

Country-Specific Parameter Administration

B

Overview

Country-specific parameter administration for the Intuity AUDIX system consists of:

- Country selection — establishes the location of operation and the analog parameters under which the system will operate. This option allows the Intuity AUDIX system to be set using pre-set parameters matched to the DEFINITY.
- Parameter tuning — allows individual parameters to be changed from the default settings to a custom selection to match the operating requirements of a specific installation.

For systems with DEFINITY switches administered with the country code, the only administration necessary is country selection which establishes pre-selected parameters. If, however, the DEFINITY tone plan has been customized, the corresponding changes can be administered on the Intuity AUDIX system via the screens for parameter tuning. See [“Customizing Switch Parameters on the Intuity AUDIX System”](#) on the Intuity AUDIX system [Chapter 8, ‘Intuity AUDIX System Administration for Switch Integration’](#), for more information on changing system parameters.

Purpose

This chapter provides the information you need to administer country-specific parameters for a Intuity AUDIX system integrated with a DEFINITY switch.

Using the Country Parameter Administration Screens

The following logins operate with these screens:

- The sa login may be used to view the screens. This login, however, may not be used to change any of the parameter fields or the system's country assignment.
- The craft login may be used to administer the system's country assignment and change any parameters that are not restricted. The craft login, however, may not select "Other" as an entry for the system's country assignment and set the parameters when "Other" is selected.
- The remote maintenance login may assign "Other" as a country and administer all of the parameters.

Customers who need assistance with system tuning should contact their remote maintenance center.

Country Selection

Each system using the Intuity AUDIX DEFINITY switch integration software must have a country specified. Selecting a country establishes the parameters under which the system will operate.

To select a country do the following from the Country Selection screen:

1. Press **F2** (Choices).
2. Select the country and press **ENTER**.



NOTE:

For a listing of the countries and the parameter default settings, see ["Country Default Settings"](#) below.

If necessary, "Other" may be selected in place of a country name and customized parameter settings established. This action requires remote maintenance assistance.

Parameter Tuning

This section describes the screens and the fields used in parameter tuning. Parameter tuning is divided into two areas:

- Analog interface parameters
- Switch tones

Analog interface parameters are set using the Analog Interface Parameters screen. The switch tones are set through a series of screens:

- Frequency specification
- Busy tone
- Dial tone
- Reorder tone
- Ring tone
- Stutter tone
- First additional tone
- Second additional tone
- Third additional Tone

Switch Tones

[Table B-1](#) describes the screens and fields that establish the switch tones settings for the Intuity AUDIX system.

Table B-1. Switch Tones Fields Summary

Parameter	Value
Frequency and Frequency Group(s)	300–4000 Hz
On	0–6000
Off	0–6000
Cycles	0–4
Disconnect Situation	0, 1, or 2
Dialtone training?	y (yes) or n (no)
Report as	dial
	ring
	busy
	stutter
	reorder

Frequency Specification Screen

The Frequency Specification screen ([Figure B-1](#)) allows you to establish the frequencies used, up to three frequency groups, and whether or not dialtone training should be used.

Frequency Specification

Frequency used

Country: UNITED STATES
Switch: DEFINITY

1. 350

2. 440

3. 480

4. 620

5. 0

Frequency Groups

Group used

Frequency 1

Frequency 2

1. 350 440

2. 440 480

3. 480 620

Dial tone training ? ☐

Figure B-1. Sample Frequency Specification Screen

Country

The `Country` field is a fixed field that is filled in based upon the country chosen through the Country Selection screen. This field may not be changed on this screen. The country specified determines the default settings for the frequency fields.

Frequency Used

You can specify up to five frequencies. Frequencies are in the range 300–4000 Hz. Unused frequencies are indicated by 0.

NOTE:
The first frequency can never be 0. If a frequency is 0, the following frequencies are also 0 (unused).

The frequencies used for dialtone should be the first tones in the table so that if dialtone training is used, the dialtone filters are the ones that get modified. These frequencies must be first because dialtone training overwrites these values with the actual frequencies observed internally.

Frequency Groups

You can specify up to three frequency groups. Each frequency group is made up of one or two frequencies. All the frequencies used to specify the frequency groups must come from the table of five frequencies located on the Frequency Specifications screen ([Figure B-1](#)).

If a frequency group is unused, it will have 0 as Frequency 1 and Frequency 2. Groups below it, if any, will also be unused. If a group has only one frequency, a 0 is used for Frequency 2.

Dialtone Training

This can be set to **y** (yes) or **n** (no). If the dialtone is not continuous, the dialtone training flag is internally set to **n** even though the subscriber may specify **y** on this form.

Busy, Dial, Reorder, Ring, and Stutter Tone Screens

These screens are identical except for the name in the title. The tone is specified in terms of a frequency group (1 or 2 frequencies) and the timing of on and off cycles. If the tone is to be treated as disconnect under certain situations, the field Disconnect Situation can be used.

Note, however, when specifying the stutter tone, the timing used for continuous tone (minimum on duration) should match the timing used for continuous tone in the dialtone screen. For example, if dialtone is specified as continuous tone, minimum 2 seconds, then the stutter tone might be 200 ms on, 200 ms off (three cycles) followed by continuous tone (minimum 2 seconds). Stutter tone should not use minimum 1.5 seconds in this example.

[Figure B-2](#) shows an example of a tone screen.

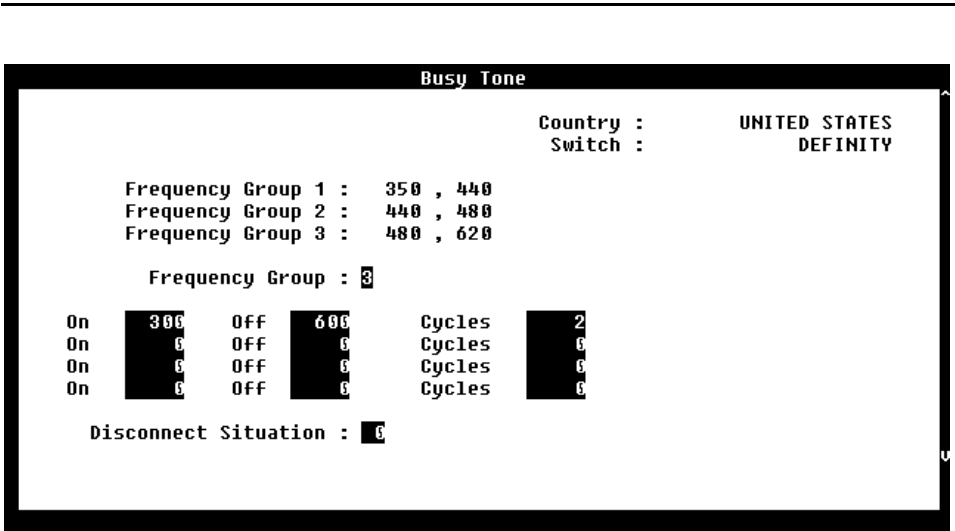


Figure B-2. Example Tone Screen

Frequency Group

A frequency group is either a single frequency or a dual frequency. Most switches use from one to three frequency groups in their tones. When frequencies are specified for a frequency group, the Intuity AUDIX system only recognizes the specified frequencies for the group and does not recognize any additional frequencies.

If the tone is made up of different timings, the timings must be specified in order. For example, if a tone is recognized as:

250 ms on, 250 ms off,
500 ms on, 500 ms off,
250 ms on, 250 ms off,
500 ms on, 500 ms off

it will be entered using four rows:

Table B-2.

On	250	Off	250	Cycles	1
On	500	Off	500	Cycles	1
On	250	Off	250	Cycles	1
On	500	Off	500	Cycles	1

If a tone is recognized as:

250 ms on, 250 ms off, 250 ms on, 250 ms off,
500 ms on, 500 ms off,
250 ms on, 250 ms off, 250 ms on, 250 ms off,
500 ms on, 500 ms off

It will be entered as follows:

Table B-3.

On	250	Off	250	Cycles	2
On	500	Off	500	Cycles	1
On	250	Off	250	Cycles	2
On	500	Off	500	Cycles	1

The available frequency groups and associated frequencies are displayed on the screen. Choose one of the three groups, provided that group has frequencies defined. If you choose a group for which no frequencies are defined, an error message appears during SAVE.

On and Off Cycles

The `Cycles` field allows specification of repeating cycles such as a stutter tone as three cycles of 500 on, 500 off followed by a continuous tone.

The on and off cycles of the tone are given in milliseconds. Repeating cycles of a timing are specified by using the `Cycles` field for each timing. Thus if two cycles of 250ms on, 250 ms off are needed to recognize a busy tone, enter **250 250 2** into the `On`, `Off` and `Cycles` fields. Sometimes a tone may have different timings. For a stutter tone of 150 ms on, 150 ms off (three cycles) followed by a continuous tone of duration at least 2 seconds, enter **150 150 3** on the first row, followed by **2000 0 1** on the second.

On or off timings can vary from 0 to 6000 ms. If an on timing is 0, it is assumed that the row is blank, and the off timing and cycles are also 0. You can specify a maximum of four cycles for a tone.

⇒ NOTE:

If the tone is continuous, the on timing is the minimum continuous duration, the off timing will be 0, cycles will be 1, and there will be no more on and off cycles specified. Within a country, do not use different minimums on cycles for a continuous tone. For example, if the diatone is a continuous tone (minimum 2 seconds), stutter should also use the same minimum duration at the end.

Also, if a row is 0 0 0, it is understood that rows below are also 0 0 0.

It is advisable to set at least two cycles of a short tone, for example, 250 on, 250 off, to reduce the possibility of the tone being triggered by noise. The two cycles are used for better recognition accuracy.

Disconnect Situation

This field is used when call progress tones are being used as disconnect signals. Three values are used:

- 0 — Do not treat as a disconnect
- 1 — Treat as disconnect during voice coding only
- 2 — Treat as disconnect at all times except outcalling

The Disconnect Situation can be filled in for each tone with a value of 0, 1, or 2.

First, Second, and Third Additional Tones

You can specify one to three additional tones if required. These can be reported as any of the standard five tones:

- Dial
- Busy

- Reorder
- Ring
- Stutter

This is useful when a tone can have different timings. For example, a stutter tone may be two cycles of 200 on 200 off followed by dialtone or three cycles of 200 on 200 off, followed by dialtone. An additional tone can be used and reported as stutter.

[Figure B-3](#) shows an example of an Additional Tones screen.

First Additional Tone

Country : UNITED STATES
Switch : DEFINITY

Frequency Group 1 : 350 , 440
Frequency Group 2 : 440 , 480
Frequency Group 3 : 480 , 620

Frequency Group : 0

On 0 Off 0 Cycles 0

On 0 Off 0 Cycles 0

On 0 Off 0 Cycles 0

On 0 Off 0 Cycles 0

Report as : unused

Figure B-3. Sample Additional Tones Screen

Additional Tones Fields

All fields on this screen are identical to those for the standard tones except that the `Disconnect Situation` field does not appear on these forms. Disconnect is done on the standard tones. To create a new stutter tone to be treated as disconnect, make the entry for disconnect in the Stutter Tone screen and report the new tone as “stutter”.

Report As Field

These forms also have the `Report As` field which does not appear in the standard tones form. This field can take values

- Dial
- Busy
- Ring
- Stutter

- Reorder
- Unused

If the additional tone is not used, this field takes the value “unused”.

Analog Interface Parameters

The Analog Interface Parameters screen, [Figure B-4](#) has 15 fields. This screen highlights the fields that can be changed. Any fields not highlighted are restricted and can not be changed because of regulatory restrictions. Field restriction varies with the country specified for the system.

NOTE:
([Figure B-4](#)) does not accurately reflect restricted fields. For a listing of restricted fields, see the [“Country Default Settings”](#) below.

Interface Parameters			
Page 1 of 2		Country: UNITED STATES	
		Switch: DEFINITY	
	Default	Current	
Answer Delay:	0	0	rings
DTMF High Level Group:	-7.0	-7	dBm
DTMF Low Level Group:	-7.0	-7	dBm
DTMF On-time:	100	100	msec
DTMF Off-time:	60	60	msec
Clipping Threshold:	-8.8	-8.8	dBm
Clipping Duration:	500	500	msec
Clipping Limit:	-11.0	-11	dBm
CPT Detect Minimum:	-25	-25	dBm
Energy Detect Minimum:	-38	-38	dBm
Post Onhook Delay:	2000	2000	msec
Post Offhook Delay:	1500	1500	msec
FAX Receive Gain:	0.0	0	dB
FAX Transmit Level (V21):	-9.0	-9	dBm

Figure B-4. Sample Analog Parameters Screen

[Table B-4](#) lists the fields on the Analog Interface Parameters screen.

Table B-4. Analog Interface Parameters Fields Summary

Parameter	Value	Usual Setting	Granularity
Answer Delay	0–50 rings	Between 0 and 2	-
DTMF High Level Group	-40–0 dBm	-1.7	0.1
DTMF Low Level Group	-40–0 dBm	-1.7	0.1
DTMF On Time	20–30000 msec	100	10 msec
DTMF Off Time	20–30000 msec	60	10 msec
Clipping threshold	-25–3 dBm	-8.8	0.1
Clipping duration	0–30000 msec	500	1 msec
Clipping limit	-25–3 dBm	-11	0.1
CPT detect minimum	-48–3 dBm	-35	0.1
Energy detect minimum	-48–3 dBm	-38	0.1
Post onhook delay	0–30000 msec	2000 msec	20 msec
Post offhook delay	0–30000 msec	2000 msec	20 msec
Wink duration	80–800 msec	300 msec	10 msec
Input volume ¹	1000 (suggested)		
Output volume1	1000 (suggested)		

1. Input and Output volume should be thought of as volume multipliers (that is, +/- gain) of the incoming/outgoing signal. A value of 1000 is equivalent to multiplying the incoming or outgoing signal volume by 1, that is, unity gain.

Country Default Settings

This section lists the values used as default settings for various countries for the switch tones and analog parameters. These are the values that the Intuity AUDIX system uses when you select and set a country on the Country Selection screen.

To set a parameter to a different value:

1. Verify that the parameter is not restricted. If the parameter is restricted, you may not change the value on the Intuity AUDIX system.
2. Verify that your new setting is permitted. See the Value columns in [Table B-1](#) and [Table B-4](#).

Argentina

Table B-5. Argentina: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	350+440 Hz	Continuous, min. 1.5 seconds
Busy	480+620 Hz	300 on, 600 off (2 cycles)
Ring	440+480 Hz	1500 on, 3500 off
Reorder	480+620 Hz	250 on, 250 off (2 cycles)
Stutter	350+440 Hz	150 on, 150 off (3 cycles) followed by continuous tone of min. 1.5 seconds
First additional	—	—
Second additional	—	—
Third additional	—	—

Table B-6. Argentina: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Answer delay (rings)	0	no
DTMF High-Level Group (dBm)	-6	yes
DTMF Low-Level Group (dBm)	-8	yes
DTMF On-time (ms)	100	yes
DTMF Off-time (ms)	60	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Australia

Table B-7. Australia: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	404+450 Hz	Continuous, min. 1.5 seconds
Busy	425 Hz	400 on, 400 off (2 cycles)
Ring	404+425 Hz	400 on, 200 off 400 on, 2000 off
Reorder	425 Hz	2500 on, 500 off
Stutter	404+450 Hz	150 on, 150 off (3 cycles) followed by continuous tone, min 1.5 seconds
First additional	—	—
Second additional	—	—
Third additional	—	—

Table B-8. Australia: Analog Interface Parameters

Parameter	Default Value	Restricted?
Answer delay (rings)	1	no
DTMF High-Level Group (dBm)	-8	yes
DTMF Low Level Group (dBm)	-10	yes
DTMF On-time (ms)	60	yes
DTMF Off-time (ms)	100	yes
Clipping threshold (dBm)	-12	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-12	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	350	no
Input volume	4000	no
Output volume	1000	no

Belgium

Table B-9. Belgium: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	425 Hz	Continuous, min. 1.5 seconds
Busy	425 Hz	500 on, 500 off (2 cycles)
Ring	425 Hz	1000 on, 3000 off
Reorder	425 Hz	250 on, 250 off (2 cycles)
Stutter	—	—
First additional	—	—
Second additional	—	—
Third additional	—	—

Table B-10. Belgium: Analog Interface Parameters

Parameter	Default Value	Restricted?
Answer delay (rings)	0	no
DTMF High-Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	100	yes
DTMF Off-time (ms)	100	yes
Clipping threshold (dBm)	-10	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-10	yes
CPT detect minimum (dBm)	-25	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Brazil

Table B-11. Brazil: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	425 Hz	950 on, 50 off
Busy	425 Hz	250 on, 250 off (2 cycles) DISCONNECT signal
Ring	425 Hz	1000 on, 4000 off
Reorder	425 Hz	250 on, 250 off, 750 on, 250 off
Stutter		
First additional	—	—
Second additional	—	—
Third additional	—	—

Table B-12. Brazil: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Answer delay (rings)	0	no
DTMF High-Level Group (dBm)	-8	yes
DTMF Low Level Group (dBm)	-10	yes
DTMF On-time (ms)	80	yes
DTMF Off-time (ms)	80	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no

Table B-12. Brazil: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Canada

Table B-13. Canada: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	350+440 Hz	Continuous, min. 1.5 seconds
Busy	480+620 Hz	300 on, 600 off (2 cycles)
Ring	440+480 Hz	1500 on, 3500 off
Reorder	480+620 Hz	250 on, 250 off (2 cycles)
Stutter	350+440 Hz	150 on, 150 off (3 cycles) followed by continuous tone of min. 1.5 seconds
First additional	—	—
Second additional	—	—
Third additional	—	—

Table B-14. Canada: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Answer delay (rings)	0	no
DTMF High-Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	360	yes
DTMF Off-time (ms)	160	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes

Table B-14. Canada: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Colombia

Table B-15. Colombia: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	350+440 Hz	Continuous, min. 1.5 seconds
Busy	420 Hz	250 on, 250 off 550 on, 550 off
Ring	440+480 Hz	1500 on, 3500 off
Reorder	—	—
Stutter	350+440 Hz	150 on, 150 off (3 cycles) followed by continuous tone of min. 1.5 seconds
First additional	—	—
Second additional	—	—
Third additional	—	—

Table B-16. Colombia: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Answer delay (rings)	0	no
DTMF High-Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	100	yes
DTMF Off-time (ms)	60	yes

Table B-16. Colombia: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

France

Table B-17. France: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	440 Hz	Continuous, min. 2 seconds
Busy	440 Hz	500 on, 500 off (2 cycles)
Ring	440 Hz	1500 on, 3500 off
Reorder	440 Hz	200 on, 200 off (2 cycles)
Stutter	—	—
First additional	330 Hz	Continuous, min. 2 seconds; report as “dial”
Second additional	—	—
Third additional	—	—

Table B-18. France: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Answer delay (rings)	0	no
DTMF High-Level Group (dBm)	-6	yes
DTMF Low-Level Group (dBm)	-8	yes
DTMF On-time (ms)	360	yes
DTMF Off-time (ms)	160	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Germany

Table B-19. Germany: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	425 Hz	Continuous, min. 1.5 seconds
Busy	425 Hz	150 on, 475 off (2 cycles)
Ring	425 Hz	1000 on, 4000 off
Reorder	425 Hz	250 on, 250 off (2 cycles)
Stutter	425 Hz	150 on, 150 off (3 cycles) followed by continuous tone of min. 1.5 seconds
First additional	—	—
Second additional	—	—
Third additional	—	—

Table B-20. Germany: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low-Level Group (dBm)	-8	yes
DTMF On-time (ms)	100	yes
DTMF Off-time (ms)	100	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-11	yes
CPT detect minimum (dBm)	-25	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Greece

Table B-21. Greece: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	350+440 Hz	Continuous, min. 1.5 seconds
Busy	480+620 Hz	500 on, 500 off (2 cycles)
Ring	440+480 Hz	1000 on, 3000 off
Reorder	480+620 Hz	250 on, 250 off (2 cycles)
Stutter	350+440 Hz	125 on, 125 off (3 cycles) followed by continuous tone of min. 1.5 seconds
First additional	350+440 Hz	125 on, 125 off followed by continuous tone of min. 1.5 seconds; report as "dial"
Second additional	350+440 Hz	125 on, 125 off (2 cycles) followed by continuous tone of min. 1.5 seconds
Third additional	—	—

Table B-22. Greece: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low-Level Group (dBm)	-8	yes
DTMF On-time (ms)	360	yes
DTMF Off-time (ms)	160	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no

Table B-22. Greece: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Hong Kong

Table B-23. Hong Kong: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	350+440 Hz	Continuous, min. 1.5 seconds
Busy	480+620 Hz	500 on, 500 off (2 cycles)
Ring	440+480 Hz	1000 on, 3000 off
Reorder	480+620 Hz	250 on, 250 off (2 cycles)
Stutter	375+425 Hz	125 on, 125 off (3 cycles) followed by continuous tone of min. 1.5 seconds
First additional	375+425 Hz	125 on, 125 off followed by continuous tone of min. 1.5 seconds; report as "dial"
Second additional	375+425 Hz	125 on, 125 off (2 cycles) followed by continuous tone of min. 1.5 seconds; report as "stutter"
Third additional	—	—

Table B-24. Hong Kong: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low-Level Group (dBm)	-8	yes
DTMF On-time (ms)	360	yes
DTMF Off-time (ms)	160	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes

Table B-24. Hong Kong: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

India

Table B-25. India: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	350+440 Hz	Continuous, min. 1.5 seconds
Busy	480+620 Hz	300 on, 600 off (2 cycles)
Ring	440+480 Hz	1500 on, 3500 off
Reorder	480+620 Hz	250 on, 250 off (2 cycles)
Stutter	350+440 Hz	150 on, 150 off (3 cycles) followed by continuous tone of min. 1.5 seconds
First additional	—	—
Second additional	—	—
Third additional	—	—

Table B-26. India: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low-Level Group (dBm)	-8	yes
DTMF On-time (ms)	100	yes

Table B-26. India: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
DTMF Off-time (ms)	60	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Japan

Table B-27. Japan: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	404 Hz	Continuous, min. 2 seconds
Busy	404 Hz	500 on, 500 off (2 cycles)
Ring	375+425 Hz	1250 on, 2500 off
Reorder	—	—
Stutter	404 Hz	100 on, 100 off (3 cycles) followed by 250 on, 250 off
First additional	404 Hz	250 on, 250 off (2 cycles); report as "dial"
Second additional	—	—
Third additional	—	—

Table B-28. Japan: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-10.2	yes
DTMF Low Level Group (dBm)	-11.2	yes
DTMF On-time (ms)	80	yes
DTMF Off-time (ms)	80	yes
Clipping threshold (dBm)	-16	yes
Clipping duration (ms)	1000	yes
Clipping limit (dBm)	-16	yes
CPT detect minimum (dBm)	-30	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Luxembourg

Table B-29. Luxembourg: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	425 Hz	Continuous, min. 1.5 seconds
Busy	425 Hz	500 on, 500 off (2 cycles)
Ring	425 Hz	1000 on, 3000 off
Reorder	425 Hz	250 on, 250 off (2 cycles)
Stutter	—	—
First additional	—	—
Second additional	—	—
Third additional	—	—

Table B-30. Luxembourg: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	100	yes
DTMF Off-time (ms)	100	yes
Clipping threshold (dBm)	-10	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-10	yes
CPT detect minimum (dBm)	-25	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Mexico

Table B-31. Mexico: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	350+425 Hz	Continuous, min. 2 seconds
Busy	350+425 Hz	250 on, 250 off (2 cycles)
Ring	425 Hz	1000 on, 4500 off
Reorder	—	—
Stutter	350+425 Hz	100 on, 100 off (3 cycles), followed by continuous tone of min. 2 seconds
First additional	—	—
Second additional	—	—
Third additional	—	—

Table B-32. Mexico: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	80	yes
DTMF Off-time (ms)	80	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Netherlands

Table B-33. Netherlands: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	425 Hz	Continuous, min. 1.5 seconds
Busy	425 Hz	500 on, 500 off (2 cycles)
Ring	425 Hz	1000 on, 3500 off
Reorder	425 Hz	250 on, 250 off (2 cycles)
Stutter	—	—
First additional	—	—
Second additional	—	—
Third additional	—	—

Table B-34. Netherlands: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-8.7	yes
DTMF Low Level Group (dBm)	-10.7	yes
DTMF On-time (ms)	100	yes
DTMF Off-time (ms)	100	yes
Clipping threshold (dBm)	-11.5	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-11.5	yes
CPT detect minimum (dBm)	-25	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

New Zealand

Table B-35. New Zealand: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	404+450 Hz	Continuous, min. 1.5 seconds
Busy	425 Hz	400 on, 400 off (2 cycles)
Ring	404+425 Hz	400 on, 200 off, 400 on, 2000 off
Reorder	425 Hz	2500 on, 500 off
Stutter	404+450 Hz	150 on, 150 off (3 cycles) followed by continuous tone, min. 1.5 seconds
First additional	—	—
Second additional	—	—
Third additional	—	—

Table B-36. New Zealand: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Answer delay (rings)	1	no
DTMF High Level Group (dBm)	-8	yes
DTMF Low Level Group (dBm)	-10	yes
DTMF On-time (ms)	60	yes
DTMF Off-time (ms)	100	yes
Clipping threshold (dBm)	-12	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-12	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	350	no
Input volume	4000	no
Output volume	1000	no

Singapore

Table B-37. Singapore: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	404+450 Hz	Continuous, min. 1.5 seconds
Busy	404 Hz	400 on, 400 off (2 cycles)
Ring	404+425 Hz	250 on, 250 off, 250 on, 2000 off
Reorder	404+425 Hz	2500 on, 500 off
Stutter	404+450 Hz	150 on, 150 off (3 cycles) followed by continuous tone of min. 1.5 seconds
First additional	404+450 Hz	150 on, 150 off followed by continuous tone of min. 1.5 seconds
Second additional	—	—
Third additional	—	—

Table B-38. Singapore: Analog Interface Parameters

Parameter	Default Value	Restricted?
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	80	yes
DTMF Off-time (ms)	80	yes
Clipping threshold (dBm)	-10	yes
Clipping duration (ms)	750	yes
Clipping limit (dBm)	-10	yes
CPT detect minimum (dBm)	-30	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Spain

Table B-39. Spain: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	425 Hz	Continuous, min. 2.5 seconds
Busy	425 Hz	200 on, 200 off (2 cycles)
Ring	425 Hz	1500 on, 3000 off
Reorder	425 Hz	200 on, 200 off (2 cycles) followed by 200 on, 600 off
Stutter	425 Hz	150 on, 150 off (3 cycles) followed by continuous tone of min. 2.5 seconds
First additional	425 Hz	150 on, 150 off (2 cycles) followed by continuous tone of min. 2.5 seconds; report as “stutter”
Second additional	425 Hz	150 on, 150 off followed by continuous tone of min. 2.5 seconds; report as “dial”
Third additional	—	—

Table B-40. Spain: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	80	yes
DTMF Off-time (ms)	160	yes
Clipping threshold (dBm)	-10	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-10	yes
CPT detect minimum (dBm)	-25	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no

Table B-40. Spain: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Thailand

Table B-41. Thailand: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	350+440 Hz	Continuous, min. 1.5 seconds
Busy	480+620 Hz	300 on, 600 off (2 cycles)
Ring	440+480 Hz	1500 on, 3500 off
Reorder	480+620 Hz	250 on, 250 off (2 cycles)
Stutter	350+440 Hz	150 on, 150 off (3 cycles) followed by continuous tone of min. 1.5 seconds
First additional	—	—
Second additional	—	—
Third additional	—	—

Table B-42. Thailand: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	360	yes
DTMF Off-time (ms)	160	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes

Table B-42. Thailand: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

United Kingdom

Table B-43. United Kingdom: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	350+440 Hz	Continuous, min. 1.5 seconds
Busy	404 Hz	375 on, 375 off (2 cycles)
Ring	404+450 Hz	400 on, 200 off, 400 on, 2000 off
Reorder	404 Hz	400 on, 350 off, 225 on, 525 of 400 on, 350 off, 225 on, 525 off
Stutter	350+440 Hz	100 on, 100 off (3 cycles) followed by continuous tone of min. 1.5 seconds
First additional	—	—
Second additional	—	—
Third additional	—	—

Table B-44. United Kingdom Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-11	yes
DTMF Low Level Group (dBm)	-13	yes
DTMF On-time (ms)	80	yes
DTMF Off-time (ms)	80	yes

Table B-44. United Kingdom Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Clipping threshold (dBm)	-13	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-9	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	80	no
Input volume	4000	no
Output volume	1000	no

United States

Table B-45. United States: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	350+440 Hz	Continuous, min. 1.5 seconds
Busy	480+620 Hz	300 on, 600 off (2 cycles)
Ring	440+480 Hz	1500 on, 3500 off
Reorder	480+620 Hz	250 on, 250 off (2 cycles)
Stutter	350+440 Hz	150 on, 150 off (3 cycles) followed by continuous tone of min. 1.5 seconds
First additional	—	—
Second additional	—	—
Third additional	—	—

Table B-46. United States Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted?
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	360	yes
DTMF Off-time (ms)	160	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no