



deltathree Inc.

**Grandstream BT-100/101
Installation Instructions**

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GRANDSTREAM BT-100/101 SET-UP INSTRUCTIONS



Step 1: Connect the Grandstream to your Broadband connection

There are 2 sockets on the back of your Grandstream phone:

1. Power connection (+5v) - connect the power to your Grandstream phone.
2. LAN - use an Ethernet cable to connect your Grandstream phone to your router or Internet connection.

Step 2: Verify your IP address

1. Be prepared with a pen and paper.
2. Press the "MENU" button, then press the down arrow button, then the "MENU" button again.
3. On the LCD screen, you will see the IP Address that the Grandstream phone has acquired from the DHCP server. Write this IP Address down.

IMPORTANT NOTE: The IP address that is displayed on your phone may have extra zeros that must be removed. Any zeros directly after the "." should be removed. For example, if the IP address appears as 192.168.001.020 then change it to 192.168.1.20.

If the LCD display on the phone reads "no IP", you do not have a valid IP address.

1. Verify that your phone is configured for DHCP by pressing the MENU button. "dhcP On" will be displayed in the LCD screen. If "dhcP oFF" is displayed please follow the DHCP configuration instructions below.

2. Reboot the Grandstream phone. Press the "MENU" button, then press the up arrow button, you should see "--reset--" on the LCD display, then press the "MENU" button again to reboot.
3. Verify that your network cable is plugged in correctly.
4. Wait 2 minutes, and check the IP again.
5. If you still get "no IP", contact your network administrator as you may have a static IP. For static IP configuration please follow the instructions below.

If the LCD display on the phone 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 Grandstream phone to a home router such as a Linksys or Netgear router, please do the following:

1. On your Grandstream phone, press the "MENU" button.
2. The first menu is the DHCP menu and should read [1] dhcP On, this means that you are configured for DHCP. If the display reads dhcP oFF continue with these instructions:
3. Press the MENU button to select DHCP configuration.
4. Using the arrows - select between the two options:
 - dhcP On for enabling the DHCP
 - dhcP oFF for disabling the DHCP
5. Press the MENU button to save your option and exit.
6. Reboot the Grandstream phone for the change to take effect. Press the "MENU" button, then press the up arrow button, you should see "--reset--" on the LCD display, then press the "MENU" button again to reboot.

Once you press the MENU button, down arrow button and then MENU button again you will see the IP address that the Grandstream phone has acquired from the DHCP server.

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. On your Grandstream phone, press the "MENU" button.
2. On [1] dhcP On press the MENU button again.
3. With the arrows select dhcP oFF.
4. Press the MENU button to save.
5. Scroll down using the arrow buttons to menu [2] IP Addr.
6. Press the MENU button again to select this option.
7. Type in the IP address. Any zeros directly after the "." should be removed. For example, if the IP address is 192.168.100.001 then change it to 192.168.100.1.
8. Press the MENU button to save.
9. Scroll down to [3] SubnET menu.
10. Press the MENU button to select.
11. Insert the IP subnet mask. Each IP field should contain 3 digits.
12. Press the MENU button to save.
13. Scroll down to [4] routEr menu.
14. Press the MENU button to select.
15. Insert the default gateway. Each IP field should contain 3 digits.
16. Press the MENU button to save.
17. To configure your DNS Server, press the MENU button.

18. Scroll down with the arrows to [5] dnS.
19. Press the MENU button to select.
20. Insert the DNS server IP address. Each IP field should contain 3 digits.
21. Press the MENU button to save and exit.
22. Reboot the Grandstream phone for the change to take effect. Press the "MENU" button, then press the up arrow button, you should see "--reset--" on the LCD display, then press the "MENU" button again to reboot.

Step 3: Go to the Grandstream Phone Configuration page

1. Go to your computer (which should be connected to the same router as your Grandstream phone) and open a web browser.
2. In the web browser address bar, type in the IP Address you wrote down and click "Enter."

Return to Step 2 for instructions on verifying your IP address, if needed.

3. When you get to the configuration page, you should see a page that says "Welcome to Grandstream IP Phone". Please enter the password "admin".

If you do not get to this page, please make sure you removed extra zeros from the IP address as noted above.

Step 4: Upload Grandstream Phone Software

Upload version 1.0.5.18 to the Grandstream Phone.

1. Go to your Grandstream Phone's configuration page and make sure that the **TFTP Server IP Address is 213.137.73.79**. If not, enter the IP address manually and then 'Update' and 'Reboot' the phone through your configuration page.
2. The upload should take between 1-2 minutes during which the Grandstream Phone's lights will flash. If the upload was not successful, the phone will revert to the existing software version and you will need to follow the steps again.
3. If the upload is successful, you will be able to see version 1.0.5.18 at the top of your web configuration page.

Step 5: Configure your Grandstream Phone

Complete the Grandstream Configuration form.

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

- 1) Make Calls Only

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 UserID and Password.

Grandstream IP Phone Configuration - Make Calls Only

MAC Address: 00.0B.82.00.4F.1B

WAN IP Address:

Product Model: BT100

Software Version: Program-- **1.0.5.18** Bootloader-- 1.0.0.21 HTML-- 1.0.0.42 VOC-- 1.0.0.7

Basic Settings

End User Password: (end user password to configure this device)

IP Address:

dynamically assigned via DHCP (default) or PPPoE
(will attempt PPPoE if DHCP fails and following is non-blank)

PPPoE account ID:

PPPoE password:

Preferred DNS server:

statically configured as:

IP Address:

Subnet Mask:

Default Router:

DNS Server 1:

DNS Server 2:

Time Zone:

current setting is " GMT+2:00 (Israel, Cairo, Athens, Helsinki, Istanbul, Buchrest)"

Daylight Savings Time:

No

Yes

(if set to Yes, display time will be 1 hour ahead of normal time)

Advanced Settings

Admin Password:

(admin password to configure this device)

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:

Name:

(optional, e.g., John Doe)

Advanced Options:

Preferred Vocoder:
(in listed order)

choice 1:

current setting is " G.723.1"

choice 2:

current setting is " G.729A/B"

	choice 3:	<input pcma"="" type="text" value="current setting is "/>
	choice 4:	<input pcmu"="" type="text" value="current setting is "/>
	choice 5:	<input g.726-32"="" type="text" value="current setting is "/>
	choice 6:	<input g726-32"="" type="text" value="current setting is "/>
	choice 7:	<input g726-32"="" type="text" value="current setting is "/>
	choice 8:	<input g726-32"="" type="text" value="current setting is "/>
	G723 rate:	<input checked="" type="checkbox"/> 6.3kbps encoding rate <input type="checkbox"/> 5.3kbps encoding rate
	<i>iLBC frame size:</i>	<input checked="" type="checkbox"/> 20ms <input type="checkbox"/> 30ms
	<i>iLBC payload type:</i>	<input type="text" value="98"/> (between 96 and 127, default is 98)
	<i>Silence Suppression:</i>	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
	<i>Voice Frames per TX:</i>	<input type="text" value="1"/> (up to 10/20/32/64 for G711/G726/G723/other codecs respectively)
	<i>Layer 3 QoS:</i>	<input type="text" value="48"/> (Diff-Serv or Precedence value)
	<i>Layer 2 QoS:</i>	802.1Q/VLAN Tag <input type="text" value="0"/> 802.1p priority value <input type="text" value="0"/> (0-7)
	<i>Use DNS SRV:</i>	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
	<i>User ID is phone number:</i>	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
	<i>SIP Registration:</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	<i>Unregister On Reboot:</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	<i>Register Expiration:</i>	<input type="text" value="2"/> (in minutes. default 1 hour, max 45 days)
	<i>Early Dial:</i>	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (use "Yes" only if proxy supports 484 response)
	<i>Dial Plan Prefix:</i>	<input type="text"/> (this prefix string is added to each dialed number)

No Key Entry Timeout:	<input type="text" value="4"/> (in seconds, default is 4 seconds)
Use # as Dial Key:	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (if set to Yes, "#" will function as the "(Re-)Dial" key)
local SIP port:	<input type="text" value="5060"/> (default 5060)
local RTP port:	<input type="text" value="20222"/> (1024-65535, default 5004)
Use random port:	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
NAT Traversal:	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, STUN server is: <input type="text"/> (URI or IP:port)
keep-alive interval:	<input type="text" value="20"/> (in seconds, default 20 seconds)
Use NAT IP	<input type="text"/> (if specified, this IP address is used in SIP/SDP message)
Proxy-Require:	<input type="text"/> (if specified, the content will appear in Proxy-Require header)
TFTP Upgrade Server:	<input type="text" value="213"/> . <input type="text" value="137"/> . <input type="text" value="73"/> . <input type="text" value="79"/> (for remote software upgrade and configuration)
HTTP Upgrade Server:	<input type="text"/> (IP address or URL)
Auto Upgrade:	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes, check for new firmware every <input type="text" value="7"/> days (default 7 days)
Voice Mail UserID:	<input type="text"/> (User ID/extension for 3rd party voice mail system)
SUBSCRIBE for MWI:	<input type="checkbox"/> No, do not send SUBSCRIBE for Message Waiting Indication <input type="checkbox"/> Yes, send periodical SUBSCRIBE for Message Waiting Indication
Auto Answer:	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
Offhook Auto-Dial:	<input type="text"/> (User ID/extension to dial automatically when offhook)
Enable Call Features:	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (if Yes, Call Forwarding & Call-Waiting-Disable are supported locally)

<i>Disable Call-Waiting:</i>	<input type="radio"/> No <input checked="" type="radio"/> Yes
Send DTMF:	<input type="radio"/> in-audio <input checked="" type="radio"/> via RTP (RFC2833) <input type="radio"/> via SIP INFO
<i>DTMF Payload Type:</i>	<input type="text" value="101"/>
<i>Send Flash Event:</i>	<input type="radio"/> No <input checked="" type="radio"/> Yes (Flash will be sent as a DTMF event if set to Yes)
NTP Server:	<input type="text" value="192.5.41.40"/> (URI or IP address)
<i>Time Zone:</i>	<input type="text" value="current setting is 'GMT+2:00 (Israel, Cairo, Athens, Helsinki, Istanbul, Buchrest)"/>
<i>Date Display Format:</i>	<input checked="" type="radio"/> Year-Month-Day <input type="radio"/> Month-Day-Year <input type="radio"/> Day-Month-Year
<i>Daylight Savings Time:</i>	<input type="radio"/> No <input checked="" type="radio"/> Yes (if set to Yes, display time will be 1 hour ahead of normal time)
<i>Default Ring Tone:</i>	<input checked="" type="radio"/> system ring tone <input type="radio"/> custom ring tone 1, used if incoming caller ID is <input type="text"/> <input type="radio"/> custom ring tone 2, used if incoming caller ID is <input type="text"/> <input type="radio"/> custom ring tone 3, used if incoming caller ID is <input type="text"/>
<i>Send Anonymous:</i>	<input type="radio"/> No <input checked="" type="radio"/> Yes (caller ID will be blocked if set to Yes)
<i>Lock keypad update:</i>	<input type="radio"/> No <input checked="" type="radio"/> Yes (configuration update via keypad is disabled if set to Yes)

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 Call

Make & 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 UserID, Password and telephone number.

Grandstream IP Phone Configuration - Make & Receive Calls

MAC Address: 00.0B.82.00.4F.1B

WAN IP Address:

Product Model: BT100

Software Version: Program-- **1.0.5.18** Bootloader-- 1.0.0.21 HTML-- 1.0.0.42
VOC-- 1.0.0.7

Basic Settings

End User (end user password to configure this device)

Password:

IP Address:

dynamically assigned via DHCP (default) or PPPoE
(will attempt PPPoE if DHCP fails and following is non-blank)

PPPoE account ID:

PPPoE password:

Preferred DNS server:

statically configured as:

IP Address:

Subnet Mask:

Default Router:

DNS Server 1:

DNS Server 2:

Time Zone:

current setting is " GMT+2:00 (Israel, Cairo, Athens, Helsinki, Istanbul, Buchrest)"



Daylight Savings Time:



No



Yes

(if set to Yes, display time will be 1 hour ahead of normal time)

Advanced Settings

Admin Password:

(admin password to configure this device)

SIP Server:

natrelay.deltathree.com

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

Outbound Proxy:	<input type="text" value="natrelay.deltathree.com"/>	(e.g., proxy.myprovider.com, or IP address, if any)
SIP User ID:	<input type="text" value="Enter your inbound phone number"/>	(the user part of an SIP address)
Authenticate ID:	<input type="text" value="Enter your 8-Digit UserID"/>	(can be identical to or different from SIP User ID)
Authenticate Password:	<input type="text" value="Enter your 4-digit password"/>	
Name:	<input type="text"/>	(optional, e.g., John Doe)
Advanced Options:		
Preferred Vocoder: (in listed order)	choice 1:	<input g.723.1"="" type="text" value="current setting is "/>
	choice 2:	<input b"="" g.729a="" type="text" value="current setting is "/>
	choice 3:	<input pcma"="" type="text" value="current setting is "/>
	choice 4:	<input pcmu"="" type="text" value="current setting is "/>
	choice 5:	<input g.726-32"="" type="text" value="current setting is "/>
	choice 6:	<input g726-32"="" type="text" value="current setting is "/>
	choice 7:	<input g726-32"="" type="text" value="current setting is "/>
	choice 8:	<input g726-32"="" type="text" value="current setting is "/>
G723 rate:	<input checked="" type="checkbox"/> 6.3kbps encoding rate	<input type="checkbox"/> 5.3kbps encoding rate
iLBC frame size:	<input checked="" type="checkbox"/> 20ms	<input type="checkbox"/> 30ms
iLBC payload	<input type="text" value="98"/>	(between 96 and 127, default is 98)

type:	
Silence Suppression:	<input type="checkbox"/> No <input type="checkbox"/> Yes
Voice Frames per TX:	<input type="text" value="1"/> (up to 10/20/32/64 for G711/G726/G723/other codecs respectively)
Layer 3 QoS:	<input type="text" value="48"/> (Diff-Serv or Precedence value)
Layer 2 QoS:	802.1Q/VLAN Tag <input type="text" value="0"/> 802.1p priority value <input type="text" value="0"/> (0-7)
Use DNS SRV:	<input type="checkbox"/> No <input type="checkbox"/> Yes
User ID is phone number:	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
SIP Registration:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Unregister On Reboot:	<input type="checkbox"/> Yes <input type="checkbox"/> No
Register Expiration:	<input type="text" value="2"/> (in minutes. default 1 hour, max 45 days)
Early Dial:	<input type="checkbox"/> No <input type="checkbox"/> Yes (use "Yes" only if proxy supports 484 response)
Dial Plan Prefix:	<input type="text"/> (this prefix string is added to each dialed number)
No Key Entry Timeout:	<input type="text" value="4"/> (in seconds, default is 4 seconds)
Use # as Dial Key:	<input type="checkbox"/> No <input type="checkbox"/> Yes (if set to Yes, "#" will function as the "(Re-)Dial" key)
local SIP port:	<input type="text" value="5060"/> (default 5060)

local RTP port:	<input type="text" value="20222"/> (1024-65535, default 5004)
Use random port:	<input type="checkbox"/> No <input type="checkbox"/> Yes
NAT Traversal:	<input type="checkbox"/> No <input type="checkbox"/> Yes, STUN server is: <input type="text"/> (URI or IP:port)
keep-alive interval:	<input type="text" value="20"/> (in seconds, default 20 seconds)
Use NAT IP	<input type="text"/> (if specified, this IP address is used in SIP/SDP message)
Proxy-Require:	<input type="text"/> (if specified, the content will appear in Proxy-Require header)
TFTP Upgrade Server:	<input type="text" value="213"/> . <input type="text" value="137"/> . <input type="text" value="73"/> . <input type="text" value="79"/> (for remote software upgrade and configuration)
HTTP Upgrade Server:	<input type="text"/> (IP address or URL)
Auto Upgrade:	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes, check for new firmware every <input type="text" value="7"/> days (default 7 days)
Voice Mail UserID:	<input type="text" value="9999+Your inbound phone num"/> (User ID/extension for 3rd party voice mail system)
SUBSCRIBE for MWI:	<input type="checkbox"/> No, do not send SUBSCRIBE for Message Waiting Indication <input checked="" type="checkbox"/> Yes, send periodical SUBSCRIBE for Message Waiting Indication
Auto Answer:	<input type="checkbox"/> No <input type="checkbox"/> Yes
Offhook Auto-	<input type="text"/> (User ID/extension to dial automatically when

<i>Dial:</i>	offhook)	
<i>Enable Call Features:</i>	<input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes (if Yes, Call Forwarding & Call-Waiting-Disable are supported locally)
<i>Disable Call-Waiting:</i>	<input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes
Send DTMF:	<input checked="" type="checkbox"/> in-audio	<input checked="" type="checkbox"/> via RTP (RFC2833) <input checked="" type="checkbox"/> via SIP INFO
<i>DTMF Payload Type:</i>	<input type="text" value="101"/>	
<i>Send Flash Event:</i>	<input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes (Flash will be sent as a DTMF event if set to Yes)
NTP Server:	<input type="text" value="192.5.41.40"/> (URI or IP address)	
<i>Time Zone:</i>	<input type="text" value='current setting is "GMT+2:00 (Israel, Cairo, Athens, Helsinki, Istanbul, Buchrest)'/>	
<i>Date Display Format:</i>	<input checked="" type="checkbox"/> Year-Month-Day <input checked="" type="checkbox"/> Month-Day-Year <input checked="" type="checkbox"/> Day-Month-Year	
<i>Daylight Savings Time:</i>	<input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes (if set to Yes, display time will be 1 hour ahead of normal time)
<i>Default Ring Tone:</i>	<input checked="" type="checkbox"/> system ring tone <input checked="" type="checkbox"/> custom ring tone 1, used if incoming caller ID is <input type="text"/> <input checked="" type="checkbox"/> custom ring tone 2, used if incoming caller ID is <input type="text"/> <input checked="" type="checkbox"/> custom ring tone 3, used if incoming caller ID is <input type="text"/>	

	<input type="text"/>
<i>Send Anonymous:</i>	<input type="checkbox"/> No <input type="checkbox"/> Yes (caller ID will be blocked if set to Yes)
<i>Lock keypad update:</i>	<input type="checkbox"/> No <input type="checkbox"/> Yes (configuration update via keypad is disabled if set to Yes)

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.