LEV Series



M.

Mechanical Interlock LED Troubleshooting

LED States

Steady GREEN – Normal operating condition Blinking YELLOW – Warning/Minor Fault Blinking RED – Abnormal Operating Condition/Major Fault OFF – Normal power OFF

LED Status Key

Based on properly installed unit

"LINE"



LED Color	Status	Troubleshooting
GREEN	Normal Voltage present	
RED (Flashing)	Insufficient voltage	Check supply voltage at upstream overcurrent device or branch panel
OFF	No power to switch (or unused phase)	Check supply voltage at upstream overcurrent device or branch panel

IOAD

LEVITON

UL 50E, TYPE: 3R, 4X, 6, 6P, 12, 13 UL 98

OSED SWITCH UL 98 FILE# E476 VBLE FOR USE IN MOTOR CIRCUIT

IP66/67/68/69 IP69K IEC 60309-1 & IEC 60309-2

TURN OFF TO REMOVE PLUG

FOR LOCKOUT OF DEVICE, USE A 1/4" (6MM) SHACKLE DIAMETER

OOFF

(ŲL)

FUSE

"LOAD"



LED Color	Status	Troubleshooting
GREEN	Normal voltage present	
RED (Flashing)	Insufficient voltage when switch is in ON position - Voltage present when switch is in OFF position	Check continuity of switch contact(s)
OFF	No voltage when switch is in OFF position (or unused phase)	

"GROUND"

	L1	L2	L3	
LINE				0
LOAD		0		
	T1	T2	Т3	÷

LED Color	Status	Troubleshooting
GREEN	Ground connection acceptable	
RED (Flashing)	Ground connection unacceptable	Check ground connection at terminal block and upstream connections
OFF	No power to switch	Check supply voltage at upstream overcurrent device or branch panel

"FAULT"

		.2 L3	
LOAD	1 T	2 T3	

LED Color	Status	Troubleshooting
GREEN	No minor faults	
YELLOW (Flashing)	Liquid accumulation sensor activated; Internal PCB assembly communication failure	Check enclosure for water accumulation; Contact technical support
OFF	No power to switch	Check supply voltage at upstream overcurrent device or branch panel

Visit our Website at: <u>www.leviton.com/levseries</u> or <u>www.leviton.com/inform</u> email: <u>industrial@leviton.com</u>

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🚺 Inform™ Mobile App User Guide



The Leviton Inform app provides remote monitoring of Leviton devices that feature Inform Technology — information such as intelligent voltage level sensing, liquid accumulation, ground continuity, enclosure temperature and more. The actual information available will vary by device.

For the LEV Series Mechanical Interlocks with Inform, the app allows remote monitoring of the following information:

- Phase voltage on the load and line side of switch
- Ground continuity monitoring
- Liquid accumulation detection
- Temperature and humidity levels inside the enclosure

USER SUPPORT

Tech Line: 1-800-824-300				
Monday - Friday	8 AM - 10 PM ET			
Saturday	9 AM - 7 PM ET			
Sunday	9 AM - 5 PM ET			

Email: inform@leviton.com

Website: leviton.com/inform

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GETTING STARTED

Before setting up and using the Inform™ Mobile App, perform the following tasks:

- Assign a primary account administrator for performing all setup tasks
- Gather a list of users (name and email address) who will be using the mobile app for your organization [administrator task]
- Download and install the Inform Mobile app from the App Store or Google Play
- Launch the app and create an account for your organization [administrator task]



Inform is also available as a desktop app.

This manual applies to the mobile app. However, the desktop version has all the same functionality as the mobile app, with one exception, the ability to enroll devices.

Access the Inform desktop app at: inform.leviton.com



ADMINISTRATOR SET UP Registering a New Account

Prior to other actions such as setting up an organization, the administrator needs to create and register a new account:

- Administrator Name
- Administrator Email Address
- Administrator Password



MANAGE ORGANIZATION Administrator Task

Set Up Organization [administrator]

Upon first sign-in, you will be prompted to set up organization details:

- **Company Name** •
- **Email Address** •
- Street Address •
- City, State, Zip
- Country

Next, you will be prompted to add your first device. During the initial setup, you will also be prompted to create a building and area

- You must create at least • one building and area
- See section for "Add Devices" (page 15) for more detail



tinform [×]
Organization Name*
My Organization
Organization Email*
manager@organization.com
State*
New York
City*
New York City
Country*
United States
Postcode*
12345

Create a Building and Area Let's set up a Building and Area for your Inform device. Name the Building and Area below - don't worry, you can always change them later, under you Organization settings. Building Name Ex: Main Building Area Name	Create a Building and Area Let's set up a Building and Area for your Inform device. Name the Building and Area below - don't worry, you can always change them later, under you Organization settings. Building Name Ex: Main Building Area Name Ex: Production Area	3:45 N 🖸 🖽	@ @ 46⊿ 84
Create a Building and Area Let's set up a Building and Area for your Inform device. Name the Building and Area below - don't worry, you can always change them later, under you Organization settings. Building Name Ex: Main Building Area Name	Create a Building and Area Let's set up a Building and Area for your Inform device. Name the Building and Area below - don't worry, you can always change them later, under you Organization settings. Building Name Ex: Main Building Area Name Ex: Production Area		
Let's set up a Building and Area for your Inform device. Name the Building and Area below - don't worry, you can always change them later, under you Organization settings. Building Name Ex: Main Building Area Name	Let's set up a Building and Area for your Inform device. Name the Building and Area below - don't worry, you can always change them later, under you Organization settings. Building Name Ex: Main Building Area Name Ex: Production Area	Create a Building	and Area
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Ex: Main Building Area Name	Ex: Main Building Area Name Ex: Production Area	Building Name	
Area Name	Area Name Ex: Production Area	Ex: Main Building	
Pro Pro Annellon Anno	Ex: Production Area	Area Name	
EX: Production Area		Ex: Production Area	
CONTINUE	CONTINUE	1	
CONTINUE	CONTINUE		

Set Up Organization [administrator]

If you are not ready to add a device, you can still set up buildings and areas or add users To set up buildings and areas:

- Select Organization from the main menu
- Select Buildings



Set Up Organization [administrator]

- Set up buildings and areas (continued)
 - Tap on the "+" icon in the upper right corner
 - Enter Building Name, then tap Next
 - Enter Area Name, then tap Save
- Repeat to add more areas and buildings
- You can also edit building and areas names, or delete altogether

10:30 🖬 🖾	⊙ ⊕ ♀⊿ 🔒 89%	14:10 🖬 N 🕻 🖬	@ ⊕ 46⊿ 🔒 62%	14:31 JN 🖸 🖽	@ ⊕ ⊽⊿ ≘ 59%
÷	Buildings +	Add Build	ding	m	ain
Headquarters		Building Name		Create an Area Define an area(s) within you	r building
Manufacturing	1			Area Name	
			CANCEL NEXT		CANCEL SAVE
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Set Up Organization [administrator]

To view, add, edit or delete areas within buildings:

- Tap on the Building Name (from the list of Buildings)
- The list of Areas will appear
- Perform the desired function:
 - Tap on + ADD AREA to add new area
 - Tap on Area name to edit or delete

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÷	Buildings	+	← Ma	anufacturing	
Headquarters Manufacturing		1	Building Building Name Manufacturing Areas		
			Area Name Fabrication Departme Area Name Mixing Room	ent	×
			Area Name Warehouse		×
			• ADD AREA		
			DELETE	CANCEL	SAVE
<			<		

MANAGE USERS

Administrator Task

Manage Users [administrator]

Tap on the " \equiv " icon in the upper left corner of the screen; then select Users from the menu

• All users associated with the organization will be listed on the resulting page, along with status (pending or confirmed)



Adding Users [administrator]

- Tap on the "a" icon in the upper right-hand corner of the screen
- Enter email address of the user, and select permissions profile:
 - Admin all app functions; can add/edit/delete buildings, areas, or users
 - Installer all app functions; no ability to add/edit/delete buildings, areas, or users
- User accepts invitation
 - Click on link in email; enter name and password
 - Verify email address

13:15	© O 46⊿ 🗎 85%	13:15	⊕ 46	4 🖬 📾	🖻 🕏 📢 🦡 🦽 92% 🛢 10:34
÷	Users 生	÷	Invite a User	÷	Invite a User
	Invited Users	Invite peopl organization view the sta updates.	e to have access to devices in your 1. Everyone in an organization can tus of devices and see their	Invite peop your organ	ole to have access to devices in ization, Everyone in an
	Invite users to give access to your organization.	Enter the en	nall below. You will see the invitee's on the 'Users' screen.	organization devices an	on can view the status of d see their updates.
		name(@example.com	Enter the e	mail below. You will see the
		User Type		scree In	vitation Sent
		Admin	0	Yo 9 jq	u have invited public@leviton.com
		Installer	0		or
				User	UN STATE
				Admin	0
				Installer	۲
			INVITE	1	
	<	<			INVITE

EDIT USERS [ADMINISTRATOR] Editing a User's Permission Level

- Tap on the user's name
- Tap on the settings icon
- Select User Type and Save



EDIT USERS [ADMINISTRATOR] Removing Users

- Tap on the user's name
- Tap on the settings icon
- Tap on Remove and confirm



ALERT NOTIFICATION SYSTEM

Whenever there is an operating state change, an alert is generated and will be sent to any user that has enabled the notification system in their profile

Examples of alerts include:

- Loss or restoration of voltage to the line or load side of a switch
- Loss or restoration of ground connection
- Erroneous absence or presence of voltage on any terminal

NOTE: Only email notifications are available at this time



Enable/Disable Notifications

Tap on the " \equiv " icon in the upper left corner of the screen; then select Notifications from the menu

• User can enable or disable the alert notification function



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MANAGE DEVICES Wi-Fi Enabled Devices

Add Device

Prior to adding a device, it must be properly installed and powered

Devices require access to the internet via a Wi-Fi connection

- Compatible with Wi-Fi® (IEEE 802.11 a/b/g/n networks) @ 2.4GHz and 5GHz with WPA or WPA2 security
 - Procure Wi-Fi SSID and password prior to adding device
- Not compatible with captive portals

Tap on the "+" icon in the upper right corner of the screen, and then select Add Device



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Add Device

- Follow on-screen prompts to connect the device to the Wi-Fi network
- When asked to name your device, provide a meaningful name that helps identify connected equipment and/or installed location

(Numbers 1 through 10 have been added to lower right of each screen shown to clearly illustrate progression)

NOTE REGARDING SCREEN 3:

Devices are automatically set to "Pairing Mode" during initial installation. The reset step shown here is only required if reconfiguring the network.

mere will your dev	tice be located ?	
Select Building		
		_
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28	@ ⊕ ⊋⊿	93%
		×
Device Setu	up	
utomatically be in econfigure the Wi-I levice into Provisio mmediately releasi nside the cover.	Provisioning Model If you nee Fi connection, put your Inform uning Mode by pressing and ing the reset button on the PCI	d to B
	Reset Button	
ofter pressing "Nex continue with setup	d", allow location permissions	to
	NEXT	



Now it's time to connect your device to your inform device. Tap 'Settings' below and select Lewiton Device XXXX from the list of available networks. Ther, return to the Inform app to continue setup.

Leviton Device XXXX	Ŷ
MyConnectedWi-Fi	÷

After connecting to Wi-Fi, Android may warn you that no internet is found, please ignore the message and reopen the Inform app and continue the setup process.



MANAGE DEVICES

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Configuring Your Inform

Please wait while we transfer your Wi-Fi settings to

[

8

Device

your Inform device.



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09:36 🖘



10

DEVICE MAINTENANCE Edit Device Info

Allows user to rename and/or reassign the location (building/area) of a device

- Select settings icon from lower left corner of device detail page
- Select Edit Device Info from menu
- Enter new information and Save

12:04	@ @ ⊊ 46∡1 ∎79%	12:06	④ ④ 46 ▲ ● 79%	12:06 @ 0 46 ⊿ 1 🔒 78%
i -	1 2 3 A C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		1 2 3 A (04) (04) 1 2 3 +	Edit Device Info
DETAILS	DATA SHEETS	DETAILS	DATA SHEETS	Levites Device 2PDE
BUILDING	HQ	BULSING	HD	Leviton Device 2046
AFEA.	3 South	AREA	3 South	
LIQUID	OK	LIGUE	DK	
ENCLOSURE IN	34%	ENCLORANT PH	34 %	Building
ENCLOSURE TEMP	28 10/62.4 1F	ENCLOBURE TEMP	58 *CASL4 *F	
PHASE 1	116 V	PHAGE 1	116.9	He
LOAD 1	DV	LGAD 1	0 V	nu -
PHASE 2	116 V	PHARE 2	116 V	
LOAD 2	D.V.	Linain a	ov	
PHA3E 2	115 V	PHASE 2	TISV	Area
LOAD 3	0 V	LOAD 3	0.V	
NEUTRAL	OK	NEWTRAL	DK	
OROUND	CK:	GROUND	06	3 South v
EWITCH OPEN	785	EWITCH GPEN	NES .	
IM-FLPCB F/W	8.0.24	WHR POB R/W	0.8.24	
DISPLAY POB F/W	1.5.29			
CLOUD S/N	1080.0000.2998	Device Settings		
PRODUCT S/N	81 100800AA 1882	Edit Device Info		
\$	÷ û	Reconfigure Wireless		
		Cancel		
< C		<		

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DEVICE MAINTENANCE Reconfigure Wireless

Allows user to reassign the location (building/area) of a device

- Select settings icon from lower left corner of device detail page
- Select Reconfigure Wireless from menu
- Follow the on-screen prompts (same as "Add a Device" detailed on page 16)

	1 2 3 A 2 3 A 2 3 A 1 2 3 A 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
DETAILS	DATA SHEETS
BUILDING	HQ
APEA	3 South
LOUD	CK.
ENCLOBURE RH	34 %
ENCLOSURE TEMP	28 °C/62.4 %
PHASE 1	116 V
LOAD 1	0 V
PHASE 2	118 V
LOAD 2	D V
PHASE 2	115 V
IGAD 3	0 V
NEUTRAL	OK
GROUND	CH:
SWITCH OPEN	AS2
WHEI POR F/W	8.8.24
DISPLAY POB F/W	1.5.29
CLOUD S/N	1000.0000.2998
PRODUCT S/N	81-1008004A-1862
¢	C T

(i 🥌	
DETAILS	DATA SHEETS
BUR,DING	
APEX	150
FIDORD	
EVETORIARIAH	34
EMELOGURE TEMP	39 *0/92.4
PHASE I	
LOAD 1	1
PHASEZ	
IGAD 2	
PHORE 2	
MUT DI	
INCOMP.	
ENTED OPEN	7
MAR PCR F/W	11
Device Settings Edit Device Info	
Reconfigure Wireless	

@ ⊕ ♥**⊿ 1**94%

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Preparing for Device Setup

09:27

Follow the installation instructions included with your Inform product.

Internet access is required to complete setup and to allow for remote access. If your Wi-Fi Network has encryption enabled, verify that it is using WPA/WPA2.

GET STARTED

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Device Setup

A unit that has not been previously enrolled will automatically be in Provisioning Mode. If you need to reconfigure the Wi-Fi connection, put your Inform device into Provisioning Mode by pressing and immediately releasing the reset button on the PCB inside the cover.



After pressing "Next", allow location permissions to continue with setup.





NOTE: Reset Button is pressed for one (1) second and released.

leviton.com/inform

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DEVICE MAINTENANCE Delete Device

Allows user to delete the remote monitoring feature of a device

- Select trash can icon from lower right corner of device detail page
- Confirm deletion

Update Firmware

When new firmware is available, users can download and install from the app

- Icon will show when firmware updates are available
- Tap on icon and confirm update when ready

	1 2 3 +
DETAILS	DATA SHEETS
NULDING	HQ
AREA	15m/h
uque	DK
ENCLOBURE RH	34 %
ENCLOBURE TEMP	38 10/63.4 15
PHAGE 1	116.4
L040 1	0.4
PHASE 2	718 V
LOAD 3	e v
PHAGE 3	115 V
LOAD 3	0.4
NEUTRAL	DK
DROUND	06
EWITCH GPEN	193
WHE POR F/W	8.8.24
DISPLAY POB F/M	1.5.29
CLOUD S/N	1090_0000_1898
PRODUCT S/N	81-18080AA-1082
~	
4	G _ U







DEVICE HEALTH MONITORING

The Inform[™] App provides remote monitoring of the operating status – or device health – of connected devices

 The first devices to be launched with remote monitoring capabilities will be the new LEV Series Mechanical Interlocks



Main Screen

The startup screen will show a list of all connected Inform devices

- Each device summary tab contains a product image, device name, installed location, operating status, and Wi-Fi signal strength
- The list order is based on operating status, with devices showing a fault at the top and fully functioning devices near the bottom



Main Screen

The list can be filtered to look at only devices in a specific operating status

- FAULT requires immediate attention
- WARNING requires attention when convenient
- NORMAL ON devices powered up and switch turned to ON position
- NORMAL OFF devices powered up and switch turned to OFF position



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The list can also be filtered to look at only devices in a specific building or area









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Status Symbols



NORMAL device
operation; load
turned ON







WARNING; device functional but requires investigation



OFFLINE



FAULT condition; requires immediate attention

STATUS SYMBOLS

Functional error that doesn't hamper power delivery, but requires investigation

- Excessive moisture detected
- I2C communications fault (cannot communicate with Power Sense board)
- Serial communications fault (between Display Controller and Wi-Fi board)





Device is not communicating with the cloud

- Time stamp shows when device went OFFLINE
- Operating status shows last known status

STATUS SYMBOLS FAULT

Hard failure – requires immediate attention

- Loss of voltage on the Line or Load side of switch (individual phases)
- Loss of Ground
- Voltage present on Load side of switch when switch is open (turned OFF)

NAME	
Leviton Device 289	D
Status OFFLINE	Since 10/29/2019, 4:17 PM
	NODEL NO.
	PHASE PLT
80.50	1 2 3 6
	000 0
	LDAD GND
	1 2 3 +
Contraction of the local division of the loc	
(1)****	
DETAILS	DATA SHEETS
DETAILS	DATA SHEETS
DETAILS	DATA SHEETS HQ Packaging Daps
DETAILS DETAILS	DATA SHEETS HO Packaging Days OK
DETAILS DETAILS AREA UDOID ENGLOSURE INH	DATA SHEETS HQ Packaging Dapt QK 49%
DETAILS DETAILS APEA USUID ENCLOSURE 7H ENCLOSURE 7H ENCLOSURE TEMP	DATA SHEETS NO Packaging Dapt OK 49% 34 10/76 2 %
DETAILS DETAILS RULDING AREA UGUIO EMILICIOURE IPH EMILICIOURE TEMP PHALIE 1	DATA SHEETS HQ Packaging Dapt GK 49 % 34 °C/76.2 °F TERV
DETAILS DETAILS AREA LUCORD EXELOSINE INF EXELOSINE INF PAULOE 1 LUCARD 1	DATA SHEETS HQ Packaging Dapt OK 49% 34 10/16 3 7 118 V 117 V
DETAILS DETAILS AREA UCODO ENCLOSURE TEMP PHAGE 1 LOAD 1 PHAGE 2	DATA SHEETS HQ Packaging Dept OK 49% 38*C/78.2 % TIEV 117V 115V
DETAILS DETAILS AREA UCODO ENCLOSURE PH ENCLOSURE TEMP PHASE 1 UCAD 1 PHASE 2 UCAD 2 UCAD 2	DATA SHEETS HQ Packaging Daps OK 49% 38*C/78.3 % TIRV 117V 115V 115V
DETAILS DETAILS	DATA SHEETS H0 Packaging Dept OK 49% 38*2/7k.3 % TIEV 117V 115V 116V 116V
DETAILS DETAILS	DATA SHEETS HO Packaging Dept OK 49% 38*C/7K3 % TIEV 117V 115V 116V 116V



Operating Details

All sensor outputs and device details are available for additional troubleshooting

- Actual voltage readings on the line and load side terminals
- Status of moisture sensor
- Status of neutral and ground sensors
- Switch position
- Temperature and Relative Humidity inside enclosure
- Location of device
- Firmware version information and serial numbers



ADDITIONAL FEATURES

Supporting Documentation

Any supporting documentation that is associated with the device's product detail page on Leviton.com will also be available from within the app

• Tap on data sheets tab from the device detail page



CONTACT INFORMATION

User Support

Tech Line: 1-800-824-3005

Monday - Friday8 AM - 10 PM ETSaturday9 AM - 7 PM ETSunday9 AM - 5 PM ET

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