

# Muratec Office Bridge IF-200 Internet Fax Machine

IF-200 Operating Instructions

**muratec**<sup>™</sup>  
The Fax Specialists.




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## Regulatory Information

<b>Safety Symbols</b>		
	<b>CAUTION</b>	The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the equipment.
		The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons. To reduce the risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Refer servicing to qualified service personnel.
<b>Ringer Equivalence</b>		<p><b>NOTICE:</b> The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.</p> <p>The REN of this device is 0.8B.</p>

Additional Regulatory and Compliance Information can be found in Appendix B, Regulatory Information section of this guide.

<i>Complies with Part 68, FCC Rules for Class A, Part 15. FCC Registration No.:</i>	<b>EBZKOR-43007-MM-E</b>
<i>Ringer Equivalence No.:</i>	<b>(REN) 0.8B</b>
<i>USOC: RJ11C Connecting Method</i>	<b>CA11A</b>
<i>UL compliance registration</i>	<b>E179677</b>
<i>Industry Canada (CP-01, Part I, Section 14.2)</i>	<b>To 885 10935 A</b>

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# 1. Introduction

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## 1.1. The Muratec Office Bridge IF-200 IP Fax System

The Muratec Office Bridge IF-200 captures the power of the Internet for fax users by sending fax documents over the Internet and corporate Intranets. The product converts fax documents into an e-mail format and sends them to any e-mail address, for both PC e-mail users and fax machines. The IF-200 allows you to take advantage of the vast reach and cost savings of the Internet for fax and e-mail capability.

The IF-200 is simple to use. It connects in-line between the fax machine and the telephone line and directly to the LAN. A document is placed in the fax machine, the recipient's number is dialed on the fax machine, and the fax machine sends the document. The IF-200 intercepts the fax document, converts it into an e-mail format, and sends the e-mail document over an IP network or the Internet, to the recipient's e-mail address. The IF-200 also checks for e-mail messages you have received and downloads the messages to the fax machine for printing.

The IF-200 is compatible with all ITU Group 3 fax and multi-function devices. It automatically sends a fax over the public switched telephone network if it is unable to send it over an IP network or the Internet.

The following terms are used in this guide:

- **E-Mail:** Electronic mail, the method of transferring information over the Internet or Intranet
- **Mailbox:** The e-mail address where you receive Internet faxes
- **LAN:** Local Area Network through which you are connected to the Internet

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## 2. Installation

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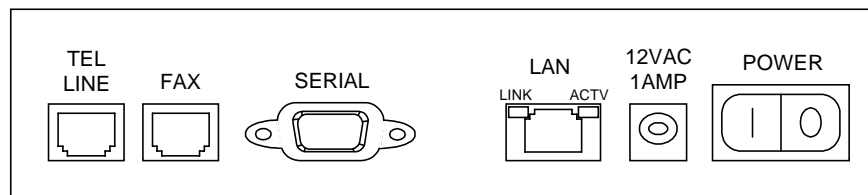
### 2.1. Before You Begin

Remove the IF-200 from the box carefully and remove all packing material. Verify that you have the following items:

- IF-200 product
- AC adapter
- Telephone line cord
- Category 5 patch cable
- Installation Guide and Operation Guide

### 2.2. Connecting the IF-200

All connections are made on the rear panel of the IF-200. Figure 1 illustrates the rear panel of the IF-200.



**Figure 1. Rear Panel**

#### **CAUTION**

Make sure the IF-200 power switch is in the OFF position before making any connections. To avoid any danger of shock from the telephone line, connect the telephone line cord to the IF-200 *before* connecting it to the wall jack. Do not install this equipment during lightning storms.

#### 2.2.1. First Time Setup

1. **If you are using an existing fax machine**, unplug the telephone line cord from the back of the fax machine (the one that goes to the telephone wall jack). Do not touch the metal contacts on the end of the cord. Now, plug that line cord into the “TEL LINE” jack on the back of the IF-200.

**NOTE:** **If you are installing your fax machine for the first time**, plug the telephone line cord that came with your fax machine into the “TEL LINE” jack on the back of the IF-200. Plug the other end of the telephone cord into the RJ-11 telephone wall jack.



***IF-200 from Muratec***

2. Plug one end of the telephone line cord that came with the IF-200 into the “telco” or “line” jack on the fax machine. Plug the other end of the cord into the “FAX” connector on the IF-200 rear panel.
3. Plug one end of the Category 5 patch cable (supplied) into the LAN jack (RJ-45) on the rear panel of the IF-200. Connect the other end of the Category 5 Patch cable to the 10 Base T Ethernet connection. The green LED is lit when the IF-200 is connected to the network. The yellow LED lights up whenever there is activity across the LAN connection.
4. Plug the AC power adapter cord into the 12 VAC 1AMP connector on the IF-200 rear panel. Plug the adapter into a 110 VAC wall outlet.

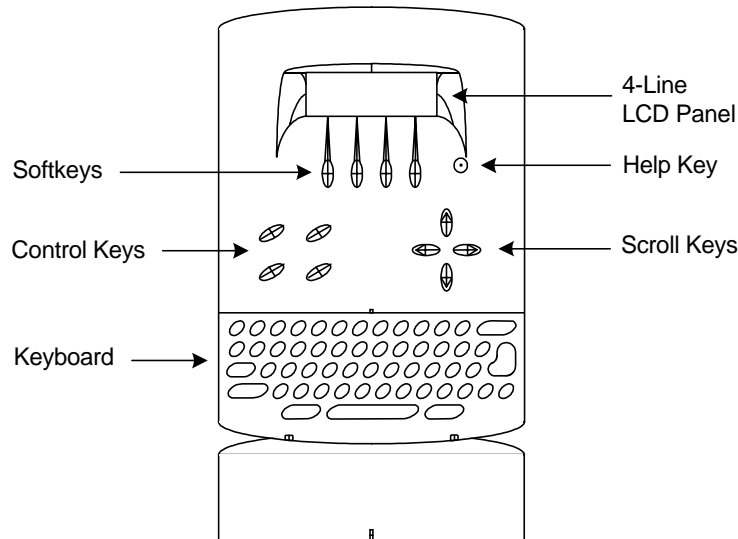
## 3. Quick Start

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### 3.1. Front Panel Controls

Before you begin using the IF-200, you must enter some information using the control keys and the keyboard.

The front panel of the IF-200 contains a control panel, a four-line Liquid Crystal Display (LCD), and a computer-style keyboard.



**Figure 2. Front Panel Controls**  
**Table 1. Buttons**

BUTTON	FUNCTION
Softkeys	These keys change function depending on the menu screen being displayed.
Help Key	Displays information about IF-200 screens.
Four Scroll Keys	Located below the Help key, these are used to move the cursor around the LCD display: up, down, right, left.
Keyboard	Enter mailbox, ISP and other setup information. The keyboard includes all of the standard keys found on most PC keyboards.

**Table 2 Control Keys**

KEY	DESCRIPTION
Receive	Poll (call) the ISP and download new messages.
Print	Provide the option of printing the Phone Book, Journal, IF-200's IP Settings, or Help information.
Resend	Resend a message if there has been a transmission failure.
Cancel	Stop any current transmission action.

### 3.2. Initial Setup

Step 1: Refer to the IF-200 Worksheet in Appendix A of this guide for the required information. Complete the Worksheet under "Settings for your ISP/Mailbox." Your network system administrator can provide the data required to complete the worksheet.

Step 2: After you have completed the IF-200 Worksheet, turn on the IF-200 using the power switch on the rear panel. The LCD screen shows messages. Follow the instructions on the LCD screen and use the keys on the front panel to enter information. After the IF-200 has been set up, the information remains in memory, even if the power is turned off.

After the power is turned on, the Welcome screen appears after a few seconds.

WELCOME to the world  
of IP Fax Mail!  
vX.XX  
<Press any key>

Press any key to start the setup process.

Connect FAX machine  
to FAX port on the  
IF-200  
<Press any key>

Make sure your fax machine is connected to the IF-200. Press any key to continue the setup process.

Print IF-200  
worksheet detailing  
required ISP info?  
YES NO

If you have not already completed the Worksheet in the appendix of this guide, press YES to print out a Worksheet. If the Worksheet is completed, press NO and go to section 3.3, "Entering your ISP and Mailbox Information".

Did worksheet  
print OK?  
YES NO

If you pressed YES above, you see the screen shown to the left. Press YES if the Worksheet printed.\* Press NO to try again.

\*Using this blank Worksheet or the sample Worksheet in the back of this guide, ask your local LAN or IT administrator to provide the information requested. It will be required in the next section of this Guide to attach the IF-200 to the LAN.

### 3.3. Entering Your ISP and Mailbox Information

Once you have completed the Initial Setup and received the LAN information from your LAN administrator, the IF-200 asks you to input the LAN information in a series of screens. Use the keyboard to enter the information and press OK to move to the next screen. Use the ESC key to go back one screen.

DATE: 00/00/00
OK                      ESC

Enter the current date and press OK.

TIME: 00:00 AM
OK                      ESC

Enter the current time and press OK.

Time Zone: GMT Greenwich
OK    PREV    NEXT    ESC

Enter the time zone for your geographic region. Scroll through the options using the PREV and NEXT soft keys, and press OK when the correct time zone is displayed.

*From this point in the Setup sequence, please enter the LAN information from the Worksheet as provided by your LAN administrator.*

MailBox Name: -
OK                      ESC

Enter your mailbox name (the name you choose to refer to your mailbox, *not* your full e-mail address, up to 60 characters) and press OK.

**NOTE:** The screens below request you to enter several IP addresses. The correct format of an IP address is:

xxx.xxx.xxx.xxx where x is a digit, 0 –9.

The dot, “ . “, is also part of the address and must be supplied when entering IP addresses.

Enter the Netmask IP Address from the Worksheet and press OK.

Netmask IP Address: 255.255.255.0
OK                      ESC

Gateway IP Address: <u>0</u> .0.0.0
OK ESC

IF-200 IP Addr: USE DHCP 0.0.0.0 OK PREV NEXT ESC
--

Primary DNS Addr: <u>0</u> .0.0.0
OK ESC

Secondary DNS Addr: <u>0</u> .0.0.0
OK ESC

SMTP Server Address: -
OK ESC

POP Server Address: -
OK ESC

POP Username: -
OK ESC

POP Password: -
OK ESC

POP Password: - Re-enter password OK ESC
---

Your E-Mail Address: <u>*name@pop.com*</u>
OK ESC

Enter the IP Address of gateway server from the Worksheet and press OK.

The IF-200 is capable of determining its own IP address (if supported by your LAN) using DHCP, RARP, an Auto Assign method or a Static IP (manual input from the keypad). Use the PREV and NEXT keys to select the method of determining the IF-200's IP address.

Enter the IP address of the Primary DNS server (Domain Name Server) from the Worksheet and press OK.

Enter the IP address of the Secondary DNS (Domain Name Server) from the Worksheet and press OK (this field is optional, to skip, leave blank and press OK).

Enter the name or IP address of the SMTP (Simple Mail Transport Protocol server) from the Worksheet and press OK. This is how the IF-200 sends mail.

Enter the name or IP address of the POP3 server (Point of Presence server) from the Worksheet and press OK. This is how the IF-200 receives mail.

Enter the name of the POP email account for this IF-200 and press OK.

Enter the password for this email account.

Re-enter the password for this email account to ensure you know the password.

The IF-200 displays its email address based on your input. If this email address is correct, press OK. Otherwise, press ESC to correct the information.

IF-200 Phone#:	
-	
OK	ESC

Enter the telephone number of the phone line to be attached to the IF-200.

Print IF-200 worksheet detailing completed ISP info?	
YES	NO

If you would like verification that your IF-200 is configured correctly, press YES and the IF-200 will print a completed worksheet. Otherwise, press NO to see the Main screen.

Connect LAN cable to the LAN port on the IF-200	
<Press any key>	

Confirm the connection of the supplied RJ-45 ethernet cable to the LAN port on the rear of the IF-200. You should see a green indicator light on the LAN port. Press any key when complete.

Send test FAX and registration to Muratec	
YES	NO

If you pressed YES, the IF-200 sends a test FAX to Muratec.

Sending test FAX and registration to Muratec	
****Please Wait****	

After the e-mail has been sent, press any key to go to the Main screen. You may then press the Receive key to check for an e-mail confirmation from Muratec. The IF-200 automatically checks for mail in 15 minutes.

Test e-mail sent!	
Use Receive key to Check for new e-mail	
<Press any key>	

IF-200	vx.xx
PHONE-BOOK	SETUP

Main screen (ready mode) of the IF-200. To change an incorrect entry after this process is complete, press SETUP from the Main screen. Move the cursor to the ISP/Mailbox line and press EDIT.

For an overview of all the IF-200 Menu choices, refer to the IF-200 Menu Chart in the appendix.

### 3.4. Phone Book

The phone book is a list of the e-mail addresses and phone numbers to which you will be sending faxes. For each phone book entry, the IF-200 asks you for the person or company name, their e-mail address, and their fax number. The IF-200 assigns each phone book

entry a three- or four-digit number (you may change this number; see Editing a Phone Book Entry).

IF-200	vx.xx
PHONE- BOOK	SETUP

100/jane<jane@pop.com
ADD EDIT SORT ESC

From the Main screen, press the Phone Book softkey.

The Phone Book screen displays a list of current phone book entries and offers four options: add, edit, sort and escape.

#### 3.4.1. Adding a Phone Book Entry (ADD)

Press ADD. The IF-200 asks you for the information below. Enter the information from the keypad and press OK to move to the next screen.

Person's Name:	
-	
OK	ESC

1. Enter the person or company name (ex: jane)
2. Enter their e-mail address (ex: [jane@pop.com](mailto:jane@pop.com))
3. Enter the direct dial fax number for the recipient's fax machine. The IF-200 uses this number to send the fax over the public switched telephone network if the e-mail transmission fails.

The IF-200 assigns a three- or four-digit number to each phone book entry which can be edited later.

#### 3.4.2. Editing a Phone Book Entry (EDIT)

Use the up and down scroll keys to move to the address that you want to change. Press the EDIT key to display the Edit screen.

No.: 100
Name: jane
Addr: jane@pop.com
EDIT SORT ESC

You may EDIT the following fields:

- Number: The number assigned to this phone book entry.
- Name: The person or company name.
- Address: Their e-mail address.

- **Direct #:** The fax number to be used if the IF-200 is unable to send over an IP network or the Internet.
- **Pre-connect Suffix:** Numbers to be dialed after the Direct # but before connecting. Useful for calling card calls.
- **Post-connect Suffix:** Numbers to be dialed after connecting to the Direct #. Useful for calling into a PBX.
- **Confirmations:** Whether or not you want confirmations sent to your mailbox when fax mail you sent is read.
- **Use Fax# for E-Mail:** Whether you want faxes sent over the Internet or the public switched telephone network when the Direct # (if one is entered) is dialed on the fax machine.

Move to the field that you want to change and press EDIT. Make the changes and press OK.

To delete the phone book entry, press DEL.

**NOTE:** PUBLIC phone book entries (created with the Remote Configuration Software) cannot be edited or deleted using the IF-200's keypad.

#### **3.4.3. Sorting a Phone Book (SORT)**

You can list the phone book entries alphabetically or numerically. Press the SORT key to switch between alphabetical and numerical listings.

#### **3.4.4. ESC**

Press the ESC key to return to the Main screen.

Quick Start is complete. You are now ready to begin Internet Faxing or go to Section 5 to set up your Group Phone Book.



## 4. Using The IF-200

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### 4.1. Sending a Fax

Once Quick Start is complete, you have the option of sending a fax as e-mail, via a fax service provider, or over the public switched telephone network. In the first two cases, the fax is sent over an IP network or the Internet, either to a destination e-mail address or to a fax service provider who then delivers the fax. The IF-200 displays a series of different screens as it receives the fax from the fax machine and then sends it. A fax sent over the public switched telephone network passes through the IF-200 as if it were not connected. The IF-200 displays “Fax: Off Hook” while a direct fax is being sent.

The three methods of sending faxes are described below. The descriptions listed coincide with the IF-200’s default settings. If you make changes to the Send Method or Hot Character fields located in the System Settings menu (see Section 6), you will need to modify the sending procedures accordingly. In all cases, perform the following steps:

1. Place the document in the fax machine.
2. Dial the appropriate number on the fax machine.
3. Press the START or SEND button on the fax machine.

#### 4.1.1. Sending a Fax as E-mail

- By dialing the IF-200 phone book Speed Dial number: The three- or four-digit number assigned to the IF-200 phone book entry is used to send faxes over the Internet.
- By dialing a standard fax number: A standard fax number can be dialed to send a fax over the Internet. The number must have been entered in the Direct # field when setting up the IF-200 phone book, and the Use Fax# for E-Mail field must have been set to “Yes” also when setting up the IF-200 phone book.
- By dialing # [Send/Start] button: This is called “One Shot.” It enables you to send to a random e-mail address that is not pre-stored in the IF-200’s phone book. Internet faxes can be sent to addresses not in your phone book by pressing the # button on the fax machine. The IF-200 prompts you for an e-mail address. Enter the e-mail address using the IF-200 keyboard. After you have done so, the Internet fax is sent.

**NOTE:** If your fax machine does not allow you to enter press the # [Send] button, you may use the reserved speed dial, 9999 [Send] to use the “one shot” feature.

#### 4.1.2. Sending a Fax Over the Telephone Network

- To send a normal fax over the telephone network and override e-mail delivery:

#### **4. Using The IF-200**

Dial ## fax telephone number Send, if you want to send to a fax number that is stored in the IF-200, and you do not want the document to go to e-mail. Your document will be sent as a normal fax for this transmission.

- To send a fax via a fax service provider:

**NOTE:** This is only possible for those customers who have an account with a fax service provider. Also, the Fax Service Routing field, located in the System Settings menu (see Section 6), must be defined.

Dial  telephone number . “Telephone number” is the number of the recipient’s fax machine, not the fax service provider number.

## 4.2. Receiving a Fax

### 4.2.1. Receiving Conventional Fax Messages

Unless you enable “Route Incoming Faxes to Email” in “Expert Settings”, incoming faxes from regular telephone fax machines will be received and printed on the fax machine as usual. The IF-200 will not answer the incoming calls on the fax telephone line.

For more information, please send inquiries to [webmaster@muratec.com](mailto:webmaster@muratec.com). Please include your telephone and fax number in your message.

Receiving Email and IP Fax Mail is described on the next page of this manual.

### 4.2.2. IP Network or Internet Faxes

The IF-200 automatically polls (checks) its mailbox for new messages, or you may do so manually. The IF-200 displays a series of different screens while it is receiving an Internet fax.

The IF-200 first receives the fax from the ISP and then sends it to the fax machine for printing.

Conventional faxes (from the public switched telephone network) pass through the IF-200 and print on your fax machine, unless “Route Incoming Faxes to Email” is enabled (see Expert Settings).

### Automatic Reception

The IF-200 can be set to poll its mailbox at a specified interval or at specific times of the day. By default, the IF-200 is set to poll your mailbox every 120 minutes. To change the polling interval or switch to a polling schedule, see Section 6.

### Manual Reception

To download messages at any time, press the Receive key on the IF-200.

The IF-200 prints the messages you accept to print on your fax machine. The accepted messages are currently determined by the default setting. To change your accepted messages, see ISP/Mailbox Information (Section 6).

**4.2.3. Automatic Routing of Fax Messages to Email**

Documents sent from non-Internet fax machines pass through the IF-200 and print on your fax machine. If you would like to have all incoming fax messages routed to email, this can be set up and configured in the Expert Settings, described later in this guide. If this feature is enabled, all conventional faxes will go to the email address specified and will NOT print on the fax machine.

## 5. Group Phone Book

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### 5.1. Adding, Editing or Deleting a Group

The Group Phone Book option allows you to group two or more phone book entries together so that you can send the same fax to multiple locations at one time. Each group may contain a maximum of 255 e-mail addresses.

For example, if a company headquarters wants to send the same information to ten branch offices, the phone book entries for the branch offices can be linked together creating a group. The headquarters can send a fax using the group number and the IF-200 will send the fax to all the members of the group. Having a phone entry as part of a group does not prevent the sender from also sending a fax to that phone book entry individually. Groups are listed in the Main Phone Book for the user's convenience, but adding, editing or deleting a group must be done using the Group Phone Book menu.

### 5.2. Viewing a Group Phone Book

IF-200	vx.xx
	Poll -> 2 hr
PHONE- BOOK	SETUP

ISP/MailBox Info.	
System Settings	
Group Phone Book	
EDIT	ESC

ADD	EDIT	SORT	ESC
-----	------	------	-----

From the Main screen, press SETUP.

Scroll down to Group Phone Book. Press EDIT to display the Group Phone Book screen.

The Group Phone Book is currently blank because no groups exist at this time.

### 5.3. Adding a Group Phone Book

Group Name:	
-	
OK	ESC

✓101/Branch1 <Branch1			
✓101/Branch2 <Branch2			
OK	SEL	NEXT	ESC

To add a group, press ADD. Enter the group name (up to 60 characters) and press OK.

(ex: Branch Offices)

The IF-200 displays the current numbers and names entered in your Main Phone Book. Scroll to the first name you want to add to this group. Press the SEL key to select it.

A small ✓ appears next to each number you select. To deselect a number, press the SEL key again.

```
8000/Branch Offices  
  
ADD EDIT SORT ESC
```

Select all the names you want for this group and press OK. The IF-200 displays the Group speed dial number and name. Press ESC until you return to the Main screen.

### 5.4. Editing a Group Phone Book

To edit a group, press SETUP from the Main screen.

```
8000/Branch Offices  
  
ADD EDIT SORT ESC
```

Scroll to Group Phone Book and press EDIT. The IF-200 displays the list of groups. Scroll to the group name you want to edit and press EDIT.

```
Numb: 8000  
Name: Branch Offices  
List: 101, 102  
      EDIT DEL ESC
```

The IF-200 displays the following screen. You may edit three fields:

1. Group Number
2. Group Name
3. List of entries (by speed dial number) you have assigned to this Group

```
Group Number:  
8000  
  
OK ESC
```

Scroll to the field you want to edit and press EDIT. Use the keyboard to make the changes and press OK. Press ESC until you return to the Main screen.

### 5.5. Deleting a Group Phone Book

To delete a group, press SETUP from the Main screen. Scroll to Group Phone Book and press EDIT.

```
8000/Branch Offices  
  
ADD EDIT SORT ESC
```

Scroll to the group you want to delete and press EDIT.

```
Numb: 8000  
Name: Branch Offices  
List: 101, 102  
      EDIT DEL ESC
```

The IF-200 displays the information to be deleted. Press DEL.

**IF-200 from Muratec**

Delete Group entry.	
Are you sure y/n?	
YES	NO

The IF-200 asks if you are sure you want to delete the group. Press YES. Press ESC until you return to the Main screen.

**NOTE:** PUBLIC phone book entries (created with the Remote Configuration Software) cannot be edited or deleted using the IF-200's keypad.

## 6. Updating Information After Setup

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### 6.1. ISP/Mailbox Information

This menu allows you to edit any of the information you entered during the setup process. In addition, the following settings can be changed from their default values (indicated by bold type).

**Table 2. ISP/Mailbox Settings and Options**

SETTING	OPTIONS AND DESCRIPTION
Delete E-Mail	<b>Yes, No.</b> Whether or not you want e-mail to be deleted after it has been successfully printed at the fax machine. <b>NOTE:</b> If you choose No here, the e-mail builds up in your mailbox and must be deleted by another source.
Print all E-Mail	<b>Yes, No.</b> Whether or not you want to print all e-mail in your mailbox. If you select No, only fax-related e-mail is printed.

To change the ISP/Mailbox settings:

From the Main screen, press **SETUP**, scroll to **ISP/Mailbox Info** and press **EDIT**. The IF-200 displays the current settings.

MailBox: myfax
Pri DNS: 205.216.138.22
Sec DNS: 205.138.24
EDIT                      ESC

Scroll to the setting you want to change and press **EDIT**.

To change a setting:

- Use the keyboard to enter information or
- Use the **PREV** and **NEXT** keys to make your selection for that field

Press **OK** after changes are complete. Press **ESC** until you return to the Main screen.



## 6.2. System Settings

To change any of these settings, press **SETUP** from the Main screen. Scroll to System Settings and press **EDIT**. Use the scroll keys to move to the field you want to change and press **EDIT**. Make the change and press **OK**. Press **ESC** until you return to the Main screen.

**Table 3. System Settings and Options**

<b>SETTING</b>	<b>OPTIONS AND DESCRIPTION</b> (Default settings are in <b>BOLD</b> type)
DATE	Current date.
TIME	Current time.
Time Zone	Time zone for your geographic region.
Time Display	<b>AM-PM</b> , 24-HR. Whether you want time displayed in military (24-HR) or 12 hour (AM-PM) time.
Phone Dialing Prefix	Digit(s) to be dialed prior to any phone number stored in the IF-200 (i.e. 9).
Netmask IP Address	Network mask.
Gateway IP Address	IP address of router.
IF-200 Address	Static, <b>Use DHCP</b> , Use RARP, AUTO ASSIGN IP. You may specify a static IP address, use DHCP to obtain an IP address, use RARP to obtain an IP address, or auto assign an IP address. When the IF-200 auto assigns an IP address, it first uses DHCP and then RARP (if DHCP fails) to obtain an IP address.
E-Mail Header	<b>Normal</b> , Don't Print, Verbose. Dictates whether the e-mail header (text) is printed to the fax machine or stripped.
Print Errors	<b>Yes</b> , No. If enabled, prints errors on the fax machine as they occur.
Dial Method	<b>Tone</b> , Pulse-10, Pulse-20. The method of dialing supported by the telephone lines in your geographic region.
Need Dial Tone	<b>Yes</b> , No. Whether or not the IF-200 data modem used to connect to the Internet waits for dial tone before dialing the phone number. In some countries the dial tone is weak and should not be waited for.
Insert Comma After 9	<b>Yes</b> , No. Whether or not a comma should be inserted after 9 when it is the first digit of a phone number dialed on the fax machine.
Poll Mode	<b>Periodic</b> , Scheduled, Disabled. Determines whether the IF-200 checks for mail according to the Poll Interval, the Poll Schedule or not at all.

SETTING	OPTIONS AND DESCRIPTION (Default settings are in <b>BOLD</b> type)
Poll Interval	<b>120 Minutes.</b> How often the IF-200 checks for mail if the Poll Mode is Periodic. Enter the time in minutes from 0 (does not poll) to 1440 (24 hours).
Poll Schedule	Allows you to specify which days and times the IF-200 checks for mail if the Poll Mode is Scheduled.
Poll After Sending	<b>Yes, No.</b> Whether or not the IF-200 checks for pending e-mail immediately after an Internet fax is sent before disconnecting from the ISP.
Send Method 1-3	EMAIL, FAX SERVICE, DIRECT FAX. These fields allow you to change the dialing options for sending a fax. When a number is dialed on the fax machine, the fax is sent using Send Method 1 ( <b>EMAIL</b> ). When the number is prefixed with a single hot character, <b>#</b> , the fax is sent using Send Method 2 ( <b>FAX SERVICE</b> ). When the number is prefixed with two hot characters, <b># #</b> , the fax is sent using Send Method 3 ( <b>DIRECT FAX</b> ).
Hot Character	The digits or characters ( <b>#</b> ) dialed prior to the phone number when using “One-Shot” e-mail or a fax service.
Enable Journal	<b>Yes, No.</b> Whether or not the journal is automatically printed.
Journal E-Mail Time	<b>12:00 AM.</b> At the time specified here, the IF-200 sends its journal to the e-mail address specified in the Journal E-Mail Addr field, if one is defined.
Journal E-Mail Addr	If an e-mail address is entered, the IF-200 sends its journal to this address and at the time specified in the Journal E-Mail Time field.
Journal Format	<b>Text - sends a user readable format.</b> Binary - sends raw binary attachment. For use by computer programs that are familiar with the binary format. Do not use unless you are processing journals by computer or are familiar with the format. Format users would like to receive the emailed journal in.
Config. E-Mail Addr	If an e-mail address is entered, the IF-200 sends its configuration information to this address any time a change is made.

**SETTING**

**OPTIONS AND DESCRIPTION** (Default settings are in **BOLD** type)

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Fax Service Routing

The IF-200 supports sending faxes with fax service. If you have an account with a fax service provider and want to send selected faxes via the fax service, the Fax Service Routing field should be configured to the name of your fax service provider.

With this data in the Fax Service Routing field, any fax number prefixed with the **#** sign is sent as e-mail to the fax service. The fax service then sends the fax to the telephone number.

Your fax service provider can give you specific details regarding how to properly configure the IF-200 to work with their service.

Fax Service Format

Determines how Fax Service Routing field is used in order to work with the different fax service providers.

Your fax service provider can give you specific details regarding how to properly configure the IF-200 to work with their service.

**NOTE:** Default settings are in **BOLD** type.

## 7. Advanced Settings

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### 7.1. Expert Settings

Expert Settings allow you to change the detailed behavior of your IF-200.

**NOTE:** It is strongly recommended that you do not change any of these settings without guidance from the Diagnostic Center. They can be reached at 800-347-3296.

To make a change, press SETUP from the Main screen. Scroll to Advanced Settings and press EDIT. Then, scroll to Expert Settings and press EDIT. Use the scroll keys to move to the field you want to change and press EDIT. Make the change and press OK. Press ESC until you return to the Main screen.

**Table 4. Expert Settings and Options**

<b>SETTING</b>	<b>OPTIONS AND DESCRIPTION</b> (Default settings are in <b>BOLD</b> type)
Serial #	Your IF-200 serial number. (Cannot be changed.)
Ethernet Address	IF-200's IEEE MAC Address. (Cannot be changed)
IF-200 Password	Controls access to IF-200 system settings. Inactive unless entered.
IF-200 Phone #	“ <b>IF-200</b> ” is the current default. You may change this to the telephone number of your fax machine.
CSID	<b>BLANK</b> Calling Station I.D.
Host Baud Rate (Not currently used)	4800 9600 19200 <b>38400</b> 57600 115200  The baud rate of the SERIAL port used to communicate with a PC for remote configuration purposes in bits per second (bps).
Fax Baud Rate	<b>Maximum</b> 9600 7200 4800 2400

SETTING	OPTIONS AND DESCRIPTION (Default settings are in <b>BOLD</b> type)
E-mail Size	<b>4096</b> . Limit to set on size of e-mail in kilobytes. Some ISPs limit e-mail size.
Confirmations	<b>Yes, No</b> . Whether or not you want confirmation when an Internet fax is read by the recipient.  <b>NOTE:</b> The recipient must be receiving e-mail through an IF-200 for this feature to work. This setting is applied to each phone book entry individually. The phone book entry initially takes on the value to which this field is set when the entry is created, but the value can be changed by editing the phone book entry.
Use Fax# for E-Mail	<b>Yes, No</b> . When a fax number is dialed on the fax machine, the IF-200 can do a search for that fax number in the phone book and if found (in the Direct # field), send the fax to the corresponding e-mail address or it can send the fax conventionally to the fax number dialed.  <b>NOTE:</b> If this field is set to Yes, a fax can still be sent conventionally by dialing <b>##</b> fax number (see Section 4, Sending a Fax). This setting is applied to each phone book entry individually. The phone book entry initially takes on the value to which this field is set when the entry is created, but the value can be changed by editing the phone book entry.
Error Retries	<b>5</b> . Set the number of retries before the IF-200 stops dialing a number.
Error Wait (mins)	<b>1</b> . Number of minutes to wait before redialing with any other error.
Fax Units	<b>INCHES, METRIC</b> . The units used to store fax data.
Fax Encoding	<b>Modified Modified READ (MMR)</b> , Modified Huffman (MH). The encoding method used to store fax data. MMR is more compact than MH.
Bit Fill Order	<b>LSB First, MSB First</b> . Unless you understand the internals of TIFF and need to modify this field, do not change it from its default setting.
Dial Digit Timeout (secs)	<b>6</b> . Time to wait between digits dialed on fax machine before the number is deemed complete.

SETTING	OPTIONS AND DESCRIPTION (Default settings are in <b>BOLD</b> type)
E-Mail Subject	<b>“Muratec Fax”</b> The subject to be listed in the header of outgoing IP network or Internet faxes.
Prompt for Subject	Yes, <b>No</b> . Allows user to define subject of email. During the sending of a fax the user is prompted to enter the subject of the email. If no subject is entered the default subject is inserted.
E-Mail Desc 1-4	<p>Four lines of text at the bottom of the header of outgoing IP network or Internet faxes:</p> <p>1: Internet Fax is attached from a Muratec IF-200. If needed,  2: download a free TIFF viewer from <a href="http://www.muratec.com">www.muratec.com</a>. Click on <i>products</i> link, then click on the link for the IF-200 product page, where you will find the viewer download file.  3: If you have problems or questions contact <a href="mailto:webmaster@muratec.com">webmaster@muratec.com</a>. Please  4: include your fax and telephone numbers so Muratec can respond.</p>
Lines Per Page	<b>63</b> . The number of lines of an e-mail text you wish to be printed on each page.
Max Text Pages	<b>5</b> . Maximum number of pages of an e-mail text before it is classified as “other” e-mail type.
Local Number Length	<b>0</b> . If the number of digits in a local telephone number is specified, then the following occurs. When a fax is sent using the FAX SERVICE send method and the length of the telephone number is less than or equal to the length specified, the fax is sent as a direct fax rather than using the fax service.
Print all Text	<b>Yes</b> . Prints all text regardless of character set.
Route Incoming Faxes to Email	<b>No</b> . Reroutes all Direct Incoming faxes to a user specified e-mail address.
Inbound Routing Address	E-mail address to route Direct Incoming faxes to.
Verbose	Yes, <b>No</b> . If enabled, communicates debugging information via the IF-200’s SERIAL port at 38400 Baud, 8 data bits, 1 stop bit, no parity.

SETTING	OPTIONS AND DESCRIPTION (Default settings are in <b>BOLD</b> type)
Rack mount Operation	Yes, <b>No</b> . If enabled, the IF-200 does not wait for a key stroke when it displays “Press any key” or “Press Resend or Cancel.” This is useful for unattended operation.
Auto Apply Firmware Updates	Yes, <b>No</b> . If enabled, the IF-200 will automatically accept and update firmware when a firmware package is received via email. If <b>No</b> , the unit will prompt for permission to Apply or Discard a received firmware update.

**NOTE:** Default settings are in **BOLD** type.

### 7.2. Ping Network

This feature allows you to verify connection to a particular IP address. Press SETUP from the Main screen, then scroll to Advanced Settings and press EDIT. Scroll to Ping Network and press EDIT. Enter the IP address you want to ping and press OK. Upon completion, press ESC until you return to the Main screen.

PING TARGET IP:  
 -  
 OK                      ESC

### 7.3. Delete Phone Book

Delete Phone Book deletes all entries in the phone book. To delete a single phone book entry, refer to Editing a Phone Book Entry (Section 3.4).

To delete all phone book entries, press SETUP from the Main screen. Scroll to Advanced Settings and press EDIT. Scroll to Delete Phone Book and press EDIT.

**WARNING**

Once deleted, there is no way to recover the phone book entries.

Press ESC until you return to the Main screen.

### 7.4. Network Statistics

This feature allows you to view information regarding network trafficking efficiency. Press SETUP from the Main screen, then scroll to Advanced Settings and press EDIT. Scroll to Network Statistics and press EDIT. The information listed below displays.

TX packets	number of transmission attempts
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RX packets	number of reception attempts
TX errors	number of transmission errors
RX errors	number of reception errors
CRC errors	source of reception errors
RUNT errs	source of reception errors
DATA errs	source of reception errors
OOW errors	source of reception errors
JABBER err	source of reception errors
Collisions	source of reception errors
Underruns	source of transmission errors
RX misses	source of reception errors

### 7.5. Update Firmware

If the IF-200 has received a firmware update, the user must go to the Advanced Settings menu, Update Firmware option and accept (Yes) or discard (No) the received update.

Alternatively, the user may configure the IF-200 to automatically accept and apply firmware updates. To enable this feature, go to SETUP->Advanced Settings->Expert Setting->Auto Apply Firmware and select YES.

**NOTE:** Firmware updates are received as special email messages.

### 7.6. Factory Defaults

Factory Defaults deletes all of the settings you entered and resets the IF-200 back to the factory installed defaults. All ISP and mailbox information is lost.

To set the IF-200 back to the factory installed defaults, press SETUP from the Main screen. Scroll to Advanced Settings and press EDIT. Scroll to Factory Defaults and press EDIT.

#### **WARNING**

Once deleted, there is no way to recover the settings.



### **7.7. Send Registration**

If a registration was not sent during the initial Installation, it can be prepared and sent using this Advanced Setting.

## 8. Customer Service

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If you have trouble installing or operating the IF-200, refer to the following contact information for assistance:

### Contacting Muratec Customer Service

*E-mail:*

**webmaster@muratec.com**

#### **U.S.A.**

*Support Telephone:*

**800-347-3296**

*Contact:*

6400 International Parkway  
Suite 1500  
Plano, TX 75093

#### **CANADA**

*Support Telephone:*

**800-359-7035**

## Appendix A

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**Table 5. Specifications**

<b>MODEM PROTOCOLS AND SPEEDS</b>	<p>A full suite of Internet and e-mail protocols are included in each Muratec product:</p> <ul style="list-style-type: none"> <li>• TCP/IP</li> <li>• MIME</li> <li>• POP3</li> <li>• SMTP</li> <li>• DNS</li> <li>• IETF, ITU Internet Fax Standards, T.37</li> <li>• v.17, 14,400 bps</li> <li>• IEEE 802.3, 10 base T</li> </ul>
<b>IMAGE DATA FORMAT</b>	<p>Image data is sent as an IETF Internet Fax Standard e-mail attachment in the following format:</p> <ul style="list-style-type: none"> <li>• TIFF-F format is used for monochrome images</li> </ul>
<b>FAX</b>	T.30, T.4, T.6 Group III Fax Protocol
<b>CONNECTORS</b>	<p>US:</p> <p style="padding-left: 20px;">Fax Machine RJ-11 Wall Jack RJ-11 (Telco) LAN RJ-45</p> <p>Canada:</p> <p style="padding-left: 20px;">Fax Machine CA11A Wall Jack CA11A LAN RJ-45</p>
<b>RINGER EQUIVALENCE NUMBER</b>	(REN) 0.8B
<b>PHYSICAL</b>	<p>Height 4.5" Width 7.3" Depth 9.1" Weight 2.5 lbs. Line Input Voltage 117-123VAC Single Phase, 50-60 Hz, 0.2A Unit Input voltage 12VAC, 50-60Hz, 1A</p>

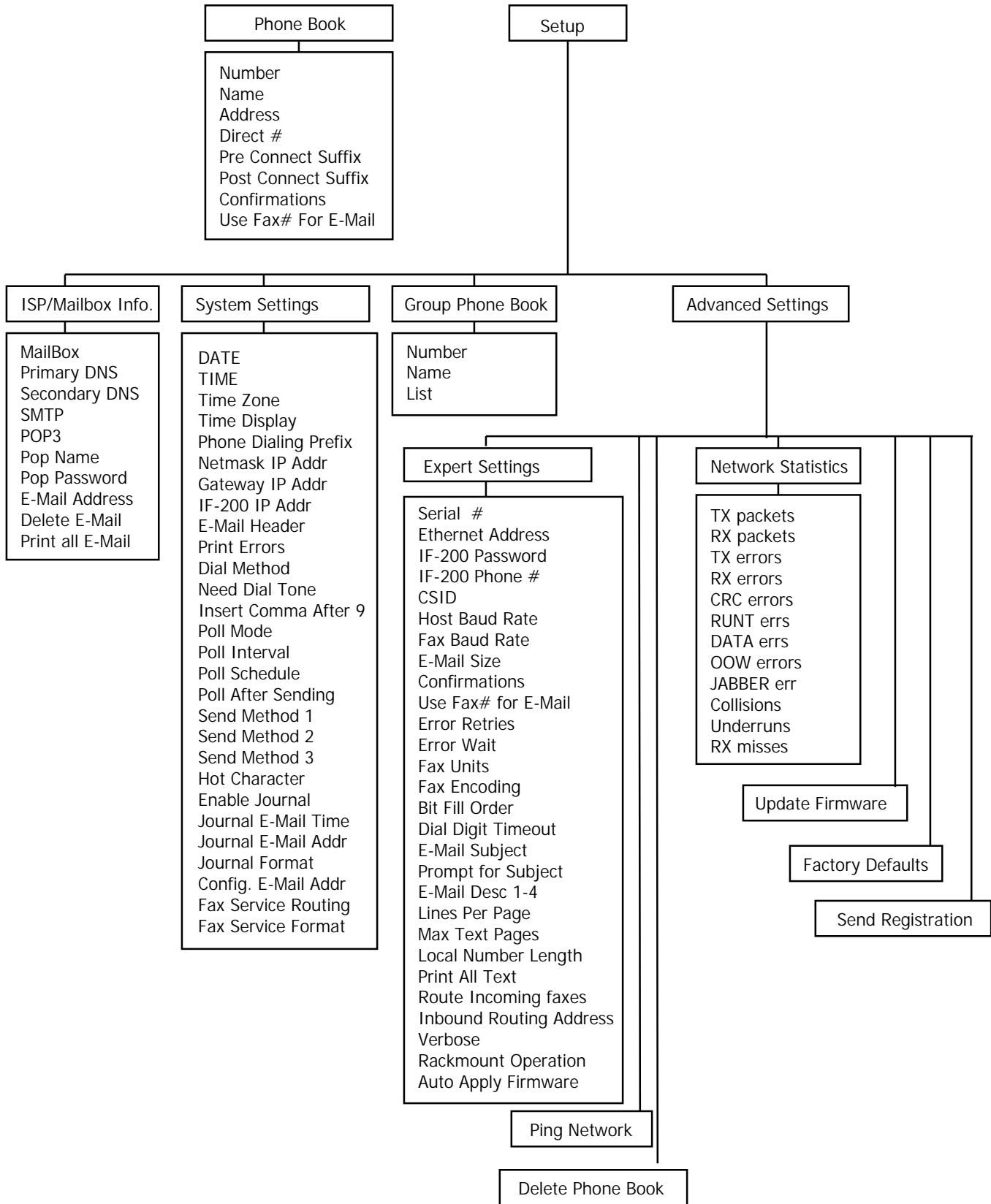
<b>MODEM PROTOCOLS AND SPEEDS</b>	A full suite of Internet and e-mail protocols are included in each Muratec product: <ul style="list-style-type: none"><li>• TCP/IP</li><li>• MIME</li><li>• POP3</li><li>• SMTP</li><li>• DNS</li><li>• IETF, ITU Internet Fax Standards, T.37</li><li>• v.17, 14,400 bps</li><li>• IEEE 802.3, 10 base T</li></ul>
<b>CERTIFICATIONS</b>	<ul style="list-style-type: none"><li>• FCC Part 15 Class A</li><li>• FCC Part 68</li><li>• UL 1950</li><li>• CS-03</li></ul>

### IF-200 Worksheet

**SERIAL#: 00000012345**

<b>INFORMATION NEEDED</b>	<b>SETTINGS FOR YOUR ISP/MAILBOX</b>	<b>EXAMPLE</b>
1. MailBox Name		John Smith
2. Gateway IP Address		204.218.192.34
3. Network Mask		255.255.255.0
4. IF-200 IP Address		204.218.192.44
5. Primary DNS Address		205.216.138.22
6. Secondary DNS Address		205.216.138.24
7. SMTP Server Address		smtp.myisp.com
8. POP Server Address		mail.myisp.com
9. POP Username		jsmith
10. POP Password		*****
11. Your E-Mail Address		jsmith@myisp.com

# IF-200 Menu Chart



# Appendix B

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## United States

### FCC Part 15

**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. If not installed and used in accordance with the instruction manual, 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.

Changes or modifications not expressly approved by Muratec can void the user's authority to operate the equipment.

### FCC Part 68

This equipment complies with Part 68 of the FCC rules. Located on the equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN). If requested, this information must be provided to the telephone company.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total RENs contact the telephone company to determine the maximum REN for the calling area.

This equipment cannot be used on the telephone company-provided coin service. Connection to Party Line Service is subject to State Tariffs.

If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. If advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment.

If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, please contact:

Muratec Customer Support  
webmaster@muratec.com

If the trouble is causing harm to the telephone network, the telephone company may request you to remove the equipment from the network until the problem is resolved.

This equipment uses the following USOC jacks: RJ11C.

It is recommended that the customer install an AC surge arrester in the AC outlet to which this device is connected. This is to avoid damaging the equipment caused by local lightning strikes and other electrical surges.

This equipment is Hearing-Aid Compatible (HAC).

The telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including fax machines, to send any message unless such message clearly contains a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business or other entity, or other individual sending the message and the telephone number of the sending machine or such business, other entity, or individual. (The telephone number provided may not be a 900 number or any other number for which charges exceed local or long-distance transmission charges.)

## Canada

### ICES - 003

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

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

### CS-03 Certification

**NOTE:** The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunication network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. This equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

#### CAUTION

Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

Connecting Method: CA11A

### REN

**NOTE:** The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5. The REN of this device is 0.8B.



IF-200 Internet Fax Machine  
Operating Instructions

Muratec America, Inc.  
6400 International Parkway  
Suite 1500  
Plano, Texas 75093  
<http://www.muratec.com>

**muratec**<sup>™</sup>  
The Fax Specialists.