Great care has been taken in the preparation of this manual however Tokheim shall not be liable for any misunderstanding, errors and/or loss or defect arising from the use of this manual.

Tokheim shall not be liable for damage to the product, nor for personal or third party injury, caused by incorrect use of the product or by attempts to maintain or to repair the product by parties other than those fully trained by Tokheim or by its accredited third party representatives.

Please contact your nearest service department, at the relevant address printed on the back cover of this manual, should any aspect of this manual be unclear.

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Tokheim reserves the right to apply changes to this document and the equipment without further notice.
## REVISION RECORD

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<td>All</td>
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</tbody>
</table>
CONTENTS

1 INTRODUCTION ........................................................................................................ 1-2
  1.1 How to Use this Manual ......................................................................................1-2
  1.2 Product Scope ......................................................................................................1-2
  1.3 Authorised Technicians ........................................................................................1-2
  1.4 Contact Information .............................................................................................1-3
  1.5 Health & Safety ...................................................................................................1-3
    1.5.1 Safety Checklist ...................................................................................1-3
    1.5.2 Duties of the Employees ......................................................................1-3
    1.5.3 Hazards ................................................................................................1-4
    1.5.4 Warning Signs ......................................................................................1-4
    1.5.5 Personal Protective Equipment (PPE) ................................................1-6
  1.6 Standards & Certificates ......................................................................................1-7

2 PRODUCT INFORMATION .................................................................................... 2-2
  2.1 System Description ..............................................................................................2-2
  2.2 Key Characteristics..............................................................................................2-2
    2.2.1 Crypto VGA Hardware .......................................................................2-3
    2.2.2 Environmental Conditions ....................................................................2-3
  2.3 Configuration ........................................................................................................2-3
    2.3.1 Receipt Printer .....................................................................................2-4
    2.3.2 VGA / Touch Sensor ...........................................................................2-4
    2.3.3 Manual Card Reader ...........................................................................2-4
  2.4 Crypto VGA Terminal Dimensions ......................................................................2-5
    2.4.1 Crypto VGA Standalone Island Terminal ...........................................2-5
    2.4.2 Crypto VGA add on unit ......................................................................2-6
    2.4.3 Crypto VGA DIT .................................................................................2-7
    2.4.4 Crypto VGA BNA ...............................................................................2-8

3 INSTALLATION OF THE CRYPTO VGA.............................................................. 3-2
  3.1 General .................................................................................................................3-2
  3.2 Retrofitting the Crypto VGA ................................................................................3-2
  3.3 Communication Connections ................................................................................3-2
  3.4 Crypto VGA Connections across the Forecourt ..................................................3-2
    3.4.1 Panduit Connector Instructions ............................................................3-4
  3.5 Installation of the OPT IQ BNA ..........................................................................3-5
    3.5.1 Ground Frame Installation Procedure ..................................................3-5
    3.5.2 Lifting and Placement Procedure ........................................................3-6

4 CRYPTO VGA WIRING DIAGRAMS ..................................................................... 4-2
  4.1 Wiring Overview - Crypto VGA ..........................................................................4-2

5 CRYPTO VGA PARTS LIST ...................................................................................... 5-2
  5.1 Crypto OPT Assembly ..........................................................................................5-2
  5.2 Crypto DIT Assembly ..........................................................................................5-4
  5.3 Crypto VGA PSU & Lamp Assembly ..................................................................5-6
    5.3.1 Crypto VGA PSU Assembly ..............................................................5-8
  5.4 Crypto VGA Assembly .......................................................................................5-10
  5.5 Crypto VGA Printer Assembly .........................................................................5-12

(CONT.)
5 CRYPTO VGA PARTS LIST /
5.6 Crypto VGA Bracket Assembly (Single-Sided) ........................................... 5-14
5.7 Crypto VGA Bracket Assembly (Double-Sided) ........................................... 5-16
5.8 Crypto VGA Lock Assembly ........................................................................... 5-18
5.9 Euro Lock Assembly ....................................................................................... 5-20

6 CRYPTO VGA BASIC MAINTENANCE ................................................................. 6-2
6.1 Accessing the Crypto VGA ............................................................................. 6-2
6.2 Cleaning Cards ................................................................................................. 6-2
   6.2.1 Magnetic Stripe Cleaning Cards .......................................................... 6-2
   6.2.2 Chipcard Cleaning Cards ..................................................................... 6-2
6.3 Replacing a Paper Roll ................................................................................. 6-3
6.4 Paper Jams ....................................................................................................... 6-4
6.5 Printer Cutter Units/Blades ............................................................................ 6-5
6.6 Cleaning the Display Screen .......................................................................... 6-5
6.7 Bank Note Acceptors (BNA) ........................................................................ 6-6
6.8 Changing a bulb (Crypto VGA OPTs only) .................................................... 6-7
6.9 Changing the battery pack (Crypto VGA OPTs only) .................................... 6-8
CONTENTS

1 INTRODUCTION ........................................................................................................ 1-2
1.1 How to Use this Manual ......................................................................................1-2
1.2 Product Scope .....................................................................................................1-2
1.3 Authorised Technicians ......................................................................................1-2
1.4 Contact Information ..........................................................................................1-3
1.5 Health & Safety ...................................................................................................1-3
  1.5.1 Safety Checklist ...................................................................................1-3
  1.5.2 Duties of the Employees ....................................................................1-3
  1.5.3 Hazards ................................................................................................1-4
  1.5.4 Warning Signs ......................................................................................1-4
  1.5.5 Personal Protective Equipment (PPE) ................................................1-6
1.6 Standards & Certificates ......................................................................................1-7
1 INTRODUCTION

1.1 How to Use this Manual

It is recommended that all relevant persons familiarise themselves with the contents of this manual prior to carrying out any operations or procedures.

This manual is divided into sections which are described as follows:

Section 1 - Introduction

This section contains information on how to use the manual, the scope of equipment covered, recommendations on qualified technicians and contact information. It also includes relevant health and safety information required for the safe installation of the product.

Section 2 - Product Information

This section contains the system descriptions and operating principles of Tokheim’s Crypto VGA payment system.

Section 3 - Installation of the Crypto VGA unit

This section provides the necessary information for the installation and connection of the Crypto VGA unit.

Section 4 - Crypto VGA Wiring Diagrams

This section details the wiring diagrams for the Crypto VGA.

Section 5 - Crypto VGA Parts List

This section details the assembly drawings and part identification lists for the Crypto VGA.

1.2 Product Scope

This manual is designed to cover the Crypto VGA in Quantum T-range dispensers and later models.

1.3 Authorised Technicians

Only qualified technicians familiar with the contents of this manual should carry out the procedures contained herein.

WARNING: ANY ATTEMPTS TO CARRY OUT THE PROCEDURES OF THIS MANUAL, BY UNQUALIFIED OR UNAUTHORISED PERSONS, MAY RESULT IN SERIOUS INJURY OR LOSS OF LIFE.

NOTE: THIS MANUAL IS NOT INTENDED TO REPLACE THE SERVICES OF A FULLY QUALIFIED TECHNICIAN.
1.4 Contact Information

For information relating to the contents of this manual please contact:

Technical Author
Tokheim UK Ltd.
Dundee, Scotland

For technical assistance please contact the appropriate service division listed on the back cover of this manual.

1.5 Health & Safety

1.5.1 SAFETY CHECKLIST

- It is obligatory that this checklist be fully complied with during all work at the petrol station, particularly construction or repair work.

- It is the duty of the contractor to ensure that all workers employed by him obey each and all of the relevant laws, directives and other regulations.

Areas where special caution is required

- The insides of tanks, tubes, dome shafts, filling shafts, change over shafts, vessels and dispensers.

- All areas in which fuel vapour that is heavier than air can accumulate, e.g. fuel separator, draining shafts, low located rooms, cellars, excavations, pipe trenches etc.

- The areas around the outlets of tank ventilation pipes, especially during the filling phase.

- All areas near dispensers, tanker lorries and other vehicles while they are being tanked up, and particularly when there is a lack of wind.

- A radius of 1.0 metres around petrol carrying pipes, as well as pipes that are not vapour free.

- Silt traps.

1.5.2 DUTIES OF THE EMPLOYEES

- To ensure optimal accident prevention in our company, in addition to general rules applying to worker’s protection, it is necessary to take into account all the national protection of workers legislation and to actively support all measures which enhance safety standards.

- It is an employee’s duty to follow all company directives regarding the prevention of accidents, unless such directives can be proved to be unfounded.

- Employees should not follow any instructions that go against safety standards.

- Employees are only permitted to use equipment for its original purpose, and this is defined by the company alone.

- If an employee detects equipment that is deficient in terms of safety, he shall eliminate this deficiency immediately. If such safety rectification is not part of his defined area of activities, or if his knowledge is insufficient to carry out such work he must immediately inform his superior about the detected safety deficiency.
This equally applies to:

1) **Work Materials** which have not been correctly packed or correctly marked in order to meet safety requirements.

2) **Work Methods** or work processes which have not been correctly coordinated or controlled in order to meet safety requirements.

3) Where **dangerous activities are carried out by several persons**, the need for a permanent faultless communication between them in order to avoid dangerous events shall require the appointing of one person in order to carry out overall supervision.

### 1.5.3 HAZARDS

Prior to starting work, the dispenser must be isolated (i.e. entirely disconnected from the mains supply) and the mains supply switch locked in the OFF position. The submerged pump (if applicable) and control signals from the dispenser must also be isolated. This is done to provide safety for the technician. As a further precaution, switch off the mains supply in the service station shop and place a clear notice on the switch to avoid it being turned on again inadvertently.

**WARNING : THE CONNECTION AND DISCONNECTION OF ELECTRICAL CONNECTIONS MAY ONLY BE CARRIED OUT BY QUALIFIED PERSONNEL AUTHORISED FOR SUCH ACTIVITIES. WORK IN DANGEROUS AREAS MUST BE MADE SAFE BY OBSERVING ALL THE NATIONAL SAFETY REQUIREMENTS IN FORCE.**

It is not permitted to put a fuel dispenser into operation before an authorised official has inspected it and released it. This depends upon the national regulations in force.

Dismantled packaging and cladding must be stored in such a way as to avoid damage to components or injuries to persons. Covers that can be opened, such as the calculator housing, should be handled with care. Ensure that the retaining catch is placed in the correct position to prevent the cover falling onto the head of the service engineer or other persons in the area.

At unattended service stations, every end-user should be able to read the User Instructions. They should be visible on a notice board or integrated into the DIT and should be sufficiently well lit so that they can be read at night.

At unattended service stations break away couplings must always be used to reduce the danger caused by a motorist driving off with the nozzle still in the tank.

### 1.5.4 WARNING SIGNS

The following warning signs are fitted as standard, on the dispenser, however they may vary according to individual country requirements or customer specifications.
<table>
<thead>
<tr>
<th>SIGN</th>
<th>MEANING</th>
<th>POSITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>![No Mobile Phone Symbol]</td>
<td>Do not use mobile phones</td>
<td>Visible from both sides of dispenser</td>
</tr>
<tr>
<td>![No Flames or Smoking Symbol]</td>
<td>Naked flames and smoking forbidden</td>
<td>Visible from both sides of dispenser</td>
</tr>
<tr>
<td>![No Spill on Ground Symbol]</td>
<td>Do not spill fuel on the ground</td>
<td>Visible from both sides of dispenser</td>
</tr>
<tr>
<td>![Stop Engine Symbol]</td>
<td>Stop vehicle engine</td>
<td>Visible from both sides of dispenser</td>
</tr>
<tr>
<td>![Truck Symbol]</td>
<td>Trucks only</td>
<td>At Diesel high speed dispensers near the nozzle boots</td>
</tr>
<tr>
<td>![No Drive Away Symbol]</td>
<td>Do not drive away with nozzle in tank</td>
<td>Visible from both sides of dispenser</td>
</tr>
</tbody>
</table>

For more information see User Manual available at this station

Next to User Instructions near the nozzle boot
1.5.5 PERSONAL PROTECTIVE EQUIPMENT (PPE)

PROTECTIVE CLOTHING

The following clothing should be worn at all times during installation and maintenance procedures:-

• Protective helmet.
• Protective shoes (conductive).
• Protective gloves and/or protective hand cream.
• Anti static clothing.
• Eye protection.

SAFETY EQUIPMENT FOR WORKING IN HAZARDOUS AREAS

The following safety equipment is required for working in hazardous areas:-

• Only spark free tools are permitted for work on dispensers.
• Work on bearings is only permitted using the standard workshop tools authorised for this kind of work.
• The use of all electrical tools is strictly prohibited.
• Only the use of explosion protected work lights is permitted.
• The use of telecommunications equipment in hazardous areas is strictly prohibited.

SAFETY INSTRUCTIONS

The following safety instructions must be adhered to during installation and maintenance procedures:-

• Inhalation of petrol vapour must be avoided. Suitable precautions must be taken and where necessary respirators used.
• Avoid direct contact of fuel with the skin.
• Use suitable protective clothing, protective gloves and/or protective hand cream.
• Avoid fuel spills.
• No smoking, no naked flames are permitted.
• Long hair and ties can get caught in moving parts. Hair must be suitably covered.
1.6 Standards & Certificates

Tokheim Crypto VGA standalone and integrated units are constructed in conformity with the requirements of all the applicable European Directives (Machinery 98/37/EC; EMC 89/336/EEC; ATEX 94/9/EC) and compliant with OIML R177.

Dispenser integrated terminals are incorporated into Tokheim fuel dispensers which conform to the essential requirements of the Machinery Directive 98/37/EC.

The components used within the OPTimum, including connection facilities, are selected in accordance with the European Standard EN BS 60079-0 (Electrical Apparatus for explosive gas atmospheres) and the supplementary Standards listed therein.

The Crypto VGA payment terminal is also EMV 2000 approved and PCI POS AFD approved. Compliant with Anti Fishing Anti Skimming (AFAS) requirements in France.

The production and end test is controlled through the Quality Assurance systems within the Tokheim Manufacturing Centres.
CONTENTS

2 PRODUCT INFORMATION ........................................................................................................ 2-2
  2.1 System Description ....................................................................................................... 2-2
  2.2 Key Characteristics .................................................................................................... 2-2
    2.2.1 Crypto VGA Hardware ....................................................................................... 2-3
    2.2.2 Environmental Conditions ............................................................................... 2-3
  2.3 Configuration ............................................................................................................... 2-3
    2.3.1 Receipt Printer .................................................................................................... 2-4
    2.3.2 VGA / Touch Sensor .......................................................................................... 2-4
    2.3.3 Manual Card Reader ........................................................................................... 2-4
  2.4 Crypto VGA Terminal Dimensions ................................................................................ 2-5
    2.4.1 Crypto VGA Standalone Island Terminal ......................................................... 2-5
    2.4.2 Crypto VGA Add On Units ................................................................................ 2-6
    2.4.3 Crypto VGA DIT ................................................................................................. 2-7
    2.4.4 Crypto VGA BNA .............................................................................................. 2-8
2 PRODUCT INFORMATION

2.1 System Description

Tokheim’s Crypto VGA payment terminal incorporates advanced colour touchscreen technology enclosed in a fraud protective housing to provide secure pay-at-the-pump facilities with an up-to-date and secure user interface.

The Crypto VGA is available as:-

- Dispenser-integrated payment terminal (DIT) which can be delivered pre-installed in a new dispenser or integrated at a later date into Quantum T and 10 series dispensers (single or double-sided)
- Standalone island terminal (single-sided only)
- Add-on unit for third party dispensers (single or double-sided)
- Optionally with the Bank Note Acceptor (BNA)

2.2 Key Characteristics

The Crypto VGA has the following key characteristics:-

- Modular micro-processor hardware
- Off-the-shelf real-time operating system
- Modular design harmonised with dispenser design
- Audio-signal/feedback
- Battery Back-up
- Alarm Contacts
- Card reader for magnetic stripe cards and/or chip cards
- EMV and PCI approval

Additional Crypto VGA characteristics:-

- VGA touchscreen
- Touchscreen based security PIN pad to allow all data to be read and entered within the same screen e.g. PIN code, pump number, mileage etc.
- Anti-intrusion protection integrated into the design
- Controlled through the Fuel POS enables the provision of a variety of additional functionality such as remote diagnostics, audio/visual instructions, advertising etc.
2.2.1 CRYPTO VGA HARDWARE
• Manual card reader for magnetic stripe cards and/or chip cards
• High speed thermal ticket printer with automatic cutter and “drop down” ticket bin with paper-end/low detection
• Full colour 6.4” VGA touchscreen with NFI touch panel
• Touchscreen based security PIN-pad
• TCP/IP interface for high speed, high bandwidth data streams
• LAN connection to Fuel POS system
• Mains : single phase 230V AC

2.2.2 ENVIRONMENTAL CONDITIONS
• Ambient temperature : -25°C to +60°C for standard configuration
• Relative humidity : 5% to 95% non-condensing

2.3 Configuration
The Crypto VGA is only available in a single secure unit configuration with no user-defined or country specific parts.

The main components of the OPT are:-
• Receipt Printer (refer to section 1.3.1)
• VGA / Touch sensor (refer to section 1.3.2)
• Manual Card Reader (refer to section 1.3.3)
2.3.1 RECEIPT PRINTER

All OPTimum IQ units are fitted with the standard receipt printer, automatic cutter and printer controller board. A drop-down ticket bin is also supplied to avoid the risk of paper jams caused by customers removing the ticket prior to completion of cutting.

The basic characteristics of the receipt printer are as follows:

- Printing Method: Thermal dot line printing (448 dots per line)
- Effective Printing Width: 56mm
- Printing Speed: 400 dot lines per second
- Paper Feed Method: Friction - Pitch 0.125mm per minute force 100g
- Motor: 4 phase step motor 24V DC (+/- 5%)
- Printing Head Circuit: 5V DC (+/- 5% 100mA)
- Printing Head Driving: 5V DC (+/- 5% 1.7A at 25% duty)
- Paper Width: 59.5mm (+/- 5mm)
- Paper Roll Diameter: <160mm
- Temperature Detector: By thermistor
- Head Open Detection: By Mechanical Switches
- Paper End Detection: By Photo Interruptor
- Paper Low Detection: Optional - by Photo Interruptor
- Paper Replacement: Auto Feed (once new roll in position)
- Ambient Temperature Range: -25°C to +50°C
  (with direct sun radiation the printer can temporarily stop working at an ambient temperature of 45°C)

2.3.2 VGA / TOUCH SENSOR

The touchscreen based security PIN-pad allows all data to be read and entered within the same screen e.g. PIN code, pump number, mileage etc. Control via the Fuel POS provides the means for a variety of added functionality such as remote diagnostics, audio/visual instructions, advertising etc.

- Capacitive touch sensor with toughened anti-glare glass

2.3.3 MANUAL CARD READER

The EMV 2000 compatible manual operated card reader is available for magnetic stripe cards and/or chip cards. The main characteristics are:

- Magnetic Cards: Read track 1,2,3 with ISO conformity
- Recording Method: FM decoding (F2F)
- Card Feeding Method: Manual (push/pull)
- Card Feeding Speed: 8-127cm per second
- Service Life: >500,000 passes
- PCI POS AFD offline and online compatible
2.4 Crypto VGA Terminal Dimensions

2.4.1 CRYPTO VGA STANDALONE ISLAND TERMINAL

![Crypto VGA Terminal Dimensions Diagram]
2.4.2 CRYPTO VGA ADD ON UNITS

CRYPTO VGA PAYMENT ASSEMBLY

CRYPTO VGA PRINTER ASSEMBLY
2.4.3 CRYPTO VGA DIT
2.4.4 CRYPTO VGA BNA
CONTENTS

3 INSTALLATION OF THE CRYPTO VGA ............................................................... 3-2
  3.1 General ........................................................................................................... 3-2
  3.2 Retrofitting the Crypto VGA ......................................................................... 3-2
  3.3 Communication Connections ....................................................................... 3-2
  3.4 Crypto VGA Connections across the Forecourt .......................................... 3-2
    3.4.1 Panduit Connector Instructions .................................................. 3-4
  3.5 Installation of the OPT IQ BNA ................................................................. 3-5
    3.5.1 Ground Frame Installation Procedure ........................................ 3-5
    3.5.2 Lifting and Placement Procedure ................................................... 3-6
3 INSTALLATION OF THE CRYPTO VGA

This section describes the procedures to be followed for the safe installation of the Crypto VGA unit.

3.1 General

Always follow the safety checklist as detailed in Section 1.5.

Before starting any maintenance procedure:-

• Ensure that all necessary tools and replacement parts are available.
• Ensure the dispenser is isolated and all power is turned off.
• When working on or near a dispenser, always act in accordance with general safety rules and regulations.
• Cordon off the dispenser under repair.
• Wear appropriate Personal Protective Clothing as recommended in Section 1.5.5.

3.2 Retrofitting the Crypto VGA

The Crypto VGA unit should only be retrofitted by authorised Tokheim personnel. Contact your nearest SSD listed on the back of this manual.

3.3 Communication Connections

Prior to the Crypto VGA unit being connected, the appropriate video and audio source must be made available within the kiosk. The communication cables from the kiosk typically consist of one Cat 5 ethernet cable per side. These cables should be routed through the dispenser using the appropriate glands supplied in the kit.

Routing of the communication cables should be completed prior to commencing the unit installation.

3.4 Crypto VGA Connections across the Forecourt

Refer to specific dispenser Installation Manuals to gain access to the dispenser electronic areas.

Tokheim recommends the use of an oil resistant certified PUR Cat 5 ethernet installation cable terminated with an RJ45 connector and cable 904094-001 to connect to the Crypto VGA processor.

Note: The information in this section relates to Tokheim’s recommended installation but differences may exist in the standards relating to installation in different countries and local regions, in which case the local and/or national standards must be employed.
INSTRUCTIONS

1) When the recommended Cat 5 ethernet installation cable is used, feed the cable (commonly coloured blue/green) up through the cable glands and into the calculator head.

   IMPORTANT: Keep cable taut to avoid any “antenna” effect.

2) Locate the bracket for the Crypto VGA/Vidium connections.

3) Fit a suitable RJ45 connector to the end of the installation cable.

   IMPORTANT: Ensure that the braided shield is stripped down well (at least 10cm).

4) Connect the Crypto VGA socket(s) to the bracket.

5) Connect the RJ45 plug for the Crypto VGA processor to the RJ45 socket on the installation cable.

6) Where applicable, refer to separate Crypto VGA User Manual to program the Crypto VGA.
3.4.1 PANDUIT CONNECTOR INSTRUCTIONS

**TERMINATION STEPS**

1. Trip pair separator and/or rip-cord if present.

2. Cable End 1

3. Cable End 2

4.  

5.  

6.  

7.  

8.  

9.  

10.  

11.  

12.  

*On cable end 2 for A & B wiring and cable end 1 of A wiring, wrap the designated pairs around the proper center dividing post (A or B) and terminate in the proper location.

For technical and performance information, consult PANDUIT Technical Support.

As with all Wiring Accessories, the following statements apply:
1. Never install communications wiring during a lightning storm.
2. Never install communications wiring in wet locations unless the jack is specifically designed for use in wet locations.
3. Never touch uninsulated communications wiring or terminals unless the communication line has been disconnected at the network interface.
4. Use caution when installing or modifying communication wiring.
3.5 Installation of the OPT IQ BNA

This section describes the two procedures to be followed for the safe installation of the Crypto BNA terminal:

- Procedure for installation of the ground frame in the concrete floor (refer to section 3.5.1)
- Procedure for the lifting and placement of the BNA terminal (refer to section 3.5.2)

Important Installation Notes/Remarks

The Crypto BNA must be installed at least 20 cm from the dispenser.

The Crypto BNA must be installed at least 2 metres from the ground-tank air outlet.

Ensure that the base of the BNA is closed in order to prevent the ‘chimney’ effect i.e. when vapour is sucked through an electrical wiring pipe into the BNA terminal causing a potentially hazardous situation.

Weight of the complete Crypto BNA terminal is 225 kg. Refer to Figure 5 for the dimensions.

Part number of the lifting device is 907389.

3.5.1 GROUND FRAME INSTALLATION PROCEDURE

When working on the site, ensure that the general safety procedures are followed.

INSTRUCTIONS:

1) The ground frame is delivered together with the Crypto BNA housing (Fig 1).
2) Locate the ground frame in the concrete as shown in Fig 2.
3) Locate the pipe for the electrical wiring cables in the centre of the ground frame.
4) Ensure the ground frame is positioned completely horizontal.
5) Ensure the ground frame upper plate is positioned just above the concrete.

Fig 1 - Ground frame is completely welded

Fig 2 - Position of ground frame and electrical pipe in the concrete
3.5.2 LIFTING AND PLACEMENT PROCEDURE

1) The complete drawer must be removed prior to lifting the BNA terminal.
2) The terminal must be lifted with the door open (Fig 4).
3) Inspect the lifting device for signs of wear or damage.
4) When positioning the metal lifting brackets, use suitable protection to ensure the paintwork will not be damaged.
5) Position part A in the door-opening at the back of the BNA terminal (see Figs 3 and 4).

*Note: Ensure that part A fits correctly in the door-opening.*

6) Hold the lifting belt over the unit keeping it flat.

*Note: Do NOT let the belt twist.*
7) Position part B in the front opening of the terminal (Figs 3 and 4).

*Note: Ensure that part B fits correctly in the front opening.*
8) Place the lifting belt onto the lifting hook or fork of the forklift truck.
9) Before lifting the unit clear of the ground, check that the lifting brackets are secure and in the correct position on both sides of the unit.
10) Lift the unit slowly and carefully to maintain good balance.

*Note: Beware of the open door.*
11) Locate the BNA terminal directly above the ground frame.
12) Manually position the unit before lowering slowly onto the ground frame.

*Note: Ensure that the lifting belt remains under until the terminal placement is completed.*
CONTENTS

4 CRYPTO VGA WIRING DIAGRAMS ........................................................................ 4-2

4.1 Wiring Overview - Crypto VGA ..................................................................... 4-2
## CONTENTS

5 CRYPTO VGA PARTS LIST ................................................................. 5-2
5.1 Crypto VGA OPT Assembly .............................................................. 5-2
5.2 Crypto VGA BNA Assembly .............................................................. 5-4
  5.2.1 Crypto VGA BNA Cable Gutter Assembly ................................... 5-8
5.3 Crypto VGA DIT Assembly .............................................................. 5-10
  5.3.1 Crypto VGA DIT PSU Assembly .............................................. 5-12
5.4 Crypto VGA Panduit Assembly ....................................................... 5-14
5.5 Crypto VGA PSU & Lamp Assembly .............................................. 5-16
5.6 Crypto VGA Payment Assembly .................................................... 5-18
5.7 Crypto VGA Printer Assembly ....................................................... 5-20
5.8 Crypto VGA Bracket Assembly ..................................................... 5-24
  5.8.1 Single-Sided ................................................................. 5-24
  5.8.2 Double-Sided ................................................................. 5-26
5.9 Crypto VGA Lock Assembly .......................................................... 5-28
5.10 Euro Lock Assembly ................................................................. 5-30
# CRYPTO VGA PARTS LIST

## 5.1 Crypto VGA OPT Assembly

<table>
<thead>
<tr>
<th>Item No</th>
<th>Description</th>
<th>Désignation Français</th>
<th>Part No</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Washer PL M8</td>
<td>Rondelle PL M8</td>
<td>900008-013</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Nut Hex Prev Torque M4</td>
<td>Ecrou Autobloquant M4</td>
<td>900012-004</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Nut Hex Prev Torque M8</td>
<td>Ecrou Autobloquant M8</td>
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5.9  Crypto VGA Lock Assembly

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CONTENTS

6 CRYPTO VGA BASIC MAINTENANCE .................................................................. 6-2
6.1 Accessing the Crypto VGA ........................................................................... 6-2
6.2 Cleaning Cards .............................................................................................. 6-2
  6.2.1 Magnetic Stripe Cleaning Cards ............................................................... 6-2
  6.2.2 Chipcard Cleaning Cards ........................................................................ 6-2
6.3 Replacing a Paper Roll .................................................................................. 6-3
6.4 Paper Jams .................................................................................................... 6-4
6.5 Printer Cutter Units/Blades ........................................................................... 6-5
6.6 Cleaning the Display Screen ......................................................................... 6-5
6.7 Bank Note Acceptors (BNA) ......................................................................... 6-6
6.8 Changing a bulb (Crypto VGA OPTs only) .................................................. 6-7
6.9 Changing the battery pack (Crypto VGA OPTs only) .................................... 6-8
6 CRYPTO VGA BASIC MAINTENANCE

6.1 Accessing the Crypto VGA

Access to the Crypto VGA unit is the same for standalone Outdoor Payment Terminals (OPTs) as for Dispenser Integrated Terminals (DITs).

Swipe the Maintenance/Service card at the Service Station Point of Sale (POS) or terminal and select the option Maintenance/Service mode before attempting to access the OPT/DIT.

*Note: A spanner on the display indicates the terminal is in Maintenance/Service mode.*

**DISARM THE ELECTRONIC LOCK**

- Press first the spanner and then ‘Ticket’ on the OPT/DIT screen to disarm the electronic lock
- An audible alarm is sounded to alert the unit is open
- Pull the printer unit open

*Note: The red open padlock on the display indicates the drawer is open and unalarmed.*

- Close drawer to electronically lock

6.2 Cleaning Cards

Tokheim recommends the use of cleaning cards every two weeks to ensure optimal payment terminal operation. Cleaning cards can be purchased from your local Tokheim SSD.

6.2.1 MAGNETIC STRIPE CLEANING CARDS

- Insert the white cleaning card fully in and out of the slot 8-10 times using the same part of the card.
- Mark the used quadrant of the card after each cleaning and use a different part next time until all four quadrants are marked before disposing of the card.

6.2.2 CHIPCARD CLEANING CARDS

- Insert the blue cleaning card, white square facing upwards, fully into the card slot and hold in that position.
- Use your other hand to move the transparent strip up and down 8-10 times whilst still fully inserted.
- Mark the boxes on the cleaning card after each use, up to a max. of 12 times, before disposing of the card.
6.3 Replacing a Paper Roll

If the Crypto printer is out of paper then a warning screen is displayed and an alert may sound in the kiosk. To change the paper roll:-

1) Follow the instructions given in section 6.1 to gain access and authorisation to the payment terminal.

2) Fully open the printer unit.

3) Locate and remove the printer box cover.

4) Locate and lift out the empty cardboard roll.

5) Remove the roller from the empty cardboard roll and insert into the new paper roll.

6) Insert new paper roll into the printer unit, locating the roller in the position just above the designated slot.

**IMPORTANT:** Make sure the paper roll is placed so that the paper is fed from above.

7) Lift up the white tensioning lever and insert the start of the paper roll into the cutter unit feed slot.

8) Place white tensioning lever back into normal (under tension) position.

9) Position the roller into its correct slot position.

10) When correctly inserted, the paper will automatically feed through to the correct position.

11) Press ‘Ticket’ on the touch screen to print out a dummy ticket to verify the correct operation of the printer.

**IMPORTANT:** The ticket will not print if the paper has been incorrectly fed from the bottom of the roll as the paper is thermal on one side only.

12) Re-fit the printer box cover.

13) Close the Crypto VGA printer drawer to reset alarm.

14) Return the relevant Crypto VGA to Normal mode at the POS.
6.4 Paper Jams

To clear a paper jam:-

1) Follow the instructions given in section 6.1 to gain access and authorisation to the payment terminal.

2) Fully open the printer unit.

3) Locate and remove the printer box cover.

4) Locate the black clip on the printer cutter and lift the cutter up.

5) Holding the cutter in the up position, carefully remove all jammed paper then gently place the cutter unit back in position.

6) Lift up the white tensioning lever and re-feed the paper roll back into the cutter unit feed slot (cut the paper to give a straight edge if required).

7) Place white tensioning lever back into normal (under tension) position.

8) When correctly inserted, the paper will automatically feed through to the correct position.

9) Press ‘Ticket’ on the touch screen to print out a dummy ticket to verify the correct operation of the printer.

**IMPORTANT**: The ticket will not print if the paper has been incorrectly fed from the bottom of the roll as the paper is thermal on one side only.

10) Re-fit the printer box cover.

11) Close the Crypto VGA printer drawer to reset alarm.

12) Return the relevant Crypto VGA to Normal mode at the POS.
6.5 Printer Cutter Units/Blades

Only Tokheim authorised service engineers are permitted to replace the printer cutter unit. Contact your nearest Tokheim SSD (refer to back cover of this manual).

6.6 Cleaning the Display Screen

The Crypto VGA touchscreen should be cleaned every two weeks using a Tokheim Cleaning Kit.

**IMPORTANT:** Excessive use of water or any other liquids will invalidate your warranty.

To clean the screen, the keys must be disabled first:

1) Follow the instructions in section 6.1 to enter Maintenance/Service mode.

2) Follow the on-screen instructions to select Clean Screen (a 10 second countdown timer allows the screen to be cleaned)

3) Use the Wet Synthetics Cleaning pad to clean the touchscreen surface and the front fascia

4) Use the dry Lint-free fleece cloth to dry the touchscreen and front fascia.

5) Close the Crypto VGA printer drawer to reset alarm.

6) Return the relevant Crypto VGA to Normal mode at the POS.

*Note: a Starter Cleaning Set (6 wet/dry twin pads, 3 magstripe cleaning cards, 1 chipcard cleaning card) is included in the Crypto VGA delivery. Subsequent packs can be ordered from your local Tokheim SSD.*
6.7 Bank Note Acceptors (BNA)

To empty the money box/bag:-

1) Follow the instructions given in section 6.1 to gain access and authorisation to the payment terminal.

2) Use the large safe door key to unlock the safe door then use the
   allen key to release the safe door deadlocks.

3) Open the safe door to gain access to the safe money box/bag.

4) MONEY BAG ONLY
   • Pull out the money bag to empty (on runners).

5) MONEY BOX ONLY
   • Use the money box radial tumbler key to release the money box from
     the safe box unit.
     
     Note: Once the money box is released from the safe box unit, a red
     light appears on the money box. The red light indicates that the safe
     cannot be replaced back into the unit until the money box has been
     opened and emptied.
   • Use the money box key to open the back of the money box and remove
     all banknotes from inside the money box.
   • Close and lock the money box.
     
     Note: Once money box has been emptied, the red light will turn green
     and the money box can be replaced back into the safe box unit.
   • Replace the money box back into the safe box unit and lock in position using the money
     box radial tumbler key.

6) Close the safe door and use the allen key to enable the deadlocks and lock using the safe
   door key.

7) Close the Crypto VGA printer drawer to reset alarm.

8) Return the relevant Crypto VGA to Normal mode at the POS.
6.8 Changing a bulb (Crypto VGA OPTs only)

In order to change the bulb, the printer and Crypto VGA units must be removed completely.

1) Follow the instructions in section 6.1 to enter Maintenance/Service mode.

2) Fully open the printer unit.

3) Unplug all connections on the printer unit.

4) Carefully lift up the printer unit and slide off its drawer runners.

5) Remove the printer unit completely and place in a safe position.

6) Locate the bulb and bracket inside the OPT head.

7) Twist the bulb 90° to release it from the bracket.

8) Carefully remove the bulb completely.

9) Fit new bulb into the bracket and twist to secure in position.

10) Place the printer assembly back into the unit on its drawer runners.
11) Plug in all connections on the printer unit.
12) Close the Crypto VGA printer drawer to reset alarm.
13) Return the relevant Crypto VGA to Normal mode at the POS.
14) Check operation of the new bulb.
6.9 Changing the battery pack (Crypto VGA OPTs only)

In order to change the back-up battery pack, the printer and Crypto VGA units must be removed completely.

1) Follow the instructions in section 6.1 to enter Maintenance/Service mode.

2) Fully open the printer unit.

3) Unplug all connections on the printer unit.

4) Carefully lift up the printer unit and slide off its drawer runners.

5) Remove the printer unit completely and place in a safe position.

6) Reach inside and undo the wing nut securing the Crypto VGA unit.

7) Unplug all connections on the Crypto VGA unit.

8) Carefully lift out the Crypto VGA unit completely and place in a safe position.

9) Locate the back-up battery pack inside the OPT head.

10) Undo the spade connections on the battery pack.

11) Locate two screws at either end of the battery pack bracket.

12) Whilst supporting the battery pack and bracket, loosen and remove the two screws completely.

13) Carefully remove the battery pack and bracket completely.
14) Fit new battery pack into the bracket.
15) Re-fit the bracket and battery pack into the unit and re-fit and tighten the two screws to secure in position.
16) Plug in the spades onto the new battery pack.
17) Plug in all the connections on the Crypto VGA unit.
18) Place the Crypto VGA unit back into the unit and secure in position by tightening the wing nut.
19) Place the printer assembly back into the unit on its drawer runners.
20) Plug in all connections on the printer unit.
21) Close the Crypto VGA printer drawer to reset alarm.
22) Return the relevant Crypto VGA to Normal mode at the POS.
23) Check operation of the new battery.
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