

Resource
Data Management

Changing Mercury/Intuitive Controller Passcode

Application Note Revision 1.0

Mercury/Intuitive
Passcode

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Overview

As part of new cyber security legislation being introduced in the UK, European Union and other global regions, manufacturers are required by law to enhance device security to protect systems and operations. One of the key areas of focus is the removal of default passwords on devices using Internet Protocol (IP) communications, reducing the risk of unauthorised access.

Due to increased cyber security protection, implemented from April 2025 onwards, the Mercury range of controllers have a firmware update which removes the previous shipping default legacy password and replaces it with a unique passcode from the factory. This unique passcode can be changed by the engineer, if required, using a PC connection and the controller display.

Any version of Mercury controller will log onto a Data Manager front end as before, this update only affects the Data Manager's ability to change parameters on the Mercury controller. At the controller itself the normal method of accessing the "Para" menu using its display remains unchanged.

Notes – this document references only the Data Manager but it applies also to the miniDM series of front ends. When connecting directly to a controller the engineer can utilise a PC or Laptop, for simplicity the document references only the PC approach.

Action Overview

There are three possible actions to take when networking a Mercury, these are fully documented later in this application note, below is a summary table.

Combinations	Action
New Mercury (post-April 2025) and new Data Manager (V4.2.3 or newer)	No action needed. Logon and network as before.
Older Mercury (pre-April 2025) and any Data Manager software version	No action needed. Logon and network as before.
New Mercury (post-April 2025) and older Data Manager (V4.2.2 or earlier)	Navigate to "PASS" via Mercury display and set to "OLD". Logon and network as before.

Using a new Mercury controller with a recent Data Manager

If connecting a new Mercury Controller (Manufactured on April 2025 or later) with a Data Manager with firmware version V4.2.3 or newer (Manufactured on September 2023 or later), then there will be no compatibility issues.

A quick way to determine if a Mercury controller is legacy or not is the "PASS" menu being present, see: [Setting the legacy passcode on a new Mercury controller](#) later on in this document. If the "PASS" menu is **not** present then the controller is classed as a legacy controller (pre April 2025).

If connecting a PC directly to the Mercury controller the previous default legacy password will not work and a new passcode will need to be set up. The Mercury controller requires a built-in display or remote display (PR0725 for example) to enable this.

Using a legacy Mercury controller with a Data Manager

If connecting a legacy Mercury Controller (Manufactured **before** April 2025) with any Data Manager then there will be no compatibility issues.

If connecting a PC directly to the Mercury controller the legacy default password will work as before.

Using a new Mercury controller with a legacy Data Manager

If connecting a new Mercury Controller (Manufactured on April 2025 or later) with a Data Manager with firmware version V4.2.2 or earlier, then the Mercury controller will require the unique factory shipping passcode to be changed to enable the legacy Data Manager to make parameter changes in the controller.

If connecting a PC directly to the new Mercury controller the previous default legacy password will not work and a new passcode will need to be configured. The Mercury controller requires a built-in display or remote display (PR0725 for example) to enable this.



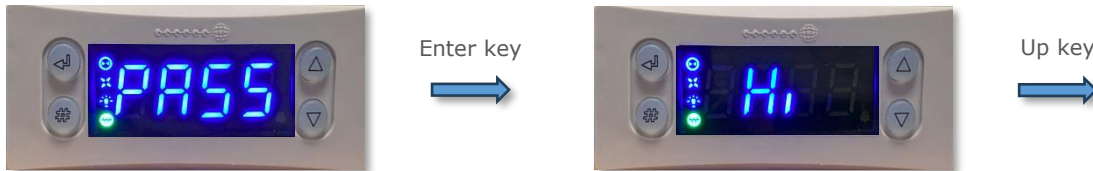
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Setting the legacy passcode on a new Mercury controller

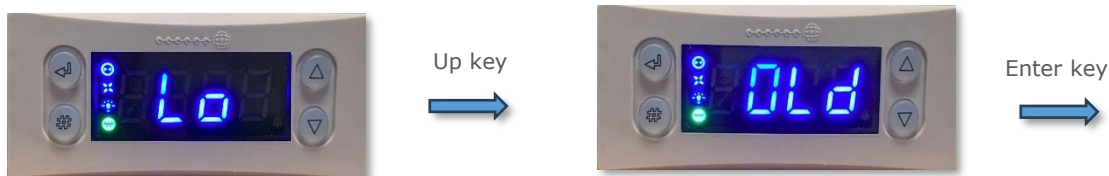
If using a new Mercury controller with a legacy Data Manager (V4.2.2 or earlier) a PC connection is not required and a legacy default passcode can be set using the controller's display.

To enter the setup menu on the Mercury Controller press and hold the Enter and Down keys for 3 seconds, the display will show "Ent", release both keys and press the Enter key and the display will show "IO", this is the Input/Output menu.

Press the Up or Down keys to scroll through the set up menus until the "PASS" menu is shown, press the Enter key to select. The display will show "Hi".



Pressing the Up key again will show "Lo" on the display, pressing the Up key again will show "Old".



Pressing the Enter key on "Old" will show "dFLt", this allows the legacy default passcode to set in the controller, pressing the Enter key again will set the legacy passcode and the display will return to "PASS".

The Legacy passcode is now set. Navigate to "Esc" and press the Enter key to save the setting otherwise the display will timeout after 60 seconds after no user interactions.

The Data Manager will now be able to set parameters in the Mercury controller.

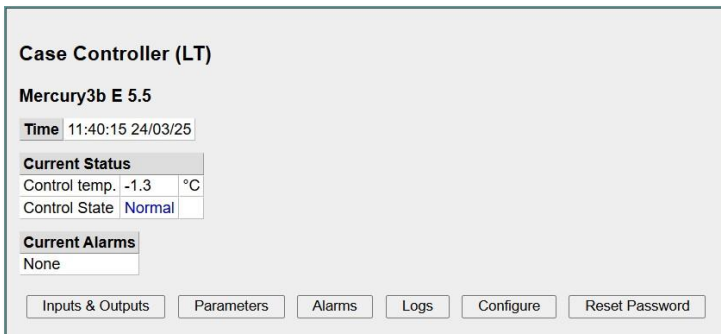
Setting a PC or Laptop passcode.

A PC can be connected by surfing to an IP enabled controller's IP address using a web browser, if the controller is not IP enabled then RDM communicator software can be used to connect directly to the controller's RS232 port.

An external communication module such as an IP Futura (PR0016) or Intuitive Switch can be used to enable IP connectivity on any RS232 Mercury controller.

(For full details on controller IP connectivity please refer to the network section in the full user guide for the relevant Mercury/Intuitive Mercury controller.)

The controller's home page will be shown, similar to the one below.



Select the "Reset Password" option.



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Reset Password

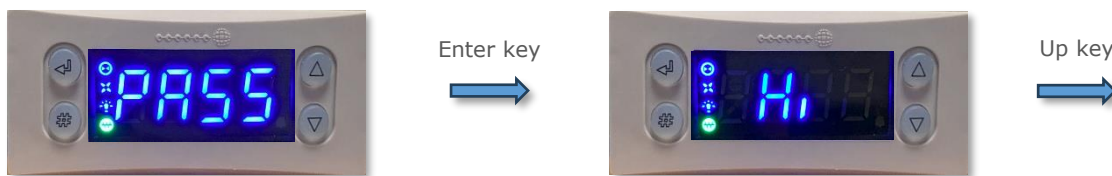
Challenge: 16443199

Response:

An 8-digit passcode is required to be entered in the Response field, this is comprised of the "Hi" an "Lo" values which can be obtained from the controller's display as follows.

Enter the setup menu on the Mercury Controller by pressing and holding the Enter and Down keys for 3 seconds, the display will show "Ent", release both keys and press the Enter key and the display will show "IO", this is the Input/Output menu.

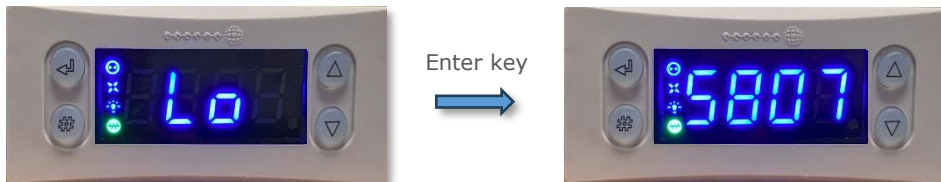
Press the Up or Down keys to scroll through the set up menus until the "PASS" menu is shown, press the Enter key to select. The display will show "Hi".



Press the Enter key again and the "Hi" code will be shown, 9901 for example, make a note of this code.



Press the Enter key again to return to the "Hi" menu, press the Up key to select the "Lo" menu.



Press the Enter key again and the "Lo" code will be shown, 5807 for example, make a note of this code.

The "Hi" code followed by the "Lo" code, 99015807 for example, can now be entered into the "Response" field in the PC interface.

Reset Password

Challenge: 16443199

Response:

The controller password is now reset and all the controller's service menu options are now accessible.



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Setting a user defined Passcode

In most cases setting the legacy passcode is all that is required, however there is an option to set a unique user defined passcode in the controller.

Setting a user definable passcode is not essential but it allows the user to have their own unique passcode and does not require access to the controller's display (if fitted) to access the "Hi" and "Lo" values.

In the main "Configure" menu select "Set Password".

The screenshot shows a 'Configure' menu with the following options: Time, Parameters, Controller Type, Temperature Units, Pressure Units, Display Units, Display Type, Remote Defrost, Name, Logging, Asset Information, Probe Offsets, and Set Password. The 'Set Password' option is highlighted in yellow.

A new passcode can now be set, this should be a number between 4 and 8 digits in length.

The 'Set Password' screen contains the following text: "DO NOT change the password if you are unsure of the effect it may have. **Note: RDM frontends running earlier versions of software may require the old default password.**" Below this are two input fields: "Enter Password:" and "Re-enter Password:". At the bottom is a "Set Password" button.

Using a Caesium Programming Adaptor (PR0726) or Communicator software.

If using any of the above programming devices, the Mercury password has to be set to the legacy passcode, see: [Setting the Legacy Passcode](#)

Revision	Date	Changes
1.0	26/03/2025	First Release



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