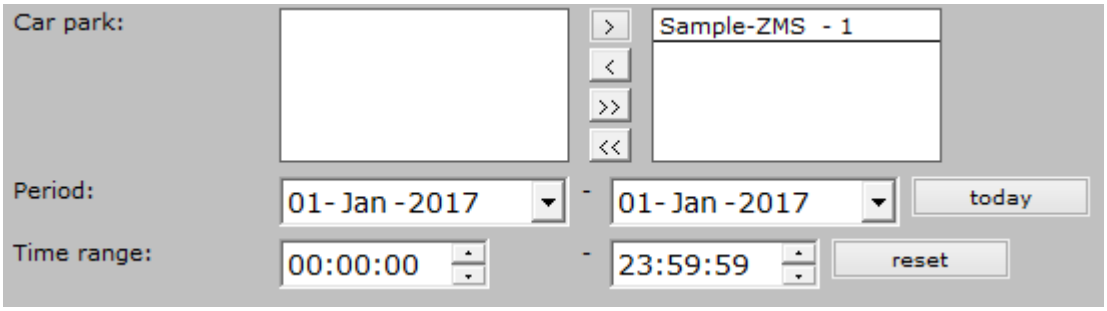
Viewing and exporting reports

1. Selecting the correct time frame.

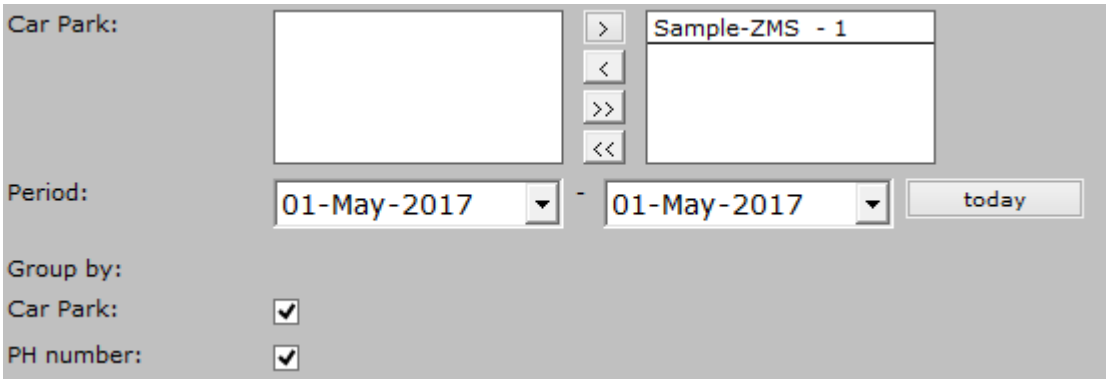
   - Some reports are run on a 24hr basis. These reports will only have a date selection as per below



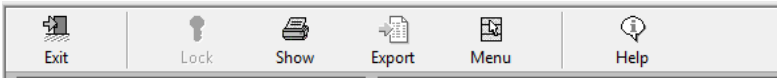
   - Some reports can be viewed for an exact time period. On these reports a start date and time, and an end date and time will be required.



   - Some reports will also have additional selection criteria for the report below the date/time selection. Each ad hoc selection will be unique to the report.



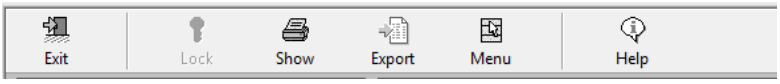
2. Viewing the report - Once the correct report has been selected and timeframe set. The report can be either exported or viewed by;



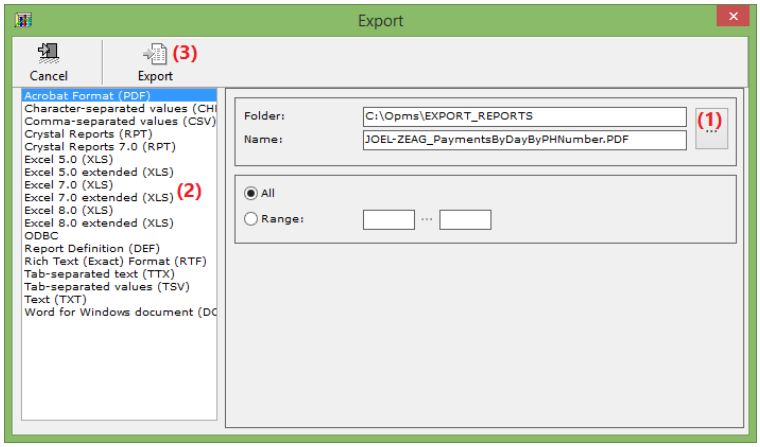
- To view the report click "Show"

At the top of the newly opened page the following options will be available

1. Print
2. Export *(See details below on exporting)*
3. Zoom
4. Previous page
5. Page number
6. Next page



- To export a report click on the "Export" button
  - This will now open an export window



1. This will open an explorer tab to select the export location
2. File type selector
3. Export button

Types of reports

The following is a list of reports available in the Report module;

Menu	Report title	Note	Required license
Financial	Cash payments by station by time range		
Financial	Receipt fraud detection		
Financial	All credit card payments by card company		credipark
Financial	All credit card payments by company / day / station		credipark
Financial	All credit card payments by day		credipark
Financial	Credit card payments without station acknowledge		credipark
Financial	Credit card payments		credipark
Financial	Credit card payments batch confirmed		credipark
Financial	Credit card payments live confirmed		credipark
Financial	Credit card payments outstanding report		credipark
Financial	Credit card payments (Valimark only)		credipark
Financial	Credit card presence		credipark
Financial	Creditcard payments confirmed summary		credipark
Financial	Declined CC transaction outstanding report		credipark
Financial	Declined CC transaction successful resubmission		credipark
Financial	Manual credit card checkout	Used when CC in CC out is used and customer cannot exit	credipark
Financial	Current shift report		
Financial	Previous shift report		
Financial	Lost tickets / entry tickets shift report		
Financial	Validations applied (by parking)		
Financial	Validations applied (by validation index)		
Financial	Validations applied (with ticket movements)		
Financial	Current money statistics		
Financial	Midnight money statistics		
Financial	Cash audit		
Financial	Net fees by station (No CC)		net_fee
Financial	Net fees for DP by station		net_fee
Financial	Number of payments by tariff by station		payments_by_tariff
Financial	Payments by day	Peripheral report.	
Financial	Rebates by day	DP card that has been programmed with a value.	validation
Financial	Money refill report		
Financial	Shift summary		
Financial	Encash amount	*Not used*	credipark
Financial	Validations by station		validation
Financial	Validations by car park		validation
Financial	Validations by site		validation
Financial	Validations (cashier stations only)		credipark
Financial	SPM VVC flat fee charges	Used to report on VVC	spmadmin_pro
Financial	SPM VVC usage charges and settlements	Used to report on VVC	spmadmin_pro
Financial	Lost / entry tickets sold		

Financial	Overpayments	Change that has not been returned to a customer	
Financial	Change of BUCOs	*Not used*	
Financial	Return Unit Changes	*Not used*	
Financial	Safe changes		
Financial	Cash station statistics (manipulations)	Sends MPS statistics when any MPS unit is handled	
Financial	Current cash station statistics		
Financial	Cash station statistics (daily)		
Financial	Shift status changes		
Movements	Manual gate openings		
Movements	Pin access		
Movements	Entries / exits by hour		
Movements	Entries / exits by day		
Movements	Entries / exits by week		
Movements	Entries / exits by month		
Movements	Entries / exits by PH number by hour		
Movements	Entries / exits by PH number by day		
Movements	Entries / exits by PH number by week		
Movements	Entries / exits by PH number by month		
Movements	Failed entries / exits by hour		
Movements	Failed entries / exits by day		
Movements	Failed entries / exits by week		
Movements	Failed entries / exits by month		
Movements	All movements: by hour by station	See audit manual for break down	
Movements	All movements: by day by station		
Movements	DP movements: by hour by station		
Movements	DP movements: by day by station		
Movements	SPM movements: by hour by station		
Movements	SPM movements: by day by station		
Movements	Parktime by day		
Movements	Ticket presence	Shows the number of tickets in the car park in real time	
Movements	Ticket entries / exits		
Movements	Valimark transaction audit	*Not used*	
Movements	Ticket movements (with payments)		
Movements	Ticket movements (with validations applied)		
Movements	Value card movements		
Movements	Allotted parking space check log	*Not used*	
Movements	Free parking	Show all tickets from entry to exit without incurring any charge	
Movements	Lost / entry ticket usage		
SPM	Ticket statistics (hourly)		spmadmin_pro
SPM	Ticket statistics (daily)		spmadmin_pro
Cards			
Cards	Daily parking duration of a DP card		dp_parking_duration
Cards	Weekly parking duration of a DP card		dp_parking_duration
Cards	DP card presence		
Cards	DP card range presence		
Cards	DP card range transactions		
Cards	DP card transactions		
SPM	DP card last usage		
Cards	DP cards reprogrammed		
Cards	DP cards reprogrammed validity		
Cards	DP cards sold / programmed		
Cards	DP cards sold / programmed by day		

Cards	DP card sold programmed by day by time		
Cards	DP sector overtime		sector_auditing
Cards	DP sector overtime with PH number		sector_auditing
Cards	Fixed entries card range transactions		wp_card_auditing
Cards	Wp card range transactions		wp_card_auditing
SPM	Access violations		spmadmin_pro
Cards	Season parker sector overtime		spmadmin_pro
SPM	SPM configuration (with customers creation date)		spmadmin_pro
SPM	SPM instance modification log		spmadmin_pro
SPM	Parker data transactions		spmadmin_pro
SPM	SPM block / unblock cards		spmadmin_pro
SPM	SPM configuration (order by card holder)		spmadmin_pro
SPM	SPM configuration (order by customer)		spmadmin_pro
Cards	Casino cards log		spmadmin_pro
SPM	Hotel card movements		spmadmin_pro
SPM	Hotel card presence		spmadmin_pro
SPM	Season parker payments		spmadmin_pro
SPM	SPM card accounting		spmadmin_pro
SPM	Season parker movements		spmadmin_pro
SPM	Season parker movements (with groups)		spmadmin_pro
SPM	Season parker movements by card		spmadmin_pro
SPM	Season parker movements by card (with groups)		spmadmin_pro
SPM	Season parker presence		spmadmin_pro
SPM	Season parker transactions		spmadmin_pro
Occupancy			
Occupancy	Occupancy by hour		
Occupancy	Occupancy by day		
Occupancy	Occupancy by car park by hour		
Occupancy	Occupancy by car park by day		
Occupancy	Parking duration		
Occupancy	Ticket group parktime statistics		
Occupancy	Ticket group parktime statistics per car park		
Occupancy	Ticket group parktime statistics per installation		
Occupancy	Ticket group statistics		
Service			
Service	Database cleaner log		station_auditing
Service	Failure report		station_auditing
Service	Log entries		
Service	Log entries (with type selection)		system_auditing
Service	Table documentation (order by name)		system_documentation
Service	Table documentation (order by type)		
Service	Users		
Service	Substation info log		
Service	Action set activator log		
Service	Door activity		
Service	Outages by parking		
Service	RCU state changes		

Service	Communication loss (location selection)		
Service	Communication loss (polling group selection)		
Service	Equipment service (location selection)		
Service	Equipment service (car park selection)		
Service	Equipment service summary (location selection)		
Service	Equipment service summary (car park selection)		
Service	Equipment status		
Service	Location statistics		
Service	Car park configuration (order by location)		station_auditing
Service	Car park configuration (order by car park)		station_auditing
Service	Car park configuration (order by station)		station_auditing
Service	Car park configuration (order by substation)		station_auditing

Site reconciliation

The below is a simple balance sheet that can be used to balance a site

Site float balance

Cash in			Cash out	
Opening float	R100,00		Closing float	R90,00
Revenue	R75,00		Safes drained	R100,00
Money refilled	R10,00			
Overpayments	R5,00			
	R190,00			R190,00

Office float at start =	R100,00
Refills =	-R10,00
Overpayments =	-R5,00
	R85,00
Δ float =	(Safe draining) - (Revenue)
=	(R100) - (R75)
=	R25,00
∴ Office float increase =	R25,00
Office float =	R85 + R25
=	R110,00

The periperal float decreased by the same amount that the office float had increased