

IP770

Operation Manual

Talk over the Internet for Free

DSG Technology, Inc.
<http://www.dsgtechnology.com>

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Understanding Your IP770

IP770 is an amazing Internet phone appliance that allows you to place calls via the Internet!

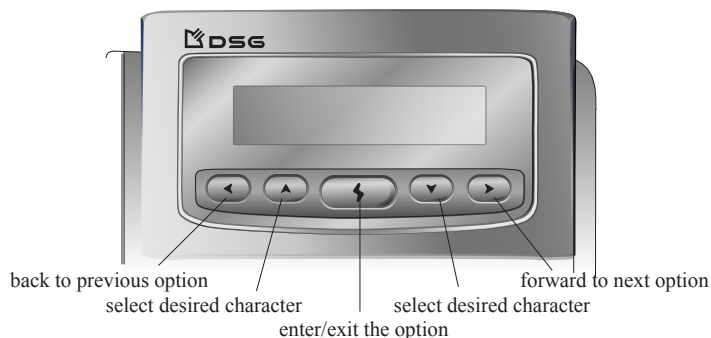
IP770 is a revolution of Voice-over-IP products that can make the long-distance charges disappeared from your phone bill. IP770 offers full duplex, high quality and low latency voice conversation on Internet. As a result, IP770 will be the terminator of international and long-distance bills!

No Computer Required

There is no PC required, simply enter the Internet account into IP770 through your keypad and press IP770's  button, then you are ready to talk as long as you want through Internet. All of the communication cost will be eliminated except a local Internet dial-up charge.

User-friendly Interface


With a back-lit LCD display and five control buttons, IP770 is extremely easy to use and to configure. Smart setup program makes your IP770 ready to use in three minutes.



Main Features

IP770 is the most powerful Internet phone appliance has been made. In addition to IP770-to-IP770 and Direct-Link modes, the unparalleled IP770-to-Phone and Direct-IP modes greatly enhance the capability of voice communication by using Internet. IP770 users can save significant long-distance and international call charges by these advanced features.

IP770-to-IP770 Mode

If the party you wish to call is equipped with an IP770, you may dial the phone number as you normally would. When the call is answered, just press IP770's  and the call will be switched to Internet automatically. This is so called IP770-to-IP770 mode.



IP770-to-Phone Mode

IP770 has the ability to communicate with other Internet Telephony products, such as DSG IP2000 Gateways*. With an active Internet Telephony Service Provider* (ITSP) account, you can call all covered areas with low service rates. This is so called IP770-to-Phone mode.

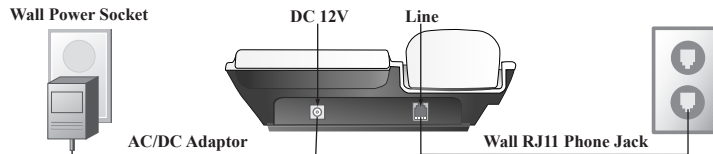


Note: To use IP770-to-Phone mode, callers must apply an active ITSP account number from DSG compatible ITSPs. Please check www.dsgtechnology.com and refer to Chapter 6 How to Get an ITSP Account for

Note: IP2000 is an Internet Telephony Gateway which is a gate between the Internet and PSTN (Public Switched Telephone Network). The Internet Telephony Gateway enables callers using Internet to talk to regular phone users without IP770.

Direct-Link Mode

Every IP770 comes with a unique six-digit ID number. In Direct-Link mode, simply dial the ID with a leading [*] key and you will be connected to other on-line IP770 or DSG VoIP device* users automatically. This feature saves you the cost of an initial long distance call.



Direct-IP Mode

IP770 allows you talk to the receiving party using the IP address. By setting the IP address of receiving device if applicable, IP770 may connect to the other device more quickly.

Note: DSG VoIP devices include IPStar, InterStar, InterPhone and IP1000. Please check www.dsgtechnology.com for further information.

On-line Upgrade

The design of IP770 is highly flexible. You can upgrade the IP770 when new versions and more functions are available. This ensures you to enjoy the latest Internet Telephony Technologies without any charge.

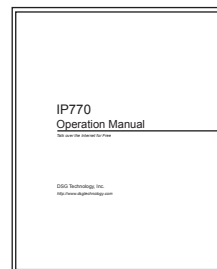
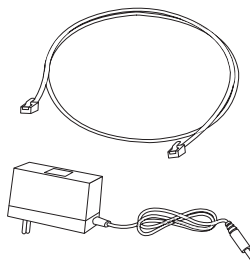
Installing Your IP770

Connecting IP770 is as simple as connecting an answering machine.

Package Contents

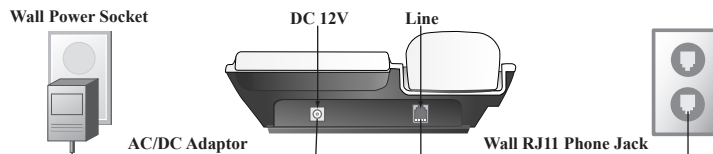
In your IP770 package, you will find:

- An IP770
- An operation manual
- A quick start guide
- A warranty card
- An 12V/1A DC power adapter
- An RJ-11 phone cord



Installing Your IP770

As shown in the following graph, connecting IP770 is as simple as connecting an answering machine.



To install the IP770

1. Plug one end of the phone cord came in the package into the wall-jack.
2. Plug the other end of the cord into the RJ11 jack labeled LINE on your IP770.
3. Plug power adaptor into an electrical outlet. Please DO NOT turn on the power switch yet.
4. Plug the DC adapter connector into IP770 power socket labeled DC 12V.
5. Turn on the power switch of the IP770.

Note: If you have an answering machine, please connect it between the wall-jack and IP770 RJ11 jack labeled LINE.

After turning the power on, you will see IP770 's LCD screen shows:



After the system checking process, you will see IP770 's LCD screen shows:



After few seconds, then you will see:



You can pick up your handset at this stage. If you hear a dial tone that means you have successfully completed the installation.

Basic Requirements to Use IP770


Please check the following list in order to make an Internet call through your IP770.

- An active Internet account
 - ✓ Your local Internet access phone number
 - ✓ Your user name
 - ✓ Your password
- An analog phone line
- An 110/230V electrical outlet

IP770 Configuration Mode

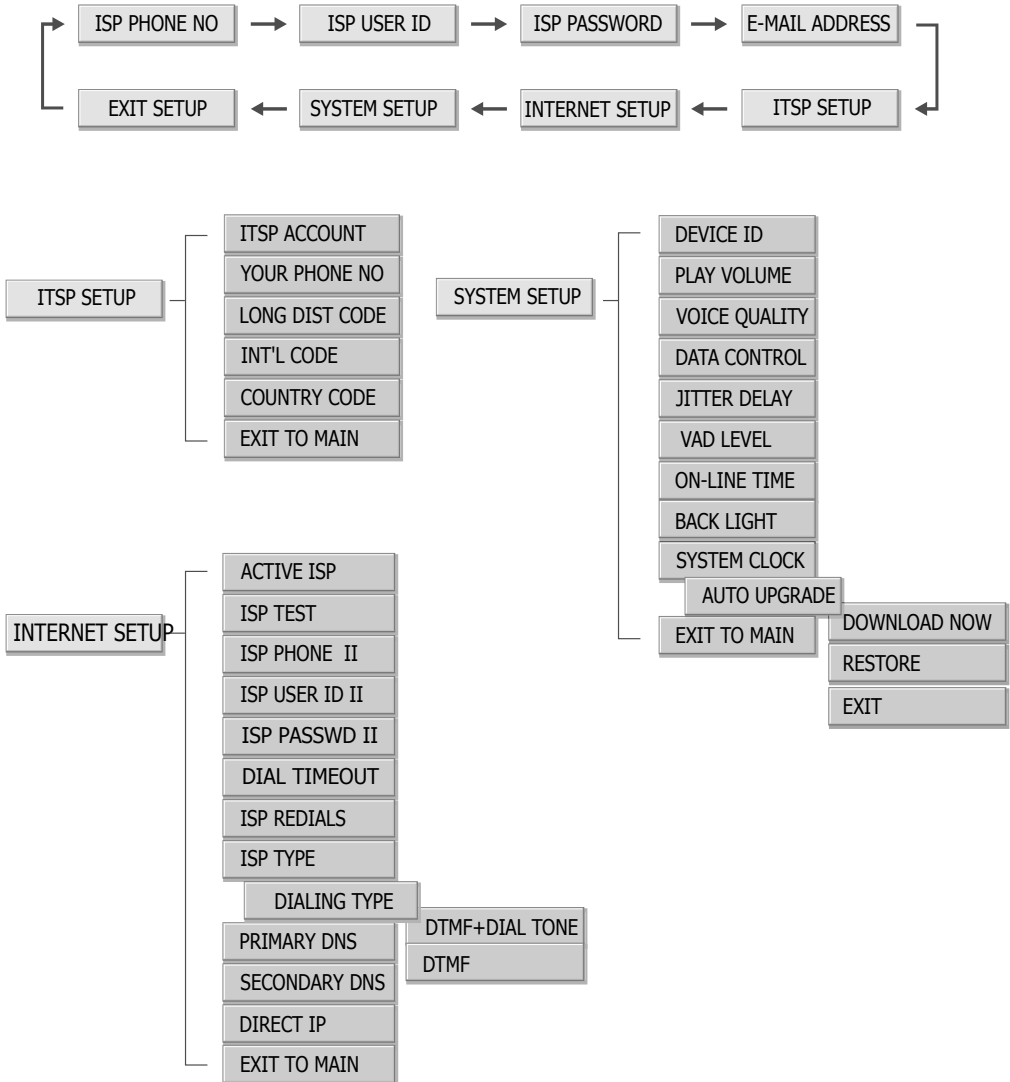
Smart configuration program makes your IP770 ready to use in three minutes.

Entering Configuration Mode

Press and hold IP770  for two seconds. IP770 will switch to Configuration Mode and display ISP PHONE NO:



Structure of Configuration Mode

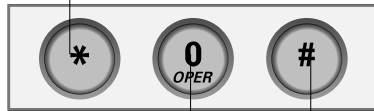


Using Keypad to Configure IP770

To configure your IP770, you can use the keypad to scroll the menu and input the necessary information of IP770 as below:

Browsing the Menu

back to the previous option

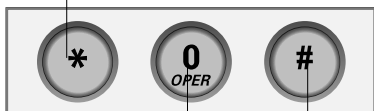


go to the next option

select the option or enter the editing mode

Selecting Between Fixed Values

back to the previous value



go to the next value

save the setting and leave the editing mode

Editing the Data of an Option



* backspace and delete the character

add a space

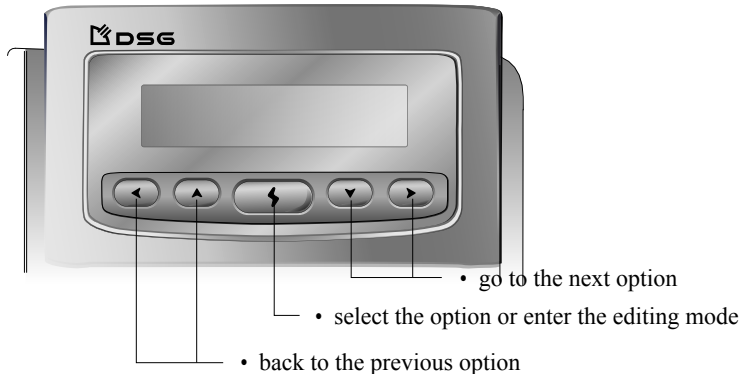
Key	Characters
[1]	1~!#\$%^&*()_ □+ !: "<>? - =; '/
[2]	2 a b c A B C
[3]	3 d e f D E F
[4]	4 g h i G H I
[5]	5 j k l J K L
[6]	6 m n o M N O
[7]	7 p q r s P Q R S
[8]	8 t u v T U V
[9]	9 w x y z W X Y Z
[0]	0 . , @
[*]	*
[#]	#

Tips: Performing hook-flash (momentarily depressing the hook-switch) will save the current setting and escape to upper menu level.

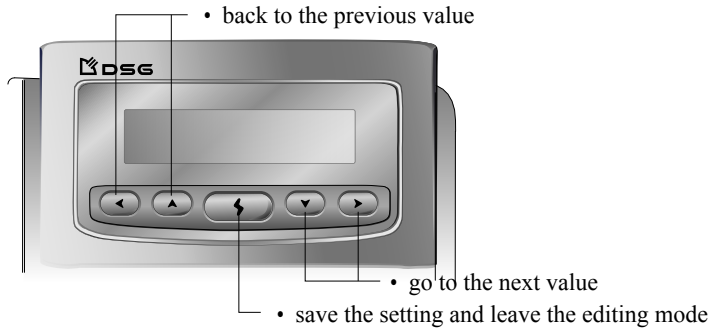
Using Buttons to Configure IP770

The functions of five buttons on IP770 are described as following:

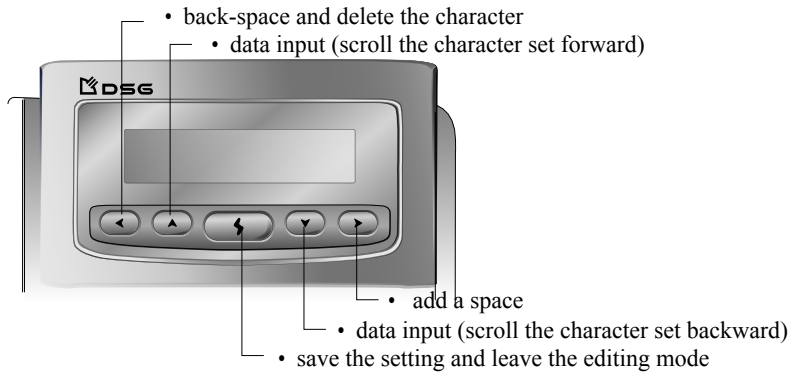
Browsing the Menu



Selecting Between Fixed Values



Editing the Data of an Option



forward  → → → → → → → →

```

0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z . @ ~ ! # $ %
^ & * ( ) _ + | : " < > ? - = ; ' / ,
    
```



← ← ← ← ← ← ← ←  backward

Basic Setup (IP770-to-IP770 / Direct-Link Modes)

To use IP770-to-IP770 and Direct-Link modes, in most of the cases, only ISP PHONE NO, ISP USER ID, and ISP PASSWORD are required.

Tips: Some of Internet Service Providers (ISP) require the user to input DNS information or a login script for Internet connection. You can find more information about these advance settings in INTERNET SETUP section.


ISP Phone Number (Required)

1. When you enter Configuration Mode, the first option is ISP PHONE NO. Press  to edit this option.
2. Use the keypad on your phone or buttons on IP770 to input the Internet dialup phone number obtained from your ISP.
3. Press  to save and exit edit mode.




Note: If you connect IP770 to an extension of your PBX, you may need to add a 0 or 9 and a pause to dial out from your PBX. A comma "," stands for 0.5 second pause and this can be input by buttons.



ISP User ID (Required)

1. With ISP USER ID displayed, press  to edit.
2. Use the keypad on your phone or buttons on IP770 to input the login name for your Internet account.





3. Press  to save and exit edit mode.

ISP Password (Required)

1. With ISP PASSWORD displayed, press  to edit.
2. Use the keypad on your phone or buttons on IP770 to input the password for your Internet account.
3. Press  to save and exit edit mode.



E-mail Address (Optional)

1. With E-MAIL ADDRESS displayed, press  to edit.
2. Use the keypad on your phone or buttons on IP770 to input your e-mail address.
3. Press  to save and exit edit mode.



ITSP Setup (IP770-to-Phone Mode)

The IP770-to-Phone mode allows your IP770 to connect to a compatible gateway, such as DSG IP2000, so that the receiving party is able to receive an Internet phone call with any regular phone. In order to use IP770-to-Phone mode, you need to get a valid ITSP account* and enter all of the information in ITSP Setup section.



Note: Please check www.dsgtechnology.com and refer to Chapter 6 How to Get an ITSP Account for further information about applying an active ITSP account number from DSG compatible Internet Telephony Service Providers (ITSP).

■ ITSP Setup (IP770-to-Phone Mode)

Press  on ITSP SETUP to enter the sub-menu.





ITSP Account ID (Required for IP770-to-Phone Mode)

1. With ITSP ACCOUNT displayed, press  to edit.
2. Use the keypad on your phone or buttons on IP770 to input the account number obtained from your ITSP.
3. Press  to save and exit edit mode.




Your Phone Number (Optional)


1. With YOUR PHONE NO displayed, press  to edit.
2. Use the keypad on your phone or buttons on IP770 to input your phone number associated with your IP770.
3. Press  to save and exit edit mode.





Long-distance Code (Required for IP770-to-Phone Mode)

1. With LONG DIST CODE displayed, press  to edit.





2. Use the keypad on your phone or buttons on IP770 to input the code for making a domestic long-distance phone call. For instance, the long-distance code in USA is 1.
3. Press  to save and exit edit mode.

International Code (Required for IP770-to-Phone Mode)

1. With INT'L CODE displayed, press  to edit.
2. Use the keypad on your phone or buttons on IP770 to input the code for making an international phone call. For instance, the international code in USA is 011.
3. Press  to save and exit edit mode.




Country Code (Required for IP770-to-Phone Mode)

1. With COUNTRY CODE displayed, press  to edit.
2. Use the keypad on your phone or buttons on IP770 to input the country code. For example, the country code of USA is 1.
3. Press  to save and exit edit mode.




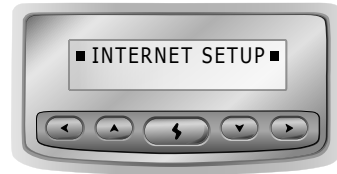
Exit to Main Menu

Press  on EXIT TO MAIN to leave ITSP Setup section.





Internet Setup

This section consists of all settings in ISP dial-up process. Press  on INTERNET SETUP to enter the submenu.



Active ISP


1. With ACTIVE ISP displayed, press  to edit.
2. There are two sets of Internet accounts can be set for IP770. You may select from the default account in main menu or the secondary account in Internet Setup menu. Use the keypad or buttons on IP770 to toggle between Default and Secondary.
3. Press  to save and exit edit mode.



ISP Test



The ISP TEST which tests your Internet connection can be performed only after all required information has been entered.



1. With ISP TEST displayed, press  to edit.
2. LCD screen will display the progress of the ISP test. You may press the Flash button for one second to interrupt the test.
3. The LCD screen will display the result. If "Failure" is displayed, call your ISP to check all required information and adjust the appropriate settings for your IP770.





Secondary ISP Phone Number (Optional)

1. With ISP PHONE II displayed, press  to edit.
2. Use the keypad or buttons on IP770 to input the phone number for your secondary Internet account.
3. Press  to save and exit edit mode.





Secondary ISP User ID (Optional)

1. With ISP USER ID II displayed, press  to edit.
2. Use the keypad or buttons on IP770 to input the login name for your secondary Internet account.
3. Press  to save and exit edit mode.





Secondary ISP Password (Optional)

1. With ISP PASSWD II displayed, press  to edit.
2. Use the keypad or buttons on IP770 to input the password for your secondary Internet account.
3. Press  to save and exit edit mode.





Dial Timeout

1. With DIAL TIMEOUT displayed, press  to edit.
2. Use the keypad or buttons on IP770 to input the time limitation of establishing an Internet dial-up connection for each dialing attempt. The valid range is from 10 to 99 seconds.
3. Press  to save and exit edit mode.





ISP Redials

1. With ISP REDIALS displayed, press  to edit.
2. Use the keypad or buttons on IP770 to input the number of redial attempts when trying to reach your ISP. The valid range from is 1 to 20.
3. Press  to save and exit edit mode.





ISP Type

1. With ISP TYPE displayed, press  to edit.
2. Besides a local dial-up access number, user ID and password, IP770 needs the correct Internet access type to communicate with your ISP. Most ISPs use standard PAP without login script, that is, the default type is 0. Use the keypad on your phone or buttons on IP770 to select the type. The valid range is from 1 to 20.
3. Press  to save and exit edit mode.





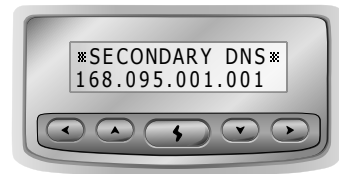
Primary DNS

1. With PRIMARY DNS displayed, press  to edit.
2. Some of the ISPs require the subscriber to provide the IP addresses of primary DNS and secondary DNS. You may call your ISP to request this information. Use the keypad on your phone or buttons on IP770 to input the IP address of primary DNS. The valid range is from 000.000.000.000 to 255.255.255.255.
3. Press  to save and exit edit mode.





Secondary DNS

1. With SECONDARY DNS displayed, press  to edit.
2. Use the keypad on your phone or buttons on IP770 to input the IP address of secondary DNS. The valid range is from 000.000.000.000 to 255.255.255.255.
3. Press  to save and exit edit mode.




Direct IP (Required for Direct-IP Mode)

1. With DIRECT IP displayed, press  to edit.
2. IP770 allows the user to talk to the called party by dialing the IP address. This field is the IP address of the remote DSG VoIP product* you want to connect. Use the keypad or buttons on IP770 to input the IP address. The valid range is from 000.000.000.000 to 255.255.255.255.
3. Press  to save and exit edit mode.




Tips: The Direct IP Mode is applicable for calls to DSG's broadband VoIP products such as InterStar, InterPhone or IP1000.

Exit to Main Menu

Press  on EXIT TO MAIN to leave Internet Setup section.




System Setup

This section contains advanced system settings of IP770. You can adjust these setting to maximize the performance of IP770. Press  on SYSTEM SETUP to enter the submenu.





Device ID

Every IP770 has its own unique ID. When using Direct-Link Mode, you can talk to another on-line IP770 by simply entering the six-digit ID with a leading  key. This is a non-editable field.




Play Volume

1. With PLAY VOLUME displayed, press  to edit.
2. Use the keypad or buttons on IP770 to input the level of play volume. The default setting is 5. The valid range from is 1 to 9.
3. Press  to save and exit edit mode.




Voice Quality



1. With VOICE QUALITY displayed, press  to edit.
2. IP770 complies with ITU G.723.1 standard. Two data rates 6.3K and 5.3K are available. Use the keypad



or buttons on IP770 to select between the rates. The default rate is 6.3K.


3. Press  to save and exit edit mode.

Data Rate Control


1. With DATA CONTROL displayed, press  to edit.
2. This option allows you select the number of frames for each data packet. IP770 will transmit one frame in each data packet if you set this option to LOW. In this case IP770 will consume more bandwidth and get higher reliability. Use the keypad or buttons on IP770 to select from Low, Medium, and High. The default rate is Low.
3. Press  to save and exit edit mode.





Jitter Buffer Delay

1. With JITTER DELAY displayed, press  to edit.
2. Jitter is the variation of delayed data experienced during the packet routing and switching over Internet. If sometimes the Internet traffic flow is not stable, you can adjust the value to High in order to obtain a better voice quality. Use the keypad on your phone or buttons on IP770 to select the setting from Low, Medium, or High.





3. Press  to save and exit edit mode.

Voice Activity Detection (VAD) Level

1. With VAD LEVEL displayed, press  to edit.
2. The VAD level is the voice volume threshold (including background noise) which is set to determine whether the voice packets will be transmitted or not. Use the keypad or buttons on IP770 to select the setting from Low, Normal, or High. The default is Normal.
3. Press  to save and exit edit mode.





On-line Waiting Time

1. With ON-LINE TIME displayed, press  to edit.
2. On-Line Time determines how long your IP770 will stay connected without being used. Note that some ISPs will automatically disconnect any user after a preset period of inactivity.
3. Press  to save and exit edit mode.





Back Light Control

1. With BACK LIGHT displayed, press  to edit.
2. The LCD screen is always lighted if this parameter is set to On or turn it off by switching this parameter to Off. If this parameter is set to Automatic, LCD screen light is on whenever the user picks up the phone or there is an incoming call. Use the keypad or buttons on IP770 to select from these three options. The default is Automatic.
3. Press  to save and exit edit mode.



System Clock

1. With SYSTEM CLOCK displayed, press  to edit.
2. Use the keypad or buttons on IP770 to input the time. IP770 uses the 24-hour setting. The valid range is from 00:00:00 to 23:59:59.
3. Press  to save and exit edit mode.




Automatic Upgrade

This function allows you to download new version of software through Internet to your IP770. Please refer to Chapter 5 Upgrading You IP770.



Exit to Main Menu

Press  to leave System Setup sub-menu.




Making Internet Calls

JustDialIt Technology makes the user enjoy IP770 by operating only one button.

If you have finished the configuration in Chapter 3, you are ready to place your Internet call with IP770. There are four modes that you can make an Internet phone call through IP770 as below:

- IP770-to-IP770 Mode
- IP770-to-Phone Mode
- Direct-Link Mode
- Direct-IP Mode


Making an IP770-to-IP770 Call

1. Make sure the other party that you plan to call has an installed IP770.
2. Dial the phone number you want to call just as you normally would.
3. Once the called party answers, you can switch your call to Internet by pressing the  on IP770. However, only one party should do so.
4. Wait for the Internet connection to be completed. You will see messages on the LCD screen indicating the progress of the connection.
5. You may hang up the phone to wait for ringing, or just hold the handset.
6. Once the Internet connection has been completed, your telephone will ring. Then you can pick up the phone and talk as long as you like.

Note: Before hanging up the phone, you must wait for the handshaking symbol" ~ " displayed on the LCD screen.

Making an IP770-to-Phone Call

IP770 has the ability to communicate with other Internet Telephony products, such as DSG IP2000 Gateway. In this mode, the called party does not need an IP770. Make sure that the parameters in ITSP Setup are set properly before using the IP770-to-Phone Mode.

1. Pick up your handset.
2. Press the  on IP770.
3. Wait for the ready tone*.
4. Once the ready tone appeared, you can dial the phone number that you want to call in the following format:

International Call :

[International Access Code] + [Country Code] + [Area Code] + [Telephone Number]

Domestic Long-distance Call :


[Long-distance Code] + [Area Code] + [Telephone Number]

5. You may hang up the phone to wait for ringing, or just hold the handset. Once your phone rings, you can pick up the phone and talk over Internet.

Note: Ready Tone is the audio signal to indicate that IP770 is ready for dialing or receiving an Internet call.

Using Direct-Link Mode

Direct-Link mode allows you to connect to other on-line IP770 by dialing a six-digit ID number IP770.

1. Make sure the IP770 you want to call is on Internet already.
2. Pick up your handset.
3. Press the  on IP770.
4. Wait for the ready tone.
5. Once you hear the ready tone, you can dial the ID of the remote IP770 in the following format:

 + [Six-digit ID of remote IP770]


6. You may hang up the phone to wait for ringing, or just hold the handset.
7. Once your phone rings, you can pick up the phone and talk over Internet.

Note: You can also use the Direct-Link Mode to call the Device ID Number of other DSG VoIP devices such as IPStar, InterStar and InterPhone.

Using Direct-IP Mode

IP770 has the ability to communicate with other compatible Internet Telephony product. By setting the IP address of receiving device, IP770 may connect to the remote device.

■ Monitoring the Status of IP770



1. Make sure that the IP address of the called Internet telephony system has been properly set in the field of Internet Setup/Direct IP before using Direct-IP Mode.
2. Pick up your telephone handset.
3. Press the  on IP770.
4. Wait for the ready tone.
5. Once the ready tone appeared, you can dial:
+ [the DTMF string to be dialed]
6. You may hang up the phone to wait for ringing, or just hold the handset.
7. Once your phone rings, you can pick up the phone and talk over Internet.

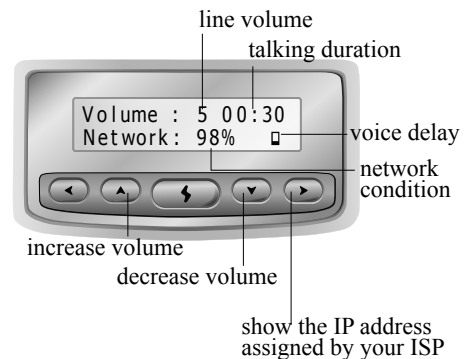
Monitoring the Status of IP770

During Talking

During an Internet call, the LCD screen of IP770 will show:

Volume Control

If the volume of IP770 is too loud and you hear some noise from the phone, you can adjust the volume lower or louder by pressing  or  to get the desired voice quality.




During Dialup


IP770 LCD screen will display the status during the ISP dialup process.



Terminating an Internet Call

If you want to terminate an Internet call, you may:


- Press the  on IP770 to terminate the call, or
- Perform a hook-flash to terminate the call, or
- Hang-up the phone to terminate the call.

However, the connection to Internet still exists. Therefore, you can make another Internet phone call without re-dialing your ISP. If you want to terminate the Internet connection, just press the  on IP770 again.

Receiving an IP770 Call

IP770 can accept the request of connection from other IP770s that has been described in Using Direct-Link Mode earlier in this chapter. An on-line IP770 will be available for connection request from any other IP770. The waiting time is defined by ON-LINE TIME in Configuration Mode.

Using The Keypad to Trigger IP770

If you press ## on your keypad, IP770 will dial your ISP automatically. You can also press  to get connected to the Internet.

Telephone Features

IP770 integrates VoIP and analog phone functions all together giving you a more complete communication solution.

IP770 combines VoIP and analog phone functions in a stand-alone phone set. In addition to VoIP functions, you can enjoy many regular phone features brought by IP770.

Volume

To increase or decrease the volume of your handset, press the up or down Volume button. The volume adjustment will change the volume for the currently active voice.

Redial

You can redial the last outside number by pressing the Redial button. To redial, lift the handset and press the Redial button. This function is not available when placing Internet calls.

Speaker

You can place or answer calls with the handset or using the Speaker button. Press the Speaker button for hands-free conversation.

Mute

You can mute the handset or speakerphone when in a call. This will prevent the remote party from hearing what you are saying to other people.

Flash

You can generate a flash hook on the outside line by pressing the Flash button. To toggle between calls waiting, you can also press the Flash button.

Speed Dial

You can program up to 12 entries of speed dial for placing PSTN calls. Notice that the speed dial function is not available for Internet calls.

1. Press the Program button.
2. Press the Memory button.
3. Input the entry number from 1 to 12.
4. Input the phone number you would like to edit for speed dialing.
5. Press the Program button again to save.
6. Repeat Step 1 to 5 to edit more entries.

When using Speed Dials to place calls, follow the steps below.

1. Lift the handset and press the Memory button.
2. Press the entry number of speed dial from 1 to 12.

Upgrading Your IP770




The on-line upgrade capability of IP770 ensures you to enjoy the latest Internet Telephony technologies without any charge.

Upgrade Notification

You can upgrade your IP770 whenever a new software version becomes available. Every time when IP770 is connected to your Internet Service Provider (ISP), DSG will notify you by showing "UPGRADE AVAILABLE" on your IP770 LCD screen. Upgrades may enhance the performance and add more features to your IP770.

Upgrading IP770

To upgrade your IP770 with new software version, follow the instructions below. The upgrade process will take about three to ten minutes depending on the Internet traffic.




1. Press IP770  for two seconds to enter Configuration Mode.
2. Use control buttons to scroll the main menu and press the Flash button on SYSTEM SETUP.
3. Scroll the menu to AUTO-UPGRADE and press the  button.
4. Press the  on DOWNLOAD NOW to start the upgrade process.
5. IP770 will first dial your ISP and the screen will show the progress of download process.
6. Press any button to restart your IP770 If a new software version is downloaded successfully, or IP770 will reboot automatically.



Restoring Original Version

IP770 has powerful auto-recovery capability. If there is any error occurred during the download process or other unexpected conditions, IP770 will automatically restore the original software version.

When you upgrade your IP770 to a new software version, IP770 will still keep the original version as a backup. For any reason if you want to discard your new version and restore the old version, you may follow the steps below:

1. Press the  on AUTO-UPGRADE to enter the submenu.
2. Press the  on RESTORE to start the restore process.
3. Press the  to restart your IP770 to restore the original software version.



How to Get ITSP Calling Points (*IP770-to-Phone Mode*)

IP770 is an Internet Phone appliance that provides Device-to-Phone capability.

The DSG Internet Telephony Network is an integrated telephony system based on Internet environment that provides various services such as Phone-to-Phone, Device-to-Device, and Device-to-Phone, etc. The IP770-to-Phone mode allows your IP770 to connect to a compatible gateway, such as DSG IP2000, so that the receiving party is able to receive an Internet phone call from any regular phone. In order to use IP770-to-Phone mode, you need to get a valid Internet Telephony Service Provider (ITSP) account and enter all of the information* into IP770.

Note: Before you use IP770-to-Phone mode, make sure that you have entered all related information needed in ITSP SETUP section. Please refer to Chapter 3 IP770 Configuration Mode for details.

■ How to Get ITSP Calling Points

DSG ITSP services apply when making Device-to-Phone calls. The ITSP calling points are required to use the DSG ITSP services.

Calling points are stored with a Device ID or an ITSP Account. A Device ID is a unique 6-digit number on each device. An ITSP Account is a 10-digit number that may be used on all DSG devices. Users have the option to store calling points on either the Device ID or ITSP Account, or both.

There are two ways to get an ITSP account:

- Obtain the ITSP account from the dealer or retail store where you purchased IP770.
- Apply an ITSP account on the Internet.

Check web site www.dsgtechnology.com periodically to get the information about compatible ITSP list and other Internet telephony services*. The DSG web site will show you how to apply a valid account from our ITSP partners. You may also get the new information such as calling rates on your IP770 screen dynamically when you make an Internet call.

Note: DSG is a system provider of Internet Telephony solutions and does not provide any telephony services. DSG will not take responsibilities for using these services.

Appendix A. Technical Specifications

Dimensions	220mm x 195mm x 70mm
Weight	Approximately 1,600g
Power Input	DC12V 1A
Temperature	0-50°C (32°F~122°F)
Humidity	10% to 90% non-condensing
Internal RAM	2Mbytes
Flash Memory	1Mbytes
Internal Modem	ITU-T V.34+, 33,600bps
LCD Display	16 x 2 with back light
Telephone Interface	one RJ11 jack to line
Voice Compression	G.723.1 compliant
Internet Protocols	TCP/IP, PPP, PAP, CHAP

Appendix B. Troubleshooting

Configuration Problems

You performed ISP Test and the screen showed [Failure...Wait].

First of all, make sure your ISP phone number, ID, and Password are entered correctly. Once you have input accurate data into the IP770, you're now ready for the ISP Test. In a common process, this test will take no longer than 60 seconds. If the ISP test failed, you can try to run the test a few more times. If you still have trouble running the test, it is quite possible that your ISP might have been heavily congested. You can try to run the test again later.

Problems Making an IP770-to-IP770 Call

You attempted to make an IP770-to-IP770 call but it didn't work.

Make sure both IP770s are configured correctly and both have passed the ISP test. During the process of making an IP770-to-IP770 call, you can check the on-line symbol "@" on the LCD screen of your IP770 to confirm your status. When one of the IP770 users presses the Flash button, the receiving IP770 ought to wait for the hand-shake symbol "~" before hanging up the phone. If you've tried this for several times and the line quality still can not support the hand-shake process, you can still use the Direct Link mode to make the call.

Problems Making an IP770-to-Phone Call

You entered the phone number and the screen showed "Ready for Dial".

You should check if the ITSP account number is entered correctly. For more information on ITSP account, please refer to Chapter 6 for details.

You entered the phone number and the screen showed "No Service".

It is necessary for you to input the country code, long distance code, and international code correctly when making an IP770-to-Phone call because your IP770 uses these information to analyse the phone number you dialed. One other possibility that might have caused the "No Service" is that the number you dialed is out of service area. For information on all available countries, please refer to our web site www.dsgtechnology.com.

You entered the phone number and the screen showed "Wrong Account".

When you see the screen shows "Wrong Account", it's either you have just entered an invalid ITSP account, or there's no balance remained in your ITSP account. To obtain, renew, or to re-activate your ITSP account, contact the local distributor nearest you or visit our web site www.dsgtechnology.com. for more detailed information.

You entered the phone number and the screen showed "Server Busy".



When you see "Server Busy", that means all lines are busy and temporarily unavailable. You should try the call again later.

Problems Making a Direct-Link Call


You don't know where to find the IP770's ID.

The six-digit ID can be identified at the bottom of your IP770. You may also find the six-digit ID in the configuration mode SYSTEM SETUP / DEVICE ID. Please refer to Chapter 3 for details.

You entered the IP770's six-digit ID and the screen showed "Ready for Dial".

You probably left out a leading  key before the six-digit ID. For example, when making a Direct-Link call to a friend with an IP770 ID 001234, you should enter 0 01234 during the "Ready for Dial" mode in order to make the call.

You entered the IP770's six-digit ID of called party and the screen showed "Party Off Line".


Before making a Direct-Link Call, you should confirm if you have entered the correct six-digit ID of receiving IP770. At the same time, the receiving IP770 must be connected to the Internet. If the receiving party is not connected to the Internet at the moment, try it later. If the IP770 you tried to link was still not on-line, the caller should notify the receiving party to pick up the handset and press the  button of his/her IP770 to connect to Internet.

Problems during an Internet Call

During the call, you experienced a slightly delay in your conversation.

This is an expected Internet phone behavior. The degree of voice delay depends on the Internet traffic and routing path. IP770's Dynamic Jitter Buffer Control algorithm will optimize the delay time automatically in the first ten seconds of the call.

During the call, you have difficulty hearing the other party.

You may monitor the Network percentage indicator on the screen to identify if the Internet traffic becomes congested. You can wait to see if the traffic subsides or press the  button to terminate the call and try to place another call later. If you can't terminate the call successfully, you will need to turn off the power to reset your IP770 and place the call again.


During the call, the other party's voice seems slow or delays seriously (more than three seconds).

The bandwidth between your IP770 and ISP is not enough to support a regular Internet call. You may terminate the Internet connection and try to place the call again to see if the voice quality improves. If you do not see an improvement, then change to another phone line to see if the voice quality improves. If the voice quality doesn't improve, try to set DATA CONTROL in Configuration Mode to High and place the call again.

If you still experience problems stated above.

We recommend you to try other ISPs to get the best Internet connection quality.

Problems Terminating the Internet Connection

You pressed the  button to terminate the connection but the screen kept showing "Please Wait".

IP770 will try to connect to DSG IP770 Server before terminating the Internet connection. If the "Please Wait" message is kept for over 30 seconds because of the congested Internet traffic, you may turn off the power to reset the IP770.