

deltathree Inc.

**Grandstream HandyTone
488 Installation Instructions**

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GRANDSTREAM HANDYTONE 488 SET-UP INSTRUCTIONS



HandyTone-488 has one FXS port and one FXO port. The PHONE port next to the LAN port is a FXS port. The LINE port on the side of the HandyTone-488 is a FXO port. Both the FXS port and the FXO port can have a separate SIP account. This is a key feature of HandyTone-488 as it supports simultaneous call on both FXS port and FXO port. However, please note that the FXO functionality is not supported by deltathree.

Step 1: Connect the Grandstream HandyTone 488 Gateway to the internet

The HandyTone-488 package contains:

- 1 x HandyTone-488
- 1 x universal power adaptor
- 1 x Ethernet cable

In order to make calls, please connect the Grandstream HandyTone 488 Gateway to the internet by doing to following:

1. Connect a standard touch-tone analog telephone to the PHONE port.
2. Insert a standard RJ11 telephone cable into the LINE port and connect the other end of the telephone cable to a phone line wall jack.
3. Insert the Ethernet cable into the WAN port and connect the other end of the Ethernet cable to an uplink port (a router, a Cable/ADSL modem, etc.)
4. Connect a PC to the LAN port of HandyTone-488 if HT488 is used as a router.
5. Insert the power adapter into the HandyTone-488 and connect it to a wall outlet.

Step 2: Verify your IP address

1. Be prepared with a pen and paper.
2. HandyTone-488 has stored an Interactive Voice Response menu (or IVR). To enter this voice prompt menu, simply press the button or dial “****” from an analog phone. The following table shows how to use the IVR menu to configure the device.

Menu	Voice Prompt	Options
Main Menu	“Enter a Menu Option”	Enter “*” for the next menu option Enter “#” to return to the main menu Enter 01-06, 47, 86, 99 menu option
01	“DHCP Mode”, “Static IP Mode”	Enter “9” to toggle the selection <i>If user selects “Static IP Mode”, user need configure all the IP address information through menu 02 to 05. If user selects “Dynamic IP Mode”, the device will retrieve all IP address information from DHCP server automatically when user reboots the device.</i>
02	“IP Address “ + IP address	The current WAN IP address is announced Enter 12 digit new IP address if in Static IP Mode
03	“Subnet “ + IP address	Same as menu 02
04	“Gateway “ + IP address	Same as menu 02
05	“DNS Server “ + IP address	Same as menu 02
06	“TFTP Server “ + IP address	Same as menu 02
47	“Direct IP Calling”	When entered, you will be prompted a dial tone, then enter 12 digit IP address This menu can also be entered by pressing the button again (For details, see “4.2.2 Make a Direct IP Call”.)
99	“RESET”	Enter “9” to reboot the phone Enter encoded MAC address to restore factory default setting
	“Invalid Entry”	Automatically returns to main menu

Notes:

- Once the button is pressed, it enters the voice prompt main menu. If the button is pressed again, while it is already in the voice prompt menu, it jumps to “Direct IP Call” option and a dial tone is prompted.
- “*” shifts down to the next menu option
- “#” returns to the main menu
- “9” functions as the ENTER key in many cases to confirm an option
- All entered digit sequences have known lengths - 2 digits for menu option and 12 digits for IP address. Once all of the digits are collected, they will be processed.
- For IP address input, ignore the dot and key in the digit directly, add 0 before octet with less than three digits. e.g.: IP: 192.168.1.10, key in: 192 168 001 010
- Key entry can not be deleted but the phone may prompt error once it is detected

To listen to your IP address:

1. Lift the phone’s handset and press the button at the top of the HandyTone or dial “****”.
2. Enter “02” and listen to the IP address.
3. Write down this IP address.

IMPORTANT NOTES:

1) The IP address that is read back to you will have extra zeros that must be removed. Any zeros directly after the "." should be removed. For example, if the IP address reads back as 192.168.001.020 then change it to 192.168.1.20.

2) If the IP address that is read back to you reads 000.000.000.000 then you are not configured for DHCP. Please follow the DHCP configuration instructions.

DHCP Configuration

If your network utilizes a DHCP Server to assign IP Addresses to network devices, or if you are connecting the HandyTone gateway to a home router such as a Linksys or Netgear router, please do the following:

1. Lift the phone's handset and press the button at the top of the HandyTone or dial "****".
2. Enter "01" to listen to the IVR read back what IP mode is being used. Enter "9" to toggle between "Dynamic IP" and "Static IP" modes. Make sure you are on "**Dynamic IP Mode**".
3. Hang up the phone's handset, and reboot the HandyTone unit for the change to take effect.

Static IP Configuration

First make sure you have the following information from your Internet Service Provider or IT Administrator:

- IP Address
- Default Gateway
- Subnet Mask
- DNS Server IP

1. Lift the phone's handset and press the button at the top of the HandyTone or dial "****".
2. Enter "01" to listen to the IVR read back what IP mode is being used. Enter "9" to toggle between "Dynamic IP" and "Static IP" modes. Make sure you are on "**Static IP Mode**".
3. Enter "02" to listen to the IVR read back what IP is being used. Enter your Static IP address in 12 digits format: in example, if your IP address is 82.134.67.100 enter "082134067100"
4. Enter "*" to move forward to the Subnet Mask menu. Enter your Subnet Mask's IP address in 12 digits format: in example, if your IP address is 255.255.255.1 enter "255255255001"
5. Enter "*" to move forward to the Default Gateway menu. Enter your Default Gateway's IP address in 12 digits format: in example, if your IP address is 82.134.67.100 enter "082134067100"
6. Enter "*" to move forward to the Default Gateway menu. Enter your DNS Server's IP address in 12 digits format: in example, if your IP address is 213.134.57.92 enter "213134057092"
7. Hang up the phone's handset, and reboot the HandyTone unit for the change to take effect.

Step 3: Go to the HandyTone's Web Configuration page

The HandyTone-488 HTML configuration page can be accessed via LAN or WAN port:

1. From the LAN port:
 - Directly connect a computer to the LAN port.
 - Open a command window on the computer
 - Type in "ipconfig /release", the IP address etc becomes 0.
 - Type in "ipconfig /renew", the computer gets an IP address in 192.168.2.x segment by default

- Open a web browser, type in the default gateway IP address. You will see the log in page of the device.

i.e.: **http://192.168.2.1**

- Login to the Advanced User Configuration page. The password is case sensitive and the factory default password for Advanced User is "admin".

2. From the WAN port:

- Follow Step 2 to verify your IP address.
- Open a web browser, type in the WAN side IP address + ":8000".

i.e.: **http://82.134.67.2:8000**

- Login to the Advanced User Configuration page. The password is case sensitive and the factory default password for Advanced User is "admin".

Step 4: Verify your HandyTone's firmware version.

To find out the firmware version of your device is, go to the STATUS tab. While the configuration instructions stated below apply to all firmware versions of Grandstream's HandyTone 488, deltathree has certified version 1.0.3.48 and will be able to provide support to that version only.

Step 5: Configure your HandyTone 488

Enter the values for your configuration type into the corresponding fields as indicated on the sample HandyTone 488 Configuration forms. Choose between two configuration forms:

1) Make Calls Only:

Grandstream HandyTone 488 Configuration – Make Calls Only

For your convenience, we've highlighted in red the values that you need to change on your Grandstream configuration page. Please copy and paste these values directly to the corresponding fields.

ONLY INPUT VALUES INTO THE SPECIFIED FIELDS. DO NOT change the values in any of the other fields. To do so may cause your Grandstream not to work properly.

Please note that you will need to use your account's UserID, and Password.

STATUS Tab

Product Model: HT488

Software Version: Program-- **1.0.3.44** Bootloader-- 1.0.8.11 HTML-- 1.0.3.48
VOC-- 1.0.0.10

STUN server is : (URI or IP:port)

keep-alive interval: (in seconds, default 20 seconds)

Use NAT IP: (used in SIP/SDP message if specified)

Firmware Upgrade and Provisioning:

Upgrade Via TFTP HTTP
Firmware Server Path:
Config Server Path:

Firmware File Prefix: Firmware File Postfix:
Config File Prefix: Config File Postfix:

Automatic Upgrade: No Yes, check for upgrade every minutes (default 7 days)

- Always Check for New Firmware
- Check New Firmware only when F/W pre/suffix changes
- Always Skip the Firmware Check

FXS PORT Tab

SIP Server: (e.g., sip.mycompany.com, or IP address)

Outbound Proxy: (e.g., proxy.myprovider.com, or IP address, if any)

SIP User ID: (the user part of an SIP address)

Authenticate ID: (can be identical to or different from SIP User ID)

Authenticate Password: (purposely not displayed for security protection)

Name: (optional, e.g., John Doe)

Use DNS SRV: No Yes

User ID is phone number: No Yes

SIP Registration: No Yes

Unregister On Reboot: No Yes

Register Expiration: (in minutes. default 1 hour, max 45 days)

local SIP port: (default 5060)

local RTP port: (1024-65535, default 5004)

Use random port: No Yes

DTMF Payload Type:

Send DTMF: in-audio via RTP (RFC2833) via SIP INFO

Send Flash Event: No Yes (Flash will be sent as a DTMF event if set to Yes)

Enable Call Features: No Yes (if Yes, Call Forwarding & Call-Waiting-Disable are supported locally)

Use Bell-style 3-way Conference: No Yes (if Yes, *23 will be disabled)

Offhook Auto-Dial: (User ID/extension to dial automatically when offhook)

Proxy-Require:

Disable Call-Waiting: No Yes

NAT Traversal (STUN): No Yes

No Key Entry Timeout: (in seconds, default is 4 seconds)

Preferred Vocoder:
(in listed order)

choice 1:

choice 2:

choice 3:

choice 4:

choice 5:

choice 6:

Voice Frames per TX: (up to 10/20/32/64 for G711/G726/G723/other codecs respectively)

G723 rate: 6.3kbps encoding rate 5.3kbps encoding rate

iLBC frame size: 20ms 30ms

iLBC payload type: (between 96 and 127, default is 97)

Silence Suppression: No Yes

Fax Mode: T.38 (Auto Detect) Pass-Through

Early Dial: No Yes (use "Yes" only if proxy supports 484 response)

Allow outgoing call without Registration: No Yes

Dial Plan Prefix: (this prefix string is added to each dialed number)

Use # as Dial Key: No Yes (if set to Yes, "#" will function as the "(Re-)Dial" key)

SUBSCRIBE for MWI: No, do not send SUBSCRIBE for Message Waiting Indication
 Yes, send periodical SUBSCRIBE for Message Waiting Indication

Send Anonymous: No Yes (caller ID will be blocked if set to Yes)

Lock keypad update: No Yes (configuration update via keypad is disabled if set to Yes)

Special Feature:

Click UPDATE at the bottom of the page to save your settings. After clicking UPDATE, you will need to login again and click on the REBOOT button to activate your changes.

2) Make and Receive Calls:

Grandstream HandyTone 488 Configuration –

Make And Receive Calls

For your convenience, we've highlighted in red the values that you need to change on your Grandstream configuration page. Please copy and paste these values directly to the corresponding fields.

ONLY INPUT VALUES INTO THE SPECIFIED FIELDS. DO NOT change the values in any of the other fields. To do so may cause your Grandstream not to work properly.

Please note that you will need to use your account's UserID, Password and telephone number.

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VOC-- 1.0.0.10

STUN server is : (URI or IP:port)

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Use NAT IP: (used in SIP/SDP message if specified)

Firmware Upgrade and Provisioning: Upgrade Via TFTP HTTP

Firmware Server Path:

Config Server Path:

Firmware File Prefix: Firmware File Postfix:

Config File Prefix: Config File Postfix:

Automatic Upgrade: No Yes, check for upgrade every minutes (default 7 days)

Always Check for New Firmware

Check New Firmware only when F/W pre/suffix changes

Always Skip the Firmware Check

FXS PORT Tab

SIP Server: (e.g., sip.mycompany.com, or IP address)

Outbound Proxy: (e.g., proxy.myprovider.com, or IP address, if any)

SIP User ID: (the user part of an SIP address)

Authenticate ID: (can be identical to or different from SIP User ID)

Authenticate Password: (purposely not displayed for security protection)

Name: (optional, e.g., John Doe)

Use DNS SRV: No Yes

User ID is phone number: No Yes

SIP Registration: No Yes

Unregister On Reboot: No Yes

Register Expiration: (in minutes. default 1 hour, max 45 days)

local SIP port: (default 5060)

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NAT Traversal (STUN): No Yes

No Key Entry Timeout: (in seconds, default is 4 seconds)

Preferred Vocoder:
(in listed order)

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Voice Frames per TX: (up to 10/20/32/64 for G711/G726/G723/other codecs respectively)

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Fax Mode: T.38 (Auto Detect) **Pass-Through**

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Allow outgoing call without Registration: No Yes

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 Yes, send periodical SUBSCRIBE for Message Waiting Indication

Send Anonymous: No Yes (caller ID will be blocked if set to Yes)

Lock keypad update: No Yes (configuration update via keypad is disabled if set to Yes)

Special Feature:

Click UPDATE at the bottom of the page to save your settings. After clicking UPDATE, you will need to login again and click on the REBOOT button to activate your changes.

Step 6: Start using your Grandstream Broadband Phone

You are now ready to make and receive Broadband Phone calls. Make sure to dial country code, area code, and the number - even for local phone calls: e.g. USA phone number 1-212-555-1212.