



PSD Codax

Global Leaders in Car Wash
Technology

Codax Ticket Terminal Operators Manual

**Secure, reliable, easy-to-use and
innovative**
Car Wash and Forecourt Equipment.

CTT-STD-UM-ENG-290721-1.04

www.psdcodax.com



Defining the World of Car Wash Technology

Smartstart Plus | Smartstart Pro | Auto Sentry® Petro | Auto Sentry® Flex | Auto Sentry® CPT | WashConnect®

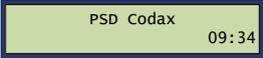
REVISION HISTORY

Document Number	Version	Date	Comments
CTT-STD-UM-ENG-010119-1.01	1.01	1 st January 2019	1 st Release
CTT-STD-UM-ENG-011019-1.02	1.02	1 st October 2019	Spelling Correction
CTT-STD-UM-ENG-150421-1.03	1.03	15 th April 2021	Text update
CTT-STD-UM-ENG-290721-1.04	1.04	29 th July 2021	Diagrams updated

CODAX TICKET TERMINAL OWNERS MANUAL

CODAX TICKET TERMINAL OWNERS MANUAL

KEY

	Screen		Admin Smartcard Card
	Function Keys (Service Required)		Customer's Smartcard
	Function Keys (Function Required)		Card Invalid
	Key Pad		Writing to Card Successful
	Flow Correct		Blank Card
	Flow Incorrect		Card Invalid
	Print		Printer Unavailable
	Clear		Insert Smartcard
	Expanded Menu		Remove Smartcard
	Print		Value of Smartcard
	Print Feed		On
	Correct		Off
	Incorrect		Decision Required

CODAX TICKET TERMINAL OWNERS MANUAL

CONTENTS

1	IMPORTANT SAFETY INFORMATION.....	9
2	CODAX SYSTEM INSTALLATION.....	11
2.1	SUMMARY OF CODAX SYSTEM COMPONENTS.....	11
2.2	CODAX SYSTEM COMPONENTS.....	12
2.2.1	CODAX TICKET TERMINALS	12
2.2.2	CODAX ACCESS TERMINALS	13
2.2.3	INSTALLATION OPTIONS.....	14
2.3	STANDARD CONNECTIONS – ULTRA or RETRO	16
2.4	INSTALLATION EXAMPLES	17
2.4.1	STANDARD ULTRA CABLED CONNECTION.....	17
2.4.2	STANDARD RETRO CABLE-FREE CONNECTION.....	18
2.4.3	DUAL TICKET TERMINAL IN AN ULTRA SYSTEM	19
2.4.4	DUAL TICKET TERMINAL IN A RETRO SYSTEM.....	20
2.4.5	DUAL RETRO CONNECTION.....	21
2.4.6	NETWORKED RETRO CONNECTION.....	22
2.4.7	COMBINED CONNECTION	23
3	TERMINAL OVERVIEW AND LAYOUT.....	25
3.1	FEATURES AND CONTROLS.....	25
3.1.1	TERMINAL LAYOUT.....	25
3.1.2	KEYPAD LAYOUT	26
3.1.3	FUNCTION KEYS.....	26
3.1.4	SERVICE SELECT KEYS	27
3.1.5	ALPHA NUMERIC ENTRY KEYPAD	27
3.1.6	CONTROL KEYS	27
3.1.7	THE WELCOME SCREEN.....	28
3.2	MENU ACCESS	28
3.2.1	THE CODAX MAIN MENUS	28
3.2.2	THE OPERATOR MENU	29
3.2.3	THE CONTROL MENU	31
3.2.4	THE ADMIN MENU	31
3.3	FUNCTIONAL OVERVIEW	32
3.3.1	TERMINAL CONFIGURATION.....	32
3.3.2	TICKET SERVICES.....	33
3.3.3	CODAX SMARTCARD	34

CODAX TICKET TERMINAL OWNERS MANUAL

3.3.4	SALES REPORTS	35
4	TERMINAL CONFIGURATION.....	37
4.1	THE COMMAND MENU	37
4.2	RESTORING SYSTEM DEFAULTS.....	38
4.3	COLD START.....	39
4.3.1	THE COLD START SYSTEM CONFIGURATION PROCESS	39
4.3.2	ENABLING MULTI-USE TICKETS (ULTRA ONLY)	41
4.3.3	THE SYSTEM CONFIGURATION TICKET	42
4.4	COLD START RESET	43
4.4.1	RESETTING THE SYSTEM CONFIGURATION	43
4.4.2	THE RESET CONFIGURATION TICKET	44
4.5	SYSTEM SETUP MENU	45
4.5.1	ACCESSING THE SETUP MENU.....	45
4.5.2	NAVIGATING THE SETUP MENUS.....	46
4.6	SET-UP MENU FUNCTIONS.....	47
4.6.1	TIME AND DATE.....	47
4.6.2	VALIDITY	48
4.6.3	SELECT CURRENCY.....	49
4.6.4	PRICES	50
4.6.5	SMARTCARD SUPPORT (OPTIONAL UPGRADE).....	52
4.6.6	SMARTCARD TRANSACTION REPORTS.....	54
4.6.7	SMARTCARD PACK SETUP – VALUE CARD.....	55
4.6.8	SMARTCARD MULTI-BUY DISCOUNTS – PROGRAM CARD.....	57
4.6.9	SMARTCARD CREDIT TOP-UPS – VALUE CARD.....	58
4.6.10	OFF PEAK SETUP.....	59
4.6.11	EDITABLE TEXT - EXPANDED MENU	63
4.6.12	TEXT EDITING	64
4.6.13	TITLE/FOOTER	67
4.6.14	SERVICE HEADERS	68
4.6.15	MESSAGE LINES.....	69
4.6.16	OFF-PEAK MESSAGE.....	70
4.6.17	PROGRAM NAMES	71
4.6.18	PASSWORD.....	72
4.6.19	SELECT BARCODE	73
4.6.20	SECONDARY TICKET TERMINAL (OPTIONAL UPGRADE).....	74
4.6.21	SYSTEM.....	75

CODAX TICKET TERMINAL OWNERS MANUAL

4.6.22	SELECT LANGUAGE (OPTIONAL UPGRADE).....	76
4.6.23	SOFTWARE	77
5	USER FUNCTIONALITY	79
5.1	WELCOME SCREENS	79
5.1.1	DEFAULT WELCOME SCREEN	79
5.1.2	PRE-CONFIGURATION SCREEN	79
5.1.3	PRE-SETUP SCREEN	79
5.1.4	SYSTEM CONNECTION ERROR.....	79
5.2	THE PRINTER.....	80
5.2.1	PAPER OUT INDICATION.....	80
5.2.2	CHANGING PRINTER PAPER ROLL	80
5.2.3	PAPER SPECIFICATION	81
5.2.4	PRINTER CONTROL MENU.....	81
5.3	ISSUING TICKETS.....	82
5.3.1	STANDARD SERVICE BUTTONS.....	82
5.3.2	NORMAL TICKET ISSUING.....	82
5.4	STANDARD TICKET LAYOUT	83
5.4.1	BARCODE TICKET	83
5.4.2	SERVICE NOT AVAILABLE	84
5.4.3	CUSTOMISED TICKET LAYOUT	84
5.4.4	AUXILIARY SERVICES.....	85
5.4.5	SPECIAL TICKET ISSUE.....	86
5.4.6	MULTI-USE TICKETS.....	87
5.4.7	ISSUING MULTIPLE TICKETS	88
5.4.8	ISSUING TICKETS WITHOUT PRINTER.....	89
5.5	CODAX SMARTCARD.....	90
5.5.1	SMARTCARD PLACEMENT	90
5.5.2	SITE ADMINISTRATION	91
5.5.3	ADMIN CARD PLACEMENT	92
5.5.4	USER CARD PLACEMENT	93
5.5.5	VALUE CARD CREDIT TOP-UP	94
5.5.6	VALUE CARD MULTI-BUY CREDIT PACKS.....	95
5.5.7	PROGRAM CARD – ADDING PROGRAMS	96
5.5.8	CARD CREATION	97
5.5.9	CARD HISTORY.....	99
5.5.10	TRANSACTION REPORTS	101

CODAX TICKET TERMINAL OWNERS MANUAL

5.6	OTHER TICKET SERVICES.....	103
5.6.1	THE TICKET MENU.....	103
5.6.2	CHECKING TICKETS (ULTRA ONLY)	104
5.6.3	CANCELLING TICKETS (ULTRA ONLY).....	106
5.6.4	CANCELLING THE LAST TICKET ISSUED (ULTRA ONLY)	107
5.7	TEST TICKETS	108
5.7.1	THE TEST TICKET MENU	108
5.7.2	STARTING TEST SESSION	109
5.7.3	THE TEST TICKET LAYOUT	110
5.7.4	CLOSING A TEST SESSION	111
6	SALES REPORTING	113
6.1	SALES REPORTS OVERVIEW	113
6.1.1	SITE REPORT	113
6.1.2	AUDITOR REPORTS.....	113
6.1.3	ACCESSING THE SYSTEM REPORTS MENU	114
6.2	SITE REPORTS	115
6.2.1	SITE REPORTS MENU	115
6.2.2	SHIFT CLOSE DOWN REPORT.....	116
6.3	AUDIT REPORTS.....	120
6.3.1	AUDIT REPORTS MENU	120
6.3.2	AUDITOR CLOSE DOWN REPORT.....	121
7	TROUBLE SHOOTING.....	125
7.1	CODAX SYSTEM FAULT CODES	125
7.1.1	FAULT CODE 1 – MACHINE LINK ERROR (ULTRA ONLY).....	125
7.1.2	FAULT CODE 2 – MACHINE POWER FAILURE	125
7.1.3	FAULT CODE 3 – KIOSK LINK FAILURE	126
7.1.4	FAULT CODE 4 – KEYPAD FAULT.....	126
7.1.5	FAULT CODE 5 – ACCESS LINK ERROR	127
7.1.6	CODAX SYSTEM ERROR REPORT	127
7.2	CODAX DISTRIBUTION UNIT LED INDICATORS	128
7.2.1	CODAX DISTRIBUTION UNIT POWER INDICATION	128
7.2.2	CODAX DISTRIBUTION UNIT SIGNAL INDICATION.....	128
8	CONTACT INFORMATION.....	129

1 IMPORTANT SAFETY INFORMATION

Prior to installing or operating this equipment, please read this Important Safety Information carefully.

Codax must only be installed and serviced by a competent person who has sufficient electrical systems and product service knowledge. End users/owners must not attempt any service operations or remove any covers.

Removal of any covers, especially at the car wash/service interface keypad may expose high voltage electrical components and risk of electrical shock which can cause serious injury and death.

Car wash machines are often powered by a 415/420 volts three-phase electrical supply. Such supplies are extremely dangerous when unqualified persons attempt to service/touch them, presenting a very high risk of instant death.

- The only end user serviceable component is replacement ticket paper rolls, *please refer to section 5.2.2 - CHANGING PRINTER PAPER ROLL for further instruction.*
- The person(s) responsible for installing or commissioning Codax must ensure that the Owner/Operator Manual is presented to the owner/operator of the system.
- The CE mark applying to Codax relates to Codax as a standalone system. It is the responsibility of the installer and or equipment manufacturer to ensure that the integrity of Codax or the equipment, especially the electrical integrity, is not affected or compromised in any way.
- The Codax 24VDC power supply unit (12VDC for printer-less POS linked Terminals) and Codax Ticket Terminal must be installed in a dry environment and only connected to an electrical supply that has been installed by a qualified electrician.
- The Codax Ticket Terminal/Codax Embedded Terminal must only be powered by a Codax 24VDC/12VDC Power Supply unit - It must never be connected to other power supplies and never connected directly to the mains electrical supply.
- The Codax Ticket Terminal/Codax Embedded Terminal is designed to be installed and operated indoors. Do not allow fluids to enter or to be splashed onto it.
- The Codax system or components are not designed to be installed or operated in hazardous areas.
- Check that the machine is safe to operate and clear of persons and property before testing at the end of the installation process.
-  At end of life dispose of Waste Electrical and Electronic Equipment (WEEE) responsibly.

Codax™ is designed and manufactured by PSD Codax Ltd.

Axis 8, Hawkfield Business Park
Whitchurch
Bristol, BS14 0BY
England
www.psdcodax.com

CODAX TICKET TERMINAL OWNERS MANUAL

Codax software copyright notice.

When you purchase each single Codax system you are granted a single licence to operate the one version of the operating system supplied with the hardware. No permission is granted to resellers or end purchasers to make copies of this software. Software changes or upgrades supplied by PSD by download or module format are for a single installation and must not be copied. Again a single licence is granted with each download or module. You are advised not to purchase or operate illegal versions of Codax software.

© 2021 PSD Codax Limited – All Rights Reserved

2 CODAX SYSTEM INSTALLATION

2.1 SUMMARY OF CODAX SYSTEM COMPONENTS

The PSD Codax system generally consists of items from the following component list and will depend on the clients purchase order instructions. Always check customer instructions and packing note to determine components required.

Please refer to Codax sales information to identify the features available according to the desired installation mode. In Retro (Cable-free) mode certain features and functions will not be available.

CTT	Codax Ticket Terminal – Standard unit
CTT-Ex	Codax Ticket Terminal – Extended database version
CTT-S	Codax Ticket Terminal Secondary – Add a second Ticket Terminal to an Ultra (Cabled) installation
CET-Ser	Codax Embedded Terminal – For Serial POS linked installations
CET-Eth	Codax Embedded Terminal – For Ethernet POS linked installations
CTT-POS-Ser	Codax Ticket Terminal - With Serial POS connection, including Smartcard
CTT-POS-Eth	Codax Ticket Terminal - With Ethernet POS connection, including Smartcard

Ticket Terminal Upgrades:

SCU-CTT	Smartcard Upgrade for CTT – Add a Smartcard reader to CTT
WCB	Wash Connect Bridge – Optional upgrade to add access to Wash Connect

Access Terminals:

CAT-16	Standard Bezer Mount Codax Access Terminal – 16 Character display version
CAT-24	Flush mount Codax Access Terminal – 24 Character display version
CAT-ANC-16	CAT ANC Secondary Terminal – 16 Character display version
CAT-ANC-24	CAT ANC Secondary Terminal – 24 Character display version
SCU-CAT	Smartcard Upgrade for CAT – Add a Smartcard reader to CAT
BSM-CAT	Barcode Scanner Module – Optional upgrade kit for CAT

Installation:

CDU	Codax Distribution Unit – Distributes signal and power for Ultra (Cabled) installations
CPS24-xx	Codax 24VDC Power Supply unit – For Retro (Cable-free) installations
CPS12-UK	Codax 12VDC Powers Supply unit – For CET Retro installations
CPS-CAT	24VDC Power supply for Codax Access Terminal – Option for Retro connected machines without suitable 24VDC power supply
CWIIK	Car Wash Interface and Installation Kit – Machine specific for CAT installation
CAT-HP	Codax Access Unit Housing with bi-directional Pedestal
CAT-HW	Codax Access Unit Housing with Wall mounting bracket
MK-CAT	Mounting Kit for Codax Access Terminal – When Access Unit housing is not required
POS-LK	Point Of Sale Link Kit
DRK-232	Dual Retro Kit for RS232
DRK-485	Dual Retro Kit for RS485

CODAX TICKET TERMINAL OWNERS MANUAL

ANC	Access Network Controller – Local network controller for multiple services of same type
ANC-Ex	Access Network Controller – Expanded version
BOB-232	Breakout Box for RS232
SER-232	Serial Router for RS232

2.2 CODAX SYSTEM COMPONENTS

2.2.1 CODAX TICKET TERMINALS

The Codax Ticket Terminal in its various forms is the central controller for all Codax installations. From here the system is configured and Ticket sales are made. The CTT is normally situated on the kiosk sales desk convenient for the sales person. Adequate space should be allowed behind to allow cable access.

Ticket Terminal variations:

CTT	Codax Ticket Terminal - Standard version for generating Codax codes stand alone with printer.
CTT-Ex	Codax Ticket Terminal with Extended Database Range. Similar to standard version but uses an extended database range to allow both terminals to operate on the same installation. Add a second Ticket Terminal to a Retro installation.
CTT-S	Codax Ticket Terminal Secondary – The Codax Ticket Terminal Secondary unit allows a second Ticket Terminal to be added to provide a second ticket sales point. Codes issued at the Secondary are requested from the Primary Ticket Terminal. This is normally for Ultra (Cabled) installations as it requires a CDU. For Retro the CTT-Ex may be a better solution – See installation examples.
CET-Ser	Codax Embedded Terminal – Serial – Codax code generator with Serial POS link without printer in smaller housing.
CET-Eth	Codax Embedded Terminal – Ethernet – Codax code generator with Ethernet POS link without printer in smaller housing.
CTT-POS-Ser	Codax Ticket Terminal POS linked – Serial – Codax code generator with Serial POS link with printer and Smartcard in standard CTT housing.
CTT-POS-Eth	Codax Ticket Terminal POS linked – Ethernet – Codax code generator with Ethernet POS link with printer and Smartcard in standard CTT housing.

The following items are available as upgrades to the standard Ticket Terminals list above.

Smartcard Upgrade for Codax Ticket Terminal CTT (SCU-CTT)

This upgrade is available for CTT and CTT-S to allow the Codax Smartcard to be added to the system. This option should be added at the time of CTT purchase as this is an internal fit and may not be added retrospectively. This upgrade is not available for CET. If POS link and Smartcard is required, CTT-POS should be used.

Wash Connect Bridge (WCB)

The Wash Connect Bridge connects to Wash Connect. Contact PSD Codax for more details. See *Contact details at the end of this manual, 8 - CONTACT INFORMATION.*

2.2.2 CODAX ACCESS TERMINALS

The Codax Access Terminal is fitted at the car wash machine or other service controller and it is where the customer redeems the unique Codax code purchased. The CAT provides the control signals required to operate the wash service and is capable of operating all common automatic car wash machines. Auxiliary service controls are also available to operate manual services such as Jet-Washes and Vacuum stations. For cabled installations (Ultra), the CAT is linked to the Codax Distribution Unit at the sales point via a 4-core screened cable. For cable-free installations (Retro) no such link is required – refer to installation examples.

Two Access Terminal variations:

CAT-16	Standard version with a 16 character display mounted in a water resistant housing.
CAT-24	Flush mount version with a 24-character display mounted on a flush mountable panel.

ANC Secondary Terminal (CAT-ANC-16/24)

The CAT-ANC is a special version of the CAT when using the Access Network Controller – see Installation examples. When using the Codax Access Terminal as an ANC-Secondary, two versions are available for 16 and 24 character displays as for standard unit defined above

The following items are available as upgrades to the standard Ticket Terminals list above.

Smartcard Upgrade for Codax Access Terminal CAT (SCU-CAT)

This upgrade is available for CAT to allow the Codax Smartcard to be added to the system. The SCU-CAT is part of the CAT installation and may be fitted retrospectively with a modified CAT mounting panel.

Barcode Scanner Module for Codax Access Terminal (BSM-CAT)

The Barcode Scanner Module is an optional addition to the Codax Access Terminal installation. With Barcode printing enabled on the Ticket Terminal the 6-digit Codax code is printed in the form of a barcode that the user can scan at the Access Terminal instead of manual entry. The BSM-CAT is part of the CAT installation and may be fitted retrospectively with a modified CAT mounting panel.

2.2.3 INSTALLATION OPTIONS

Codax Distribution Unit (CDU)

The CDU is only required for Ultra (Cabled) installations. The CDU is designed to be wall mounted using the brackets supplied. The unit should not be covered as overheating could occur. The unit requires a 240 Volt AC electric supply fused at 5 amps. The CDU receives the cable connections from the Codax Ticket Terminal, Point of Sale Terminal (optional) and the Codax Access Terminal(s). This unit provides 24VDC power supply to the CTT and CAT(s). A standard 5 metre connection lead is supplied for connecting the CDU to the Codax Ticket Terminal.

A single CDU connects to a maximum of 4 CATs. This however may be easily expanded – Contact PSD Codax for expansion possibilities. See *Contact details at the end of this manual, 8 - CONTACT INFORMATION.*

Codax Power Supply unit - 24VDC (CPS24-xx)

This is for Retro (Cable-free) installations to provide a 24 Volt DC power supply for the CTT and should therefore be located in a suitable and convenient location close to the CTT. A standard 5 metre connection lead is supplied for connecting this unit to the CTT. This is supplied for CTT and CTT-POS Retro installation.

Four versions are available to suit the local power outlet:

CPS24-EU	European style plug
CPS24-UK	UK style plug
CPS24-US	US style plug
CPS24-AX	Auxiliary No plug

Codax Power Supply unit - 12VDC (CPS12-UK)

This is lower-cost, lower-power PSU alternative, suitable for the CET only. Available with UK style plug only.

Codax Power Supply for Codax Access Terminal (CPS-CAT)

This 24VDC power supply is available to provide power for the CAT if this is not available at the machine installation. This is not necessary for an Ultra installation where power is supplied via the cable to the CDU.

Car Wash Interface and Installation Kit (CWIIK)

This is a machine specific kit according to the installation. This includes a 6/16 way interface (as required), cabling and including CAT – language and machine variant.

Mounting Kit for Codax Access Terminal (MK-CAT)

Hardware mounting kit for the Standard CAT (16-character). This is a non-flush-mount for installation into the operators own cabinet design.

Codax Access Terminal – Housing Pedestal (CAT-HP)

Pedestal Housing kit for the Standard and Flush-mount CAT (24-character). This housing includes front panel, with Smartcard and Barcode options, top box surround and pedestal leg.

Codax Access Terminal – Housing for Wall mounting (CAT-HW)

Wall Mounted Housing kit for the Standard and Flush-mount CAT. This housing includes front panel, with Smartcard and Barcode options, top box surround and wall mounting kit.

Point Of Sale Link Kit (POS-LK)

Connection kit for CTT to POS. Cable for single POS connection. Codax Serial Router included for multiple POS connection.

Dual Retro Kit for RS232 link (DRK-232)

This kit allows two CAT terminals to be connected and handle the Dual Retro operation mode over RS232. This kit includes two Current Loop Drivers (CLD) with connections to CAT. The CLD not only provides an extended operating range but also maintains dual mode functionality if the power to either machine is removed for maintenance.

Dual Retro Kit for RS485 link (DRK-485)

This kit allows two CAT terminals to be connected and handle the Dual Retro operation mode over RS485. This kit includes two Dual Link Power Loop (DLPL) with connections to CAT. The DLPL maintains dual mode functionality if the power to either machine is removed for maintenance.

Access Network Controller (ANC)

The ANC allows three or more machines of the same type to be connected for Retro installations up to a maximum of eight. An example of this is a Jet Wash with three or more bays. A single ticket for Jet Wash may then be used at any Jet Wash bay. The ANC provides a local comms network linking the CATs in this installation. See installation examples for the ANC configuration.

Access Network Controller Expanded (ANC-EX)

Expanded ANC increases the maximum number of machines networked, to sixteen.

Breakout Box for RS232 (BBX-232)

This unit is used to add a Secondary CTT to an installation or a single POS connection for CET.

Serial Router for RS232 (SRR-232)

This unit allows up to 3 POS terminals to be added to an installation for CET.

2.3 STANDARD CONNECTIONS – ULTRA or RETRO

The basic Codax system has a number of Codax Access Terminals (CAT) connected to and controlling the forecourt services and a Codax Ticket Terminal (CTT) located within the sales kiosk. Tickets, for a specific service and program number, purchased at the kiosk and issued by the Ticket Terminal containing a six-digit Codax code that is redeemed when entered at the Access Terminal and the wash is started.

Each Access Terminal can operate in one of two modes, Ultra and Retro. This is determined by the installation and how service codes are issued and validated. The main difference between the two modes is in the connection of the CTT to CAT. For Ultra (cabled), the CTT is connected to the CAT via the Codax Distribution Unit (CDU). For Retro (cable-free) no physical connection between CTT and CAT is required.

Some additional functionality is available at the CTT when operating in Ultra mode, such as Multi-use tickets and connection to the ICS Wash Connect facility. This installation requires cross-forecourt cabling.

Contact PSD Codax to discuss specific installation requirements. See *Contact details at the end of this manual, 8 - CONTACT INFORMATION.*

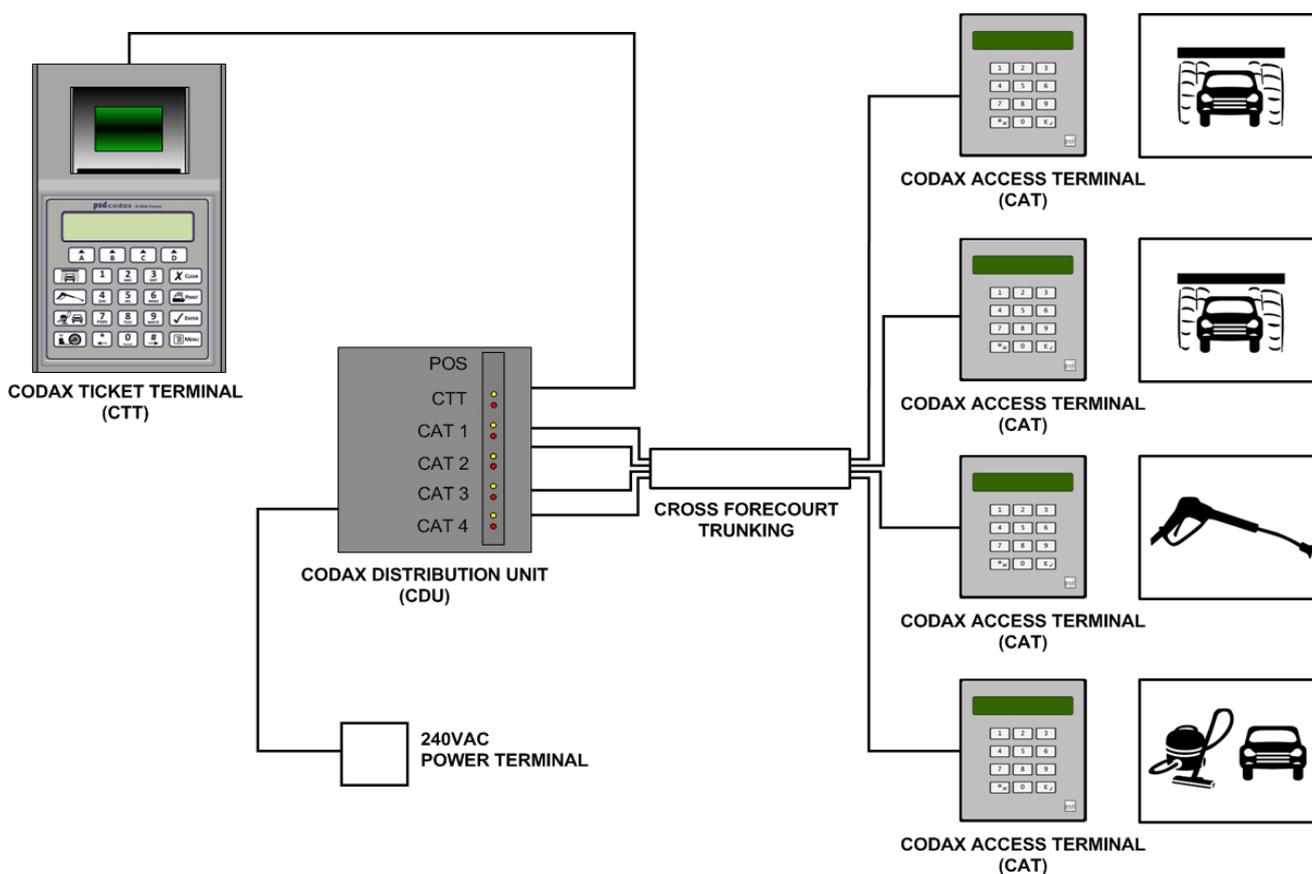
2.4 INSTALLATION EXAMPLES

2.4.1 STANDARD ULTRA CABLED CONNECTION

In an Ultra configured system all the Codax Access Terminals (CAT) operating in this mode are connected to the Codax Ticket Terminal (CTT) via the Codax Distribution Unit (CDU). Each CAT is issued with set-up code which it uses to synchronise with the CTT. Unique set-up codes are issued for all the different service types, Brush Wash, Jet Wash etc., configured to the system. For installations with CATs connected to two or more of the same service type, the same set-up code is used. No additional equipment is required for an Ultra installation in this instance.

The Ultra database within the CTT contains information on every ticket issued by the system. Using this information the validity of a ticket is checked when requested by the CAT.

The installation example below shows a typical Ultra mode connection for two Brush Wash services, a Jet Wash and a Vacuum bay.



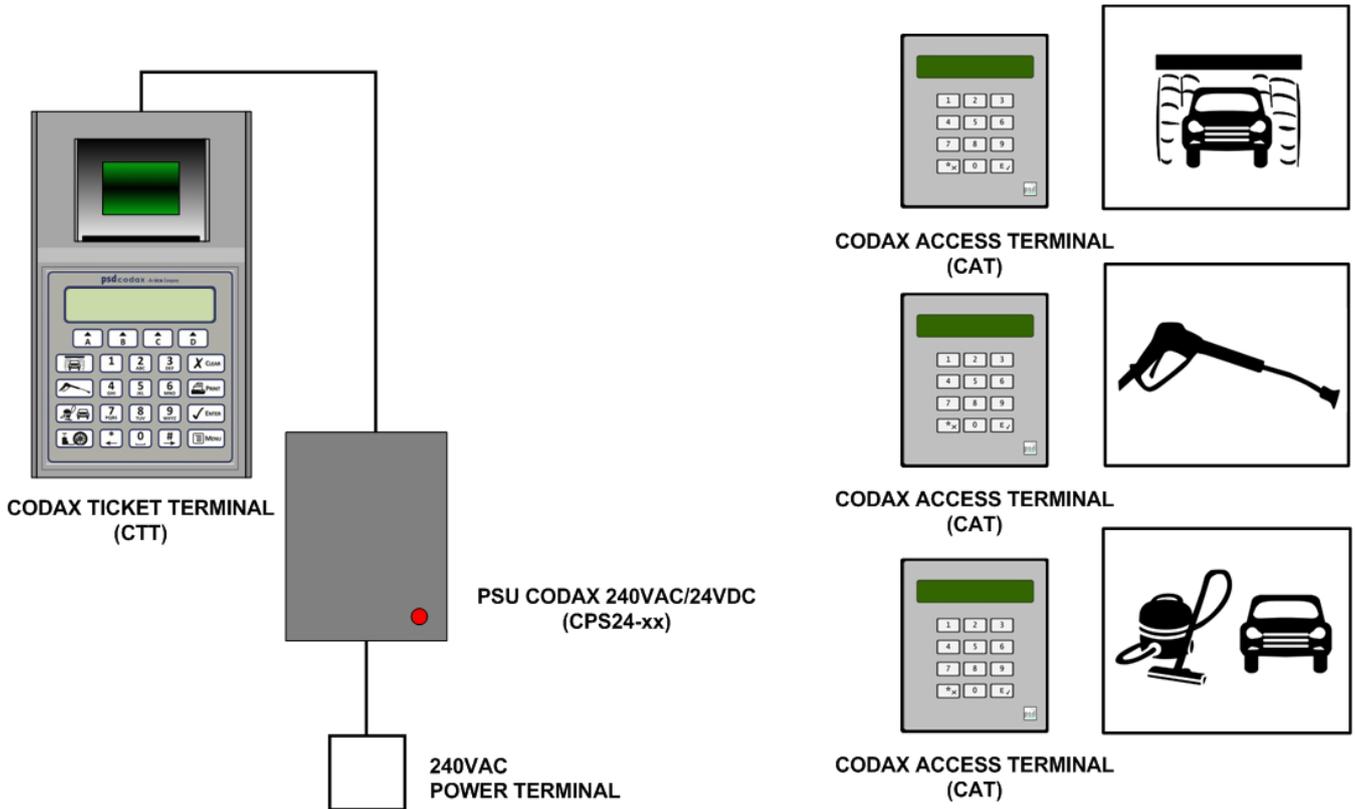
Standard Codax Installation Example for Ultra Mode

CODAX TICKET TERMINAL OWNERS MANUAL

2.4.2 STANDARD RETRO CABLE-FREE CONNECTION

In a Retro configured system the Codax Access Terminals (CAT) are not physically connected to the Codax Ticket Terminal (CTT). Each CAT is issued with a set-up code and program base number which it uses to synchronise with the CTT.

The installation example below shows a typical Retro mode connection for a Brush Wash service, a Jet Wash bay and a Vacuum bay.



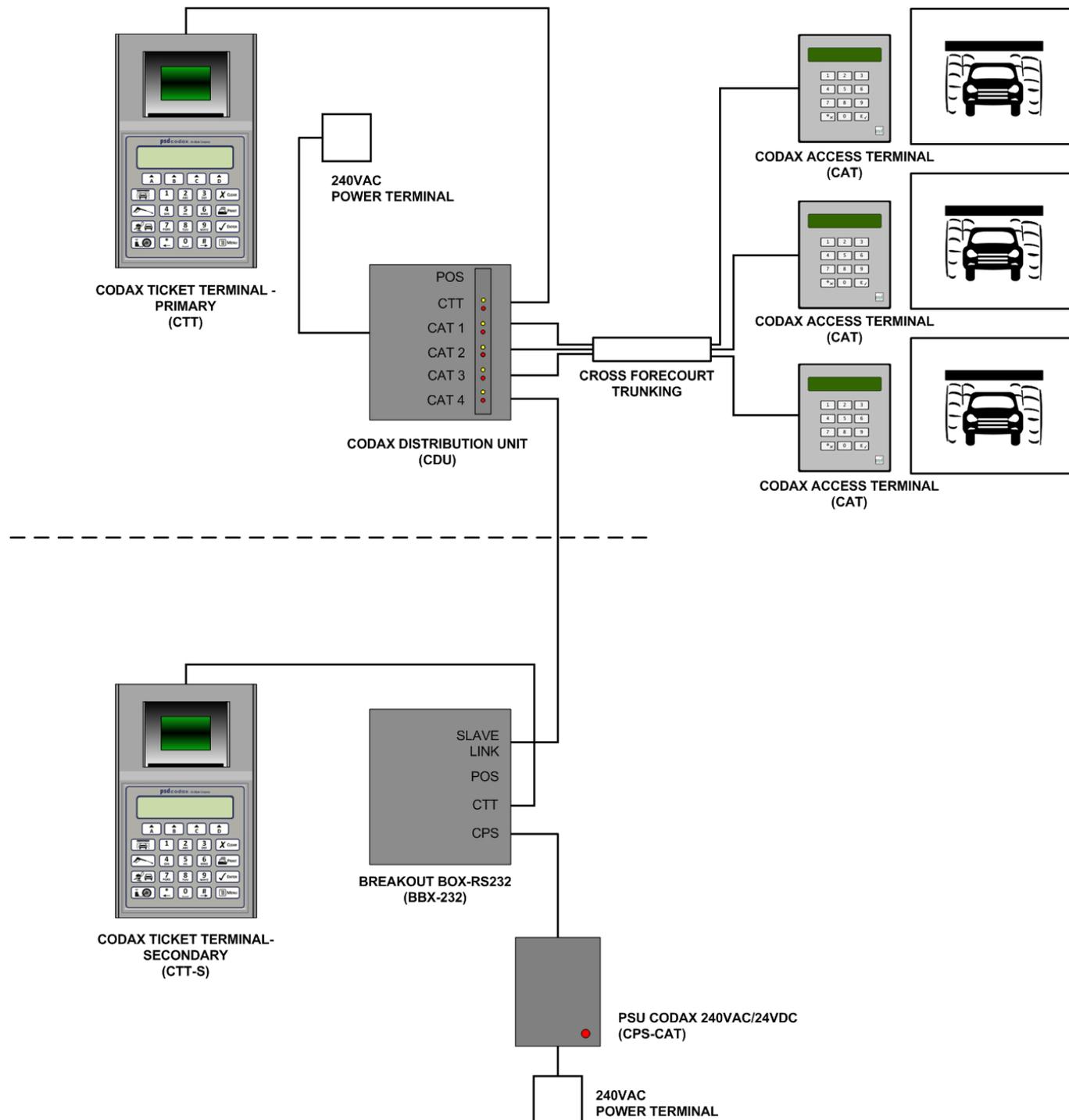
Standard Codax Installation Example for Retro Mode

CODAX TICKET TERMINAL OWNERS MANUAL

2.4.3 DUAL TICKET TERMINAL IN AN ULTRA SYSTEM

To add a second Codax Ticket Terminal to a Codax Ultra installation, a CTT Secondary terminal is used – CTT-S. The CTT-S connects to a standard CTT, factory configured to operate as a Primary terminal, through the CDU via a Breakout Box – BBX-232.

The example below shows a dual CTT installation for a Brush Wash service, Jet Wash bay and Vacuum bay connected in Ultra.



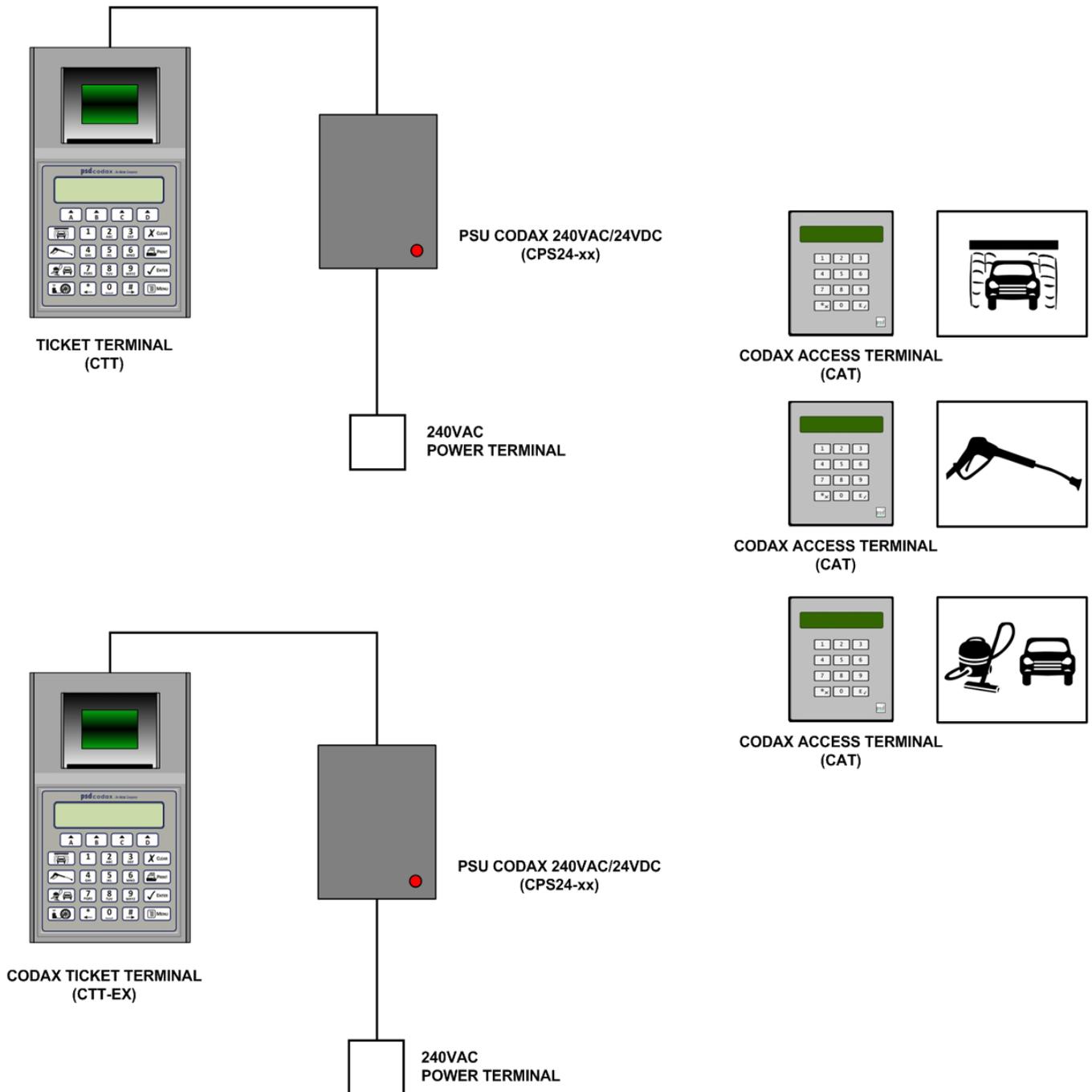
Dual Codax Ticket Terminal Installation Example for Ultra Mode

CODAX TICKET TERMINAL OWNERS MANUAL

2.4.4 DUAL TICKET TERMINAL IN A RETRO SYSTEM

To add a second Codax Ticket Terminal to a Codax Retro installation, a CTT with an extended database range option is used – CTT-Ex. This is a software upgrade to the standard CTT to use an extended database available on purchase. Service codes issued by either CTT will be redeemed at the CATs as normal. Since there is no connection between the two CTTs there is no restriction on their placement.

The example below shows a dual CTT installation for a Brush Wash service, Jet Wash bay and Vacuum bay. Each CTT issues a set-up code and program base, both are entered at all Access Terminals.



Dual Codax Ticket Terminal Installation Example for Retro Mode

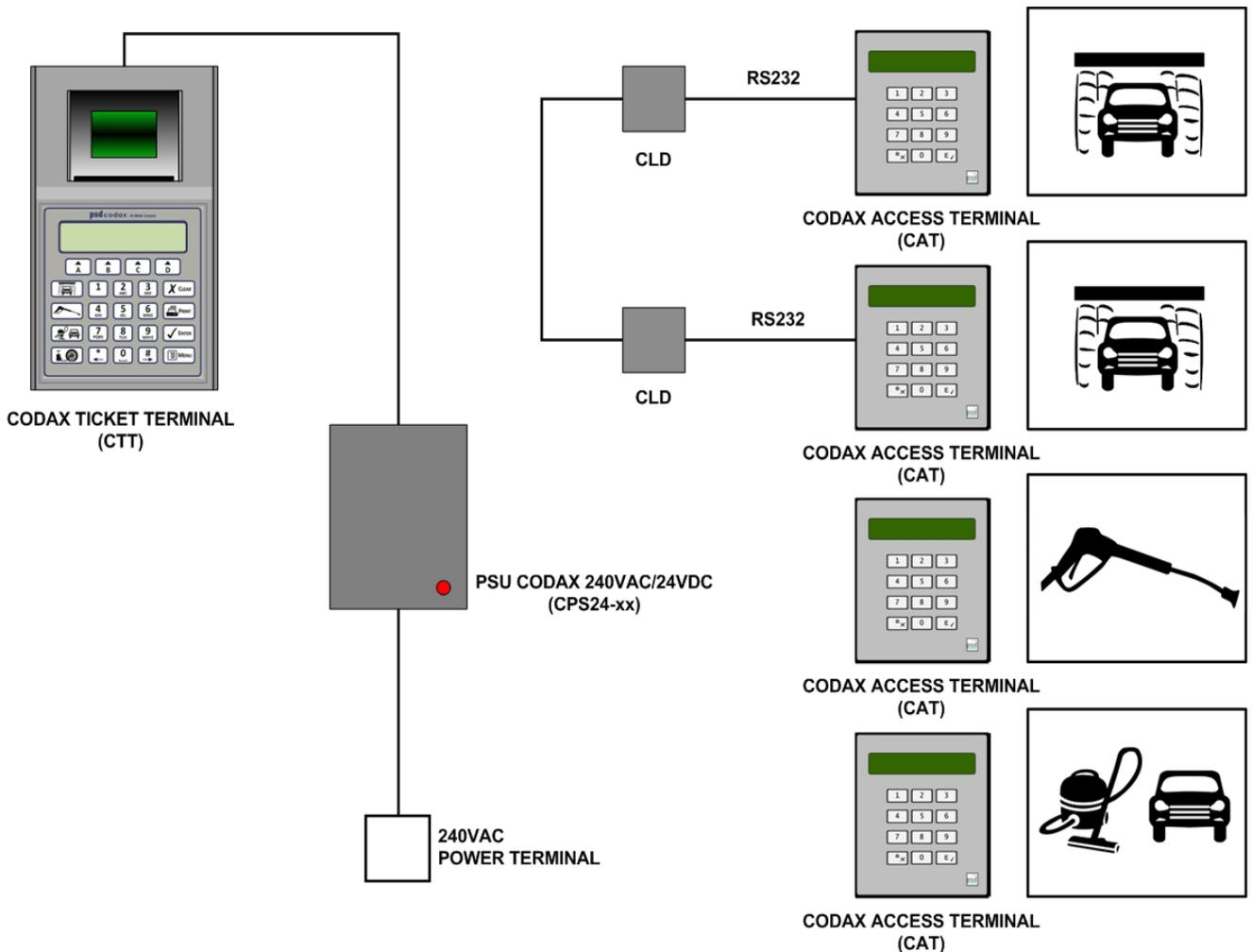
CODAX TICKET TERMINAL OWNERS MANUAL

2.4.5 DUAL RETRO CONNECTION

The Dual Retro connection refers to an installation where two wash services of the same type are available when operating in Retro mode. The example in the illustration below shows an installation with two Brush Wash machines. To allow a single Brush Wash service code ticket to be redeemed at either machine, the Dual Retro connection is required. The Dual Retro connection may operate over RS232, as in the example below, or RS485 when the Smartcard and Barcode reader options are installed. The Current Loop Driver (CLD) extends the cable range for RS232. The CAT operating in Dual Retro mode must remain synchronised at all times to prevent a fault. The CLD unit keeps the CAT powered even if the Carwash is taken off line.

Dual Retro is an optional upgrade. The Dual Retro mode may however be disabled from the set-up codes to operate standalone if required for servicing and maintenance.

The installation example below shows a typical dual Retro installation for two Brush Wash services, a Jet Wash bay and a Vacuum bay.



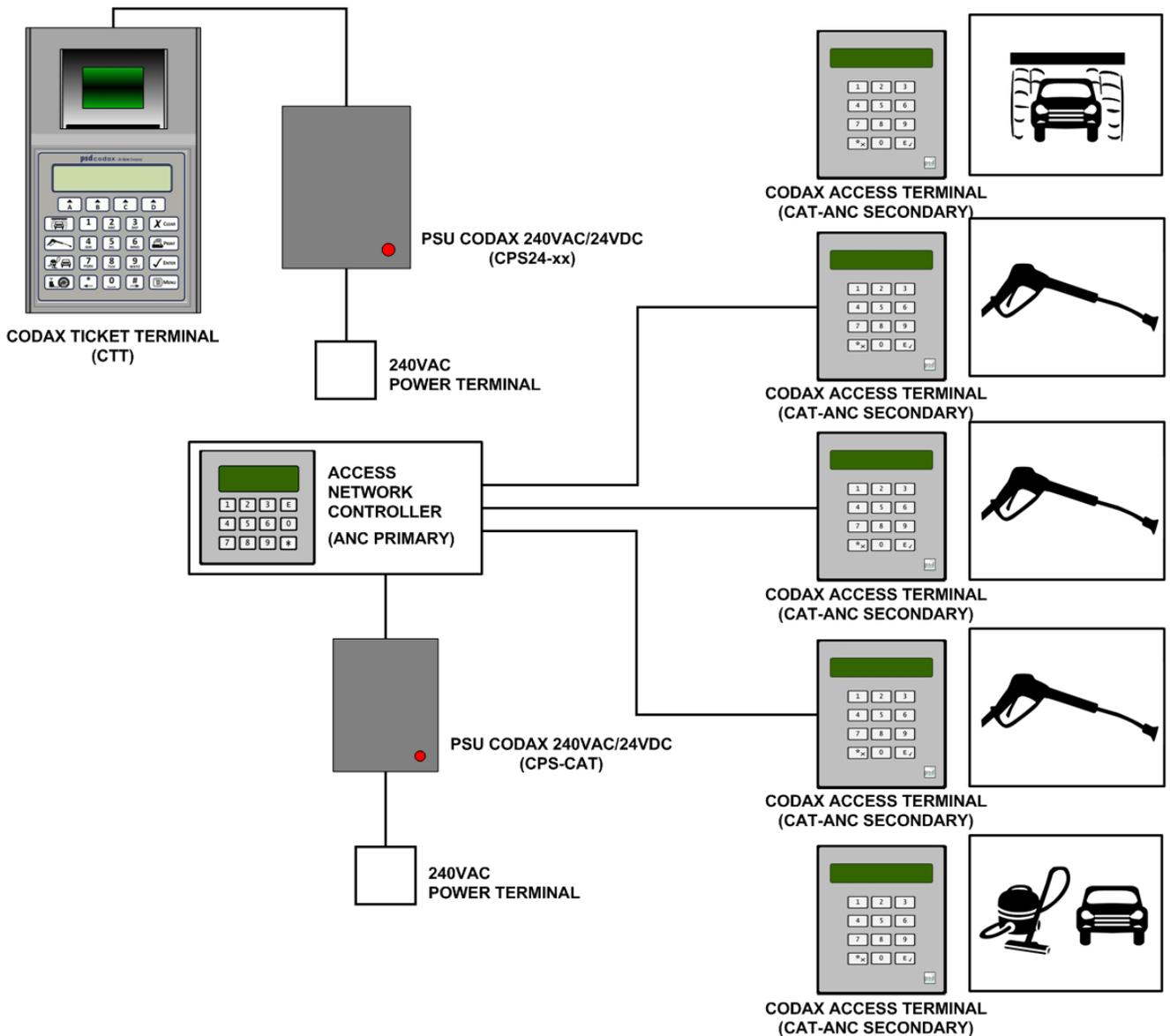
Dual Retro Installation Example

CODAX TICKET TERMINAL OWNERS MANUAL

2.4.6 NETWORKED RETRO CONNECTION

The Networked Retro connection refers to an installation where three or more wash services of the same type are available when operating in Retro mode using the Access Network Controller (ANC). For example, this allows a single Jet Wash ticket to be redeemed at any Jet Wash bay connected to the ANC. The standard ANC allows up to eight machines to be networked, the expanded ANC allows up to sixteen.

The example below shows an installation for a Jet Wash with three bays. A Brush Wash service and Vacuum bay are also included in this installation.



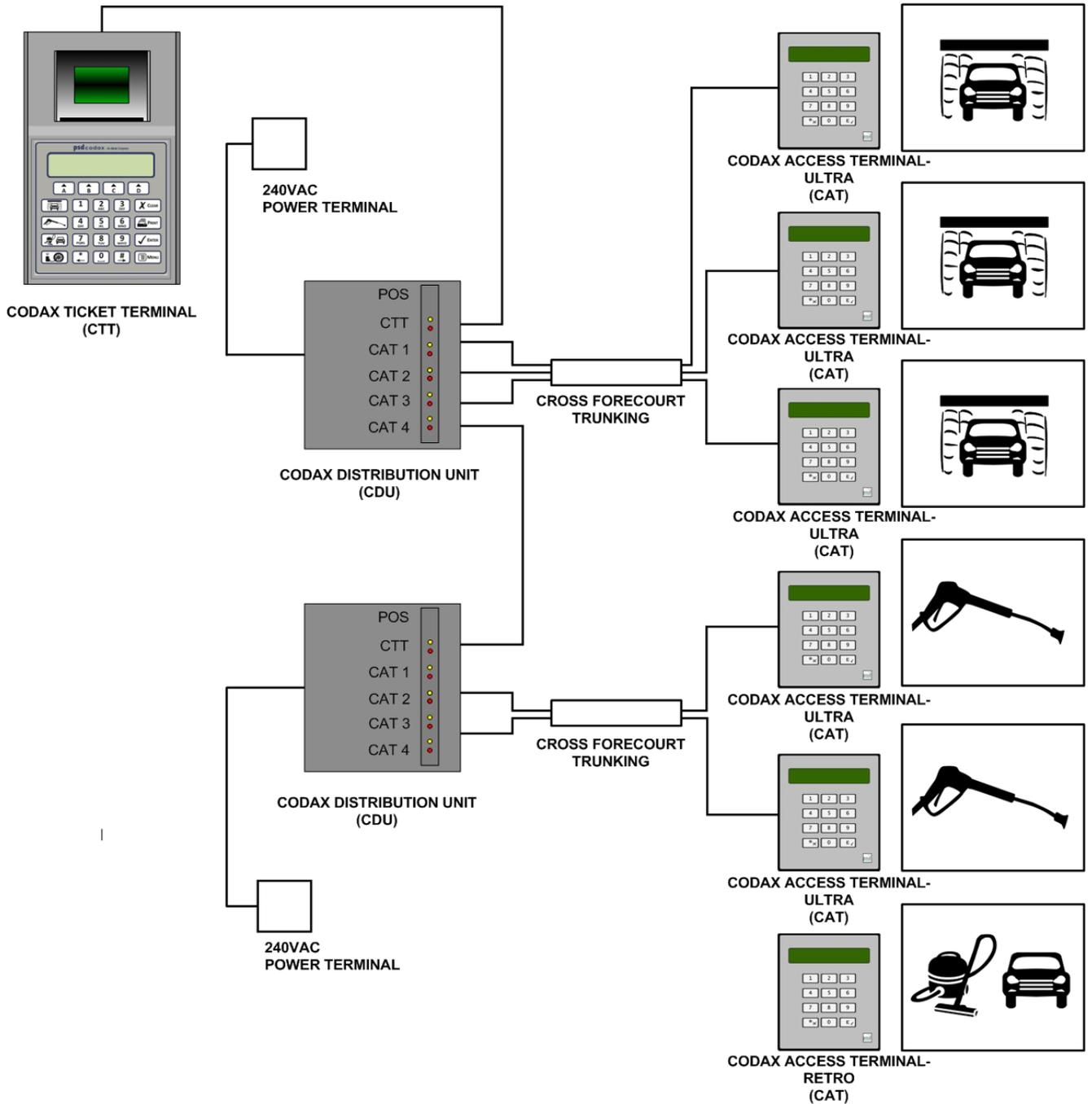
Networked Retro Installation Example

CODAX TICKET TERMINAL OWNERS MANUAL

2.4.7 COMBINED CONNECTION

The Codax system can be expanded to meet the needs of a large forecourt installation. Mixed Ultra and Retro configurations are possible within a single installation. If the maximum number of outputs of a single CDU is exceeded, two or more can be simply linked together.

The following example illustrates a forecourt with three Brush Wash services and two Jet Wash Bays, all operating in Ultra mode. A Vacuum bay is added to the installation and operates in Retro.

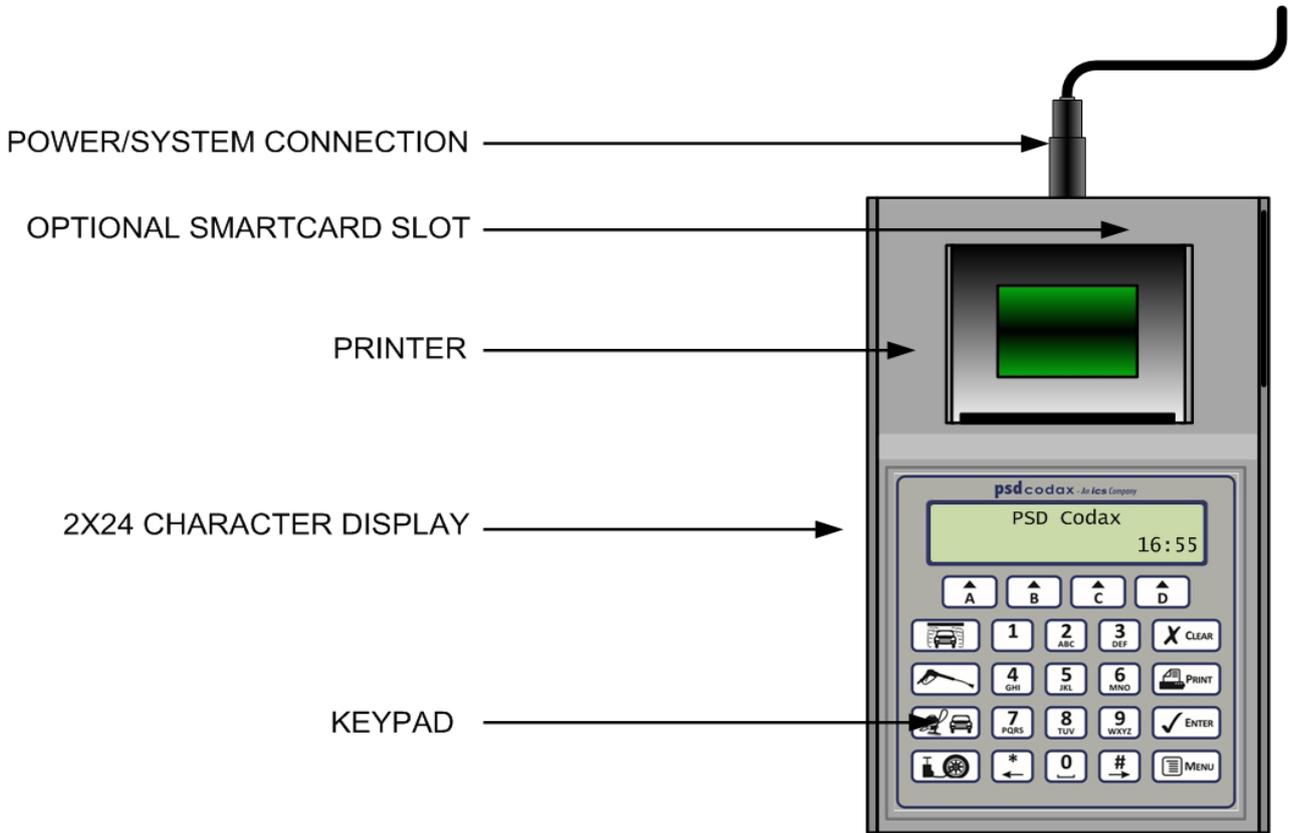


Combined Codax Installation Example

3 TERMINAL OVERVIEW AND LAYOUT

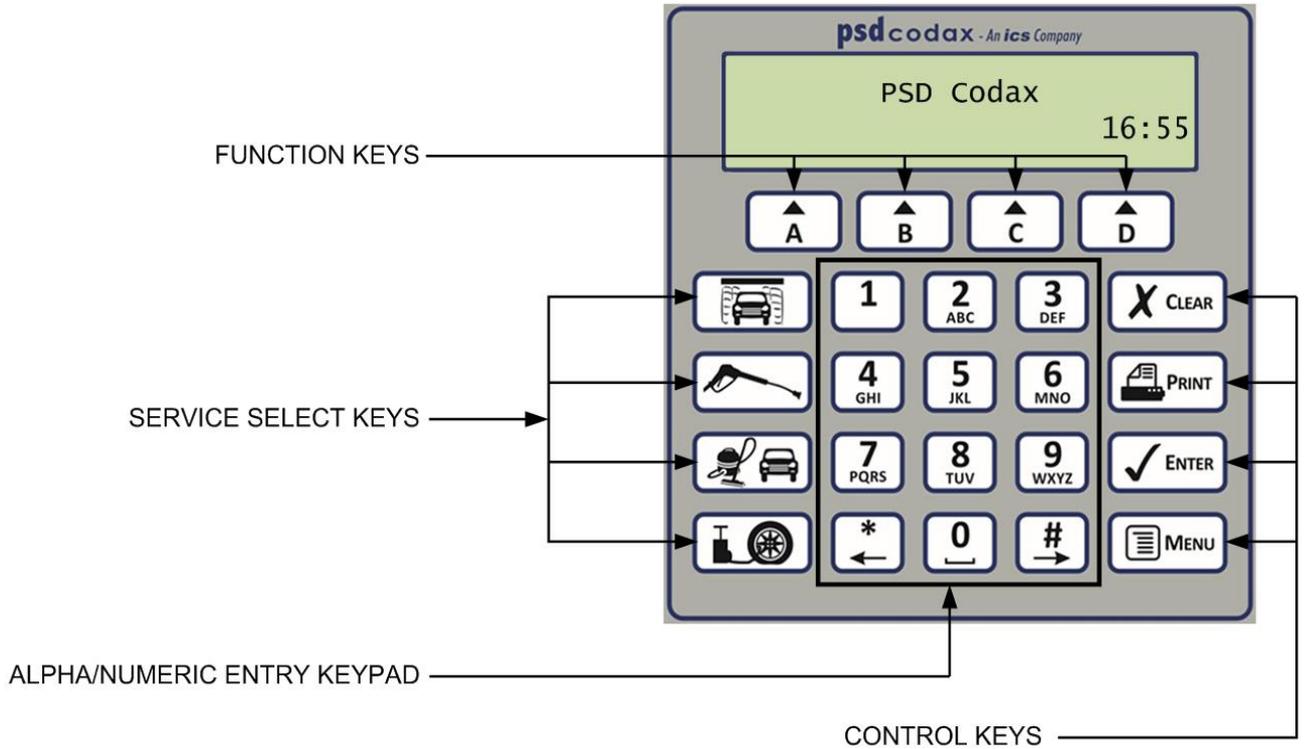
3.1 FEATURES AND CONTROLS

3.1.1 TERMINAL LAYOUT



CODAX TICKET TERMINAL OWNERS MANUAL

3.1.2 KEYPAD LAYOUT



3.1.3 FUNCTION KEYS

The operations performed by the function keys are variable. The functions available are shown on the screen adjacent to the respective function key.



CODAX TICKET TERMINAL OWNERS MANUAL

3.1.4 SERVICE SELECT KEYS

The service select keys are service specific and used when ordering a consumer service tickets.



BRUSH WASH Automatic carwash service



JET WASH Hand-held lance wash service



VACUUM Service



AIR Tyre Inflator service

3.1.5 ALPHA NUMERIC ENTRY KEYPAD

These keys allows the user to make numeric entries and edit text using an SMS Text message style text editor.



3.1.6 CONTROL KEYS



Delete or Cancel



Print function



Submit or Confirm



Menu access

CODAX TICKET TERMINAL OWNERS MANUAL

3.1.7 THE WELCOME SCREEN

The default welcome screen shows the PSD Codax header with the current time shown in the bottom right of the screen.



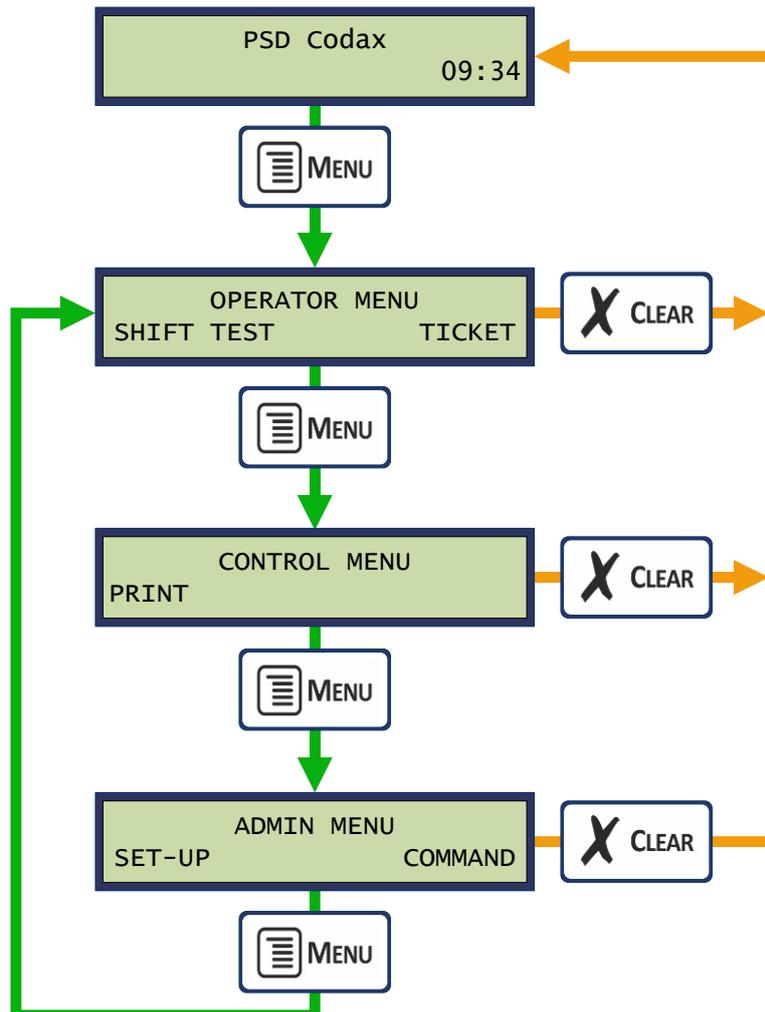
For welcome screen variations, see section 5.1 - WELCOME SCREENS.

3.2 MENU ACCESS

3.2.1 THE CODAX MAIN MENUS

The Codax menus are accessed by pressing the  key. Three main menus are available as illustrated below.

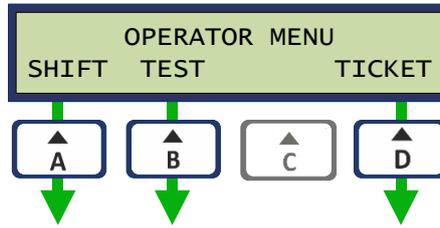
Pressing the  key at any time will return the operator to the welcome screen.



CODAX TICKET TERMINAL OWNERS MANUAL

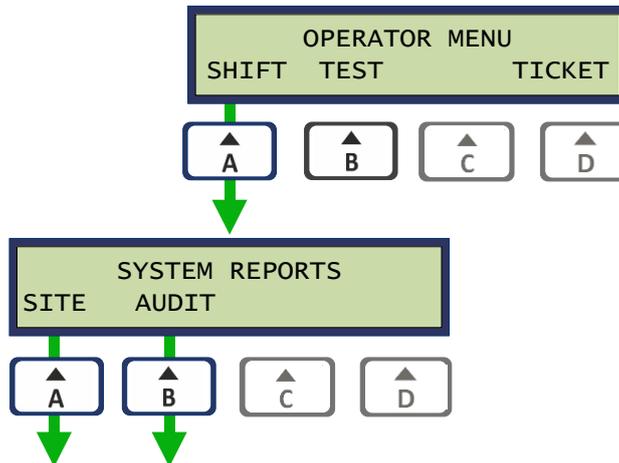
3.2.2 THE OPERATOR MENU

The *Operator Menu* allows reports to be printed (*SHIFT*), test tickets to be issued (*TEST*) and ticket codes to be checked (*TICKET*).



System Reports Menu

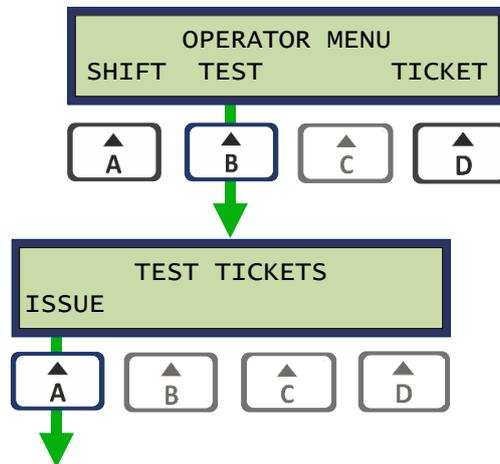
The System Report Level is the top menu level when selecting *SHIFT* from the Operator Menu. From here Site and Audit reports are available for printing. Selecting the *SITE* option will select the Site Reports menu and selecting *AUDIT* will select the Audit Reports menu. See section on sales reporting 3.3.4 - *SALES REPORTS* for more detail.



CODAX TICKET TERMINAL OWNERS MANUAL

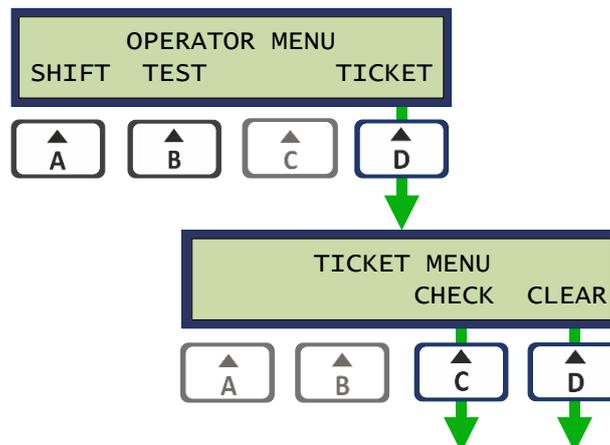
Test Ticket Menu

The *Test Tickets* menu is available by selecting the *TEST* option from the *Operator Menu*. Test Tickets allow the site maintenance engineer to operate machines for test purposes. The Test Tickets menu is used to open and close test sessions. A test session is opened when a test ticket is issued. On closing the test session, report tickets are printed for records. All test sessions are also logged for security purposes and prevent illicit use. See section 5.7 - *TEST TICKETS* for more details on Test Tickets.



Ticket Menu

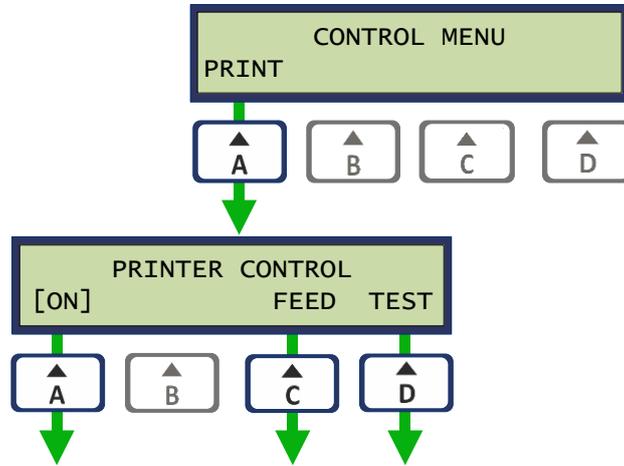
The *Ticket Menu* is available by selecting the *TICKET* option from the *Operator Menu* to allow the ticket check and clear facilities to be accessed. This facility allows the status of a ticket to be checked and provides the ability to clear a ticket from the database so that it becomes invalid. This function is only available for systems operating in Ultra mode. Ticket checking for Retro mode is available however at the Codax Access Terminal. See section 5.6 - *OTHER TICKET SERVICES*, for more details on *Ticket Checking*.



CODAX TICKET TERMINAL OWNERS MANUAL

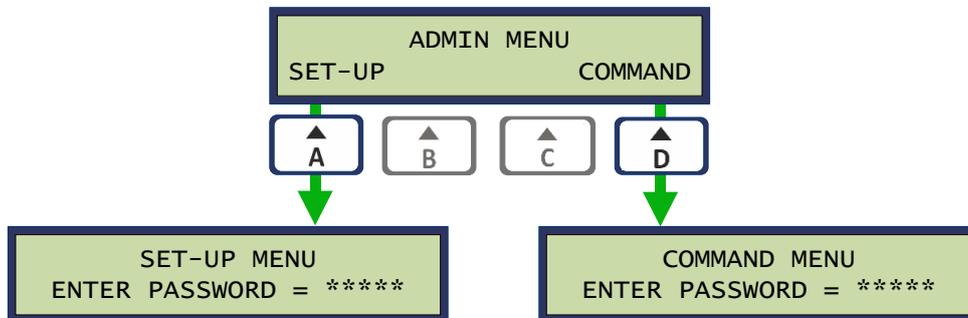
3.2.3 THE CONTROL MENU

The *Control Menu* has only one option, to select the print menu. Selecting the *PRINT* option gives access to the *Printer Control* menu. See section 5.2 - *THE PRINTER*, to see more information on the printer function.



3.2.4 THE ADMIN MENU

The *Admin Menu* provides access to the system configuration facilities. Both of these facilities require password entry to access. See section 4.1 - *THE COMMAND MENU* and section 4.5 - *SYSTEM SETUP MENU* for more details.



3.3 FUNCTIONAL OVERVIEW

3.3.1 TERMINAL CONFIGURATION

Cold Start Configuration

The Cold Start Configuration process configures the Codax System to meet the service requirements for a particular site installation. It allows the operator to define the services available as well as the number of programs available for each service. It also defines how each service connects to the system, either Ultra or Retro. The product of the Cold Start is the System Configuration ticket containing setup codes for the system's Codax Access Terminals.

Cold Start Configuration is available via the Command menu which requires the Engineer's password to access. *See section 4.1 - THE COMMAND MENU.*

Warning: Certain system parameters such as sales totals and program prices will be cleared by this process. All outstanding unused tickets will be cancelled.

Reset Configuration

The Reset Configuration is similar to a Cold Start in that a new System Configuration ticket is produced. The system is reconfigured to the previous Cold Start configuration and does not affect the system setup or current sales totals.

Reset Configuration is available via the Command menu which requires the Engineer's password to access. *See section 4.1 - THE COMMAND MENU.*

Warning: All outstanding unused tickets will be cancelled by this operation

System Set-up

The System Set-up is defined by a series of setup options available from the Setup menu. These setup options fully customise the Ticket Terminal to the site operator's requirement.

The System Set-up menus are available from the Admin menu and require the Manager's Password to access. *See section 4.5 - SYSTEM SETUP MENU.*

Resetting Factory Defaults

The terminal may be returned at any time to its factory default setting using this function.

Resetting Factory Defaults is available via the Command menu which requires the Engineer's password to access. *See section 4.1 - THE COMMAND MENU.*

Warning: Following the Factory Reset a full configuration of the system including a Cold Start will be required.

Saving User Configuration

The user configuration is stored in Battery Backed RAM and protected by a Cyclic Redundancy Check (CRC). A second level of protection is provided by the removable E2PROM module. Changing the internal battery does therefore not destroy the current configuration.

3.3.2 TICKET SERVICES

Service Code Tickets

The Codax system operates by the consumer purchasing a Service Code Ticket at the Codax Ticket Terminal for a particular forecourt service and program number, taking the ticket to the service on the forecourt and entering the service code from that ticket at the Codax Access Terminal controlling the service. Alternatively, tickets can be scanned, if the barcode option is taken.

The Codax Ticket Terminal operator simply selects the service, through one of the service select buttons, enters the service program number and presses the print button. The ticket is then printed and the sale is made.

Other Special ticket types are also available:

Promotional	General site promotion
Off-Peak	Boost sales during low volume periods
Site	Zero price site usage
Multi-use	Single ticket used multiple times

Promotional Tickets

The promotional ticket allows the site operator to include forecourt services in general site promotions where a discounted service price can be given. A separate promotional price may be specified for all service programs.

Off-Peak Tickets

The Off-Peak facility allows an operator to promote usage during a low volume period. A ticket sold for off-peak will only be accepted at the Access Terminal during the user specified off-peak times. See *section 4.6.10 - OFF PEAK SETUP*.

For Off-Peak the following settings are available in the setup menu:

Off-Peak enable	The Off-Peak facility is enabled or disabled as required.
Off-Peak times	Specified by a start and end time, plus the days of the week.
Off-Peak Pricing	Separate pricing for all system programs.
Off-Peak Message	Editable text message printed on consumer off-peak tickets

Site Tickets

The Site Ticket is a zero priced, audited ticket. These tickets may be used to give a free wash at the operator's discretion.

Multi-Use Tickets

Multi-use tickets allow a single ticket to be used multiple times for a specified forecourt service program. This ticket is available for Brush Wash services only and is only available when operating in Ultra mode.

Ticket Checks

The Check Ticket facility allows the six-digit service code of any ticket previously issued to be status checked. This will tell whether the ticket has been used, expired, etc. See *section 5.6 - OTHER TICKET SERVICES*.

CODAX TICKET TERMINAL OWNERS MANUAL

The Clear Ticket facility allows any ticket previously issued to be cleared from the system and may no longer be available for use.

Ticket checking at the Ticket Terminal is only available for services connected in Ultra. For Retro systems the ticket check is done at the Access Terminal.

Test Tickets

Test Tickets are zero price tickets issued to the maintenance engineer when working on site. The test ticket allows the machine to be operated a number of times during a maintenance session. At the end of a maintenance session a test report is printed and signed by the engineer. All test sessions are audited and included in the site reports. See section 5.7 - TEST TICKETS.

Custom Text Messages and Headers

A number of the text messages printed on consumer reports are editable to allow complete customisation of the ticket issued to the customer. See section 4.6.11 - EDITABLE TEXT - EXPANDED MENU.

Ticket Header	Top line of the ticket
Ticket Footer	Bottom line of the ticket
Service Headers	The site standard and auxiliary services can be renamed
Additional Message	A number of additional text lines may be added to tickets
Off-Peak message	The message giving details of the Off-Peak promotion
Program Names	All service programs can be renamed if required

3.3.3 CODAX SMARTCARD

The Codax Smartcard system is an optional card based system that may be added to the basic Codax system to provide additional methods for payment and access to forecourt services. It also offers additional promotional possibilities and fleet operating customers.

The Codax Smartcard system uses a number of Smartcard types:

Codax Admin Card

The Codax Admin Card is a unique site identity card that ensures Smartcards from other systems are refused. Operator with multiple sites can also use the Admin Card to allow Smartcards issue at one site to be used at all locations.

Codax Value Card

The Codax Value Card is a Smartcard issued to the customer that is loaded with credits that may be redeemed at any forecourt wash service equipped with the Smartcard system. It may therefore be used at the customer's discretion. Credit is added at the Ticket Terminal by purchasing pre-defined Smartcard packages or topped-up by the required credit amount.

Codax Program Card

The Codax Program Card is a Smartcard issued to the customer that is specific to a single wash service program. Here the card is loaded with the number of times that specific program may be used. Programs are added by purchasing a pre-defined Smartcard packages.

Note: A blank Smartcard may become a Value or Program card according to the initial purchase. Once issued, credit or programs may be added to a card but the card type cannot change. That is, once a Value Card always a Value Card.

3.3.4 SALES REPORTS

Sales report functions are available from the Operator Menu by selecting the *SHIFT* option. Two levels of sales reports are available, Site and Audit. See *section 6 - SALES REPORTING*.

Site Reports

All ticket and Smartcard sales are recorded and summarised for the Site Report. Site reports are updated each time a sale is made and two report types are available:

Shift Close Down Report	Printed at the end of a Shift period (end of day)
Mid-Shift Report	May be printed at any time for current sales figures

As well as recording sales for the current shift period, a lifetime sales record is also maintained and printed on all reports.

Audit Reports

A separate sales record is maintained for the Audit Reports. Audit totals are updated at the end of the Shift Period and two audit report types are available:

Audit Close Down Report	Printed at the end of the Audit period
Audit Mid Report	May be printed at any time for current audit figures

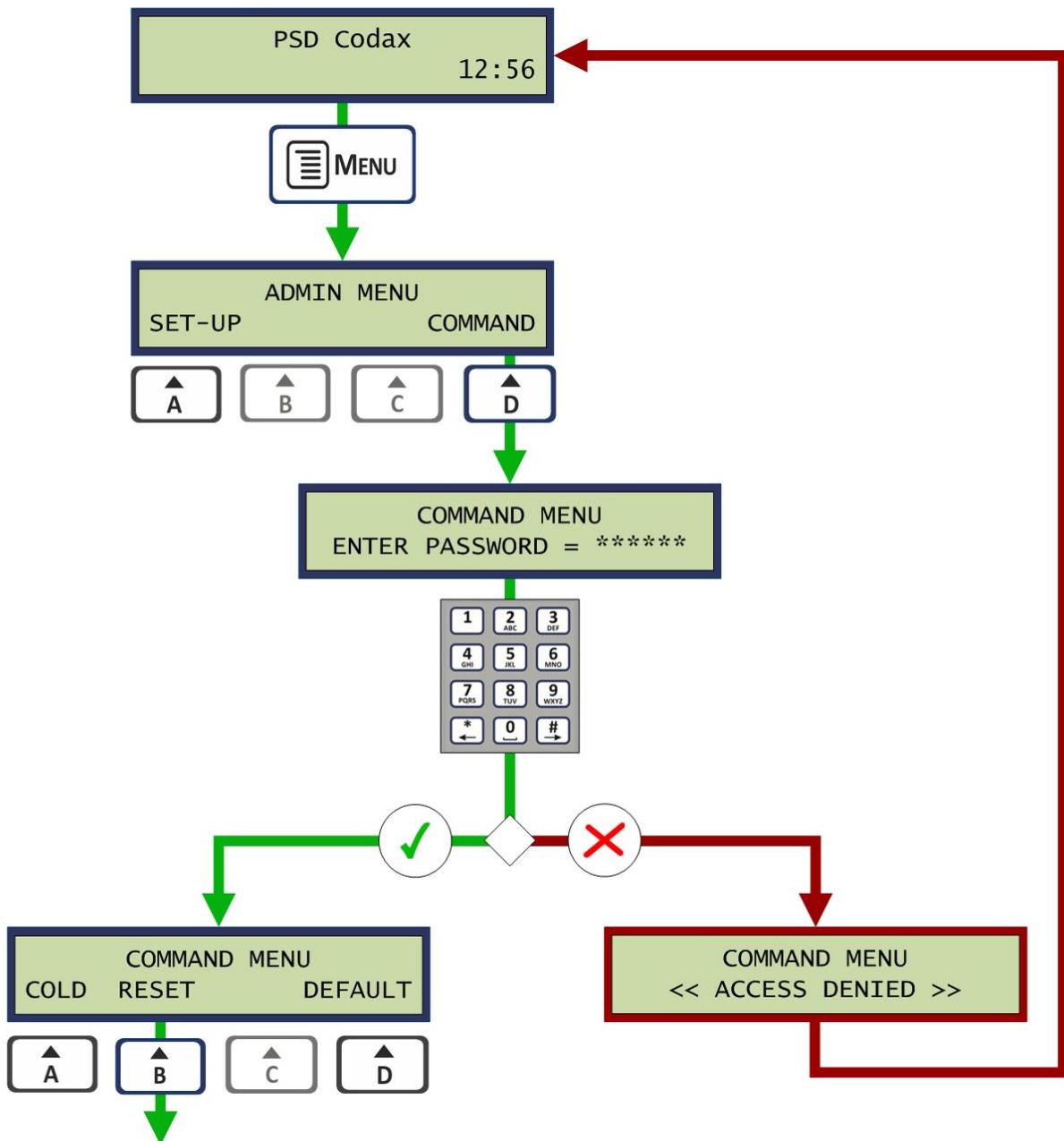
4 TERMINAL CONFIGURATION

4.1 THE COMMAND MENU

The command Menu provides access to the system configuration facilities. These facilities are not normally available to the sales assistant and are therefore password protected.

The Command Menu is accessed by selecting the *COMMAND* option from the Admin Menu. Access to this menu requires the Engineer's Password to be entered.

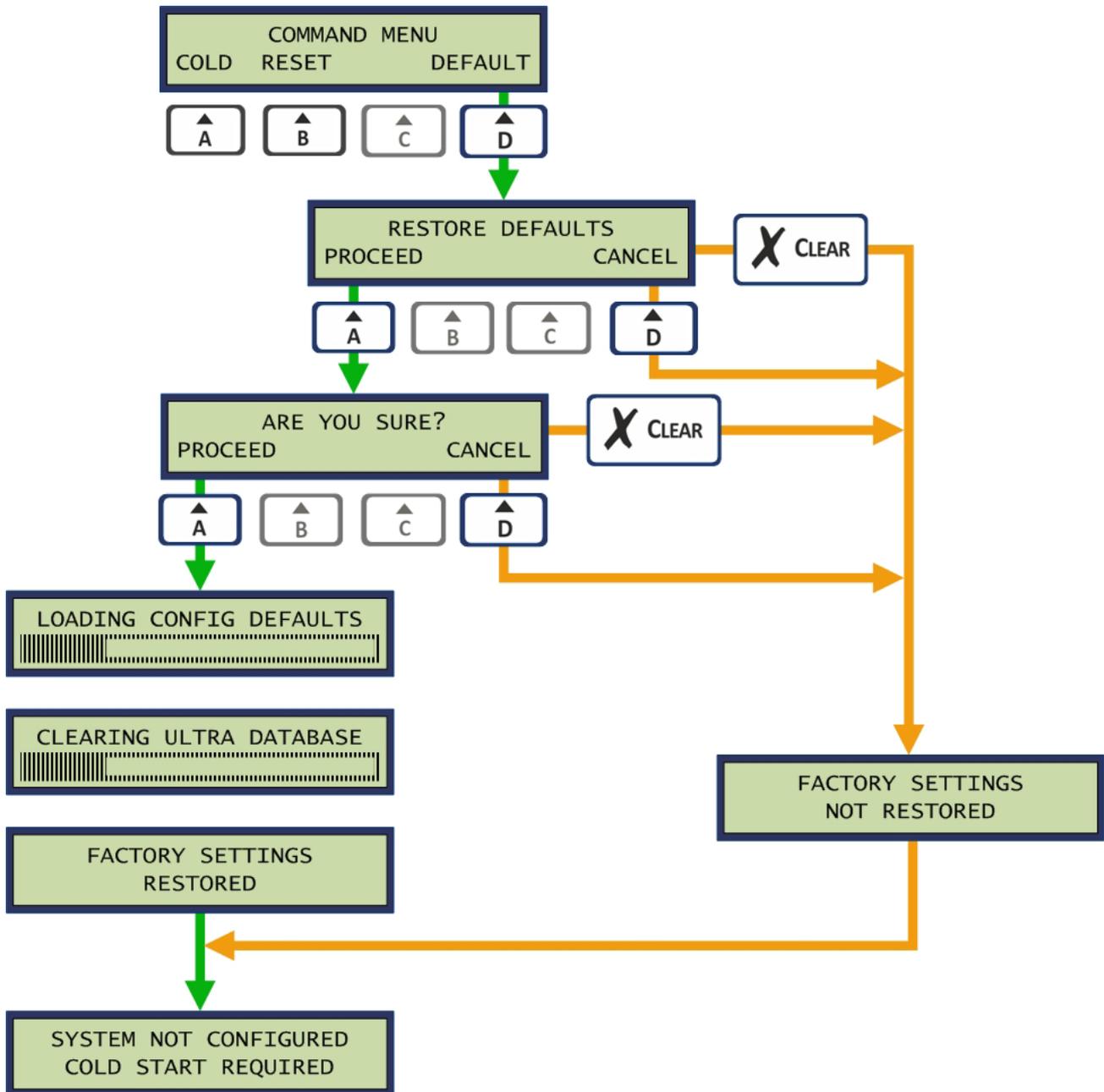
Engineer's Password 32923



4.2 RESTORING SYSTEM DEFAULTS

System configuration settings may be returned to their factory default setting by selecting the *DEFAULT* option from the Command Menu.

Warning: This operation will overwrite the current configuration and a complete reconfiguration of the system will be required.



4.3 COLD START

4.3.1 THE COLD START SYSTEM CONFIGURATION PROCESS

Cold Start is the process used to configure the Codax Ticket Terminal to match the forecourt services available for a particular site installation. Cold Start enables the services used and sets the number of programs available for each service. Cold Start also determines how the Codax Access Terminal controlling a service is connected, Ultra or Retro, and provides the set-up codes for those terminals.

The following service types are available:

Brush Wash	Automatic drive in car wash
Jet Wash	Hand held lance type wash bay
Vacuum	Vacuum service bay
Air	Tyre inflation service
Auxiliary 1	User definable service 1
Auxiliary 2	User definable service 2

Note: For all the above service types, the service header text appearing on the screen and on printed tickets is editable by the user through the Setup menus. See section 4.6.11 - EDITABLE TEXT - EXPANDED MENU.

A total of 31 system programs are available for distribution amongst the services enabled, with a maximum of 30 programs allocated to any single service type.

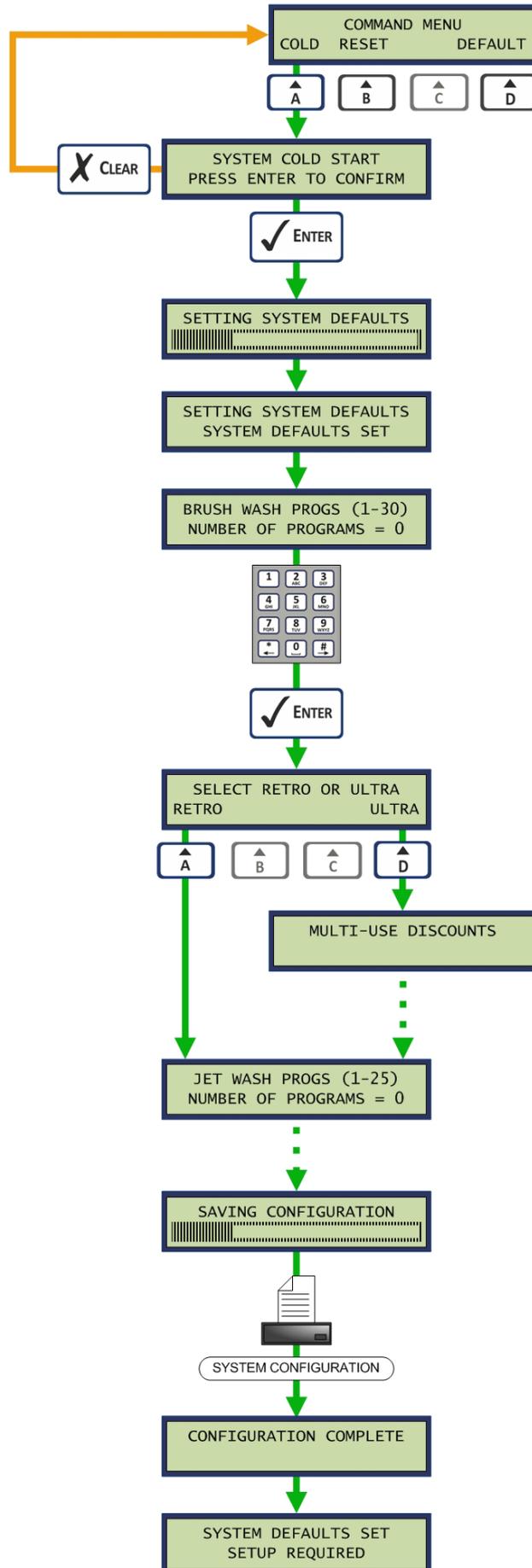
The Cold Start function is available from the Command Menu which requires the Engineer's password to access. See section 4.1 - THE COMMAND MENU.

After Selecting and confirming the Cold Start option the Cold Start default settings are loaded. This process will clear the sales record and price tables – This may take a few minutes. Following this the configuration begins. The operator is stepped through each of the service types and the number of programs available for each service available is entered, or zero for services that are not required. The operator selects whether the service is operating in Ultra or Retro mode according to the installation. For Brush Wash, if enabled in Ultra mode, the Multi-use ticket option is shown. See section 5.4.6 - MULTI-USE TICKETS. After stepping through each service the configuration is saved and the System Configuration ticket is printed. See section 4.3.3 - THE SYSTEM CONFIGURATION TICKET.

Note: If the printer is not available for Cold Start Configuration, codes are shown on the display and should be noted down by the operator. The System option from the setup menu allows a System Configuration ticket to be reprinted as required. See section 4.6.21 - SYSTEM.

CODAX TICKET TERMINAL OWNERS MANUAL

The following diagram illustrates the Cold Start Process.



CODAX TICKET TERMINAL OWNERS MANUAL

4.3.2 ENABLING MULTI-USE TICKETS (ULTRA ONLY)

Multi-use offers discounts for a multiple use ticket. This ticket type is available for the Brush Wash service only. During the Cold Start configuration if the Brush Wash service is enabled in Ultra mode, the *Multi-use Discounts* option is presented. Selecting the *MULTI* option from the Select System Type menu will enable this option. Selecting *SINGLE* will disable Multi-use. See section 5.4.6 *MULTI-USE TICKETS*.

Two operational modes are available:

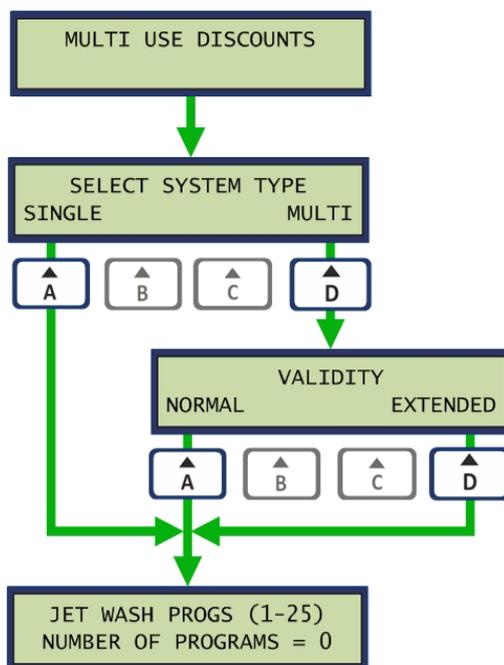
In *Normal* mode, 5, 10 or 15 use tickets are available with validity of 5, 10 and 15 weeks respectively.

In *Extended* mode, a 5 use ticket is available with a validity of 15 weeks.

Multi-use discounts are defined from the *Price* option in the Set-up menu. See section 4.6.5 *PRICES*.

Note: When using Multi-use tickets, the validity of single-use ticket is restricted to a maximum of seven days.

Below is a section of the Cold Start Process, detailing the Multi-use selection.



4.3.3 THE SYSTEM CONFIGURATION TICKET

The System Configuration ticket is printed as a result of the Cold Start configuration. The ticket shows the services and programs enabled with a price value for each program – Zero for a new Cold Start. Setup codes are entered at the respective Codax Access Terminal to enable it for use in the installation. A Program Base value is shown for Retro installations only and should also be entered at the respective Codax Access Terminals during installation.

An example of a System Configuration ticket is shown below. The actual contents of the ticket will vary depending on the configuration it represents. This ticket represents an installation with a Brush Wash with 4 programs configured for Ultra connection. A Jet Wash with 2 programs also configured for Ultra. A Vacuum with a single program configured for Retro.

Note: If the printer is not available for Cold Start, Setup and Program Base values are shown on the screen.

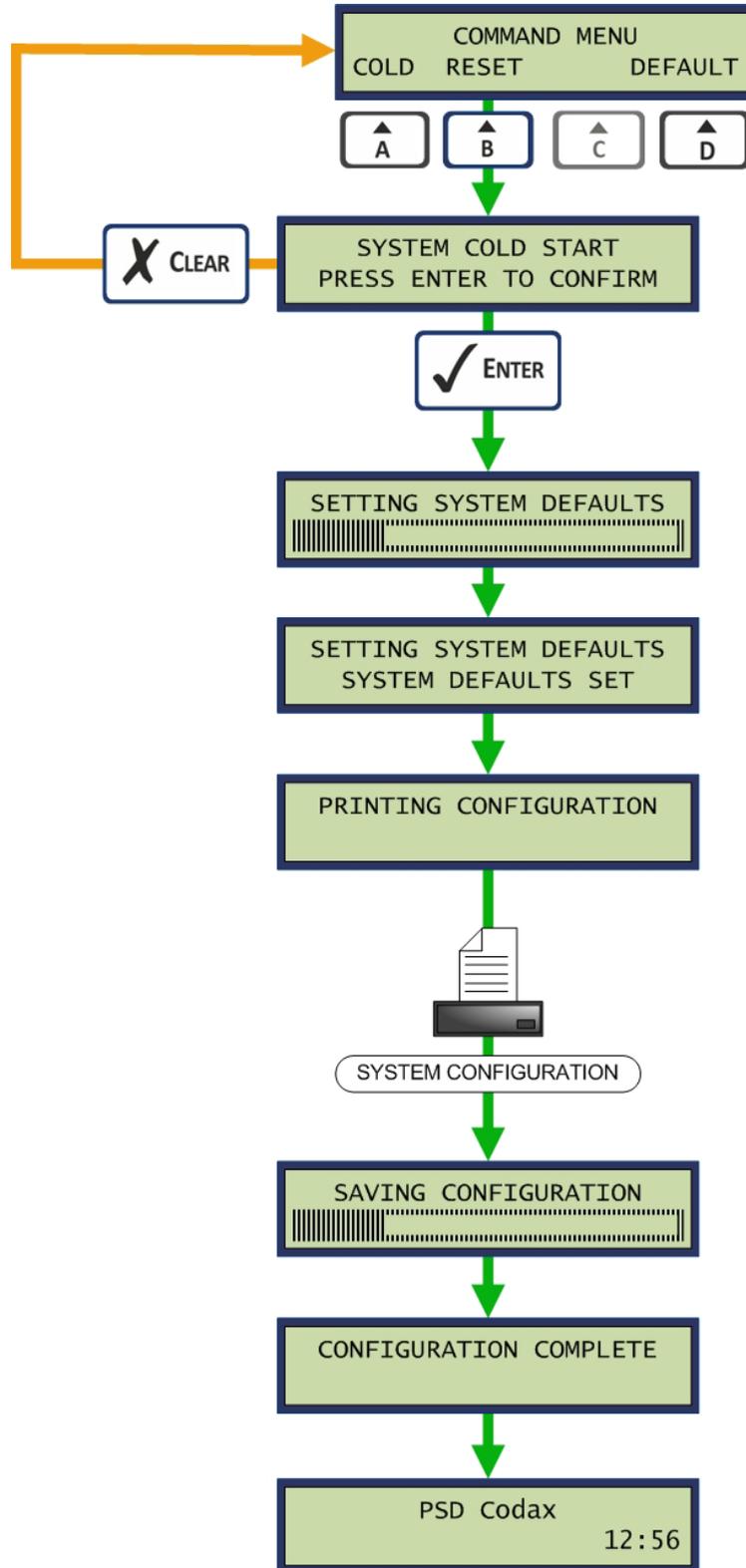
PSD Codax			
SYSTEM CONFIGURATION			
INITIALISED PERIPHERALS			
BRUSH WASH			
*	NORMAL	PROMO.	O/PEAK
1	6.50	6.90	5.60
2	6.00	5.50	5.20
3	5.50	5.10	5.10
4	4.50	4.50	4.10
SET-UP CODE = 248-533 (ULTRA)			
JET WASH			
*	NORMAL	PROMO.	O/PEAK
1	6.00	5.60	5.50
2	4.00	3.80	3.60
SET-UP CODE = 248-534 (ULTRA)			
VACUUM			
*	NORMAL	PROMO.	O/PEAK
1	2.00	2.00	2.00
SET-UP CODE = 248-535 (RETRO) PROGRAM BASE = 7			
SYSTEM ENABLED FOR SINGLE USE			
VALID AT THIS SITE ONLY			
			

4.4 COLD START RESET

4.4.1 RESETTING THE SYSTEM CONFIGURATION

The Reset system configuration allows a Cold Start reset of the system without changing the current configuration. Current price and usage report information is retained. As a result of this a new System Configuration ticket is printed that is used to reset all Codax Access Terminals connected to the system.

Warning: Any outstanding or unused tickets will become invalid as a result of this process.



CODAX TICKET TERMINAL OWNERS MANUAL

4.4.2 THE RESET CONFIGURATION TICKET

A new System Configuration ticket is printed as a result of a Cold Start Reset. This ticket has the same layout as the ticket printed as a result of a normal Cold Start showing the services and systems configured. Since the price table is not reset as a result of this process, the current program price settings are included on this ticket.

An example of the System Configuration is shown below.

PSD Codax			
SYSTEM CONFIGURATION			
INITIALISED PERIPHERALS			
BRUSH WASH			
*	NORMAL	PROMO.	O/PEAK
1	6.50	6.90	5.60
2	6.00	5.50	5.20
3	5.50	5.10	5.10
4	4.50	4.50	4.10
SET-UP CODE = 248-533 (ULTRA)			
JET WASH			
*	NORMAL	PROMO.	O/PEAK
1	6.00	5.60	5.50
2	4.00	3.80	3.60
SET-UP CODE = 248-534 (ULTRA)			
VACUUM			
*	NORMAL	PROMO.	O/PEAK
1	2.00	2.00	2.00
SET-UP CODE = 248-535 (RETRO) PROGRAM BASE = 7			
SYSTEM ENABLED FOR SINGLE USE			
VALID AT THIS SITE ONLY			
			

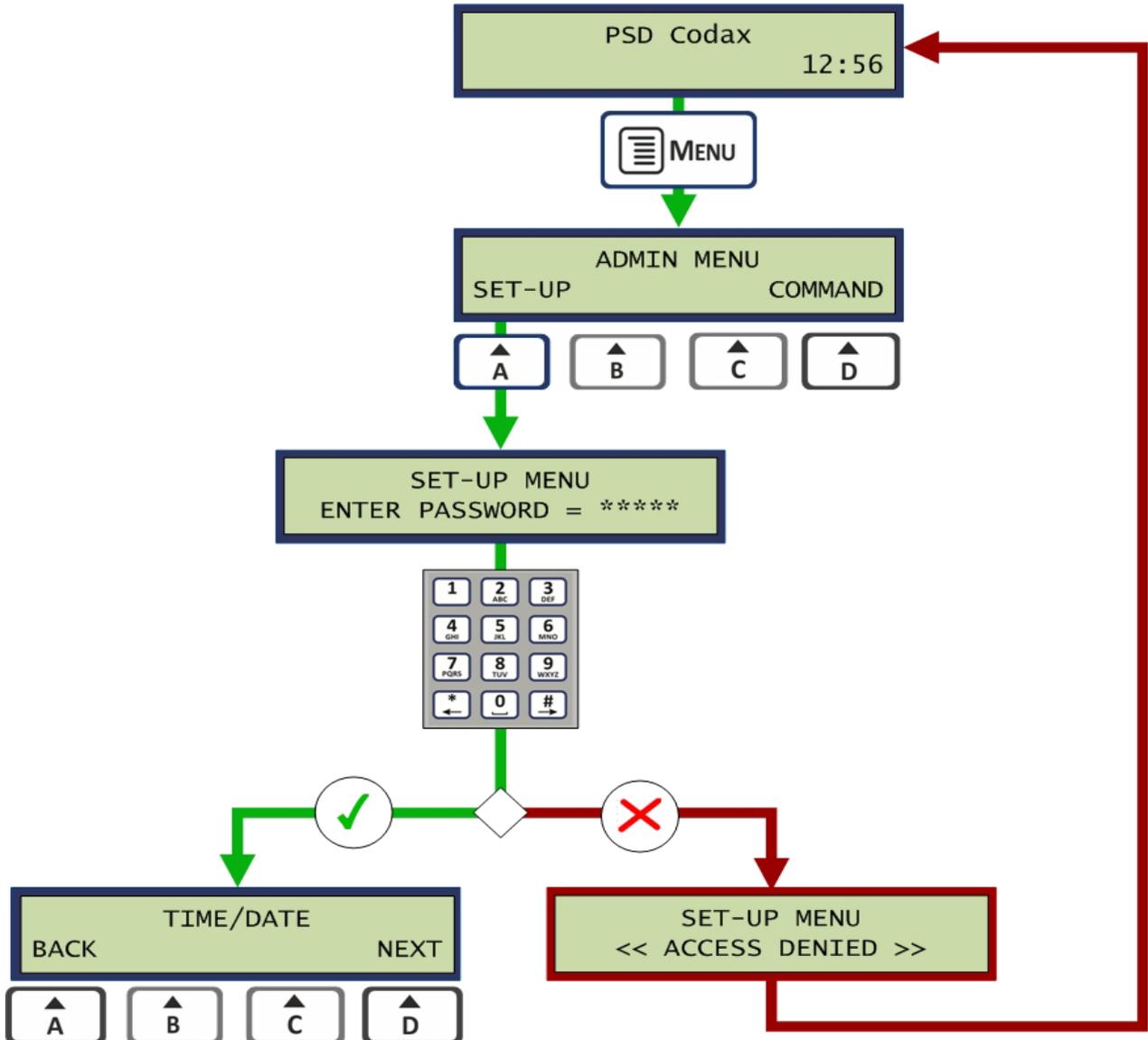
CODAX TICKET TERMINAL OWNERS MANUAL

4.5 SYSTEM SETUP MENU

4.5.1 ACCESSING THE SETUP MENU

The Setup Menu is accessed by selecting the *SET-UP* option from the Admin Menu. Access to this menu requires the Managers Password to be entered.

Manager's Default Password 12345

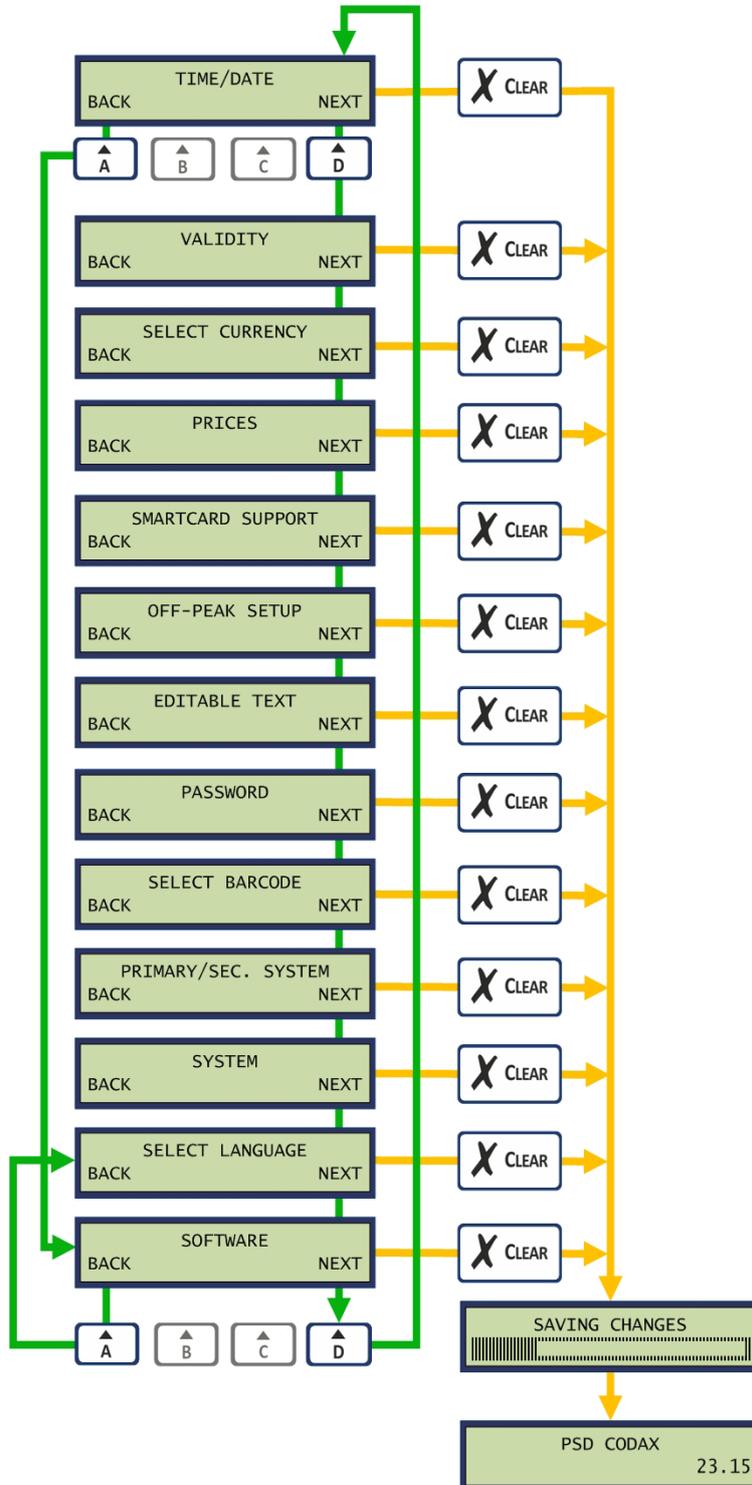


CODAX TICKET TERMINAL OWNERS MANUAL

4.5.2 NAVIGATING THE SETUP MENUS

The setup menu are navigated using the option A and D buttons to step through the options. The Enter key is pressed to select and edit the option shown. The Clear key may be pressed at any time to exit the menu and save any changes made.

Note: Some of the items in the following header list are optional and not available for certain installations.

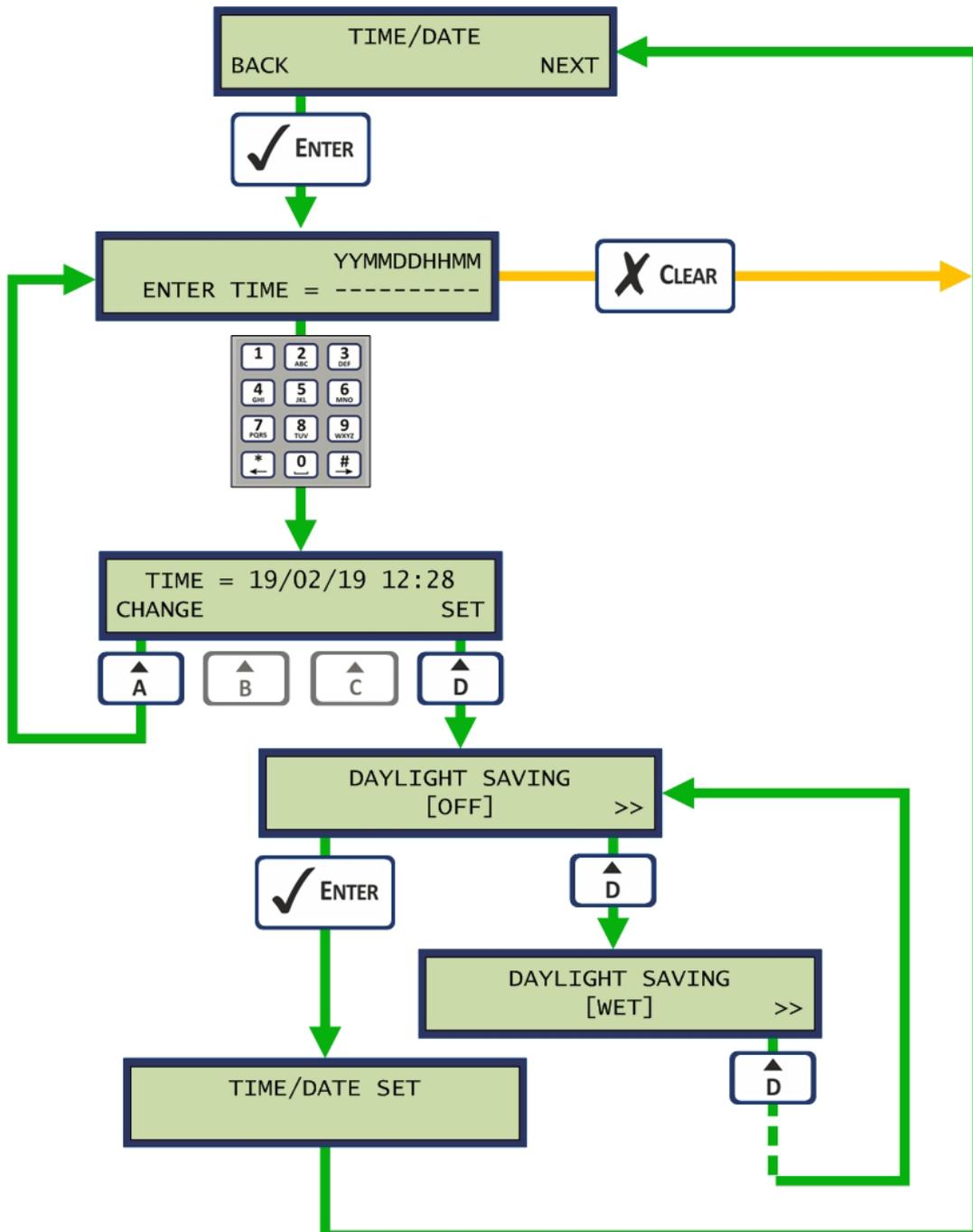


4.6 SET-UP MENU FUNCTIONS

4.6.1 TIME AND DATE

The *Time/Date* function allows the current time and date to be adjusted. Date and Time is entered in the order: Year/Month/Day/Hour/Minute. Times are entered in 24 hour format. The automatic daylight saving zone may be selected or turned off. The following zones are included:

- OFF No daylight saving adjustment
- WET Western European Time
- CET Central European Time
- EET Eastern European Time
- USA United States of America
- AUS Australia
- NZL New Zealand

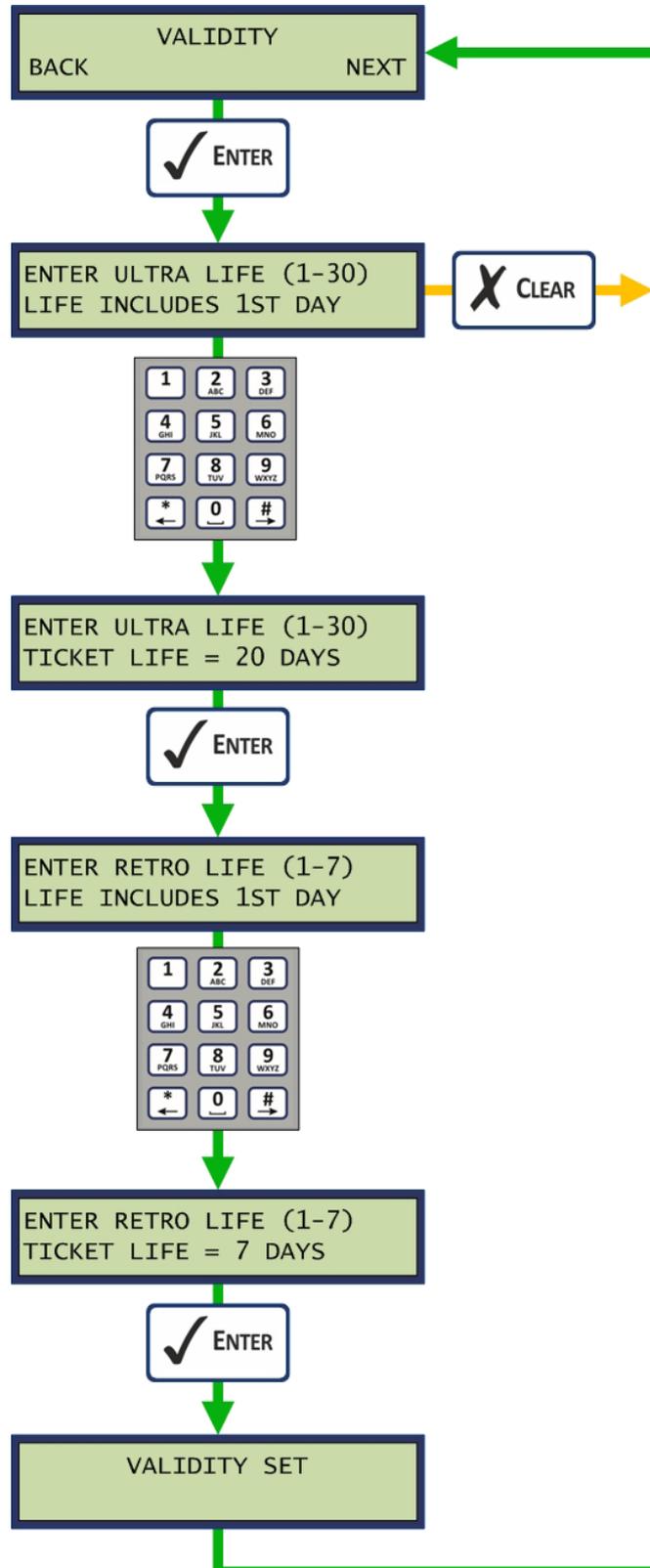


CODAX TICKET TERMINAL OWNERS MANUAL

4.6.2 VALIDITY

The *Validity* function sets the number of days that a single ticket is valid for. Separate entries are made for Ultra and Retro.

Note: If Multi-use tickets are enabled, single ticket life is restricted to a maximum of 7 days.

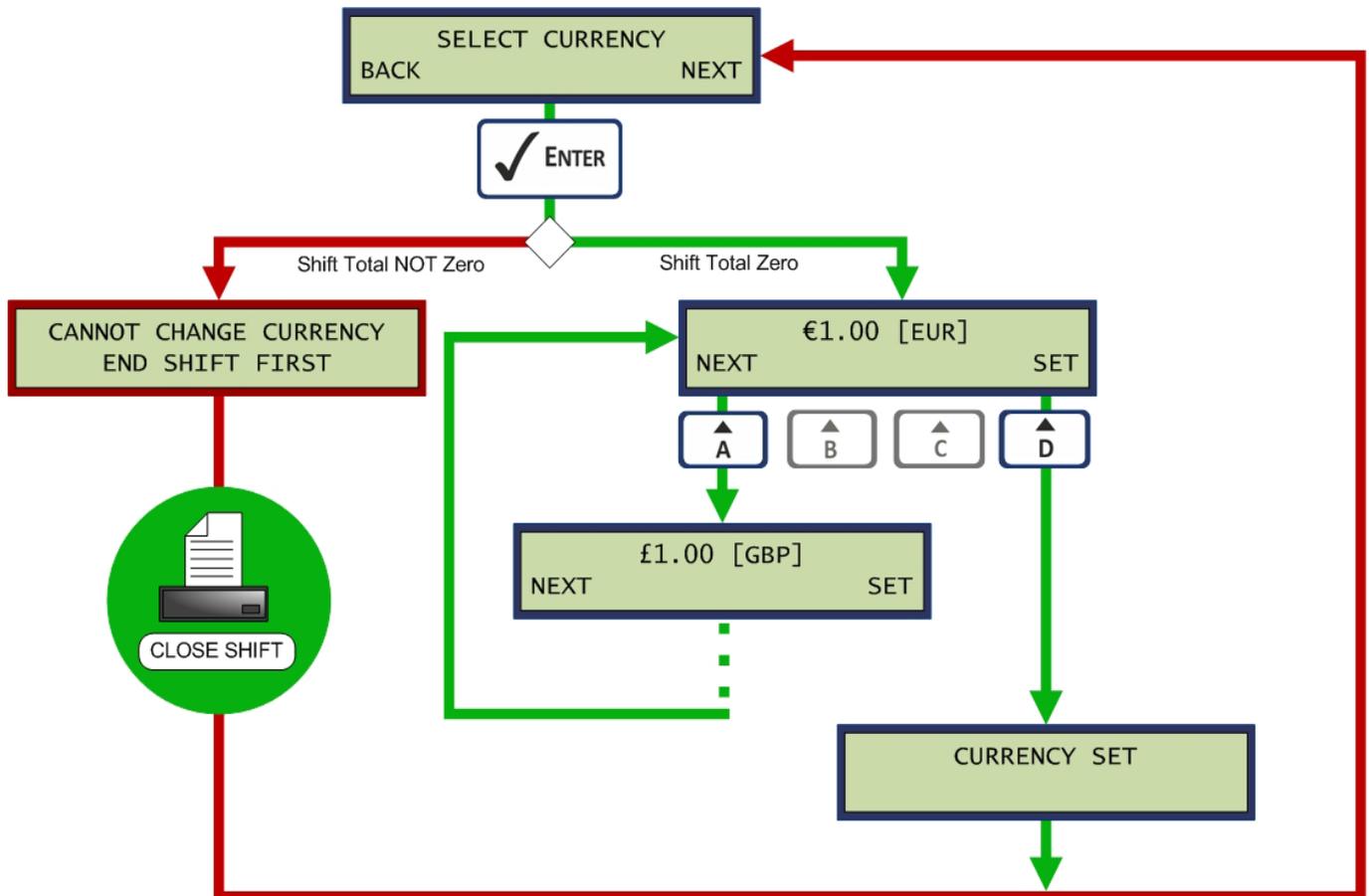


CODAX TICKET TERMINAL OWNERS MANUAL

4.6.3 SELECT CURRENCY

The *Select Currency* function allows the currency format and symbol to be selected.

Note: The currency setting can only be changed at the end of a shift period. See section 6.2.1 - SITE REPORTS MENU.



The following currencies are supported:

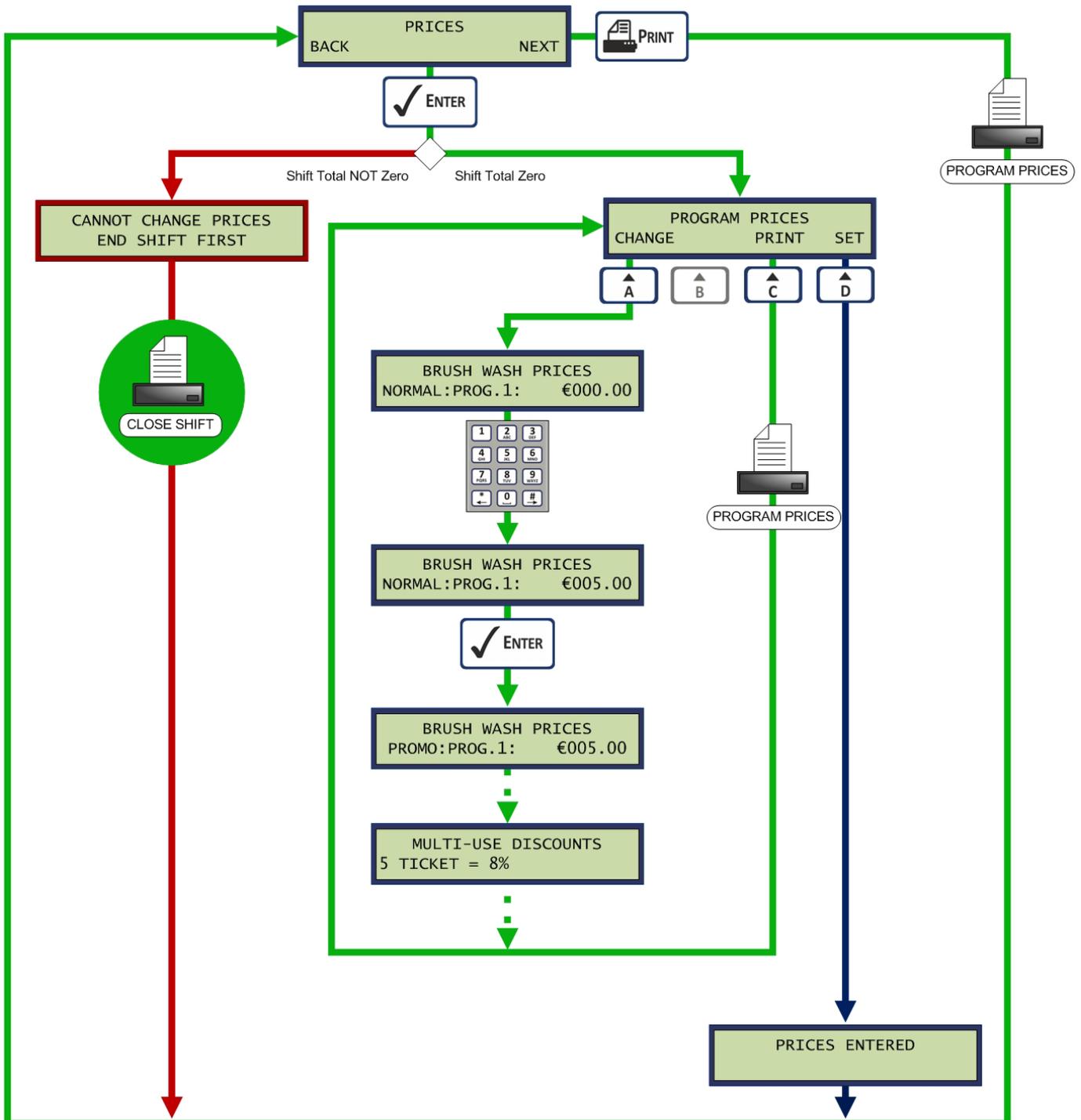
EUR	Euro
GBP	British Pound
SEK	Swedish Krona
NOK	Norwegian Krone
DDK	Danish Krone
USD	US Dollar
AUD	Australian Dollar
NZD	New Zealand Dollar
CHF	Swiss Franc
PLN	Polish Zloty
HRK	Croatian Kuna
CZK	Czech Koruna
BAM	Bosnia and Herzegovina Mark
HUF	Hungarian Forint
RUB	Russian Ruble
CLP	Chilean Peso

CODAX TICKET TERMINAL OWNERS MANUAL

4.6.4 PRICES

The *Prices* option allows prices to be set for all the programs initialised during the Cold Start configuration. See section 4.3 - *COLD START*. For each program, separate prices may be entered for Normal tickets, Off-Peak tickets and Promotion tickets. The Multi-use discount values are also entered if Multi-use function is enabled. Pressing the print option will result in the printing of the Program Price ticket.

Note: Ticket prices can only be changed at the end of a shift period. See section 6.2.1 - SITE REPORTS MENU.



CODAX TICKET TERMINAL OWNERS MANUAL

The Program Prices ticket show the current program price settings for all services and programs enabled. Price settings for Normal, Promotional and Off-Peak programs are given. Multi-use discounts are included for Brush Wash if enabled. The *Price Change* value is incremented each time a change is made to the program prices.

Example:

Brush Wash for 4 programs with Multi-use, Jet Wash for 2 programs. Currency is the Euro.

PSD Codax

PROGRAM PRICES (EUR)

PRICE CHANGE = 006

BRUSH WASH

*	NORM.	PROMO.	O/PEAK
1	6.00	5.50	5.50
2	5.00	4.80	4.80
3	4.50	4.30	4.30
4	4.00	3.80	3.80

MULTI-USE DISCOUNTS

5 TICKET DISCOUNT = 5%
10 TICKET DISCOUNT = 8%
15 TICKET DISCOUNT = 12%

JET WASH

*	NORM.	PROMO.	O/PEAK
1	5.00	5.50	5.50
2	4.00	3.60	3.60

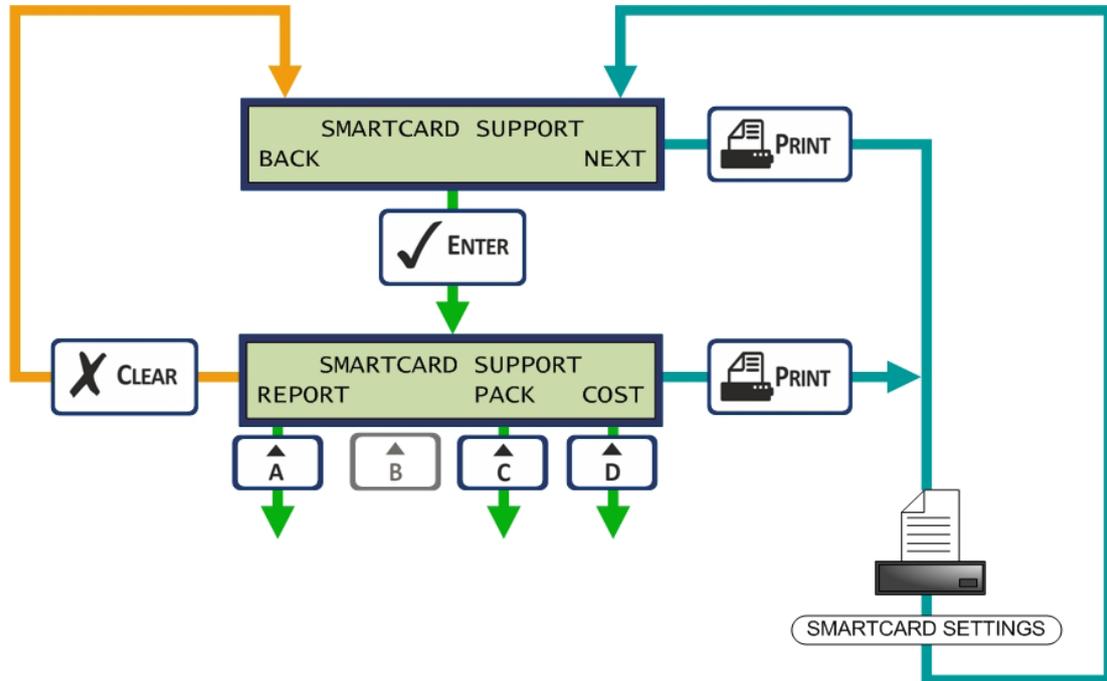
VALID AT THIS SITE ONLY

- [1] Header showing currency setting
- [2] Price Change count
- [3] Brush Wash price table
- [4] Multi-use discount settings
- [5] Jet Wash price table

CODAX TICKET TERMINAL OWNERS MANUAL

4.6.5 SMARTCARD SUPPORT (OPTIONAL UPGRADE)

On selecting the *Smartcard Support* option a second menu screen is shown allowing the Smartcard Package and Costing to be defined. Pressing the *Print* button here will print a Smartcard Settings ticket showing the current Smartcard top-up and pack settings.



CODAX TICKET TERMINAL OWNERS MANUAL

The Smartcard Settings ticket shows the current top-up and multi-buy package details and price settings.

Example:

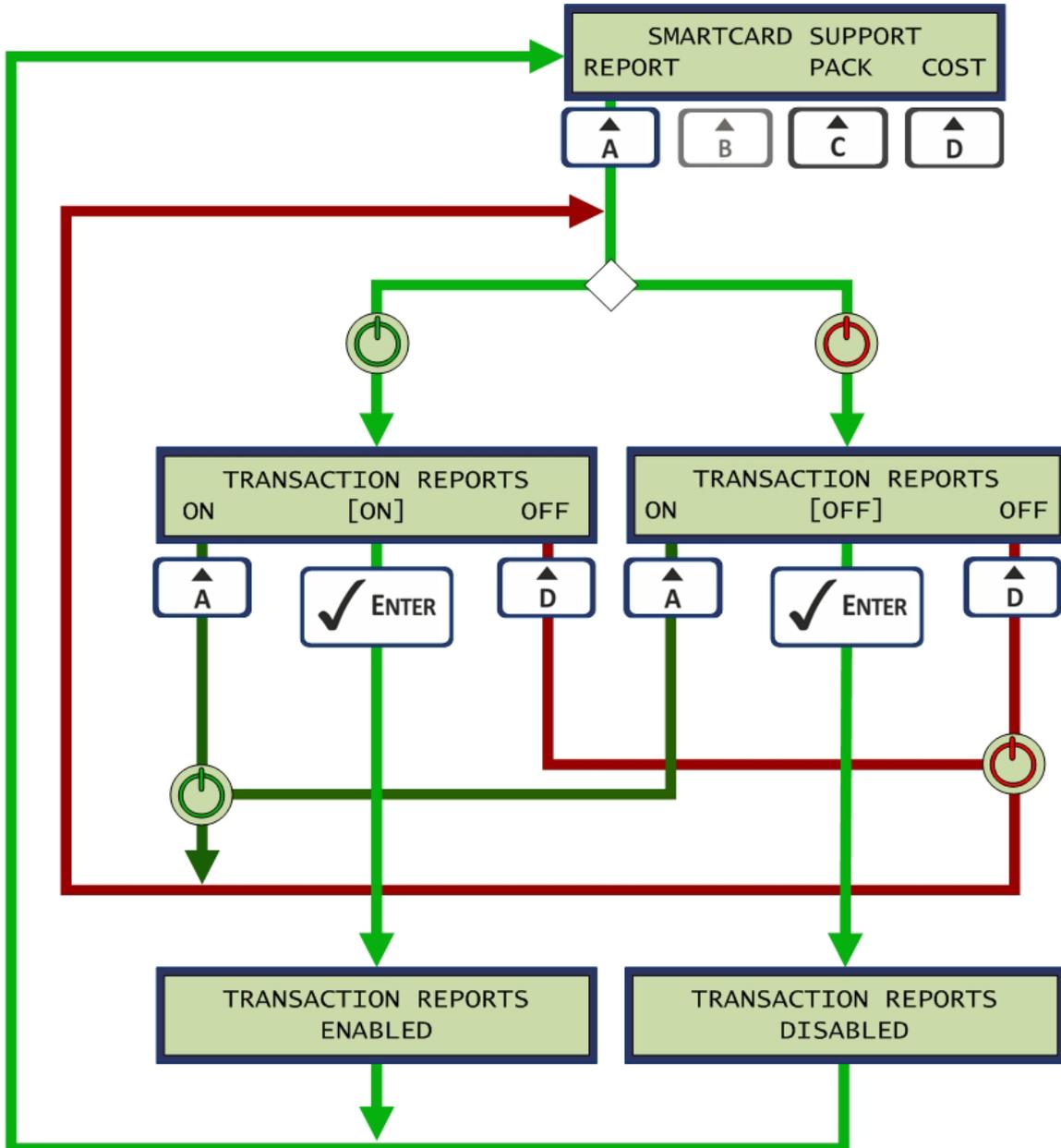
PSD Codax			
SMARTCARD SETTINGS			
TOP-UP SETTINGS			
	50 CREDITS =	€0.50	[1]
	VALIDITY =	2 MONTHS	[2]
PACKAGE SETTINGS			
*	CREDIT	COST	MONTHS
1	500	5.00	2
2	1000	10.00	2
3	1500	15.00	6
3	2000	15.00	6
5	-----	-----	-----
[4]			[3]
[5]			
PROGRAM SETTINGS			
PROGRAMS	DISCOUNTS	MONTHS	
X 5	3%	2	
X10	6%	3	
X15	9%	4	
X20	12%	5	
[7]			[6]
TRANSACTION REPORTS - ON			
			[8]
VALID AT THIS SITE ONLY			
			

- [1] Top-up cost example: 50 credits = €0.50
- [2] Validity of card after a credit top-up
- [3] Value Card Package Settings table
- [4] Value Card Package example
- [5] Package not used example
- [6] Program Card Discount Settings table
- [7] Program Card Discount example
- [8] Transaction reports setting: ON or OFF

CODAX TICKET TERMINAL OWNERS MANUAL

4.6.6 SMARTCARD TRANSACTION REPORTS

The *REPORT* option in the *Smartcard Support* menu enables and disables the printing of customer transaction report tickets during Smartcard sales. See section 5.5.10 – *TRANSACTION REPORT*.

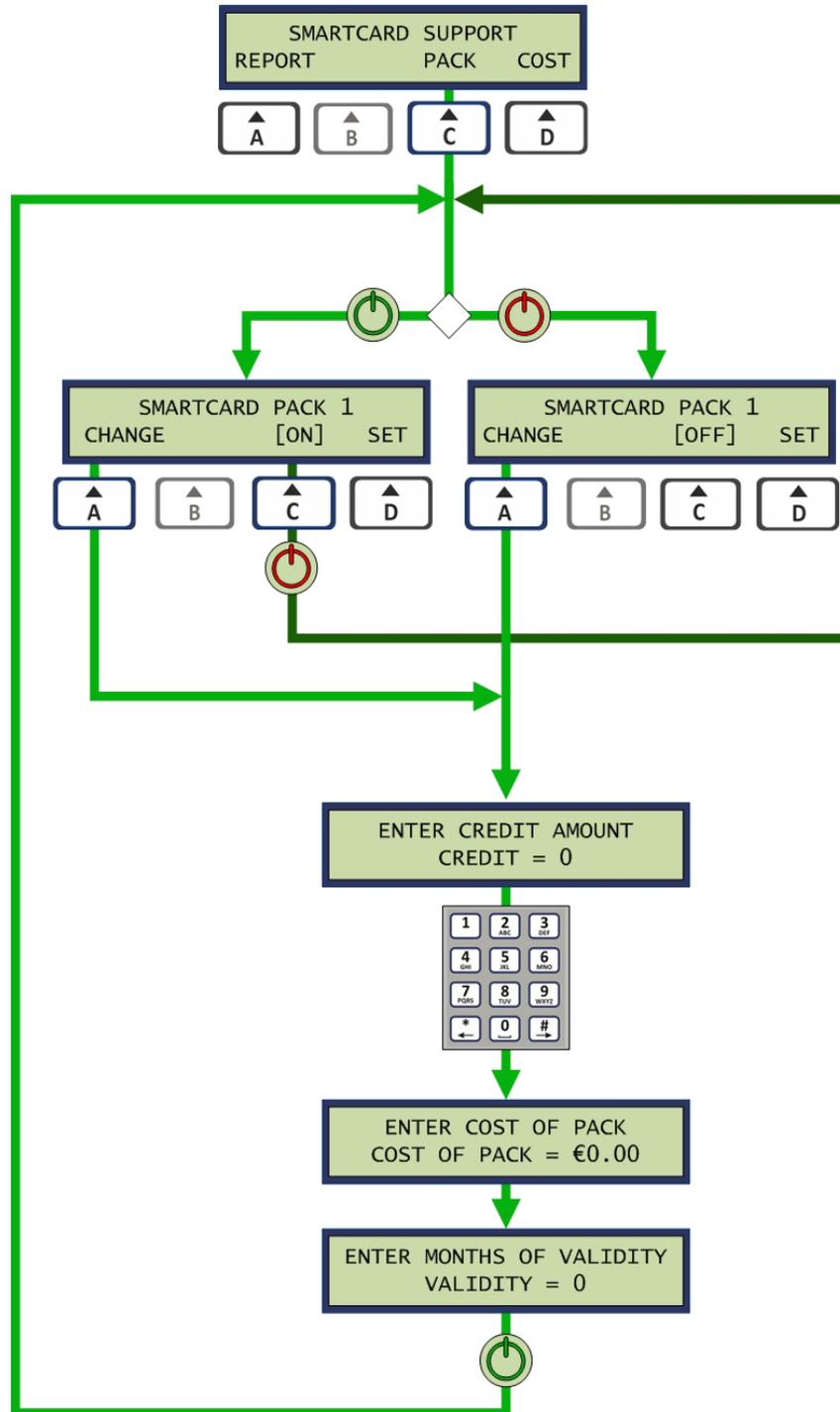


CODAX TICKET TERMINAL OWNERS MANUAL

4.6.7 SMARTCARD PACK SETUP – VALUE CARD

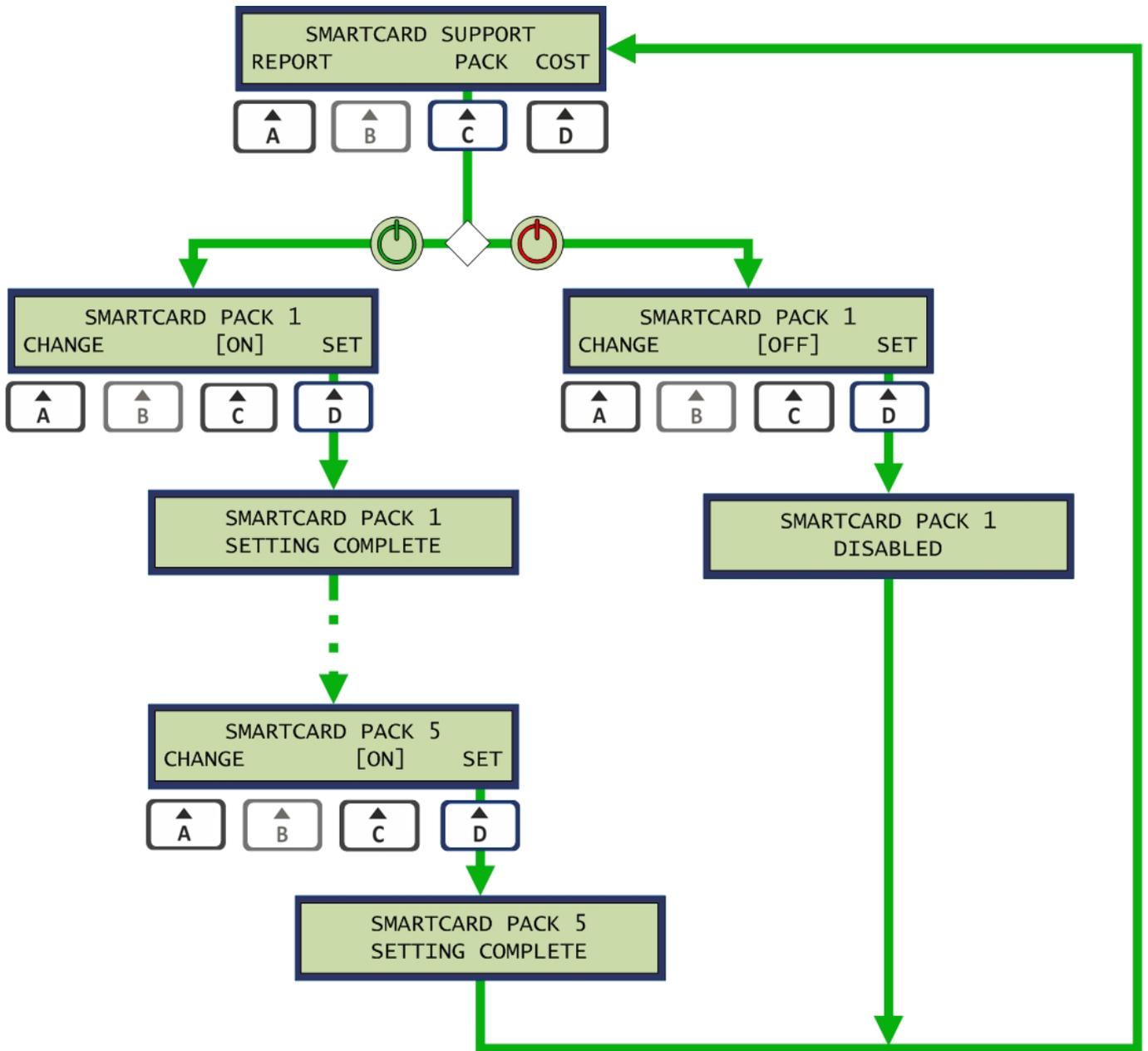
The *PACK* option in the *Smartcard Support* menu allows the contents of each of the five Smartcard packages to be specified. These packages are used to add credit to a Value card and provide discount options. From the Smartcard Pack menu, the *[ON]* / *[OFF]* text specify whether the pack is enabled or disabled. The *CHANGE* option allows the package contents to be specified. Here the amount of credit added to the card, the cost of the package and validity of the package is specified.

Note: Pressing the [ON] option will disable the pack, but the [OFF] option cannot be used to enable the pack. Press CHANGE option and enter pack details to enable the pack.



CODAX TICKET TERMINAL OWNERS MANUAL

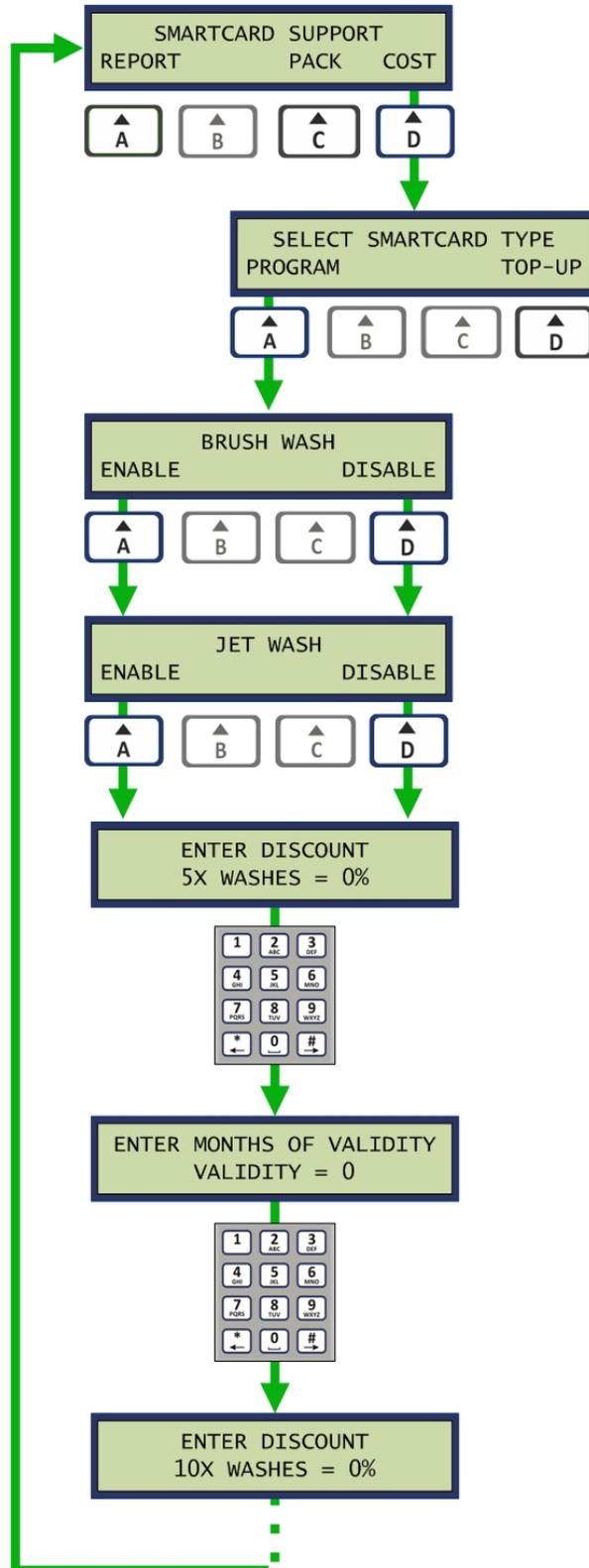
To complete the package setting the *SET* option is selected from the *Smartcard Pack* menu. The next package is selected and settings are made for the remaining packages. If the *SET* option is selected and the package is *OFF*, the pack and all remaining packs are disabled.



CODAX TICKET TERMINAL OWNERS MANUAL

4.6.8 SMARTCARD MULTI-BUY DISCOUNTS – PROGRAM CARD

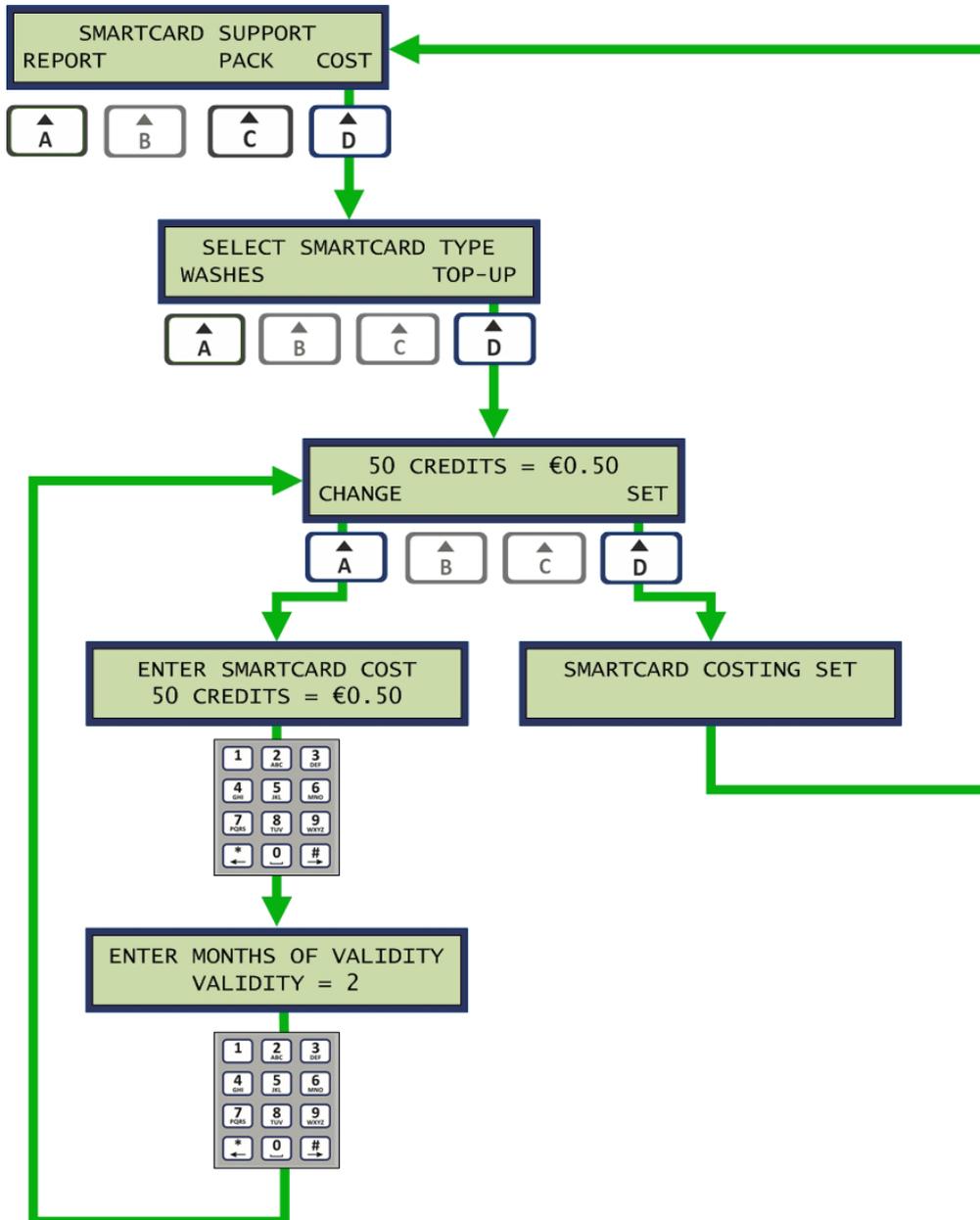
For Program card, multi-buy discounts may be specified for 5, 10, 15 or 20 wash purchases. From the *Smartcard Support* screen the *COST* option is selected. Here the *PROGRAM* option allows Program Card options to be specified. For each service enabled during cold start, Smartcard availability for those services are *ENABLED* or *DISABLED*. Next the multi-buy discounts are specified. Discounts are entered as a percentage of the number of washes multiplied by the cost of a single wash. A separate *Validity* value is entered in months for each wash multi-buy. If 0% is entered after a value was previously specified, this completes the setting and subsequent discounts are set to the previous value.



CODAX TICKET TERMINAL OWNERS MANUAL

4.6.9 SMARTCARD CREDIT TOP-UPS – VALUE CARD

The Smartcard *Top-up* facility allows credit to be added to a *Value Card* without purchasing a whole Pack. For *Top-up* a price per 50 credits is specified. From the *Smartcard Support* screen the *COST* option is selected. Here the *TOP-UP* option allows the *Top-up* price to be entered. The number of months of *Validity* written to the Smartcard during a *Top-up* is also specified.



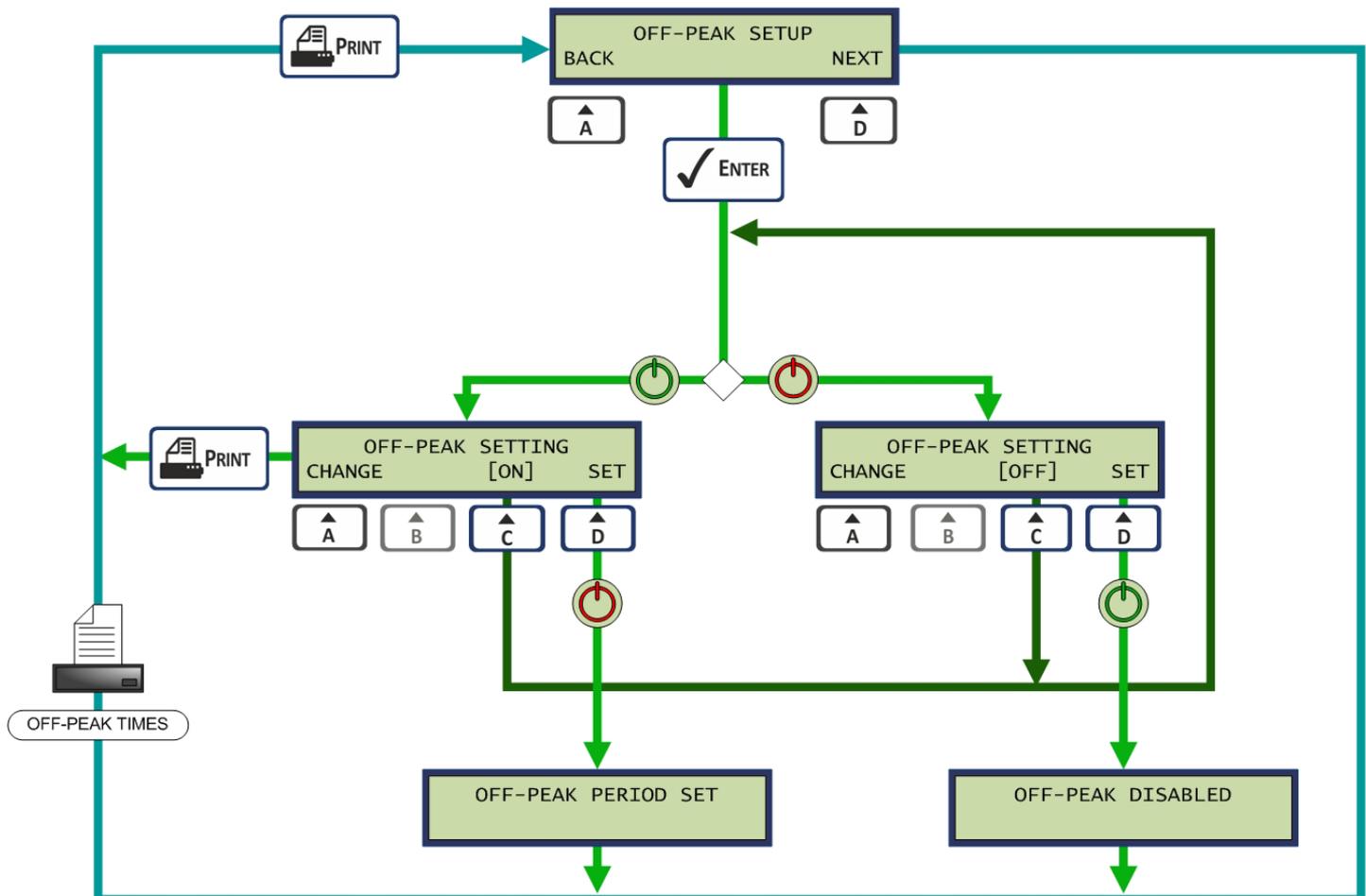
CODAX TICKET TERMINAL OWNERS MANUAL

4.6.10 OFF PEAK SETUP

Off-Peak settings in an Ultra system

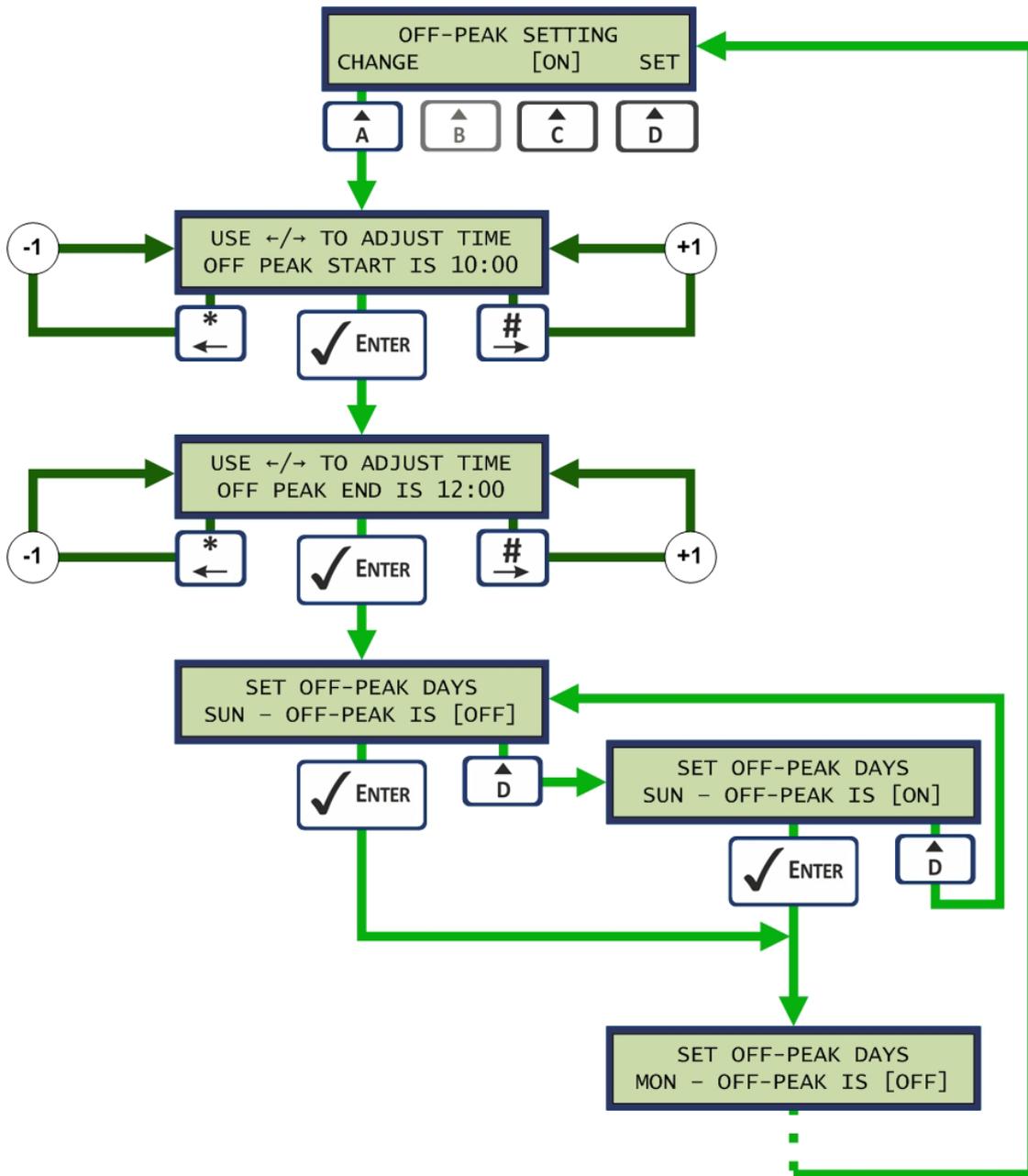
The *Off-Peak Setup* menu allows a site to offer discounted prices for off-peak or low volume times of the week. Here the start and end times are set as well as the days of the week when the offer is valid. Off-peak ticket prices are set from the *Prices* menu option and not part of this. Pressing the *Print* key from the *Off-Peak Setting* menu screens will print the *Off-Peak Times Set-up* ticket. The Off-peak period may run over midnight and here the day is set for the start time.

Note: This feature is specified as an Ultra-function only. Off-Peak is available for Retro, but off-peak settings are entered at the Access Terminal. See Codax Access Terminal manual for details.



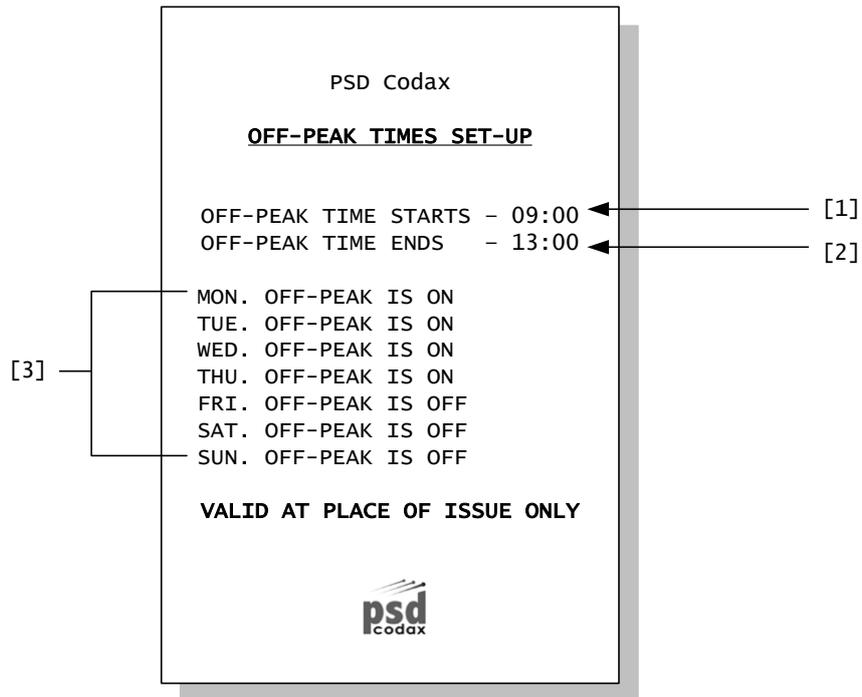
CODAX TICKET TERMINAL OWNERS MANUAL

The *Off-Peak* period start and stop times are set using the * ← and # → keys. Each day of the week may then be enabled or disabled to operate the off-peak facility.



CODAX TICKET TERMINAL OWNERS MANUAL

The off-peak times setup tickets shows the current off-peak setting.



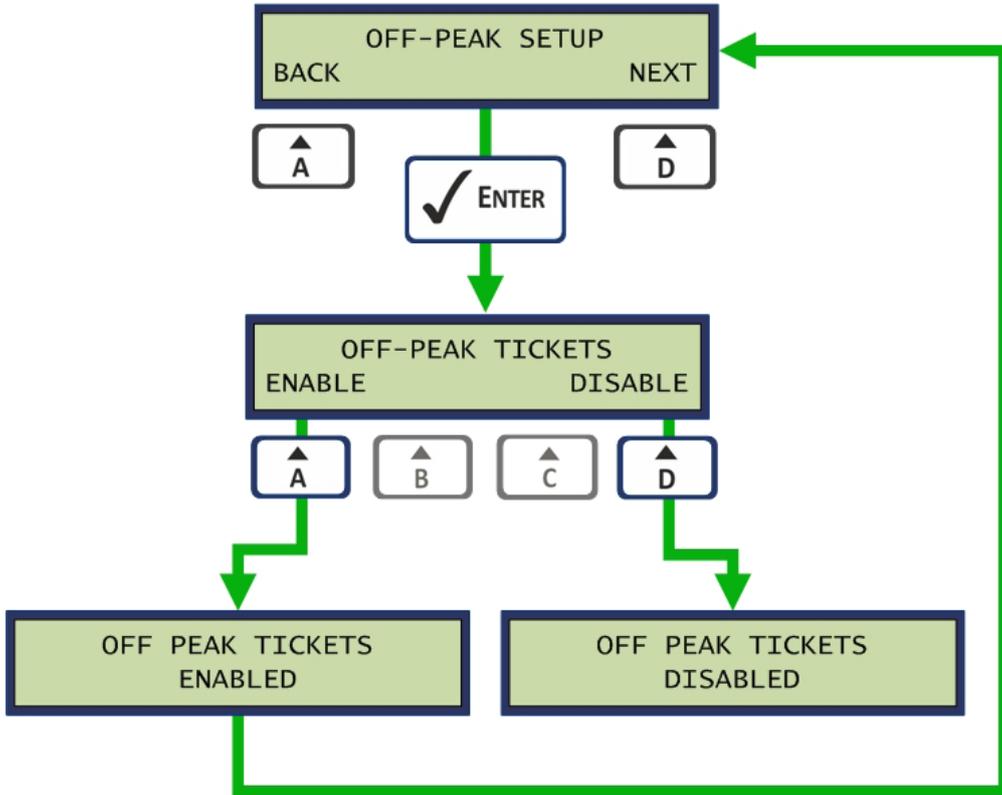
- [1] Off-peak period start time
- [2] Off-peak period end time
- [3] Days of the week when off-peak is available

CODAX TICKET TERMINAL OWNERS MANUAL

Off-Peak settings in a Retro only system

For Retro only configurations *Off Peak* settings are made at the *Access Terminal*. *Off Peak* ticket availability may however be enabled or disabled from the setup menu. If disabled, *Off Peak* tickets are not available for printing.

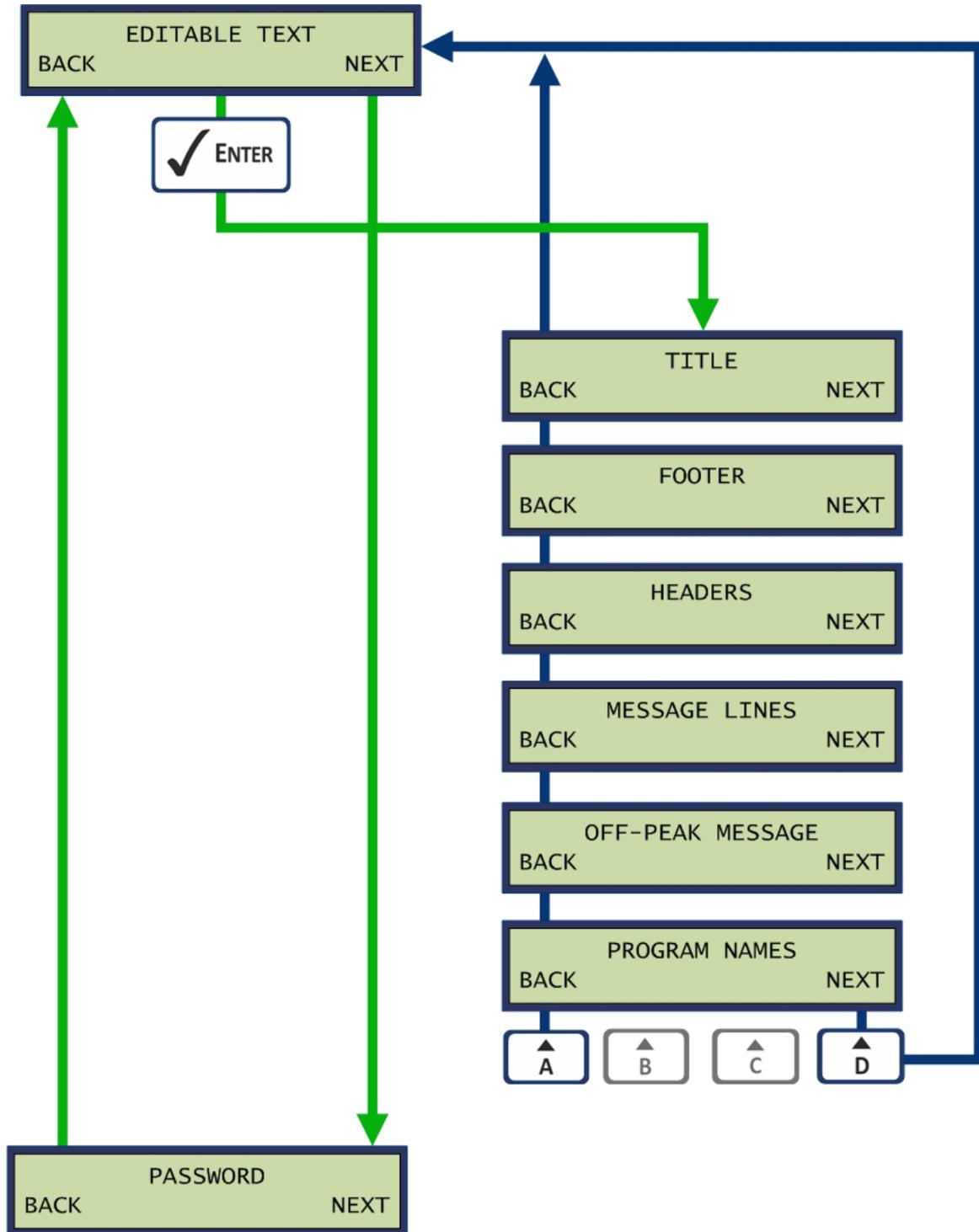
Note: The *Off-Peak* period in a *Retro* system is specified at the *Codax Access Terminals*.



CODAX TICKET TERMINAL OWNERS MANUAL

4.6.11 EDITABLE TEXT - EXPANDED MENU

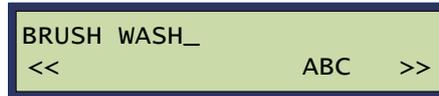
Selecting the *Editable Text* option accesses an expanded menu containing a number of user editable text messages. Some of these messages are given default text messages. Others may be enabled if required.



CODAX TICKET TERMINAL OWNERS MANUAL

4.6.12 TEXT EDITING

The Text editor is based on the standard SMS style editor and uses a standard telephone style numeric keypad with various letters assigned to each key. The screen layout and the keys used for text editing are highlighted in the diagram below. Many of the keys have a primary function, activated when the key is pressed and released immediately, and a secondary function, activated when the key is pressed and held for a second.



CODAX TICKET TERMINAL OWNERS MANUAL

Primary Text Editing Control Key Operations

The Primary functions of the keys used in editing text messages are defined below. These functions are activated when the keys are pressed and immediately released.



<< Scroll Decrement – Scrolls the message to the right keeping the cursor in the same display position.



EXIT - Submit and Exit – Submits the message entry and returns control to the previous screen.



ABC Character Type Select – Selects the type of character to be inserted into the message when the character pad is pressed. This key scrolls through the following options:

- ABC Capital letter entry
- abc Lower case letter entry
- 123 Numeric key entry



>> Scroll Increment – Scrolls the message left keeping the cursor in the same display position.



Alpha Numeric Entry – Enter the letters or numerals indicated on the key. Scrolls through each of the characters printed on the button, starting with the first letter, each time the button is pressed. The character selected is automatically entered into the text line if the button is not pressed again for one second, or if a different button is pressed, with the cursor being automatically incremented. The number 1 key enters punctuation characters not shown on the button. The following characters are selected as the key is pressed: . , - ? ! ' @ : 1. The 0 key enters a space character or the digit '0'. A selection of characters with an accent is available on certain keys.



Decrement Cursor Position – Moves the cursor one position to the left without affecting the characters on the screen. Auto scrolls, if possible, when the end of the display is reached.



Increment Cursor Position – Moves the cursor one position to the right without affecting the characters on the screen. Auto scrolls, if necessary, when the end of the display is reached.



Delete Character – Deletes the character at the cursor position and all the characters to the right scroll left to fill the gap.



Submit Message – Submits the message entry and returns control to the previous screen.

CODAX TICKET TERMINAL OWNERS MANUAL

Secondary Text Editing Control Key Operations

A second function is added to some of the message editing keys. This is accessed by pressing and holding the key down for more than one second.



<< **Scroll Decrement** – No secondary function.



EXIT - Submit and Exit – No secondary function.



ABC Character Type Select – No secondary function.



>> **Scroll Increment** – No secondary function.



Alpha Numeric Entry – Pressing and holding any of the numeric keys will enter the numeric value of the key into the text instead of the character.



Scroll to Start of Message – Immediate scrolls to the start of the message. The cursor ends up at the start of the message. If the message is shorter than the edit window, just the cursor moves.



Scroll to End of Message – Immediate scrolls to the end of the message. The cursor ends up at the end of the message. If the message is shorter than the edit window, just the cursor moves.



Clear Message – Pressing and holding the Clear key will delete all characters in the message.

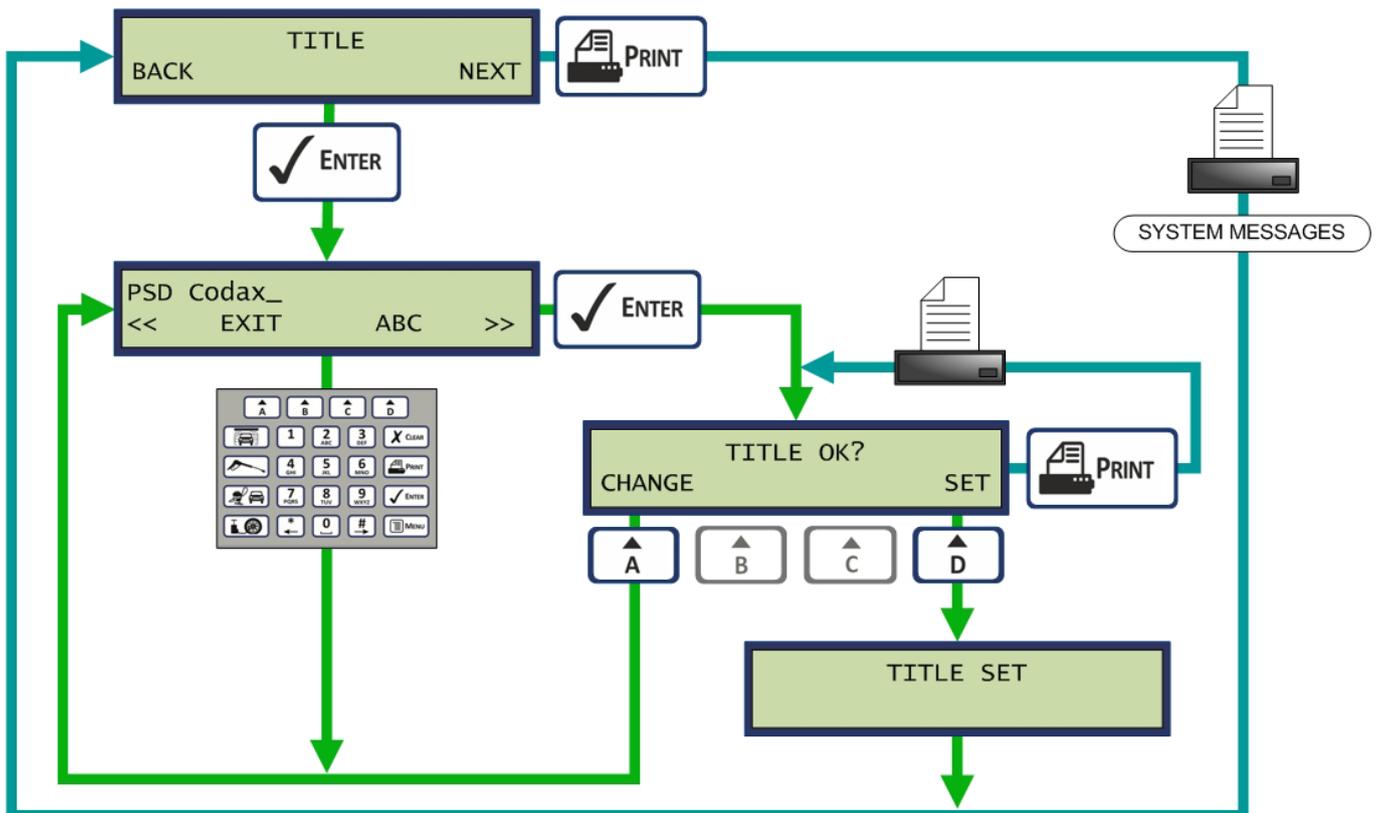
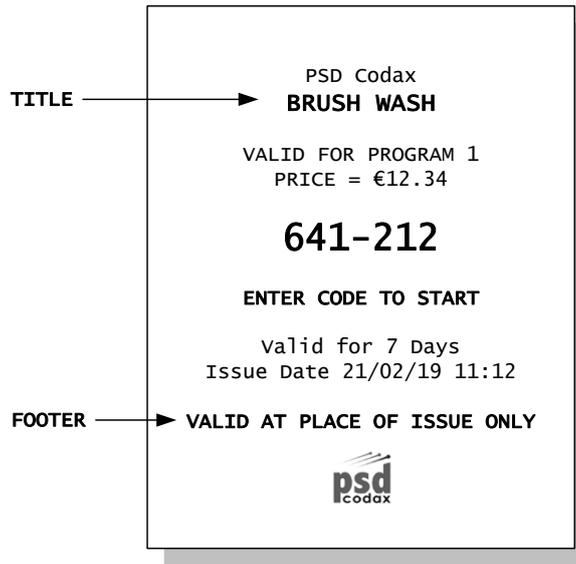


Submit Message – No secondary function.

CODAX TICKET TERMINAL OWNERS MANUAL

4.6.13 TITLE/FOOTER

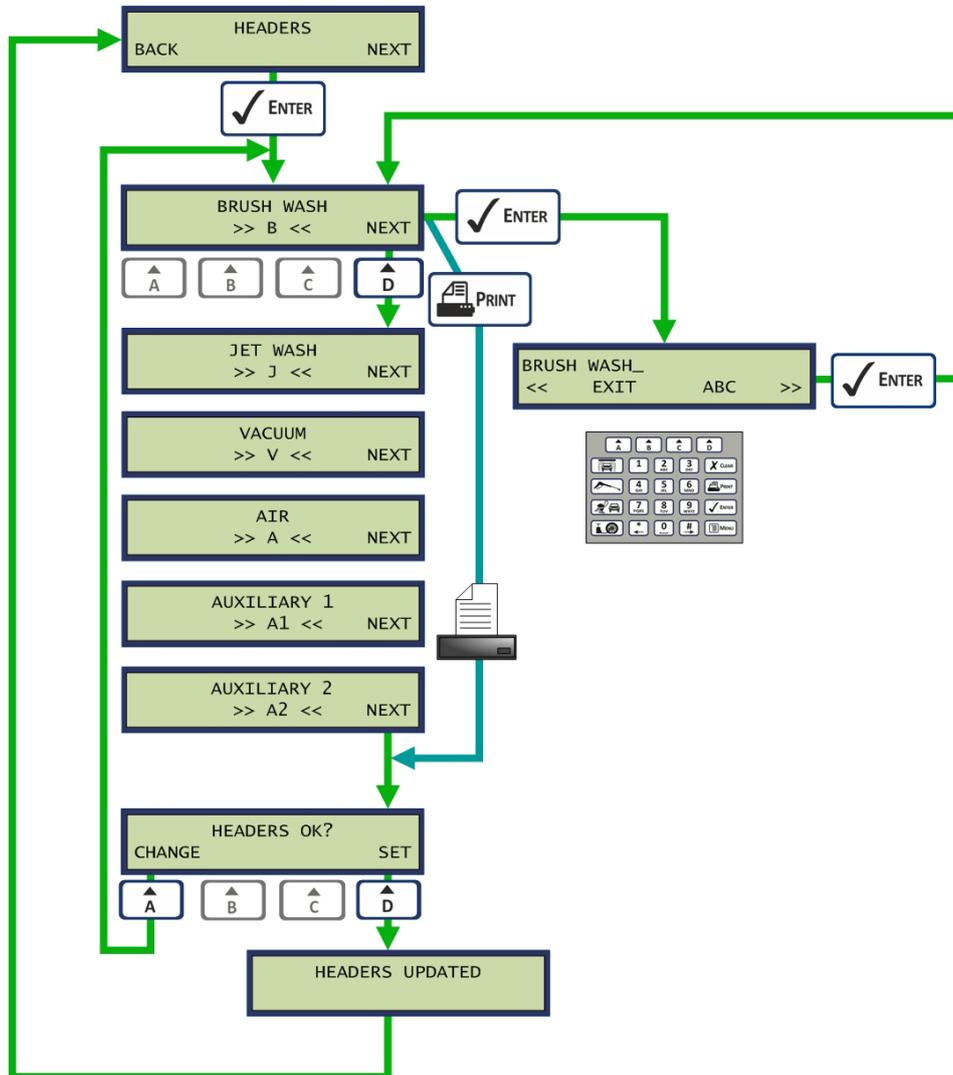
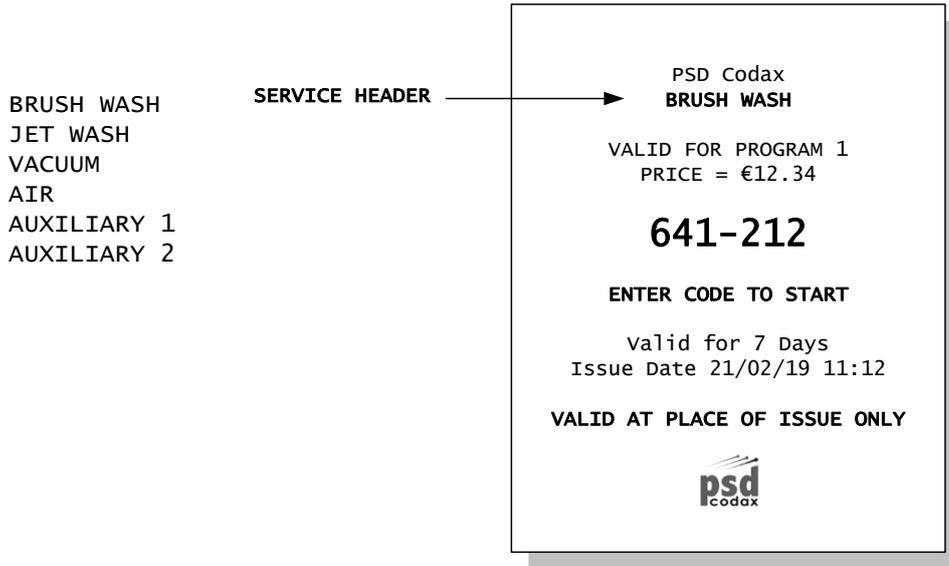
The *Title* and *Footer* are printed at the top and bottom of most tickets printed.



CODAX TICKET TERMINAL OWNERS MANUAL

4.6.14 SERVICE HEADERS

The *Headers* option defines the text used to describe the available services. If the default text is not suitable, this text may be edited.

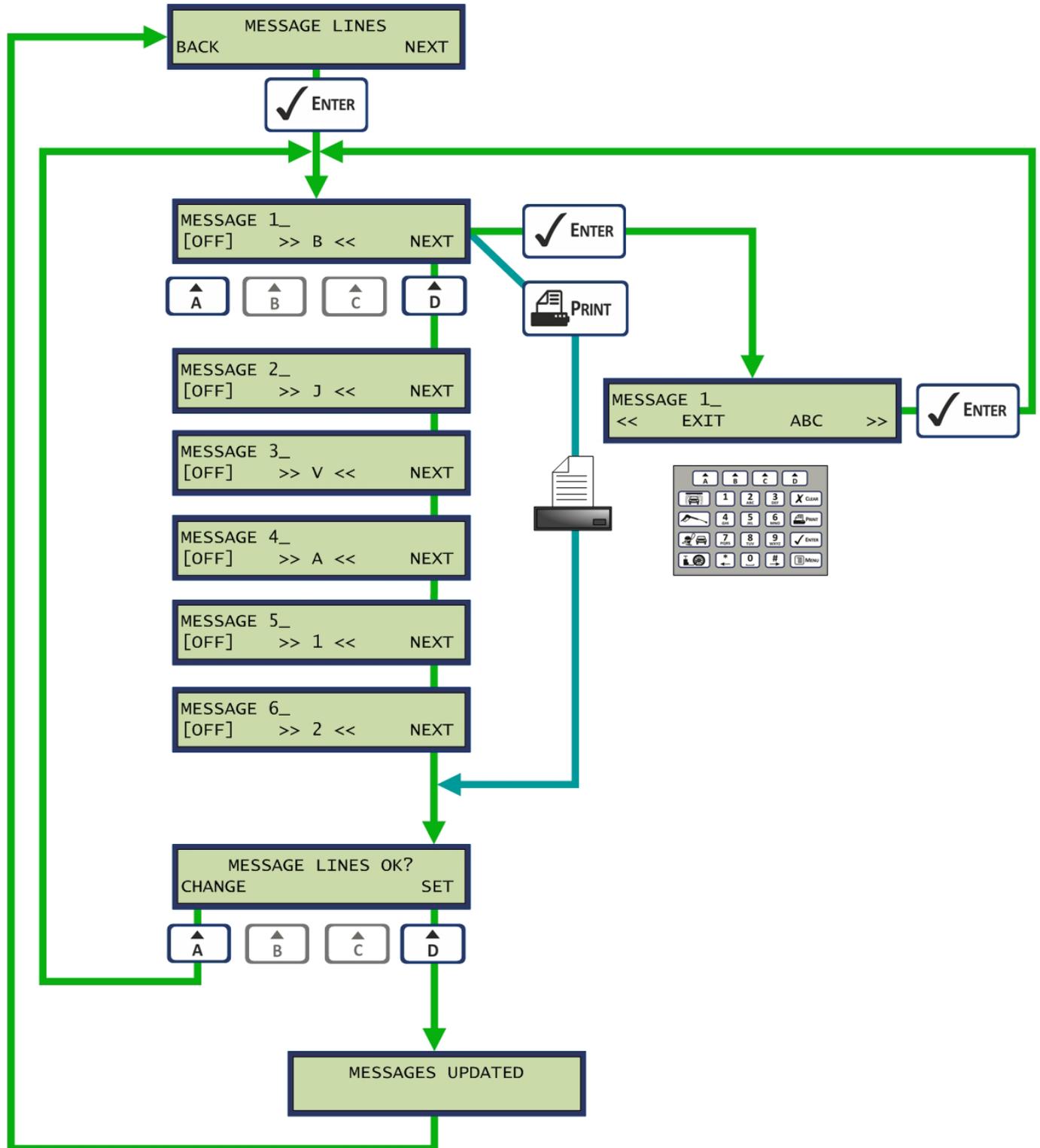


Note: Only the headers for services enabled are shown

CODAX TICKET TERMINAL OWNERS MANUAL

4.6.15 MESSAGE LINES

The *Message Lines* option provides the facility to add an extra editable message to consumer tickets. Messages 1 to 4 are dedicated to the four standard services tickets. Messages 5 and 6 are general messages printed on all tickets.

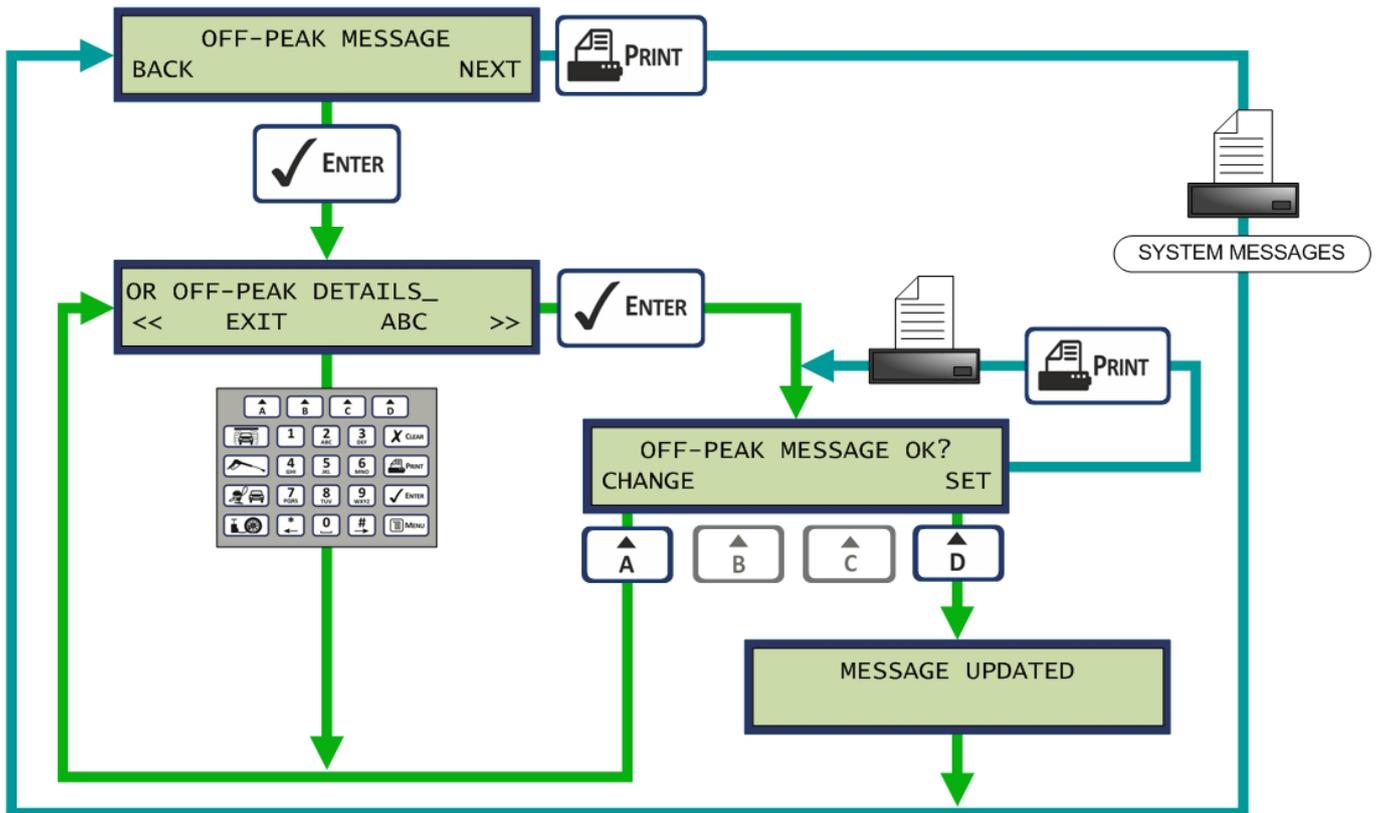
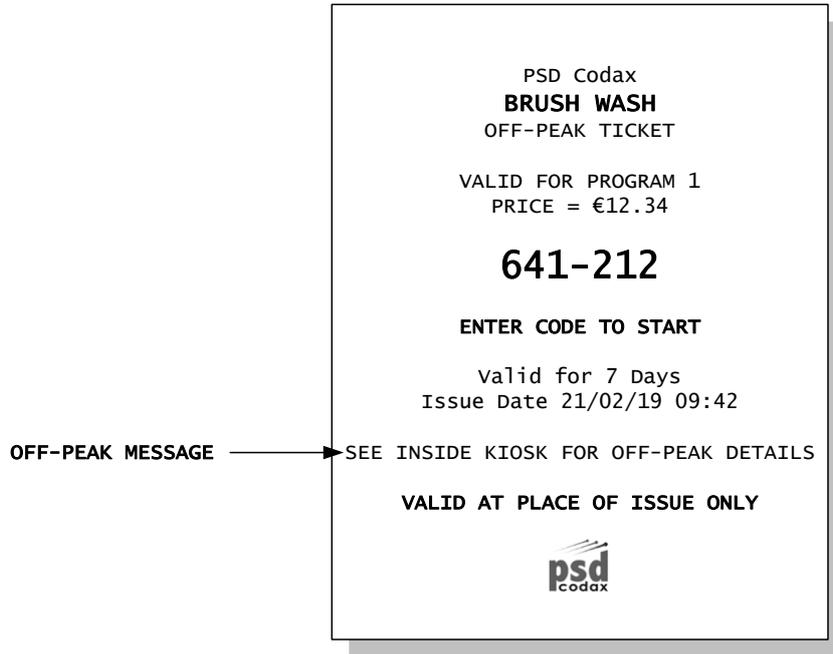


Note: Only the messages for services enabled are shown

CODAX TICKET TERMINAL OWNERS MANUAL

4.6.16 OFF-PEAK MESSAGE

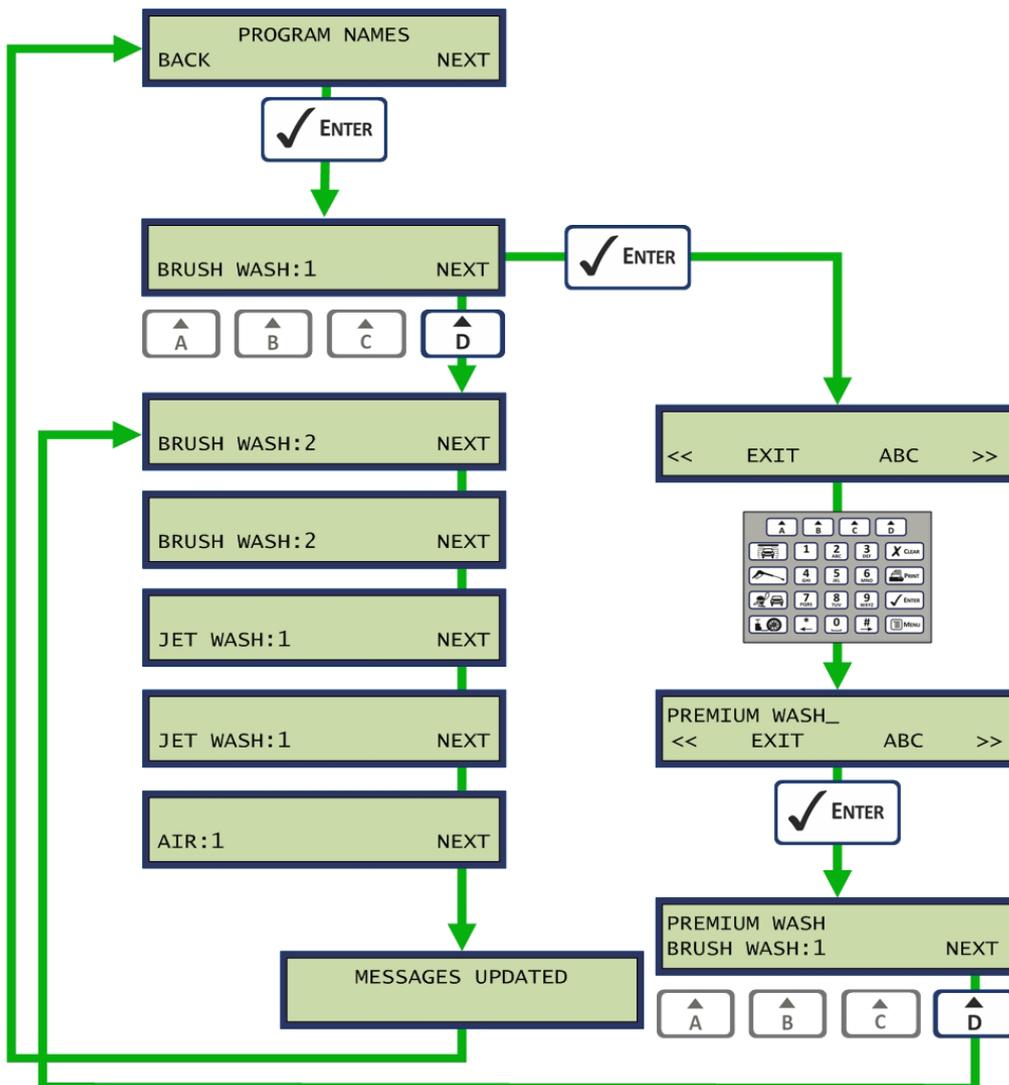
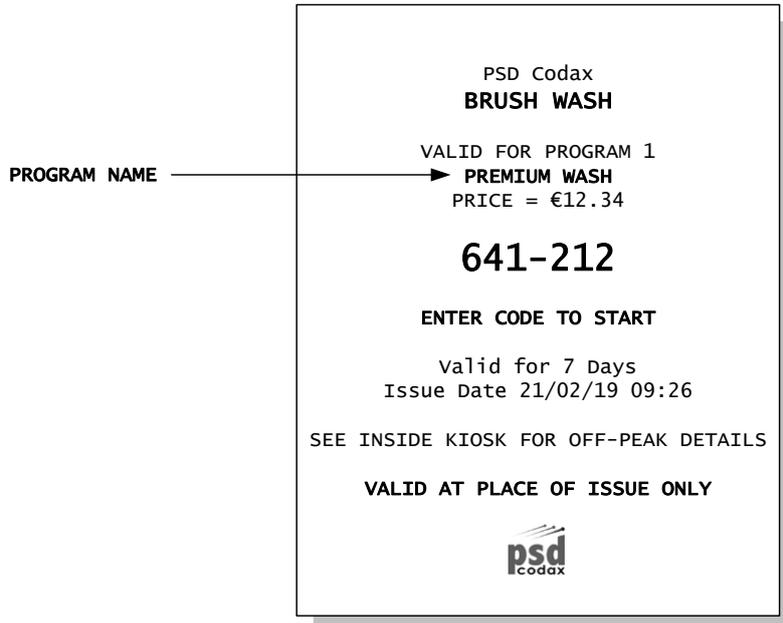
The *Off-Peak Message* is printed on tickets that are available for Off-Peak use only.



CODAX TICKET TERMINAL OWNERS MANUAL

4.6.17 PROGRAM NAMES

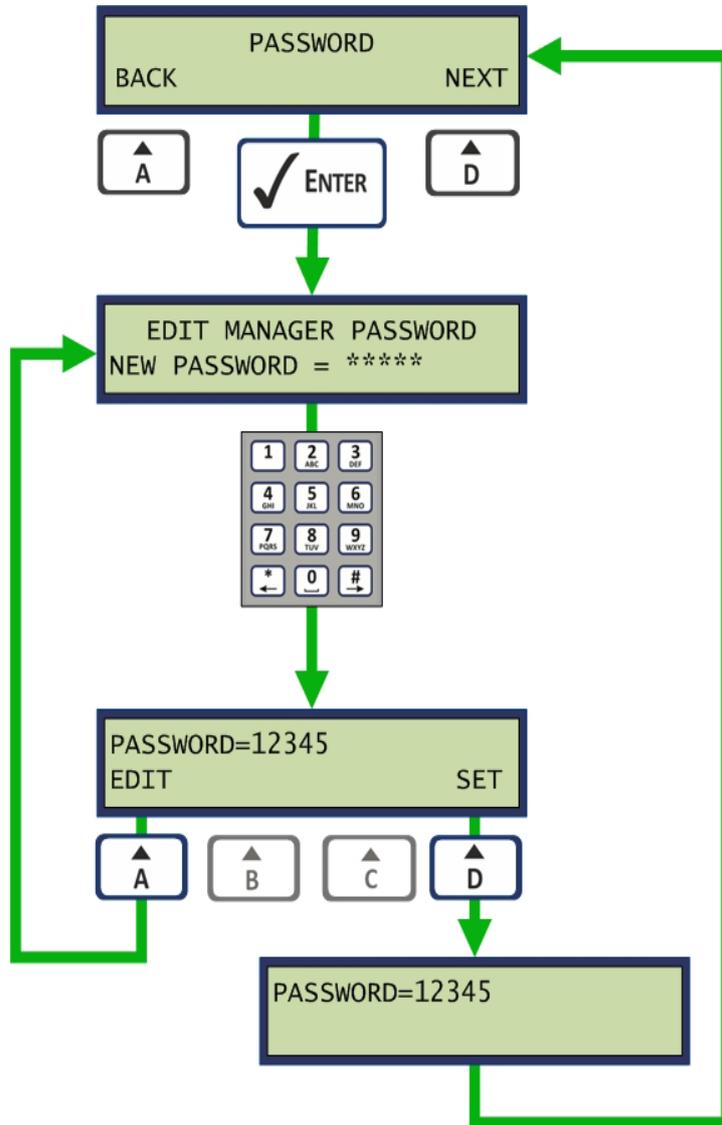
The *Program Names* option allows individual service program to be given names rather than just a program number.



CODAX TICKET TERMINAL OWNERS MANUAL

4.6.18 PASSWORD

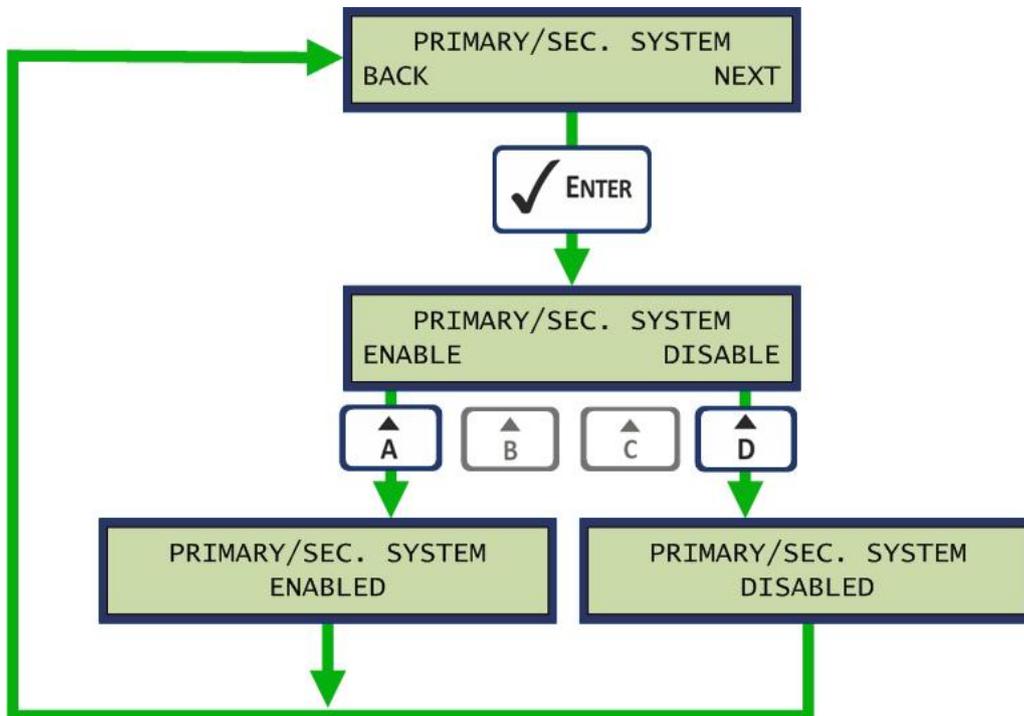
The *Password* option allows the Manager's password to be edited. The Manager's password is required to access the setup menus and to print Auditor reports.



CODAX TICKET TERMINAL OWNERS MANUAL

4.6.20 SECONDARY TICKET TERMINAL (OPTIONAL UPGRADE)

If the *Primary/Secondary System* option is available, this function allows the terminal to be enabled or disabled. With the Secondary Terminal option available, removing the Secondary terminal from the system will cause a fault on the Primary Terminal. Disabling the Secondary here will prevent that fault being shown.

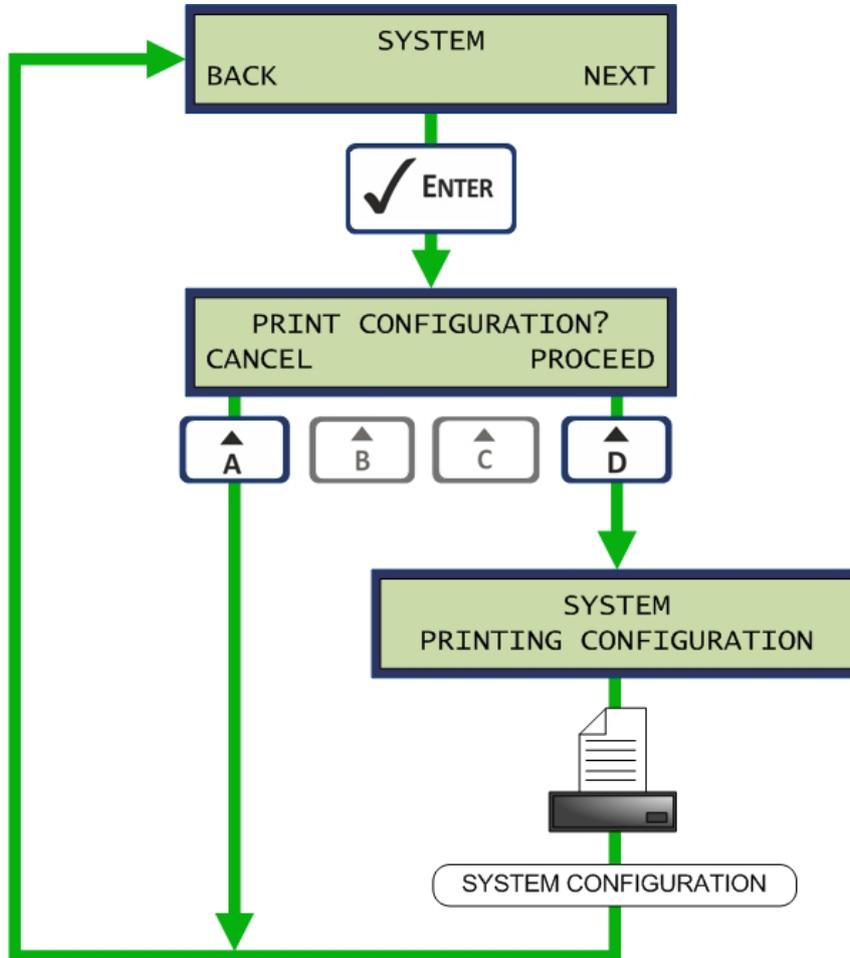


CODAX TICKET TERMINAL OWNERS MANUAL

4.6.21 SYSTEM

The *System* option allows the System Configuration Ticket to be reprinted. This ticket is the same as that printed at the end of a Cold Start and may be used to reconfigure an Access Terminal.

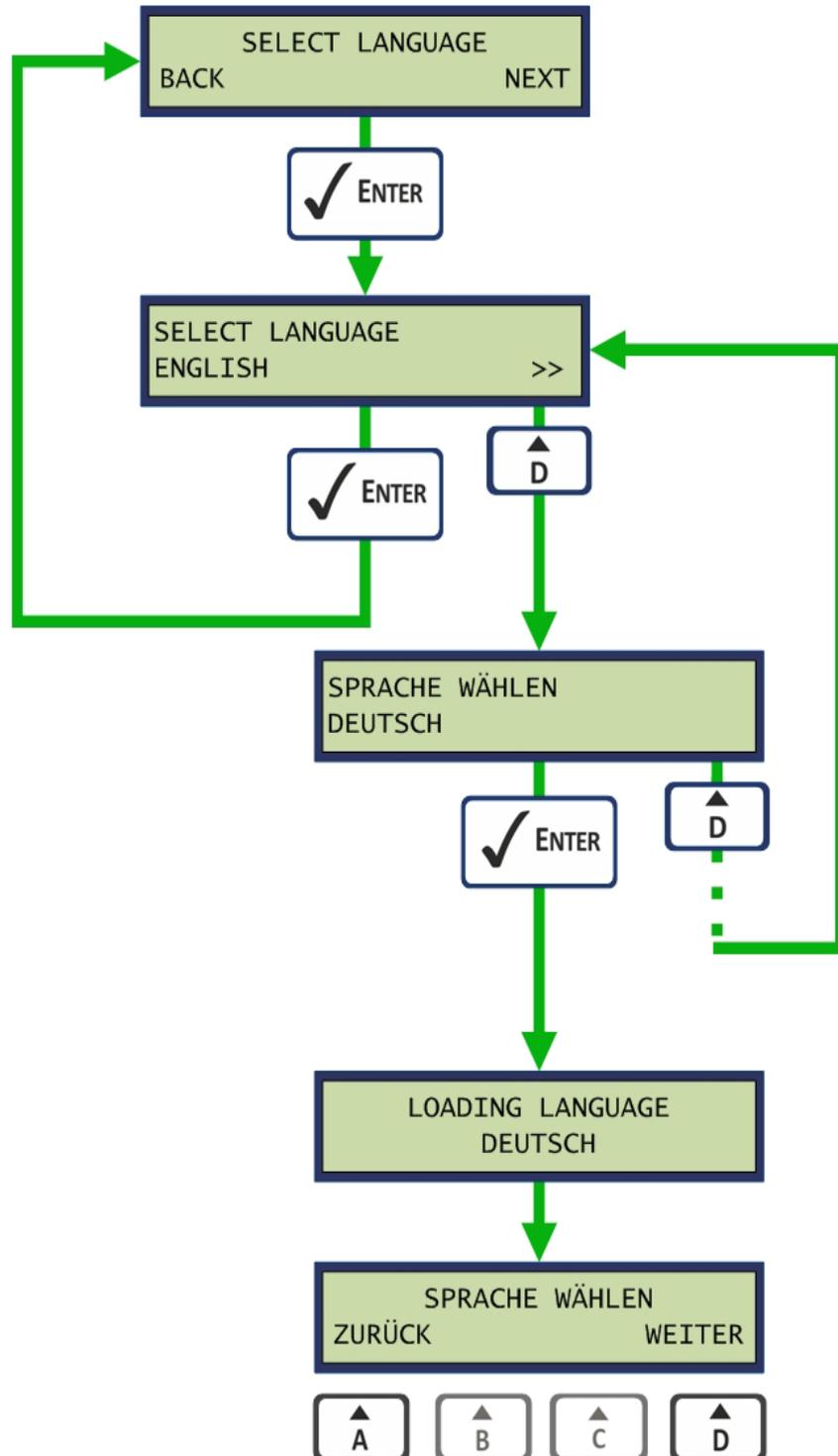
See section 4.3.3 - THE SYSTEM CONFIGURATION TICKET.



CODAX TICKET TERMINAL OWNERS MANUAL

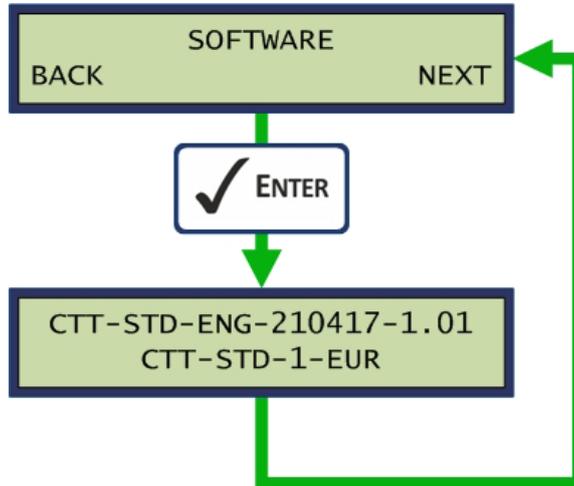
4.6.22 SELECT LANGUAGE (OPTIONAL UPGRADE)

The *select Language* option allows the language for which all on screen messages and printed tickets uses. Language variations are contained in the removable E2PROM module and are factory defined. Languages available vary and are based on geographical regions.



4.6.23 SOFTWARE

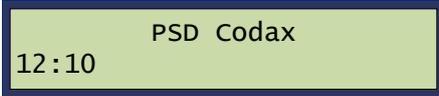
The *Software* option displays the software version of the Ticket Terminal firmware and the E2PROM memory module.



5 USER FUNCTIONALITY

5.1 WELCOME SCREENS

5.1.1 DEFAULT WELCOME SCREEN



PSD Codax
12:10

The normal welcome screen shows the PSD Codax header and the current time.

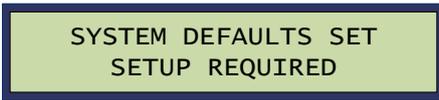
5.1.2 PRE-CONFIGURATION SCREEN



SYSTEM NOT CONFIGURED
COLD START REQUIRED

For a new installation or following a reload of the factory defaults the pre-configuration screen is shown. This screen indicates a Cold Start configuration is required. See *Command Menu for Cold Start configuration, 4.3 - COLD START*.

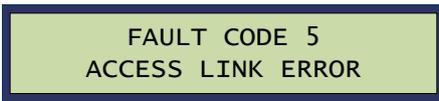
5.1.3 PRE-SETUP SCREEN



SYSTEM DEFAULTS SET
SETUP REQUIRED

Following a Cold Start a system setup is required and this is indicated by the Pre-setup screen. See *Setup menu for system configuration, 4.6 - SET-UP MENU FUNCTIONS*.

5.1.4 SYSTEM CONNECTION ERROR



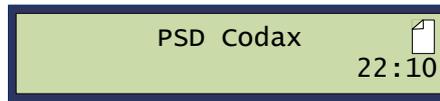
FAULT CODE 5
ACCESS LINK ERROR

When configured for Ultra connection, or when a Secondary terminal is used, the Access Link Error screen is shown. See *section on Trouble Shooting for details, 7.1 - CODAX SYSTEM FAULT CODES*.

5.2 THE PRINTER

5.2.1 PAPER OUT INDICATION

The paper roll out condition is indicated by the paper symbol shown on the default welcome screen.



5.2.2 CHANGING PRINTER PAPER ROLL



Release the paper compartment cover using the green lever.



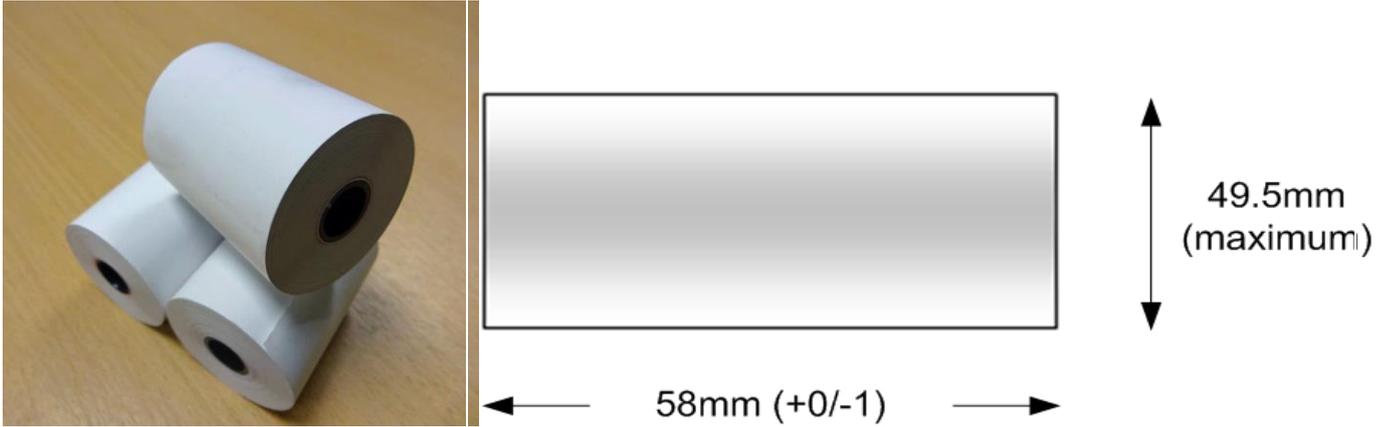
Insert the thermal paper roll, noting paper orientation.



Close the compartment cover and tear of the excess paper.

CODAX TICKET TERMINAL OWNERS MANUAL

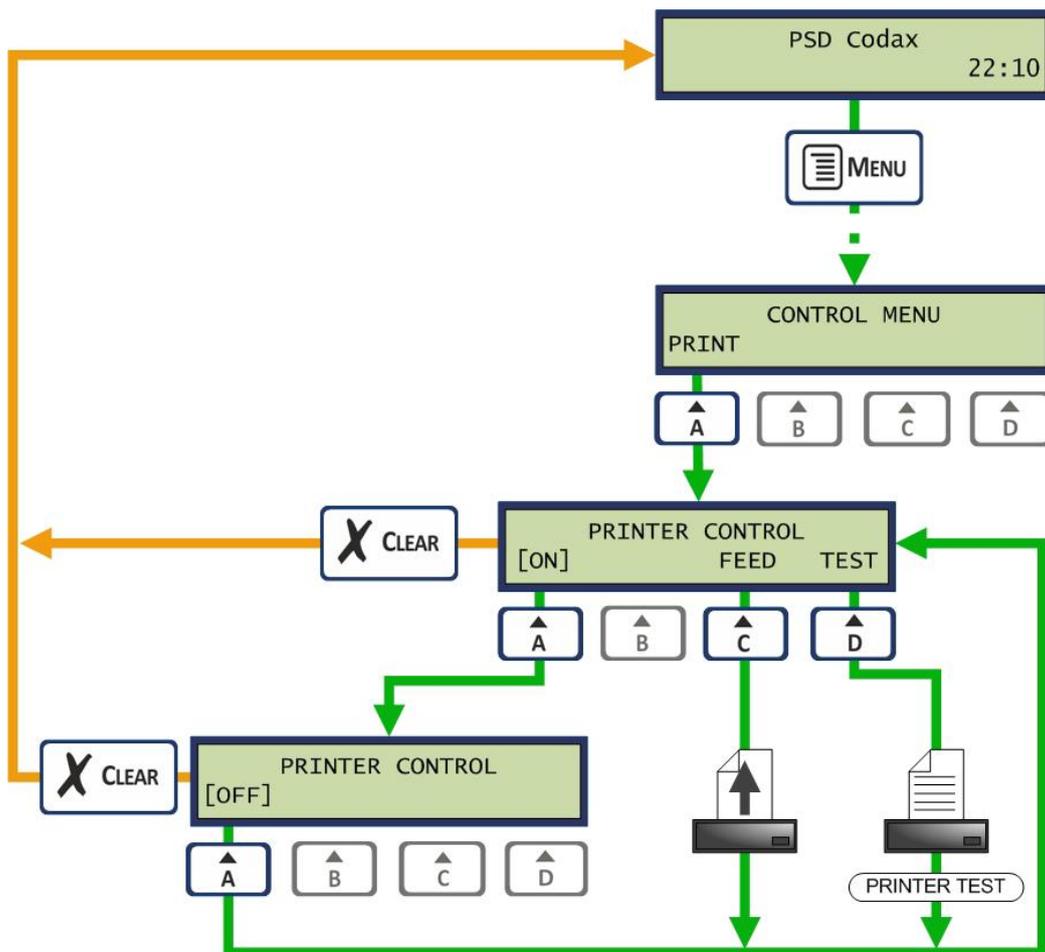
5.2.3 PAPER SPECIFICATION



Thermal Paper Roll 57mm x 47mm Diameter – PSD Part No.0904

5.2.4 PRINTER CONTROL MENU

The printer control menu allows the printer to be enabled and disabled by pressing the *[ON]*/*[OFF]* option. The *FEED* performs a short paper feed and the *TEST* option prints the Printer Test ticket.



5.3 ISSUING TICKETS

5.3.1 STANDARD SERVICE BUTTONS

Four buttons are dedicated to standard service items.



BRUSH WASH. Automatic carwash service



JET WASH. Hand-held lance wash service



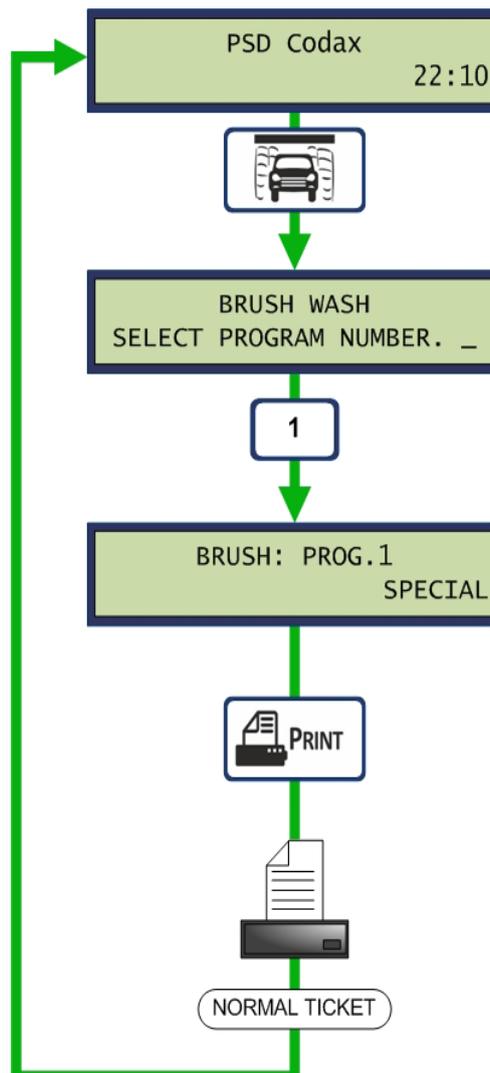
VACUUM service



AIR. Tyre Inflator service

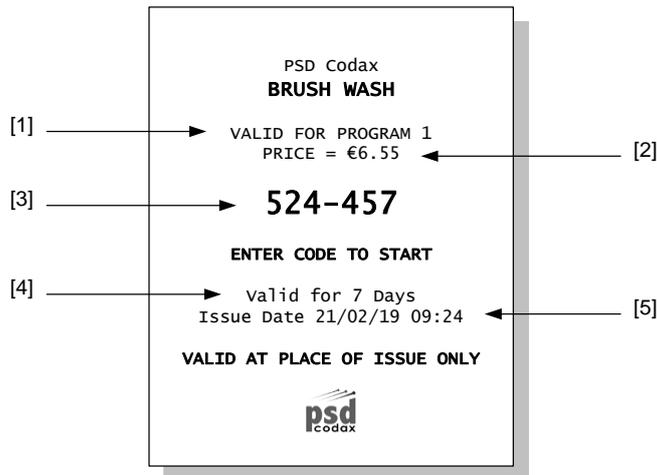
5.3.2 NORMAL TICKET ISSUING

A ticket is issued by selecting a service button, entering a program number and pressing the Print key.



5.4 STANDARD TICKET LAYOUT

An example of the basic message layout for Brush Wash program 1 is shown below.

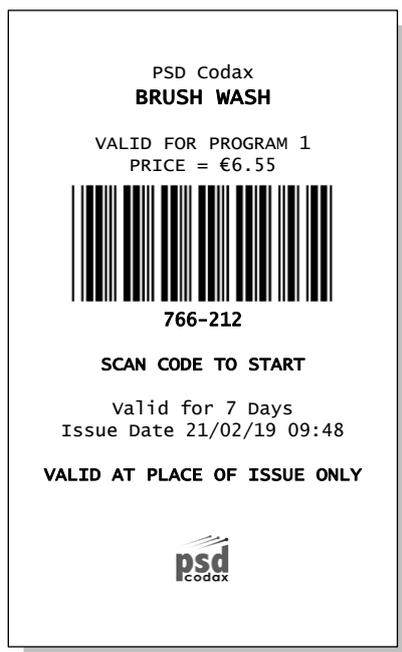


- [1] Service program number
- [2] Cost of ticket
- [3] Codax entry code
- [4] Ticket validity
- [5] Date and time of issue

See section 4.6.12 - *TEXT EDITING*, for editable text options and additions available for the standard tickets to allow ticket customisation.

5.4.1 BARCODE TICKET

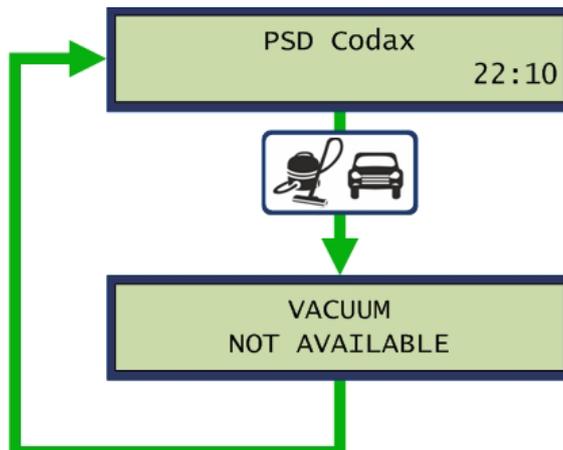
When the Barcode System is enabled, the 6 digit Codax code is printed in the form of a Barcode on the ticket. The actual 6 digit code is printed in a smaller text. See section 4.6.19 *SELECT BARCODE*.



CODAX TICKET TERMINAL OWNERS MANUAL

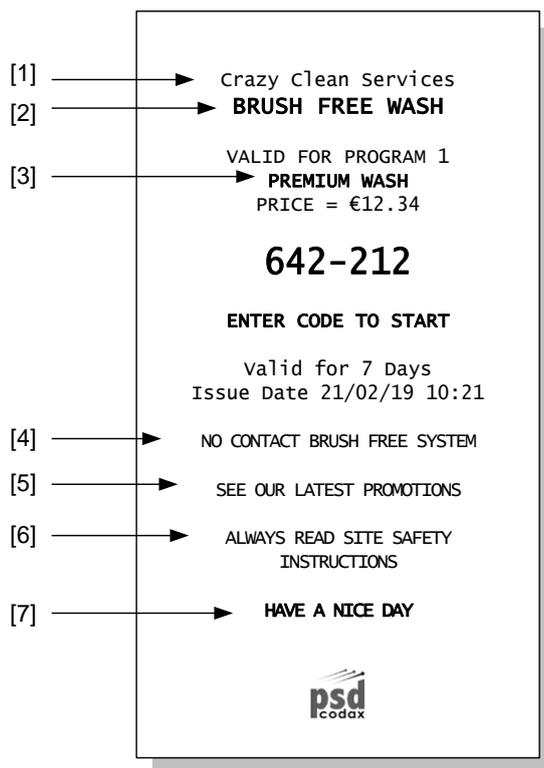
5.4.2 SERVICE NOT AVAILABLE

For services not enabled, on selecting the service button the Not Available message screen is shown.



5.4.3 CUSTOMISED TICKET LAYOUT

The ticket example below shows how a ticket can be customised through editing and adding optional additional messages. See section 4.6.11 - EDITABLE TEXT - EXPANDED MENU.



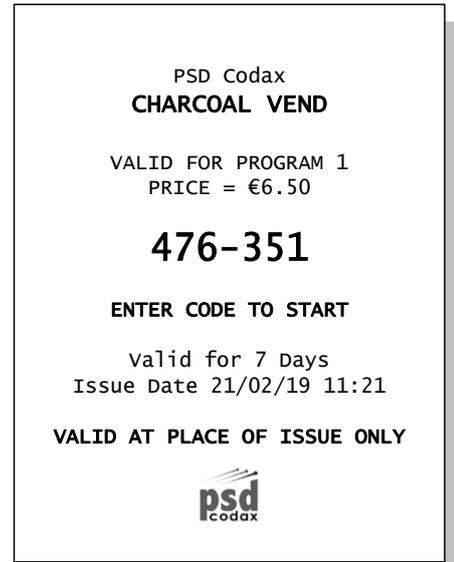
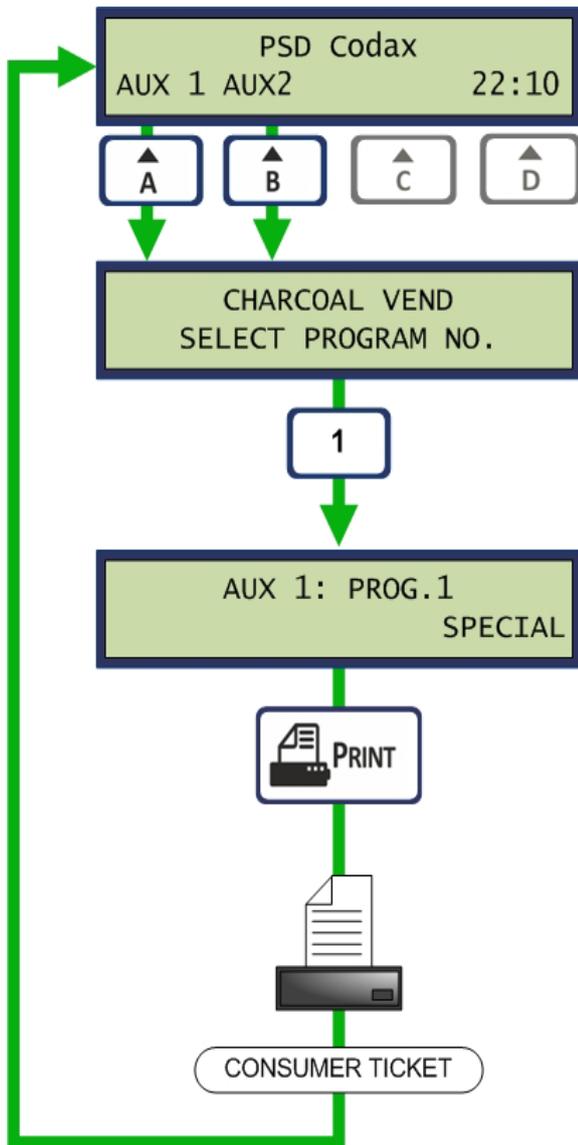
- [1] Editable Title message
- [2] Editable Service Header message
- [3] Additional Program Name message
- [4] Additional Service message
- [5] Additional General message 1
- [6] Additional General message 2
- [7] Editable Footer message

CODAX TICKET TERMINAL OWNERS MANUAL

5.4.4 AUXILIARY SERVICES

Auxiliary services allow up to two non-standard services to be included in the system. These services are enabled during the normal Cold Start configuration. Once initialised the services are available from function keys A and B. The service header may be altered from the default *AUXILIARY* setting in the Editable Text/Headers setup menu if required. See section 4.6.14 *SERVICE HEADERS*.

The example below shows an auxiliary service ticket adapted to allow access to a forecourt service for vending charcoal.



CODAX TICKET TERMINAL OWNERS MANUAL

5.4.5 SPECIAL TICKET ISSUE

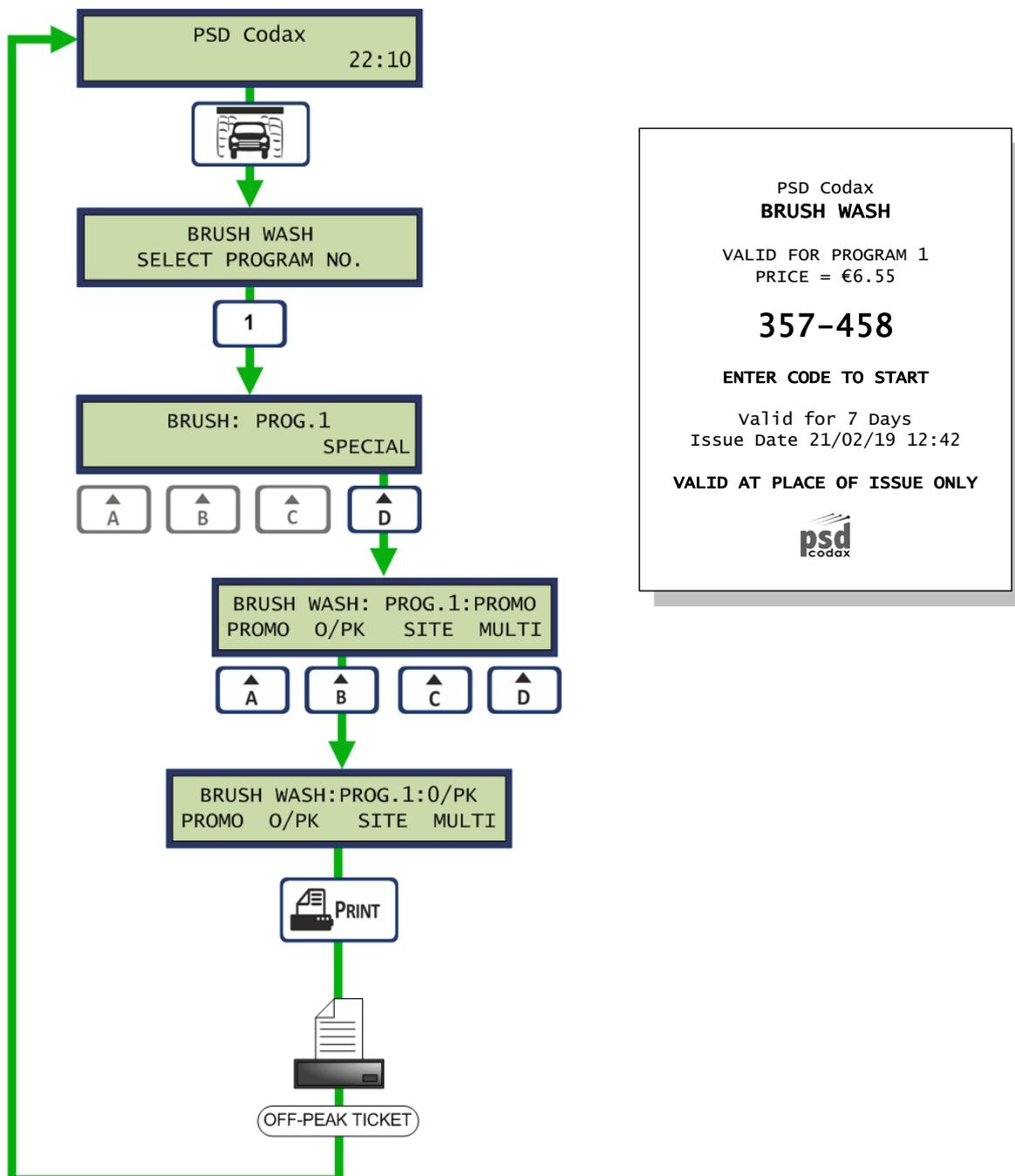
Special tickets offer promotional discounts to the customer as specified by the site operator.

The Special Tickets available are:

Promotion	Site Promotion offers – Secondary program price settings
Off-Peak	Quiet time offer. Secondary program price settings. Available if Off-Peak is enabled.
Site	Zero price Site usage
Multi-use	Multiple use ticket available for Brush Wash (Ultra) services only

Special ticket price values are set from the Prices option in the setup menu. See section 4.6.4 - PRICES, for details.

Example below shows Brush Wash program 1 for Off-Peak use.



5.4.6 MULTI-USE TICKETS

Multiple use tickets allow a ticket to be issued that can be used 5, 10 or 15 times. The cost of a Multiple-use ticket is given a percentage discount on the standard price for the same number of tickets. Multi-use ticket discounts settings are made in the Prices setup menu. See *section 4.6.4 PRICES*, for details.

Multi-use tickets are only available for the standard Brush Wash service for a system operating in Ultra mode and must be enabled as part of the Cold Start configuration process.

Two Multi-Use ticket modes are available, See *section 4.3.2 - ENABLING MULTI-USE TICKETS (ULTRA ONLY)*.

Normal 5, 10 or 15 use tickets available with 5, 10 or 15 weeks validity.

Extended 5 use ticket available with 15 weeks validity

Illustration below is an example of a Multi-use service ticket.



CODAX TICKET TERMINAL OWNERS MANUAL

5.4.7 ISSUING MULTIPLE TICKETS

Multiple single use tickets can be issued for a single forecourt service and program using the following keys:



Press to increment the number of tickets

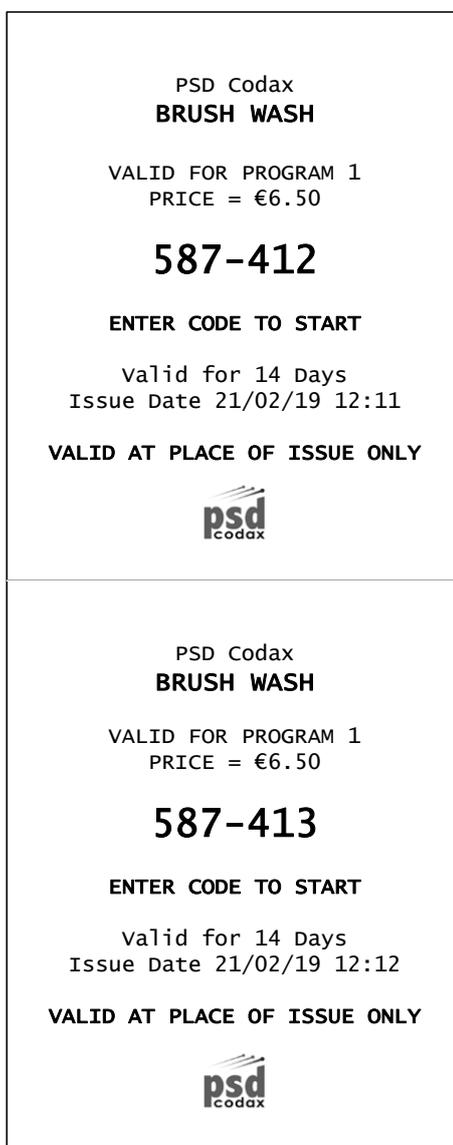
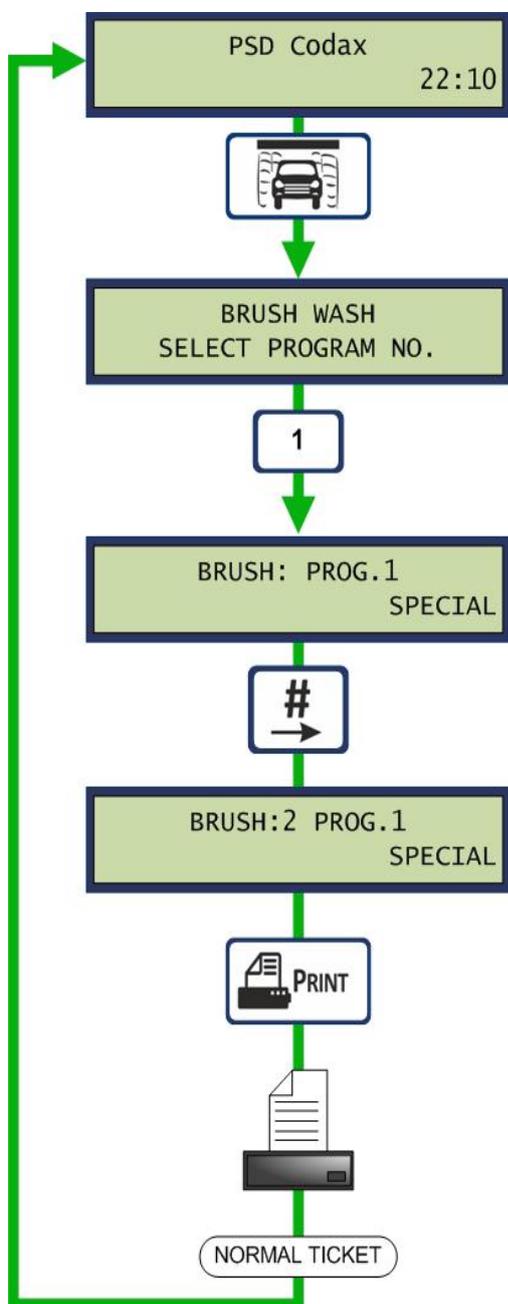


Press to decrement the number of tickets

A maximum of five tickets can be issued.

The illustration below shows how two Brush Wash tickets for program 1 may be printed. Each ticket is available for single use only.

Note: Ticket validity increases when multiple tickets are issued.

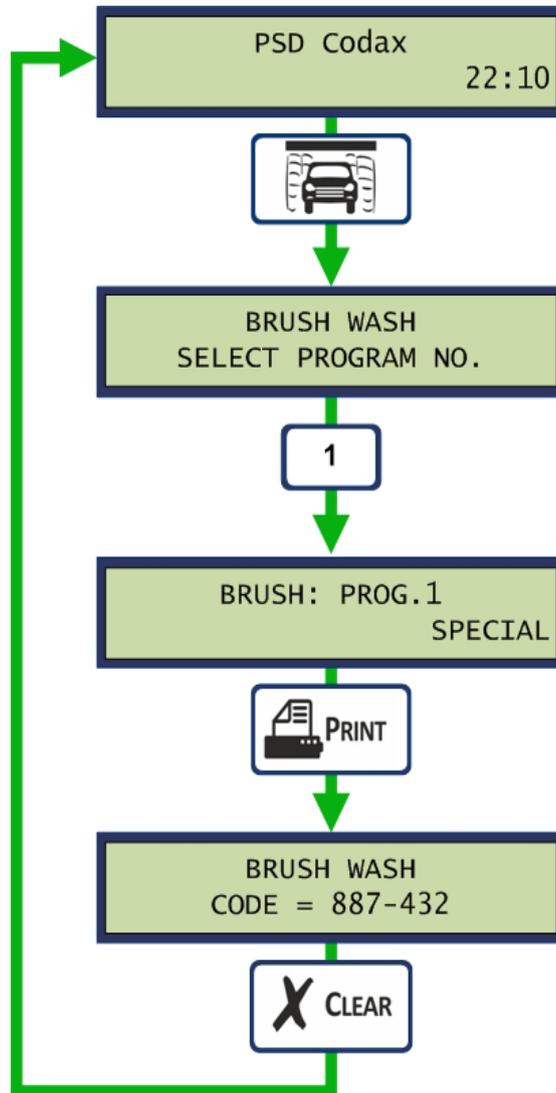


CODAX TICKET TERMINAL OWNERS MANUAL

5.4.8 ISSUING TICKETS WITHOUT PRINTER

Even if the printer is out of paper and has been disabled, tickets can still be issued. Here the code is displayed on the screen instead of being printed. The operator needs to copy the code for the customer.

Note: If no printer paper is available, the printer should be disabled before operating in this mode. The printer is enabled and disabled from the Printer Control menu that is available by selecting the PRINT option from the Control Menu. See Section 5.2.4 - PRINTER CONTROL MENU.



5.5 CODAX SMARTCARD

Codax Smartcard is a contactless card system providing a convenient way of purchasing and redeeming wash services.

Codax Smartcard supports two card types:

Program Card Customers add a specified number of wash programs to the card. A single card is valid for a single service for the specified program only.

Value Card Contains a credit value that may be redeemed at any available service program. Available as a credit top-up or as a multi-buy package deal.

5.5.1 SMARTCARD PLACEMENT

The Smartcard is placed in the slot next to the printer.



5.5.2 SITE ADMINISTRATION

Each site using the Codax Smartcard system is given a unique four-digit site identification number. This number is stored on the Administrator's card issued with the Codax system hardware. This card is used to set the card reader identification numbers in all Smartcard equipment to the same value and is part of the installation process.



THE ADMINISTRATOR'S CARD

***** KEEP YOUR ADMIN CARD SAFE *****

Note: A pocket located on the bottom of the CTT is provided for Admin Card storage.

For a new installation, on power up, the Smartcard ADMIN CARD REQUIRED screen is shown briefly. This message shows that placement of the Admin card is required before Smartcard transactions are accepted.

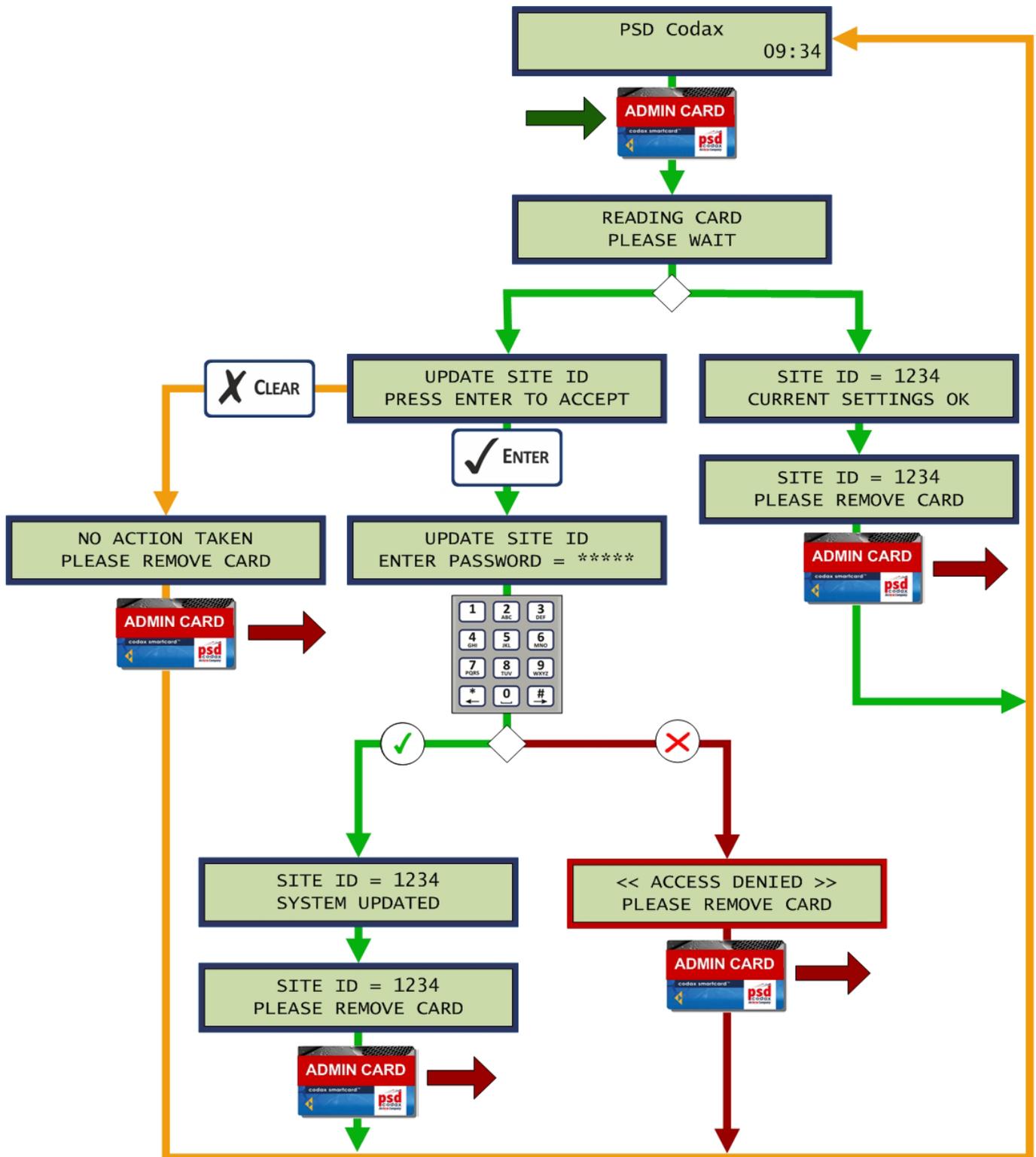
For a new installation, on power up, the Smartcard ADMIN CARD REQUIRED screen is shown briefly.

ADMIN CARD REQUIRED

CODAX TICKET TERMINAL OWNERS MANUAL

5.5.3 ADMIN CARD PLACEMENT

On placing an Admin card in the reader, the card is read and if the Site ID of the card is different to that of the Terminal, the Site ID of the Terminal is updated. To proceed with this the operator must enter the Engineer's password. The Terminal is then updated and the new Site ID is shown before the card is removed.



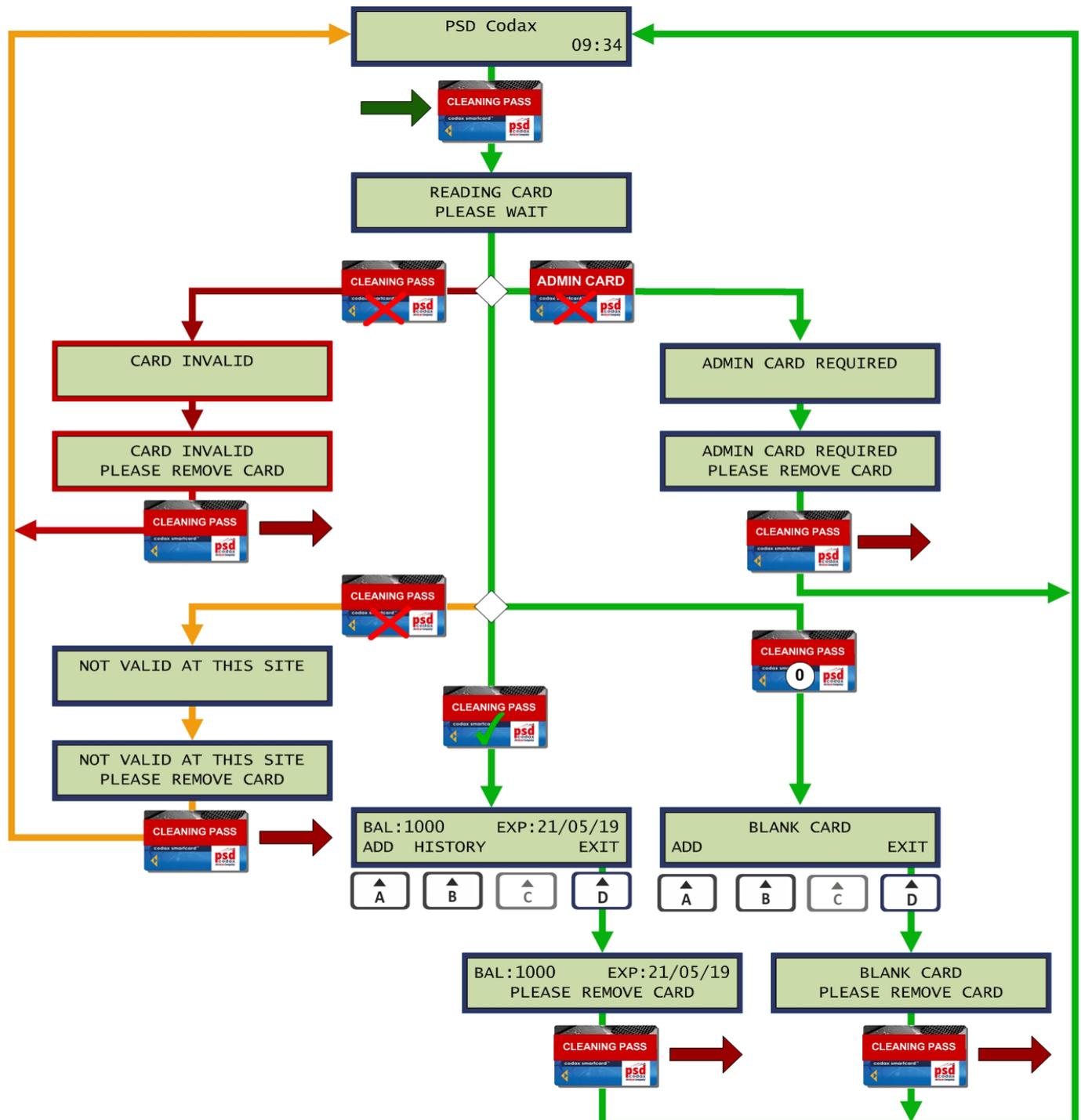
CODAX TICKET TERMINAL OWNERS MANUAL

5.5.4 USER CARD PLACEMENT

On placing a user card in the reader a number of checks are made. If the Ticket Terminal does not have a valid Site ID, the display shows that the Admin card is required. If the Site ID of the card does not match the Site ID of the Ticket Terminal, the "Not Valid at this Site" message is shown. If the card is not recognised the screen shows the message "Card Invalid". For a valid but previously used card is detected the main Smartcard menu is shown. If a blank card is detected, the blank Smartcard menu is shown. For details on adding credit to a card and reading card history, see subsequent sub-sections.

Note: A blank Smartcard may become a Value or Program card according to the credit option taken. See section: 5.5.8 - CARD CREATION.

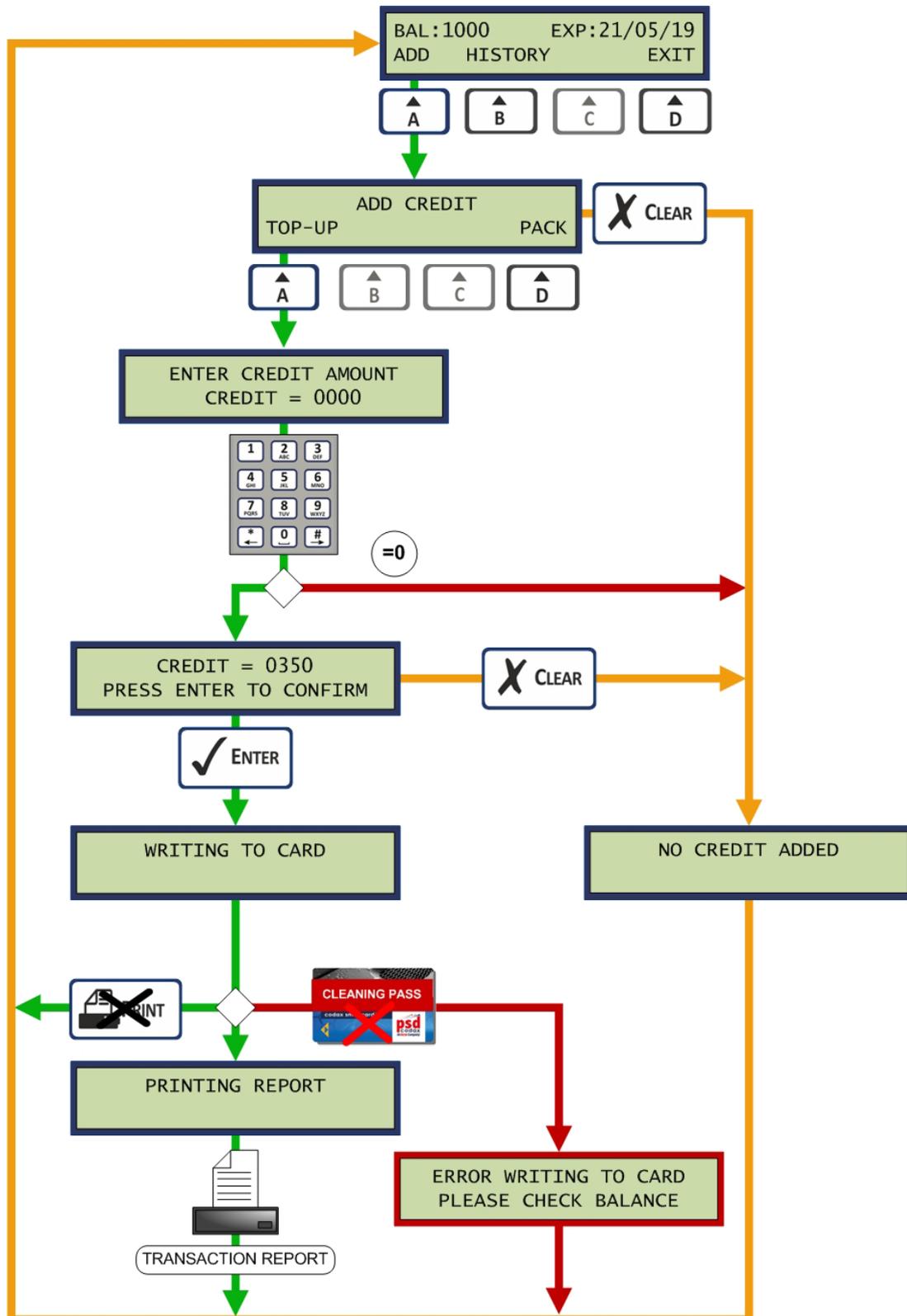
Warning: Do not remove card until requested.



CODAX TICKET TERMINAL OWNERS MANUAL

5.5.5 VALUE CARD CREDIT TOP-UP

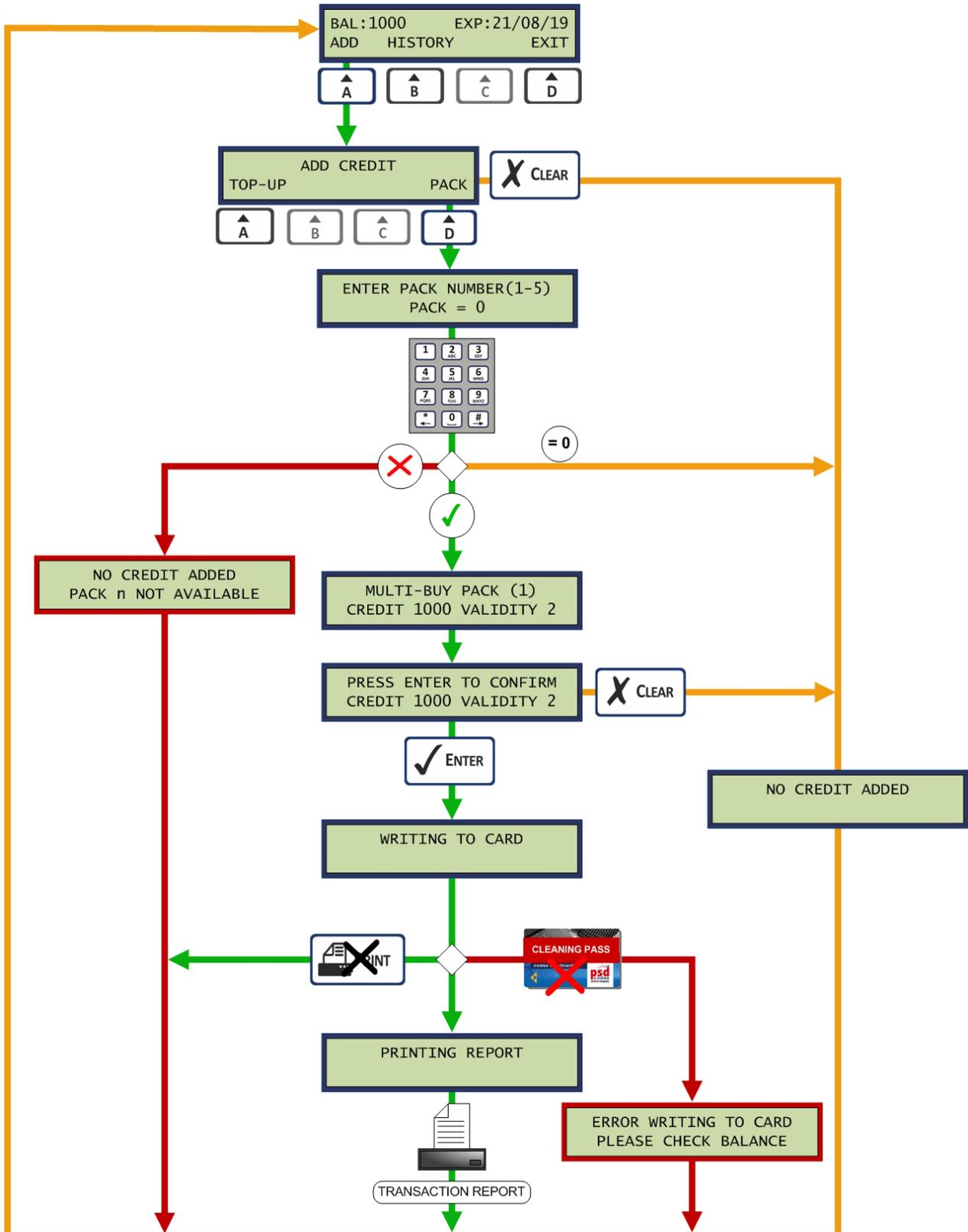
The Value Card may have a specified amount of credit added using the Top-up facility. The *Add Credit* menu allows Top-Up or Multi-Buy pack to be selected. On selecting *TOP-UP* the required credit value is entered and confirmed. The value is then written to the card and if transaction reports are enabled, the report is printed. On returning to the main Smartcard menu the new balance on the card is shown.



CODAX TICKET TERMINAL OWNERS MANUAL

5.5.6 VALUE CARD MULTI-BUY CREDIT PACKS

Credit may be added to a Value Card using the pre-specified packages. The pack specifies the amount of credit, the cost and the validity. Up to 5 packs are available. On card placement, the pack number is specified and confirmed before credit is added to the card and the transaction report printed if enabled. On returning to the main Smartcard menu the new balance on the card is shown.

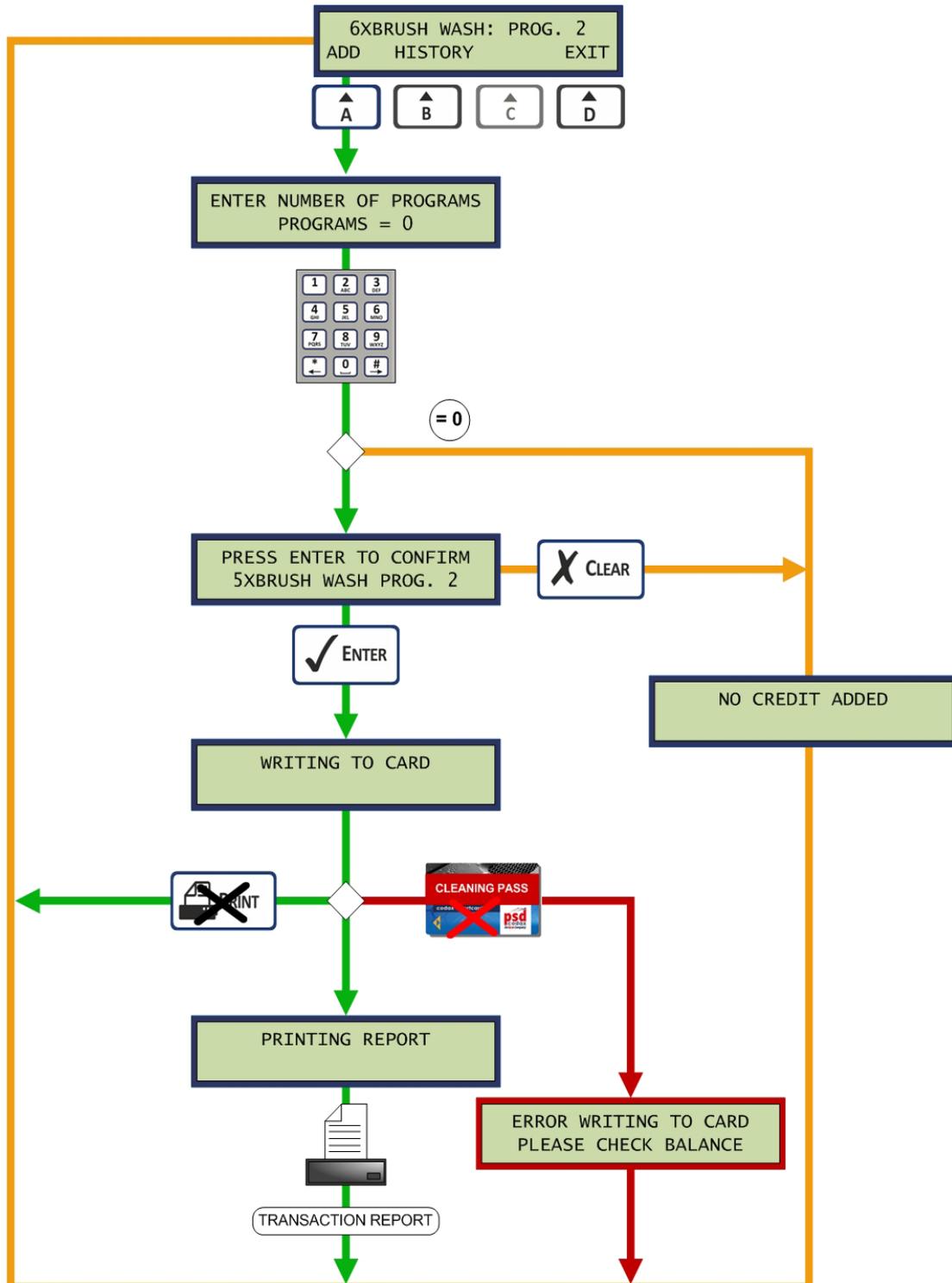


CODAX TICKET TERMINAL OWNERS MANUAL

5.5.7 PROGRAM CARD – ADDING PROGRAMS

Programs are added to a Program Card by simply entering the number of programs required. The Program Card is fixed to a specific service and program as specified when the card was created. Discounts may be added and applied to multiple buys of 5, 10, 15 and 20 washes as specified from the setup menus. See *Section 4.6.8 - SMARTCARD MULTI-BUY DISCOUNTS – PROGRAM CARD*.

Once the number of programs is confirmed, washes are added to the card and the transaction report is printed, if enabled. On returning to the main Smartcard menu the new balance on the card is shown.



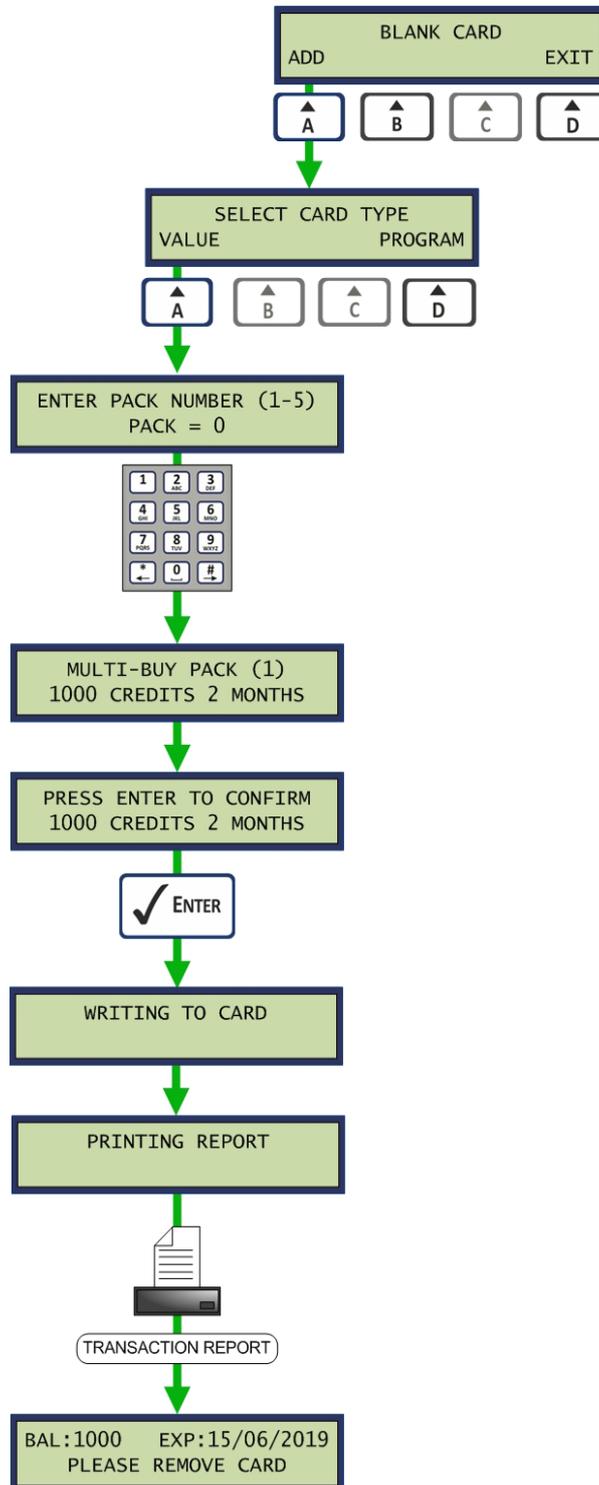
CODAX TICKET TERMINAL OWNERS MANUAL

5.5.8 CARD CREATION

A Value or Program Smartcard is created by placing a Blank card into the reader.

Creating a Value Card

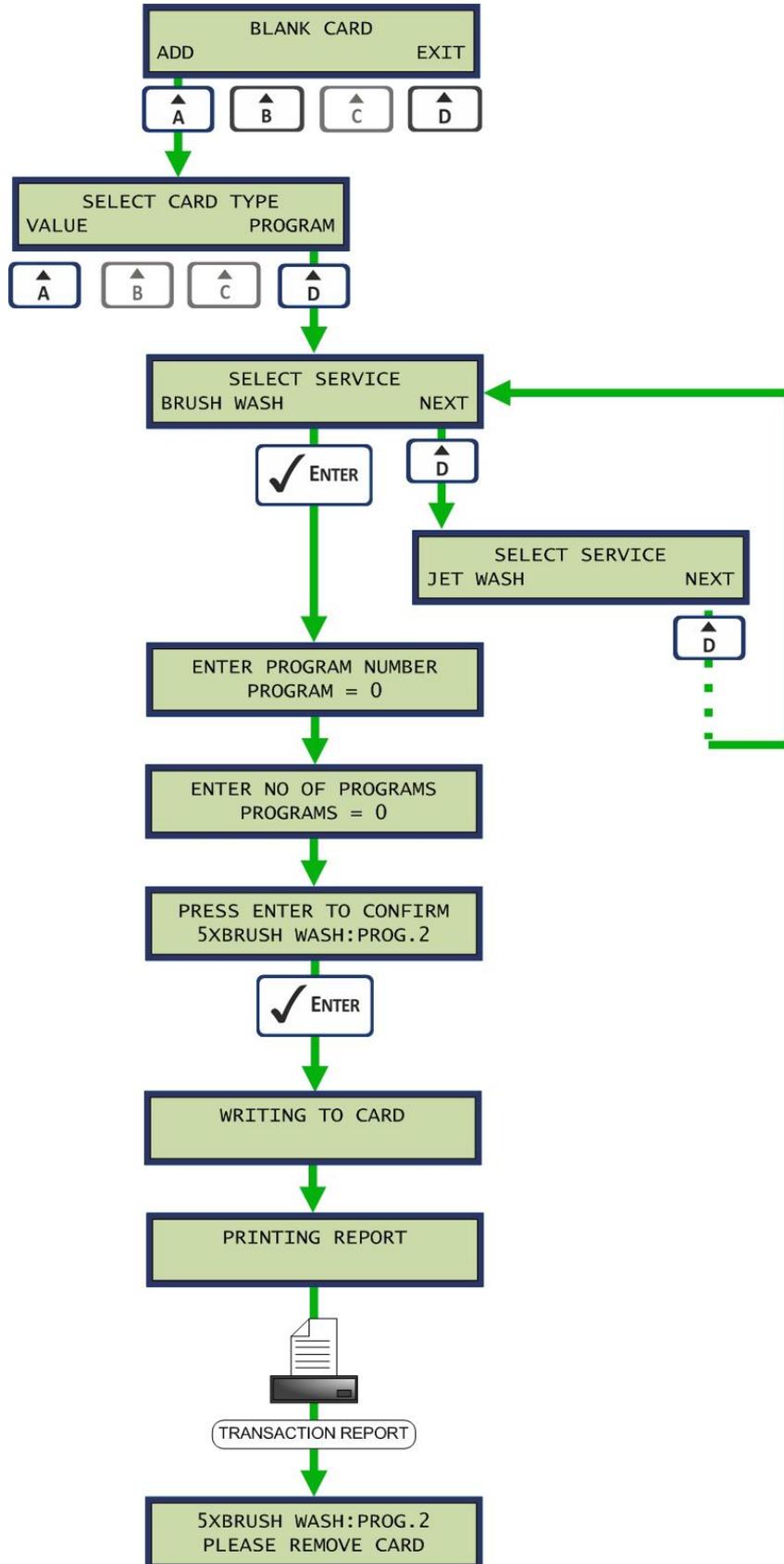
To create a new Value Card the *VALUE* option is selected from the *Select Card Type* option screen. The Value Card can only be created from a Multi-Buy Credit Pack, specified by entering the required Pack number. On confirming the Pack entry the card is written and the Transaction Report printed. The new card balance is shown before the card is removed.



CODAX TICKET TERMINAL OWNERS MANUAL

Creating a Program Card

To create a new Program Card the *PROGRAM* option is selected from the Select Card Type option screen. When creating a Program Card the service, program number and the number of programs to add to the card are entered. On confirming the entry the card is written and the Transaction Report is printed. The new card balance is shown before the card is removed.

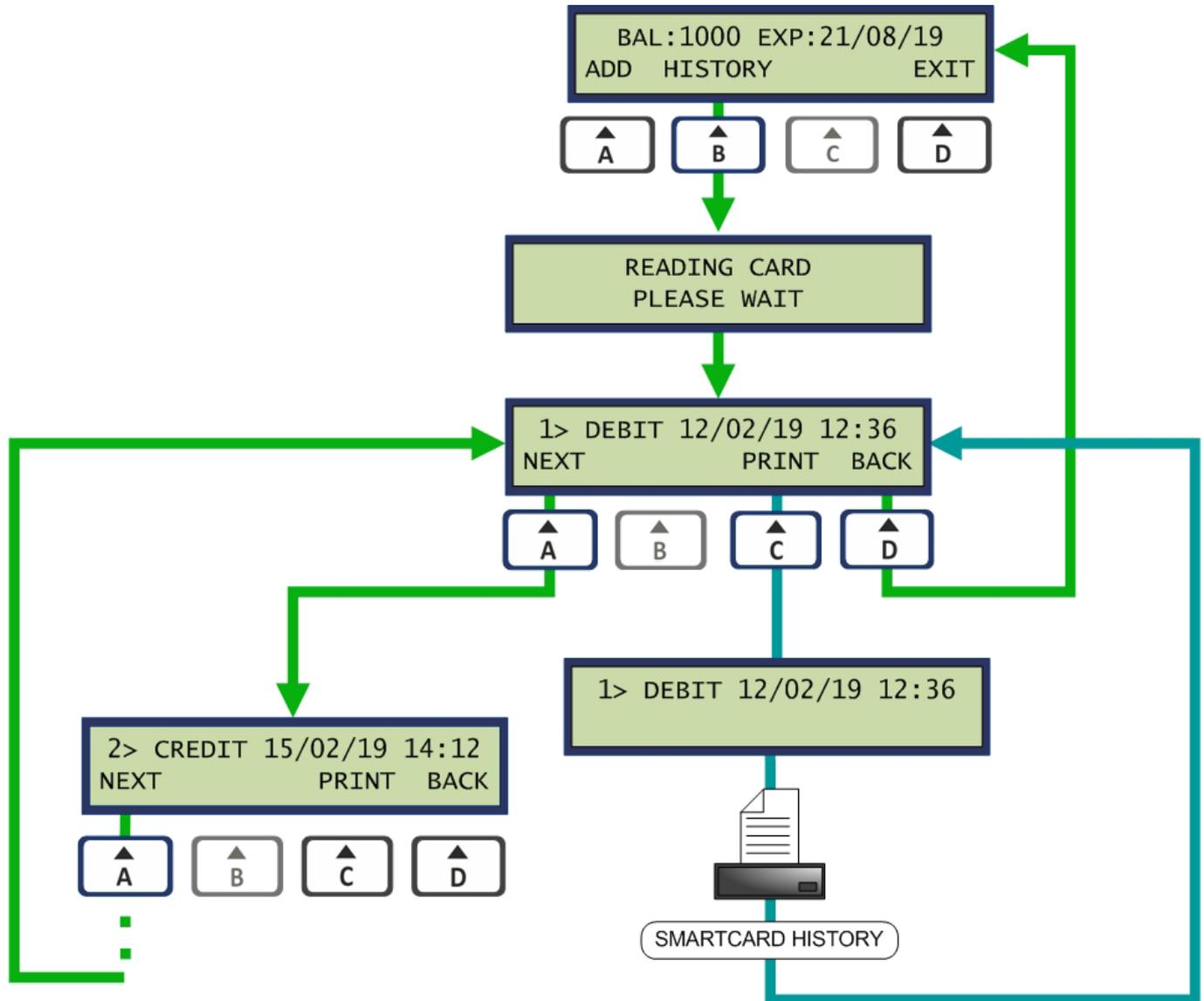


CODAX TICKET TERMINAL OWNERS MANUAL

5.5.9 CARD HISTORY

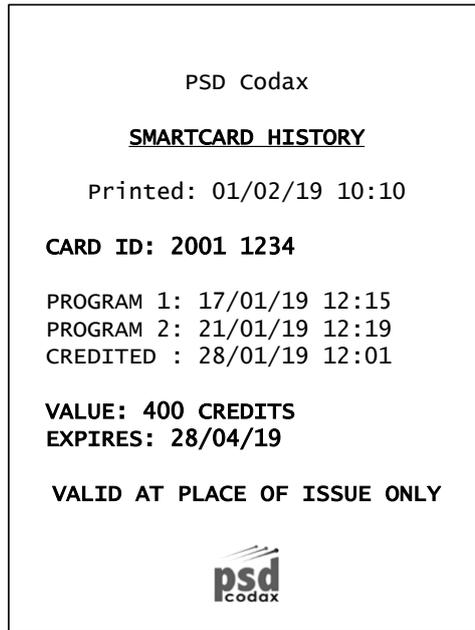
The Card History facility allows the last three debit transactions to be shown. From the Smartcard main menu the *HISTORY* option is selected. Details of the latest transaction are then shown with the date and time the debit was made. Selecting the *NEXT* option will show the remaining transactions in descending order. Selecting the *PRINT* option will print a ticket showing the complete history.

Note: If the card is credited, history is cleared and only the time and date of the credit and subsequent debits are shown.

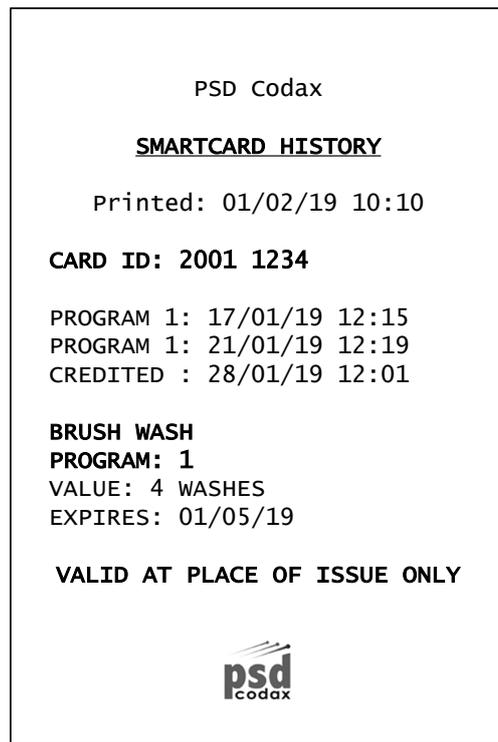


CODAX TICKET TERMINAL OWNERS MANUAL

An example of a Smartcard History ticket for a Value Card is illustrated below:



An example of a Smartcard History ticket for a Program Card is illustrated below:



5.5.10 TRANSACTION REPORTS

Smartcard Transaction Reports are enabled or disabled from the Smartcard Support menu in the Set-up menu. See section 4.6.6 - SMARTCARD TRANSACTION REPORTS.

Value Card Top-up Transaction Report

PSD Codax
SMARTCARD TRANSACTION REPORT

TOP-UP

CARD ID: 2001 1234

VALUE:100 Credits
COST OF TRANSACTION: €10.00

Issue Date: 01/02/19 13:42

BALANCE: 120
EXPIRES: 01/05/19

VALID AT PLACE OF ISSUE ONLY



Value Card Multi-buy Pack Transaction Report

PSD Codax
SMARTCARD TRANSACTION REPORT

MULTI-BUY PACK (1)

CARD ID: 2001 1234

VALUE: 120 CREDITS
COST OF TRANSACTION: €10.00

Issue Date: 01/02/19 09:25

BALANCE: 160
EXPIRES: 01/05/19

VALID AT PLACE OF ISSUE ONLY



Program Card Transaction Report

PSD Codax
SMARTCARD TRANSACTION REPORT

CARD ID: 2001 1234

BRUSH WASH

PROGRAM: 1

VALUE: 5 WASHES

COST OF TRANSACTION: €15.99

Issue Date: 01/02/19 10:10

BALANCE: 5 WASHES

EXPIRES: 01/05/19

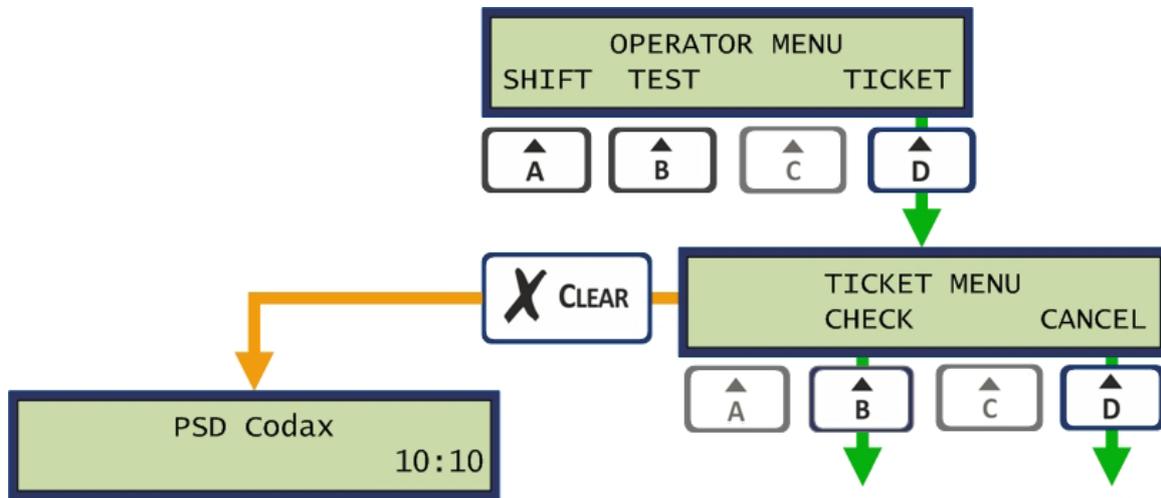
VALID AT PLACE OF ISSUE ONLY



5.6 OTHER TICKET SERVICES

5.6.1 THE TICKET MENU

The *Ticket Menu* is available from the *TICKET* option in the *Operator Menu*. From this menu the *CHECK* option selects the ticket check function and the *CANCEL* option selects the clear ticket function.

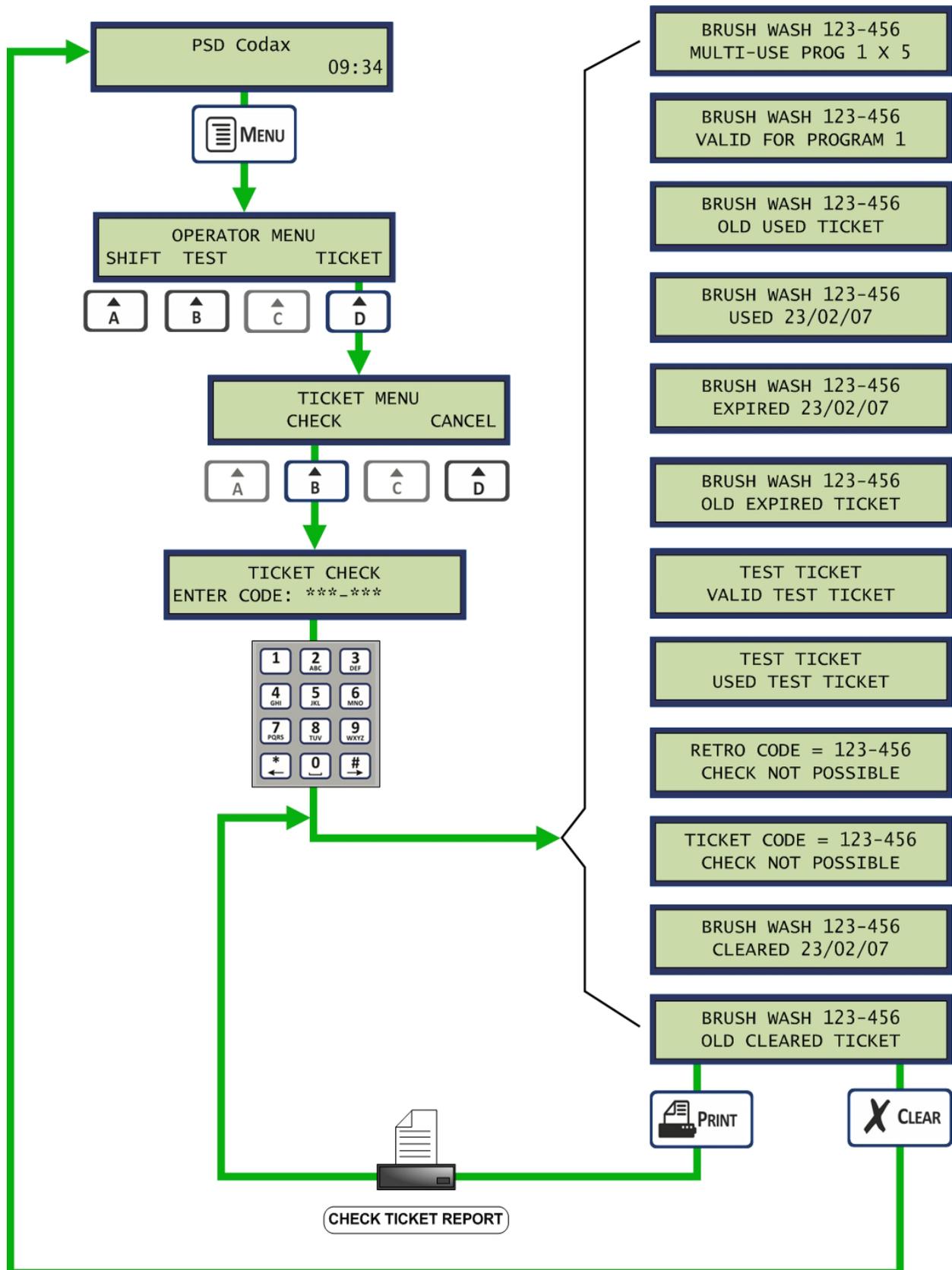


CODAX TICKET TERMINAL OWNERS MANUAL

5.6.2 CHECKING TICKETS (ULTRA ONLY)

The ticket check facility allows a Codax coded ticket to be checked for its current status. This facility is available for service connected in Ultra mode only.

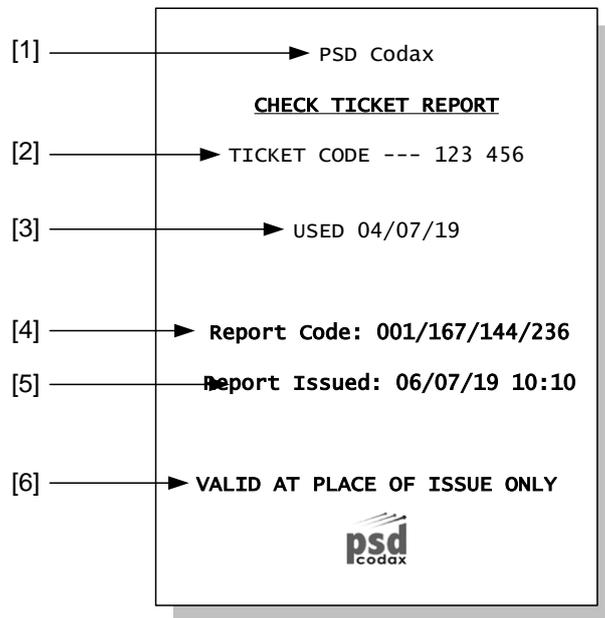
The following illustration shows this sequence and all the possible result messages.



CODAX TICKET TERMINAL OWNERS MANUAL

The Check Ticket Report Ticket

Pressing the PRINT button when check ticket results are on the display (see above illustration) will print the Check Ticket Report ticket. This ticket is printed with the following layout:



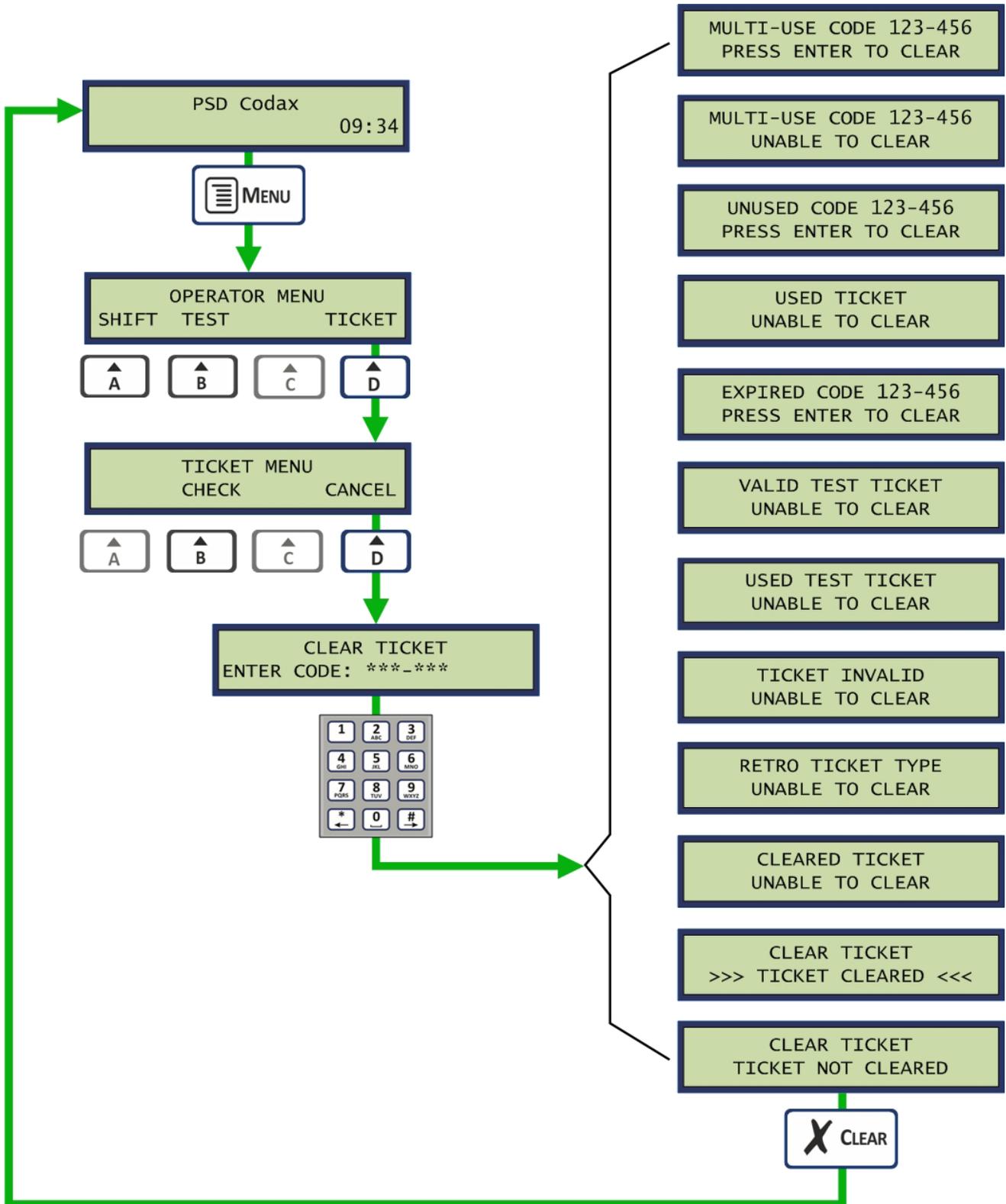
- [1] Title message – User editable message
- [2] Ticket Code – Six-Digit Codax code as entered
- [3] Check Result – Message
- [4] Report Code – Database position data
- [5] Report issued date and time
- [6] Footer message – User editable message

CODAX TICKET TERMINAL OWNERS MANUAL

5.6.3 CANCELLING TICKETS (ULTRA ONLY)

The ticket cancel facility allows a Codax coded ticket to be cleared from the database and therefore not accepted at the Codax Access Terminal. This facility is available for services connected in Ultra mode only.

The following illustration shows this sequence and all the possible result messages.

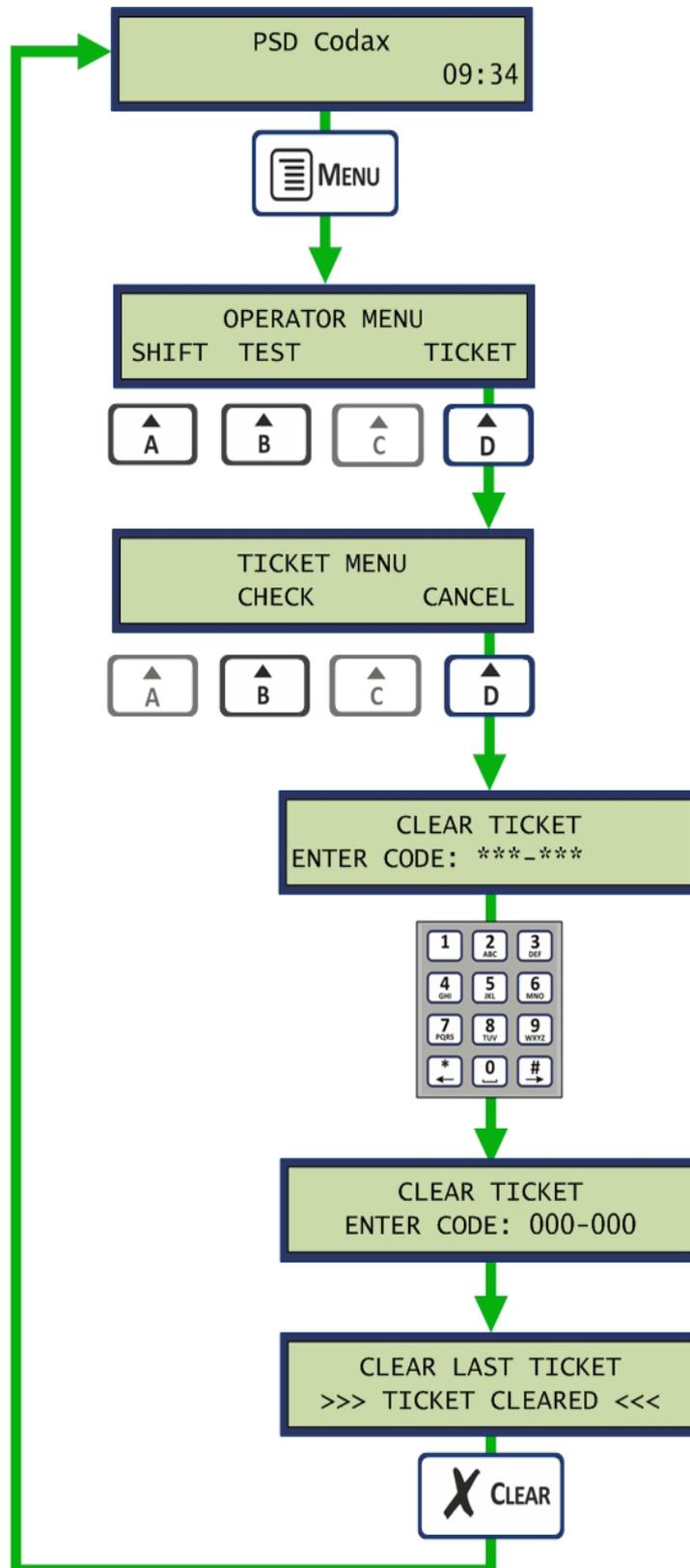


CODAX TICKET TERMINAL OWNERS MANUAL

5.6.4 CANCELLING THE LAST TICKET ISSUED (ULTRA ONLY)

The last ticket issued may be cancelled by entering code 000-000. This sequence is illustrated below. This facility is available for service connected in Ultra mode only.

Note: Other results are possible. See section 5.6.3 - CANCELLING TICKETS



5.7 TEST TICKETS

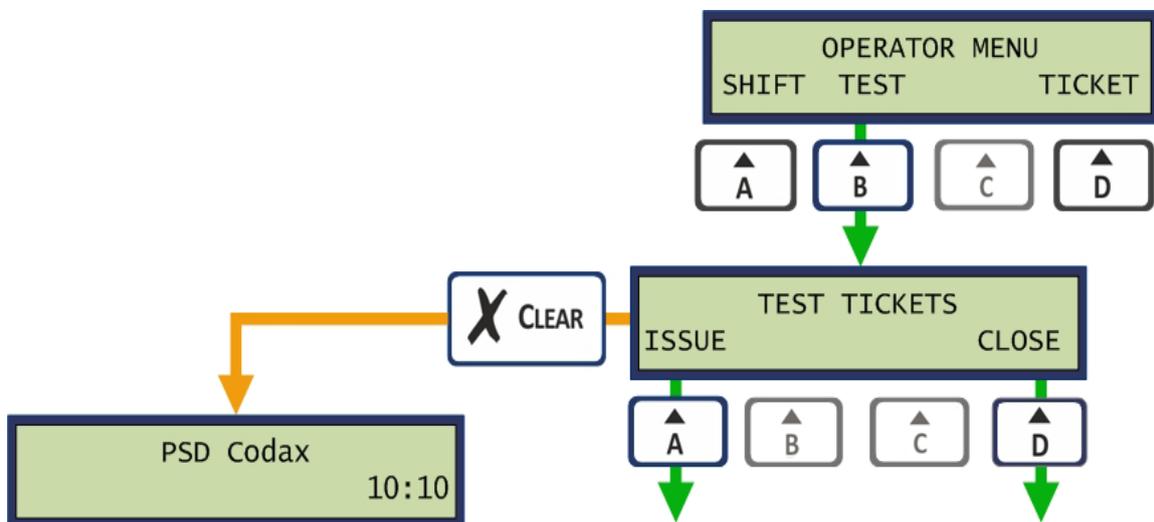
Test Tickets are zero price tickets issued to the maintenance engineer when working on site. The test ticket allows the forecourt machines to be operated a number of times during the maintenance or test session. At the end of the session a test report is printed and signed by the engineer.

Note: All test sessions are recorded and included in the site and audit reports.

5.7.1 THE TEST TICKET MENU

The *Test Tickets* menu is available by selecting the *TEST* option in the *Operator Menu*. From this menu a new test session can be started or an open test session can be closed.

Note: Test tickets are for use by the site maintenance engineer only.



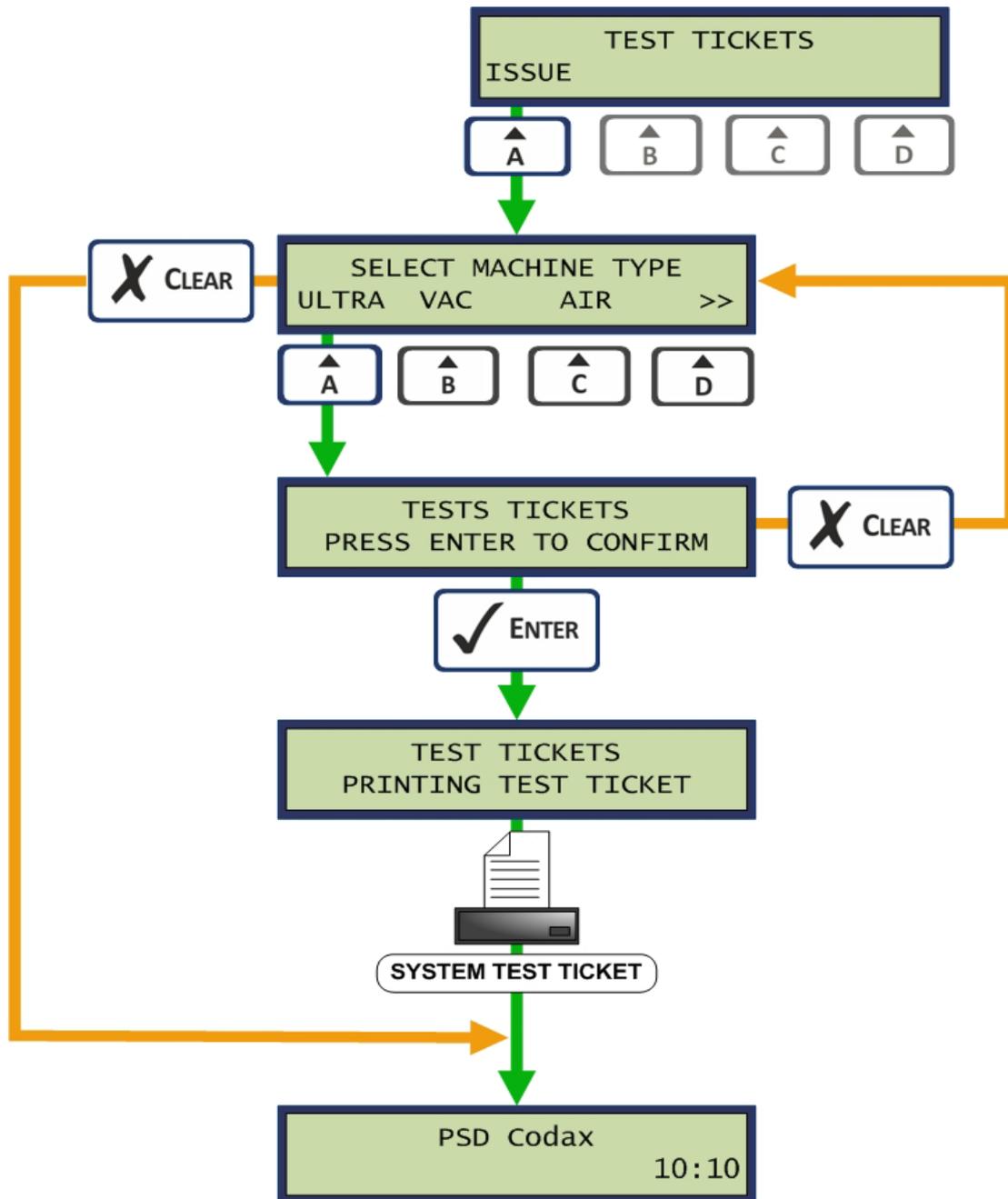
CODAX TICKET TERMINAL OWNERS MANUAL

5.7.2 STARTING TEST SESSION

A test session is started by selecting the *ISSUE* option from the *Test Tickets* menu. The machine type is then selected. The options shown depend on the terminal configuration and operational mode, Retro or Ultra.

All machines operating in Ultra mode are grouped together and tested using one ticket. The Ultra Test Ticket has a maximum life of fifteen uses.

All machines operating in Retro mode are tested individually so the ticket issued may be used on that machine only. Each ticket may be used a maximum 5 times.

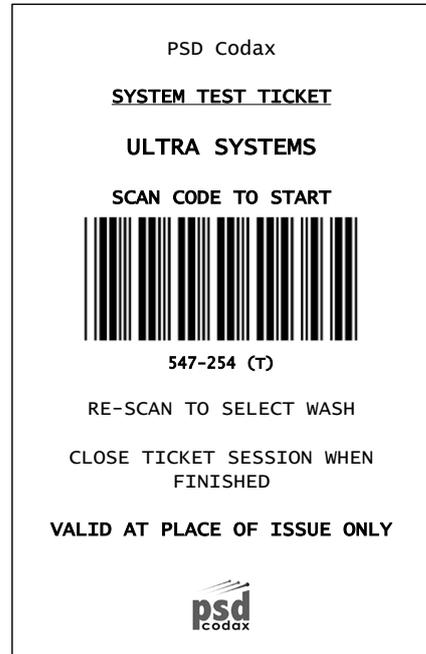


CODAX TICKET TERMINAL OWNERS MANUAL

5.7.3 THE TEST TICKET LAYOUT

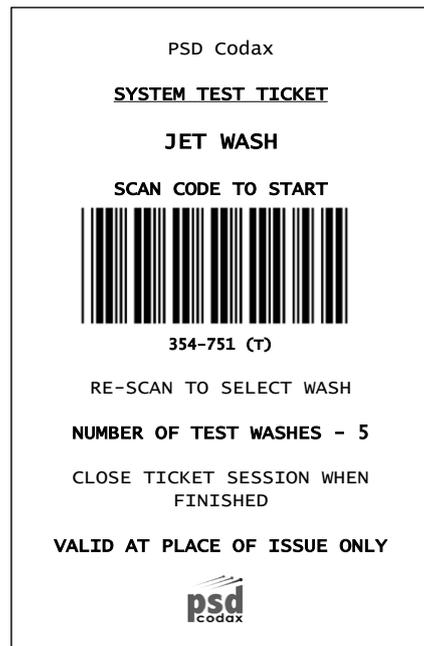
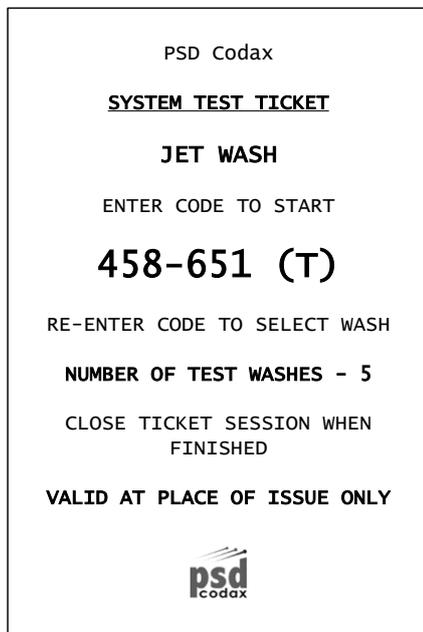
Ultra Systems

Forecourt services connected in Ultra mode are serviced from a single Test Ticket for Ultra systems. The ticket can be used up to 15 times on any machine connected via the Ultra network. The Ticket Terminal will log uses for each machine and include this as part of the Site and Audit reports. The Test Ticket for Ultra systems has the following layout:



Retro Systems

For Retro systems individual Tickets are required for each machine. Each Test Ticket may then be used a maximum five times. The Test Ticket for Retro systems has the following layout:

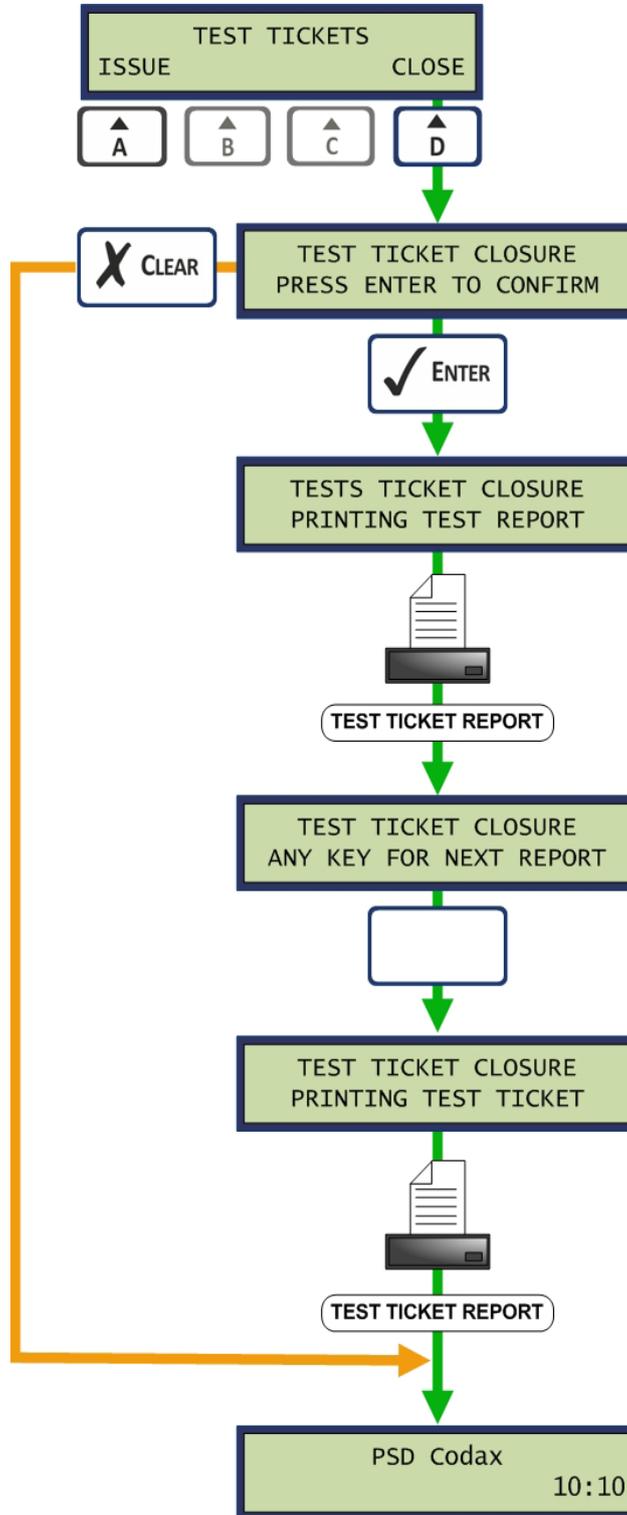


CODAX TICKET TERMINAL OWNERS MANUAL

5.7.4 CLOSING A TEST SESSION

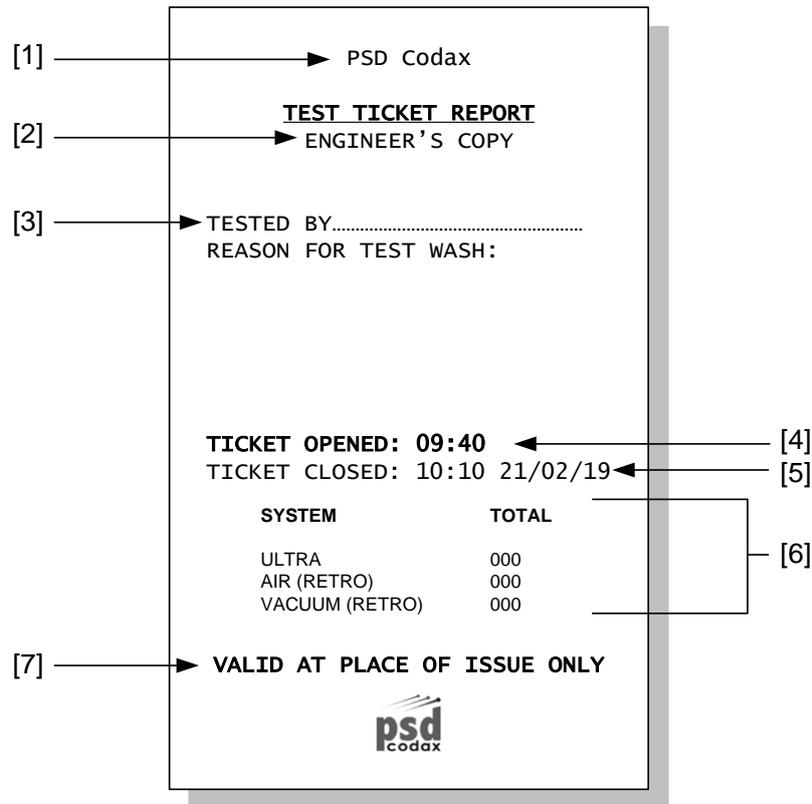
When site maintenance is complete, the test session needs to be closed. When the session is open the *Test Tickets* menu contains the extra *CLOSE* option. The session is closed when this option is selected. On confirmation of this action the Test Ticket Report is printed. Two copies of this report are printed, one for the engineer and one for site records.

Note: The Test session must be closed before a Shift Close Report can be printed.



CODAX TICKET TERMINAL OWNERS MANUAL

The test report is printed with the following layout:



- [1] Title message – User editable message
- [2] Ticket Holder – Site or Engineer's copy
- [3] Test Engineer's signature
- [4] Test ticket open time
- [5] Test ticket close time and date
- [6] Test ticket table – Number of test washes used for each system over the shift period
- [7] Footer message – User editable message

6 SALES REPORTING

6.1 SALES REPORTS OVERVIEW

6.1.1 SITE REPORT

All ticket and Smartcard sales are recorded and summarised for the Site Report. Two site report types are available, the Shift Close Report and the Mid-Shift Report.

Site reports are updated each time a sale is made.

The **Shift Close Report** closes the current Shift Period. When this report is printed is not specified and purely at the discretion of the site operator. The Shift Period is defined simply as the period between two Shift Close Reports. After the report is printed, the shift totals are added to the Auditor report and then zeroed to start the next Shift Period.

Each Shift Close Report is given a unique sequential report number.

If any test tickets are issued during the shift period a record of this is shown on the Shift Close Report.

The **Mid-Shift Report** may be printed at any time to get up to date sales for the current shift period. This is for information only. Shift totals are only zeroed when the Shift Close Report is printed.

As well as the shift totals, a lifetime record of ticket sales is also maintained and included on the site reports. Lifetime totals are zeroed following a new Cold Start configuration.

6.1.2 AUDITOR REPORTS

A separate sales record is maintained for the Audit Report. Two audit report types are available, the Audit Close Report and the Audit Mid Report.

Audit totals are updated at the end of the Shift Period.

The **Audit Close Report** closes the current Audit Period. When this report is printed is not specified and purely at the discretion of the site operator but should be longer than several Shift Periods. The Audit Period is defined simply as the period between two Audit Close Reports. After the report is printed, all audit totals are zeroed to start the next Audit Period.

Each Audit Close Report is given a unique sequential report number. The date and time of the beginning of the Audit Period is also included in the report

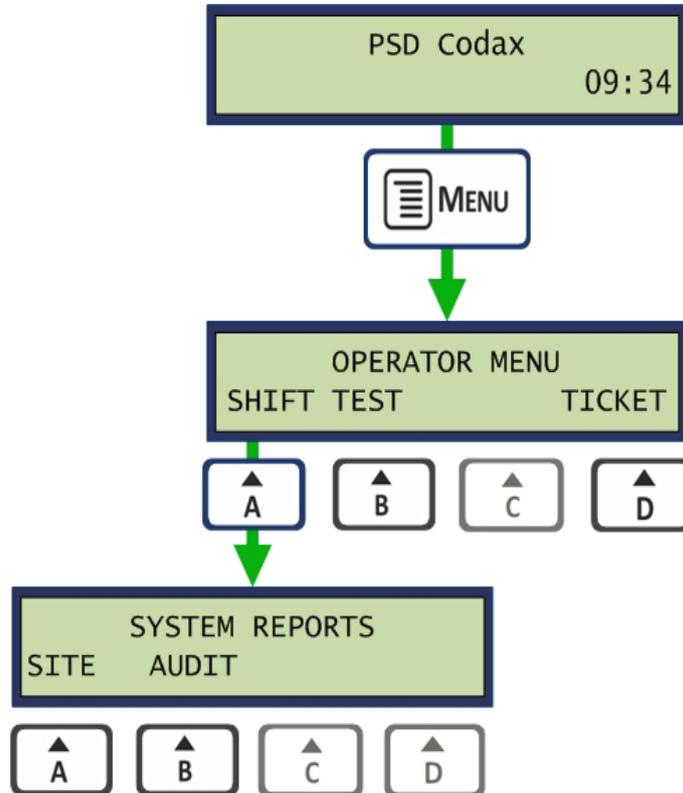
The **Audit Mid Report** may be printed at any time to get the current audit totals without ending the Audit Period. This is for information only. Audit totals are only zeroed when the Audit Close Report is printed.

As well as the audit totals, the current lifetime record for ticket sales is included on all Audit Reports.

CODAX TICKET TERMINAL OWNERS MANUAL

6.1.3 ACCESSING THE SYSTEM REPORTS MENU

The *System Reports* menu is available from the *Operator Menu* by selecting the *SHIFT* option. Here two options, *SITE* and *AUDIT* are available for printing Site and Audit reports.

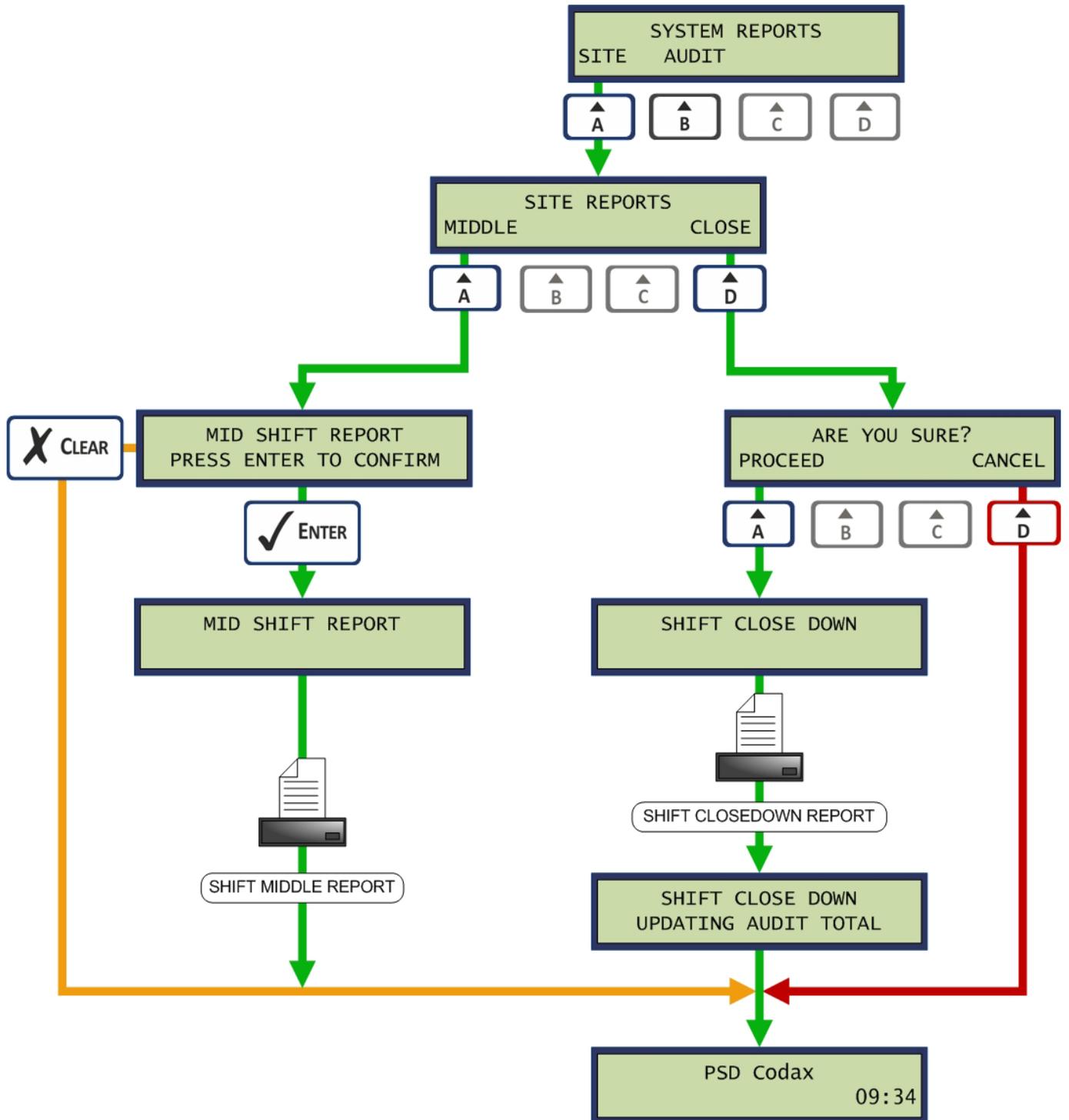


CODAX TICKET TERMINAL OWNERS MANUAL

6.2 SITE REPORTS

6.2.1 SITE REPORTS MENU

The Site Reports menu allows Shift Middle or Shift Close Reports to be printed.



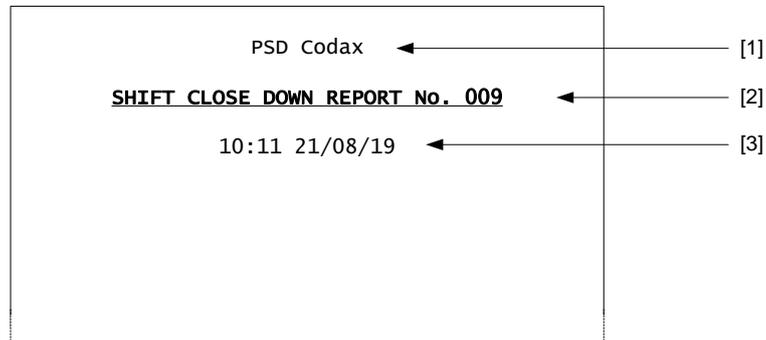
CODAX TICKET TERMINAL OWNERS MANUAL

6.2.2 SHIFT CLOSE DOWN REPORT

A breakdown of the Shift Close Down report is illustrated in the following example:

*Note: Ticket sales table totals have a maximum value of 99999. If this value is exceeded the number can no longer be displayed and **** is shown instead.*

Report Header

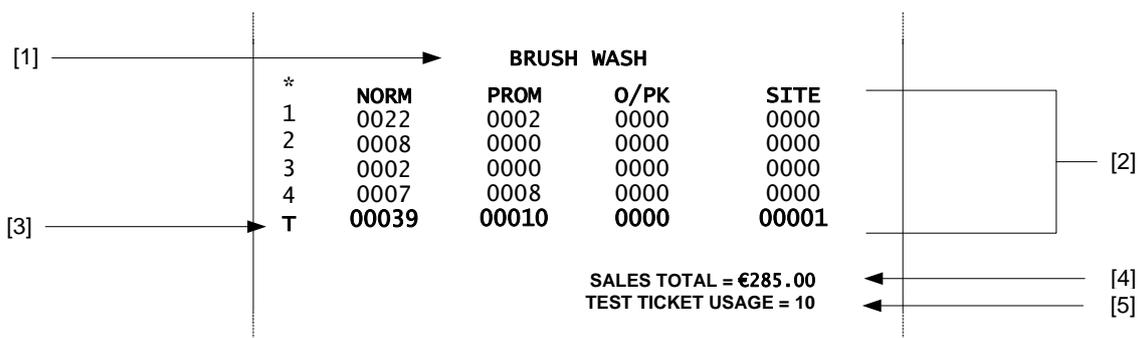


- [1] Title message – User editable message.
- [2] Shift report number – Incremented on each report. *
- [3] Time and date report was printed.

** This number is reset if a full cold start configuration is performed.*

Service Usage Tables

A service usage table is included in the report for all service enabled. This table shows the number of each ticket types sold per program. Following this table the cash sales total for that service is given in the local currency. A separate table is included for each service enabled.



- [1] Service header.
- [2] Ticket sales table – Indicates sales made for each program over the shift period. Sales for normal, promotional, off-peak and site tickets are shown.
- [3] Sales table totals for all ticket types.
- [4] Cash sales totals for service over the shift period.
- [5] Test ticket usage is include if any were issued during the shift period

CODAX TICKET TERMINAL OWNERS MANUAL

Multi-Use Usage Table

The Multi-use usage table is included if this facility is enabled and printed below the Brush Wash service table. Multi-use is only available for the Brush Wash service when the system is operating in Ultra mode. The number of washes sold is shown in the table for each ticket type. The cash sales totals for each multi-use ticket type. The overall cash sales including single and multi-use tickets is also given

	*	MULTI	X5	X10	X15	
	1		00010	00010	00000	[1]
	2		00005	00000	00000	
	3		00000	00000	00000	
	4		00000	00010	00000	
[2] →	T		00015	00020	00000	
			MULTI-USE 5 TOTAL = €68.89 MULTI-USE 10 TOTAL = €125.51 MULTI-USE 15 TOTAL = €00.00			[3]
			SALES TOTAL = €194.40			[4]

- [1] Multi-use ticket sales table – Indicates number of washes sold for each program over the shift period.
- [2] Sales table totals for all multi-use ticket types.
- [3] Cash sales totals for Multi-use tickets over the shift period.
- [4] Cash Sales total including Single and Multi-use tickets for the shift period

Smartcard Value Sales

The Value Card section for Smartcard shows the number of multi-buy package and top-up sales made for the shift period as well as the cash sales totals.

SMARTCARD		
MULTI-BUY PACKAGE SALES		
	PACK	SALES
	1	0010
	2	0003
	3	0012
	4	0001
	5	0000
[2] →	T	0026
		SALES TOTAL = €135.45
		TOP-UP SALES
		SALES TOTALS = €120.00

- [1] Multi-buy package sales table – Number of sales for each pack sold over the shift period
- [2] Package sales total – The total number of Smartcard pack sales
- [3] Package sales cash total
- [4] Top-up sales cash total

CODAX TICKET TERMINAL OWNERS MANUAL

Program Smartcard Sales

The Program Card sales section for Smartcard shows the sales for all available programs for each discount value. Tables are divided into service type and a sales total is shown at the end of the section.

PROGRAM CARD SALES						
[1]						
			→	BRUSH WASH		
	*	X1	X5	X10	X15	X20
	1	00000	00000	00000	00000	00000
	2	00000	00000	00000	00000	00000
	3	00000	00000	00000	00000	00000
	4	00000	00000	00000	00000	00000
[3]	→	T	00000	00000	00000	00000
						[2]
						[4]
					SALES TOTAL = €135.45 ←	

- [1] Service Header
- [2] Program Card sales table – Number of sales for each program and discount value sold over the shift period
- [3] Sales table totals for all discount types
- [4] Program Card sales total

Lifetime Usage Tables

The lifetime usage tables are continually incremented as ticket sales are made. This record is shown per service type and includes all ticket types and programs.

BRUSH WASH					
[1]					
			→	BRUSH WASH	
	*	NORM	PROM	O/PK	SITE
	1	01022	00102	00000	00007
	2	00508	00056	00000	00001
	3	00302	00110	00000	00001
	4	01207	00408	00000	00005
[3]	→	T	03039	00646	00014
					[2]

- [1] Service header
- [2] Sales Table – Shows the number of sales per ticket type and program over the lifetime period.
- [3] Sales table totals – Total sales for per ticket type.

A Multi-use table is included for Brush Wash usage if enabled.

CODAX TICKET TERMINAL OWNERS MANUAL

Lifetime Smartcard Sales Table

The table containing the Smartcard sales for multi-buy packages over the lifetime period is shown below:

MULTI-BUY PACKAGE SALES	
PACK	SALES
1	0131
2	0078
3	0234
4	0178
5	0000
T	0621

[2] →

[1]

- [1] Smartcard pack sales table – Number of sales for each pack sold over the lifetime period
- [2] Pack sales total – The total number of Smartcard pack sales

Lifetime Smartcard Program Sales

The table containing the Smartcard sales for Program Card over the lifetime period is shown below:

PROGRAM CARD SALES						
BRUSH WASH						
*	X1	X5	X10	X15	X20	
1	00000	00000	00000	00000	00000	[2]
2	00000	00000	00000	00000	00000	
3	00000	00000	00000	00000	00000	
4	00000	00000	00000	00000	00000	
T	00000	00000	00000	00000	00000	

[1] →

[3] →

- [1] Service Header
- [2] Program Card sales table – Number of sales for each program and discount value sold over the shift period
- [4] Sales table totals for all discount types

Footer

The footer indicates that the shift totals have been reset to zero as a result of printing the shift close down report.

ALL SHIFT TOTALS RESET TO ZERO

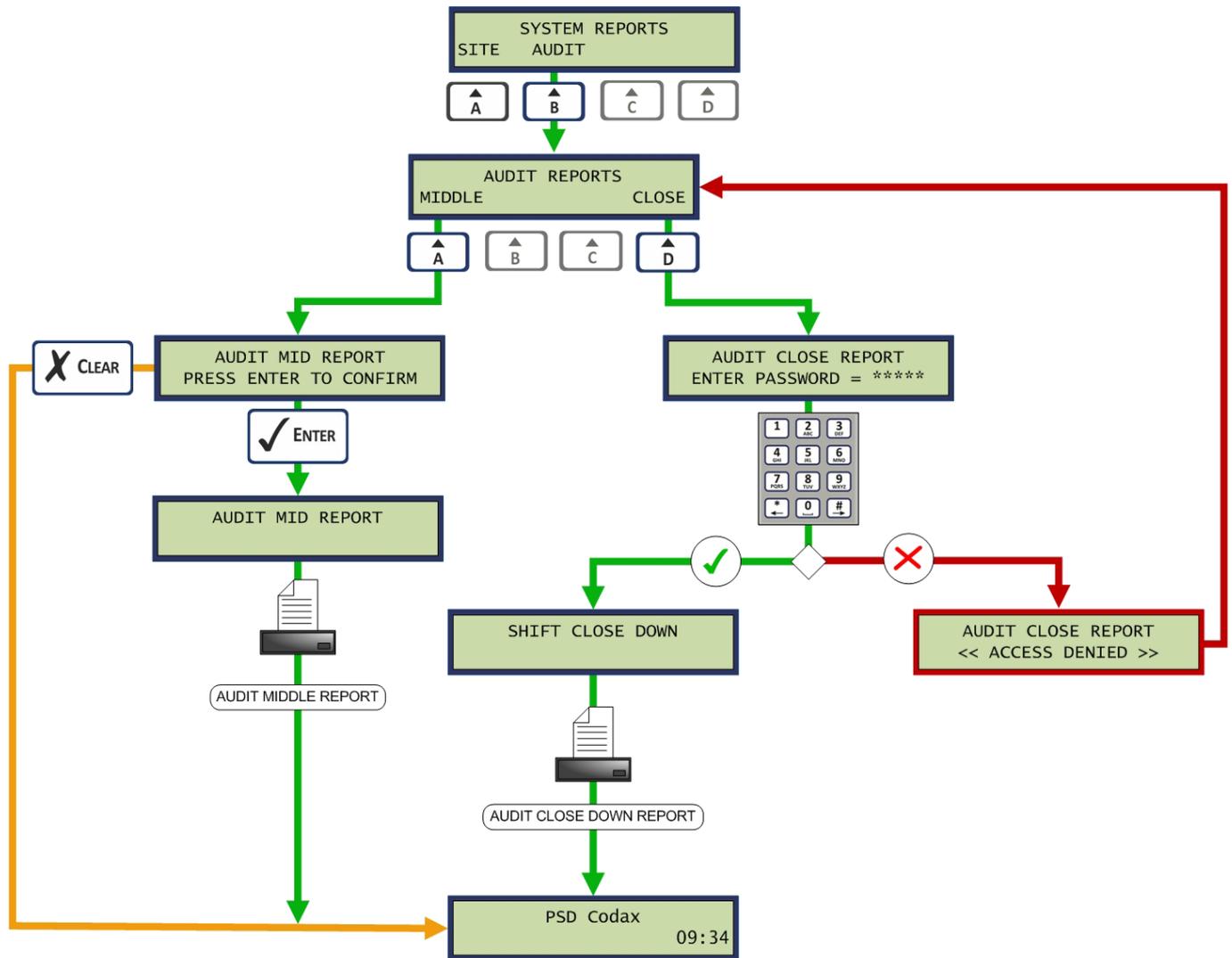


CODAX TICKET TERMINAL OWNERS MANUAL

6.3 AUDIT REPORTS

6.3.1 AUDIT REPORTS MENU

The Audit Reports menu allows Auditor Middle or Auditor Close Down reports to be printed. The close down reports requires the Manager's password to be entered.



CODAX TICKET TERMINAL OWNERS MANUAL

6.3.2 AUDITOR CLOSE DOWN REPORT

A breakdown of the Auditor Shift Close Down report is illustrated in the following example:

Report Header

PSD Codax	←	[1]
AUDITOR CLOSE DOWN REPORT 003	←	[2]
10:11 21/08/19	←	[3]
Report opened: 30/08/19 08:46	←	[4]
Cold start: 01/01/19	←	[5]
Price Change: 01/01/19 (001)	←	[6]

- [1] Title message – User editable
- [2] Audit report number – Incremented for each report. Reset at Cold Start
- [3] Time and date report was printed
- [4] Date and time audit period started
- [5] Date of last Cold Start
- [6] Date and change number for last program price change

Service Usage Tables

A service usage table is included in the report for all service enabled. This table shows the number of each ticket types sold per program. Following this table the total tickets issued and the cash sales total for that service is given in the local currency. A separate table is included for all services enabled.

[1]		BRUSH WASH			
	*	NORM	PROM	O/PK	SITE
	1	00071	00012	00000	00003
	2	00029	00003	00000	00000
	3	00020	00002	00000	00000
	4	00052	00031	00000	00001
[3]	T	00172	00048	00000	00004
				TICKET TOTAL = 224	← [4]
				SALES TOTAL = €285.00	← [5]

- [1] Service header
- [2] Ticket sales table – Indicates sales made for each program over the audit period. Sales for normal, promotional, off-peak and site tickets are shown.
- [3] Sales table totals for all ticket types
- [4] Ticket Totals – Total number of tickets issued per service
- [5] Sales cash total – Cash sales for service over the audit period.

CODAX TICKET TERMINAL OWNERS MANUAL

Multi-Use Usage Table

The Multi-use usage table is included if this facility is enabled and printed below the Brush Wash service table. Multi-use is only available for the Brush Wash service when the system is operating in Ultra mode. The number of washes sold is shown in the table for each ticket type. The cash sales totals for each multi-use ticket type. The overall cash sales including single and multi-use tickets is also given

	*	MULTI	X5	X10	X15	
	1		00030	00040	00045	[1]
	2		00015	00020	00030	
	3		00005	00010	00015	
	4		00040	00020	00015	
[2] →	T		00090	00090	00105	
			MULTI-USE 5 TOTAL = €541.55			[3]
			MULTI-USE 10 TOTAL = €522.47			
			MULTI-USE 15 TOTAL = €595.55			
			SALES TOTAL = €3016.07			[4]
			TEST TICKET USAGE = 5			[5]

- [1] Multi-use ticket sales table – Indicates number of washes sold for each program over the shift period.
- [2] Sales table totals for all multi-use ticket types.
- [3] Cash sales totals for Multi-use tickets over the shift period.
- [4] Cash Sales total including Single and Multi-use tickets for the shift period
- [5] Test ticket usage is include if any were issued during the shift period

Smartcard Value Sales

The Smartcard sales section shows the number of multi-buy package and top-up sales made for the audit period.

SMARTCARD		
MULTI-BUY PACKAGE SALES		
	PACK	SALES
	1	0030
	2	0009
	3	0036
	4	0003
	5	0000
[2] →	T	0078
		SALES TOTAL = €406.35
		TOP-UP SALES
		SALES TOTALS = €360.00

- [1] Multi-buy package sales table – Number of sales for each pack sold over the audit period
- [2] Package sales total – The total number of Smartcard pack sales
- [3] Package sales cash total
- [4] Top-up sales cash total

CODAX TICKET TERMINAL OWNERS MANUAL

Program Card Sales

The Program Card sales section for Smartcard shows the sales for all available programs for each discount value. Tables are divided into service type and a sales total is shown at the end of the section.

PROGRAM CARD SALES						
[1]			→ BRUSH WASH			
	*	X1	X5	X10	X15	X20
	1	00000	00000	00000	00000	00000
	2	00000	00000	00000	00000	00000
	3	00000	00000	00000	00000	00000
	4	00000	00000	00000	00000	00000
[3]	T	00000	00000	00000	00000	00000
					SALES TOTAL = €135.45	[4]

- [1] Service Header
- [2] Program Card sales table – Number of sales for each program and discount value sold over the shift period
- [3] Sales table totals for all discount types
- [4] Program Card sales total

Lifetime Usage Tables

The lifetime table details are shown below. A table for each system included in the cold start configuration is included with each containing the information given below.

BRUSH WASH					
[1]			→ BRUSH WASH		
	*	NORM	PROM	O/PK	SITE
	1	01022	00102	00000	00007
	2	00508	00056	00000	00001
	3	00302	00110	00000	00001
	4	01207	00408	00000	00005
[3]	T	03039	00646	00000	00014

- [1] Service header – User Editable message
- [2] Sales Table – Shows the number of sales per ticket type and program over the lifetime period.
- [3] Sales table totals – Total sales for per ticket type.

A Multi-use table is included for Brush Wash usage if enabled.

CODAX TICKET TERMINAL OWNERS MANUAL

Lifetime Value Smartcard Sales Table

The table containing the Smartcard sales for multi-buy packages over the lifetime period is shown below:

MULTI-BUY PACKAGE SALES	
PACK	SALES
1	0131
2	0078
3	0234
4	0178
5	0000
T	0621

- [1] Smartcard pack sales table – Number of sales for each pack sold over the lifetime period
- [2] Pack sales total – The total number of Smartcard pack sales

Lifetime Smartcard Program Sales

The table containing the Smartcard sales for Program Card over the lifetime period is shown below:

PROGRAM CARD SALES						
*	x1	x5	x10	x15	x20	
1	00000	00000	00000	00000	00000	[3]
2	00000	00000	00000	00000	00000	
3	00000	00000	00000	00000	00000	
4	00000	00000	00000	00000	00000	
T	00000	00000	00000	00000	00000	

- [1] Program Card sales table – Number of sales for each program and discount value sold over the shift period
- [2] Service Header
- [3] Program Card sales total for service header
- [4] Sales table totals for all discount types

Footer

The footer indicates that the audit totals have been reset to zero as a result of printing the audit closedown report.

ALL AUDIT TOTALS NOW RESET TO ZERO



7 TROUBLE SHOOTING

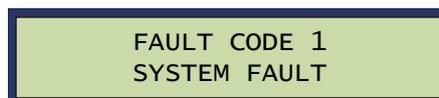
7.1 CODAX SYSTEM FAULT CODES

7.1.1 FAULT CODE 1 – MACHINE LINK ERROR (ULTRA ONLY)

The Machine Link refers to the cable connecting the Codax Access Terminal to the Machine. Specifically the signal wire or wires controlling the machines operation. If a problem is detected when a wash is started, the Machine Link fault is reported. The following message screens alternate at the Access Terminal until cleared by the operator by pressing the  key.



For Ultra installation the fault is relayed back to the Ticket Terminal. The following fault message is shown on the Ticket Terminal display until cleared by the operator. A Codax System Error Report ticket is also printed. See section 7.1.6 - CODAX SYSTEM ERROR REPORT.

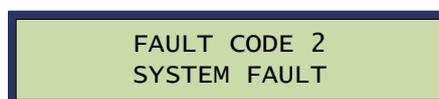


7.1.2 FAULT CODE 2 – MACHINE POWER FAILURE

This fault is reported by the Codax Access Terminal when the power indication from the Machine is lost. The following message screens alternate at the Access Terminal until the power indication is restored. The fault display automatically clears and normal operation is resumed.



For Ultra installation the fault is relayed back to the Ticket Terminal. The following fault message is shown on the Ticket Terminal display until cleared by the operator. A Codax System Error Report ticket is also printed. See section 7.1.6 - CODAX SYSTEM ERROR REPORT.



CODAX TICKET TERMINAL OWNERS MANUAL

7.1.3 FAULT CODE 3 – KIOSK LINK FAILURE

If a fault is detected by the Access Terminal during communication with the Ticket Terminal the Kiosk Link fault is reported. The following fault screen is shown at the Access Terminal until cleared by the operator

by pressing the  key.

CHECK KIOSK LINK
FAULT NO 3 u b

Additional information on the nature of the fault is indicated by the following letter codes:

u	No Loop Error
b	Kiosk Link Break error
p	Kiosk Link Poll error
a	Kiosk Link Acknowledge error
r	Kiosk Link Reply error
t	Kiosk Link Try's error
k	Access Code Entry (2368)

*Note: Entering Access Code **2363** at the Access Terminal will test the Kiosk Link. See Codax Access Terminal Manual for details.*

Due to the nature of this fault, no message is relayed back to Ticket Terminal.

7.1.4 FAULT CODE 4 – KEYPAD FAULT

This fault is reported by the Access Terminal when a suspected keypad fault is detected. The fault occurs when an unrecognisable code is entered a number of times at the Access Terminal. This may be due to a faulty keypad but could also be caused by random code entry in an attempt to overcome the system. The keypad fault in this instance is designed to deter such action.

KEYPAD FAULT 4

For Ultra installation the fault is relayed back to the Ticket Terminal. The following fault message is shown on the Ticket Terminal display until cleared by the operator. A Codax System Error Report ticket is also printed. See section 7.1.6 - CODAX SYSTEM ERROR REPORT.

FAULT CODE 4
KEYPAD FAULT

Note: This fault is automatically cleared from the Access Terminal after a few seconds

7.1.5 FAULT CODE 5 – ACCESS LINK ERROR

The access link error indicates that there is a problem with the Ultra communication link from Codax Ticket Terminal via the Codax Distribution Unit to the Access Terminal. The CDU LED indicators may indicate which channel is causing the problem.

FAULT CODE 5
ACCESS LINK ERROR

Ultra Link Fault

This is the connection from the Codax Access Terminal to the Codax Access Terminals via the Codax Distribution Unit. It is normally caused by a break in the communication cable. The series of CDU LED indicators will show which CAT cable is causing the problem. See *Section 7.2 - CODAX DISTRIBUTION UNIT LED INDICATORS*.

Secondary Link Fault

If operating using the Secondary Ticket Terminal, this fault is shown if there is a problem with the Secondary unit, connection to the Primary or if the Secondary is disconnected.

Note: If removing the Secondary CTT from the system, it must be disabled at the Primary CTT. See section 4.6.20 - SECONDARY TICKET TERMINAL.

Note: The Secondary CTT will not operate without the Primary CTT.

7.1.6 CODAX SYSTEM ERROR REPORT

Below is an example of a Codax System Error Report printed by the Codax Ticket Terminal when a fault is reported by the Codax Access Terminal. This ticket is available for Ultra installations only.

PSD Codax
CODAX SYSTEM ERROR REPORT
Printed: 21/02/19 10:10

FAULT CODE 2
M/C LINK

7.2 CODAX DISTRIBUTION UNIT LED INDICATORS

7.2.1 CODAX DISTRIBUTION UNIT POWER INDICATION

The yellow LED is a power indicator. The normal condition of this LED is ON. The LED OFF indicates a loss of power due to a short circuit or overload. CAT and CTT power outputs from the CDU are protected by thermal fuses. An overload on these outputs will cause the fuse to overheat and shutdown.

Note: These fuses automatically recover when the fault condition clears. No user serviceable parts are fitted to this unit

-  LED On - Power ON
-  LED Off - Power OFF

7.2.2 CODAX DISTRIBUTION UNIT SIGNAL INDICATION

The red LED is a communication link indicator. The normal condition of this LED is off. The LED may flash on when the Ticket Terminal is communicating with an Access Terminal. A loss of communication is indicated by the LED remaining on. This fault is normally caused by a break in the cabling to the CTT or CAT.

-  LED On - Connection error
-  LED Flashing - Normal comms indication
-  LED Off - Normal operation

8 CONTACT INFORMATION

Codax™ is designed and manufactured by PSD Codax Ltd.
Bristol, England, BS14 0BY

Full Address:

PSD Codax Ltd
Axis 8
Hawkfield Business Park
Whitchurch
Bristol
BS14 0BY
England

PSD Codax website: www.psdcodax.com

For product information, pricing or to place an order:

Email: sales@psdcodax.com

Call: +44 (0) 1275 866910.

For technical support:

Email: service@psdcodax.com

Call: +44 (0) 1275 866910.

Notices

PSD Codax Limited operate a continued product and component development programme. We reserve the right to modify/change as necessary. All technical specifications, Codax system software and information documents produced by PSD are copyright protected. Written permission is required from a Director of the company prior to any reproduction.

We may send you software by electronic mail, you are only authorised to make one copy of this software image onto an EPROM/Software module after which the software image must be deleted from your computer. Any development software sent electronically to you for the purpose of testing and development is for this purpose only and any reproduction or operational use of the software is not permitted and will be in breach of our copyright and trading terms.

PSD Codax Ltd. is registered C/O Bryan Cave Leighton Paisner LLP, Adelaide House, London Bridge, EC4R 9HA. Company number 04204089.

Our standard terms and conditions of trading and payment will apply to all transactions. Please request current issue.



To learn more about PSD Codax,
our services and our products,
please contact us.

t: +44 (0) 1275 866 910
w: www.psdcodax.com
e: info@psdcodax.com

Defining the World of Car Wash Technology

Smartstart Plus | Smartstart Pro | Auto Sentry® Petro | Auto Sentry® Flex | Auto Sentry® CPT | WashConnect®

