

Q-Tech

Commercial Series

QTL 1010

Loop Detector

User Manual



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Safety Precautions

- Be sure to read the instructions in this section carefully before use.
- Make sure you observe the instructions in this manual as to the conventions of safety symbols.
- We also recommend you keep this instruction manual handy for future reference.

Safety Symbol and Message Conventions

Safety symbols described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential risks.



WARNING

Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.



CAUTION

Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.



WARNING

When Installing the Unit

- Do not expose the unit to rain or an environment where it may be splashed by water or other liquids, as doing so may result in fire or electric shock.
- Use the unit only with the voltage specified on the unit. Using a voltage higher than that which is specified may result in fire or electric shock.
- Do not cut, kink, otherwise damage nor modify the power supply cord. In addition, avoid using the power cord in close proximity to heaters, and never place heavy objects -- including the unit itself -- on the power cord, as doing so may result in fire or electric shock.
- Be sure to replace the unit's terminal cover after connection completion. Because high voltage is applied to the speaker terminals, never touch these terminals to avoid electric shock.
- Be sure to ground to the safety ground (earth) terminal to avoid electric shock. Never ground to a gas pipe as a catastrophic disaster may result.
- Avoid installing or mounting the unit in unstable locations, such as on a rickety table or a slanted surface. Doing so may result in the unit falling down, causing personal injury and/or property damage.

When the Unit is in Use

- Should the following irregularity be found during use, immediately switch off the power, disconnect the power supply plug from the AC outlet and contact your nearest Quest dealer. Make no further attempt to operate the unit in this condition as this may cause fire or electric shock.
 - If you detect smoke or a strange smell coming from the unit.
 - If water or any metallic object gets into the unit
 - If the unit falls, or the unit case breaks
 - If the power supply cord is damaged (exposure of the core, disconnection, etc.)
 - If it is malfunctioning (no tone sounds.)
- To prevent a fire or electric shock, never open nor remove the unit case as there are high voltage components inside the unit. Refer all servicing to your nearest Quest dealer.
- Do not place cups, bowls, or other containers of liquid or metallic objects on top of the unit. If they accidentally spill into the unit, this may cause a fire or electric shock.
- Do not insert nor drop metallic objects or flammable materials in the ventilation slots of the unit's cover, as this may result in fire or electric shock.

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CAUTION

When Installing the Unit

- Never plug in nor remove the power supply plug with wet hands, as doing so may cause electric shock.
- When unplugging the power supply cord, be sure to grasp the power supply plug; never pull on the cord itself. Operating the unit with a damaged power supply cord may cause a fire or electric shock.
- When moving the unit, be sure to remove its power supply cord from the wall outlet. Moving the unit with the power cord connected to the outlet may cause damage to the power cord, resulting in fire or electric shock. When removing the power cord, be sure to hold its plug to pull.
- Do not block the ventilation slots in the unit's cover. Doing so may cause heat to build up inside the unit and result in fire.
- Avoid installing the unit in humid or dusty locations, in locations exposed to direct sunlight, near heaters, or in locations generating sooty smoke or steam as doing otherwise may result in fire or electric shock.

When the Unit is in Use

- Do not place heavy objects on the unit as this may cause it to fall or break which may result in personal injury and/or property damage. In addition, the object itself may fall off and cause injury and/or damage.
- Contact your Quest dealer as to cleaning. If dust is allowed to accumulate in the unit over a long period of time, a fire or damage to the unit may result.
- If dust accumulates on the power supply plug or in the wall AC outlet, a fire may result. Clean it periodically. In addition, insert the plug in the wall outlet securely.
- Switch off the power, and unplug the power supply plug from the AC outlet for safety purposes when cleaning or leaving the unit unused for 10 days or more. Doing otherwise may cause a fire or electric shock.



An all-pole mains switch with a contact separation of at least 3 mm in each pole shall be incorporated in the electrical installation of the building.

General Description

Thank you for purchasing the Quest QTL 1010 Line Monitoring Panel

Inspection/Warranty

Unpack and inspect the amplifier and its packaging. If obvious physical damage is noticed, contact the carrier immediately to make a damages claim.

We suggest saving the shipping carton and packing material for safe transport of the unit.

Features

- LED Display and Indicators
- 10 Channel Speaker and amplifier monitoring panel to monitor speaker, speaker line and amplifier for open or short circuit
- 10 inputs and 10 outputs
- No interference to the normal background music.
- Check 100V and 70V loop line, MAX load is 2000W.
- 240V and 24V DC power supply, memory function.

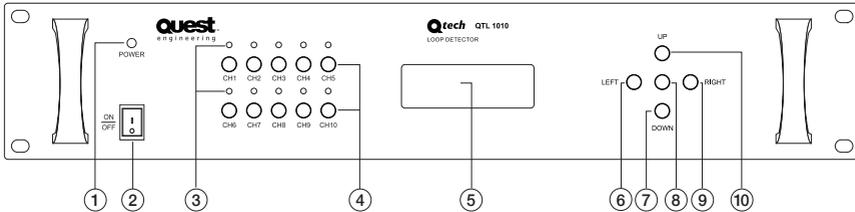
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Specifications

Loop Detector

Model	QTL 1010
Communication Interface	RJ45
Communication Protocol	20MA Circular Communication
Communication Speed	4800bps
Protection	AC FUSE 1A
Power Requirements	~230V/50Hz,24V DC
Power Consumption	360W
Dimension (mm)	484 X 353 X 88
Net Weight	5.5KG
Gross Weight	5.5KG

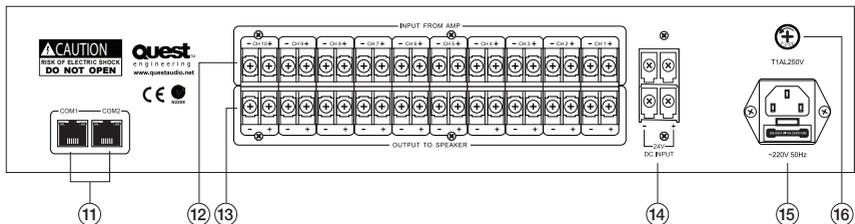
Front Panel Layout



- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> 1. Power
Power indicator 2. Power Switch
On/Off 3. CH 1~ CH 10
10 channel indicator 4. CH 1~ CH 10
10 channel indicator button 5. Screen
Displays the operating state of loop detector | <ol style="list-style-type: none"> 6. Left
Left search channel 7. Down
Down search channel 8. OK/Dish 9. Right
Right search channel 10. Up
Up search channel |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



Rear Panel Layout



- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> 11. COM
RJ 45 communication interface 12. Input From AMP
10 Line Input 13. Output to Speaker
10 channel outputs | <ol style="list-style-type: none"> 14. Input
DC 24V INPUT 15. 230V/50Hz AC Power Input 16. AC Fuse |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|

Operation

Six State of Speaker

1. Normal

Speaker loading is in the normal range, and amplifier wattage is equal to or within 5w of total speaker wattage.

2. Overloading

The total speaker wattage is larger than the amplifier wattage.

3. Close Circuit:

Speaker loading wattage is less than 5W.

Indicators

Green:

Normal service between amplifier and speaker connection.

Red:

Speaker Line open or short circuit. The amplifier may also be distorting. Manually cut off the power to this line to extinguish the red indicator.

Brown:

There are two situations when indicator shows up brown.

If the channel in question is close to open or short circuit.

Also if in manual mode, and the channel is open or short circuit, push the channel button to disconnect the amplifier for this zone.

Operation

1. **Power on then the unit will circular check channels 1 to 10. After doing this check, the unit will enter "waiting" mode.**
2. **In waiting mode, push the channel 1-channel 10 switch to connect or disconnect the speaker and amplifier. The unit will automatically reconnect the amplifier and speaker line if everything is normal. If the speaker line is open or short circuit or the amplifier is overloading, the circuit will automatically be disconnected.**
3. **Push OK button to enter waiting service.**

4. 5 modes of service displays.

ALL DETECT

SINGLE DETECT
LOAD

LOAD SETTING

CHECK STATUS

DETECT CYCLE

EXIT

5. **Use left, right, up and down to select the service, then push OK to enter next service set.**



CAUTION

Select the "check status" service and the display will read as follows:

DETECTING
WAITING...

The checking time gap can be set in the check cycle.

Service Operation

All Detect

Function:

All channels from 1 to 10 checking.

Operation:

After selecting "all detect", the unit will check from channels 1 - 10 and display the results in the screen.

The left part of the screen is the channel checked, such as channel 1, the right part is the channel state.

CH1 OPEN
CH2 0030W

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Single Detect

Function:

Check the selected channel.

Operation:

After selecting single detect, the display will be as follows:



Use up, down, left and right to select the channel, then push OK to check the channel. After checking, the channel state will be shown in the second line, first shown channel number then the channel state, and move OK to exit then push again to exit.

Load Setting

Function:

Set the Max load

Operation:

Select the load set service and display as follows:



Use up, down, left and right to select the channel and edit the loading set.



CAUTION

The loading meaning the selected channel Max loading and the loading should be 10% bigger than the speaker total wattage and the default setting is 2000W. After selecting the channel, you can see the last edited loading and push OK after editing or cancel to upper dish.

Check Status

Function:

Check the last checked state of selected channel.

Operation:

Select the "check status" service and the display will read as follows:



Use up, down, left and right to select the channel and the second line will show the channel number and the state, such as channel 250W, push exit to exit and push OK.

Check Cycle

Function:

Set the automatic check cycle.

Operation:

Select the check cycle and display as following:



After the time gap, the content is the time of gap, use up and down to set the time or no check.

No check	No automatic check
2 hours	Check every 2 hours
12 hours	Check every 12 hours
24 hours	Check every 24 hours



CAUTION

In checking mode, if the channel is transmitting music, the loop detector will jump over such channels to avoid interruptions to the music.

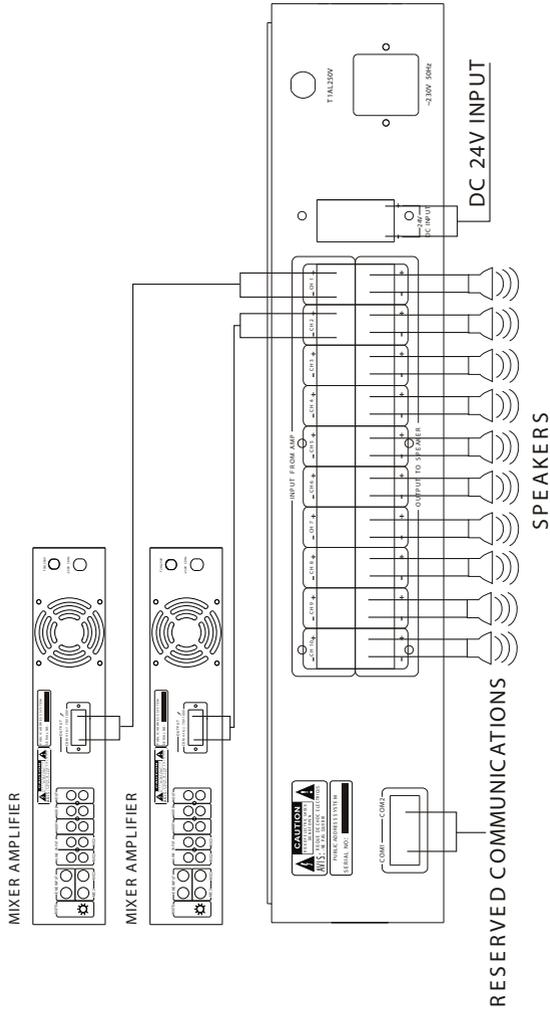
After selecting the automatic check, push OK.



Applications

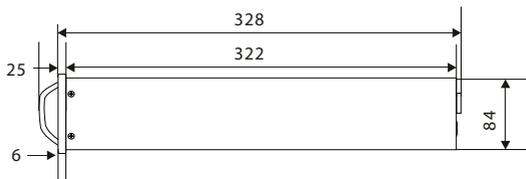
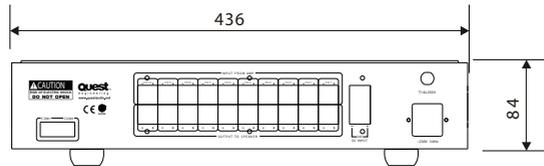
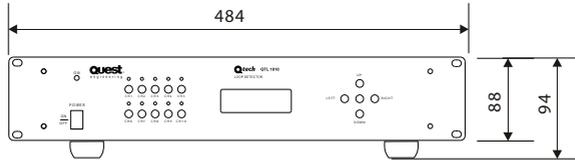
Rear Panel Connections

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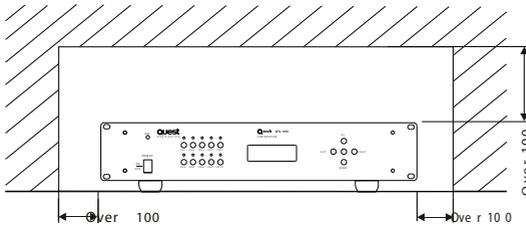
Dimensional Diagram

UNIT: mm



Keep all the unit's sides over 10cm away from objects that may obstruct air flow to prevent the unit's internal temperature rising.

UNIT: mm





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