AP086 CyberChime ONE

User Manual
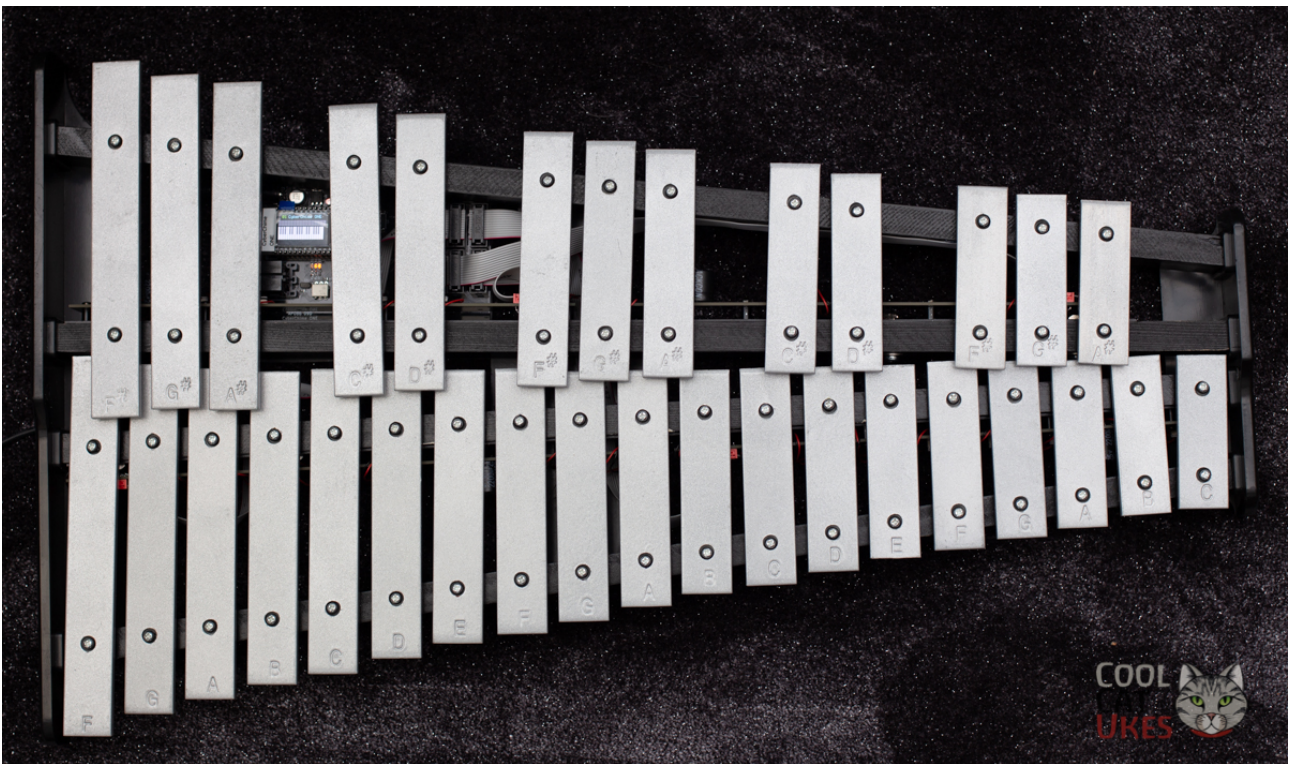
www.ambientpower.co.uk
info@ambientpower.co.uk

E&OE

Table of Contents

E&OE

Introduction

Please read these instructions completely before using your CyberChime ONE.

The CyberChime ONE

The CyberChime ONE is a MIDI controlled glockenspiel.

Based on a standard 32 key orchestral instrument, it brings new possibilities to live music with glockenspiel instrumentation.

Driven by either Bluetooth (BLE) MIDI or a standard 5-pin DIN MIDI in, and computer with MIDI output can drive this instrument. It can be used for solo parts or as an accompaniment, or even driven from a regular MIDI piano keyboard.

It can also be played manually with standard beaters, so a musician can have the computer play rhythm parts while playing solos over the top for example.

Possibilities are created by the fact that this instrument can do things that regular musicians cannot do with a glockenspiel - complex chords and multiple notes, also playing at speeds unimaginable by a human player.

Developed by Ambient Power, it has custom electronics and unique solenoid drivers striking the keys from within the physical envelope of the standard instrument. So, apart from the display hidden between the sharp keys in the first octave, it looks like a standard instrument.

Connections

A 2.1mm 12V circular connector is provided (centre positive). A power supply capable of supplying 2A minimum must be used, otherwise the CyberChime may reset if multiple notes are played simultaneously. Ensure that the cable cannot snag or be pulled in used, excessive force can break the power connector. The connections for power and MIDI are found underneath the unit on the left hand side towards the rear.

Operation

Connection

Connect the power supply and switch the unit on. Connect to the unit using BLE (using Audio MIDI Setup for example in Logic Pro) or using the 5-pin MIDI connector. Take care not to over-stress connections to the unit. The MIDI connector on some models is on a short flying lead that can be tucked into the frame of the unit if not in use. Be sure that it's not touching the metal keys on the top as it could mute the notes.

Indicators & Switches

LEDs
There are three LEDs on the unit just underneath the display.
The rightmost LED (red) indicates that power is connected.
The centre LED (green) shows that the unit is initialised and ready (about five seconds after power-on).
The leftmost LED (white) flashes when a note is played.

LED	Function	
🔴	Power	Indicates that main voltage is applied.
🟢	Ready	Unit is ready for use, if flashing, still ready, but display is off will wake as soon as a note is played
⚪	Operation	Flashes when a note is played

Display
The display shows the main operation of the unit. There is a Bluetooth indicator that shows in blue when connected via BLE MIDI. The piano style display is an indicator of notes being played. The display will blank after 30 minutes of non-use, but if connected via BLE will remain connected. Any operation of the unit will illuminate the display again.

The display will show when multiple notes are played, reacting to MIDI ON and OFF commands. Keys are struck from MIDI ON commands without velocity control (being irrelevant for a glockenspiel), solenoids are only activated momentarily so the length of a MIDI note is ignored. Some DAWs do not reliably send MIDI OFF information, so sometimes notes appear to be stuck ON, this can be ignored.

Push buttons
There are two push buttons on the unit.

MIDI channel
The lower button selects the MIDI channel in use (shown on the display).

Built in test
The upper button initiates a test, driving every solenoid in sequence. It is a short pulse intended for testing solenoid operation only and may not strike the notes.

Playing music

Setting your DAW to output MIDI information (as you would when connecting a synthesiser or sound module), allows the CyberChime ONE to be played from an attached keyboard, or to play MIDI sequences from the DAW. CyberChime ONE has been used with Logic Pro on the Mac and various iPad programs, but will work with any device with a five pin MIDI output or suitable Bluetooth MIDI connection.

If using the CyberChime ONE as an accompanying instrument for a live performance, it may be useful to add a click introduction from the computer driving it, or even a "1,2,3,4" tap on the CyberChime ONE to allow the musician to synchronise easily.

E&OE

Troubleshooting

If a key becomes 'dull', it may be that the key has been pushed down on its rubber mount in transit - or is jammed up. Lift the key slightly and it should release. It can be checked manually using a beater.

If it's still dull, check that no foreign objects are obstructing the movement. With the power off, the solenoid can be pushed manually to check that it's not in permanent contact, or unable to move. Check that no cables have moved and obstructed the movement.

In the event that the CyberChime ONE is dropped or mishandled, it may be the case that the solenoids become misaligned with the keys. There are four banks of solenoids on brackets that have a small adjustment. The bolts securing them can be loosened using a 7mm spanner. There are three bolts for each bracket. DO NOT try to remove the bolts, or turn them so much that the t-nut detaches from the thread. About two turns is sufficient. Once loose, the bracket can be moved up and down marginally as required. Once in the right place, re-tighten the bolts. This should only be required in the case of severe mishandling.

Bear in mind overall that the volume from the keys played from MIDI may not be as loud as when played manually - you can apply a lot more force when playing using the beaters!

Care

General
Do not subject the unit to sharp shocks or excessive vibration. Place on a flat, level surface, or use the stand provided. Ensure that no cables or other items are underneath to restrict the free movement of the solenoids.

Cleaning
Clean the unit with a damp (not wet) cloth.

Specifications:
- Bluetooth MIDI receive (BLE)
- 5 pin wired MIDI receive
- Midi channel configurable to required channel (1 to 16)
- 8 notes playable simultaneously
- Maximum note play rate 40Hz
- 32 notes F5 to C8 (698Hz to 4186Hz / MIDI notes 77 to 108)
- Processor: embedded Espressif ESP32 with Ambient Power firmware
- Power supply: 90-240V (external power supply)
- Dimensions: 615 x 360 x 55mm
- Weight: 2980g

Support & Feedback

Should you have any questions regarding your CyberChime please contact info@ambientpower.co.uk.

Do not disassemble the unit, there are no user serviceable parts inside - although see the troubleshooting section above for adjustment details if required.

Package Contents

- CyberChime ONE main unit
- Two beaters
- Stand
- Power Supply 90V-230V AC mains in, 12V DC out
- Mains cable - supplied for destination region
- Carry & storage bag
- Instructions