DHP DIGITAL HANDHELD USER PANEL

Version A02

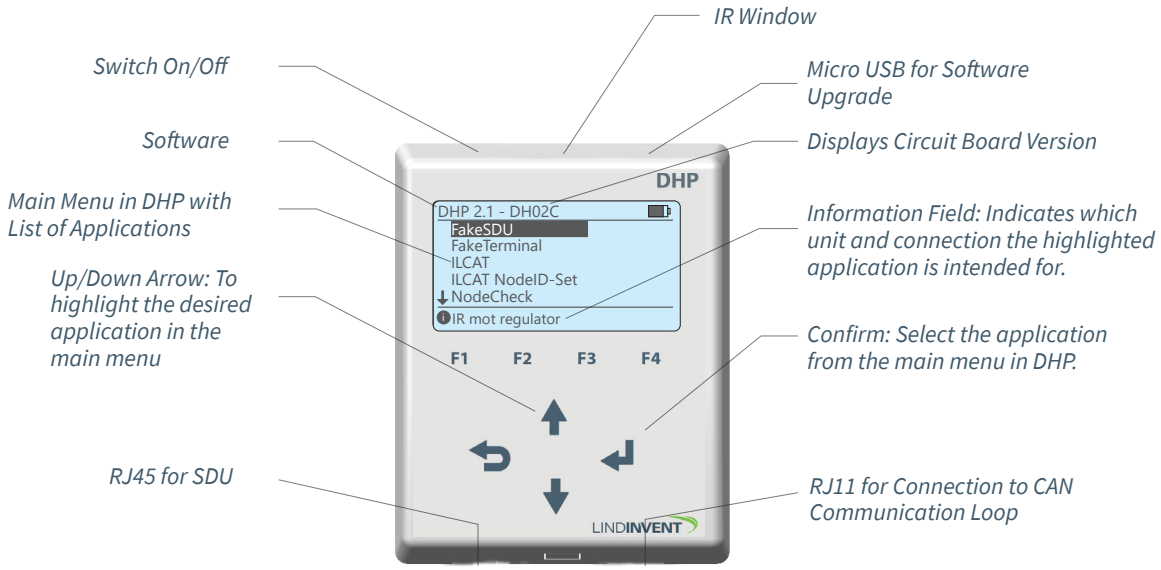
INTRODUCTION

The Digital Handheld Panel (DHP) serves as a handheld device for connecting to individual controllers or a communication loop (CAN). Technicians can use the DHP to log into a connected controller to read real-time values or make adjustments.

The DHP should always be updated with the latest software. Instructions for downloading and installing the software can be found on Lindinvent's website under the DHP product section.

Accessing controllers or the communication loop requires the appropriate application on the DHP to be activated and the connection to be established using the designated cables or IR, depending on the application requirements. After successful login, if required, users can navigate the controller's menu tree.

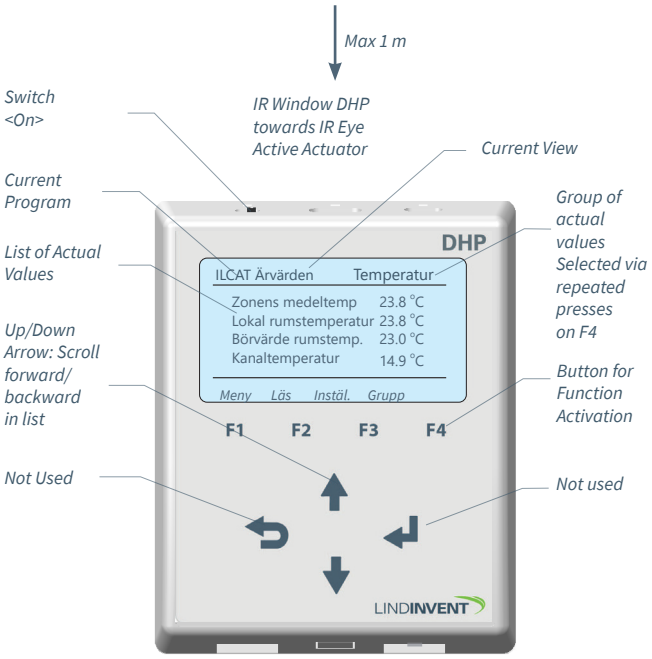
The detailed handling instructions for connecting to individual controllers are provided in this document, while the applications used for direct connection to the communication loop (CAN) are briefly presented.



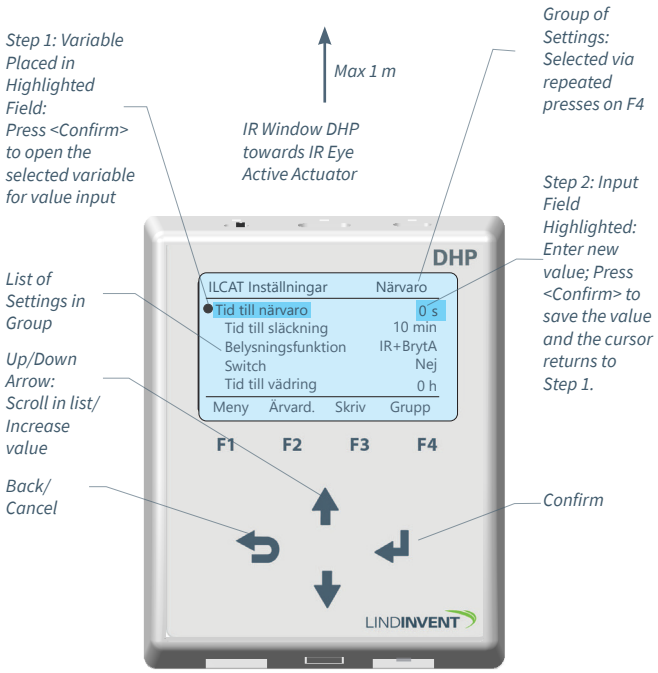
Explanations for Start Screen in DHP with Main Menu/List of Applications.

PROGRAM "ILCAT" IN DHP

Instructions for handling the DHP and the ILCAT program for IR towards active devices.



Screen View in DHP; ILCAT Actual Values: Function selection F2: Reads all values from the supply air damper



Screen View in DHP; ILCAT Settings: Function selection F3 (Step3) Writes entered values to the supply air damper.

FUNCTIONS IN ILCAT

F1: (Return to the main menu for DHP)

F2: Read Real-Time Values (With function choice F1 for Cancel)

- Direct the IR window on the DHP towards the "IR eyes" on the device.
- Shield from disturbing light and hold the handheld device within 1 meter from the active device with a clear line of sight.
- Successful reading is confirmed with a short repeated signal.
- Failed reading should be actively canceled via F1 (Cancel) and then repeated with a new reading via F2 (Read)

ILCAT saves all values from the latest successful reading with updates. Always perform a new reading before starting to change values. Values are presented as shown in the screen image below. Using function choice F4, groups of values can be presented for quicker access. After a successful reading, all values are available on the DHP for viewing directly via F4 or for setting new values via F3 (Set).

F3: Set (With function choices F1 Menu; F2 Real-Time; F3 Write; F4 Group)

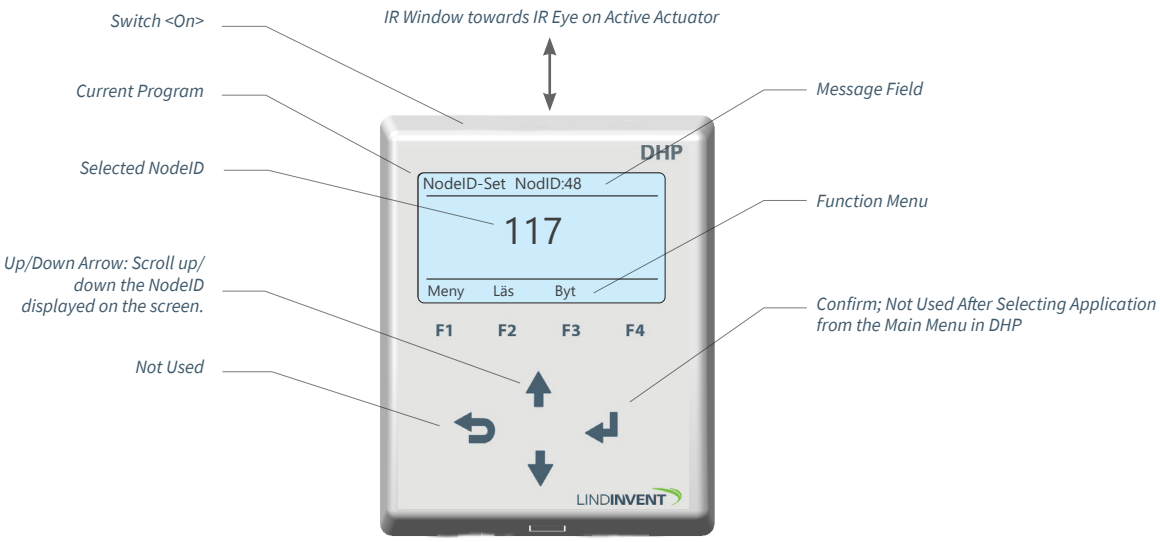
- DHP waits for the selection of the setting to be changed: Step 1: "Open" the input mode for a selected variable by pressing <Confirm> when the variable via up/down arrow is placed in the highlighted field for input; Step 2: IIn input mode, the value can be changed either via <Up/Down Arrow> or via function choice F2 (-) and F3 (+); A short press on F4 (Cancel) or <Back> will return to the list of values that can be set; Press F4 (OK) or <Confirm> to save the value and position the cursor to select a new variable to be changed as per step 1 above. When changes are completed and it's time to send updated values: Select F3 as described below.
- F1(Meny): Return to the main menu for DHP. Note: Not recommended - changed values are not saved and must be changed again.
- F2(Real-Time): Return to the start menu for real-time values with F2 (Read) where a new reading can be done if you want to start over.
- F3: Write; DHP seeks contact with the current device to transfer the entered values; DHP should be temporarily positioned for IR writing (same as reading real-time values). Successful writing is confirmed with a short repeated signal; failed writing should be actively canceled via function key F1 for Cancel; try again with F3 (Write) and aim at the device's IR.

F4: Group

- To facilitate access to all values that can be read from an active device, these have been grouped.
- Repeated presses on F4 (Group) provide an opportunity to search via subgroups. For the complete list of values, select "All."
- Within the selected group, use <up/down arrow> to step through the values in the selected group.

PROGRAM "NODEID-SET" IN DHP - INITIAL STATE

The switch on the DHP should be "On." The unit is powered via the built-in battery unit. In the start menu, select the "ILCAT NodeID-Set" program using the arrow keys followed by pressing <Confirm>. The program does not require login and is only intended for use during the commissioning of Lindinvent's climate system with active devices.



Screen View and Keypad in the Application ILCAT NodeID-Set.

FUNCTIONS

F1: Meny
(Return to the main menu for DHP)

F2: Read (NodeID)

- Aim and hold the IR window on the DHP still in a line directly under the "IR eyes" on the current device. Shield from disturbing light and hold the handheld device within 1 meter from the device with a clear line of sight.
- Press F2 (Read) to read. Multiple presses on F2 (Read) may be needed from new positions to find the correct reading position.
- Successful reading is indicated by a varied sound signal; failed reading is indicated by three short monotone sound signals.
- After successful reading, the current NodeID is displayed in the message field on the DHP.

F3: Change (NodeID)

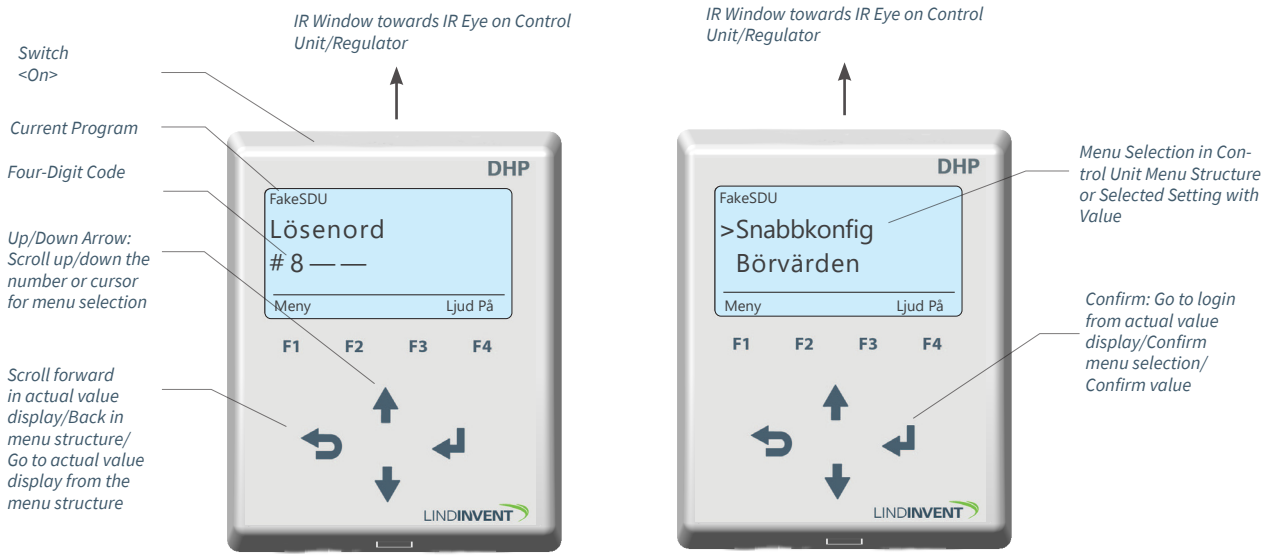
- A: Use the <up/down arrow> to bring up the correct Node-ID for the active device so that it is displayed on the screen.
- B: Aim and hold the IR window on the DHP still in a line directly under the "IR eyes" on the current device. Shield from disturbing light and hold the handheld device within 1 meter from the device with a clear line of sight.
- C: Press F3 (Change) while holding the DHP still in the same position as DHP attempts to change the NodeID. A successful change is indicated by a varied sound signal. The new NodeID is displayed in the message field on the screen.
- In the event of a failed or interrupted change, a warning message may indicate that the NodeID has been set to 0, locking the screen and preventing the change. In this case, the screen and DHP must be unlocked by pressing F4 (OK). The DHP can then be aimed again at the device for a new attempt via F3 (Change) or read via F2 to check the set NodeID.
- If the NodeID is set to 0 or an incorrect NodeID, repeat steps A-B-C as above.
- D: Verify the completed change by a final reading via F2 (Read) as above.

F4: Not Used

APPLICATION "FAKESDU" IN DHP - INITIAL STATE

Sometimes it is practical to access the controller's menu system without connecting cables. The FakeSDU application is used for IR communication with Lindinvent's controllers except active devices. Refer to ILCAT for IR communication with devices.

The switch on the DHP should be "On." The unit is powered via the built-in battery unit. In the start menu, select "FakeSDU" using the arrow keys followed by pressing <Confirm>. To read real-time values only, no login is required. Changing parameters or functions requires login, as described below. The DHP must be held within the IR contact area to read or change values.



Screenshots with Conditions Before and After Logging into a Control Unit via FakeSDU and DHP Version A02.

DISPLAY REAL-TIME VALUES

Aim the IR window on the DHP towards the "IR eyes" on the controller. Shield from disturbing light and hold the handheld device within 1 meter from the controller with a clear line of sight. Upon contact, the DHP displays the controller's real-time values and status messages on the display. Repeated presses on <Back in Menu> can display the various real-time values with status messages. Press <Confirm> to go from the real-time values display to logging into the controller.

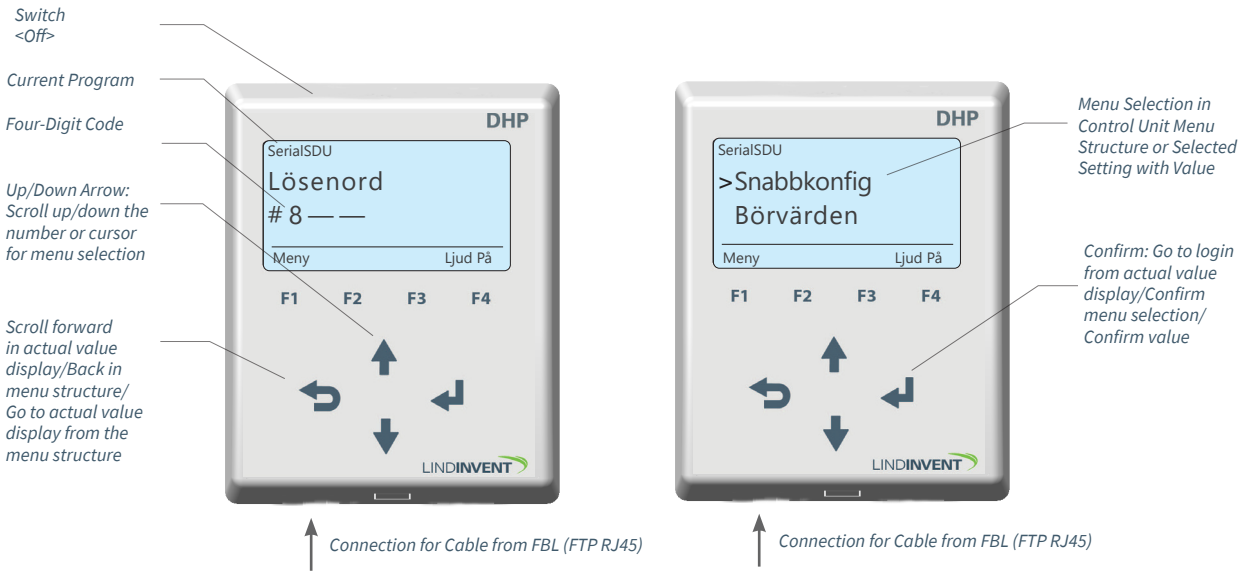
LOGIN FOR CHANGING CONTROL PARAMETERS

Press <Confirm> to go from the real-time values display to the login screen. The four-digit code 0819 provides authorization to change all available settings. Input the code by stepping through each digit with <up/down arrow> and confirming each digit before moving to the next. After login, the controller's menu structure becomes fully accessible. Refer to the respective controller's commissioning instructions for guidance on the menu structure and settings.

APPLICATION "SERIALSDU" IN DHP - INITIAL STATE

The SerialSDU application is used when the DHP is connected via FTP cable to Lindinvent's newer generation of controllers. Wired connection can be used as an alternative to IR connection directly on the controller.

The switch on the DHP should be "Off." The unit is powered via the connected controller. In the start menu, select "SerialSDU" using the <up/down arrow> followed by <Confirm>. To read real-time values only, no login is required. Changing parameters or functions requires login, as described below.



Screenshots with Conditions Before and After Logging into a Control Unit via SerialSDU and DHP Version A02.

DISPLAY REAL-TIME VALUES

Immediately after connecting the FTP cable to the controller, the DHP displays the controller's real-time values and status messages on the display. Repeated presses on <Back in Menu> can display the various real-time values with status messages. Press <Confirm> to go from the real-time values display to logging into the controller.

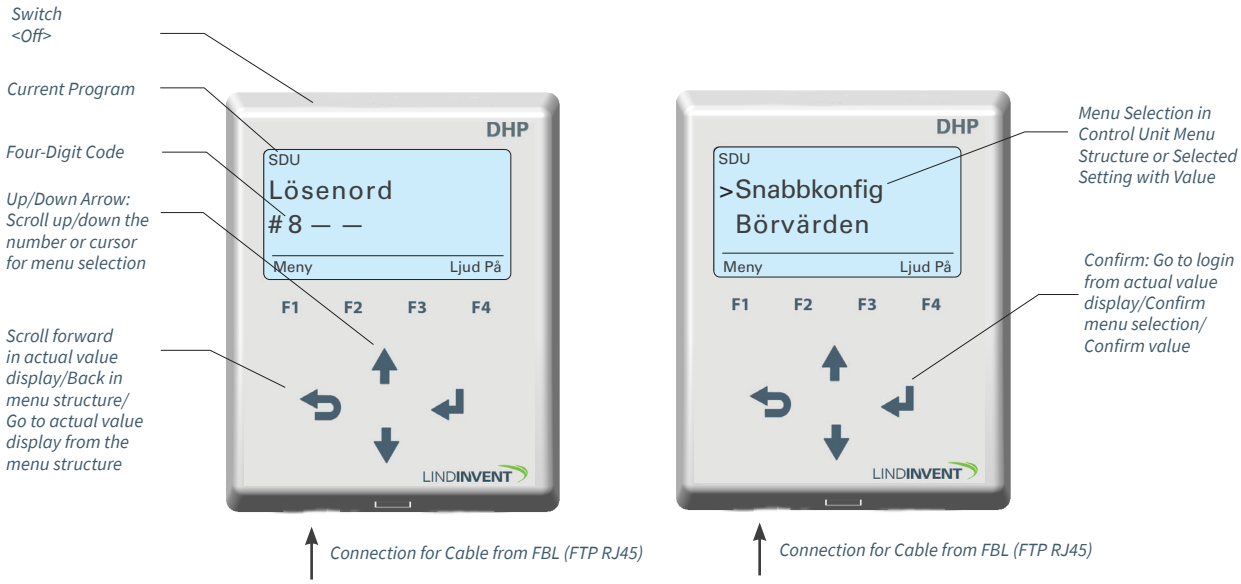
LOGIN FOR CHANGING CONTROL PARAMETERS

Press <Confirm> to go from the real-time values display to the login screen. The four-digit code 0819 provides authorization to change all available settings. Input the code by stepping through each digit with <up/down arrow> and confirming each digit before moving to the next. After login, the controller's menu structure becomes fully accessible. Refer to the respective controller's commissioning instructions for guidance on the menu structure and settings.

APPLICATION "SDU" IN DHP - INITIAL STATE

The SDU application is used when the DHP is connected via FTP cable to Lindinvent's older generation of controllers. DHP can only be connected to older generations of controllers via the SDU application and FTP cable.

The switch on the DHP should be "Off." The unit is powered via the connected controller. In the start menu, select "SDU" using the <up/down arrow> followed by <Confirm>. To read real-time values only, no login is required. Changing parameters or functions requires login, as described below.



Screenshots with Conditions Before and After Logging into a Control Unit via SDU and DHP Version A02.

DISPLAY REAL-TIME VALUES

Immediately after connecting the FTP cable to the controller, the DHP displays the controller's real-time values and status messages on the display. Repeated presses on <Back in Menu> can display the various real-time values with status messages. Press <Confirm> to go from the real-time values display to logging into the controller.

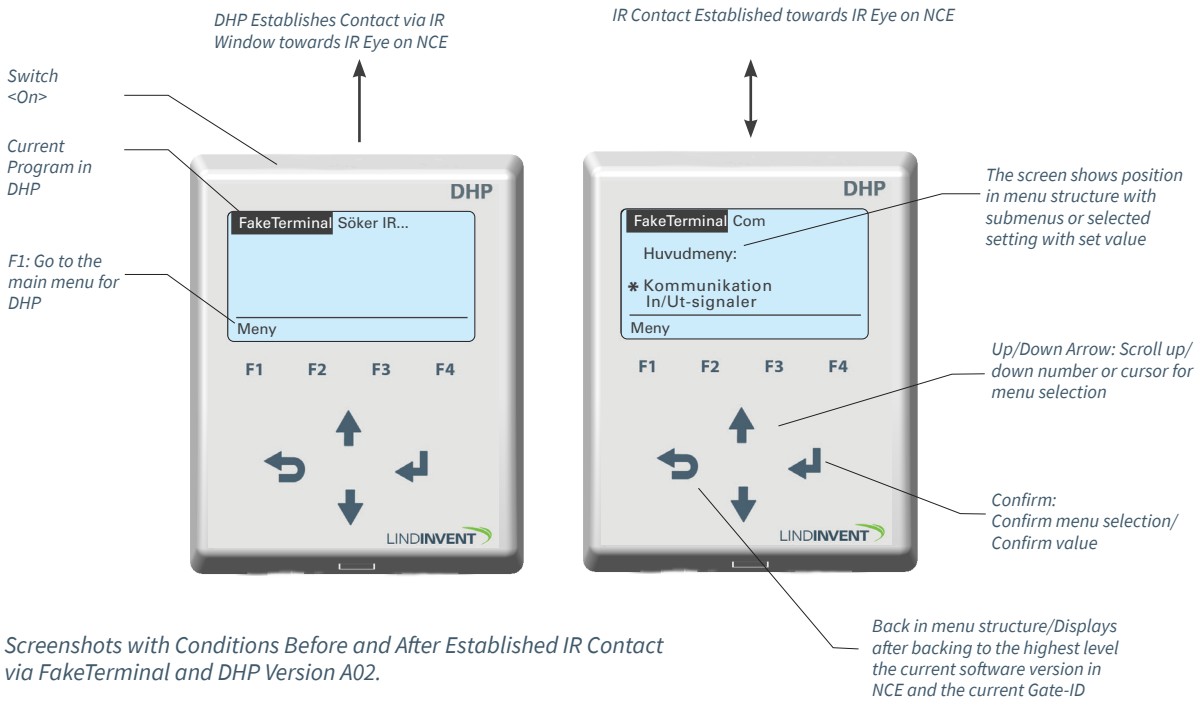
LOGIN FOR CHANGING CONTROL PARAMETERS

Press <Confirm> to go from the real-time values display to the login screen. The four-digit code 0819 provides authorization to change all available settings. Input the code by stepping through each digit with <up/down arrow> and confirming each digit before moving to the next. After login, the controller's menu structure becomes fully accessible. Refer to the respective controller's commissioning instructions for guidance on the menu structure and settings.

APPLICATION "FAKETERMINAL" IN DHP - INITIAL STATE

The DHP can be used for IR communication with Lindinvent's Gateway NCE via the FakeTerminal application. The DHP cannot be connected to NCE via FTP cable.

The switch on the DHP should be "On." The unit is powered via the built-in battery unit. In the start menu, select "FakeTerminal" using the arrow keys followed by pressing <Confirm>. The DHP must be held within the IR contact area to read or change values. The DHP display shows "searching IR..." when it lacks contact with NCE.



Screenshots with Conditions Before and After Established IR Contact via FakeTerminal and DHP Version A02.

ESTABLISH IR CONNECTION WITH NCE

Aim the IR window on the DHP towards the "IR eyes" on the NCE. Shield from disturbing light. Upon contact, the main menu of NCE is displayed on the DHP. The NCE does not support real-time value display similar to several other controllers.

ACCESSING PARAMETERS IN NCE VIA THE MAIN MENU

After establishing IR connection, the entire menu structure in NCE becomes accessible. Refer to the commissioning instructions for NCE for guidance on the menu structure and settings.

APPLICATIONS FOR DIRECT CONNECTION TO THE COMMUNICATION LOOP CAN

DHP, with the latest software, has several applications for direct connection to the communication loop CAN. These applications allow for analysis and adjustment of multiple nodes simultaneously. The applications are described more fully in a separate instruction.

DHP A02.

DHP with Various Cables for Direct Connection to CAN via RJ11.

NODELIST
(SPECIAL CABLE, RJ11 CONNECTION TO DHP)

By connecting via a cable with an adapter, the NodeList application can:

- List all CAN units (nodes) on the current loop
- Display ongoing traffic to individual units on the entire loop
- Provide an opportunity to set a temporary node reference (NodeID) to see if the unit disappears or appears in the list of nodes
- Indicate if duplicate NodeIDs occur

SYMBOL EDITOR
(SPECIAL CABLE, RJ11 CONNECTION TO DHP)

By connecting via a cable with an adapter, the Symbol Editor application can:

- Administer all ”Symbols” or values in all units on the current communication loop CAN
- Perform individual readings/writings on a selected unit
- Perform mass readings/writings of individual values

REMOTESDU
(SPECIAL CABLE, RJ11 CONNECTION TO DHP)

By connecting via a cable with an adapter, the RemoteSDU application can:

- Provide access to all units except active devices on the current communication loop CAN
- Access the unit’s menu structure for reading and changing settings in a similar way to the SerialSDU and SDU applications

NODECHECK
(NOT USED)

The NodeCheck application lacks both description and instructions; it is for internal Lindinvent use only.