

PRODUCT DESCRIPTION

The DigiFact® A (LE-870) is part of the Louroe Microphone Application Platform (LMAP). This high performance microphone that easily connects to your network POE switch using a single UTP Cat5e, Cat6 cable. The microphone provides a omni-directional pickup pattern with a wide dynamic range and frequency response, capable of picking up low and-high frequency audio over a wide coverage area. The DigiFact® A can be mounted on walls or ceilings. Simple setup and configuration by using Louroe's DigiFact Portal software. We provide connectivity to multiple industry standard streaming protocols. Setting up and connecting DigiFact® A hardware can easily be accessed on site from the local network or remotely by using 3rd party remote access software. We support many popular NVR's and ONVIF compliant VMS products. Connect multiple DigiFact® A microphones over your network to provide audio monitoring only, audio monitoring with threshold or audio with audio analytics. and surveillance for multiple locations for small or large installations. **Please Note!** If you need further assistance with small or large size projects, please contact Louroe for further information on how we can help you.

Audio Analytics & Detection of:

- * Aggression/Duress
- * Explosions
- * Breaking Glass
- * Sirens, Car/Panic Alarms
- * Audio Threshold

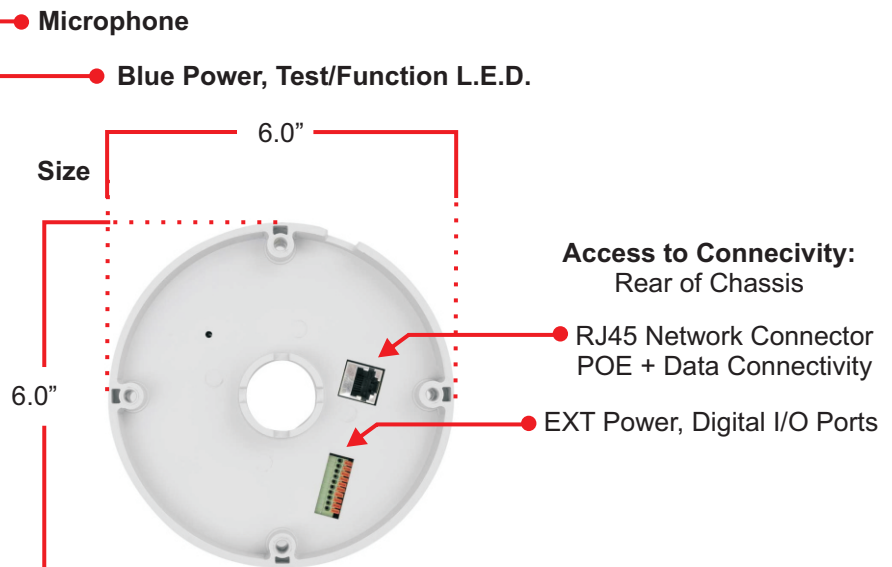


Mounting Holes:
4 x (0.2"), (1-4)



Front View

2 x Large Audio Monitoring
Stickers (Included)
3-3/4" x 3-3/8"

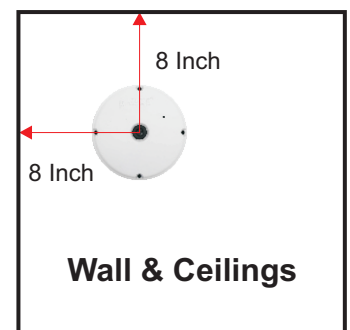


Back View

IMPORTANT NOTICE!
When this equipment is used as part of an audio monitoring system, the law requires that the public be given notice of **AUDIO MONITORING ON THESE PREMISES**. Two stick on decals are included with each (LE-875) shipped.

Federal Law References: Federal Regulations, US Code, Title 18. Crime and Criminal Procedure, Sec 2510.

Minimum Recommended Mounting from Ceilings & Walls Corners

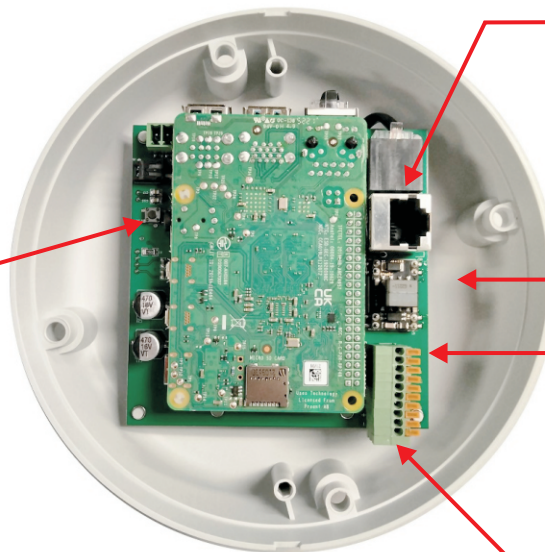


**IP AUDIO MICROPHONE WITH AUDIO ANALYTICS
 INSTALLATION AND OPERATING INSTRUCTIONS**

CONNECTIVITY



Front View



**Back View
 Rear Cover Removed**

**RJ45 Jack for PoE
 Network + Data
 Connectivity**
**Interior View, LE-870
 Diagram 1A.**

**Optional LE-875R1
 Dry Contact
 Relay Mounts Here**

**External Power and
 Digital I/O Ports**

Four digital alarm output ports are available for connection to external devices, the alarm outputs can be set to trigger from analytics, volume thresholds, or boolean logic events. Recommended (Cat5e/Cat6) cabling.

Test/Reset Button (SW1)

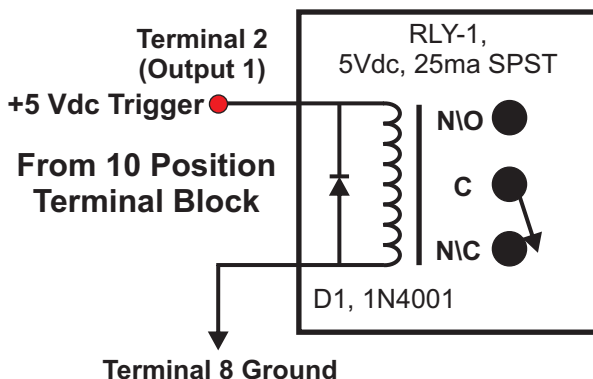
Pin 1

Please Note!

For further information regarding the Louroe digital I/O ports, contact our technical support department.

Relay Output Example

You can use a third party relay or Louroe's optional Single Channel Relay Board, **LE-842**



**External
 5Vdc Relay**
 N/O, N/C Dry
 Contacts

Terminal 8 Ground

Please note! All relay connections, inductive loads should have a diode across the coil of the relay as shown to protect against voltage spikes.

5Vdc Power, Max load 100ma
5Vdc, 25ma Digital Output (1)
5Vdc, 25ma Digital Output (2)
5Vdc, 25ma Digital Output (3)
5Vdc, 25ma Digital Output (4)

Digital Input (1)

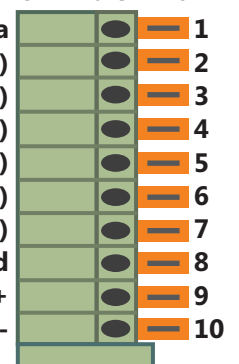
Digital Input (2)

Ground

External Power 5Vdc+

External Power Ground-

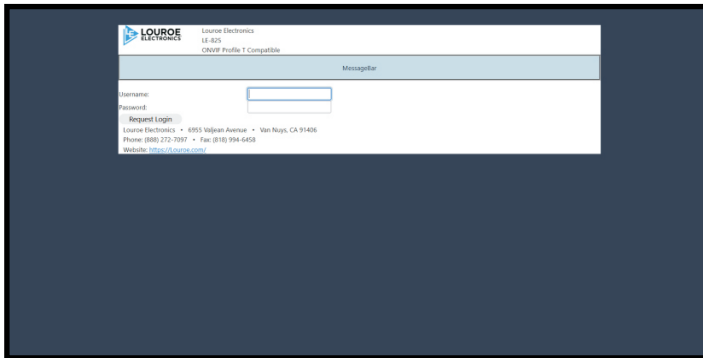
Terminals 1-10



10 Position Terminal Block

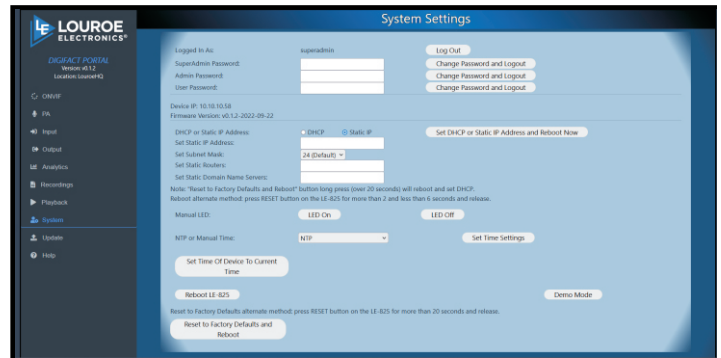
About Your Digifact Product, How to Setup and Use Your Device Properly

Once logged in to the Digifact Portal Software screen, the Help File tab is at the very bottom. Information about using and setting up your Digifact is available for each Tab in our Digifact Portal user GUI.



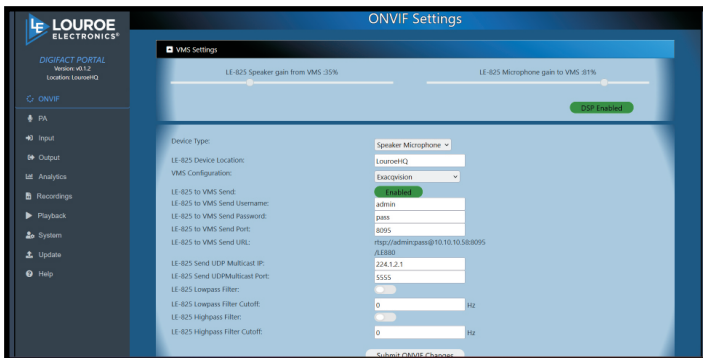
Digifact Portal Login Screenshot

The Digifact Login Screen on your Network, used on all digifact products, Enter the Username and Password to access the Digifact Portal Main Menu.



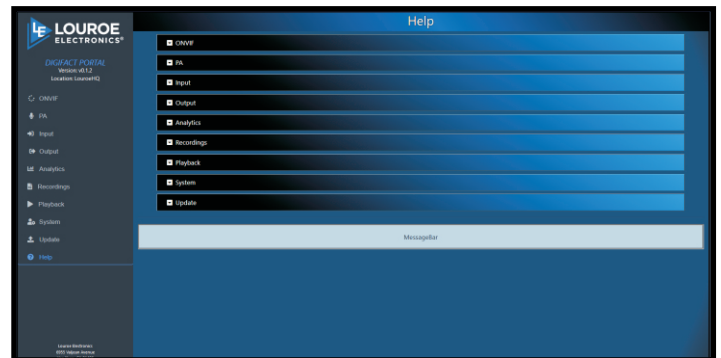
System Settings Menu Screenshot

The Digifact Portal System Settings Screen, Provides User/password, Network Settings and other Device Specific Settings.



ONVIF Settings Menu Screenshot

The Digifact Configuration Screen provides all the Settings for Connectivity and resource End Points to interface with ONVIF Certified Partners between Louroe and their VMS Systems.



Help Menu Screenshot

The Digifact Portal Help File System. Easily access all the information about how to use your device. All Digifact hardware has the Digifact device Help File information available from the Help menu screen.

Louroe Remote Network Access to Digifact® Hardware, (Technical Assistance)

Our software Engineers can access your devices on your network using **TeamViewer**, a 3rd party remote access software that is available for download online for free and paid versions, Website: <https://www.teamviewer.com>. This software will allow us to assist you, your staff remotely with any technical issues or concerns you may have. If you require additional information on this service, please contact Louroe.

Setting up Your Digifact Product, (One Device or Many Devices)

It is recommended that you add only one device at a time on your network and make the necessary network changes required for your installation have been made and no two devices have the same IP address. By doing this you avoid any factory preset static Digifact® devices on the network from causing network conflict errors.

Access to your Digifact Device from your Network (**Important Read First!**)

A Female RJ45 jack is located on the back of the unit for 10 BASE-TX/100 BASE-TX /1GB Base-TXPoE connection using CAT5/6 cable to power the device and provide network connectivity. If no PoE connection is available (**Network Data Only**) an optional two-pins from our 10 Position terminal block is available for connection of a 5Vdc, 2A external power supply (**Not Included**), as shown on page 2, Diagram 1A. The device IP address can then be typed into an internet browser (Chrome, Bing, Firefox etc.) to access the device user interface page.

Finding your DigiFact Hardware on your Network, Digifact Hardware Connectivity

Using a Windows PC

- 1.) Press the **Windows Key + R**
- 2.) Type `ncpa.cpl`
- 3.) Right click the adapter that the unit is connected to
- 4.) Click Properties
- 5.) Left click Internet Protocol Version 4 (TCP /IPv4) and click properties
- 6.) Left click use the following IP address:
- 7.) Enter the following
 - IP address: 10.10.10.2
 - Subnet mask: 255.255.255.0
 - Default gateway: 10.10.10.1

Once your computer device is set static, go to any browser and type 10.10.10.10 in the browser URL, you should see the login page for the Digifact.

Enter the following:

Username: superadmin

Password: aaaaBBBB3333\$\$\$\$

Logging into your Digifact Hardware, 3 Levels of Access

On the first Login, the device will force the user to change the default password/s, the new password **MUST** contain at least: **1.)** 2 lower case alphanumeric characters, **2.)** 2 lower case alphanumeric characters, **3.)** 2 numeric characters, **4.)** 2 special characters.

Factory Default User Name & Password

Superadmin, Complete access to all settings

Username: **superadmin**

Password: **aaaaBBBB3333\$\$\$\$**

Admin,

Username: **admin**

Password: **aaaBBB3333\$\$\$**

User,

Username: **user**

Password: **aaBB33\$\$**

Digifact Software Updates

Digifact Hardware, System-Software Updates: Please contact Louroe Electronics directly for specific details related to your Digifact® device. Software build information is shown on the Digifact Portal main menu.

MOUNTING

The Digifact® A, Part Number: LE-870 can either be surface mounted to a wall-ceiling or other flat surfaces such as a cabinet using the 4 mounting holes, (4 x Screws).

NETWORK PoE AND EXTERNAL 5VDC POWER CONNECTION

A Female RJ45 jack is located on the front of the unit for 100/1000 BASE-TX PoE connection using CAT5e/6 cable. If no PoE connection is available (**Network Data Only**) our 10 position terminal block is provided for connection of a 5Vdc, 2A external power supply (not included), see diagram 1A. for further information. Once the device is powered on using (PoE or ext power), after 1 (Minute), the blue front panel L.E.D light of the device will flash 3 times when online and working.

DIGITAL I/O CONNECTIVITY

Four (5Vdc, 100ma) digital output ports are available for connection to external devices (Relays,), the digital outputs can be set to trigger from software, audio analytic's and volume threshold or VMS events. If used with an inductive loads, e.g. a relay, a diode must be connected in parallel with the load, for protection against voltage transients, see page 2, diagram 1A..

**WHEN THE LE-870 IS POWERED ON, BLUE POWER & BLUE FUNCTION L.E.D.**

The Blue Function L.E.D. will come on for 5 seconds, indicating there is power and the unit will begin it's bootup process. See Diagram 1A.

INTELLEAGENT BLUE POWER & BLUE FUNCTION L.E.D.

Indicates power up sequence, after 1 (Minute), the front panel Blue Function L.E.D light of the device will flash 3 times when online and working. Additional functions related to events, I/O triggers, software API notifications, audio analytic's testing and other Louroe network connected devices can be configured to control the Blue Function L.E.D. for additional visual notifications. Further information is available from the help section in the Louroe Digifact Portal Software Management System.

**TEST/RESET/FUNCTION BUTTON** (The chassis cover needs to be removed to access this button, see page 2)

The LE-870 must be connected to your network in order to do the following:

Device Reboot: Press and hold the black button for 3 seconds.

Voice Playback: Please Note! This feature works only on the Digifact® 2-Way speaker/mic products. Press and hold the black button for 20 Seconds, a voice message speaks the current IP address of the device out loud from the speaker + lets you test the microphone by speaking into the microphone and providing a playback to indicate both Mic & Speaker are working correctly.

Restore device to Factory Default settings: Hold the black button down for 30 seconds.

DEVICE FIRMWARE:

For firmware updates please contact Louroe Electronics directly for specific details related to your Digifact hardware device and the availability of any relevant updates.

Optional Aecessories

Single Channel Dry Contact Relay Board: Part No. **LE-842**, Requires 5Vdc Power provided by the Digifact hardware®.

AUDIO

Please Note! All specifications are subject to change without notice.

Audio Streaming:	One-way, 2 x Channels (Half Duplex)
Audio Compression:	PCM, 16 bits linear, G.711 mu-Law
Microphone:	High sensitivity, Omni-Directional condenser MIC element
Mic Sensitivity:	-45 dBV/Pa, 1 Pa = 94 dB SPL
Mic Frequency Response:	50 Hz to 15 KHz

NETWORK

Security:	Password protection, user level access (Admin and Operator), see page 3
Supported Protocols:	ONVIF Profile T, S, IPv4, HTTP, RTSP, RTP, TCP, UDP

SYSTEM INTEGRATION

Interface Analytics:	Louroe audio analytics, audio level (dB) alarm
Event Triggers:	Analytics, audio level, digital I/O port
Event Actions:	TCP notification, external output digital I/O activation, pre and post-alarm audio recording.

GENERAL

Enclosure:	Heavy Duty UV Rated Plastic Enclosure
Power POE:	Power over Ethernet IEEE802.3af, 1 x RJ45 jack, see Page 2, Diagram 1A
External DC Power:	5V, DC 2A (10 Position Terminal Block), see Page 2, Diagram 1A. (Digital I/O, DC Power).
Digital Output Ports 1-4:	5Vdc, max load 100ma; Ports 1-4, 25ma ea.. 10 Position Terminal Block, Refer to Page 2 for connectivity.
Digital Input Ports 1-2:	2 x 5Vdc (High Logic)
5Vdc Power Output:	5Vdc, 100ma max, 10 Position Terminal Block
Power/Function Indicator:	5MM Blue L.E.D.
Processor:	64-bit quad-core Cortex-A72 processor
Memory:	4GB LPDDR4 RAM
System Boot-up Cold Start:	Less than 1 Minute
Power Loss Recovery Time:	1.5 Minutes
Test-Reset Button SW1:	Button 3-6 second reboot. 6-20 seconds production button with IP address and record/playback. 20+ seconds factory reset, see Page 2 for button.
Network Data Connectivity:	10/100/1000
Event Triggers:	Audio analytics, decibel threshold
Event Actions:	TCP notification, external output activation, pre and post-alarm audio recording to Network Attached Storage (NAS).
Chassis IP Connector:	RJ45 Female Jack (POE, Gigabit Ethernet Port), refer to Page 2 for connectivity.
Internal Connectivity:	10 Position terminal block for Input/Output and external 5Vdc power
Operating Conditions:	-20°C to 50°C Humidity 10-85% RH
Storage Conditions:	-30°C to 60°C
Chassis Dimensions:	Circumference: 6.0 inches, (152.4mm) x Height: 2.10 inches, (53.34mm) inches (76.2mm)
LE-870 Chassis Weight:	1.5 lb's
Packaged Shipping Weight:	1.75 lb's
Included in Package:	1 x LE-870, 1 x User Manual: Installation and Operating Instructions

WARRANTY

LOUROE ELECTRONICS® warrants that at the time of shipment products manufactured by LOUROE ELECTRONICS® to be free of defects in material and workmanship. Should a defect appear within one year (12 months) from date of shipment, LOUROE ELECTRONICS® will, at its sole discretion, repair or replace the defective equipment. This equipment shall not be accepted for repair or return without prior notification by LOUROE ELECTRONICS®

This warranty does not extend to any Louroe product that has been subjected to improper or incorrect installation, misuse, accident, or in violation of installation instructions provided by LOUROE ELECTRONICS®

Returned shipments to LOUROE ELECTRONICS® shall be at customer's expense. LOUROE ELECTRONICS® will return the equipment prepaid via best way.