



onque 3 User Guide

V1.3

M2 Technology Pty Ltd www.m2technology.com.au

User Guide



The information in this publication is used in conjunction with the onque 3; a digital webenabled On Hold Digital Announcer, developed and manufactured by M2 Technology Pty Ltd.



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onque 3 On-Hold

onque 3 is a web-enabled digital message announcer designed to provide a message stream for your telephone system Messages-On-Hold (MOH) function.

Up to 20 On-Hold messages can be used by the system in a combination of foreground and background audio.

Messages can be played sequentially, or in play list mode where messages can play for certain times, days or dates. Up to 10 play lists can be programmed to play always, or between certain dates, or on specific weekdays, or between selected times of the day.

The onque 3 is equipped with 128, 256 or 512MB of internal non-volatile memory. This provides up to 4, 8 or 16 hours of MOH output.

Messages can be professionally voiced and recorded at the M2 Technology's production studio and uploaded autonomously into the customer's onque 3. If more control is required professionally recorded audio can be emailed to the customer and setup using a local control program. Further to this the customers can setup their own audio on the onque 3 using the onque control software^{*}.

^{*} User supplied audio subject to file type and length restrictions



Package Contents and Layout

Package Contents

Please check that your onque 3 was delivered with the following items in the box;

- The onque 3 Digital Announcer
- 9volt DC power adaptor 1000 mA
- Wall mounting template
- Installation Instructions

If any items are missing please contact your authorised M2 Technology dealer. Retain the box with the original packing material in case you need to return your system for repair in the future.

Top Layout

The front of the onque 3 case has a LCD Display, as shown in figure 1.



Figure 1: LCD Display

LCD Display Description

The LCD Display is used to show the different functional and error states of the onque 3. A description of the different states and corresponding meaning is listed below.

Normal Playback

1: Generic	01:28
Playing	00:45

If the onque 3 is playing back messages normally, the display shows the currently playing message:

The message **number**, the message **name** and the message **duration** are shown, and also the time lapsed.

No playlists loaded



If no playlists are programmed, or no timed playlist is programmed to play for the current date and time, the display will show:

Playing External Audio

Playing External	If the onque 3 is set up to play External Audio, then the display shows the following:
Audio: >>>>	The number of ">" symbols will increase and decrease periodically, showing the onque 3 is active

Doing Web Download







If the onque 3 is configuring itself for a static IP within the LAN network, the display shows the following steps:

Check LAN: Setting MAC addr Setting the MAC address (only after booting):



Setting up static (fixed) IP address:

LAN Check: LAN cable disconnection



While the onque 3 is running, it constantly checks if the LAN cable is still connected. This message is displayed if the LAN cable is disconnected from the network, not plugged into the onque 3, or damaged.

Displaying Errors

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If an error has been detected, it is added to the error queue and displayed immediately for 10 minutes. Errors can also be retrieved from the Menu System, please refer to the **Menu System** section.

To identify errors, please refer to the Troubleshooting section.



Installation

Site Preparation

The onque 3 digital announcer is designed to be wall mounted. Direct sunlight, damp or dusty environments must be avoided.

Before selecting a wall mount location the installer should ensure the following;

- A 240V power outlet is available and within reach of the onque 3.
- Adequate clearance below the onque 3 to access the LAN, MOH and power connections.
- Proximity to a LIU (Line Isolation Unit) connected to the phone system.
- Proximity to a free network connection or available network cable route.

Wall Mounting

Wall mounting is accomplished by means of 2 screws that allow the onque 3 to slide down and lock in position. A wallmounting template is supplied to enable the installer to correctly position the mounting screws.

Place template in desired position;

Center punch through holes on the template;

Remove the template;

Drill a pilot hole;

Brick – use a 6.00mm masonry drill bit and wall plugs, use No. 9 x 25mm wood screw. **Wood** – Drill hole 2.00mm, use 9G x 25mm wood screw.

Connecting the onque 3

The following section describes all connections to the onque 3.

The connection panel consists of a power input socket, two message-on-hold (MOH) output sockets, a LAN connection and an external audio in socket as shown in Figure 2.



The connection order is not critical, but the recommended sequence is: MOH connection, LAN connection and finally power connection. The onque 3 requires a Line Isolation Unit.

MOH Connection

The MOH output signal is available at the 3.5mm jack marked '**MOH**' or on a 4-pin RJ11 connector. This signal will need to be connected to a Line Isolation Unit (LIU). The LIU output must then be connected to the telephone system's 'External Music' or 'MOH input' connection.

LAN Connection

The onque 3 is connected to the Local Area Network (LAN) via the RJ45 socket on the connections panel marked 'LAN'. This connection is to be made via a standard category 5 (cat 5) network cable to a network switch.

Power Connection

The power required by the onque 3 is 9V DC, 1000mA, center pin is positive supply. The onque 3 is protected against reverse polarity.

An approved AC adaptor is supplied with the onque 3. Plug the adaptor into a power point and connect the low voltage lead to the onque 3's power jack, marked **DC9V**.

External Audio In Connection

Socket for connection of an external audio source (eg. CD player). This is a 3.5mm stereo socket.

Console Connection

This RS232 interface on a DB9 connector allows the connection of a console (eg. a PC running HyperTerminal) for service and maintenance purposes.

Common onque Operations

This section of the manual outlines the most common user-initiated operations: force web access and change playback volume.

The onque 3 has 4 push-buttons and a LCD display on the front control panel, which are used to access the onque 3's functions.

Forced Update

The onque 3 automatically checks for updates (generally once a day unless disabled, and after booting), but can be manually forced to check the website at any time for software, configuration and audio files updates.

Press the MENU button, the display will show the first menu item:

manually.

-- MAIN MENU --Force Web Access Pressing the **ENTER** button forces the onque 3 to check updates through the web. The display will show one of two possible confirmation displays:

Auto Access: Halt Manually forcing

Auto Access: OK Manually forcing The automatic web access is enabled (not "halted"). Web access will be forced

The automatic web access is disabled ("halted") – but access will still be forced

manually.

The onque 3 will now attempt to contact the website in order to check for software, play list or message updates.

Progress Messages

While the onque 3 is accessing the update website, some progress messages are displayed on the LCD:



Web Access End Result Messages

The possible messages after a completed web access can be one of the following:

Web Access End: Updates finished Web Access End: No update posted

Web Access End:

S/N Undefined

Updates were posted on the website and the onque 3 has successfully updated its configuration and audio messages.

There were no updates posted.

The onque 3's serial number is not defined on the update website's database. Contact your Supplier.

If an error occurred, the error will be displayed instead on any of these messages. Please refer to the "troubleshooting" section regarding the meaning of errors and how to proceed.

Volume Control

The onque 3 uses the menu to control the user volume. Adjustment is best achieved by having the onque 3 already successfully plugged into the Phone System's MOH input.

• Press the **MENU** button, then the **DOWN** button, the display will show the second menu option:



• Press ENTER to change of the volume setting.

Set Play Volume New Volume: 6

- Dial into the phone system and have the operator place you on hold (optional)
- Listen to the volume of the on hold message being played (optional)
- If the volume is found to be too low press the **UP** button to increase the volume. Likewise if the volume is too low press the **DOWN** button to decrease the volume. The volume will change after about one second upon the release of the button.
- Repeat the previous step until the volume is found to be of an acceptable volume. Press the ENTER button to accept the new volume. MENU/BACK exits back to the Main Menu discarding any volume changes
- You can press the MENU button to exit the menu, or leave it to time out.

For a description on how to set up other onque 3 parameters, please refer to the Menu System section.

Setting up the onque 3 using the onque embedded web page

Launch your web browser of choice and type the onque 3 IP address (default is 192.168.1.102) into the address bar. **HINT:** To find out the onque 3 IP address, you can also press the **ENTER** button on the onque 3 and the IP address will be displayed on the LCD display. You will see the following on your browser:

onque 3 Main Page



The onque 3 will automatically set its new values and try to access the onque 3 website to check for updates.

Dynamic IP Address (use DHCP)

The onque 3 has support for use with a DHCP server. It is the default setting for the onque 3 to try and find a DHCP server upon startup and automatically allocate the IP Address, Subnet Mask, Gateway and DNS Address.

Note: the onque 3 will only use the primary DNS address allocated by the DHCP server.

Static IP Address

In cases where there is no DHCP server available the onque 3 will assign the default IP address as follows;

IP: 192.168.1.102 Subnet mask: 255.255.255.0

These will need to be changed to suitable values for the current network, consult your IT administrator for the following;

IP Address: Subnet mask: Gateway Address: DNS Address (only the primary can be used):

To connect to the onque 3 a computer will need to be setup on the network in the same range i.e. 192.168.1.105 with a subnet mask of 255.255.255.0

To achieve this in Windows XP go to the start menu, then control panel, then network connections. Double click on the "local area connections" and then on the "properties" button at the bottom of this menu. Scroll down the list that appears choose "Internet Protocol (TCP/IP)" and again click the properties button below.

Write down your current IP address, you will need to re-enter this later.

Change this value to 192.168.1.105. Once complete click "OK" to close the window and "OK" again to close the connection properties window.

Setting up the onque 3 using the onque embedded web page (preferred method):

Launch your web browser of choice and type the onque 3 IP address (default is 192.168.1.102) into the address bar.

HINT: To find out the onque 3 IP address, you can also press the ENTER button on the onque 3 and the IP address will be displayed on the LCD display.

WARNING: once you change the static IP address to a value suitable to your network, you will lose the connection to your computer, as it was set up to connect to a default network (192.168.1.xxx)

Setting up the onque 3 using the onque 3 in-built Menu system (also refer to the Menu System section):

Press the MENU button. The LCD display will show "MAIN MENU – Force Web Access". Press the DOWN button repeatedly (5 times) until you reach the display "MAIN MENU – Setup Network", then press the ENTER button.

The display shows: NETWORK MENU – **Static IP – NO.** Press the ENTER button to change this setting. The display shows: **Use Static IP – NO**. Press UP or DOWN button to toggle the display to **Use Static IP – YES**. Then press the ENTER button.

The display shows: **Own IP Address – 010.001.001.042** and the cursor will be blinking under the first digit. Use the UP or DOWN buttons to set the numerical value. Press ENTER to advance to the next digit.

The last ENTER after the last digit causes the display to show: **Network Mask – 255.255.255.000** Proceed the same way as for the IP address.

The last ENTER after the last digit causes the display to show: **Gateway IP – 010.001.001.253** Set the value as described.

The last ENTER after the last digit causes the display to show: **DNS IP – 010.001.001.253** Set the value as described.

The last ENTER after the last digit causes the display to show: **The network will be reinitialised.** The ongue 3 will now set up itself using the supplied values.

Setting up the onque 3 using the onque 3 Super Lite Control Programme:

Install and run the "onque 3 Super Lite Control Programme". Click "Find" button located in the top menu. A "searching for machine" dialog will appear. Once found this dialog will change to "Identified machine and loaded configuration OK" click "OK" at the bottom of this dialog.

Now, again in the top menu click the "Setup" button. In the menu that appears you will see a section labeled "if no DHCP Server present" fill in this section with the details provided by your IT administrator in the required fields *ensure you tick the* "force static IP" check box.

Once all of the fields have been completed click the "Update Machine" button down the bottom. This will bring up a "writing configuration" dialog, once completed this dialog will disappear. Now click "Read from machine" and then "OK" on the "Configuration has been read" dialog.

You should now see the same settings that you just entered onto the onque 3. If any sort of error was produced repeat the process.

Close the program and reboot the onque 3. Once the onque 3 has finished booting, press the ENTER button to display the IP address on the LCD display and verify its value.

You can now set the PC back to its original IP address by following the sets as outlined above and reentering the IP address you wrote down.



Menu System

The onque 3 implements a basic Menu System. The display consists of a backlight LCD display (2 rows of 16 characters) plus 4 buttons (Menu/Back, Up, Down, Enter):



Main Menu

The Main Menu is displayed if the

Θ

MENU button is pressed.

The options in the Main Menu include:

- Force Web Access
- Play Volume
- Web Access Mode
- Play Mode
- Date and Time
- Network Setup
- Reset IP address



Force Web Access (check website for updates)

Manually force check for web updates at any time:



At any time: exits back to the Main Menu discarding any volume changes.

Web Access Mode



Web Access Mode DISABLED





D or 🤇

scroll through the DISABLED and AUTOMATIC options.

sets the Web Access Mode to the selected option.

exits back to the main menu without any changes.

NOTE: you only want to disable the Web Access if the onque 3 Interface Service software is running, as that software will take care of the checking for updates.

Play Mode onque 3 can play normal messages from a playlist or play external audio. Press and select the Play Mode option from the Main Menu using or Image: I

exits back to the Main Menu without making changes.

Date and Time

This section is used to set the onque 3's Date and Time. Normally this value is automatically adjusted each time the onque 3 accesses the web, but if the onque 3 is not connected to the internet, the Date and Time may drift and will need to be adjusted every few months (between 3 and 6 months).



Setup Network

Use this option to manually set the network parameters to be used by the onque 3. The more convenient way of doing this is using the onque 3 embedded web page.



Static IP settings

If Static IP is set to **YES**, the following additional values must be set:

Own IP address:

The IP address of the onque 3



The cursor will be located under the first digit on the left.



are used to change the digit.

accepts the current digit and advances the cursor to the next digit. Once all digits are set, the display jumps to the Network Mask setting.

Network Mask:

The value of the Network Mask for your network.



The cursor will be located under the first digit on the left.



or

are used to change the digit.

accepts the current digit and advances the cursor to the next digit. Once all digits are set, the display jumps to the Gateway IP setting.

Gateway IP:

The IP address of the Gateway on your network.



The cursor will be located under the first digit on the left.



or

are used to change the digit.

accepts the current digit and advances the cursor to the next digit. Once all digits are set, the display jumps to the DNS IP setting.

DNS IP:

The IP address of the Domain Name System server on your network.



The cursor will be located under the first digit on the left.



are used to change the digit.

accepts the current digit and advances the cursor to the next digit. Once all digits are set, the display returns to the Network Menu.

Proxy Server

If using a Proxy Server, you must enable it and specify the IP address and port.



Accepts the current digit and advances the cursor to the next digit. Once all digits are set, the display jumps to the Proxy Port setting.

Proxy Port:



Proxy Username and Password:

Use your browser to access the embedded webpage interface to set up those values if needed.

Reset IP address to default static values

This menu option is used if you need to reset the onque 3 IP address to static factory defaults, that is, a static IP address with the following values.



If the option confirmed, the onque 3 will re-initialise the network setup and the corresponding progress messages will be displayed.

Trouble Shooting

Errors displayed on the LCD

If an error has been detected, it is added to the error queue and displayed immediately. Errors can also retrieved from the Menu System, please refer to the relevant chapter.



Local Network Errors

The module ID will show as "LAN". Any error in this category will most likely be caused by a local network problem. The onque 3 will be off-line (not connected to the network). This will prevent updates through the web, but message playback proceeds as normal.

Indicating cable not connected

Error 001: LAN Cable disconnect

The LAN cable is disconnected from the network, not plugged into the onque 3, or damaged.

- Ensure the LAN cable is seated properly in the socket marked "LAN".
- Ensure the LAN cable is seated properly in the network switch.
- Ensure the network switch is powered correctly.
- Try a different port on the network switch
- Try a different LAN cable if available.
- If the onque 3 is still in error please contact M2 Technology technical support

DHCP error

Error 001: LAN DHCP not running

The network's DHCP server is not running or not responding to requests. Not applicable if using static IP addressing.

Web Access Errors

The module ID will show as "**WEB**". Any error in this category will most likely caused by a network configuration problem or a remote network deficiency. The onque 3 will not be able to contact the remote server.

Error 001: WEB Cable disconnect

While attempting to access the web, the system found the LAN cable is disconnected from the network, not plugged into the onque 3, or damaged.

Error 001: WEB network is down

The LAN cable is connected but the local area network is unavailable. Check if other computers can access the internet.

Error 001: WEB HOST fail n

The update website URL has been wrongly programmed or the update server is down. "n" indicates where in the programme the failure occurred.

Indicating DNS server error

Error 001: WEB DNS fail n

The System cannot resolve the Domain Name. The local network DNS server is not working. **Note:** the ongue 3 only uses the primary DNS address.

- Check with your network administrator that the DHCP server has been configured correctly and the DNS is running.
- If once the system is powered and the display indicates that the static IP address is being used assigned but the DNS cannot be found;
- Check if the system should be using a static IP by consulting your network administrator If a static IP is to be used ensure that the system was set-up correctly for a static IP. Refer to the static IP set-up section of this manual
- Remove the power from the onque 3 and wait 10 seconds and re-power.

Indicating no server connection

If once the system is powered and the display indicates that the IP address has been DHCP-assigned but the connection cannot be opened to the onque 3 server;

Error 001: WEB CONNECT fail n

A connection to the update website could not be established. Possible reasons include firewall or proxy server restrictions or the update server is down. Also check DHCP server is correctly allocating the gateway or the gateway address is correctly programmed if using static IP addressing.

- Remove the power from the onque 3 and wait 10 seconds and re-power.
- Check with your network administrator that the DHCP server has been configured correctly and that the gateway is correct.
- Check with your network administrator that a firewall or proxy server is not blocking the onque 3 from having Internet access.
- Ensure that the system should be using a static IP by consulting your network administrator
- If a static IP is to be used ensure that the system was set-up correctly for a static IP. Refer to the static IP set-up section of this manual
- Remove the power from the onque 3 and wait 10 seconds and re-power.

Indicating Proxy server problem

Error 001: WEB PROXY fail n	The onque 3 is programmed to use a proxy, but the proxy server is not responding. Check if the proxy IP address has been correctly programmed.
Error 001: WEB PROXY bad UN/PW	The onque 3 is configured to use a proxy that requires authentication, but the programmed proxy username and password are invalid.
Indicating connection problems	
Error 001: WEB SEND fail n	The onque 3 could not send data to the update website. A situation has caused the transfer to drop the connection partway through the transfer. Check the functionality of network hardware.
Error 001: WEB RECEIVE fail n	The onque 3 could not receive data from the update website. A situation has caused the transfer to drop the connection partway through the transfer. Check the functionality of network hardware.
Error 001: WEB too many retries	The onque 3 has retried too many times to contact the update website. A new attempt will be made on the next scheduled access.

- Check with your network administrator that a firewall or proxy server is not blocking the onque 3 from having Internet access.
- Ensure that the network hardware is functioning correctly and not intermittently losing the network connection.
- Remove the power from the onque 3 and wait 10 seconds and re-power.
- If the onque 3 is still in error please contact M2 Technology technical support.

Serial Number problem



The onque 3's Serial Number is not programmed into the update website's database. Contact your Technical Representative.



Other Errors

This section describes other possible errors that are not displayed on the LCD panel.

No Audio Output

The onque 3 is powered up but there is no On Hold on the phone system;

- Ensure the onque 3 has audio material programmed. If the display shows "Nothing to play" then no play lists are programmed to play on the day.
- Ensure the onque 3 is powered correctly. Check that the green light next to the LCD display is lit.
- Ensure the audio cable from the Line Isolation Unit is plugged firmly into one of the sockets marked "MOH"
- Check that the volume level has been set correctly; refer to the volume section of this manual (page 13)
- If the onque 3 is still in error please contact M2 Technology technical support.

Volume level to high or low

The onque 3 does not appear to provide a high or low enough volume. Note: the onque 3 has 10 discrete volume levels;

- Check the volume value by following the Play Volume Setup procedure (page 13)
- If the onque 3 is still in error please contact M2 Technology technical support.

Static IP set and can no longer find the onque 3

If you have set the static IP address of the onque 3 but can no longer connect to the onque 3.

Firstly ensure the onque 3 is plugged-in correctly and the LAN connection light is illuminated (found on the bottom left of the LAN connector)

If the onque 3 is connected correctly, perform the following steps

Reset the onque 3 to dynamic IP addressing by pressing the following button sequence:



The onque 3 will now have reverted to dynamic addressing can be reconfigured using the embedded webpage or the onque 3 Super Lite utility

Technical Information

Hardware:

Self contained, solid-state digital announcer.

Storage:

On-Board 128MB, 256MB or 512MB non-volatile flash memory card (up to 4, 8 or 16 hours of audio).

Audio Encoding:

8kHz Sampling, 300Hz to 3.4kHz (telephone bandwidth) PCM A-Law as per ITU G.711 (64 kbps data stream)

Recorded messages storage requirements:

480 kB per minute (2 min 11 sec per megabyte)

On-Hold output:

Output level: approx. -33dB to +3dB Output impedance: 600 Ω Insulation: 3750VDC

Power requirements:

Voltage: 9VDC Current (Max): 700mA

Environment:

Operation: Temperature range 0° C ... + 40° C, Relative humidity. 10%...90% non condensing.

Storage:

Temperature range $-20 \,^{\circ}$ C ... + $80 \,^{\circ}$ C, Relative humidity 5%...96% non condensing.