



Model PBX816ex

Programming & User Guide

Contents

Introduction.....	5
Installation hints.....	5
Expanding Your System.....	5
System programming.....	6
System password	6
Changing the password.....	6
Exchange line set up	6
One Exchange Line connected	6
Two Exchange Lines connected	7
Six Exchange Lines connected	7
Telephones with caller display and Date/Time features	7
Setting the date and time.....	7
Set the date.....	7
Set the time (24 hour clock)	7
Change extension numbers.....	8
Change the number of digits and lead digit for extensions.....	8
Assigning incoming calls.....	8
Add extensions 2007 and 2008 to ring on line 1.....	9
Further examples	9
Assign extensions 2007 and 2008 only to ring on line 1	9
Assign extensions 2005 and 2006 only to ring on line 2:	9
Add extensions 2005, 2006 and 2007 to ring on line 3:	9
Assigning outgoing calls	9
Extension to specific exchange lines.....	9
Exchange line to specific extension or extensions	10
Assign extensions for Direct Dial mode	10
Least Cost Routing (LCR) for all calls.....	11

Accessing IP Calls.....	11
Call Barring / Call Restrictions	12
Internal calls only Group 0.....	12
Assign Groups 1 - 6 or 0 to extensions	12
Call Barring on a line-by-line basis	13
Set a time limit for outgoing calls	13
Hotline	14
Music On Hold	14
Check or listen to Music On Hold	14
Auto Attendant (DISA)	14
Record the Auto Attendant outgoing message (OGM)	14
Playback the Auto Attendant outgoing Message (OGM)	15
OGM if the extension is busy.....	15
Playback the Extension Busy OGM.....	15
OGM if extension is unanswered after 25 seconds.	15
Playback the Unanswered OGM	15
Assign operator extension(s) for the Auto Attendant mode	15
Assign all lines for Auto Attendant.....	15
Assign a single line for Auto Attendant.....	16
Remove the Auto Attendant feature from all lines	16
Auto Divert to operator	16
Auto-Fax Detect	16
Assign single digit for Auto Attendant operation	16
Assign single digits for an extension or extensions	17
Day Night Service using Auto Attendant on/off.....	17
Installing Expansion Cards.....	18
Extension features/ Call handling	18
Place a call on hold.....	18
Retrieve a call on hold.....	18
Place a call on hold and answer another.....	18
Extension to extension calls	19

Transferring calls.....	19
Call Pick Up.....	19
Conference Calls.....	19
Confirm extension number	19
Operator call.....	19
Ring-back on Busy	19
Transfer calls when busy.....	20
Transfer all calls to another extension.....	20
Transfer all calls to your secretary.....	20
Do Not Disturb mode	20
Select a specific line on a call-by-call basis.....	20
Remote Programming.....	20
Caller Display	21
Caller Display extension to extension.....	21
Call Divert using BT's Star Services	21
Broadcasting/Public Announcement.....	21
Troubleshooting & FAQ's.....	22
Factory Default settings.....	22
Reset the system to factory default settings.....	22
Reset password	22
No dial tone on extension handsets	22
Unable to dial 9 for a line	22
Not all extensions ring on incoming calls	22
Unable to call another extension	23
Unable to transfer calls	23
Unable to program the PBX	23
How to make a call out on a specific line	23
Add a PDQ (Credit Card) machine, fax Machine or Answer Machine.....	23
Contact Orchid for more assistance	23
Technical Specifications.....	24

Introduction

Thank you for choosing the Orchid Telecom PBX816ex telephone system. Please take time to read through this Programming and User Guide to get the most from your new purchase.

Installation hints

- Ensure the On/Off switch located on the left hand side of the PBX816ex is switched to On. (-)
- Only extensions 2001 to 2004 will ring on incoming calls (factory default setting) unless you nominate any other extensions to ring. See page 8

Expanding The System

The PBX816ex system can be expanded to a maximum capacity of 16 lines and 128 extensions. This is done by simply plugging in expansion cards containing either 8 lines or 8 extensions. See page 18 for instructions and contact your supplier for further details.

System programming

All programming is done on Extension **2001** only.

Note: After programming a line successfully you will hear the message '*Your instructions are successful*' after you enter the # If you make a mistake you will hear '*You have entered an incorrect instruction, try again later*'

If you are programming a number of features you do not need to enter # and hang up after each feature string. If the entry is successful you will hear the confirming message and, instead of hanging up, you can continue with programming the next feature.

In this guide all dialled digits will appear in **red** text.

System password

The factory default password is: *** * 0 1 (1234) #**

Every time you successfully enter the password you will hear the message: '*System unlocked is successful, you can start operating*'. If you make a mistake you will hear the message '*You have entered an unsuccessful instruction, try again later*'.

Changing the password

Ext 2001 Dial:	Current Password	* *	0	1	1234	#	
		* *	0	2	xxxx	#	Hang up

Your new password will be xxxx.

Note: When you enter the programming mode on extension 2001 all the other extensions will be cut off. Therefore ensure that other extensions are not on calls before you start programming.

To simplify all future programming, we strongly recommend that you store your new password into a one-touch memory.

Exchange line set up

The PBX816EX is configured at the factory for 8 exchange Lines to be connected. If you have less than 8 connected it is important the system is set-up for as many lines as you do have connected

For example:

One Exchange Line connected

Ext 2001 Dial	Password	*	31	1	#	Hang up
---------------	----------	---	----	---	---	---------

Two Exchange Lines connected

EXT 2001 Dial	Password	*	3	1	1	2	#	Hang up
---------------	----------	---	---	---	---	---	---	---------

Six Exchange Lines connected

Ext 2001 Dial	Password	*	3	1	1	2	3	4	5	6	#	Hang up
---------------	----------	---	---	---	---	---	---	---	---	---	---	---------

If an Expansion card is fitted see page 18

Telephones with caller display and Date/Time features

If you are intending to use telephones with the above features on the PBX816ex you must program the **Date/Time** settings on the PBX.

The PBX816ex will update your Caller Display log with the time/date of each Incoming call and calls from other extensions.

There is no need to set the **Date/Time** on your telephones because the PBX816ex will do this automatically when the phone first rings.

Setting the date and time

Note: At the end of every successful programming sequence you will hear a confirming beep.

Set the date

On Extension 2001 you will need to dial the Password * 95 1 yy mm dd dow # (where DOW Monday = 1, Tuesday = 2 etc).

For example: Thursday 29 March 2012 would be

Ext 2001 Dial	Password	*	9	5	1	1	2	0	3	2	9	4	#	Hang up
---------------	----------	---	---	---	---	---	---	---	---	---	---	---	---	---------

Set the time (24 hour clock)

On extension 21 you will need to dial the **Password** * 952 hh mm #

For example: 3.20 pm would be

Ext 2001 Dial	Password	*	9	5	2	1	5	2	0	#	Hang up
---------------	----------	---	---	---	---	---	---	---	---	---	---------

Change extension numbers

As currently configured the PBX816ex extensions are 4 digits long and numbered 2001 to 2016 (and up to 2128 if expanded to maximum capacity). These can be changed to any numbers you want from 100 to 8999

Change the number of digits and lead digit for extensions

To Change to 3 Digit Extension Numbers

If you do not want to expand the system to more than 96 extensions you may want to change the extension numbers to 3 digits

Example 1: Change Extension numbers to say 201 to 296 (max 296)

Where 2 is the lead digit and 3 is the number of digits

Ext 2001 Dial	Password	*	72	2	3	#
		*	74	2	3	#

Then hang up

Example 2: Change Extension numbers to 701 to 796 (max 796)

Where 7 is the lead digit and 3 is the number of digits

Ext 2001 Dial	Password	*	72	7	3	#
		*	74	7	3	#

Then hang up

If you have already changed the lead digit and want to change it again

Example 2: Change Extension numbers to 701 to 796 (max 796)

Where 2 is the existing lead digit and 5 is the new lead digit:

Ext 2001 Dial	Password	*	73	2	5	#
----------------------	-----------------	---	----	---	---	---

Then hang up

Assigning incoming calls

This is a useful feature for spreading the incoming call load over certain extensions or a specific line direct to a specific extension. This is useful if you are sharing the PBX with another company or connecting a Fax machine to an extension.

Up to 8 extensions can be programmed to ring on incoming calls

IMPORTANT: The factory set default is to ring extensions 2001 to 2004 only.

If you want more than these 4 to ring you can add further extensions, please use the following examples to help you get your PBX set up as per your requirements.

Add extensions 2007 and 2008 to ring on line 1

Ext 201 Dial	Password	* 12	01	2007	#	* 12	01	2008	#	Hang up
--------------	----------	------	----	------	---	------	----	------	---	---------

Now extensions 2001 to 2004 and 2007 to 2008 will ring on line 1.

Further examples

If you do not want one or all of extensions 2001 to 2004 to ring, you must first clear the factory default settings and then assign the extensions you want to ring for each line:

Assign extensions 2007 and 2008 only to ring on line 1

Ext 2001 Dial	Password	* 11	01	#	This clears line 1
---------------	----------	------	----	---	--------------------

Then Enter:

* 12	01	2007	#	
* 12	01	2008	#	Hang up

Assign extensions 2005 and 2006 only to ring on line 2:

Ext 2001 Dial	Password	* 11	02	#	This clears line 2
---------------	----------	------	----	---	--------------------

Then enter:

* 12	02	2005	#	
* 12	02	2006	#	Hang up

Add extensions 2005, 2006 and 2007 to ring on line 3:

Ext 2001 Dial	Password	* 12	03	2005	#	
		* 12	03	2006	#	
		* 12	03	2007	#	Hang up

Now extensions 2001 to 2007 will ring on line 3.

Assigning outgoing calls

Extension to use specific exchange lines

A useful feature if you want to keep lines 1 and 2 free for incoming calls or other priority Extensions for outgoing calls. This does not restrict other extensions from using the same outside line.

Example: Restrict extension 2008 to use exchange line 3 only.

Ext 2001 Dial	Password	* 41	03	2008	#	Hang up
---------------	----------	------	----	------	---	---------

To cancel this assignment:

Ext 2001 Dial	Password	* 43	03	#	Hang up
---------------	----------	------	----	---	---------

Exchange line to specific extension or extensions

This applies to outgoing calls only, incoming calls can be answered by all extensions.

Example: Assign extensions 207 and 208 to be the only extensions that can make outgoing calls on line 3.

Ext 2001 Dial	Password	* 42	03	2007	#	
		* 42	03	2008	#	Hang up

To cancel this assignment:

Ext 2001 Dial	Password	* 44	03	#	Hang up
---------------	----------	------	----	---	---------

Assign extensions for Direct Dial mode

As currently configured all extensions must Dial 9 for a line (Factory Default Setting). This can be changed so that extensions automatically access the next available outside line as soon as they pick up the phone.

Convert all extensions to Direct Dial mode:

Ext 2001 Dial	Password	* 8	10	#	Hang up
---------------	----------	-----	----	---	---------

Revert all extensions to 'Dial 9' mode:

Ext 2001 Dial	Password	* 8	00	#	Hang up
---------------	----------	-----	----	---	---------

Convert extensions 2007 and 2008 **only** to Direct Dial mode:

Ext 2001 Dial	Password	* 82	2007	1	#	
		* 82	2008	1	#	Hang up

Revert extensions 2007 and 2008 **only** to dial '9' mode:

Ext 2001 Dial	Password	* 82	2007	0	#	
		* 82	2008	0	#	Hang up

Note: Direct Dial extensions must dial * in front of the extension number when making internal calls.

Least Cost Routing (LCR) for all calls

Many phone companies offer attractive rates for their national, mobile and international calls. To use their services however you will have to prefix all Internationals with a 4,5 or 6 digit access code.

The Orchid PBX816ex can be programmed to automatically insert the phone company's access code for all calls starting with 0, as follows:

To prefix all calls on **all** lines with Carrier Call 18185

Ext 2001 Dial	Password	* 35	18185	#	Hang up
---------------	----------	------	-------	---	---------

To Cancel LCR Prefix

Ext 2001 Dial	Password	* 35	#	Hang up
---------------	----------	------	---	---------

If you only want the LCR function on one line, for example, line 3:

Ext 2001 Dial	Password	* 34	03	18185	#	Hang up
---------------	----------	------	----	-------	---	---------

To Cancel LCR on line 3

Ext 2001 Dial	Password	* 34	03	#	Hang up
---------------	----------	------	----	---	---------

Accessing IP Calls or a Fixed Cellular Terminal (FCT)

As currently configured you need to dial 9 to access the BT or Cable line to make outgoing calls. If you also have an IP service connected to one or more of your lines you can program a digit 1 – 8 to access the IP or FCT service automatically.

Example 1: Assign Digit 7 to access IP or FCT service on lines 2 and 3

Ext 2001 Dial	Password	* 971	7	02	#	Hang up
---------------	----------	-------	---	----	---	---------

To Cancel, **Dial: * 971 #**

Example 2: Assign Digit 8 to access IP or FCT services on line 3

Ext 2001 Dial	Password	* 971	8	03	#
---------------	----------	-------	---	----	---

To cancel **Dial * 971 #**

To make IP or FCT calls dial 7 as in example 1, or 8 as in example 2.

Note: If your extensions have been changed for Direct Dial mode you need to dial * in front of the 7 or 8 above

Call Barring / Call Restrictions

The Orchid PBX816ex has a very flexible Call Restrictions package which should enable you reduce your phone Bill by eliminating unnecessary calls.

For example you can restrict individual or all extensions from calling premium rate numbers, International numbers, mobile numbers or calls to the speaking clock or Directory Inquires.

Calls can also be limited to just any of the 80 System Speed Dial memories.

Call types such as local, national, mobile, international, non-geographic, Directory Inquiries etc. can be programmed into Call Groups.

There are Call Barring groups 1 to 6, and each group can have up to 20 call types of up to 4 digits.

For example Group 1 could contain Premium rate 09 and mobile 07 call types, Group 2 could contain International calls to Asia 008 and Directory Inquiries 118 etc. These groups can be assigned to individual or all extensions.

Example 1: Assign 09 and 07 into group 1 and 008 and 118 into group 2.

Ext 2001 Dial	Password	* 57	1	09	#	07	* 57	2	118	#	Hang up
---------------	----------	------	---	----	---	----	------	---	-----	---	---------

Example 2: Assign 01 and 02 into group 3 and 100, 123, 00, 07 and 09 into group 4.

Ext 2001 Dial	Password	* 57	3	01	#	02	* 57	4	100	#	123	#	00	#	09	#	Hang up
---------------	----------	------	---	----	---	----	------	---	-----	---	-----	---	----	---	----	---	---------

Internal calls only Group 0

To assign extensions for internal calls only they should be assigned to Group 0. The system has already been programmed for Group 0 to only allow internal calls. For example, you may have a phone in your reception area or in a public area.

Assign Groups 1 - 6 or 0 to extensions

Example 1: Assign Group 1 to all extensions (Group 1 may bar calls to 09 numbers)

Ext 2001 Dial	Password	* 54	1	#	Hang up
---------------	----------	------	---	---	---------

Cancel Group 1 being assigned to all extensions,

Ext 2001 Dial	Password	* 53	#	Hang up
---------------	----------	------	---	---------

Example 2: Assign Group 2 to Ext 2004 and Group 0 to Ext 2008

Ext 2001 Dial	Password	* 51	2004	2	#	* 51	2008	0	#	Hang up
---------------	----------	------	------	---	---	------	------	---	---	---------

Cancel extension 2004 being assigned to group 2

Ext 2001 Dial	Password	* 53	2004	#	Hang up
---------------	----------	------	------	---	---------

Call Barring on a line-by-line basis

This is a useful feature if you want to bar certain call types on specific lines, for example, if you want your colleagues to use Line 3 only for calls to mobiles because you have fitted a Fixed Cellular Terminal (FCT) on Line 3 and calls to mobiles will be cheaper.

Bar calls to mobiles (numbers starting with 07) on lines 1 and 2

Ext 2001 Dial	Password	* 58	1	07	#	* 58	2	07	#	Hang up
---------------	----------	------	---	----	---	------	---	----	---	---------

This will force your colleagues to use Line 3 to call a mobile as the call will not go through on lines 1 and 2. They will have to dial # 3 to call a mobile.

To access any line directly dial # followed by the line number.

Set a time limit for outgoing calls

All or individual extensions can be restricted to a maximum call time for each outgoing call. The maximum call time can be set for 1 to 60 minutes.

Example 1: Restrict **all** extensions to 3 minutes per outgoing call:

Ext 2001 Dial	Password	* 93	3	#	Hang up
---------------	----------	------	---	---	---------

Cancel all extensions being limited to 3 minutes for outgoing calls:

Ext 2001 Dial	Password	* 93	#	Hang up
---------------	----------	------	---	---------

Example 2: Restrict extensions 2007 and 2008 to 5 minutes for outgoing calls:

Ext 2001 Dial	Password	* 91	2007	05	#	* 91	2008	05	#	Hang up
---------------	----------	------	------	----	---	------	------	----	---	---------

Cancel extension 2008 limit of 5 minutes for outgoing calls:

Ext 2001 Dial	Password	* 92	2008	#	Hang up
---------------	----------	------	------	---	---------

Note: One minute before the end of the time limit a beep will be heard every 15 seconds.

Hotline

This is a useful feature for Reception or emergency phones. When the handset is lifted the phone automatically dials a given extension.

For this feature the factory default is to ring the operator on extension 2002. However the operator extension can be changed to another extension see page 8

Important: Do **not** change extension 2001 to Hotline mode as this affects the ability to program the system.

Example: Set extension 2008 to Hotline mode:

Ext 2001 Dial	Password	* 51	2008	91	#	Hang up
---------------	----------	------	------	----	---	---------

Remove the Hotline mode from extension 2008:

Ext 2001 Dial	Password	* 53	2008	#	Hang up
---------------	----------	------	------	---	---------

Music On Hold

The PBX816ex has an intermittent comfort tone which the caller hears while the call is being transferred or put on Hold. However, we recommend you make use of the external Music On Hold Port. This will provide a variety of music and a more professional image. A standard CD or MP3 player can be connected to this port using an Audio Cable with a 3.5 mm plug connected at both ends. Connecting from the music on Hold Port to the player's headset socket.

Check or listen to Music On Hold

Ext 2001 Dial	Password	*	2	4	#	Hang up
---------------	----------	---	---	---	---	---------

Auto Attendant (DISA)

All lines or individual lines can be programmed for Auto Attendant Mode (AA). In AA mode the PBX816ex answers incoming callers and they will hear your personalised Outgoing Message (OGM).

This enables you to instruct your callers to Dial 2001 for Sales, 2002 for accounts etc, or 0 for the Operator. Extension 2002 is Operator 1 and extension 2003 is Operator 2. If Operator 1 is busy the call will go to Operator 2.

Single Digits can be allocated for extensions – see page x

Record the Auto Attendant outgoing message (OGM)

You have up to 30 seconds for the OGM. A Suggested message is as follows:

'This is Smith and Co. If you would like the Sales department please Dial 2001, if you would like Customer Services please Dial 2008, and for all other enquiries, please Dial 0 for the operator'

Ext 2001 Dial	Password	*	221	#	Record message	Hang up
---------------	----------	---	-----	---	----------------	---------

Playback the Auto Attendant outgoing Message (OGM)

Ext 2001 Dial	Password	*	231	#	Listen to message	Hang up
---------------	----------	---	-----	---	-------------------	---------

OGM if the extension is busy

You can record a message to inform the caller to dial 0 for the operator because the extension is busy. The maximum message length is 30 seconds. A suggested message is as follows:

'I am sorry the Extension you require is Busy please dial 0 for the operator'

Ext 2001 Dial	Password	*	222	#	Record message	Hang up
---------------	----------	---	-----	---	----------------	---------

Playback the Extension Busy OGM

Ext 2001 Dial	Password	*	232	#	Listen to message	Hang up
---------------	----------	---	-----	---	-------------------	---------

OGM if extension is unanswered after 25 seconds.

You can record an OGM informing the Caller to Dial 0 for the operator because an extension is not answering. To record the Unanswered OGM, (maximum 15 seconds): a suggested message is as follows *'I am sorry, the Extension you require is not answering, please dial 0 for the operator'*

Ext 2001 Dial	Password	*	223	#	Record message	Hang up
---------------	----------	---	-----	---	----------------	---------

Playback the Unanswered OGM

Ext 2001 Dial	Password	*	233	#	Listen to message	Hang up
---------------	----------	---	-----	---	-------------------	---------

Assign operator extension(s) for the Auto Attendant mode

When the caller dials 0 for the operator, extension 2002 will ring, if 2002 is busy extension 203 will ring.

You can program the extensions of your choice for Operator 1 or Operator 2, which will answer if Operator 1 is busy.

Change Operator 1:

Ext 2001 Dial	Password	*	25 (extension number)	#	Hang up
---------------	----------	---	-----------------------	---	---------

Change Operator 2:

Ext 2001 Dial	Password	*	26 (extension number)	#	Hang up
---------------	----------	---	-----------------------	---	---------

Assign all lines for Auto Attendant

Ext 201 Dial	Password	*	20	#	Hang up
--------------	----------	---	----	---	---------

Assign a single line for Auto Attendant

Example: Assign Line 3 **only** to Auto Attendant

Ext 2001 Dial	Password	* 20	03	#	Hang up
---------------	----------	------	----	---	---------

Remove the Auto Attendant feature from all lines

Ext 2001 Dial	Password	*21	#	Hang up
---------------	----------	-----	---	---------

Auto Divert to operator

The factory default setting is for an incoming caller to be cut off if they do not dial one of the extension options.

This can be changed so that the caller will divert to the operator extension if they do not dial one of the options.

Ext 2001 Dial	Password	* 852	1	#	Hang up
---------------	----------	-------	---	---	---------

Note: If a caller hangs up during the outgoing message, the Operator Extension 2002 will still ring. If this becomes a problem you can always revert to factory default setting as follows:

Ext 2001 Dial	Password	* 852	0	#	Hang up
---------------	----------	-------	---	---	---------

Auto-Fax Detect

In Auto Attendant mode the PBX can detect an incoming fax and automatically transfer it to a Fax machine.

Example: Assign extension 2008 to automatically receive an incoming fax;

Ext 2001 Dial	Password	* 27	208	#	Hang up
---------------	----------	------	-----	---	---------

Cancel Auto fax detect

Ext 2001 Dial	Password	* 27	#	Hang up
---------------	----------	------	---	---------

Assign single digit for Auto Attendant operation

This feature enables your incoming callers to dial a single digit to access extensions, for example: Press 1 for Sales, 3 for Service, 4 for Accounts etc.

Example: Activate single digit operation

Ext 2001 Dial	Password	* 29	1	#	Hang up
---------------	----------	------	---	---	---------

Cancel single digit operation

Ext 2001 Dial	Password	* 29	0	#	Hang up
---------------	----------	------	---	---	---------

Assign single digits for an extension or extensions

Example 1: Assign extensions 2001,2002,and 2003 to Digit 1.

These extensions will ring in turn, if 202 takes a call 203 will ring next.

Ext 2001 Dial	Password	* 150	1	2001	#	*150	1	2002	#	* 150	1	2003	#	Hang up
--------------------------	-----------------	--------------	----------	-------------	----------	-------------	----------	-------------	----------	--------------	----------	-------------	----------	----------------

Example 2: Assign Extensions 2004 and 2005 to digit 5.

Ext 2001 Dial	Password	* 150	5	2004	#	* 150	5	2005	#	Hang up
--------------------------	-----------------	--------------	----------	-------------	----------	--------------	----------	-------------	----------	----------------

Note: To change the extensions assigned to a digit you must first clear the programming as follows:

Ext 2001 Dial	Password	* 140	digit	#	Hang up
--------------------------	-----------------	--------------	--------------	----------	----------------

Day Night Service using Auto Attendant on/off

The Auto Attendant modes can be set to switch on or off at different times.

For example, you may want the Auto Attendant mode to be on evenings and weekends or you may want the Auto Attendant on during the working week and off at evenings and weekends so that an answering machine can take messages.

Note: Please make sure you have set the system clock (see page 7)

Example1: Turn the Auto Attendant on at 9 am and off at 6 pm. Monday to Friday and on all day Saturday and Sunday:

Ext 201 Dial:	Password	* 87	0900	1800	1	#	* 891			
		6 (DOW)	1	#	* 892	7 (DOW)	1	#	Hang up	

Where day of the week (dow) is 1 for Monday, 2 for Tuesday, 7 for Sunday

Example 2: Turn the Auto attendant on at 6 pm and off at 9 am Monday to Friday and off at weekends.

Ext 201 Dial:	Password	* 01	1234	#	* 87	1800	0900	1	#	* 891		
		6 (DOW)		0	#	* 892		7 (DOW)		0	#	Hang up

Note: 1 = Auto attendant on, 0 = Auto attendant off.

Installing Expansion Cards

Line Cards – Installing an 8 Line Expansion Card (8LEC) will add the capacity to the PBX816ex to handle an additional 8 lines.

To install, Turn the system power OFF and remove the blanking plate from the 4th column on the left, carefully insert the new expansion card and secure it with the screws provided. Turn the power ON.

To activate all 8 lines, making a total of 16 lines:

Ext 2001 Dial	Password	* 32	12345678	#	Hang up
---------------	----------	------	----------	---	---------

To activate just 2 additional lines, making a total of 10 lines:

Ext 2001 Dial	Password	* 32	12	#	Hang up
---------------	----------	------	----	---	---------

Extension Cards – The PBX816ex comes with 16 extensions as standard but you can add up to 14 x 8 Extension expansion cards which will give you a maximum of 128 extensions.

To add say just 4 expansion cards giving you a total of 48 extensions turn power OFF and remove the blanking plates 7-10 on the left. Carefully insert the 4 expansion cards and secure with the screws provided. Turn the power ON

The 32 new extensions will automatically be linked to the system and will be extension numbers 2017 to 2048.

Extension features/ Call Handling

Calls on Hold

Place a call on Hold

Incoming or outgoing calls can be put on Hold, this feature also enables you to answer another incoming call:

Recall	# # #	Hang up
--------	-------	---------

Note: ### can be programmed into a one touch phone memory button, say M1; then all you need to do is dial Recall M1

Retrieve a call that has been put On Hold

Dial # # * from your extension or any other extension.

Note: ##* can be programmed into a one touch phone memory button, say M2; then all you need to do is dial M2

Place a call on Hold and answer another ringing line

Recall	# # #	Hang up
--------	-------	---------

When your phone starts ringing answer the call, or if it's not your phone ringing but another extension, dial **# 7** to pick up the call.

The second call can also be put on Hold by dialing **RECALL # # #** then hang up.

Dial **# # *** to connect back with the first call that was put on Hold.

Note: A call can be put on **Hold** for a maximum of 4 minutes. If you need to put the call on **Hold** for longer than 4 minutes, Retrieve the call before 4 minutes and put in on **Hold** again for a further 4 minutes.

Extension to Extension Calls

To call another extension dial ***** followed by the extension number.

Transferring calls

Dial **Recall (R)** followed by the extension number you want to transfer a call to. You can either speak to the person on the extension asking if they want to take the call, if they do you hang up and the call goes through, if they don't, they hang up and the call come back to you. Or if the extension does not answer, Press and release the hook switch and dial **#7** and the call will come back to you.

Call pick up

To pick up a call ringing on another extension dial **# 7**

Conference calls

To set up a conference call between an external call on your extension, yourself and another extension dial **Recall (R) *** followed by the extension number.

Confirm extension number

If you want to know your extension number, Lift your handset and dial **# * 9** a voice prompt will advise you of your port number and extension number.

Operator call

Any extension can dial **0** and they will be automatically connected to extension 2002. If 2002 is busy they will be connected to 2003.

If your extension is in direct dial mode dial *** 0**

Ringback on Busy

If the extension you call is busy you can enter Ringback mode by dialing:

Recall (R)	#	#	0	0	Hang up
------------	---	---	---	---	---------

When the extension you want hangs up your phone will ring, lift the handset and the other extension will ring.

Transfer calls when busy

This feature enables you to transfer internal and external calls to another extension if you are engaged on a call.

Activate Transfer **Dial: # * 1 Ext no**

Cancel Transfer when engaged **Dial: # * 1 00**

Transfer all calls to another extension

Transfer all calls to another Extension **Dial: # * 2 Ext no**

Cancel the transfer of all call **Dial: # * 2 00**

Transfer all calls to your secretary

Transfer all calls to your secretary **Dial: # * 6 Ext No**

In this mode only the secretary can call your extension. To cancel calls being transferred to your secretary **Dial: # * 6 00**

Do Not Disturb mode

If you do not want to receive internal or external calls **Dial: # * 71 Hang up**. To cancel 'Do Not Disturb' mode **Dial: # * 70**

Select a specific line on a call-by-call basis

The extension can either be in dial 9 for a Line Mode or Direct Dial Mode.

Lift handset and dial:

01 (For Line 1) **# 02** (For Line 2) **# 03** (For Line 3) etc

Remote programming

This is a useful feature if a company has several office's, it enables the Administrator to remotely program PBX features. It also enables your supplier to assist you in setting up the system.

To program the system remotely, call the PBX and get transferred to extension 2001. The person on extension 2001 should be instructed to dial **Recall (R)** then **# * # ***.

You can now program the system as required – there is no need to dial the system password before programming.

Alternatively, the person on extension 2001 of the system that needs programming can call you, dial **Recall (R)** followed by **# * # *** both parties should hang up when programming is completed.

Caller Display

The Caller Display feature is subject to network connection – check with your line provider.

When this feature is activated on your line, and providing you have compatible Caller Display telephones, the telephone numbers of incoming callers will be displayed and logged on extensions.

Caller Display extension to extension

This feature is provided by the PBX816EX and is not subject to Network connection.

Providing you have compatible Caller Display telephones, when an internal extension calls you their extension number will be displayed. For example, if extension 2008 calls you 02008 will be displayed on the LCD.

Many corded and digital cordless phones have their Phone Book and Caller Display features linked. If a Caller Display number is matched with a number in the phone book the name allocated to that number will be displayed on the LCD.

For example, if extension 2008 is allocated as the reception phone:

On your Caller Display phone, enter the telephone number 02008 in to the phone book memory followed by 'Reception phone'.

If anyone calls you from extension 2008 'Reception Phone' will be displayed on the LCD.

How to Divert all calls to an external Mobile or landline number

Using BT's Star Services

Pick up the handset dial #01 to divert the line 1 or #02 to divert the line 2 etc.

ACTIVATE DIVERSION: * 21 * External number # , listen beep, hang up.

DEACTIVATE DIVERSION: # 21 # , listen beep, hang up

Broadcasting/Public Announcement

The PBX816EX has a Broadcasting function when your public address system is attached to the PBX816EX's internal broadcast socket.

Any extension can broadcast by dialing # * 8

Troubleshooting and FAQ's

The factory default settings are as follows:

- All extensions are dial 9 for a line.
- Extension 2001 to 2004 **only** ring on incoming calls
- Call restrictions removed on all extensions
- Auto Attendant (DISA) OFF.

Reset the system to factory default settings

Ext 2001 Dial	Password	*	6000	#	Beep Hang up
------------------	----------	---	------	---	-----------------

You will need to wait about 20 seconds before you hear a beep to confirm reset – then hang up

Reset password

Ext 201 Dial	*	03	03	03	#	Hang up
--------------	---	----	----	----	---	---------

The Password will be reset to factory default 1234.

Unable to dial Telephone numbers

Do you dial 9 for a line, dial the number and are unable to get through? It could be that your BT service is Feature Line which requires you to dial 9 to make outgoing calls. If so you will need to dial 9 to get a line and 9 again followed by the number.

If you are on 'Feature Line' we recommend you convert all extensions to 'Direct Dial' mode.

See Page 10 of the User guide. In Direct Dial mode, as soon as you go Off Hook to make a call, you will get a BT line immediately, therefore, you will only have to dial 9 **once** before the telephone number.

Unable to dial 9 for a line

- Ensure that the phone connected is in TONE dialing mode and NOT Pulse dialing mode.

Not all extensions ring on incoming calls

- The factory default setting will make only extensions 2001 to 2004 ring on incoming calls. See page 8 for instructions to make other extensions ring on incoming calls.
- Ensure the ringer setting on the phone is set to ON.

Unable to call another extension

- Ensure the power supply is on, the Power LED on the PBX816EX should be on.
- Is the extension in Direct Dial Mode? If so, you will need to dial * then the extension number required.

Unable to transfer calls

- You must use Recall or 'R' button when transferring calls – please ensure the Recall type is set to TBR (Time Break Recall). A TBR – ELR switch maybe located on the base of the phone.

Unable to program the PBX

- All programming must be done from extension 2001.
- Make sure the phone being used to program is set to TONE not PULSE dialing mode.
- Dial the password (* * **01 1234 #**) before entering programming strings. You will hear a confirmation 'beep' when the password or any programming sequence is entered correctly.

Make a call out on a specific line

To access any line directly dial # followed by the line number 01, 02, 03 etc..

To Connect an Answer Machine, Fax Machine or PDQ machine

All such machines should be connected to an extension port – do not connect on the line side.

When using such a machine we recommend connecting it to an unused extension number, or if all are in use connect in parallel using a 2-way adaptor.

It is important that the PDQ machine is connected to one of the extension ports and not directly to a phone line. Connecting to the phone line will cause false rings. When connecting to an extension make sure the extension is programmed for direct mode (no need to dial 9 for a line) see page 10

Contact Orchid for more assistance

You can email us at the following address with any further enquiries regarding the Orchid PBX Range: support@orchid-telecom.com

Or go to our web site for more FAQ assistance. www.orchid-telecom.com

Technical specifications

Capacity	8 Lines and 16 Extensions (Expandable to 16/128)
External sockets	Line and Extensions terminated on RJ11 sockets External Music socket (3.5 mm Mono) Broadcast Socket (Audio out).
Communication channels	17
Transmission loss	Extension to Extension < 1.5 dB Extension to Exchange < 2 dB
Ringling Current	AC65V/50Hz
Balance about earth	300Hz...600Hz < 40dB 600Hz...3400Hz< 46dB
Dialling mode	DTMF
Signalling	Internal Dial tone 400 Hz continuous Sine wave Internal Ring tone 400 Hz 1s on/4s off Internal Busy tone 400 Hz, sine wave, 0.3s on/0.3s off
Caller Display	Receive; DTMF and FSK (Bell 202) Send; FSK (Bell 202)
Power Supply	AC230V/12W Secondary 24V and 5V
Approvals	CE and RoHS compliant