



**Infineer 6255
Technical Manual**

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2 Introduction

This technical manual will cover the Infineer 6255 terminal. The terminal has been developed to provide a cost effective, reliable and secure means of controlling host photocopiers, duplicators, microfiche printers and other printed matter production devices. The terminal offers the opportunity to use the controlled services by insertion of pre-paid debit cards that have been encoded for use in the system.

Each card is encoded with funds (represented as credit units or as a cash value) that reduces in value each time a copy is produced. The 6255 is designed to use 2750-oersted 0.2mm disposable and a 3.5mm limited revaluable magnetic stripe card.

The Infineer 6255 terminal operates with cards encoded with information recorded in accordance to JIS X-6301. Specific card types may be revalued, and this can be performed at a number of different stations as well as at the terminal directly.

There are four independent price lines in the terminals that permit different rates to be charged for each service provided. An audit trail is available from the terminals in one of two different forms, screen and printed audits.

The terminal has soft setup functionality allowing the country code and system number to be setup from a system setup card. This ability removes the need to modify the binary contents of an eprom when setting up the country code. The country code is displayed as part of the profile and can be checked by initiating the profile display.

3 User Card Types

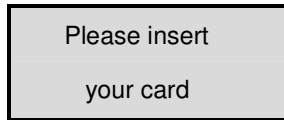
The 6255 is a flexible controller which allows pre-payment cards, account cards or departmental cards to be used. In order to obtain the best service from the unit, careful thought should be applied in the setting up of the unit, and in the specification of which cards are to be used.

- Type 1. Operates in units. Not revaluable. Serial numbers 000001-999999.**
The terminal will deduct 1 unit from the card, irrespective of which priceline is active.
- Type 2. Operates in units. Not revaluable. Serial numbers 000001-999999.**
The terminal will deduct the number of units set in the Units Prices menu for the active priceline for each copy taken.
- Type 3. Operates in cash. Not revaluable. Serial numbers 000001-999999.**
The terminal will deduct the cash amount set in the Cash Prices menu for the active priceline for each copy taken.
- Type 5. Operates in cash. Not revaluable. Serial numbers 000001-999999.**
The terminal will deduct the cash amount set in the Discount Prices menu for the active priceline for each copy taken.
- Type 7. Operates in cash. Not revaluable. Serial numbers 000001-999999.**
The terminal will deduct the cash amount set in the Cash Prices menu for the active priceline for each copy taken. This is a 'Visitor' card using cash prices.
- Type 8. Operates in cash. Not revaluable. Serial numbers 000001-999999.**
The terminal will deduct the cash amount set in the Discount Prices menu for the active priceline for each copy taken. This is a 'Visitor' card using discount prices.
- Type 40. Operates in units. Revaluable. Serial numbers 000001-999999.**
The terminal will deduct the number of units set in the Units Prices menu for the active priceline for each copy taken. Revaluable either 20, 40 or unlimited
- Type 41. Operates in cash. Revaluable. Serial numbers 000001-999999.**
The terminal will deduct the cash amount set in the Cash Prices menu for the active priceline for each copy taken. Revaluable either 20, 40 or unlimited.
- Type 42. Operates in units. Revaluable. Serial numbers 000001-000255.**
The terminal will deduct the number of units set in the Units Prices menu for the active priceline for each copy taken. Revaluable either 20, 40 or unlimited.
- Type 43. Operates in cash. Revaluable. Serial numbers 000001-000255.**
The terminal will deduct the cash amount set in the Cash Prices menu for the active priceline for each copy taken. This is a 'Visitor' card using discount prices.

4 Basic Terminal Operation

4.1 User Screens

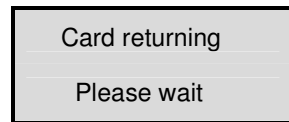
When no card is in the unit the following standby screen will be displayed:



Insert the card at the right-hand side, with the magnetic stripe nearest the bottom and facing away. The unit will then decide which type of card has been inserted, and if it is both valid and acceptable, the unit will enable the copier and display the amount of funds on the card. The display will be updated as copying proceeds.

On completion of the job, any key may be pressed to write the current information back to the card although the **ESC** key is recommended for consistent operation and is highlighted on the unit with a box graphic.

The display will show



The user may retrieve the card after the information has been written. Note there is no automatic card return unless the credit has been exhausted.

4.2 Function Keys

Key	Name	Typical Function
ESC.	Escape	Aborts an operation
*	Action	Initiates a selection
X	X	Cursor control
-	Clear	Clears a value to zero
▲ ▼	Scroll	Scroll through menu/values

4.3 Terminal Profile

Pressing the ESC key when at the standby screen will display the terminal profile. The profile will include the model number, firmware version, country code and firmware date as shown in the following example screens:



INFINEER 6255

V 2.06



Feb 6 2004

10:26:14

4.4 Error Messages

Cards may be rejected with any one of the following messages:

CARD VOID	Unencoded card or card incorrectly inserted.
CHECKSUM ERROR	Checksum incorrect, try re-inserting the card.
Card Invalid Country Code	Incorrect country code on card.
Card Invalid System Number	Incorrect system number.
Card Invalid Device Type	Incorrect device code.
Card Invalid Type	Card type not accepted by this terminal.
Card Hotlisted	Card serial number has been hotlisted.
Card Group Disabled	Group to which this card belongs has been disabled.
Card Invalid Fraud Detected	Card rejected on security check as possibly fraudulent.
INSUFFICIENT FUNDS	Not enough credit left to allow copying.

5 Soft Setup

The Infineer 6255 terminal has the ability to receive a soft setup. The soft setup process will write the country code and system number into the terminal. Once this is completed the rest of the terminal setup can be performed. A system setup card is required containing the correct country code and system number. The System Setup card is only valid when inserted whilst the <▼> and <ESC> keys are both held. The following procedure should be followed.

- 1: Press and hold the <▼> key.
- 2: Press and hold the <ESC> key.
- 3: With both keys held, insert the System Setup card, both keys may be released when the card is pulled in.

The following example screen will be momentarily displayed:

Country 44
System 10

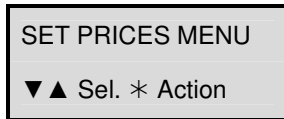
before returning to the card insert screen.

6 Operator Menu Card

On insertion, this card will allow access to the operator menu and all of its sub menus allowing the terminal to be setup to individual needs. The selections in the menu may be further sub divided into sub menus of related tasks. Any item in the menu in uppercase will have a submenu of related tasks.

6.1 SET PRICES MENU

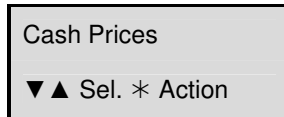
This menu contains all functions relating to the setup of prices.



The following submenus can then be entered by pressing the action key.

6.1.1 Cash Prices

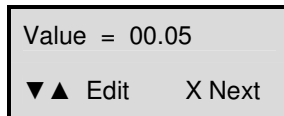
Under this menu selection the cash prices for each price line are setup.



There are 4 prices, one for each price line and each can be set for any value between 0.00 and 99.99. Pressing the Action key will display:



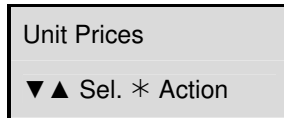
The bottom line of the display shows which keys to press - the Scroll keys change the priceline, the Action key allows access to read or change the indicated priceline. Press the Action key and the currently selected priceline value will be displayed.



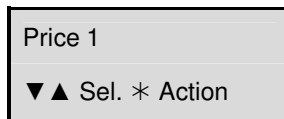
The bottom line of the display indicates the value can be edited. The left most digit of the value will be flashing. Pressing the ▲ key will increment this digit by 1, pressing the ▼ key will decrement the digit by 1 and pressing the X key will move to the next digit. In this manner a value can be set. Pressing the Action key will save the value displayed and exit to the previous screen. Pressing the ESC key will abort any changes and exit to the previous screen. All four cash pricelines are set in this manner.

6.1.2 Unit Prices

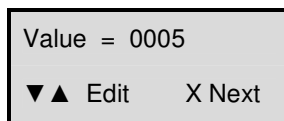
Under this menu selection the unit prices for each price line are setup.



There are 4 prices, one for each price line and each can be set for any value between 0000 and 9999. Pressing the Action key will display:



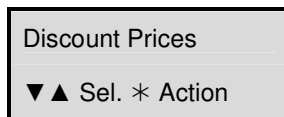
The bottom line of the display shows which keys to press - the Scroll keys change the priceline, the Action key allows access to read or change the indicated priceline. Press the Action key and the currently selected priceline value will be displayed.



The bottom line of the display indicates the value can be edited. The left most digit of the value will be flashing. Pressing the ▲ key will increment this digit by 1, pressing the ▼ key will decrement the digit by 1 and pressing the X key will move to the next digit. In this manner a value can be set. Pressing the Action key will save the value displayed and exit to the previous screen. Pressing the ESC key will abort any changes and exit to the previous screen. All four unit pricelines are set in this manner.

6.1.3 Discount Prices

Under this menu selection the discount prices for each price line are setup.



There are 4 prices, one for each price line and each can be set for any value between 0.00 and 99.99. Pressing the Action key will display:



The bottom line of the display shows which keys to press - the Scroll keys change the priceline, the Action key allows access to read or change the

indicated priceline. Press the Action key and the currently selected priceline value will be displayed.

Value = 00.05
▼▲ Edit X Next

The bottom line of the display indicates the value can be edited. The left most digit of the value will be flashing. Pressing the ▲ key will increment this digit by 1, pressing the ▼ key will decrement the digit by 1 and pressing the X key will move to the next digit. In this manner a value can be set. Pressing the Action key will save the value displayed and exit to the previous screen. Pressing the ESC key will abort any changes and exit to the previous screen. All four discount pricelines are set in this manner.

6.1.4 Minimum Cash

When the value on a cash card is less than or equal to the minimum cash value the copier will be disabled.

Minimum Cash
▼▲ Sel. * Action

Press the Action key and the current minimum cash value will be displayed.

Value = 00.05
▼▲ Edit X Next

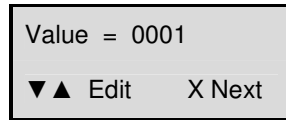
The bottom line of the display indicates the value can be edited. The left most digit of the value will be flashing. Pressing the ▲ key will increment this digit by 1, pressing the ▼ key will decrement the digit by 1 and pressing the X key will move to the next digit. In this manner a value can be set. Pressing the Action key will save the value displayed and exit to the previous screen. Pressing the ESC key will abort any changes and exit to the previous screen. All four unit pricelines are set in this manner.

6.1.5 Minimum Units

When the value on a unit card is less than or equal to the minimum unit value the copier will be disabled.

Minimum Units
▼▲ Sel. * Action

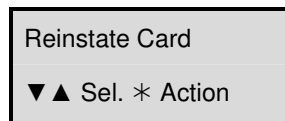
Press the Action key and the current minimum unit value will be displayed.



The bottom line of the display indicates the value can be edited. The left most digit of the value will be flashing. Pressing the ▲ key will increment this digit by 1, pressing the ▼ key will decrement the digit by 1 and pressing the X key will move to the next digit. In this manner a value can be set. Pressing the ESC key will abort any changes and exit to the previous screen. Pressing the Action key will save the value displayed and exit to the previous screen.

6.2 Reinstate Card

Allows cards which have been invalidated by the security system to be reinstated.



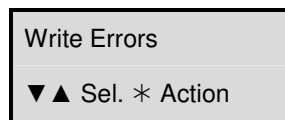
Press the Action key to select, and the menu card will be returned. The display will then prompt for the suspect card to be inserted.



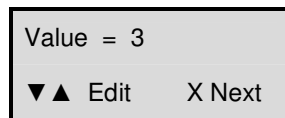
Press ESC at any time to abandon the process.

6.3 Write Errors

A write error counter will be incremented each time a write error occurs. When three or more consecutive write errors occur the terminal will become out of service.



The operator must clean the heads of the magnetic card reader and then set the value of Write Errors back to zero. To reset the write errors count back to zero press the Action key, the screen will display:

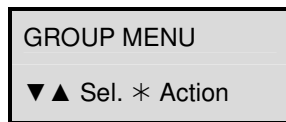


The bottom line of the display indicates the value can be edited. The digit will be flashing. Pressing the ▲ key will increment this digit by 1, pressing the ▼ key will decrement the digit by 1. In this manner the value can be reset. Pressing the ESC

key will abort any changes and exit to the previous screen. Pressing the Action key will save the value displayed and exit to the previous screen.

6.4 GROUP MENU

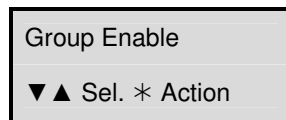
This menu allows access to all functions associated with group settings. The groups are derived from the two most significant digits of the serial number on the cards.



The following submenus can then be entered by pressing the action key.

6.4.1 Group Enable

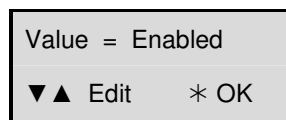
Under this menu selection the groups can be enabled or disabled for the terminal.



There are 100 groups and each one can be individually enabled or disabled. Pressing the Action key will display:



The bottom line of the display shows which keys to press - the Scroll keys change the group, the Action key allows access to read or change the indicated group. The X key will change the group to 50 (there are 100 groups in total), and the Clear key will set the group to 0. Press the Action key and the currently selected group setting will be displayed.



The bottom line of the display indicates the value can be edited. Using the Scroll keys, the value can be toggled between Enabled and Disabled. Pressing the ESC key will abort any changes and exit to the previous screen. Pressing the Action key will save the value displayed and exit to the previous screen. All 100 groups are set in this manner.

6.5 REVALUE MENU

This menu allows access to all functions associated with the revaluation of cards.



REVALUE MENU

▼▲ Sel. * Action

The following submenus can then be entered by pressing the action key.

6.5.1 Revalue

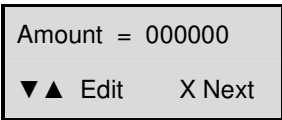
This menu determines exactly how much value to add onto the user cards.



Revalue

▼▲ Sel. * Action

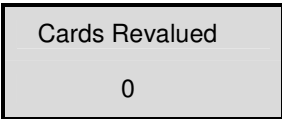
Pressing the Action key will display:



Amount = 000000

▼▲ Edit X Next

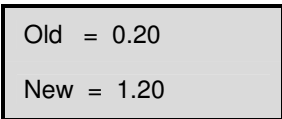
The bottom line of the display indicates the value can be edited. The left most digit of the value will be flashing. Pressing the ▲ key will increment this digit by 1, pressing the ▼ key will decrement the digit by 1 and pressing the X key will move to the next digit. In this manner a value can be set. Pressing the ESC key will abort and exit to the previous screen. Pressing the Action key will eject the Operator Menu card and the screen will display:



Cards Revalued

0

As each card is entered, the screen will display the old and new values of the card.



Old = 0.20

New = 1.20

After the last card has been revalued pressing the ESC key will return to the top menu.

6.6 HOTLIST MENU

This menu allows access to all functions associated with the hotlisting of cards.



HOTLIST MENU

▼▲ Sel. * Action

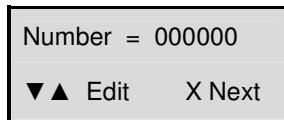
The following submenus can then be entered by pressing the action key.

6.6.1 Set Hotlist

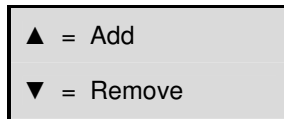
Adds or removes a card serial number from the hotlist.



Pressing the Action key will display:



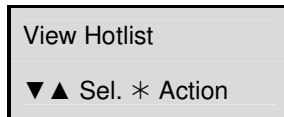
The bottom line of the display indicates the value can be edited. The left most digit of the value will be flashing. Pressing the ▲ key will increment this digit by 1, pressing the ▼ key will decrement the digit by 1 and pressing the X key will move to the next digit. In this manner a value can be set. Pressing the ESC key will abort and exit to the previous screen. Pressing the Action key will display the following options screen.



Pressing the ESC key will abort and exit to the previous screen. Pressing the appropriate key will either add or remove the card serial number and exit to the previous screen.

6.6.2 View Hotlist

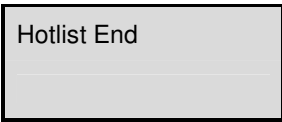
Allows the contents of the hotlist to be displayed on screen.



Pressing the Action key will display:




Using the scroll keys the list of hotlisted card serial numbers can be viewed. Once the end of the list has been reached the following screen will be displayed.



Hotlist End

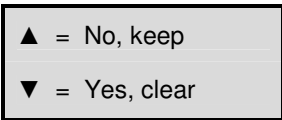
6.6.3 Clear Hotlist

Allows the entire hotlist to be cleared of all card serial numbers.



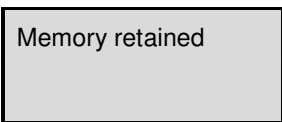
Clear Hotlist
▼▲ Sel. * Action

Pressing the Action key will display:



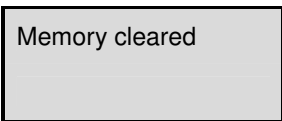
▲ = No, keep
▼ = Yes, clear

Pressing the ESC key will abort and exit to the previous screen. Pressing the appropriate key will either clear or keep the hotlist. The screen will display one of the following screens depending on the choice made.



Memory retained


or



Memory cleared

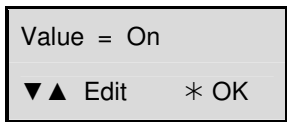
6.7 Override Beep

Under this menu selection the terminal beeper can be enabled or disabled.



Override Beep
▼▲ Sel. * Action

Pressing the Action key will display:

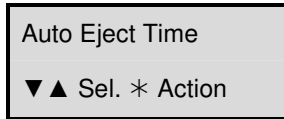


Value = On
▼▲ Edit * OK

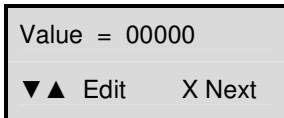
The bottom line of the display indicates the value can be edited. Using the Scroll keys, the value can be toggled between On and Off. Pressing the ESC key will abort any changes and exit to the previous screen. Pressing the Action key will save the value displayed and exit to the previous screen.

6.8 Auto Eject Time

This menu allows the operator to set the auto eject time in seconds.



Press the Action key to select the screen will then display:



The bottom line of the display indicates the value can be edited. The left most digit of the value will be flashing. Pressing the ▲ key will increment this digit by 1, pressing the ▼ key will decrement the digit by 1 and pressing the X key will move to the next digit. In this manner a value can be set. Pressing the ESC key will abort any changes and exit to the previous screen. Pressing the Action key will save the value displayed and exit to the previous screen.

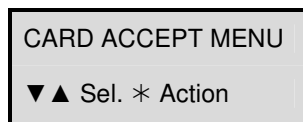
7 Technical Menu Card

On insertion, this card will allow access to the operator menu and the technical menu and all of the sub menus allowing the terminal to be setup to individual needs.

The selections in the menu may be further sub divided into sub menus of related tasks. Any item in the menu in uppercase will have a submenu of related tasks.

7.1 CARD ACCEPT MENU

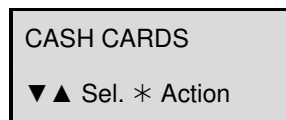
This menu allows access to all functions associated with card acceptance.



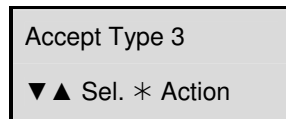
The following submenus can then be entered by pressing the action key.

7.1.1 CASH CARDS

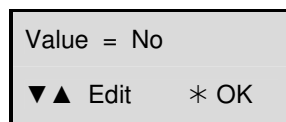
This menu allows access to all functions associated with the acceptance of cash cards.



Pressing the Action key will display the available card types:



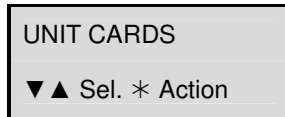
The ▼▲ keys will scroll through the available cash card types. Pressing the Action key will display the setting for the selected card type



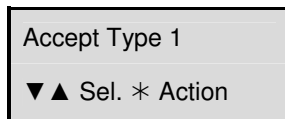
The bottom line of the display indicates the value can be edited using the ▼▲ keys. Using the keys the value can be toggled between Yes and No. Pressing the ESC key will abort any changes and exit to the previous screen. Pressing the OK key will save the value displayed and exit to the previous screen.

7.1.2 UNIT CARDS

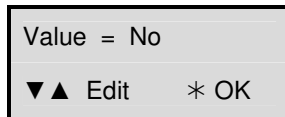
This menu allows access to all functions associated with the acceptance of unit cards.



Pressing the Action key will display the available card types:



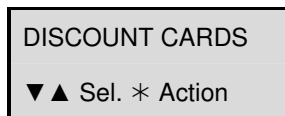
The ▼ ▲ keys will scroll through the available unit card types. Pressing the Action key will display the setting for the selected card type



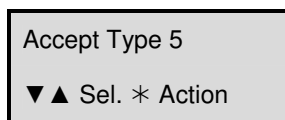
The bottom line of the display indicates the value can be edited using the ▼ ▲ keys. Using the keys the value can be toggled between Yes and No. Pressing the ESC key will abort any changes and exit to the previous screen. Pressing the OK key will save the value displayed and exit to the previous screen.

7.1.3 DISCOUNT CARDS

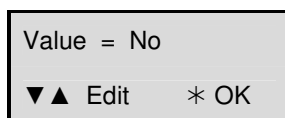
This menu allows access to all functions associated with the acceptance of discount cards.



Pressing the Action key will display the available card types:



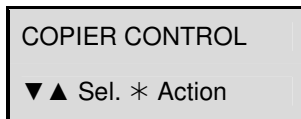
The ▼ ▲ keys will scroll through the available account card types. Pressing the Action key will display the setting for the selected card type



The bottom line of the display indicates the value can be edited using the ▼▲ keys. Using the keys the value can be toggled between Yes and No. Pressing the ESC key will abort any changes and exit to the previous screen. Pressing the OK key will save the value displayed and exit to the previous screen.

7.2 COPIER CONTROL

This menu allows access to all functions associated with the copier interface.



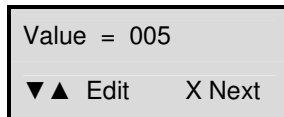
The following submenus can then be entered by pressing the action key.

7.2.1 Hold Time

This is the card return delay to allow late copies to be billed. This time must be set long enough to allow copies which were in progress when the card return was requested to be correctly billed.



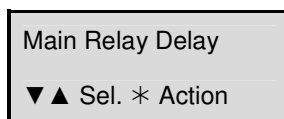
Pressing the Action key will display:



The bottom line of the display indicates the value can be edited. The left most digit of the value will be flashing. Pressing the ▲ key will increment this digit by 1, pressing the ▼ key will decrement the digit by 1 and pressing the X key will move to the next digit. In this manner a value can be set. Pressing the ESC key will abort any changes and exit to the previous screen. Pressing the Action key will save the value displayed and exit to the previous screen.

7.2.2 Main Relay Delay

The Main relay will switch off after the delay period in milliseconds when detection of a billing pulse causes the funds on the card to become less than the lowest price value set up for the card type in use i.e. Cash Prices or Unit Prices.



Pressing the Action key will display:

```
Value = 000
▼▲ Edit   X Next
```

The bottom line of the display indicates the value can be edited. The left most digit of the value will be flashing. Pressing the ▲ key will increment this digit by 1, pressing the ▼ key will decrement the digit by 1 and pressing the X key will move to the next digit. In this manner a value can be set. Pressing the ESC key will abort any changes and exit to the previous screen. Pressing the Action key will save the value displayed and exit to the previous screen.

7.2.3 Aux Relay Delay

The Aux relay will switch off after the delay period in milliseconds when detection of a billing pulse causes the funds on the card to become less than the Minimum Credit set up for the card type in use i.e. Minimum Cash or Minimum Units.

```
Aux Relay Delay
▼▲ Sel. * Action
```

Pressing the Action key will display:

```
Value = 000
▼▲ Edit   X Next
```

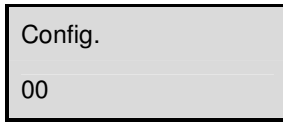
The bottom line of the display indicates the value can be edited. The left most digit of the value will be flashing. Pressing the ▲ key will increment this digit by 1, pressing the ▼ key will decrement the digit by 1 and pressing the X key will move to the next digit. In this manner a value can be set. Pressing the ESC key will abort any changes and exit to the previous screen. Pressing the Action key will save the value displayed and exit to the previous screen.

7.2.4 Config.

This variable will configure the copier interface. The default value of 00 will leave the unit set to cover the majority of installations.

```
Config.
▼▲ Sel. * Action
```

Pressing the Action key will display the Config setting:



The ▼ ▲ keys will scroll through the available config values. Pressing the ESC key will abort any changes and exit to the previous screen. Pressing the Action key will save the value displayed and exit to the previous screen. Config settings allow the installer to set-up the terminal to adopt to how it is connected to the copier. Possible settings are as follows:

Independent Billing	Pre-Select1 Billing	Pre-Select2 Billing	Multipulse Billing	Steered Billing
00	10	20	40	80
01			41	81
02			42	82

The upper nibble of Config selects the way the billing inputs are handled by the terminal and the lower nibble selects the way the Aux Relay can operate. The upper and lower nibble set-ups are as follows.

Lower Nibble

Config x0 where x is the upper nibble, will force the Aux Relay to come ON when the Main Relay comes ON and go OFF after the Hold Time has elapsed.

Config x1 where x is the upper nibble, will force the Aux Relay to come ON when the Main Relay comes ON and go OFF when the Main Relay goes OFF.

Config x2 where x is the upper nibble, will force the Aux Relay to come ON when the Main Relay comes ON and go OFF when value on the card is \leq Min Cr.

Upper Nibble

Config 0x Independent Billing Mode will set up the 4 price inputs to operate as 4 separate billing inputs.

Config 10 Pre-select1 Billing Mode. In this mode Price line 1 will be the "main" billing input which will be required before any value will be deducted from the card. The value deducted will depend on the input states of Price Line 2 and Price Line 3 when the "main" billing signal is received. The amount deducted from the card when the "main" billing input is received is shown in the following table

Price Line 2	Price Line 3	Amount Deducted
NO	NO	Price 1 value
YES	NO	Price 2 value
NO	YES	Price 3 value
YES	YES	Price 4 value

This mode is used when the copier can supply a combination of output signals to cater for the above table to indicate the copy to be produced. This mode used along with the Aux Relay, will allow the copier to be disabled in the event of the value on the card becoming less than any of the Price Line values.

Config 20 Pre-select2 Billing Mode. In this mode Price line 1 will be the “main” billing input which will be required before any value will be deducted from the card. The value deducted will depend on the input states of Price Line 2, Price Line 3 and Price Line 4 when the “main” billing signal is received. The amount deducted from the card is shown in the following table.

Price Line 2	Price Line 3	Price Line 4	Amount Deducted
NO	NO	NO	Price 1 value
YES	NO	NO	Price 2 value
NO	YES	NO	Price 3 value
NO	NO	YES	Price 4 value

This mode is used when the copier can supply a combination of output signals to cater for the above table to indicate the copy to be produced. This mode used along with the Aux Relay, will allow the copier to be disabled in the event of the value on the card becoming less than any of the Price Line values.

Config 4x Multipulse Billing Mode is selected. In this mode, only billing input 1 is used. As soon as a pulse is detected on billing input 1, a timer starts. If another pulse is detected on this input before the Interpulse Time (Multipulse Time in milliseconds) expires, the pulse is counted and the timer is reset. Once the timer expires, the number of pulses counted is compared to that set for each Price line, and the appropriate Price line value is deducted from the card value. Thus in the following example, if 4 or 5 pulses are counted before the Interpulse Timer expires, and the number of pulses set for this terminal are as follows:

Price 1 - 1
 Price 2 - 4
 Price 3 - 6
 Price 4 - 10

Price line 2 value will be deducted from the card value. If, however, the count total is in the range of 1 to 3 pulses, then Price line 1 value will be deducted from the card. The number of pulses are set up using Multipulse Count function in the Technical menu. Price 1 is always set to 1 pulse.

Config 8x Steered Billing Inputs are selected (also called Latched Inputs). For this configuration, Billing Input 1 is used as the main Billing input and Billing inputs 2, 3 and 4 are used as Steering or Latching input.

The suggested use for this setting would in the event where a momentary signal is present to indicate the copy size about to be produced prior to a “main” billing signal which will arrive a set period of time later from the copier. The terminal will not deduct any price line value from the card value if the “main” billing signal is not received from the copier within a set period of time set by A3 time (in seconds) because of this, the installer should set the A3 time greater than the

time between receiving the “steered” billing input from the copier and the “main” billing input from the copier.

Config	Aux.Relay ON	Aux.Relay OFF	Direct Inputs	Multi Pulse	Steered Inputs
00	With MAIN	After HOLD	Active		
01	With MAIN	With MAIN	Active		
02	With MAIN	< Min CR	Active		
40	With MAIN	After HOLD		Active	
41	With MAIN	With MAIN		Active	
42	With MAIN	< Min CR		Active	
80	With MAIN	After HOLD			Active
81	With MAIN	With MAIN			Active
82	With MAIN	< Min CR			Active

7.2.5 A3 Time

Sets the length of time in seconds a steered input is latched when **Config** is set to 80, 81 or 82.

A3 Time
▼ ▲ Sel. * Action

Pressing the Action key will display:

Value = 5
▼ ▲ Edit * OK

The bottom line of the display indicates the value can be edited. The left most digit of the value will be flashing. Pressing the ▲ key will increment this digit by 1, pressing the ▼ key will decrement the digit by 1 and pressing the X key will move to the next digit. In this manner a value can be set. Pressing the ESC key will abort any changes and exit to the previous screen. Pressing the Action key will save the value displayed and exit to the previous screen.

7.2.6 Multipulse Time

Sets the length of time in milliseconds the interpulse timer should wait to receive consecutive pulses when **Config** is set to 40, 41 or 42.

Multipulse Time
▼ ▲ Sel. * Action

Pressing the Action key will display:

```
Value = 00500
▼▲ Edit   X Next
```

The bottom line of the display indicates the value can be edited. The left most digit of the value will be flashing. Pressing the ▲ key will increment this digit by 1, pressing the ▼ key will decrement the digit by 1 and pressing the X key will move to the next digit. In this manner a value can be set. Pressing the ESC key will abort any changes and exit to the previous screen. Pressing the Action key will save the value displayed and exit to the previous screen.

7.2.7 Multipulse Count

Sets the number/range of counted pulses againsts pricelines 2, 3 and 4. Priceline 1 is always 1.

```
Multipulse Count
▼▲ Sel. * Action
```

Pressing the Action key will display:

```
Price 2
▼▲ Sel. * Action
```

The bottom line of the display shows which keys to press - the Scroll keys change the priceline, the Action key allows access to read or change the indicated priceline. Press the Action key and the currently selected priceline value will be displayed.

```
Value = 002
▼▲ Edit   X Next
```

The bottom line of the display indicates the value can be edited. The left most digit of the value will be flashing. Pressing the ▲ key will increment this digit by 1, pressing the ▼ key will decrement the digit by 1 and pressing the X key will move to the next digit. In this manner a value can be set. Pressing the ESC key will abort any changes and exit to the previous screen. Pressing the Action key will save the value displayed and exit to the previous screen. Pricelines 2, 3 and 4 are set in this manner.

7.2.8 Machine No.

Used to identify the terminal in printouts and during data collection.

Machine No.
▼▲ Sel. * Action

Pressing the Action key will display:

Value = 001
▼▲ Edit X Next

The bottom line of the display indicates the value can be edited. The left most digit of the value will be flashing. Pressing the ▲ key will increment this digit by 1, pressing the ▼ key will decrement the digit by 1 and pressing the X key will move to the next digit. In this manner a value can be set. Pressing the ESC key will abort any changes and exit to the previous screen. Pressing the Action key will save the value displayed and exit to the previous screen. May be set in the range 1 to 999

7.2.9 Dec. Separator

This menu item will allow the position of the decimal separator to be defined.

Dec. Separator
▼▲ Sel. * Action

Pressing the Action key will display:

Dec. Separator
XX.XX

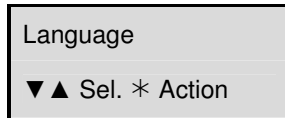
The ▼ ▲ keys will scroll through the available values. Pressing the ESC key or Action key will save the value displayed and exit to the previous screen.

Possible settings are

XXXX
 X.XXX
 XX.XX
 XXX.X
 X,XXX
 XX,XX
 XXX,X

7.2.10 Language

This menu item will allow the prompt language to be defined.



Pressing the Action key will display:



The ▼ ▲ keys will scroll through the available languages. Pressing the ESC key or Action key will save the value displayed and exit to the previous screen. The available languages are:

English
 French
 Dutch
 Spanish
 Italian
 German
 Norwegian

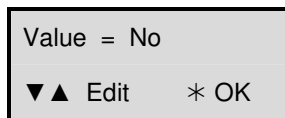
7.2.11 Risk Site

The Risk Site option allows the Dealer / Distributor to eliminate the probability of card duplication during Write Errors/Card Jams at a site which is perceived as being high risk. By setting Risk Site = 1 the system will make several assumptions about the card status which will ensure that any attempt to defraud the system will not result in card duplication.

It should be noted, however that since the element of trust in the end user is removed, setting Risk Site =1 will increase the probability of VOID CARDS occurring at the site.



Pressing the Action key will display the available card types:

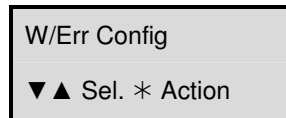


The bottom line of the display indicates the value can be edited using the ▼▲ keys. Using the keys the value can be toggled between Yes and No. Pressing the

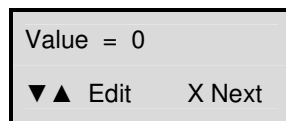
ESC key will abort any changes and exit to the previous screen. Pressing the OK key will save the value displayed and exit to the previous screen.

7.2.12 W/Err Config.

This variable allows the dealer/distributor to configure the terminal to handle card write errors in a manner suited to the requirements of the customer.



Pressing the Action key will display:



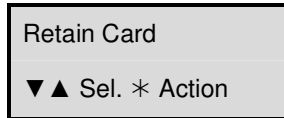
The bottom line of the display indicates the value can be edited. The left most digit of the value will be flashing. Pressing the ▲ key will increment this digit by 1, pressing the ▼ key will decrement the digit by 1 and pressing the X key will move to the next digit. In this manner a value can be set. Pressing the ESC key will abort any changes and exit to the previous screen. Pressing the Action key will save the value displayed and exit to the previous screen.

The possible settings for W/Err Config are as follows:

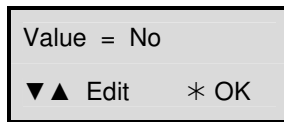
W/Err Config	Action on Write Error occurring.
0	The erroneous card is retained in the reader, and the user is prompted " Card Error - Contact Operator ". Erroneous Card removed by the operator as described in the Retain Card option. Write Error count incremented. Operator Prompted " Insert Blank Card ". If a card which is Void, Invalid Σ , or has the same Serial Number as erroneous card is inserted, then the details of the erroneous card will be written to this card. If any other card is inserted at this time then details of the erroneous card are erased from memory, and the other card is allowed to vend in the normal way.
1	Erroneous Card ejected with the message " Write Error - Card Not Written ". Card data is erased from memory. Write Error count incremented. Terminal returns to Normal Operation.
2	The erroneous card is retained in the reader, and the user is prompted " Card Error - Contact Operator ". Erroneous Card removed by the operator as described in the Retain Card option. Write Error count incremented. Operator Prompted " Insert Blank Card ". If a card which is Void, Invalid Σ , or has the same Serial Number as erroneous card is inserted, then the details of the erroneous card will be written to this card. If any other card is inserted at this time then this card is rejected with the message " Wrong Card: Must be No. nnnnnn ", where nnnnnn is the Serial Number of the Erroneous Card.

7.2.13 Retain Card

This variable allows the dealer/distributor to configure how the card may be returned by the Operator when a Write Error occurs.



Pressing the Action key will display the available card types:



The bottom line of the display indicates the value can be edited using the ▼▲ keys. Using the keys the value can be toggled between Yes and No. Pressing the ESC key will abort any changes and exit to the previous screen. Pressing the OK key will save the value displayed and exit to the previous screen.

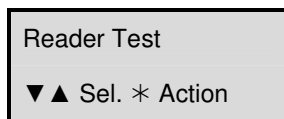
Retain Card	Action required to remove erroneous card after Write Error.
No	Keylock Sequence or Power off-on.
Yes	Keylock Sequence only.

7.2.14 Reader Test

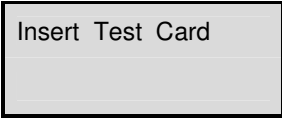
This option provides a diagnostic option for testing the performance of the reader. On selection of this option the Technical Menu Card will be ejected. The technician will be prompted to insert a blank test card. The reader will erase this card on insertion.

A write cycle followed by a read is then performed. The write count value is then incremented. If the card reader is able to read the card contents in one attempt then the read count value is also incremented. This cycle is performed 10 times after which a key can be pressed to erase the card and return it. If the read count value is less than 10, then the card reader may require maintenance.

Note: This option is intended to identify problems with the card reader. It is therefore important that only good quality undamaged cards are used to perform the test.

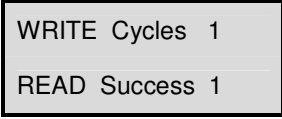


Pressing the Action key will display:

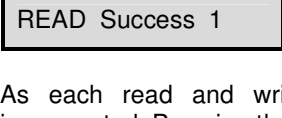


Insert Test Card

The test will begin and display the following:



WRITE Cycles 1



READ Success 1

As each read and write cycle is performed the corresponding count is incremented. Pressing the Esc key will eject the card at the end of the test.

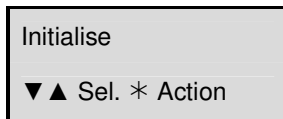
8 System Initialisation Card

On insertion, this card will allow access to the operator menu, the technical menu and the system initialisation menu.

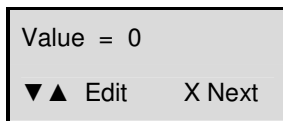
The selections in the menu may be further sub divided into sub menus of related tasks. Any item in the menu in uppercase will have a submenu of related tasks.

8.1 Initialise

This menu option will allow the technician to initialise the terminal to its default settings. On initialisation all audit data will be lost. The technician must setup the terminal to the user's requirements.

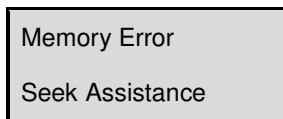


Pressing the Action key will display the available card types:



The bottom line of the display indicates the value can be edited. The left most digit of the value will be flashing. Pressing the ▲ key will increment this digit by 1, pressing the ▼ key will decrement the digit by 1 and pressing the X key will move to the next digit. In this manner a value can be set. Pressing the ESC key will abort any changes and exit to the previous screen. Pressing the Action key will execute the initialise procedure as follows.

By setting the initialise value to 7 all data in the RAM of the device will be cleared. When a unit is initialised a memory check is performed to check all the RAM. Appropriate messages are displayed during this check. If the memory check fails the display will read :



If this message appears press the ESC key to return to the normal prompt. The PBA in the unit should be replaced and the memory check repeated. If the memory is not working correctly the information stored in the unit will not be correct !!

8.2 Sys No.

Each site must use a unique system number to ensure that it is not possible for cards from another site to be used. This option will allow the system number to be modified.

Sys No.
▼▲ Sel. * Action

Pressing the Action key will display:

Value = 0004
▼▲ Edit X Next

The bottom line of the display indicates the value can be edited. The left most digit of the value will be flashing. Pressing the ▲ key will increment this digit by 1, pressing the ▼ key will decrement the digit by 1 and pressing the X key will move to the next digit. In this manner a value can be set. Pressing the ESC key will abort any changes and exit to the previous screen. Pressing the Action key will save the value displayed and exit to the previous screen.

8.3 Device

Each terminal is set to a specific device type. This option will allow the device type to be modified.

Device
▼▲ Sel. * Action

Pressing the Action key will display:

Value = 03
▼▲ Edit X Next

The bottom line of the display indicates the value can be edited. The left most digit of the value will be flashing. Pressing the ▲ key will increment this digit by 1, pressing the ▼ key will decrement the digit by 1 and pressing the X key will move to the next digit. In this manner a value can be set. Pressing the ESC key will abort any changes and exit to the previous screen. Pressing the Action key will save the value displayed and exit to the previous screen.

On completion of the initialisation the terminal must have the correct country code and system number setup. This is achieved by performing a soft setup. Until the soft setup is completed the terminal will not accept any of the user cards, the only card accepted will be the distributor system initialisation card.

9 Audit Card

This allows the overall totals to be output on the terminal display. If there are card types with zero copies these are not displayed.

The down arrow key may be pressed to read earlier items in the list, the up arrow to read later items. Pressing the **ESC** key at any point during the readout will give the option of Clearing the totals or retaining them. If Clear is selected, then confirmation will be requested. The Audit card will be returned at the completion of the retain / clear decision.

Option to clear totals is only available with site specific Audit Cards.

9.1 Audit Printout Card

This card allows the production of a hard copy audit listing via the serial port on the unit. This card may be set up to accommodate a range of serial port settings, which will be stored for possible later use by the terminal. The printer should be connected before this card is introduced or the printer will return the card telling the user that the printer is not ready. At the end of the printout, the option to clear the totals will again be given, and the memory status will be printed. NB Any totals that are zero value will not be printed.

Option to clear totals is only available with site specific Audit Cards.

10 Data Read Card

This card allows the terminal to read the data on any other card. To use, insert the data read card, which will be ejected, and the display will prompt for the insertion of a card to be read. The display will then normally display the card data as shown below:

Country	44
System	4

Device	1
S/N	123456

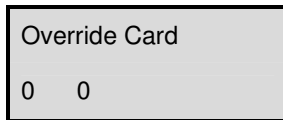
Value	1000
Card Type	1

T1	9
T2	1200

The scroll keys will navigate through the screens. Pressing the ESC key will eject the card and return to the normal user prompt.

11 Override Card

Inserting this card will place the terminal into override mode. When in override the controlled copier will be enabled, and the subsequent copies will be recorded. The screen will display:

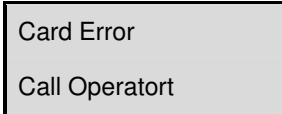


The terminal will beep every 15 seconds to alert the system administrator that the terminal is in override mode.

The card cannot be retrieved by a simple keypress, or by interrupting the power. This will prevent the card from being removed from the terminal by unauthorised persons. The security button sequence must be used to retrieve the card.

12 Security Button Sequence

This sequence must be used to retrieve an override card, or a card which has been retained by the unit with a write error. This may occur if the card is damaged or deformed, and the unit cannot verify the information that it has just written to the card. The terminal will retain the suspect card and show



Use the following sequence to release the card:

- 1: Press and hold <▲> key.
- 2: With <▲> key held, press and hold <▼> .
- 3: Release both keys.
- 4: If done correctly a '>' symbol will appear on the bottom right of the screen.
- 5: Now press the following key sequence in the order shown within 2 seconds of the '>' symbol appearing.

<ESC>
<X>
<Action>
<Clear>

If the sequence is not carried out correctly or too slowly, the '>' will disappear and it will be necessary to restart the sequence from 1).

13 Card Errors

Each time a card is written to by the terminal, the terminal checks that the data on the card is correct. If any inconsistencies occur - as might happen if the magnetic stripe on the card is damaged or faulty, the card itself is bent, or the magnetic head on the reader is dirty - the unit will, after several attempts to correct the error, display

Card error
Call Operator

The operator must then retrieve the card using the security button sequence. The display will then prompt for a new, blank card to be inserted. The data which should have been on the faulty card will then be written to the new card. Note that the keys on the unit must not be pressed before inserting the new card, unless the retained data is to be discarded. The display will prompt for confirmation if this should occur.

Repeated write errors may indicate that the magnetic head requires cleaning. A proprietary head cleaning kit may be used for this purpose.

If three consecutive write errors occur the unit will become out of service.

14 Technical Information













14.1 Photocopier Interface Setup

Interfacing to the photocopier involves connections for enabling and disabling the copier via 2 relays in the terminal interface circuit referred to as main relay and auxillary relay, and billing pulse feed-back signals to opto-coupled inputs in the terminal interface circuit from the copier to indicate a copy has been produced.

Enabling/Disabling the copier and billing pulse inputs can be configured to adopt to different copier types for global interfacing. All inputs are factory set for 9 - 35v operation. If low voltage (5v) inputs are required, the jumper links should be set as shown in the following tables.

Jumper	9-35V Direct	5V Direct	5V Passive
P1_5V	Open	Closed	Closed
P2_5V	Open	Closed	Closed
P3_5V	Open	Closed	Closed
P4_5V	Open	Closed	Closed
PAS1A	Open	Open	Closed
PAS2A	Open	Open	Closed
PAS3A	Open	Open	Closed
PAS4A	Open	Open	Closed

Although all inputs are default to direct inputs i.e. the copier will directly supply an input voltage across the billing input wires to indicate a copy has been taken, the system may be configured to accept passive inputs i.e. the copiers interface circuits will close a set of open loop contacts, perhaps a relay or an opto coupler to indicate a copy has been taken. The following jumper links should be set.

Jumper	9-35V Direct	5V Direct	5V Passive
P1B D1	 P1B D1	 P1B D1	 P1B D1
P2B D2	 P2B D2	 P2B D2	 P2B D2
P3B D3	 P3B D3	 P3B D3	 P3B D3
P4B D4	 P4B D4	 P4B D4	 P4B D4

Safety measures are also taken to help prevent possible damage to the copier or terminal in the event of incorrect installation to the copier by unauthorised persons. Current limiting resistors are fitted in series with the common contacts of both copier enabling relays. These relays are referred to as Main Relay (RL2) and Aux Relay (RL1). Both current limiting resistors may be overridden if required by closing the following jumper links.

Main Relay Jumper Link
MR (default open)

Aux Relay Jumper Link
AR (default open)



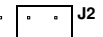
SAFETY NOTE: - The voltage applied to any interface connection must not exceed 42.4V AC PEAK or 60v DC in order to comply with the SELV regulations. External barriers must be employed if these limits are likely to be exceeded.

14.2 Power Supply

The terminal has an external 12V DC Power Supply. This is terminated in a 2.5 mm jack plug with the +12V DC on the centre pin and the 0v on the outside. This 12V DC . power supply is short circuit protected for added safety.

14.3 Board Jumpers

As well as the jumpers mentioned in the interfacing section there are addition jumpers on the board however these jumpers are set-up in the factory.

Jumper	Setting	Function
J4	Closed	Battery Backup Link
J13	J13 	Default
J2	 . J2	Selects 64k Byte ROM
	.  J2	Selects 512k Byte ROM

14.4 Card Transport

The normal magnetic striped card reader fitted to the 6255 will be the CRA2200BII which complies to JIS specifications.

15 Distributor Information

The Technical Menu card no longer provides access to the Initialise and System number settings. This has been arranged to allow Dealers access to all the necessary machine settings without allowing them access to these two functions. The Distributor must therefore Initialise the unit and pre-set the system number on all terminals supplied to their Dealers by using an additional card type, the System / Init. card.

As this card can only be produced indirectly by the Encoder system, a modified encoder program will be available from Infineer which will allow the System / Init. cards to be produced from the System card menu. It is recommended that once a unit is set up to the correct system number, a Setup Capture card is used to 'capture' the set system number. This card can then be sent with the unit to allow the dealer to re-set the system number to the original, if necessary.

16 Battery

The battery used in the Infineer terminals is a Vanadium Pentoxide Lithium (VL2330) rechargeable Battery. The VL2330(nominal capacity 100mAh) is capable of continuous backup for 10,000 hours at a memory backup load of 10 μ A.

16.1 Precautions

Please observe the following precautions to keep the batteries in good condition.

Vanadium Pentoxide Lithium batteries are very high energy systems containing highly active materials and as such should be treated with respect.

16.2 Temperature

Vanadium Pentoxide Lithium batteries should be used in temperature range from -20°C to 60°C and for safety reasons they should never be exposed to temperatures above 100°C .

16.3 Physical Abuse

Do not open, puncture, crush, deform or tamper with the cells as this may release the active electrolyte and may also expose materials which are potentially flammable.

These cells must not be exposed to excessive heat or naked flames as this will usually cause the cell to vent and under extreme conditions may result in violent venting.

16.4 Procedures For Handling Damaged Cells

In the unlikely event of a cell rupturing, or being punctured for whatever reason it must be disposed of in a careful manner. Suitable protective clothing should be worn to protect the skin and the eyes when handling such cells and if the skin has come into contact with the electrolyte, it should be washed thoroughly with water. The electrolyte is a **corrosive liquid** and an **irritant**.

16.5 Disposal

Quantities of up to 5 cells may be disposed of with the normal waste. Large number of cells should be disposed of in a secured land fill, by arrangement with the local authority or by an independent contractor. Prior to disposal the cells should have their terminals insulated and be sealed in polythene bags. It is preferable that cells be fully discharged before disposal to below a 2V open circuit voltage.

DO NOT DISPOSE OF IN FIRE