FUJ00002259

Document Title:	Bureau Rate Board Technical Maintenance Guide
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Abstract:	This document provides the technical information that will be required for engineers to maintain the Bureau Rate Boards.
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FUJ00002259

0.0 Document Control

0.1 Document History

Version No.	Date	Reason for Issue	Associated CP/PinICL
0.1	20/10/03	Initial draft for CS comment	
0.2	14/11/03	Draft prepared for general issue	
1.0	30/01/04	Issued for approval after addressing comments	
1.1	24/08/2010	Updates for HNG-X	
1.2	07/09/2010	Updates following review	
1.3	14/10/2010	Updates following SSC review	
2.0	14/10/2010	Approval version	

0.2 Review Details

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FUJ00002259

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0.3 Associated Documents

Reference	Title	Source
AS/REP/013	Rate Board Cables	Dimensions
IM/MAN/023	Bureau Rate Board Technical Installation Guide	Dimensions
BP/DES/003	Counter Hardware Design Specification	Dimensions

Unless a specific version is referred to above, reference should be made to the current approved versions of the documents.

0.4 Abbreviations/Definitions

Abbreviation	Definition
FMC	Forde Money Changer
NIET	Network Implementation & Equipment Team
FRTS	First Rate Travel Services
FJS	Fujitsu Services
POL	Post Office Limited
HSH	Horizon System Helpdesk
NBSC	Network Business Support Centre
UKME	UK Mobile Engineering
HNG-X	Horizon Next Generation (Fujitsu Definition)
HOL	Horizon Online (POL Definition)

0.5 Changes in this Version

Version	Changes
0.1	None – first issue

FUJ00002259

0.2	Changes to process as advised by Reg Barton, CS. Rework following discussions with Barry Evans, POL.
1.0	Comments from POL and FJS incorporated. Both routes amended to call NBSC as first point of contact, who then advise which route to pursue. Change to Riposte Status check to make it clear that the Gateway counter is included in the number of counters within branch. Various minor amendments.

0.6Changes Expected

Changes
None.

FUJ00002259

0.7Table of contents

FUJ00002259

1 Introduction

This document defines the procedure that should be undertaken by FRES contracted maintenance engineers when attending a Branch in order to maintain a Bureau Rate Board that is connected to a Horizon Counter Position.

In the course of this maintenance work, it may be necessary for the engineer to disconnect and connect Rate Boards to and from the Horizon Service Infrastructure. This document defines the process that the engineers must follow in undertaking this maintenance activity. The procedure described within this document is mandatory. It is assumed that every engineer will be familiar with the use of a standard Windows PC, and will understand how a standard PC and its peripheral devices are connected together.

Post Office Ltd shall ensure that engineers receive 'hands-on' training based around this document before undertaking the maintenance of Rate Boards that are connected to Horizon Counter Positions.

2 Background

Previously all on demand Bureau de Change transactions had been carried out via the Forde Money Changer (FMC). The Forde Money Changers have now been replaced.

It was decided to transfer all Bureau de Change transactions at on demand Branches to the Horizon platform. The procedure for disconnecting a Rate Board and connecting the Rate Board to a Horizon Counter Position is detailed in the Contract Controlled Document entitled "*Bureau Rate Board Technical Installation Guide*" (IM/MAN/023).

First Rate Exchange Services provide Rate Boards to selected Branches. In Branches where more than one Rate Board is present, each will be connected to a separate Horizon Counter Position.

Once on HNGX, Bureau de Change will support the only model of Rate Boards currently in use in Branches, i.e.:

- DB7

FRTS will be responsible to Post Office Ltd for managing the maintenance of Rate Boards.

FUJ00002259

3 Cabling

Both types of Rate Board referred to in Section 2 are connected to the Horizon Counter Positions in Branches using the same interface and set of commands so that the Rate Boards are fully interchangeable.

The Rate Boards are connected to the Horizon Counter Positions via a series of cables as illustrated in Figure 1.

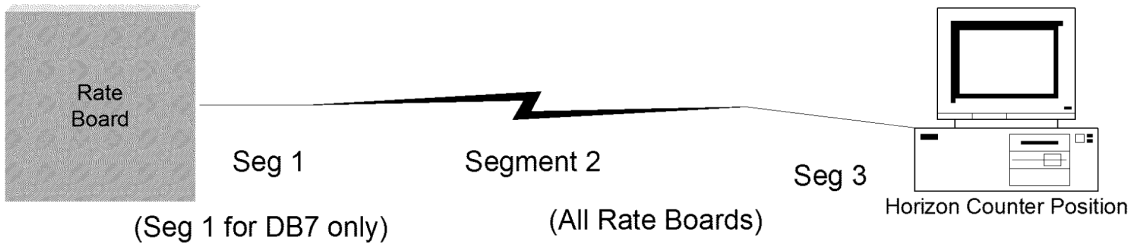


Figure 1

- The *Segment 1* cable is used to plug directly into the rate board. This cable is required for the DB7 models only.
- The *Segment 2* cable connected directly to the end of the Segment 1 cable for DB7 models.
- The *Segment 3* cable connects the Horizon Counter Position to the Segment 2 cable.

These cables are defined in detail in the Contract Controlled Document entitled "*Rate Board Cables*" (AS/REP/013).

FUJ00002259

4 Scope

This document describes:

- The routes by which a call will be made regarding a Rate Board fault.
- The steps that will be followed upon identification of a fault with the display of rates on a Rate Board.
- The steps involved in disconnecting and connecting a Rate Board to a Horizon Counter Position.
- The steps involved in configuring a Rate Board at a Horizon Counter Position.
- The steps involved in testing a Rate Board that is connected to a Horizon Counter Position.
- All currently foreseeable problem scenarios with regard to Rate Boards connected to Horizon Counter Positions, and how to deal with them.

FUJ00002259

5 Identifying the connected Horizon Counter Position

The Branch Manager should be able to advise the engineer of the Horizon Counter Position to which the Rate Board connects. If unsure, the Counter PC should be labelled indicating that it has a Rate Board attached. If this label is not present, then the appropriate Counter Position is identifiable by checking the connections at the rear of the base units for a Rate Board Segment 3 cable connection. If the branch has more than one Rate Board, the Rate Boards will be labelled indicating which Counter Position they are connected to.

See Appendix A for details of where to find the Rate Board Segment 3 cable connection on the Horizon Counter PC.

FUJ00002259

6 Identification of a Fault

Following the identification of a Rate Board fault within a Branch, the Branch Manager should contact the NBSC, where initial help and advice will be offered. If the problem cannot be rectified over the phone, the NBSC will advise the Branch Manager to contact either FRES or the HSH as follows:

Type 1) If the Rate Board is;

- Displaying no rates or has non-functioning/flickering cells;
- Has been damaged due to vandalism or accidental damage;
- Has visibly damaged cabling;
- Is damaged in any other way in which it is clear that the Rate Board/Cabling are the only components affected;

The Branch Manager will be advised to contact FRES, requesting a FRES contracted maintenance engineer to attend to the Rate Board.

See Section 7 for the process the maintenance engineer should follow when rectifying a fault identified via this route.

Type 2) If the Rate Board has developed a fault whereby the rates displayed on the Rate Board do not match the rates printed on the report from the HNG-X System for that day, whilst the Rate Board itself appears to be functioning correctly, the Branch Manager will be advised to raise a call with the Horizon System Helpdesk (HSH).

In this instance, the HSH will log the call and pass it to Field Maintenance services (FMS) as a standard Priority B break-fix call. If upon attending the site the FMS Engineer identifies that the fault is not with the Horizon Counter Position, the FMS engineer will undertake the following action before leaving the Branch:

- Power down the Rate Board.
- Disconnect the Rate Board from the Horizon Counter Position by disconnecting the Segment 2 cable from the Segment 3 cable. The Segment 3 cable will remain connected to the Horizon Counter Position.
- Advise the Branch Manager to log a call with the NBSC requesting a FRES maintenance engineer to attend to the Rate Board.

See Section 8 for the process the maintenance engineer should follow when rectifying a fault identified via this route.

FUJ00002259

NB: - Fujitsu Services shall be entitled to disconnect and connect Rate Boards from and to the Horizon Service Infrastructure for the purposes of maintenance of the Horizon Service Infrastructure, or if it becomes necessary in its opinion to do so in the interest of providing a continued service.

FUJ00002259

7 Rectifying a Rate Board Fault Following a Type 1 Call

When visiting a Branch to attend to a Rate Board fault identified by the Branch Manager as a result of a fault with the Rate Board or cabling, the FRES maintenance engineer should find the Rate Board connected to the Counter Position. The Rate Board may or may not have been powered down by the Branch Manager.

The first step for the FRES engineer will be to check that the Segment 1 and Segment 2 cable and the Rate Board are functioning correctly (See Section 7.1).

7.1 Testing or Replacing the Segment 1 and Segment 2 Cabling

In order to test that the Segment 1 and Segment 2 cables are functioning correctly, it may be necessary to disconnect them from the Rate Board and the Segment 3 cable. At this stage, the Segment 3 cable MUST NOT be removed from the rear of the Horizon Counter Position.

To disconnect the Segment 1 and 2 cables, ensure that the Rate Board is powered down, and disconnect the cable at the Rate Board end. Once the Rate Board is disconnected, locate the plug at the end of the Segment 2 Cable that is attached to the Segment 3 cable, and decouple the two. Leave the Segment 3 cable attached to the Horizon Counter Position. **If the Segment 2 Cable cannot be disconnected from the Segment 3 cable without moving the Horizon Counter PC then the Counter Position MUST be shut down before this activity is carried out, following the process detailed in Section 9.**

In the instance that the testing of the Segment 1 or Segment 2 cabling identifies a fault, the cabling should be fixed or replaced with working cabling as appropriate.

After this has been carried out (regardless of whether a cabling fault was discovered and rectified) The FRES engineer should proceed to test that the Rate Board is functioning correctly before re-connecting the Rate Board to the Horizon Counter Position (see Section 7.2).

7.2 Testing or Replacing the Rate Board

The Rate Board should now be disconnected and powered down, and the maintenance engineer should follow appropriate procedures to test the Rate Board. In the instance that the testing of the Rate Board identifies a fault, the Rate Board should be repaired or replaced as appropriate.

Once any identified fault with the Segment 1 or Segment 2 cabling or with the Rate Board itself has been rectified, it will be necessary to reconnect the Segment 1 and Segment 2 cables to the Rate Board, and then to connect the Segment 2 cable to the Segment 3 cable. See Section 12 for the procedure to follow when connecting the Segment 2 cable to the Segment 3 cable.

FUJ00002259

If no fault was identified with the Segment 1 or Segment 2 cabling, or the Rate Board itself, it will be necessary to test the Segment 3 cable, which will involve shutting down the Horizon Counter Position. In this instance, please refer to Section 7.3 for details of how to proceed.

7.3 Testing or Replacing the Segment 3 Cable

If the testing of the Segment 1 and Segment 2 cabling, and the Rate Board itself have failed to identify a fault, it will be necessary to test the Segment 3 cable. The Segment 3 cable will be connected to the Horizon Counter Position to which the Rate Board will be connected. In order to test this cable, it will be necessary to shut down the Horizon Counter Position and disconnect the cable. Please refer to Section 9 for the procedure to shut down the Horizon Counter Position, and Section 10 for the procedure for disconnecting the Segment 3 cable from the Horizon Counter Position.

Once the cable has been tested, and replaced if faulty, follow the procedure in Section 11 to reconnect the cable.

FUJ00002259

8 Rectifying a Rate Board Fault Following a Type 2 Call

When visiting a Branch to attend to a Rate Board fault identified by a FMS Engineer following a call being raised with the Horizon System Helpdesk, the FRES maintenance engineer should find the Rate Board powered down and disconnected from the Horizon Counter Position. The Rate Board should have the Segment 1 cable (where necessary) and the Segment 2 cable attached. The Segment 3 cable will be connected to the Horizon Counter Position ready for re-connection.

The first step for the FRES engineer will be to check that the Segment 1 and Segment 2 cable and the Rate Board are functioning correctly (See Section 8.1).

8.1 Testing or Replacing the Segment 1 and Segment 2 Cabling

In the instance that the testing of the Segment 1 or Segment 2 cabling identifies a fault, the cabling should be fixed or replaced with working cabling as appropriate.

After this has been carried out (regardless of whether a cabling fault was discovered and rectified) The FRTS engineer should proceed to test that the Rate Board is functioning correctly before re-connecting the Rate Board to the Horizon Counter Position (see Section 8.2).

8.2 Testing or Replacing the Rate Board

In the instance that the testing of the Rate Board identifies a fault, the Rate Board should be repaired or replaced as appropriate.

Once any identified fault with the Segment 1 or Segment 2 cabling or with the Rate Board itself has been rectified, it will be necessary to reconnect the Rate Board to the Segment 3 cable. See Section 12 for the procedure to follow when connecting the Segment 2 cable to the Segment 3 cable.

If however no fault was identified with the Segment 1 or Segment 2 cabling, or the Rate Board itself, it will be necessary to test the Segment 3 cable, which will involve shutting down the Horizon Counter Position. In this instance, please refer to Section 8.3 for details of how to proceed.

FUJ00002259

8.3 Testing or Replacing the Segment 3 Cable

If the testing of the Segment 1 and Segment 2 cabling, and the Rate Board itself have failed to identify a fault, it will be necessary to test the Segment 3 cable. The Segment 3 cable will be connected to the Horizon Counter Position to which the Rate Board will be connected. In order to test this cable, it will be necessary to shut down the Horizon Counter Position and disconnect the cable. Please refer to Section 9 for the procedure to shut down the Counter Position, and Section 10 for the procedure for disconnecting the Segment 3 cable from the Counter Position.

Once the cable has been tested, and replaced if faulty, follow the procedure in Section 11 to reconnect the cable.

FUJ00002259

9 Shutting Down the Horizon Counter in HNG-X

The operation of the Counter Position is the responsibility of the Branch Manager, who should provide full assistance to the engineer in resolving the problem.

Before connecting or disconnecting a Rate Board (or any other peripherals) from the Horizon Counter Position, the engineer must ensure that the Counter Position is shut down and powered off. The shut down procedure is the responsibility of the Branch Manager, however the FRES maintenance engineer should advise the Branch Manager to perform the following checks before shutting down.

1) The manager should ensure that any user logged onto the Counter Position to which the rate board is connected should log out. Touch the plain grey screen until the following screen is displayed.

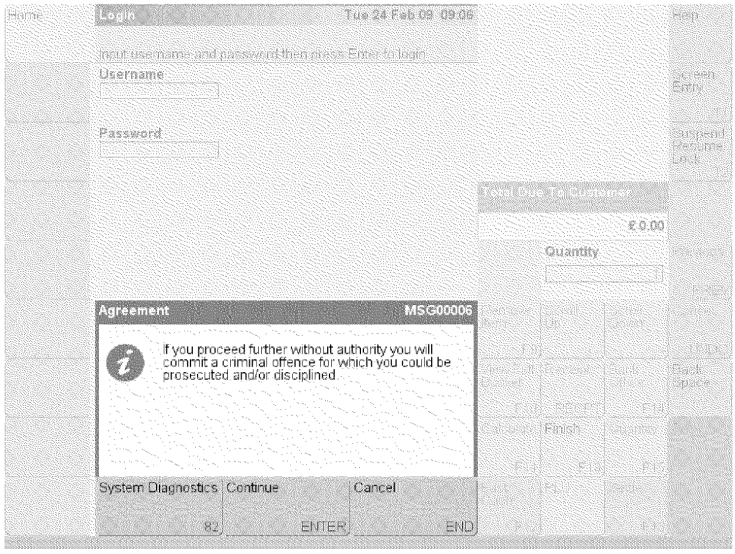


Figure 2

FUJ00002259

2) Touch System Diagnostics then Engineer. The screen below is displayed

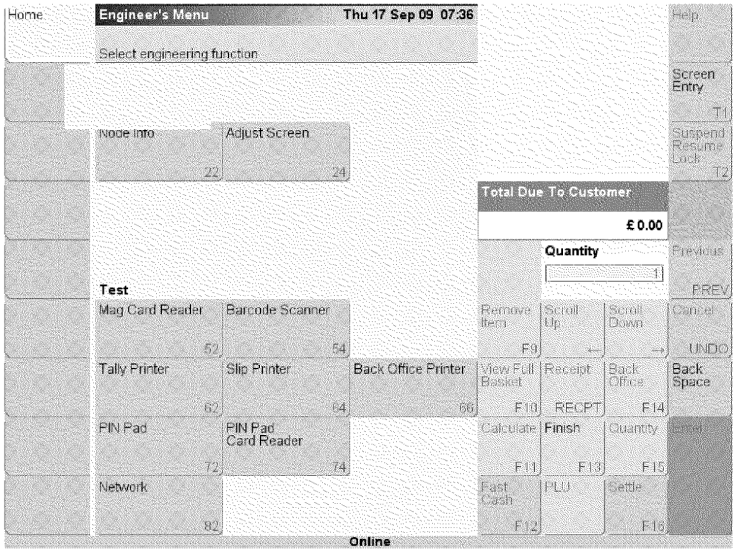


Figure 3

3) Then touch Network or use the keyboard 82. The following screen is displayed. This shows that the network is connected (ADSL is green)

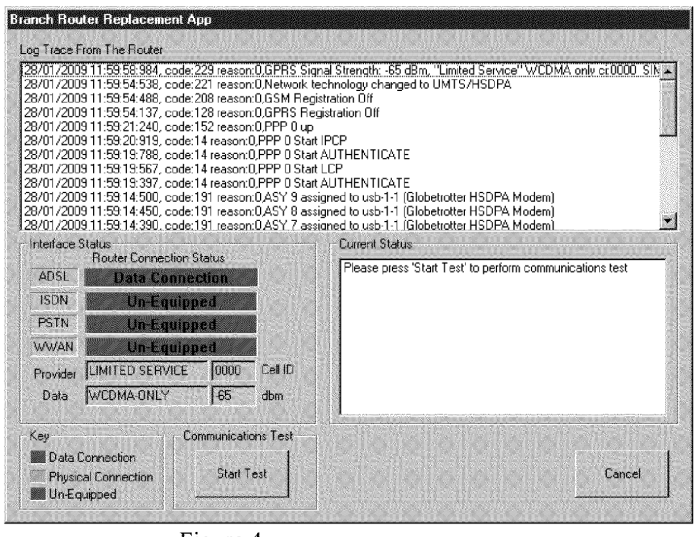


Figure 4

4) The counter should not be shut down unless one of the router connection status bars is green.

FUJ00002259

5) To shut down the counter "Cancel" the Network test and the press "Finish" see *Figure 3* above. This will return you to the "grey" screen. Touch the screen and then press System Diagnostics see *figure 2* above. Then press "Manage Application as below

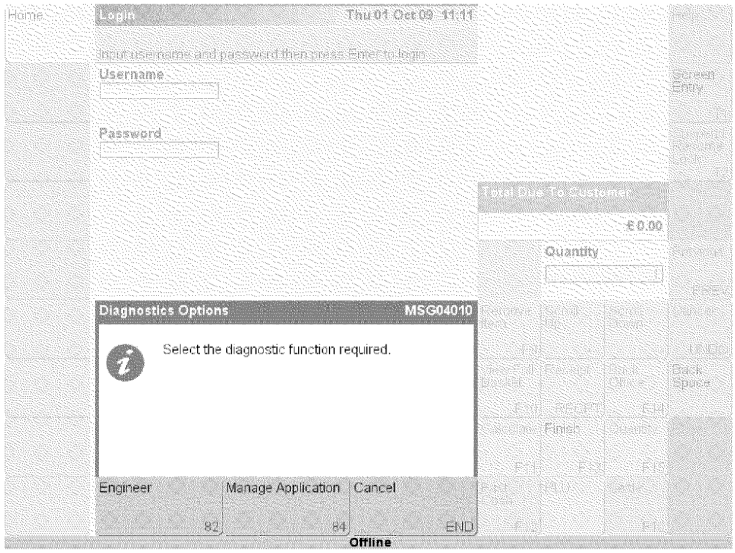


Figure 5

6) Press "Shutdown or keyboard 84. The system will ask if you are sure you wish to shut down. Press "Yes" and the system will then shut down. (See figure 6 below)

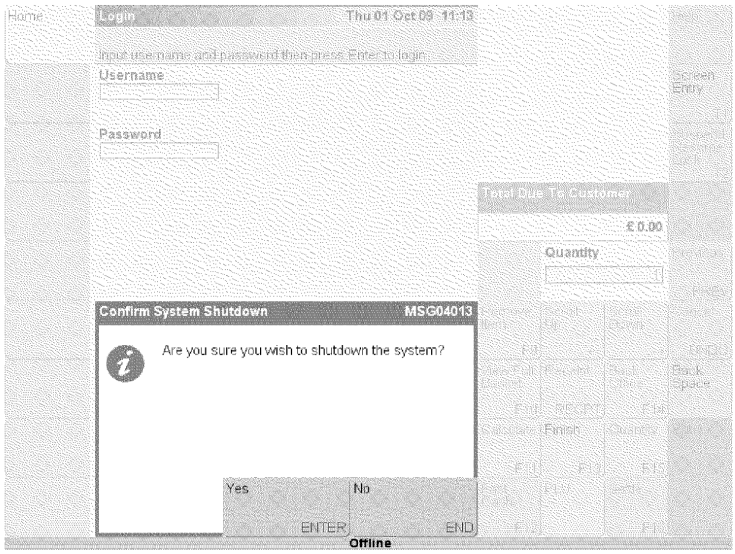


Figure 6

7) It will now be safe to switch off the Horizon counter

FUJ00002259

10 Disconnecting the Segment 3 Cable

Once the Horizon Counter Position has been shut down, the Segment 3 cable can be disconnected as follows.

1) Move the PC into a position where the connections at the rear are accessible, taking care not to drag the existing connections out of their sockets. If any cable becomes disconnected, use the information given in Appendix A to reconnect it to the correct socket.

2) To disconnect the RJ12 plug (see figure 7 – the RJ12 plug) of the Segment 3 cable from the rear of the Counter PC, identify COM12 on the Specialix card at the rear of the base unit. (See Figures 16 and 17 for details) The RJ12 plug will be clipped into place – to unclip the plug and disconnect the cable, depress the small clip on the RJ12 plug and remove the cable.

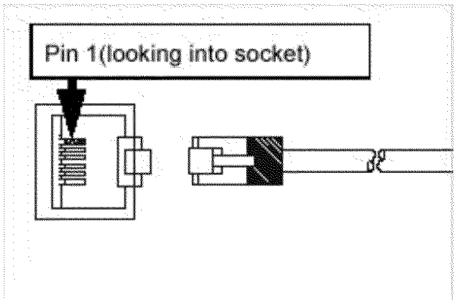


Figure 7 – the RJ12 plug

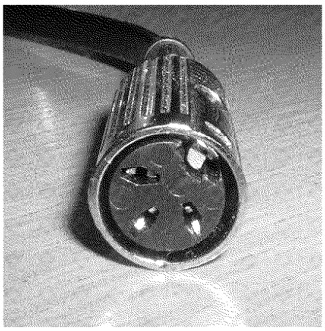
3) In the instance of any cables becoming detached during this process, please replace these connections with reference to Appendix A of this document, *Existing Connections*.

FUJ00002259

11 Connecting a Segment 3 Cable to a Horizon Counter PC

If it is necessary to reconnect a Segment 3 cable to the Counter PC, ensure that the Counter Position is shut down, and follow the instructions below.

1) Move the PC into a position where the connections at the rear are accessible, taking care not to drag the existing connections out of their sockets. If any cable becomes disconnected, use the information given in Appendix A to reconnect it to the correct socket.



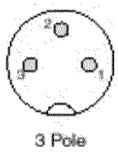


Figure 8 2– the female 3 pin DIN plug

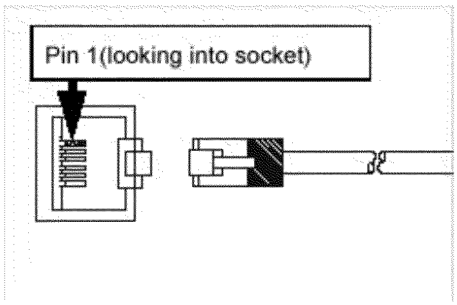


Figure 9 – the RJ12 plug

2) To connect the Segment 3 cable to the Counter Position, take the segment 3 cable and connect the RJ12 plug to **COM12** on the Specialix card at the rear of the base unit (See figure 17) Ensure that this plug 'clicks' home securely.

3) Move the PC back to its original position, ensuring that all cables remain securely attached (in the instance of any cables becoming detached during this process, please replace these connections with reference to Appendix A of this document, *Existing Connections*.

FUJ00002259

12 Connecting the Segment 2 Cable to the Segment 3 Cable

In order to connect the Segment 2 cable to the Segment 3 cable, ensure that the Rate Board is powered down and follow the instructions below.

1) To connect the Rate Board to the Horizon Counter Position, take the segment 2 cable which should be connected to the Rate Board (see Figure 1), and connect it to the trailing end of the Segment 3 cable which should be connected to the Counter Position. Ensure that this plug 'clicks' home securely.

2) If the relevant Counter Position is not powered on, the Branch Manager should now power on and log into it. If the Counter Position is already powered on and/or in use, the Branch Manager should log out the current user and log in following standard procedures.

3) Power on the Rate Board in accordance with any power on or safety procedure mandated by FRES.

Now that the Rate Board is reconnected to the Counter Position and both units are powered on, follow the instructions in Section 13 to configure and test the Rate Board.

FUJ00002259

13 Configuring and Testing the Rate Board

The Branch Manager should navigate to the Home page (See figure 10 below) following the log on procedure. From this starting point, the following process covers how to configure and test the Rate Board.

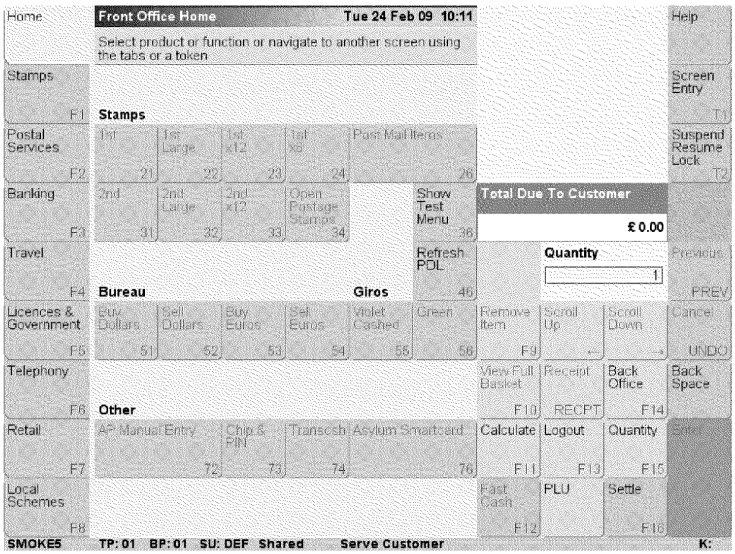


Figure 10

1) From the Home Page, the Branch Manager should touch “Back Office” then “Admin” then the ‘Engineer’ icon. The engineer screen will now be displayed

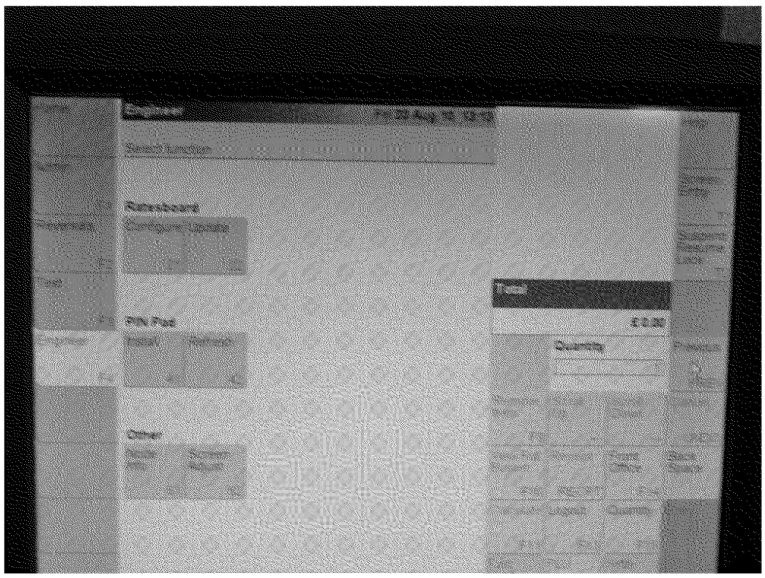


Figure 11

FUJ00002259

The Branch Manager should under Ratesboard touch the "Configure" icon or type 21 in order to start the process of reconfiguring the Rate Board confirming that the Rate Board is correctly configured. The Branch Manager will first be asked to input the number of rows on the Rate Board connected to the Counter Position (Figure 12)

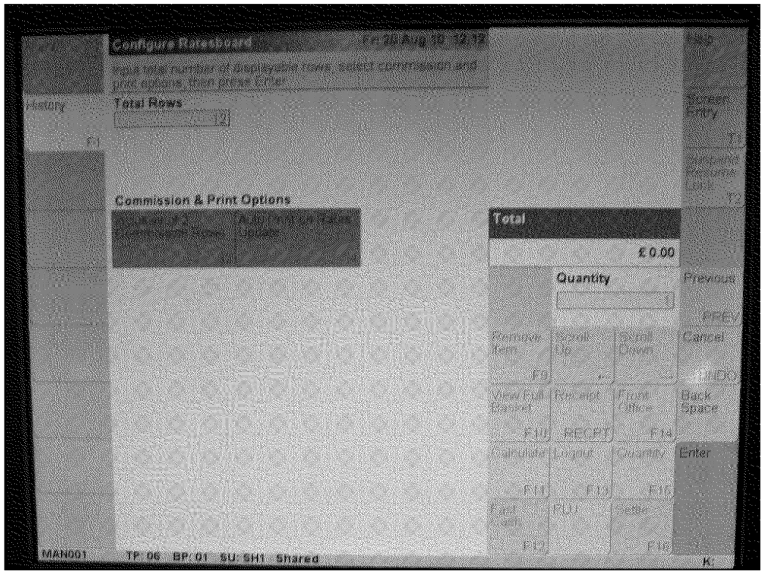


Figure 12

2) The Branch Manager should enter the number of rows to correspond with the number of rows on the Rate Board attached to the Horizon Counter Position. If the displayed number of rows is incorrect, remove this entry using the 'back space' button on the keyboard or by touching the icon on the screen, then use the number pad to enter the correct number of rows. The Branch Manager will then be asked whether the last 2 rows should be reserved as commission lines (Figure 12).

3) The Branch Manager should decide whether the last two rows should be commission lines. If required he should touch the icon or type 32 on the keyboard. The Branch Manager will then be asked whether to Auto Print on Rates Update. (See Figure 12). It this icon is touched or keyboard 34 the A4 printer will print a new bureau rates report each time the rates are updated. When all the selections have been made press Enter on the screen or keyboard.

FUJ00002259

4) After making the appropriate selection, the currency selection screen will be displayed, see figure 13:

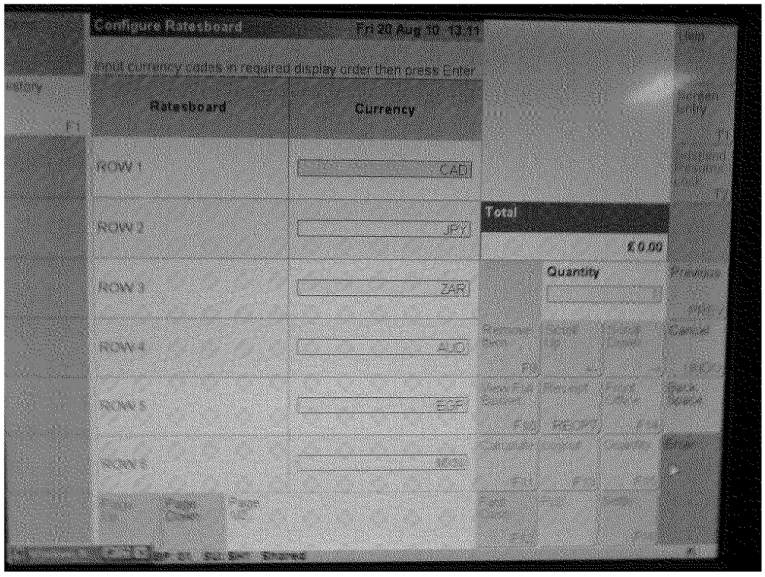


Figure 13

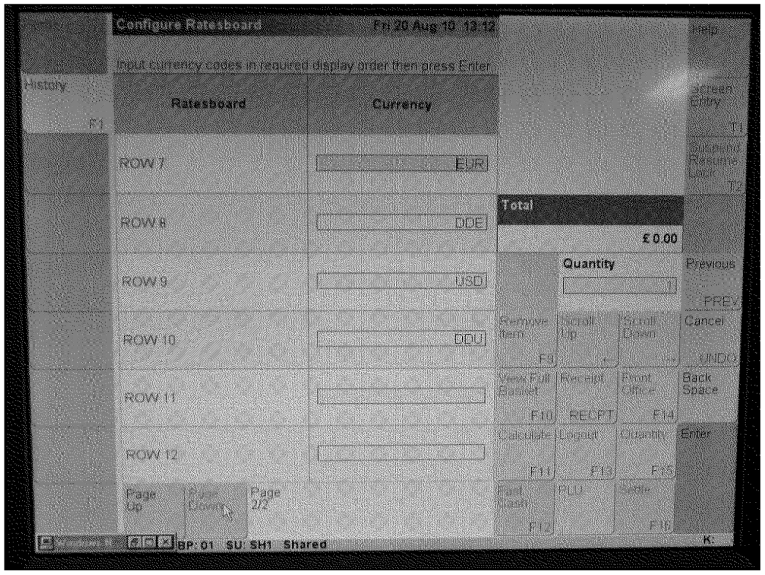


Figure 14

5) The display is not large enough to display all the rates simultaneously. This screen is divided into two and is accessed by “Page Up or Page Down icons. (See figures 13 and 14)

FUJ00002259

6) The Branch Manager should descend through the rows in the 'Rate Board Order' column entering the codes of the appropriate currencies to be displayed on the Rate Board. If there is an incorrect entry, use the 'back space' button on the keyboard to remove it, type in the correct Currency Code and then press the 'enter' key to confirm. A message will be displayed "MSG10301 your configured ratesboard details have been saved successfully"

A table of possible Currency Codes can be found in Appendix B of this document.

Upon entering the final Currency Code and pressing the 'Enter' key, HNG-X will navigate back to the engineer screen (see **Error! Reference source not found.**1).

7) The Branch Manager should touch the 'Update' button keyboard 82 (See figure 12). The message "MSG10303 the ratesboard has been updated successfully" will appear. Press Print keyboard 84 to preview or print the new rates. Press Close to return back to the engineer screen (See figure 11 above).

The Branch Manager should now print off a Bureau Rates Report and check to ensure that the Rate Board is displaying correctly. This is done as follows. From the engineer screen, touch the "Admin" icon keyboard function key F1. You will be navigated back to the Admin screen (See figure 15). The manager should then go to "Reports" then to "Bureau Rates"

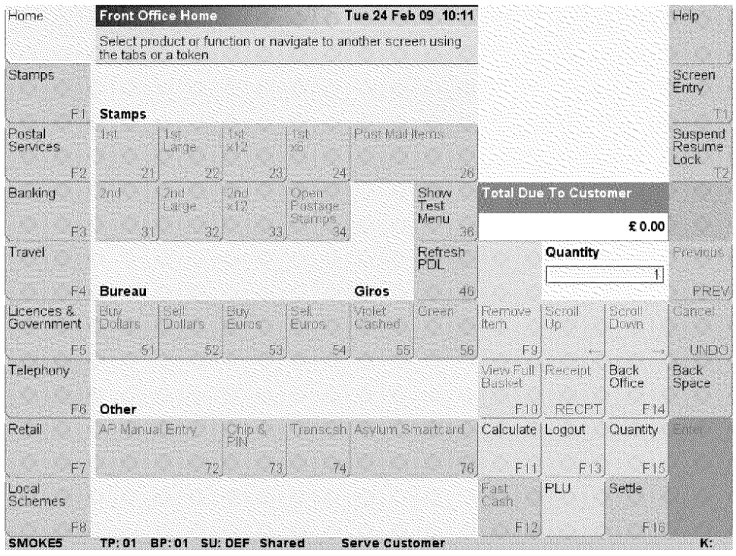


Figure 15

FUJ00002259

8) The Branch Manager should now print the bureau rates report on the A4 printer

9) If the Rate Board is not displaying correctly (i.e. the displayed rates do not match the printed rates) please refer to section 14, the Fault Finding Guide.

Otherwise, the fault has been rectified and the call can be closed. Touch the Front Office – keyboard function key F14 button to be navigated back to the Home page. The Branch Manager can now log off the Horizon Counter Position, or resume normal activity.

14 Fault Finding Guide

Problem	Resolution
14.1 Upon pressing the 'Update' icon, the message "Rates cannot be refreshed, Rates have expired" is displayed.	The required Reference Data may not have been delivered to the counter. Advise the Branch Manager to contact the Horizon System Help Desk (See Section 15).
14.2 The relevant Bureau icons appear to be working, but Rates are incorrectly displayed on the Rate Board (i.e. they do not match the printed Bureau Rates Report)	The Rate Board configuration may not have been completed correctly. Repeat the steps detailed in Section 13. If the Rate Board still does not display correctly, there is an outstanding problem with the cables, the counter, or the Rate Board. If both the cabling and Rate Board are functioning correctly, advise the Branch Manager to contact the Horizon System Helpdesk (See Section 15).
14.3 The relevant Bureau Phase 1 icons appear to be working, but no Rates are displaying on the Rate Board	If both the cabling and Rate Board are functioning correctly, advise the Branch Manager to contact the Horizon System Helpdesk (See Section 15).
14.4 The Rate Board and Cabling is identified as working, however the Rate Board still fails to display the correct rates.	If both the cabling and Rate Board are functioning correctly, advise the Branch Manager to contact the Horizon System Helpdesk (See Section 15).
14.5 After running the 'Network' test on the Counter Position to which the Rate Board will be attached, the message "ping test failed" is displayed	There may be a problem with the Horizon Counter Position. Advise the Branch Manager to contact the Horizon System Helpdesk (See Section 15).

FUJ00002259

15 Contacting the Horizon System Helpdesk

If a problem is experienced while closing down or powering up the Horizon Counter Position, or while configuring or testing the Rate Board, which cannot be resolved using the Fault Finding Guide in Section 14, then it will be necessary for the Branch Manager to contact the Horizon System Helpdesk, being sure to take a note of the Call Reference Number which will be provided. The Horizon System Helpdesk will advise the Branch Manager of the next steps as appropriate, and the Branch Manager should ensure that a Call Reference Number is provided in order that the call can be followed up, and that evidence of the call is properly logged.

Note that the Horizon System Helpdesk is available to deal with technical issues only; it cannot assist with physical or infrastructure problems, or deal with administrative issues.

The Horizon System Helpdesk telephone number is:- GRO

Option 2 should be selected.

Please have the following information ready before making the call:-

1) Post Office name.

2) FAD Code.

3) Counter number.

4) Stage reached in the installation procedure.

5) Any message displayed on the monitor.

Any message shown on the Rate Board display

FUJ00002259

APPENDIX A - Existing Connections

There are three types of PC used at Horizon Counter Positions, which are described in detail in the Contract Controlled Document entitled "*Counter Hardware Design Specification*"(BP/DES/003).

A Post Office Branch with only one counter will have a single counter HNGX-A, while all other Post Office Branches will have slave counters HNGX-C.

The existing peripherals are connected as follows:-

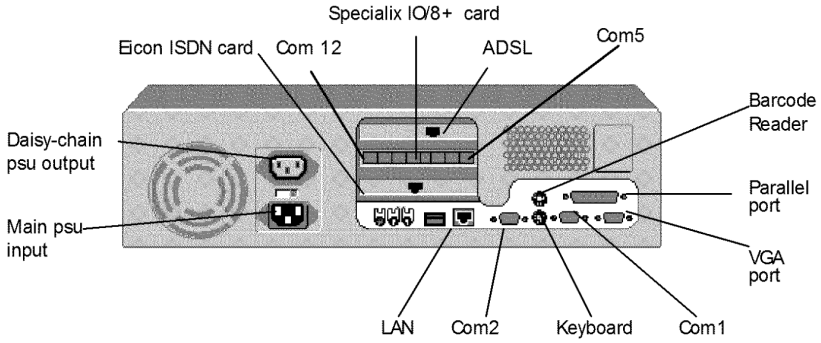


Figure 16

Details of the Specialix Card:-

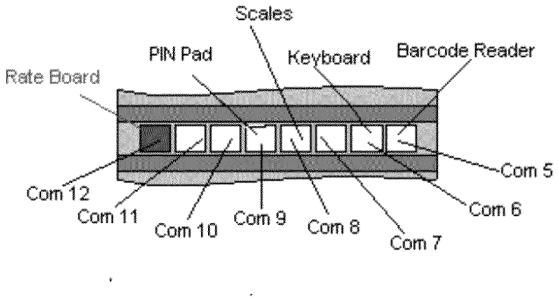


Figure 17

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Branch Router

All offices irrespective of their method of communication will have a branch router. This connects each counter to the network either directly or via a hub

LAN Cable

There will be a LAN cable connected to the LAN socket marked in Figure 16 above, linking this counter to the branch router and via a hub other counter(s) in the Post Office Branch.

Touch Screen Monitor

The monitor has three connections - the 9-Pin female plug is connected to COM1, the VGA cable is connected to the VGA port, and the mains lead is connected to the female end of the PIN Pad's 'Y' shaped power cable. Note that these connections are the same for both types of flat screen monitors

Keyboard

The keyboard has two connections - the mini-DIN connector is connected to the keyboard socket, and the RJ12 connector is connected to COM6 (2nd socket from the right of the Specialix Card).

Bar Code Reader

The bar code reader has two connections - the mini-DIN connector is connected to the mouse port, and the RJ12 connector is connected to COM5 (1st socket from the right of the Specialix Card).

Receipt and Slip Printer

The 9-PIN female cable from the Epson printer is connected to COM2. The mains lead is connected to a mains socket.

BackOffice Printer *(typically connected to gateway counters)*

The Back Office printer is connected to the parallel port. The mains lead is connected to a mains socket.

Electronic Weigh Scales

If present, these are connected to COM8 (4th socket from the right of the Specialix Card).

FUJ00002259

PIN Pad

The PIN Pad has three connections. The RJ12 connector is connected to COM9 (5th socket from the right of the Specialix Card). The plug end of the 'Y' shaped power lead is connected to the daisy-chain PSU output, and the socket end connects to the mains lead trailing from the touchscreen monitor.

ADSL and ISDN Card

These are no longer used. (see **Error! Reference source not found.**).

Rate Board

If present, a cable (the Segment 3 cable) will be connected to COM12 on the Specialix Card (see **Error! Reference source not found.**)

FUJ00002259

APPENDIX B – Bureau Currency Codes

The following table provides a full list of currencies along with their three letter codes, required for configuration of the Bureau Rate Boards.

Currency Name	Bureau Currency Code
Australia Dollar	AUD
Argentine Peso	ARS
Bahamian Dollar	BSD
Bahrain Dinar	BHD
Bangladesh Taka	BDT
Barbados Dollar	BBD
Belize Dollar	BZD
Bermudan Dollar	BMD
Botswana Pula	BWP
Brazilian Real	BRL
Brunei Ringgit	BND
Bulgarian Lev	BGN
Canada Dollar	CAD
Chile Peso	CLP
China Yuan	CNY
Colombia Peso	COP
Costa Rican Colones	CRC
Croatia Kuna	HRK
Cyprus Pound	CYP
Czech Koruna	CZK
Denmark Krone	DKK
Dominican Peso	DOP
East Caribbean Dollar	XCD
Egypt Pound	EGP
Estonia Kroon	EEK
Euro	EUR
Fiji Dollar	FJD
French Polynesian Francs	XPF
Guatemala Quetzl	GTQ
Hong Kong Dollar	HKD
Hungary Forint	HUF
Iceland Krona	ISK
Indonesia Rupian	IDR
Lebanese Livres	LBP
Israel Shekel	ILS
Kuwait Dinar	KWD
Jamaica Dollar	JMD
Japan Yen	JPY
Jordan Dinar	JOD

FUJ00002259

Kenya Shilling	KES
Latvia Lat	LVL
Lithuania Lita	LTL
Malaysia Ringgit	MYR
Malta Lire	MTL
Mauritius Rupee	MUR
Mexico New Peso	MXN
New Zealand Dollar	NZD
Norway Krone	NOK
Oman Rial	OMR
Pakistan Rupee	PKR
Papuan Kina	PGK
Peru Nuevo	PEN
Philippine Peso	PHP
Poland New Zloty	PLN
Qatar Riyal	QAR
Rumanian Lei	RON
Russian Ruble	RUB
Saudi Riyal	SAR
Singapore Dollar	SGD
Slovakia Koruna	SKK
Slovenia Tolar	SIT
Sth Africa Rand	ZAR
Sth Korea Won	KRW
Sri Lanka Rupee	LKR
Sweden Krona	SEK
Swiss Franc	CHF
Taiwan Yuan	TWD
Thailand Baht	THB
TrinTobagoDollar	TTD
Turkey Lira	TRY
UAE Dirham	AED
Uruguay Peso	UYU
US Dollar	USD