MiVoice MX-ONE

EX Installation Guide - MiVoice MX-ONE and MiVoice 5000

April 7, 2022

Mitel®

Notice

Trademarks

Contents

Safety Recommendations and Information

See the *EX Controller and GX Gateway Safety Instructions* document on Mitel Document Center.

Requirements

Location requirements

To avoid premature aging of the controller; ensure user security; and facilitate access, upgrades, and maintenance, the following guidelines must be followed:

- Install the controller:
  - On a standard 48.26 cm (19 in.) equipment rack
  - On a flat surface (such as a desk or a table)
- Install the controller in a well-ventilated location where it will not be exposed to high temperatures or humidity.
  - Storage temperature: -20 °C to +70 °C
  - Operating temperature: 0 °C to +40 °C
  - Humidity lower than 85% and non-condensing
- Do not install the controller in a location exposed to direct sunlight or near stoves or radiators. Excessive heat could damage the internal components.
- Controller should be positioned to be accessible for future upgrade, maintenance and troubleshooting and where cables can be easily connected.
- Maintain a minimum of 25 mm (1 in.) clearance in front, in the back, on top, under, and on the sides of the controller.
- Keep airflow around and through the vents of the controller clear of any obstruction.
- Do not put books or paper on the controller.

Wiring Guidelines

These guidelines apply for any cable, supplied or not, used with an EX controller.

- Always use straight through cables.
- Cables must not pull or create a lateral stress on the connectors; that is, they must be long enough.
- Cables must be installed in such a way not to present a trip hazard to personnel working in the vicinity of the equipment.
- Keep cables away from:
  - Sources of electrical noise such as radios, transmitters, and broadband amplifiers
  - Power lines
  - Fluorescent lighting fixtures
  - Liquids or moisture
  - Heat sources

EX Controller Characteristics

Dimensions and Weight

PARAMETER	DESCRIPTION
Dimensions	Height: 4.4 cm (1.75 in.) Width: 48.3 cm (19 in.) Depth: 36.5 cm (14.4 in.)
Weight, EX 4G/120G (single PSU)	Weight 5.4 kg (11.9 lb)
Weight, EX 16G/120G (dual PSU)	Weight 5.85kg (12.9 lb.)

Operating Specifications

EX Controller Model	Voltage/ Frequency	Operating Condition	Current (mA)	Power (W)	VA	Thermal Dissipation (W)
EX 4G/60G and 8G/120G Base unit w/o User Card (3A on 12Vdc, 36 W)	120 Vac / 60 Hz	Active	395	45	47.4	45
	240 Vac/ 50 Hz	Active	206	47	49.5	47
EX 16G/120G Base unit w/o User Card (4.5A on 12Vdc, 54 W)	120 Vac / 60 Hz	Active	590	68	70.8	68
	240 Vac/ 50 Hz	Active	310	71	74.4	71

EX Controller Model	Voltage/ Frequency	Operating Condition	Current (mA)	Power (W)	VA	Thermal Dissipation (W)
Per PRI or DSP User Card (225mA on 12 Vdc, 2.7 W)	120 Vac / 60 Hz	Active	30	3.4	3.6	3.4
	240 Vac / 60 Hz	Active	15	3.5	3.7	3.5
Per BRI User Card (30 mA on 12 Vdc, 0.35 W)	120 Vac / 60 Hz	Active	3	0.4	0.45	0.4
	240 Vac / 60 Hz	Active	2	0.4	0.45	0.4
Per 4FXS User Card (OH: 0.05A on 12 Vdc, 0.6 W) (R: 0.25A on 12 Vdc, 3.0 W) (A: 0.38A on 12 Vdc, 4.6 W)	120 Vac	On-hook	5	0.6	0.6	0.6
	120 Vac	Ringing (45 Vrms, 4 REN)	41.5	3.3	5.0	2.0
	120 Vac	Active (30 mA, 200 R)	62.0	5.5	7.4	4.8
	240 Vac	On-hook	6	0.6	1.4	0.6
	240 Vac	Ringing (45 Vrms, 4 REN)	28.3	3.2	6.8	1.9
	240 Vac	Active (30 mA, 200 R)	44.5	4.5	10.7	3.8

EX Controller Model	Voltage/ Frequency	Operating Condition	Current (mA)	Power (W)	VA	Thermal Dissipation (W)
Per 4FXS-LP User Card (OH: 0.05A on 12 Vdc, 0.6 W) (R: 0.46A on 12 Vdc, 5.5 W) (A: 0.38A on 12 Vdc, 4.6 W)	120 Vac	On-hook	2.8	0.5	0.3	0.5
	120 Vac	Ringing (60 Vrms, 4 REN)	68.5	5.1	8.2	2.9
	120 Vac	Active (30 mA, 200 R)	57.8	5.0	6.9	4.3
	240 Vac	On-hook	4.3	1.3	1.0	1.3
	240 Vac	Ringing (60 Vrms, 4 REN)	45.8	5.4	11	3.2
	240 Vac	Active (30 mA, 200 R)	44.8	5.5	10.8	4.8
Per 4FXO User Card (100 mA on 12 Vdc, 1.2 W)	120 Vac / 60 Hz	Active	13	1.5	1.6	1.5
	240 Vac / 60 Hz	Active	7	1.6	1.7	1.6

Getting Started

Installation Checklist

Task	Verified by	Date
Network information available and recorded in site log.		
Location requirements verified.		
Site power Voltage		
Installation site pre-power check completed.		
Mounting tools and equipment available.		
Additional equipment available.		
EX Controller received.		
Quick start guide received.		
Regulatory compliance and safety information received.		
Warranty card received.		
Software version verified.		
Rack, desktop mounting of chassis completed.		
Initial electrical connections established.		
Cable length limits verified.		
Initial configuration performed.		
Initial operation verified.		

Package Checklist

Task	Verified by	Date
1 EX Controller.		

Task	Verified by	Date
1 Power cord with the proper model for the country.		
1 Bumpon kit for desktop use.		
1 printed Getting Started Guide.		
1 black RJ-45 cable for each PRI port.		
1 black RJ-45 cable for each BRI port.		
1 grey Ethernet RJ-45 cable.		

Cleaning Instructions

To clean an EX Controller, wipe with a soft dry cloth.

CAUTION: Do not use volatile liquids such as benzine and thinner as they can damage the unit's casing.

For resistant markings, wet a cloth with a mild detergent, wring well and then wipe off. Use a dry cloth to dry the surface.

Mounting Tools and Equipment

Tools

- Screwdriver as required for attaching brackets to rack
- ESD wrist strap
- Earth ground cable

  WARNING: The earth ground cable should be the same size (18 AWG minimum) as the earth cable of the provided power cord. Otherwise, make sure the earth ground cable meets the standards and requirements of your local electrical code. The type of the cable is likely to have VW-1 or RT1 markings on the cable.

Equipment

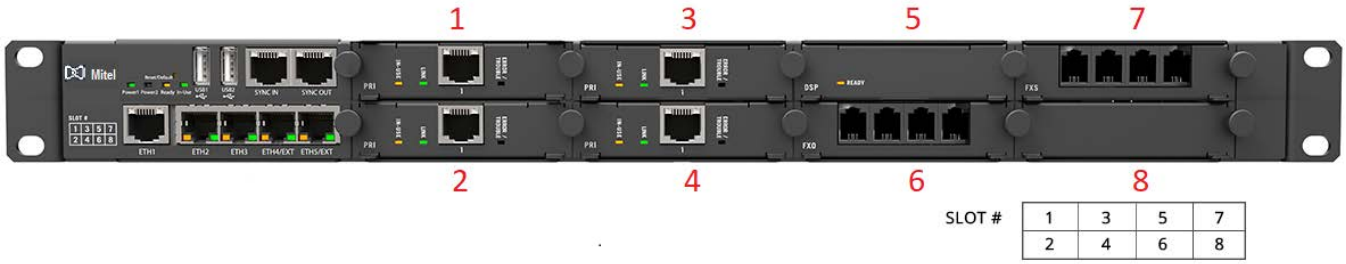
- RJ-45 cables for the WAN and LAN connections
- RJ-11 cable for telephony connections

Connectors and Indicators

NOTE: The EX Controller is highly customizable in the sense that it may have one or several types of ports, or none. Therefore the following image may not exactly represent your EX Controlle r.

Slots

The following graphic indicates the slots on the EX controller:



SLOT #				
	1	3	5	7
	2	4	6	8

Slot Order (Important)

The order and location the cards are installed is crucial to the controller to work properly. The numbers in the following graphic indicate the slots and order in which they must be installed.

- Slot numbers are displayed on the front, left-bottom corner of the controller.
- Cards must be installed from slot 1 sequentially, without leaving empty slots between the cards.
- Install all PRI card(s) first, sequentially starting from slot 1.
- Install a DSP card in the first slot available after the PRI card(s).
- If there is no PRI card, then install the DSP card in slot 1.
- Install FXO, FXS, and BRI cards in the next available slots after the DSP card.
- If there are no PRI or DSP cards, then all the slots must remain empty.

NOTE: Be aware that if a card is installed and configured to be used in a slot, moving it to another slot will cause the configuration of the slot to be lost. Therefore the card will no longer work until it is reconfigured for the new slot.

WARNING: Ensure that there is a PRI card in the system before performing Auto Sense of ISDN trunks. If you perform Auto Sense operation on a system that has no PRI cards, the following error message is displayed: “Error occurred running auto sense, see logs for details”.

LEDS

SLOT #				
	1	3	5	7
	2	4	6	8

#	LED	Behaviour	Condition
1	Unit with Power 1 connector only	Green, blinking, 1 cycle per second, 50% duty	Unit is being restarted
		Green, steady ON	Unit is restarted
		OFF	No current or failing power supply
		Green, rapidly blinking	No WAN connectivity
1 and 2	Unit with Power 1 and Power 2 connectors	Green, blinking, 1 cycle per second, 50% duty	Unit is being restarted
		Green, steady ON	Unit is restarted
		One LED Red, steady ON	No current or failing power supply on both Power connectors
		Both LEDs OFF	No current or failing power supply on both Power connectors
		Green, rapidly blinking	No WAN connectivity
3	Ready	Green, steady ON	All lines are disabled (operational state)
		Green, steady OFF	All lines are disabled (operational state)
		Blinking 1 cycle per 4 seconds, 75% duty	At least one line is enabled and at least one line is disabled (operational state)
5	In-Use	OFF	Lines idled and unlocked
		Yellow, steady ON	Lines in use and unlocked
		Yellow, blinking yellow, 1 cycle per second, 50% duty	Locked

#	LED	Behaviour	Condition
10	LINK	Green, steady ON	Indicates that the PRI port is well connected and the link is up.
		OFF	Indicates that the PRI port is not well connected and the link is not up.
10	IN-USE	Amber, steady ON	Indicates that the PRI port is in use.
		OFF	Indicates that the PRI port is not connected.
10	ERROR/TROUBLE	Red, steady ON	Indicates that the PRI port is not working properly
		OFF	Indicates that the PRI port is working properly
11	READY	Amber, steady ON	Indicates that the PRI port is in use.
		OFF	Indicates that the PRI port is not connected.
13	ETH1 - Right LED (activity)	Green, blinking, variable rate	Network traffic
		Green, steady ON	No Network traffic
		OFF	Not connected
13	ETH1 -Left LED (speed)	OFF	10 Mbps
		Green	100 Mbps
		Yellow	1000 Mbps
14	ETH2/3/4/5/ext -Right LED (activity)	Green blinking, variable rate	Network Traffic
		Green, steady ON	No network traffic
		OFF	Not connected
14	ETH2/3/4/5/ext -Left LED (speed)	OFF	10 Mbps
		Green	100 Mbps
		Yellow	1000 Mbps

#	LED	Behaviour	Condition
15	LED	Green, steady ON	Indicates that the BRI port is well connected/configured and the link is up.
		OFF	Indicates that the BRI port is not well connected or configured, and that the link is down.

Switches

#	SWITCH	DESCRIPTION		
4	Reset/Default	**Pressing Duration**	**Result**	**LED Pattern**
		2 to 6 seconds	Restarts the EX Controller unit.	Power LED blinking. All other LEDs **OFF**.
		7 to 11 seconds	Initiates a partial reset of the EX Controller unit.	All LEDs are blinking one cycle per second, 50% duty
		12 to 16 seconds	Initiates a factory reset of the EX Controller unit.	All LEDs steady **ON**
		17 seconds or more	No action taken. **NOTE:** A useful option if you have accidentally pushed the button and do not want any action to be performed.	All LEDs steady **ON**

Connector and Cards

#	Connectors/Cards	Description
6	USB1	USB connector

#	Connectors/Cards	Description
7	USB2	USB connector
8	SYNC IN	8 KHz TDM synchronization pulse input
9	SYNC OUT	8 KHz TDM synchronization pulse output
18	PRI card with PRI port	RJ-48 connector for ISDN-PRI connectivity
16	FXO card with FXO ports	RJ-11 connectors offering analog PSTN access for various VoIP endpoints such as IP phones, FXS devices, softphones and IP-based PBX.
13	ETH1	A 10/100/1000 BaseT Ethernet RJ-45 connector for access to a LAN, WAN or computer. This port is by default used for uplink / WAN connection.
14	ETH2-ETH3-ETH4/EXT-ETH5/EXT	10/100/1000 BaseT Ethernet RJ-45 connector for access to a LAN, WAN or computer. These ports are used by default for LAN connections.
12	FXS card with FXS ports	RJ-11 connectors to attach a conventional telephone or G3 fax
11	DSP CARD	No connector available.
15	BRI card with 4BRI ports	4 x RJ-48C connectors for BRI connectivity.

Endpoint Pinout

RJ-48 Connector Pin	NT/TE Settings			
	EX Controller		Other MX-ONE and MiVoice 5000 Controllers (MXe II, CXi II)	
	NT Mode	TE Mode	NT Mode	TE Mode
1	TX +	RX -	RX Ring	TX Ring
2	TX -	RX +	RX Tip	RX Tip

RJ-48 Connector Pin	NT/TE Settings			
	EX Controller		Other MX-ONE and MiVoice 5000 Controllers (MXe II, CXi II)	
	NT Mode	TE Mode	NT Mode	TE Mode
4	RX +	TX +	TX Ring	TX Ring
5	RX -	RX -	RX Tip	TX Tip

NOTE: The above table provides a comparison of the Endpoint Type settings of EX Controller and other MX-ONE and MiVoice 5000 Controllers controllers. The **Auto** port pinout option sets the pinout according to the value configured for the **Endpoint Type**.

For more information, see MiVoice 5000: Installing and Configuring Mitel EX Controller and EX Gateway.

Power and Grounding

#	DESCRIPTION
1	POWER 1 connector
2	POWER 2 connector
4	Grounding screw

NOTE: In a dual power unit, the power switch is not available.

Installation

Before You Begin

Note or take a picture of your unit's serial number before starting the installation, and place the card stickers of the cards not factory installed. Refer to Locating the Product Serial Number.

Installing the Unit on a Flat Surface

Before you start

WARNING: Before performing this procedure, you must first read and understand the Safety Recommendations listed in this document.

Steps

1. Unpack the unit and go through the Package Check List.
2. Apply the Bumpon™ autoadhesive protective products to the bottom of the unit.

   NOTE: This will improve the airflow under the unit.
3. Install the unit on the flat surface.
4. Make sure the unit is at 20 cm (8 in.) from your monitor, computer casing, or other peripheral, including speakers.

Cards

Information to Know Before You Begin

- Make sure an adequate earth ground connection has been made between the grounding screw on the back of the controller and an appropriate grounding point in your site.
- Adequate earth ground connection is mandatory to avoid any damage or injuries.
- Wear an ESD wrist strap, ensuring that it makes good contact with bare skin.
- Attach the ESD wrist strap end to an earth ground (grounding screw on the back of the controller or unpainted bare metal spot of a grounded equipment rack).
- Turn off the power switch of the controller.
- Turn off the power sources used to power the controller at the circuit breaker.

  NOTE: Redundant Power Supply units do not have a power switch.
- Disconnect all cables (except the earth ground connection) from the controller

  CAUTION: Power source cables must be disconnected last.

Installing, Removing or Replacing a Telephony Card

Important

To comply with the ISED and ACTA regulatory aspects, the label supplied with the telephony card must be applied on the exterior surface of the EX controller casing during the installation of the telephony card.

Procedure

1. Make sure an adequate earth ground connection has been made between the grounding screw on the back of the EX Controller and an appropriate grounding point in your site.

   WARNING: Adequate earth ground connection of the ex controller is mandatory to avoid any damage or injuries.
2. Wear an ESD wrist strap, ensuring that it makes good contact with bare skin.
3. Attach the ESD wrist strap end to an earth ground (grounding screw on the back of the EX Controller or unpainted bare metal spot of a grounded equipment rack).
4. Turn OFF the power switch of the EX Controller.

   NOTE: Redundant Power Supply units do not have a power switch.

   WARNING: The controller unit must be turned off before adding, removing or swapping the system cards.
5. Turn off the power sources used to power the EX Controller at the circuit breaker.
6. Disconnect all cables (except the earth ground connection) from the EX Controller.

   CAUTION: Power source cables must be disconnected last.
7. Unscrew the two thumb screws of the slot where you wish to install or replace a card.
8. Gently remove the blank plate or the existing card.

   NOTE: You can insert any type of card in any of the slots, but you must use the slots from 1 to 8, without leaving slots empty between two cards. Slot order is indicated on the front of the EX Controller (left bottom corner).

9. Gently slide the new card into the internal plastic rails of the slot.

   NOTE: The slot must not be left empty. If do not want to install a new card after removing a telephony card, insert the blank plate in the slot.

   NOTE: While sliding in the card, take care not to damage the electronic parts on the card. The card, when properly inserted, slides in easily.
10. Set the thumb screws back into place. Do not over-tighten.

For information about the slot order, see the section *Connectors and Indicators*.

Connecting the Telephony Cables

NOTE: To prevent damage to the EX Controller, make sure to connect the cables to their proper location on the EX Controller.

1. Make sure an adequate earth ground connection has been made between the grounding screw on the back of the EX Controller and an appropriate grounding point in your site.

   WARNING: Adequate earth grounding connection of the ex controller is mandatory to avoid any damage or injuries.
2. Wear an ESD wrist strap, ensuring it makes good contact with your bare skin.
3. Attach the ESD wrist strap end to an earth ground (unpainted bare metal spot of a grounded equipment rack).
4. Make sure the circuit breakers of AC power sources used to power the EX Controller are OFF.
5. Make sure the provided power cable is connected to the EX Controller and in an appropriate AC electrical outlet.
6. Connect faxes, phones or a PBX to the FXS card.
7. Connect a PBX or ISDN line to the PRI card. See *Endpoint Pinout*.
8. Connect a PSTN or a PBX to the FXO card.
9. Connect a PBX line to the BRI card. See *BRI S/T Connection (RJ-48)*.

Software Installation

MX-ONE

See *MiVoice MX-ONE Optional Installtions* on Mitel Document Center.

MiVoice 5000

See *MiVoice 5000: Installing and Configuring Mitel EX Controller and EX Gateway* on Mitel Document Center.

Troubleshooting

This chapter provides troubleshooting information for the EX Controller, intended for use by Mitel certified technicians.

Factory Reset

The Factory reset reverts the EX controller back to its default factory settings.

It deletes the persistent configuration parameters of the unit, including:

- User files stored in the File service
- Certificates, except for factory installed ones
- Log files of the File service

A Factory Reset can be done by using any of the following methods:

- Directly on the controller unit, where in you need to insert a small unbent paper clip into the hole of the **Reset/Default** button and release the paper clip.
- Using a Web interface, by navigating to **Management > Firmware** and clicking **Factory Reset**.

NOTE: While performing a factory reset, make sure that the call manager virtual machine hosted on the EX controller is powered ON during the whole process. Failing to do so might result in an incomplete factory reset.

Compliance

Standards Compliance and Disclaimers

Supported Standards

NOTE: The standards compliance of the EX controllers are printed on the same sticker as the product serial number.

Category	Specification
Agency approvals and other compliances	• Anatel • European Union • CE mark (Declaration of Conformity) • UL Mark • FCC
Safety standard	• UL 62368-1, 2nd Edition • CAN/CSA-C22.2 No. 62368-1-14 • EN 62368-1:2014
Emission	• EN61000-3-2 • EN61000-3-3 • FCC part 15, subpart B, class A • EN55032, class A • ICES-003, class A
Immunity	• EN55024: 2010 • EN61000-4-2 • EN61000-4-3 • EN61000-4-4 • EN61000-4-5 • EN61000-4-6 • EN61000-4-11

Federal Communications Commission (FCC) Disclaimer

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against

harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Important

Any modifications made to this device that are not approved by Mitel Corporation may void the authority granted to the user by the FCC to operate this equipment.

Innovation, Science and Economic Development Canada (ISED) Disclaimer

This Class A digital apparatus complies with Canadian ICES-003.

CE Marking

CE Marking

CE

Declaration of Conformity

We, Mitel Networks ™ Corporation (MITEL®), located at 4000 Innovation Drive, Ottawa, ON K2K 3K1 Canada, declare that for the hereinafter mentioned product the presumption of conformity with the applicable essential requirements of Directives 2014/30/EC and 2014/35/EC European parliament (EMC and LVD directives) is given. Any unauthorized modification of the product voids this declaration. For a copy of the original signed Declaration Of Conformity please contact Mitel at the above address.

RoHS Declaration of Compliance

This controller is in compliance with the Council Directives 2011/65/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

RoHS China

EX controller complies with the China IEC 60950-1 safety deviation, but does not require CCC approvals.

这个文件涉及的是在中华人民共和国境内进口或销售的电子信息产品

Include this document with all Electronic Information Products imported or sold in the People's Republic of China.

部件名称 (Parts)	有毒有害物质或元素 (Hazardous Substance)					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr^{6+})	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
塑料和聚合物部件 (Plastic and Polymeric parts)	0	0	0	0	x	x
集成电路 (Integrated Circuit)	x	0	x	0	x	x

0： 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T-11363 - 2006 规定的限量要求以下。

Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T-11363 - 2006 standard.

x： 表示该有毒有害物质至少在该部件的某一均质材料中的含量可能超出SJ/T-11363 - 2006规定的限量要求。

Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts might exceed the relevant threshold of the SJ/T-11363 - 2006 standard.

除非另外特别的标注,此标志为针对所涉及产品的环保使用期限标志. 某些可更换的零部件会有一个不同的环保使用期限(例如,电池单元模块)贴在其产品上.

此环保使用期限只适用于产品是在产品手册中所规定的条件下工作.

The Environmentally Friendly Use Period (EFUP) for all enclosed products and their parts are per the symbol shown here, unless otherwise marked. Certain field-replaceable parts have different EFUP (for example, battery modules) and so are marked to reflect such. The Environmentally Friendly Use Period is valid only when the product is operated under the conditions defined in the product manual.

Other Disclaimers

Attitude of Operation


仅适用于海拔2000m以下地区安全使用"或类似的警告语句

Use only at altitudes no more than 2000 m above sea level.

Only use in non-tropical climate regions.

FXO Card Standards of Compliance and Disclaimers

FXO Card – Supported Standards

Category	Specification
Telecom	• TBR 21: January 1998 • CS-03 Part I; Issue 9 including Amendment 1 to 4 IC: 3169A-087 REN 0.1 • TIA-968-B including Amendments B1, B2 and B3 US: 5WKIT01A087 REN 0.1

FXO Card – Federal Communications Commission (FCC) Disclaimer

The FXO card complies with Part 68 of the FCC Rules. On the underside of this equipment is a label that contains, among other information, the FCC Registration Number, Ringer Equivalence Number (REN) and USOC jack type for this equipment. You must, upon request, provide this information to your telephone company. The REN is useful to determine the quantity of devices you may connect to your telephone line and still have all of those devices ring when your telephone number is called. In most, but not all areas, the sum of the REN's of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices you may connect to your line, as determined by the REN, you should contact your telephone company to determine the maximum REN for your calling area. If your telephone equipment causes harm to the telephone network, the Telephone Company may discontinue your service temporarily. If possible, they will notify you in advance, but if advance notice is not practical, you will be notified as soon as possible. You will be informed of your right to file a complaint with the FCC. Your telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service. If you experience

trouble with this telephone equipment, please contact Mitel for information on how to obtain service or repairs. The telephone company may ask that you disconnect this equipment from the network until the

problem has been corrected or until you are sure that the equipment is not malfunctioning. This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs. This device is equipped with an USOC RJ-11C connector.

FXO Card – Innovation, Science and Economic Development Canada (ISED) Disclaimer

The FXO card meets the applicable Innovation, Science and Economic Development Canada technical specifications.

The Ringer Equivalence Number (REN) indicates the maximum number of devices allowed to be connected to a telephone interface. The termination of an interface may consist of any combination of devices subject only to the requirement that the sum of the RENs of all the devices not exceed five.

PRI/T1/E1/J1 Card - Standards Compliance and Disclaimers

The PRI/T1 card complies with Part 68 of the FCC Rules. On the underside of this equipment is a label that contains, among other information, the FCC Registration Number, Ringer Equivalence Number (REN) and USOC jack type for this equipment. You must, upon request, provide this information to your telephone company. If your telephone equipment causes harm to the telephone network, the Telephone Company may discontinue your service temporarily. If possible, they will notify you in advance, but if advance notice is not practical, you will be notified as soon as possible. You will be informed of your right to file a complaint with the FCC. Your telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service. If you experience trouble with this telephone equipment, please contact Mitel for information on how to obtain service or repairs. The telephone company may ask that you disconnect this equipment from the network until the problem has been corrected or until you are sure that the equipment is not malfunctioning. This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs. This device is equipped with an USOC RJ-48C connector.

PRI/T1/E1/J1 Card – Innovation, Science and Economic Development Canada (ISED) Disclaimer

The PRI/T1 card meets the applicable Innovation, Science and Economic Development Canada technical specifications.

BRI Standards Compliance and Disclaimers

Category	Specification
Telecom	TBR3:1995 + A1:1997

Product Disposal Instructions

This symbol indicates that the product is classified as electrical or electronic equipment and should not be disposed of along with commercial or household waste at the end of its working life. For appropriate disposal and recycling instructions, contact your local Mitel Corporation provider.

The Waste of Electrical and Electronic Equipment (WEEE) Directive (2002/96/EC) was established by the European Union to minimize negative impact on the environment, control hazardous substances, and curtail landfill expansion by using the best available recovery and recycling techniques.