# LAFLb DRAUGHT INTERRUPTION REGULATOR FOR LAF BENCH

Version C04

## Prerequisites

- The regulator is expected to be connected to 24 VAC + CAN.
- The LAFLb is equipped with Bluetooth® and can be commissioned via the LINDINSIDE mobile app. A user account with the appropriate permissions for the building is required for the app. The app can be downloaded from Google Play/App Store. A link to the software can be accessed by scanning the attached QR code.

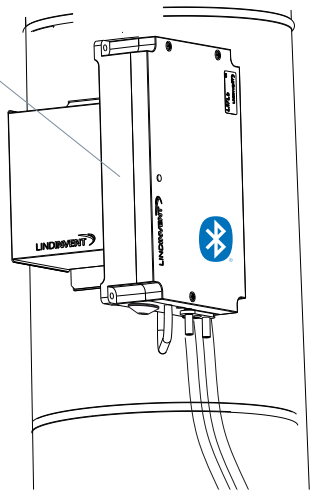
## Commissioning

Follow the instructions below. Once a control unit has been assigned the intended Node ID, the final settings can be made either on-site via the ”Quick setup” screen in LINDINSIDE or centrally via LINDINTELL/LINDINSPECT®.

## Attachment with Control Parameters

The control parameters for the LAFLb are the same as for previous versions of LAFL. See the attached document for a presentation of the status screen and the full set of control parameters for LAFLb and LAFL.

*LAFLb on Exhaust Air Duct for LAF Bench*



*Smartphone with LINDINSIDE App For communication with devices from Lindinvent equipped with Bluetooth®.*

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## COMMISSIONING WORKFLOW VIA LINDINSIDE

*(See the next page for instructions with screenshots from LINDINSIDE)*

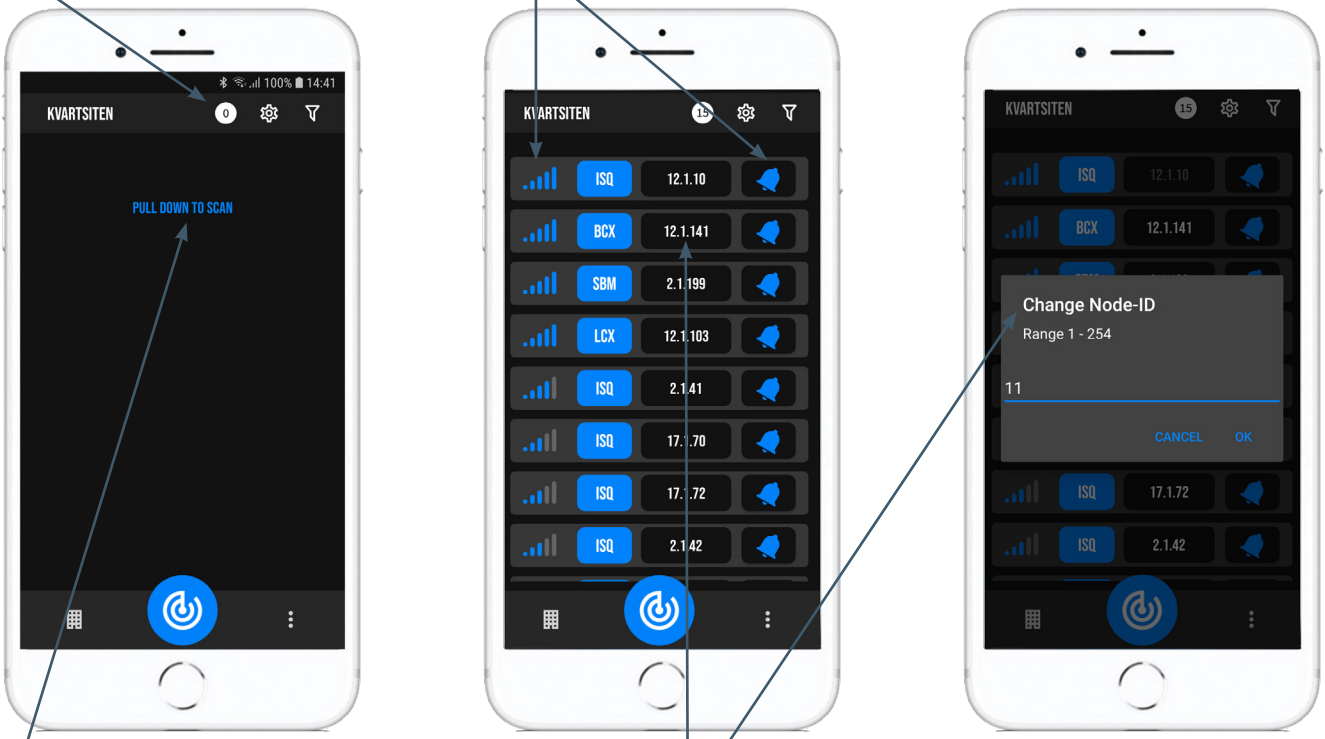
1. **Pull down to scan for nearby devices:**
   - **Select the correct control unit from the list**
     By calling the device via the clock icon, a beep sound with a blue blinking light is emitted, which can be used to identify the device.
2. **Set (change) Nod-ID*:**
   Select the Node ID field for the intended device in the list of scanned devices. Enter the unique Node ID between 1-239 assigned to the regulator according to Lindinvent’s recommended assignment. *After assignment: It is advisable to scan again to verify that the device’s Node ID has been updated correctly. When assigning Node IDs to a large number of devices, the ”Set nodeIDs” function can be used.
3. **Connect to the device:**
   Tap the field for the device’s product name in the list of scanned devices to connect.
4. **Complete commissioning via Quick Setup screen:**
   - **Perform a damper motor test (Manual motor control)**
   - Check that the damper is fully open. Confirm the position.
   - Check that the damper is fully closed. Confirm the position.
   - **Enter Pressure SP (Note: Negative for vacuum)**
     The LAFLb is delivered with a pressure setpoint of 6 Pa, which can be a suitable level for a draught interruption.

**After completing the Quick Setup, the regulator is configured with other control parameters set to default values.**

## Setting Nod-ID via LINDINSIDE

Number of devices found.

After scanning: Indicator for current signal strength and field with clock icon. By selecting the clock icon, an audio and light signal is triggered from the selected device.




By pulling down, all available devices are scanned and presented on the screen in LINDINSIDE.

The first step in commissioning: By selecting the field with Node ID for the intended device, a window opens where a new Node ID can be set.

## Available via LINDINSIDE

### Status Values

After selecting a scanned device: A selection of status values for ongoing regulation is displayed on the home screen. Available screen options via the app's home screen.

### Available screen options via the app's home screen

- Quick setup
- Symbols
- History
- System
- Peripherals

### About the Symbols Screen

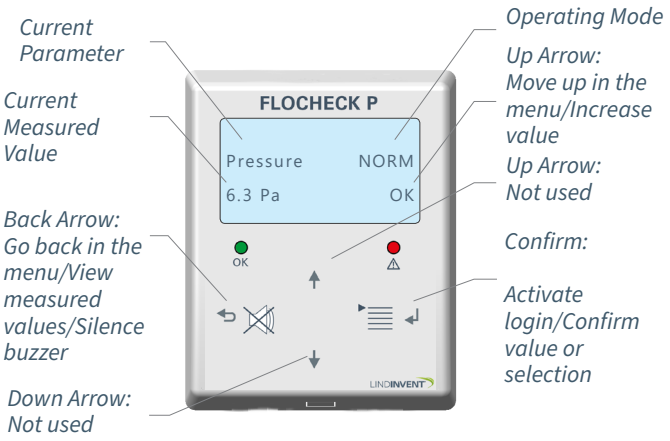
Via Symbols, all settings are grouped for easy access.

## Status Screen and Menu

This attachment presents the status screen with selected values and the entire menu structure of settings in LAFL. The set of control parameters is identical for the LAFL and LAFLb regulators.

**NOTE**: All settings for the LAFLb regulator can be accessed from LINDINSIDE via the Symbols screen.

Settings are shown with factory default values; see comments and notes for guidance. The reported menu structure with parameter list applies from software version LAFL_LAFLb_6.0.0.




*Available for both LAFL and LAFLb: User panel FLOCHECK P. See the user information for LAFL for a description of alarms and operation during use.*

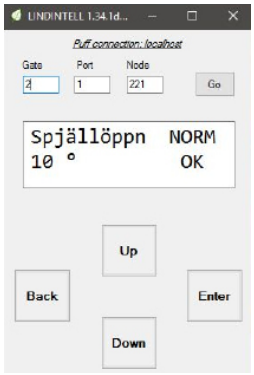
## Login

- LAFL: Directly to the control unit only via the DHP user panel or via the fixed user panel FLOCHECK P. The control unit can also be accessed via CAN from the LINDINTELL Remote tool.
- LAFLb: The control unit can be accessed via CAN from the LINDINTELL Remote tool.

LAFLb: The control unit can be accessed via CAN from the LINDINTELL Remote tool.

For operating FLOCHECK P: See the specific instructions.
For operating LINDINSIDE: See the commissioning instructions for LAFLb.

**NOTE**: Reading status values on LAFL does not require login. Changing settings requires login.




*Both LAFLb and LAFL: Screenshot from connecting to the regulator via network connection and the LINDINTELL Remote tool.*

## Status Screen

Selected measured values can be displayed on the screen without prior login.

Only LAFL: via screen on a directly connected DHP.
Only LAFLb: via the start screen in LINDINSIDE.
LAFL and LAFLb: The status screen can alternatively be accessed either via a fixed connected DISPLAY (FLOCHECK P) or via CAN from the LINDINTELL Remote tool.

### Vacuum Measurement in Draught Interruption on LAF Bench:

| Measured Values | Comments |
|---|---|
| Pressure | Current pressure in Pa |
| Damper Opening | Damper opening in degrees |

Step forward in the playback by repeatedly pressing the <Forward Arrow>.

## Menu Option QUICK SETUP

Access to the regulator's menu structure requires login. All necessary settings for simple commissioning are gathered under the menu option Quick Setup.

### Settings under Quick Setup for LAFL and LAFLb:

| Displayed in Screen | Comments [Default Value] |
|---|---|
| Quick Setup | Main Menu Heading |
| Nod-ID | Enter Nod-ID [211] |
| Pressure SP | Pressure in Pa [6] |
| Damper Calibration (Note 10) | Test of motor; find max and min positions |

## Presentation av variabler

I tur och ordning som rubrikerna presenteras i huvudmenyn till styrenheten.

| | |
|---|---|
| **Börvärden** | **Rubrik_2 (Huvudmeny)** |
| Tryck | Tryck i Pa [6] |
| **Ärvärden** | **Rubrik_3 (Huvudmeny)** |
| Tryck | Aktuellt tryck i Pa |
| Spjällöppn | Spjällöppning i grader |
| Spjällåter | Återkoppling från spjällmotor (V) |
| In/Ut-signaler | Aktuella signalnivåer (V) |
| AIN1/AIN2 | |
| DIN1 | |
| AUT1/AUT2 | |
| **Inställningar** | **Rubrik_4 (Huvudmeny)** |
| Larm | |
| Larmavvikelse | [4 Pa] Otillåten avvikelse |
| Tid till lar | [10 s] Tid till larm |
| Tid t åter l | Tid till larm återkommer i minuter [20] |
| Larmljud | [Ljud från panel Flocheck P] |
| In/Ut-signaler | |
| Insignaler | |
| AIN1 till AIN2 | |
| Funktion (Not 1) | [AIN1:spjäll]; [AIN2; Inaktiv] |
| Parameter 1 (Not 2) | [0.0] |
| Parameter 2 (Not 2) | [0.0] |
| DIN1 | |
| Funktion | Används ej |
| Parameter | Ej relevant |
| Utsignaler | |
| AUT1 till AUT2 | |
| Funktion (Not 1) | [AUT1:spjäll]; [AUT2; Inaktiv] |
| Parameter 1 (Not 2) | [0.0] |
| Parameter 2 (Not 2) | [0.0] |
| DUT1 (Relä) | |
| Funktion (Not 1) | [Inaktiv] |
| Parameter 1 (Not 2) | [0.0] |
| Filter AIN8-1 (Not 3) | [11111111 = filter På 8-1]; 0=Av |
| Regulator | |
| Parametrar | Avancerade inställningar |
| R-intervall (Not 4) | [120] Kan ställas via R-int user |
| R-int user (Not 4) | [-10] Om > 0 ställer R-intervall |
| Hyst tryck (Not 5) | [1.0] Kan ställas via Hyst tr user |
| Hyst tr use (Not 5) | [-10] Om > 0 ställer Hyst tryck |
| Hyst rel | Tryckavvikelse i % [+/- 5] |
| Hysterestid | Tid i sekunder [0] |
| Skalning (Not 6) | PID-skalning [-10 = fast angivna värden] |
| P | [0.25] |
| I | [0.08] |
| Minvinkelbeg | i grader [10] |
| Maxvinkelbeg | i grader [90] |

| | |
|---|---|
| **Inställningar** | **Rubrik_5 (Huvudmeny)** |
| Nod-ID | 1 - 247; [216]; Får ej sättas till 0 |
| CAN Hastighet (Not 7) | |
| Grupper | [0 = ingen grupptillhörighet] |
| Grupp 8-1 (Not 8) | [0 = ingen grupptillhörighet] |
| Grupp 16-9 | [0 = ingen grupptillhörighet] |
| Grupp 24-17 | [0 = ingen grupptillhörighet] |
| Grupp 32-25 | |
| Zoner | |
| Brand | [0 = ingår ej i brandzon] |
| Brandzon | [0] |
| Vid zonbrand (Not 9) | [0] |
| Vid övrbrand (Not 9) | |
| **Kalibrering** | **Rubrik_6 (Huvudmeny)** |
| Spjäll (Not 10) | |
| Hitta max: | [255] |
| Hitta min: | [0] |
| LDE (GP1) | |
| Tryckvärde | Korrigerat uppmätt tryck i Pa |
| LDE korr | [0 %]; korrigeringskoeff. tryck |
| Prod kalib | Internt Lindinvent |
| **System** | **Rubrik_7 (Huvudmeny)** |
| Firmware | Visar aktuell mjukvaruversion |
| Reset (Not 11) | |
| Fabriksinst (Not 12) | |
| Självtest | Enbart internt Lindinvent |
| **Logga ut (Not 13)** | **Rubrik_8 (Huvudmeny)** |
| **Debug** | Enbart internt Lindinvent |

**Presentationen av menyn i LAFL och LAFLb avslutad.**

## NOTES:

Notes on the presentation of the menu structure with control parameters and function selection in LAFL:

Note 1: Selection of function from a predefined list:

AIN: <Inactive>; <Damper (motor)>; <Fire>

DIN: Not supported; not used.

AUT: <Inactive>; <Pressure>; <Parameter>; <Damper (motor)>; <Inverse damper (motor)>

DUT (Relay): <Inactive>; <Summary alarm>; <Follow fire>; <Parameter>

Note 2: Parameter values are used or not used depending on the selected function; can be a value at min or max.

Note 3: Filter function; Binary input AIN1-8; [11111111 = filter on 8-1]; 0 = Off.

Note 4 Allows correction of calculated pressure change as a function of changed damper opening. If R-int user > 0, the value R-interval is set to the specified value.

Note 5: If Hyst tr user > 0, the value Hyst pressure is replaced.

Note 6: Set to -10 for regulation to take set values on P and I.

Note 7: If loop without NCE: At least one control unit on the loop must be switched from AUTO to the projected speed.

Note 8: General group membership; Binary input [00000000]; Specified in decimal.

Note 9: If in fire zone; 0 = regulates as usual; 1 = closed in case of fire; 2 = open in case of fire.

Note 10: For motor and damper calibration test; confirm min and max positions with <Confirm>.

Note 11: Menu option Reset causes restart with logout; counters sand other set values are retained.

Note 12: Logout: All settings and counters are reset to factory settings. The exception is Node ID, which is not reset.

Note 13: Logout: Set values and counters are retained.