Software EasyKool

Instruction manual

1 Contents

1.1. About this document

Use

> Please read this documentation through carefully and familiarize yourself with the product before putting it to use. Pay particular attention to the safety instructions and warning advice in order to prevent injuries and damage to the products.

> Keep this document to hand so that you can refer to it when necessary.

> Hand this documentation on to any subsequent users of the product.

Knowledge of Windows® operating systems is required when working with the software.

Symbols and writing standards

Representation	Explanation
	Note: Basic or further information.
1. ... 2. ...	Action: more steps, the sequence must be followed.
> ...	Action: a step or an optional step.
- ...	Result of an action.
Menu	Elements of the program interface.
[OK]	Buttons of the program interface.
... | ...	Functions/paths within a menu.
"..."	Example entries

2 Specifications

2.1. Use

The testo EasyKool configuration and analysis software enhances the functionality of the testo 556 and testo 570 instruments with many useful functions:

- Instrument configuration via software.
- Customer, system and measurement data management.
- Data import from and data export to instrument.

- Creating, saving and printing measurement reports from imported data.
- Commenting on measure values.

2.2. System requirements

Operating system

The software will run on the following operating systems:

- Windows 7
- Windows 8
- Windows® 10

Computer

The computer must meet the requirements of the corresponding operating system. The following requirements must additionally be fulfilled:

- Interface USB 1.1 or higher

Date and time settings will be automatically accepted by the PC. The administrator must make sure that the system time is regularly compared with a reliable time source and adjusted, if necessary, to ensure authenticity of the measurement data.

3 First steps

3.1. Installing the software/driver

1. Insert the program CD into the CD-ROM drive of the computer.
2. Start the file **Setup.exe**.
3. Follow the instructions of the installation wizard.

When installing under Vista, please pay attention to the following steps during the installation process:

- The window **User account control** is opened:
  > Click on **[Next]**.
- The window **Windows Security** is opened:
  > Choose **Still install this driver software**.

4. Click on **[Complete]** to complete the software installation.

After completion of the software installation, the instrument must be connected to the PC to continue with the driver installation.

5. Use the USB-cable to connect the instrument to the PC.

- The connection will be set up.
- The driver installation will be executed automatically.

In some cases, the instrument driver may not be automatically recognized. In this case, continue as follows:

- The window **New hardware found** is opened.

1. Choose **Search and install driver software** and click on **[Next]**.

If the driver is not automatically found:

> Choose **Search computer for driver software** and click on **[Browse]**. Enter the path to the driver: Folder **Testo USB Driver**.

- The window **Windows Security** is opened:

2. Choose **Still install this driver software**.
3. >Click on **[Close]**.

3.2. Starting the software

Starting the EasyKool Software

The software user interface is opened in the language of the operating system, if this is supported. If the operating system language is not supported, the user interface is in English.

Windows program menu

1. Windows® 7

> Click on **[Start]** | **All Programs** | **Testo** | **EasyKool Software** (double-click on left mouse button).

Windows® 8

> **[Start]** | Right mouse button | **Search** | Enter the application name in the search field | Click on **EasyKool Software** (double-click on left mouse button).

Windows® 10

> Click on **[Start]** | **All Apps** | **Testo** | Click on **EasyKool Software** (double-click on left mouse button).

2. When the **User Account Control** window opens: Click on **[Yes]**.

- The user name and password prompt opens.

Please take note of the following information regarding the user name and password:

- User name and password are not linked.

- The password serves the purpose of protecting the adjustment data within the probe to prevent unauthorised changes. The password is saved to the probe, and each probe is issued an individual password.

3. Enter the user name.
4. Enter the password. If you have not yet issued an individual password: Enter “testo”.
5. Click on **[OK]**.

- **EasyKool Software** will start.

4 Using the product

Connection problems and loss of measurement data can occur when the energy saving or standby mode in your PC is activated. These functions should therefore be switched off.

Help button

The ? help symbol opens/closes the help bar. This button is available in all menus except the Initial page menu.

4.1. Initial page menu

When the testo EasyKool Software is started, the initial page is displayed.

1 Menu bar with status information (left)
2 Quick access with preview screen

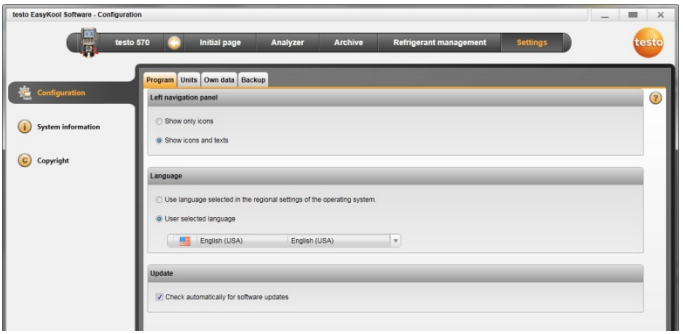
3 Connection manager
4. Configuration of instrument
5. Online measurement
6 Manage archived measurements
7 Refrigerant stock
8 Document changes in refrigerant stock
9 Program configuration

4.2. Settings menu

✓ Instrument is connected to the testo EasyKool Software and its status information is displayed in the menu bar.

Via the **Settings** menu, you can open the **Configuration** and **System information** menus.

4.2.1. Configuration



> Choose **Initial page**| **Program configuration**

or

> **Settings** | **Configuration**.

4.2.1.1. Program tab

> **Left navigation panel**: Choose **Show only icons** or **Show icons and texts** | **[Apply]**
> **Language**: Choose **Use language selected in the regional settings of the operating system.** or **User selected language** | **[Apply]**
> **Programme update**: Choose **Check automatically for software updates.** | **[Apply]**

4.2.1.2. Units tab

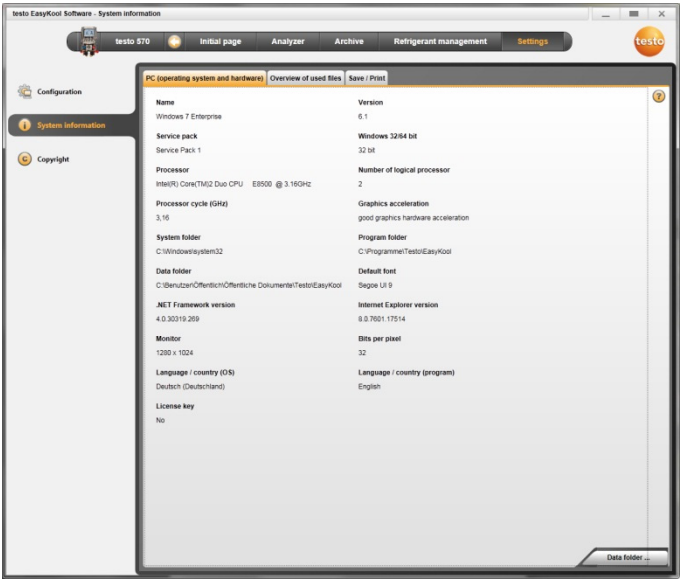
> **Refrigerant management**: Enter refrigerant weight | **[Apply]**
> **Measurement locations (only for testo 556/560)**: Determine height of location above sea level | **[Apply]**

4.2.1.3. Own data tab

> **Own data**: Enter/change address data | **[Apply]**

4.2.2. System information

The **System information** menu has 3 tabs showing important information about the PC used and the software. It is useful to have this information to hand when contacting our hotline as it will help in diagnosing errors.

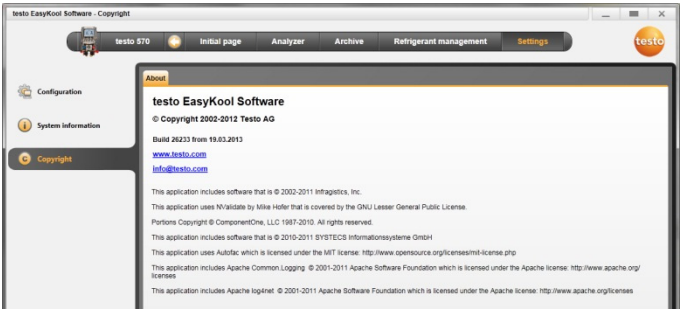


> Choose **Settings** | **System information**.

Executable actions

> **[Data directory...]**: Call up directory.

4.2.3. Copyright



> Choose **Settings** | **Copyright**.

\- The **About** tab is opened.

4.3. Instrument menu

4.3.1. Connection manager

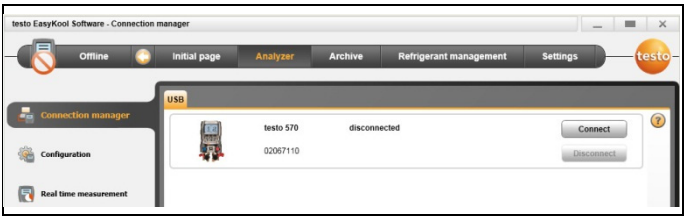
✓ Instrument connected to PC.

> Choose **Initial page** | **Connection manager**

or

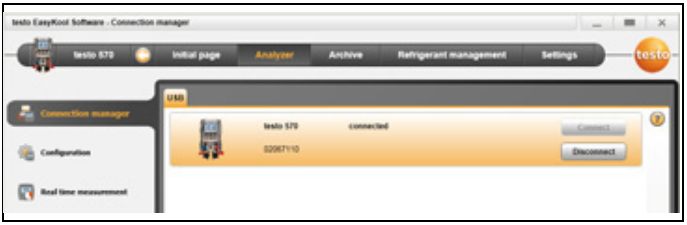
> **Instrument** | **Connection manager**.

- Instruments are displayed with picture and type designation.



> Choose the instrument and click on **[Connect]**.

Only one instrument can be connected at a time.



- The instrument appears in the status display to the left of the menu bar.
- The button **[Connect]** changes to **[Disconnect]**.
- The instrument appears in the status display to the left of the menu bar.

If not possible to connect:

> Choose **Start** | **System control** | **System and security** | **System** | **Device manager**.

4.3.2. Configuration

✓ Device is connected to the testo EasyKool software and is displayed in the status bar.

> Choose **Initial page** | **Configuration of instrument**

or

> **Instrument** | **Configuration**.

4.3.2.1. Device tab

The **Device** tab shows important information about the connected instrument. The date and time of the instrument can be synchronised with the PC.

> **[Synchronise now]**: Synchronise date/time manually.

4.3.2.2. Display language tab

The available languages for texts in the instrument are displayed.

> **Select language** | **[Save]**.

4.3.2.3. Units tab

The **Units** tab shows the units for temperature, pressure, vacuum and weight.

> Choose units | **[Save]**.

4.3.2.4. Pressure mode tab

Depending on the chosen unit for pressure: Change between absolute and relative pressure displays.

> Choose **Mode normal pressure**: absolute/relative | **[Save]**.

> **Mode vacuum pressure**: absolute/relative | **[Save]**.

4.3.2.5. Probe type tab

The available probe types are displayed.

Select probe type

> Select immersion probe or surface probe | **[Save]**.

4.3.2.6. Measuring mode tab

The available measuring modes are displayed.

Select measuring mode

> Select normal mode or combi mode | **[Save]**.

4.3.2.7. Efficiency calculation tab

The following values can be entered via **Efficiency calculation**:

- Energy consumption (electrical power consumption of the system)
- Flow (liquid flow rate of the heat pump secondary circuit)
- Density (density of the medium in the secondary circuit)
- Heat capacity (specific heat capacity of the medium in the secondary circuit)

> Enter values | **[Save]**.

4.3.2.8. Refrigerant tab

The available refrigerants are displayed in the **All refrigerants** area. Only those refrigerants present in the instrument are available.

> Add/delete refrigerant: **[Add >]**, **[< Delete]** or **[< Delete All]**.
> Sort refrigerants: Select refrigerant | **[Up]** or **[Down]**.

By double-clicking a refrigerant can also be added.

Executable actions

> **[Update Refrigerants]**: Select refrigerant.
> **[Save]**.

4.3.2.9. Print tab

On the **Print text** tab, the address lines and the footer for printouts of the testo 556, testo 560 and testo 570 instrument reports can be set up.

> Enter print texts in the text input fields.

Executable actions

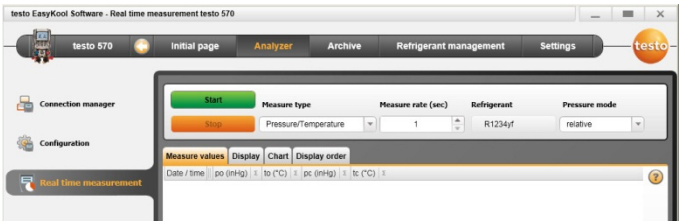
> **[Own address data]**: Overwrite data with own address data.
> **[Save]**.

4.3.3. Online measurement

Electrostatic charging can disturb communication between device and PC/laptop. Integrate, especially when performing an online measurement (connection of device and PC/laptop) or usage of mains unit for power supply all the components (system, manifold's valve block, refrigerant bottle etc.) into the potential equalisation

(earthing) prior to measurement. Please see the safety instructions for the system and the refrigerant used.

Using the **Online measurement** menu, a cold measurement can be carried out, during which the instrument is controlled by the PC. The measure values are transmitted directly to the PC and displayed.



> Choose **Initial page**| **Online measurement**

or

> **Instrument**| **Online measurement**.

Carrying out the online measurement

Only the parameters and measuring units activated on the **Display order** tab are displayed.

1. Set **Measure type**.
2. Set **Measure rate (sec)**.
3. Choose **Pressure mode**.
4. The online measurement starts: **[Start]**.

- The measure values are displayed.

5. Quit measurement: **[Stop]**.

- The online measurement is stopped.

4.3.3.1. Measure values tab

> **Measure values**: Table with all measurement channels and date/time of the single measurements.

Executable actions

> **[Save as ...]**: Save measure values.

> **[Export Excel]**: Export measure values to Microsoft Excel (Microsoft Excel 2000 or higher required!).

> **[Clipboard]**: Export measure values to the clipboard (tab stop-separated text file).

- Tab **Display**: Display fields with all measurement channels.

4.3.3.2. Display tab

- **Display**: Display fields with all measurement channels. The current measure values are displayed.

Executable actions

> Close/open display bar: Press **[⚙]**.
  > During a measurement, the mean value, maximum or minimum can be displayed instead of the actual values.
  > Change size (zoom) of the display fields: Move slider.

4.3.3.3. Chart tab

- **Chart**: Measurement chart with 16 selectable measurement channels and automatic scaling of the time axis.

Executable actions

> Close/open display bar: Press **[⚙]**.
  > Set chart properties (displayed channels, line colour, scale).
> **[Save bitmap]**: Save chart as a file:

4.3.3.4. Display order tab

The available measurement channels are displayed in the **Available channels** area. Only the parameters and measuring units that are present in the current display order of the measuring instrument are available.

The measurement channels displayed on the PC during online measurement are displayed in the **Selected channels** area.

Set display order

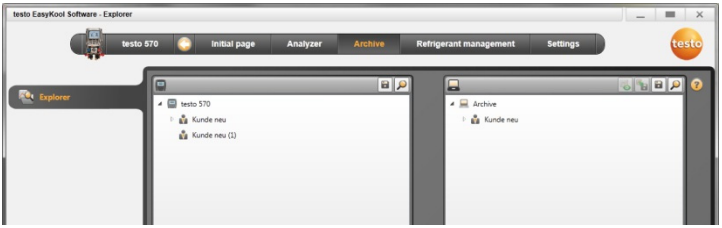
> Add/delete measurement channels: **[Add >]**, **[Add all >]**, **[< Delete]** or **[< Delete All]**.
> Set the order of the measurement channels: Select measurement channel | **[Up]** or **[Down]**.

4.4. Archive menu

✓ Instrument is connected to the testo EasyKool Software and its status information is displayed in the menu bar.

This menu is used to archive measurements within a folder structure. If an instrument is connected and if there are also measurements on the instrument, these measurements can be copied from the instrument to the archive, and the folder structure on the instrument can be changed.

4.4.1. Explorer



> Choose **Initial page** | **Manage archived measurements** | **Window testo 570**

or

> **Archive** | **Explorer** | **Window testo 570**.

The following are set as default categories: **Customer** | **Measplace** | **Installation** | **Component**.

These categories can be changed via testo EasyKool Software (e.g. Testo | Building 1 | Basement 2 | Compressor) and new entries can be added.

4.4.1.1. Adding a customer

1. Add customer: press [ ] symbol.

- Folder **New customer** is created.

Press the [ ] symbol again to create another folder.
If a folder text field is selected, the folder can be renamed.

2. If the folder is activated, customer data can be entered on the **[Customer]** and **[Address]** tabs.

4.4.1.2. Adding a measurement location

1. Add measurement location: press [ ] symbol.

- Folder **New measplace** is created.

Press the [ ] symbol again to create another folder.
If a folder text field is selected, the folder can be renamed.

2. If the folder is activated, information on the measurement location can be entered on the **[Measplace]**, **[Address]** and **[Cooling device]** tabs.

4.4.1.3. Adding a system

1. Add system: press [ ] symbol.

- Folder **Plant** is created.

Press the [ ] symbol again to create another folder.
If a folder text field is selected, the folder can be renamed.

2. If the folder is activated, information on the plant can be entered on the **[Installation]** tab.

4.4.1.4. Adding a component

1. Add component: press [ ] symbol.

- Folder **New component** is created.

Press the [ ] symbol again to create another folder.
If a folder text field is selected, the folder can be renamed.

2. If the folder is activated, a comment about the component can be entered on the **[Component]** tab.

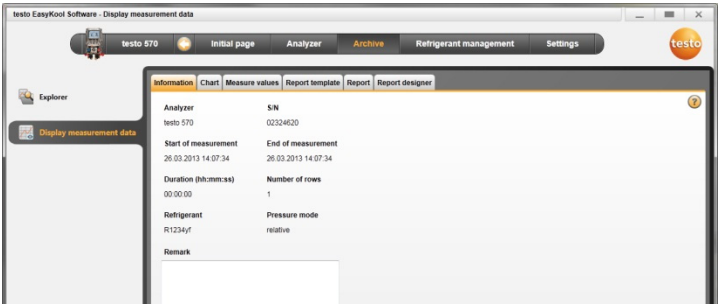
4.4.1.5. Copying folders/measurements

1. Select folder/measurement: move the cursor to the required symbol and select it by clicking on it (highlighted orange).
2. Move the cursor to the target folder and select it by clicking on it (highlighted orange).
3. Copy selected folder/measurement from the instrument to the archive: press [ ] symbol
   or
   Copy selected folder/measurement from the archive to the instrument: press [ ] symbol.
4. Save instrument data or archive: press [ ] symbol.

4.4.1.6. Further functions

- Remove folder: press [ ] symbol.
- Import measurements: press [ ] symbol.
- Search for data: press [ ] symbol.
- Display selected measurement: press [ ] symbol.
- Export selected measurement: press [ ] symbol.

4.4.2. Displaying measurement data



Only measurements from the archive can be displayed. Data from the instrument must therefore first be copied to the archive.

1. Select **Initial page** | **Manage archived measurements** | **Window Archive**

or

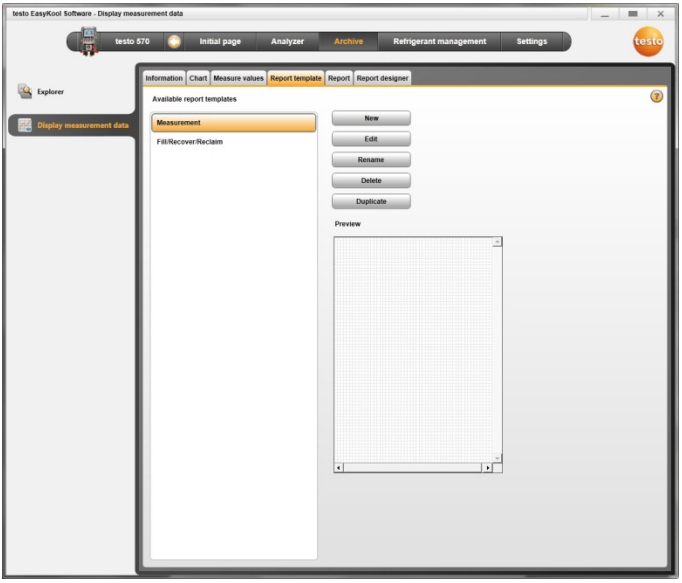
1. **Archive** | **Explorer** | **Window Archive**.
2. Select measurement | **[Open]**.
3. Double-click on measurement: **Display measurement data** module is opened.

- The **Display measurement data** menu has tabs showing important information about the measurement.

4.4.2.1. Report design tab

In the tab **Report design,** the templates for the printout of measurement reports can be user-specifically altered.

Different reports templates are available. These templates can be renamed, deleted, newly created or altered.



> Menu **Display measurement date | Report template**

Executable actions

> **[New]**: create a new report template
> **[Edit]**: edit active report template
> **[Rename]**: rename template
> **[Delete]**: delete created template
> **[Duplicate]**: creates a copy of the selected report template

4.4.2.2. Report tab

Displays the report on the selected measurement with the selected template.

Executable actions

> **Print**: Opens the printing menu
> **Save**: Opens the **Save as** window
> **Zoom in**: Enlarges the view
> **Zoom out**: Reduces the view
> **100%**: Displays the entire report
> **Fit to width**: Enlarges the report to page width
> **Whole page**: Displays one page of report
> **Two pages**: Displays two pages of report

4.4.2.3. Editor tab

On the **Editor** tab, the field properties of the report fields (field type, font and border) and the page properties can be changed.

The properties displayed for the field, font and border are valid for the report field selected on the **Template** tab (in the same module).

> Select the field type under **Field**:

- **Text field**: text is inserted in the report field as it is entered.
- **Data field**: the value stored in the database (measure value, customer or system data) of the selected data field is inserted into the report field.
  Choose field from database: **[...]**
- **Graphics**: The selected graphic is inserted in the report field.
  Select graphics: **[File...]** | select file | **[Open]**.
- **Chart** (measurement data): the measure values for the measurement report that are stored in the database are inserted into the report field as a graphic.
  Enter the parameters.
- **Table**: the measure values stored in the database for the measurement report are inserted into the report field in table form.

> Select **Font**

This function is only available if Text field or Data field is selected as the field type.

- **Font**: a list of all available fonts is opened.
- **Font size**: a list of all available font sizes is opened.
- **Bold**: der markierte Textbereich wird fett dargestellt.
- **italic**: der markierte Textbereich wird kursiv dargestellt.
- **Special font**: a font other than the default font is used.
  Select font: **[Font...]** | select values | **[OK]**.
- **Textcolor**: Choose font colour
- **Background color**: Select background colour
- **Alignment**: select the alignment in the text field under Alignment (left, centre, right).

> >**Switch display of data fields**:: switches the display of the data fields from source code to value display.

> **Zoom in**: Enlarges the view

> **Zoom out**: Reduces the view

> **100%**: Displays the entire report

> **< prev next >**: Page forward / back in report

> **Settings**: Determines dimensions of report.

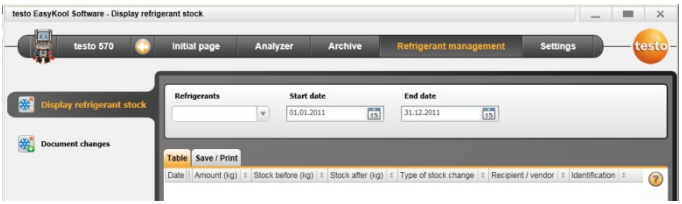
> **Save**: Create new report.

4.5. Refrigerant management menu

✓ Instrument is connected to the testo EasyKool Software and is displayed in the status bar.

4.5.1. Displaying the stock

In the **Display refrigerant stock** menu, the stocks of the refrigerants over a specific period can be displayed.



> Choose **Initial page** | **Refrigerant stock**

or

> **Refrigerant management** | **Display refrigerant stock**.

Executable actions

> **Refrigerant**: Select refrigerant
> **Start date**: Enter date
> **End date**: Enter date
> **[Update Refrigerants]**: Update the refrigerant list

Table **tab**

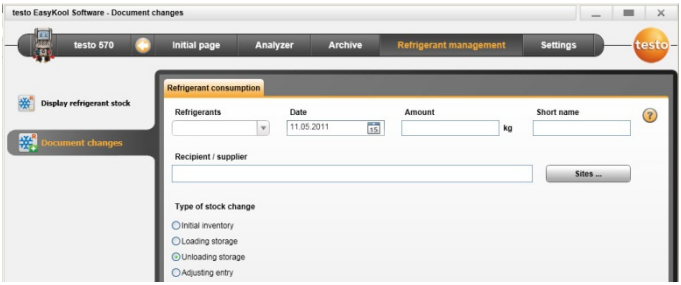
- Display of the stock list

Save / Print **tab**

> Save/print stock list: Choose Print symbol or Save symbol.

4.5.2. Documenting changes

In the **Document changes** menu, you can enter the measurement location, amount used and refrigerant.



> Choose **Initial page** | **Document changes in refrigerant stock**

or

> Choose **Refrigerant** | **Document changes**.

Executable actions

> **Refrigerant**: Select refrigerant
> **Date**: Enter date
> **Amount**: Enter the amount used
> **Short name**: Enter short name
> **Recipient / vendor**: Enter recipient/vendor
> **[Measplace...]**: Select/enter measurement locations:
> **Type of stock change**

- Choose **Initial inventory**
- Choose **Loading storage**
- Choose **Unloading storage**
- Choose **Adjusting entry**

> Save data: **[Save]**
> Update refrigerant list: **[Update Refrigerants]**.

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