Strata® CT

Digital Business Telephone Solutions

System Administrator Guide

Release 2

November 2001

Publication Information

Toshiba Information Systems (UK) Ltd. reserves the right to change any of this information including, but not limited to, product characteristics and operating specifications, without prior notice.

It is intended that the information contained within this manual is correct at the time of going to print, however all liability for errors or omissions is excluded.

Version 2, November 2001

Contents

Introduction

Chapter 1 Setting System Parameters

Introduction

This guide is designed for the System Administrator of the Strata CT system.

This guide provides instructions for assigning the user names that appear on the station display; managing station relocation; and assigning Direct Inward System Access (DISA) security codes, toll restriction override access codes, and verified account codes.

Important! *This guide contains information and procedures that are not available to the average telephone user. As System Administrator, you must have access to a specific System Administrator's telephone to perform the procedures in this guide. You are responsible for certain proprietary codes for providing or restricting features to telephones with the Strata CT systems. This guide is not intended for general use; please keep it in a secure place.*

You should also have a copy of the most recent *Strata CT General Description* for the appropriate system, as well as any related user guides. See "Related Documents/Media" later in this Introduction.

Equipment Notes

- Most of the operations in this guide require a Liquid Crystal Display (LCD) digital telephone at the System Administrator's work station.
- Typically, use the station with [PDN] 10, 100, or 200 to perform the functions in this guide. This guide assumes the Adminstrator's telephone is connected to station Port 000. If you wish, you can use a different [PDN] which must be assigned by the system installer. In any case, the station is referred to as the "Administrator station" throughout this guide. Ask your system installer which station this is.

Organisation

This guide is divided as follows:

- **Chapter 1 – Setting System Parameters** contains descriptions and procedures for changing System Administrator-specific parameters. These parameters are given in alphabetical order.
- **Appendix A – Access Codes** provides feature access code sequences which can be stored onto SD buttons for one-touch feature access.
- **Appendix B – Directories/Record** provides blank directories for recording User Names/ Numbers and Speed Dial memos, and telephone locations and instructions for displaying [DN], physical port, and logical port information.
- **Notes to Users** contains an overview of Safety Approval and EMC Compliance details.

Conventions

Conventions	Description
Note	Elaborates specific items or references other information. Within some tables, general notes apply to the entire table and numbered notes apply to specific items.
Important!	Calls attention to important instructions or information.
CAUTION!	Advises you that hardware, software applications, or data could be damaged if the instructions are not followed closely.
WARNING!	Alerts you when the given task could cause personal injury or death.
[DN]	Represents any Directory Number button, also known as an extension or intercom number.
[PDN]	Represents any Primary Directory Number button (the extension number for the telephone). An extra appearance of the PDN on the same phone is not considered as a SDN.
[SDN]	Represents any Secondary appearance of a PDN. A PDN which appears on another telephone is considered an SDN.
[PhDN]	Represents any Phantom Directory Number button (an additional DN).
Arial Bold	Represents telephone buttons.
Courier	Shows a computer keyboard entry or screen display.
Helvetica Bold	Represents LCD displays.
"Type"	Indicates entry of a string of text.
"Press"	Indicates entry of a single key. For example: Type **prog** then press **Enter**.
Plus (+)	Shows a multiple PC keyboard or phone button entry. Entries without spaces between them show a simultaneous entry. Example: **Esc+Enter**. Entries with spaces between them show a sequential entry. Example: **#** + **5**.
Tilde (~)	Means "through." Example: 200 ~ 220 station range.
➤	Denotes the step in a one-step procedure.
➤	Denotes a procedure.
See Figure 10	Grey words within the printed text denote cross-references. In the electronic version of this document (Strata Technical Library CD-ROM), cross-references appear in blue hypertext.

Action/Response Table

➤ The left column gives you the single or numbered steps you need to perform a procedure.	The right column gives the immediate response to your action. It includes readouts from the LCD telephone when applicable, and additional notes and comments.

Important Notes

- Because feature buttons are flexible and must be programmed by a system installer, your telephone may not have all of the buttons mentioned in this guide.
- Use the **#** button if your telephone does not have a **Redial** button.
- Use the ***** button if your telephone does not have a **Speed Dial** button.

Related Documents/Media

Note Some documents listed here may appear in different versions on the CD-ROM or in print. To find the most current version, check the version/date in the Publication Information on the back of the document's title page.

Refer to the following documents for more information:

- **Strata CT General Description** provides a system overview including hardware and feature information.
- **Strata CT Digital Telephone User Guide** provides all the procedures necessary to operate Toshiba-proprietary digital telephones, including Single Line Digital Telephone Liquid Crystal Display (LCD) features. It also includes instructions for using the add-on module/DSS console.
- **Strata CT Digital Telephone Quick Reference Guide** provides a quick reference for frequently-used digital telephone features.
- **Strata CT Electronic Telephone User Guide** explains all the procedures necessary to operate Toshiba-proprietary electronic telephones, including all LCD features. It also includes instructions for using the electronic DSS console.

- **Strata CT Electronic Telephone Quick Reference Guide** provides a quick reference for frequently-used electronic telephone features.
- **Strata CT Standard Telephone User Guide** explains all the procedures necessary to operate rotary dial and push-button standard telephones.
- **Strata CT ACD Agent User Guide** describes the ACD agent feature operation along with step-by-step procedures for using features.
- **Strata CT ACD Supervisor Guide** provides instruction on how to use the ACD supervisor features.
- **Strata Library CD-ROM** enables you to view, print, navigate and search publications for Strata DK40 and Strata CT digital business telephone systems. It also includes Strata CT ACD Documentation, including the *ACD Agent Guide* and *ACD Supervisor's Guide.* ACD Installation and Programming instructions are included in the *Strata CT Installation and Maintenance Manual* and the *Strata CT Programming Manual*.

Setting System Parameters 1

For security reasons, you can add, delete or change system parameters. Make sure your system is programmed so that you can change these parameters from your telephone.

The parameters discussed in this chapter are given in alphabetical order. They are:

- Auto Attendant
- Direct Inward System Access (DISA) Security Code
- Night Transfer
- Setting Date/Time/Day
- Soft Keys
- Station Relocation
- System Messages, Names and Memos
- System Speed Dial Numbers
- Toll Restriction Override/Travelling Class Codes
- Verified Account Codes

Auto Attendant

The Auto Attendant feature tells the system where to direct incoming Auto Attendant calls. Two announcements greet callers: The primary announcement contains the company greeting, followed by a menu. The secondary (optional) announcement, plays when the station or department called is not available. It is then followed by a menu.

An Auto Attendant's primary announcement may sound like this:

"Hello, you have reached Toshiba.
If you know the number of the party you are calling, please dial it now.
For operator assistance, dial 0 or please wait.
For Sales, dial 3.
For Marketing, dial 4.
And for Technical Support, dial 5."

Here's an example of an Auto Attendant's secondary announcement:

"The party is unavailable...
For operator assistance, dial 0 or wait for assistance.
For Sales, dial 3.
For Marketing, dial 4.
And for Technical Support, dial 5."

Auto Attendant Exchange Line Assignments

Exchange lines can be assigned to be answered by the Auto Attendant in any of the three system modes (Day, Day 2, and Night) by the system programmer. The **Night Transfer** button can be used to switch the Exchange lines to ring the Auto Attendant or to ring stations that are preassigned in system programming.

The Auto Attendant can be configured (in system programming) to answer Exchange line calls on a delayed basis (12 or 24 seconds) if the call is not answered at a ringing station(s).

System Auto Attendant Dialling Plan

The Auto Attendant dialling plan is assigned in system programming. Use Table 1 to record your system Auto Attendant dialling plan. Toshiba recommends using single digits. (See Table 2 for a list of default [DNs] for Strata CT systems.)

Table 1 Auto Attendant Menu

Dialled Digit (Menu Prompts)	Station (Directory) Number	Department, Division, etc.
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		
*****	DISA Outgoing Calls	Outgoing line (see Caution note below)

Table 2 Default DN's for Strata CT

System	[PDNs] (default)	[PhDNs] (default)
B1CU	**200~255**	**500~579**
B2CAU/B2CBU	**200~343**	**500~739**
B3CAU/B3CBU	**200~391**	**500~739**
B5CAU/B5CBU	**100~435**	**500~835**

When calling the Auto Attendant, callers can access DISA by dialling *****. Toshiba recommends that you do not include this information in the Auto Attendant announcement.

CAUTION! Make sure that your system DISA security code is set and protected. This is necessary to prevent unauthorised outgoing DISA calls from being charged (billed) to your company's telephone lines. See the instructions, **"Direct Inward System Access (DISA) Security Code" on Page 5.**

Auto Attendant Announcement Recording Recommendations

Primary announcements are played to the caller when the Auto Attendant first answers an Exchange line. Secondary announcements (optional) are played to the caller after dialling a busy or unanswered station. Announcements should be kept as short as possible to allow fast call handling, and to eliminate overflow situations. Typical announcements should run between 10 and 20 seconds. Both primary and secondary announcements should play the Auto Attendant dialling plan options.

If many Exchange lines ring the Auto Attendant (heavy traffic), multiple announcement machines can be installed to accommodate quick answer of incoming calls. The system can support up to four primary announcements and up to four secondary announcements. All primary announcements should play the same message/dial prompts, and all secondary should play the same secondary announcement. Follow the announcement device manufacturer's instructions to record the auto attendant announcements.

Direct Inward System Access (DISA) Security Code

The Direct Inward System Access feature is used when calling into your system from the outside. This feature is available on certain Exchange lines and from the built-in Auto Attendant. Assignments are made by the system programmer. Exchange lines can be DISA lines in the Day, Day 2, or Night mode, or any combination of these modes.

If a caller enters the system via a DISA line or built-in Auto Attendant, the caller can then access another line to place an outgoing call through the system, in which case the outgoing line call is charged as a call made from the CT system. To prevent unauthorised outgoing calls through the system using the DISA feature, enter a DISA security code as shown in the following steps.

CAUTION! Whenever the built-in Auto Attendant is installed, the DISA security code should be used (and changed periodically) to prevent unauthorized access of outgoing Exchange lines via the Auto Attendant DISA access feature.

➤ **To enter or change the DISA security code**

1. Press [DN] + **#658**.	You hear a confirmation tone.	NO. NNN ____ ID CODE SET
2. Dial the new DISA security code (1~15 digits).	The DISA security code digit length is a system program option. The code appears on the LCD as you enter it.	NO. NNN DATA PROGRAMMED
3. Press **Redial**.	You hear a confirmation tone.	
4. Press **Spkr**.	The telephone returns to the idle mode.	

➤ **To cancel the DISA security code**

1. Press [DN] + **#658**.	You hear a confirmation tone.
2. Press **Redial**.	The telephone returns to the idle mode.
3. Press **Spkr**.	

CAUTION! If the DISA security is cancelled, outgoing unrestricted Exchange Line access is available to anyone calling in on a DISA line or built-in Auto Attendant.

Night Transfer

Incoming calls to your system can be made to route and ring different destinations, based on either two- or three-call routing (ringing) patterns (set in system programming). The Night Transfer LED indicates the active routing pattern:

Mode	Three-pattern	Two-pattern
DAY	OFF	OFF
DAY 2	FLASH	N/A
NIGHT	ON	ON

Night Transfer can be locked by pressing **NT Lock (1~4)** and dialling the NT Lock password (see the procedure outlined on the following page).

If the system has tenant service, up to four Tenant Night Transfer buttons (**Night Transfer 1~4**) can be assigned and controlled independently.

➤ **To enable/disable night transfer**

➤ Press **Night Transfer** to toggle night transfer ON/OFF.

Night Transfer Lock/Unlock Password

The Night (NT) Lock/Unlock mode enables the Administrator's station or an attendant console to lock the system into the Day, Day 2, or Night mode. By setting the system into different modes, incoming Exchange calls can be routed to different destinations.

In order for the Administrator station or the attendant console to perform such routing, it must be assigned with **Night Transfer** and **NT Lock** buttons via system programming. Up to four **Night Transfer** and **NT Lock** buttons are allowed. Check with the system installer for any additional information.

➤ **To assign or change Night Lock/Unlock Password**

1. Press a [DN] + **#622X** (X = Tenant 1~Tenant 4 Exchange line groups), with the handset on-hook.	The LCD prompts you to enter a four-digit password.	NO.200 ENTER PASS CODE
2. Enter a four-digit password.	As you are enter the password, the digits display on the LCD.	NO.200 XXXX
3. Press **Redial**.	You hear confirmation tone.	NO.200 DATA PROGRAMMED
4. Hang up.	The password is assigned.	NO.200 JAN 15 WED 02:00

Night Transfer Lock Mode

After setting the **Night Transfer** button into the desired ring mode (Day/Day2/Night), you can lock Night Transfer using the accompanying steps below.

➤ **To set the system in Night Lock Mode**

1. Press **Night Transfer** to set the system into the Day or Day2 or Night Mode, with the handset on-hook.		
2. Press **NT Lock**.	The NT Lock LED flashes. The LCD prompts you to enter your password.	NO.200 ENTER PASSWORD
3. Enter your password and press **NT Lock** again.	**Y** = Password digits	NO.200 YYYY

If the correct password is entered, the NT Lock LED remains steady red and the LCD displays the message "NT LOCK."

If an incorrect password is entered, the NT Lock LED turns OFF.

```
                NT LOCK
JAN 15   WED 02:00
```

Setting Date/Time/Day

This operation is possible from the Administrator station or attendant consoles and enables you to set the date, time, and day.

➤ **To set the date**

1. Press a [DN] + **#651**, with the handset on-hook.	You hear a confirmation tone.	`#651 ENTER DATE`
2. Enter the date (YYMMDD).		`51 ENTER DATE 001125`
3. Press **Redial**.	You hear a confirmation tone.	`NO. NNN` `MAY 24 MON 12: 05`
4. Press **Spkr**.	The telephone returns to the idle mode.	

➤ **To set the time**

1. Press [DN] + **#652**, with the handset on-hook.	You hear a confirmation tone.	**#652 ENTER TIME**
2. Enter the time (HHMMSS) in the 24-hour clock format.	H=hour, M=minute and S=seconds. Use leading zeros: 060530 = 6:05AM and 30 seconds; 143045 = 2:30PM and 45 seconds.	**#652 ENTER TIME 120500**
3. Press **Redial**.	You hear a confirmation tone.	**NO. NNN MAY 24 MON 12: 05**
4. Press **Spkr**.	The telephone returns to the idle mode.	

➤ **To set the day of the week**

1. Press a [DN] + **#653**, with the handset on-hook.	You hear a confirmation tone.	**#653 ENTER DAY**
2. Enter the number which corresponds to the appropriate day of the week: **1** = Sunday **2** = Monday **3** = Tuesday **4** = Wednesday **5** = Thursday **6** = Friday **7** = Saturday		**#653 ENTER DAY 2**
3. Press **Redial**.	You hear a confirmation tone.	**NO. NNN MAY 24 MON 12: 05**
4. Press **Spkr**.	The telephone returns to the idle mode.	

Soft Keys

➤ **To turn Soft Keys on**

➤ Press **Mode** + **71**.

➤ **To turn Soft Keys off**

➤ Press **Mode** + **70**.

Important! *The LCD examples in this guide are shown with Soft Keys turned OFF. If your telephone has Soft Keys turned ON, the displays may be different, but you can still follow the steps in this guide. Generally, the information shown on line 2 displays on line 1 when Soft Keys are ON.*

Station Relocation

This feature enables you to relocate an electronic, digital, or standard telephone without requiring reprogramming of the station's features. When relocated, the telephone retains its station number and all programmed features, including personal messages, feature buttons, Toll Restriction Class, and Speed Dial numbers.

One station at a time can be easily relocated. If two stations are unplugged at the same time, the telephone that was unplugged last is relocated when plugged back in. Station Relocation only works with the same type of station. For example, moving electronic telephone to electronic telephone, digital to digital, and standard to standard. The label on the bottom of your telephone indicates “Electronic” or “Digital” key telephone.

If a 10-button telephone is replaced with a 20-button type, the left column of buttons retains the 10-button assignments. With LCD telephones, you use the LCD after relocation, to confirm the desired location of the calling or called [PDNs].

CAUTION! Always turn this feature off promptly after relocation is finished to avoid accidental relocation.

Automatic Relocation

This function enables you to physically move a telephone from one location to another while maintaining all of the telephone's programmed features. Use the "Telephone Location Record" on Page 37 for telephone location tracking.

➤ **To turn on the Auto Station Relocation feature**

1. From the Administrator station, press a [DN] + **#6282** to turn on the Auto Station Relocation feature. 2. Press **Spkr**.	You hear a confirmation tone indicating the Station Relocation feature is on. If you hear a busy tone, the Station Relocation feature is already turned on, or you did not dial from the Administrator station.

➤ **To physically relocate (swap) Station A and B**

Important! *Make sure that the location that the phone is moving to is already vacant.*

If you are moving a telephone (for example, Station A) to a new location that already has a telephone connected to it (for example, Station B), disconnect Station B from its telephone jack ***before*** *you disconnect Station A.*

You cannot configure the moving station (Station A) to an already occupied station (Station B).

1. Verify that the telephone jack for the new location does not have a telephone connected.	
2. Unplug the telephone that is moving from its wall jack at the old location.	
3. Plug the telephone that is moving into the wall jack at its new location.	The station is now moved to its new location while retaining its original [DNs] and features.
4. From the Administrator station, press [DN] + **#6281** to turn off Auto Station Relocation, then press **Spkr**.	You hear confirmation tone. If you hear a busy tone, the Station Relocation feature was already turned off, or you did not dial from the Administrator station.

Relocation by Special Dial

This option enables two station numbers and their features to be exchanged with or without physically relocating the telephones. The exchange takes place through the use of special dial codes. For the procedure below, we are using Station A/B and Location 1/2 to demonstrate the exchange.

➤ **To turn on the Special Dial Station Relocation feature**

1. From the Administrator station, press a [DN] + **#6283** to turn on the Special Dial Station Relocation feature	
2. Press **Spkr**.	You hear confirmation tone indicating that the Station Relocation feature is on. If you hear a busy tone, the Station Relocation feature was already turned on, or you did not dial from the Administrator station.

➤ **To relocate (swap) Station A and B**

1. From Station A, press a [DN] + **#627NNN** (**NNN** = [DN] of Station B).	You hear confirmation tone. Station A now has the buttons and features of Station B and vice versa.
2. From Administrator station, press a [DN] + **#6281** to turn off Special Dial Station Relocation, then press **Spkr**.	After Station Relocation is turned off, you hear a confirmation tone. If you hear a busy tone, Station Relocation was already turned off, or you did not dial from the Administrator station. **Note** After the relocation is completed, exchange the keystrips of the two telephones, if they are different, because a 10-button telephone replaced with a 20-button type telephone, retains the 10-button assignments.

System Messages, Names and Memos

You can write or edit station LCD messages, names or numbers.

➤ **To write LCD messages, names, or numbers**

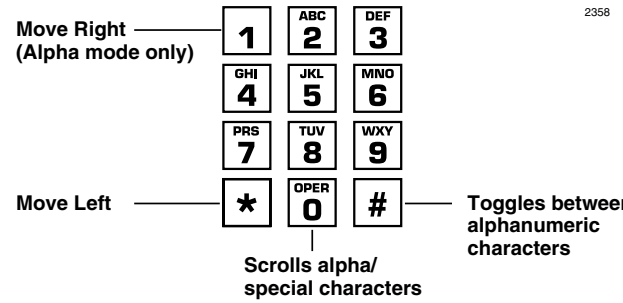
1. Access message/memo/name displays.	When you select a message number, a cursor (–) appears at the first character in the message.
2. Enter up to 32 alphanumeric characters, (see Table 3 and the figure at the right) using the station keypad.	
3. Blank out any portion of a message by pressing **1** and moving the cursor to the right, when in the alpha character mode.	Each character the cursor transverses is deleted.

Table 3 Dial Pad Key Equivalents

Letter	Key Equivalent	Letter	Key Equivalent	Letter	Key Equivalent	Symbol	Key Equivalent
A	**2**	J	**5**	S	**700**	:	**1000**
B	**20**	K	**50**	T	**8**	–	**10000**
C	**200**	L	**500**	U	**80**	+	**100000**
D	**3**	M	**6**	V	**800**	/	**1000000**

Table 3 Dial Pad Key Equivalents

Letter	Key Equivalent	Letter	Key Equivalent	Letter	Key Equivalent
E	**30**	N	**60**	W	**9**
F	**300**	O	**600**	X	**90**
G	**4**	P	**7**	Y	**900**
H	**40**	Q	**10**	Z	**100**
I	**400**	R	**70**		

Symbol	Key Equivalent

Note Use the dial pad in alphanumeric mode to create the symbols above.

User LCD Name/Number Display

Once you store names and numbers in the system memory for each station or device, they can display on the station's LCD while idle and at other stations' LCDs when they are called. The name also appears on the LCD during direct internal, forwarded, and hunted calls. The LCD name does not display on Override or Off-hook Call Announce (OCA) calls.

Name display information for non-LCD telephones or voice mail/auto attendant devices can be stored from the Administrator's digital station. When Name/Number is recorded for non-LCD telephones or other devices, their Name/Number is displayed on LCD telephones when called. The name of a called telephone displays on the calling telephone's LCD when the calling telephone has the Soft Key feature ON.

Note Before entering names for other users, turn the Soft Key feature OFF by pressing **Mode** + **70** when your telephone is idle. After the names have been entered, turn the feature back on by pressing **Mode** + **71** when your telephone is idle.

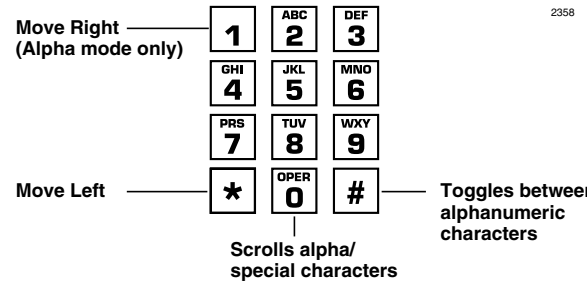
➤ To enter name/number information for your telephone

1. Press [DN] + **#621**.

   Current information displays on the lower line of the LCD.

   ```
   USER NAME?
   ```

2. Enter up to 16 alphanumeric characters, (see the figure at the right) using the station keypad.



3. Press **Spkr**.

   The information is stored and appears on the top line.

   ```
   TOSHIBA EXT. 200
   DATE DAY TIME
   ```

➤ To clear name/number display.

1. Press a [DN] + **#620**.
2. Press **Spkr**.

   You hear confirmation tone, then busy tone.

   During the clear, the LCD displays the message shown on the right.

   ```
                  NO. NNN
   USER NAME RESET
   ```

   After the clear, a name is displaced by a message and call forward settings if they are set.

   ```
                  NO. 200
   DATE DAY TIME
   ```

Note This procedure does not erase the name/number. To restore the display, press [DN] + **#621**.

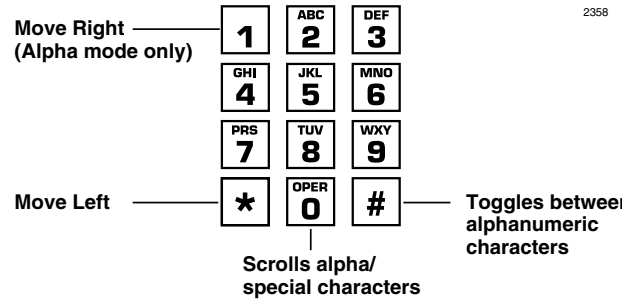
➤ **To erase name/number display**

1. Press a [DN] + **#621**.	Current information displays on the lower line of the LCD.	**USER NAME?**
2. Press **1** in the alpha mode to enter blanks.	Blank characters replace the information. If all blanks are entered, the telephone [PDN] displays on the LCD.	
3. Press **Spkr**.	The information is erased.	

➤ **To enter name/number information for other stations/devices**

1. Turn Soft Keys OFF by pressing **Mode** + **70**.	The Administrator station must be idle.	
2. Press a [DN] + **#621**.	Current information for the Administrator station appears on the bottom line.	**USER NAME?**
3. Press **Page**.	In this particular display, **EKT** stands for the [PDN] of a digital, electronic or standard telephone.	**DESK EKT NO.?**
4. Dial the [PDN] of the station for which the name/number information is to be recorded.	Current information for station **NNN** appears on the bottom line.	**DESK EKT NO. NNN**
5. Press **Page**.	You are prompted for the user name.	**USER NAME?**

6. Enter up to 16 alphanumeric characters, (see the figure at the right) using the station keypad.



We suggest that you enter the station number and the user name.

7. Press **Spkr**.

The new information displays on the top line of station **NNN**'s LCD. The Administrator station LCD returns to the normal idle display.

8. Repeat Steps 2~7 to enter more names/numbers.

9. Press **Mode** + **71** when your telephone is idle.

Your Soft Keys are turned ON.

➤ **To erase other station name/number displays**

➤ From the Administrator station, repeat Steps 1~6 of the previous procedure and press **1**, in the alpha mode in Step 6.

System Speed Dial Numbers

System Speed Dial telephone numbers can be stored in the system memory by the Administrator station only.

➤ **To store a feature or System Speed number in a System Speed Dial Code**

1. Press **Redial**, with the headset on-hook.	
2. Press **SD** button ...or **Speed Dial** + System Speed Dial Code.	See Table 8 on page 34.
3. Input the telephone number to be stored (up to 20 digits). ...or enter the feature code sequence.	See Table 4 on page 20.
4. Press **Redial**.	The information is stored in memory.
5. Repeat Steps 1~5 for each telephone number to be stored.	

Clearing a Speed Dial Entry

➤ Repeat the preceding procedure, skipping Step 4.

Accessing the Stored Number

➤ Press **Speed Dial** + its associated Speed Dial access code ...or press the **SD** button associated with the code.	

Note Write down the Speed Dial codes and telephone numbers for future reference.

Speed Dial—Advanced Features

Feature Access Codes

You can program **SD** (Speed Dial) buttons with feature access codes for a single feature or a sequence of features as long as the keyed dial pad characters do not exceed 20 digits. To determine how many digits you have, count 2 digits for **Cnf/Trn**, [PDN] and **Hold** feature buttons and 1 digit for all other dial pad characters.

See Table 4 for a list of feature access codes.

➤ **To store a feature onto a SD** button

➤ **Redial** + **SD** + Feature Access Code + **Redial**.

- See Table 4 on the following page for Feature Access code sequences.
- **SD** = the speed dial button the feature is stored on.

➤ **To store a feature onto a speed dial code**

➤ **Redial** + **Speed Dial** + Speed Dial Access Code + Feature Access Code + **Redial**.

Important!

- *Do not lift the handset.*
- *If you do not enter the entire sequence within a specified time (set in system programming for either one or three minutes), the operation times out and your telephone returns to idle mode.*
- *If your telephone does not have a Speed Dial, press "*" instead of Speed Dial and enter 44 instead of # in all feature sequences.*
- *[PDNs] can be stored in speed dial sequences but [PhDNs] and [SDNs] cannot.*

Table 4 Feature Access Codes

Features	Feature Access Code Sequence
Account Code[1] (Frequently used codes)	**Cnf/Trn + #46** + Account code digits
Automatic Callback	**4**
Background Music[2] (Telephone Speakers ON)	[PDN]] + **#491**
Background Music[2] (Telephone Speakers OFF)	[PDN] + **#490**
Call Forward—All Calls (To Station or VM)	[PDN] + **#601** + Directory Number
Call Forward—Busy (To Station or VM)	[PDN] + **#602** + Directory Number
Call Forward Cancel	[PDN] + **#601**
Call Forward—No Answer	[PDN] + **#603**
Call Forward External	[PDN] + **#670**
Call Forward External Cancel	[PDN] + **#670**
Door Phone Calling	[PDN] + door phone Directory Number
Hookflash Signal[1]	**Cnf/Trn** + **#45**
Off-hook Call Announce (Manual Mode)	Voice First **2**; Tone First **1**, **2 1**, or **1 2**
One-touch Voice Mail Access	[PDN] + Voice Mail Directory Number
Outgoing Calls	[PDN] + Exchange line access code (See Table 5 on page 32.)
Overrides (Busy, DND)	**2**
Overrides (Executive)	**3**
Page Access[4]	**Hold** + [PDN] + [**#**XXX] where: [**#XXX**] =Page access code (See Tables 6 and 7 on Page 33.)
Park Call/Access Page The existing call is parked and you are automatically connected to the page.	**Cnf/Trn** + **#331** + [X X X] + [Y Y Y] where: [X X X][3]= 9 0 0~9 1 9 or 999 park zone number; [Y Y Y] = page group/zone (See Tables 6 and 7 on Page 33.
Pickup[4] (Directed to station, new, or transferred call)	**Hold** + [PDN] + **#5** + station number [PDN]
Pickup a held or ringing [PDN] or [PhDN] (not available on all systems)	[PDN] + **#5#2** + [X X X X] where: [X X X X] = [PDN] or [PhDN] to be picked up

Table 4 Feature Access Codes *(continued)*

Features	Feature Access Code Sequence
Pickup[4] any ringing Exchange line (new call only)	**Hold** + [PDN] + **#59**
Pickup Station Page or Ringing Door Phone[4]	**Hold** + [PDN] + **#5#30**
Pickup[4] External Page	**Hold** + [PDN] + **#5#35**
Pickup Line on Hold (lines 1~99)[5]	[PDN] + **#5** + **#70** (**01~99**)
Pickup Line on Hold (lines 100~200)[6]	[PDN] + **#5** + **#7** (**100~200**)

1. These codes can be used during an Exchange line call.
2. Background music speakers can only be turned ON/OFF from the Administrator's telephone.
3. XXX = Auto Park Orbit 9 9 9 (access the next available park orbit), or General Park Zones 900~919, or [PDN] on which the call should be parked. Only use 999 with LCD telephones.
4. This feature will hold an existing call when the button is pressed. If the button is pressed when not on a call, pickup or page will still be accessed. These codes can be used during an Exchange line call.
5. After pressing the feature button, the user dials the line number (01~99) to pickup the line.
6. After pressing the feature number, the user dials the line number (100~200) to pickup the line.

Speed Dial Pause and Flash/Recall Storage

Some Speed Dial numbers may require a pause (long or regular) or hookflash be included (e.g., tone delay requires a pause at the beginning of a Speed Dial number).

Hookflash	Regular Pause	Long Pause
The **Flash** button stores a flash signal only if **Spd Dial Pause** is programmed as a flexible button on the telephone. The flash signal is 0.5 or 2 seconds long (set in system programming) and is displayed on the LCD as "**F-**". Press **Flash** ...or enter the hookflash dial code (**Cnf/ Trn** + **#45**).	The pause is either 1.5 or 3 seconds (set in system programming). The LCD displays "**P-**". Press **Spd Dial Pause** ...or if **Spd Dial Pause** is not on the telephone, press **Flash** to store a pause.	Ten-second pause, which can be entered anywhere in the Speed Dial number. The LCD displays "**L-**". Press **Spd Dial Lng Pause**.

Speed Dial Number Linking

You can link any of the Station Speed Dial numbers to System Speed Dial codes or to any of the optional buttons associated with these codes. The Administrator station can be used to link System Speed Dial Codes. This enables lengthy digit strings to be stored under one Station Speed Dial button or code.

The number directly stored in the System Speed Dial number dials out first, then the number linked to it. Typically, a company's special carrier access telephone numbers are stored as part of the digit string.

➤ **To link system/system speed dial numbers**

1. Press **Redial**.	
2. Press **SD** ...or **Speed Dial** + a System Speed Dial Access Code.	See Table 8 on page 34 for Station Speed Dial Access Codes.
3. Press **Speed Dial**.	
4. Enter the System Speed Dial Access Code to which the number will be linked.	See Table 9 on page 34 for System Speed Dial Access Codes.
5. Enter the telephone number to be stored (max. 17 digits).	
6. Press **Redial**.	The number is stored and is automatically dialed when the optional linked station **SD** button is pressed or the linked Station Speed Dial access code is dialed.

Linked Speed Dial Example

Note Your system must be programmed for "Toll Restriction Override by System Speed Dial" to allow this example.

➤ To store an Exchange line access code plus a long distance carrier access code (10288) and link to *690

In the following example, you are going to link ***990** to a telephone number and store it in System Speed Dial location ***600**.

1. Press **Redial** + **Speed Dial** + **990** + [PDN] + **910288** + **Redial**	The Exchange line access code and the long distance carrier code (910288) in the System Speed Dial location ***990** is stored. **Note** "I" displays when the [PDN] is stored. ♦ [PDN] is used to automatically access internal dial tone before dialling **910288**. ♦ **910288** = **9** is the Exchange line access code and **10288** is the long distance carrier access code.
2. Store the System Speed Dial information on Speed Dial Code **600** from the Administrator station.	
3. Press **Redial** + **Speed Dial** + **600** + **Speed Dial** + **99017145553700** + **Redial.**	♦ **600** is the System Speed Dial Code. ♦ **990** is the System Speed Dial Code that is being linked to code **600**. ♦ **17145553700** is the telephone number with area code.

➤ **To use the new link**

➤ From any station, press **Speed Dial** + ***600** or press **SD** (**600**) button if available on the calling station. The telephone automatically dials **9** to access an Exchange line, then the carrier access code (**10288**) plus the telephone number (**17145553700**).

Speed Dial Memo

This feature enables the Administrator station to program an 11- or 12-character name for each of the system Speed Dial numbers. You can scroll through the memo pad of names to select the appropriate party.

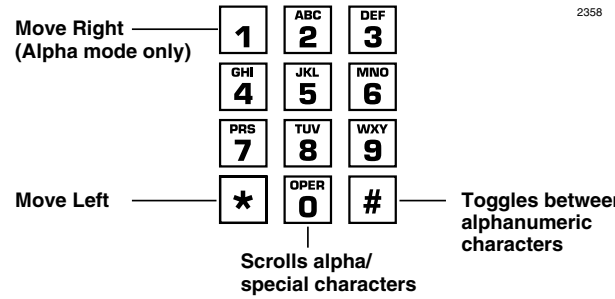
Notes

- Before entering names for Speed Dial Numbers, turn off the Soft Key feature by pressing **Mode** + **70** when the telephone is idle. After entering the names, turn the feature back on by pressing the **Mode** + **71** when the telephone is idle.
- For your convenience, use the "Telephone Location Record" on Page 37 for recording speed dial numbers with memos from the Administrator station.

➤ **To program names and numbers**

1. Press **Redial**, then **Speed Dial**.	The LCD displays: **#* NNN SPEED DIAL**
2. Enter the Speed Dial number.	The current name/memo and its code displays (see Tables 8).
3. Press **Mode**.	The name/memo appears as you enter it.

4. Enter up to 12 alphanumeric characters, (see the figure at the right) using the station keypad.



5. Press **Mode**.
6. Press [PDN], then enter the desired Exchange line access code, plus the telephone number (20 digits maximum).

The number appears as you entered it. Speed Dial numbers and memos and their corresponding two- or three-digit codes can be recorded on the Speed Dial Memo Directory at the back of this guide.

Note If telephones use direct appearing Exchange line buttons to place outgoing calls–do not press [PDN] in Step 6.

7. Press **Redial**.
8. Repeat Steps 1~7 to enter more names/memos.

The data is recorded into memory.

➤ To view and/or dial a Speed Dial number

1. Press **Mode** + **8**XXX.

   The Speed Dial number appears with a name or memo.

   MODE NO.8XXX

   XXX = Personal or System Speed Dial Codes.

   See Tables 8.

   Note It is recommended that you record Speed Dial numbers and memos and their corresponding three-digit codes on the Speed Dial Memo Directory at the back of this guide.

2. Press **Page** to scan the directory for the appropriate number/memo.

3. Press any available **Line** or [DN] + an Exchange Line Access Code.

   The number is dialled.

   See "Exchange Line Access Codes" on Page 31.

➤ To check a Speed Dial number

1. Press **Mode** + **8**.

   See Tables 8. The LCD displays a "+" sign if there are more than 16 digits.

2. Enter a speed dial code.

   Note If the number is longer than 16 digits, press **Scroll** to display the remaining digits.

3. To see the next number, press **Page**.

Toll Restriction Override/Travelling Class Codes

As a System Administrator, you can add or change Toll Restriction Override codes. When a station dials these override codes, after accessing an outside line or LCR, the station Toll Restriction Class is changed to that assigned to the override code dialled (Travelling Class). To add, change or delete Toll Restriction Override or a Travelling Class code, the following steps must be performed from the Administrator's telephone.

➤ **To add/delete/change toll restriction override or travelling class codes**

1. Press [DN].	You hear a confirmation tone.
2. Enter the Travelling Class access code **#691~#698**	The code appears on the LCD as you enter it and you hear a dial tone.
...or enter **#691**~**#698** to change the assigned TR Class 01~08 Travel Class Codes respectively.	
...or enter the Toll Restriction Override access code **#654~#655**	**#654**~**#655** represent override Codes 1 and 2 respectively.
3. Enter the desired four-digit override code.	

4. Press **Redial**.	You hear a confirmation tone. The code is stored in memory. **NO. NNN DATA PROGRAMMED**
	Notes • When making outgoing calls, dialling the Travelling Class code puts the telephone in the Toll Restriction class of the code that was dialled. • When making outgoing calls, dialling the Override code, overrides all toll restrictions that may be normally applied to the telephone. • The Toll Restriction Travel Class/Override codes do not print on SMDR reports.
5. Repeat Steps 1~3 to enter up to eight Travelling Class codes and two Toll Restriction Override codes.	
6. Press **Spkr**.	The telephone returns to the idle mode.

➤ **To delete toll restriction override or travelling class codeVerified Account Codes**

1. Press a [DN] and dial the assigned toll restriction override change access code: **#691**~**#698** or **#654**~**#655**.	You hear a confirmation tone.
2. Press **Redial**.	You hear confirmation tone.
3. Press **Spkr**.	The telephone returns to the idle mode.

Verified Account Codes

Adding, deleting, or changing Verified Account Codes can be done at designated stations only. The privileged stations are assigned by the system programmer.

➤ **To add or change verified account codes**

1. Press [DN] + **#659**.	You hear a confirmation tone.	NO.NNN VERIFY ACC SET
2. Enter the desired three-digit verified account code reference number (**000**~**299**) or (**000**~**499**) for some systems.	Account codes appear on the LCD as you enter them. All systems have 300 account code numbers (**000**~**299**), except the B5CAU/B5CBU processor, which has 500 (**000**~**499**).	NO.NNN ERIFY ACC SET XXX
3. Enter the verified account code. The system is programmed for ___digits.	Account codes can be 4~15 digits long; the number of digits is set system wide for all account codes in system programming. The code appears on the LCD as you enter it.	NO.NNN XXX XXXXXXXXXXXX
4. Press **Redial**.	You hear a confirmation tone. The code is stored.	NO.NNN DATA PROGRAMMED
5. Press **Spkr**.		
6. Repeat Steps 1~4 to enter more verified account codes.	The telephone returns to the idle mode.	

➤ **To delete verified account codes**

1. Press [DN] + **#659**.	You hear a confirmation tone.
2. Enter the three-digit verified account code reference number (**000**~**299**) or (**000**~**499**) to be deleted.	You hear a confirmation tone.
3. Press **Redial**.	The telephone returns to the idle mode.
4. Press **Spkr**.	

Access Codes A

This appendix contains access codes for outside Speed Dial numbers, Exchange lines, Paging Group and Paging Zone Codes.

Exchange Line Access Codes

Exchange lines are used when you dial an outside number. If your telephone does not have a **CO** or **Line** button, you can enter the appropriate code listed in Table 5 to access an outside line.

You can also store the code on a Speed Dial (**SD**) button for one-touch access. If you are storing an Exchange line access code onto a Speed Dial code, enter **44** before the Exchange access code (e.g., to store code **#7001**, enter **447001**).

In some systems, **9** is used as a general group code or to access Least Cost Routing (LCR). System users are required to dial **9** in order to access an outside line. If you press **9** in a system programmed with LCR, you may not hear internal dial tone, depending on system programming.

See your System Administrator for the code which applies to your telephone.

➤ **To access a line**

➤ Press [PDN] + Exchange Line Access Code (Table 5).

Table 5 Exchange Line Access Codes

Processor	Exchange Line Access Codes
B1CU	**9** or **801~808** or **#7001~#7032**
B2CAU/B2CBU & B3CAU/B3CBU	**9** or **801~816** or **#7001~#7120**
B5CAU/B5CBU	**9** or **801~816** or **#7001~#7200**

Notes

- **9** accesses LCR or general line group.
- **801~816** accesses line groups 1~16, respectively.
- **#7001~#7200** accesses individual lines 1~200, respectively.

Feature Access Codes

See Table 4 on page 20.

Paging Group Codes

Your telephone can be assigned to page group(s). Telephones can be a member of more than one group and each group can have as many as 120 stations. Station users can access each group separately by dialling an access code (see Table 6 and Table 7 on page 33).

➤ **To enter a paging group access code**

➤ Press [PDN] + Access Code

Table 6 Paging Groups

Paging Group	Access Code	Paging Group	Access Code
Station Group A	**#311**	Station Group E	**#315**
Station Group B	**#312**	Station Group F	**#316**
Station Group C	**#313**	Station Group G	**#317**
Station Group D	**#314**	Station Group H	**#318**

Table 7 External Paging Zones

External Paging Zone	Access Code	External Paging Zone	Access Code
All processors			
Paging All Call Page Zone	**#30**	Paging All Call, External Page Zone	**#39**
B1CU. B2CAU/B2CBU, B3CAU/B3CBU			
Zone A	**#35**	Zone C	**#37**
Zone B	**#36**	Zone D	**#38**
B5CAU/B5CBU			
Zone A	**#351**	Zone E	**#355**
Zone B	**#352**	Zone F	**#356**
Zone C	**#353**	Zone G	**#357**
Zone D	**#354**	Zone H	**#358**

Speed Dial Access Codes

The number of station and system speed dial numbers available to you depends on the size of your company's telephone system. Check with your System Administrator to find out which codes apply to your system.

Once you store a telephone number on any of the codes listed below, you can dial the number by entering the code, such as ***100** or **Speed Dial** + **100**.

Table 8 Speed Dial Access Codes

Telephone System Size		Station Speed Dial Codes	System Speed Dial Codes
Small	B1CU	**100~139**	**200~999**
Medium	B2CAU/B2CBU & B3CAU/B3CBU	**100~139**	**200~999**
Large	B5CAU/B5CBU	**100~139**	**200~999**

Table 9 System Speed Dial Number Linking

Processor	System Speed Dial Codes that can be Linked to other Speed Dial Codes
B1CU, B2CAU/B2CBU & B3CAU/B3CBU	**990~999**
B5CAU/B5CBU	**990~999**

Directories/Record

B

User Name/Number Directory

Name/Numbers are limited to 16 alphanumeric characters and are displayed on the top row or idle LCD stations and the bottom row of called LCD stations.

This directory is provided for the Administrator station for referencing and recording of other station Name/Numbers.

Station #:___________

D	A	T	E		D	A	Y		T	I	M	E			

Station #:___________

D	A	T	E		D	A	Y		T	I	M	E			

Station #:___________

D	A	T	E		D	A	Y		T	I	M	E			

Station #:_____

D	A	T	E		D	A	Y		T	I	M	E			

Speed Dial Memo Directory

Speed Dial memos are limited to 12 characters for the memo (top row of LCD) and 16 digits/pauses for the dial number (bottom row of LCD).

This directory is provided for recording Speed Dial numbers with memos from the Administrator station.

***Code: 11-Character Memo Example**

*	6	0	0	-	M	E	M	O		H	E	R	E		
S	P	E	E	D		D	I	A	L	#		H	E	R	E

*				-											

*				-											

*				-											

*				-											

Telephone Location Record

➤ **To view [PDNs], port numbers (physical and logical), and [DNs] of LCD telephones**

1. Press a [DN] + **#401**.	The [PDN] is displayed as INT = NNN (NNN = directory number of button).
2. Press a [DN] + **#402**.	The "Physical" port number and the "Logical" port number of an LCD telephone is displayed.
3. Press any [DN] + **#407** to display the button directory number.	The button [DN] is displayed as DN = NNN (NNN = directory number of button).

Note It is recommended that each location, [PDN], and user name are recorded in the table provided below.

Room/Office Location	Primary Directory Number	User's Name

Room/Office Location	Primary Directory Number	User's Name

Notes to Users

Step 1: Safety Approval

Toshiba Information System (U.K.) Ltd declare that the Strata CT complies with the EEC's LVD directive, (Directive No. 73/23/EEC). The product has been assessed and found to comply with EN60950:2000.

The notes listed below form part of the products compliance with the aforementioned European Norm.

1-1. The system, PCOU/RCOU/RCOS unit, must be earthed. The earth connection must be hardwired to a main distribution point. The main cabinet must be earthed.

1-2. Table A1 below identifies and classifies the ports available on the system:

Table A1

Type of Circuit (EN60950 Classification)	Port Location	Port Description
SELV	Power Supply BPSU672F	For connection of external 24 volt batteries.
SELV	Processor Boards: B1CU1F, B2CAU1A, B3CAU1A, B5CAU1A	For connection of external Music-on-Hold source
SELV	PDKU2A	For connection of Toshiba propriety terminals.
SELV	PEKU2F	For connection of Toshiba Visually Handicapped Console terminals.
TNV3	RSTU1F	For connection of approved 2 wire devices.
TNV3	RSTU3F	For connection of approved 2 wire devices.
TNV3	PCOU2F/PCOUS2F	For connection to PTO provided Loop Call Unguarded Clear exchange lines.
TNV3	RCOU3F/RCOS3F	For connection to PTO provided Loop Call Unguarded Clear exchange lines.

Table A1 *(continued)*

Type of Circuit (EN60950 Classification)	Port Location	Port Description
TNV1	RBSU2A	2 Cct ISDN2, (CTR3), Basic Rate I/F. For connection to euro-ISDN services.
TNV1	RBSU1A	2 Cct ISDN2, (CTR3), Basic Rate I/F. For connection to euro-ISDN services.
TNV1	RBSS1A & RBSS2A	2 Cct ISDN2, Basic Rate I/F. For connection to euro-ISDN services.
TNV1	RPTU1F	1ccts ISDN30, (CTR4), primary rate I/F> For connection to euro-ISDN services.
TNV2	PACU2F	4Cct AC15 Private Circuit I/F, (CTR17). For connection to PTO Private Circuit services.
TNV2	PEMU2F	4Cct AC15 Private Circuit I/F, (CTR17). For connection to PTO Private Circuit services.
SELV	PEPU2A	Contains various ports for connection of audio paging amplifiers, dry relay contacts to control external equipment.
SELV	PIOU2A	Contains various ports for connection of audio paging amplifiers, dry relay contacts to control external equipment,two RS232 ports for connection to PCs or printers.
SELV	PIOUS2A	Contains various ports for connection of audio paging amplifiers, dry relay contacts to control external equipment,two RS232 ports for connection to PCs or printers.
SELV	RSIU1A	Serial port board, (1 x V24), for programming/Call Logging.
SELV	RSIS1A	Serial port board, (1 x V24), for programming/Call Logging. Fits on RSIU1A.
SELV	RRCU1A	Optical interface board for connecting remote cabinets.
SELV	EKT and DKT	Headset ports on any of the range of key telephones.

Any peripheral apparatus connected to the above ports must have the same EN60950 classification. ie.

- SELV ports must only be connected to SELV type ports.
- TNV ports must only be connected to TNV type ports.

1-3. The system must hardwired into a switched fused spur, this spur must be installed in accordance with 16th edition of the IEE wiring regulations, aka BS7671:1992.

1-4. Environmental Installation details.

The Strata CT is designed to work within the following environmental conditions:

- Operating temperature 0oC to 40oC
- Humidity 20% to 80%

1-5. Lithium Batteries

Warning! ***All service personnel are informed that Lithium type battery cells are fitted to the following units - B1CU1F, B2CAU1A, B2CBU1F, B3CAU1A, B3CB1F, B5CAU1A, B5CBU1F. In accordance with safety requirements you are advised that in the event of these cells going faulty, the entire unit must be returned to Toshiba Information Systems for correct disposal. Under no circumstances must the cells be removed or replaced.***

Step 2: EMC Compliance

Toshiba Information Systems (U.K.) Ltd declare that the Strata CT complies with the EEC's EMC directive, Directive No. 89/366/EEC as amended by directive 92/31/EEC. The product has been assessed and found to comply with the following generic standards, in the present absence of any product specific standards:

- EN55022:1998, (Emissions)
- EN52024:1998 (Immunity)

The notes listed below form part of the products' compliance with the aforementioned European Norm.

To ensure EMC compliance the system must installed in accordance with the instructions in the "Installation and Maintenance" manual. In order to maintain compliance any shielded cables supplied and/or ferrite suppression cores must be used.

Equipment details

Base Cabinet Dimensions:	Expansion Cabinet Dimensions:
Height - 296mm	Height - 254mm
Width - 672mm	Width - 672mm
Depth - 270mm	Depth - 270mm
Weight - 14.1kg (fully equipped)	Weight - 14.1kg (fully equipped)

Warning! ***This is a Class A product. In a domestic environment this Product may cause radio interference in which case the User may be required to take adequate measures***

Step 3: Type Approval

Toshiba Information Systems (UK), Ltd, (TIU), hereby declares that the Strata CT product complies with the requirements of the EC Directive 1999/5/EC, (aka Radio & Telecommunications Terminal Equipment directive). A manufacture's Declaration under this Directive allows connection to the relevant Public Network Services and the right to place the Product on the market.

The Strata CT is classified as "Call Routing Apparatus" it is intended to be connected to the various Public Telecommunications Network Services for the purpose of generating and terminating "calls". Table A2 below lists the intended purposes of all the system interfaces.

Table A2

Interface Type	Network Service
PCOU2F/RCOU3F/RCOS3F	Analogue Loop Calling Unguarded Lines
RPTU1F	Euro ISDN30 service. Approved to CTR 4.
RBSU1A & RBSU2A	Euro ISDN2 service. Approved to CTR 3.
PACU2F	Analogue 4 wire Private Circuits, uses AC15 signalling. Approved to TBR 17.
PEMU2F	Analogue 4 wire Private Circuits, uses DC5 signalling. Approved to TBR 17.

The system must be installed in accordance with BS6701 parts 1 and 2, the latest issue shall apply.

Toshiba Information Systems claim approval to OFTEL general variation NS/V/1235/P/100020. The information contained in this paragraph supports Toshiba's claim:

The following features require the interconnection of 2 or more exchange lines.

- Multi-party conferencing
- Call Forward External*
- Translation of Un-used Extension numbers*
- DISA*

Warning!** ***These features can allow an Incoming callers access to an outgoing exchange line. There is an engineering programming parameter which can disable these features. In addition the DISA feature can be "password" protected. USERS SHOULD BE AWARE THAT THESE FEATURES CAN BE USED FOR FRAUDULENT PURPOSES. Please consult your supplier to ensure any necessary security measures are enabled.

Step 4: Network Planning Information

4-1. Strata CT Tone Plan.

Table A3 below lists the characteristics of the tones and signals used in Strata CT.

Tones/Signal to:	Frequency	Cadence	Meaning
Exchange Line	Music On Hold	N/A	Call on Hold
DKT	500/640Hz modul.10Hz 1300/1780Hz modul.10Hz 860/1180Hz modul.10Hz 2000Hz mod by 10Hz 500Hz 1000/800Hz 1000/800Hz 660/500 2000Hz	1s On 3s Off 1s On 3s Off 1s On 3s Off 1s On 3s Off 1s On 3s Off 0.6s On 1000Hz/0.6s On 800Hz 0.6s On 1000Hz/0.6s 800Hz 0.7s On 660Hz/0.7s On 500Hz 1s On 3s Off	I/C PSTN call Opt.1. I/C PSTN call Opt.2. I/C PSTN call Opt.3. I/C PSTN to Busy DKT I/C Int call Call from D/phone A Call from D/phone B Call from D/phone B Busy/DND Override
2 Wire extns	20Hz DTMF A DTMF D DTMF B MWI Signal	1s On 3s Off 80 or 160mS 80 or 160mS 80 or 160mS 0.9 ON/0.1s Off	Ring Signal Voice Mail Answer Voice Mail Disconnect Voice Mail Recall Message Waiting Signal
Tie Lines	400Hz 350/440Hz 400/450Hz 400HZ	0.375s On/0.375s Off Continuous 0.4 On/0.2s Off/0.4s On/2s Off 0.375s On/0.375s Off	Extension Busy Dial Tone Ring Tone Delay Busy Tone
DISA calls	400Hz 350/440Hz 4000/450Hz 400Hz	0.375s On/0.375s Off Continuous 0.4 On/0.2s Off/0.4s On/2s Off 0.375s On/0.375s Off	Extension Busy Dial Tone Ring Tone Delay Busy Tone
Internal general	350/400Hz 400/450Hz 400Hz 400Hz 400Hz	Continuous 0.4 On/0.2s Off/0.4s On/2s Off 0.375s On/0.375s Off 0.375s On/0.375s Off 1s On	Dial Tone Ringing Tone Extension Tone NU/Reorder Tone Executive override

4-2. System Port to Port losses.

Table A4 below lists the various “typical” transmission gains/losses when inter-connecting the various port types.

Sys Port Type	PCOU2F		RBSU1A		RPTU1F		PEMU2F		PACU2F		RSTU3F	
	to	fm	to	fm	to	fm	to	fm	to	fm	to	fm
PCOU2F/RCOU3F/RCOS3F	3.7	3.7	1.8	1.9	1.8	1.9	3.1	3.2	-0.7	-1.5		
RPTU1F	1.9	1.8	0	0	0	0						
RBSU2A	1.9	1.8	0	0	0	0						
PEMU2F	3.1	3.2	1.3	1.3	1.3	1.3	2.6	2.6	-2.0	-2.0		
PACU2F	-0.7	-1.5	-3.4	-2.5	-3.4	-2.5	-2.0	-2.0	-6.0	-6.0		
RSTU3F	_0.5	-1.0	-2.4	-2.8	-2.4	-2.8	-1.1	-1.5	-5.9	-6.2	-5.2	-5.2

-Values indicate a transmission loss.

4-3. Loudness Rating.

The table below lists the measured loudness rating of the Toshiba proprietary terminals.

SLR and RLR @ 0km PSTN. (All values are +/-dB)

System Port Type	PDKU2F ITS-A	
	SLR	RLR
PCOU2F/RCOU3F/RCOS3F	1dB	-5dB to -16dB
RPTU1F/RBSU1A/TBSU1A	6dB	2dB to -10dB
PEMU2F	4dB	-2dB to -14dB
PACU2F	8dB	0dB to -9dB

Index

T

U

V

W