

**Honeywell**

# WEB-HMI

Touchscreen Monitors



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## User Guide

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# Support and Other Contacts

For technical assistance or further information, call your nearest Honeywell office.

# Revisions

Date	Description
Nov, 2020	- First draft
July, 2021	- New SKU numbers - Removed "Resetting password" - Removed "Touchscreen Calibration" - Removed "Plugin" and changed screenshots. - Modified "Certificate" and "Certificate's Parameters". - Modified "Reset factory"



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# ABOUT THIS GUIDE

## Introduction

This guide introduces and describes how to use the Honeywell WEB-HMI touch-screen monitors.

The WEB-HMI series of touchscreen monitors are HTML5 IP browser compatible touchscreen monitors. They combine state-of-the-art features and top performance with an outstanding design.

## Intended Audience

This document is intended for the operators of WEB-HMI touch-screen monitors.

## Scope

This guide describes how to use WEB-HMI touch-screen monitors and it also provides information on the features and functionalities common to all the variants of the monitors. The product specification and installation are beyond the scope of this guide.

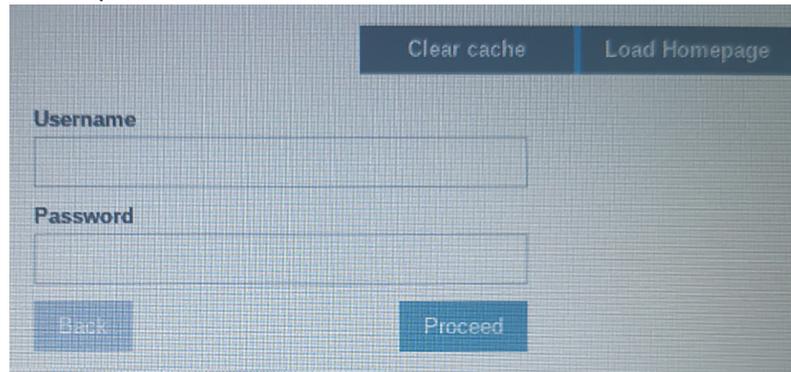
## Related Documents

Document Title	Document Number	Description
WEBs HMI Touchscreen Monitor Product Data	31-00389	This document is intended for all users to know about the features and specification of all models of the WEB-HMI monitors.
WEBs HMI Touchscreen Monitor Installation Instructions	31-00390	This document is intended for field and commissioning engineers and describes the procedures and guidelines for installing the WEB-HMI monitors.

## FIRST &amp; QUICK START OF DEVICE

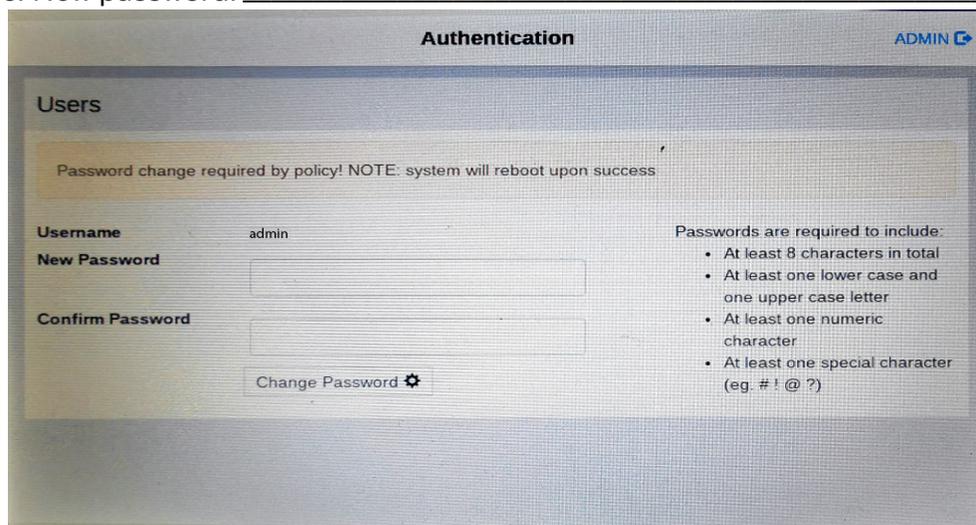
## First start of the device

After starting up the device for the first time, you are located on the settings page. Therefore, user need to login to the Setup menu to configure the device. By default, the username and password are *admin*.



The screenshot shows a web interface for device settings. At the top right, there are two buttons: "Clear cache" and "Load Homepage". Below these are two input fields: "Username" and "Password". At the bottom left, there is a "Back" button, and at the bottom right, there is a "Proceed" button.

After entering the configuration menu for the first time, the user is forced to change the admin password. This password must follow security requirements and must be remembered all the time to be able to change the configuration of the device. New password: \_\_\_\_\_



The screenshot shows the "Authentication" page. At the top right, there is an "ADMIN" link with a user icon. Below the header, there is a "Users" section. A yellow warning box states: "Password change required by policy! NOTE: system will reboot upon success". Below this, the "Username" is listed as "admin". There are two input fields: "New Password" and "Confirm Password". A "Change Password" button with a gear icon is located below the "Confirm Password" field. To the right of the input fields, there is a list of password requirements:

- At least 8 characters in total
- At least one lower case and one upper case letter
- At least one numeric character
- At least one special character (eg. # ! @ ?)

Confirm the new password in the Confirm Password box. Select Change Password. The 'admin' password will be changed and the device will now reboot.

The new password will be required to change the configuration of the device.

**Note:** *Keep your password strong by following these mandatory rules: Use eight or more characters, mix uppercase and lowercase letters with numbers and special characters.*

**Warning: DO NOT FORGET THE NEW PASSWORD. A forgotten password cannot be cleared or reset. If you loose the admin password of the device, please contact your local support agents to reset the password.**

Wait for the device to reboot and display the Login screen again. Enter 'admin' in the Username box.

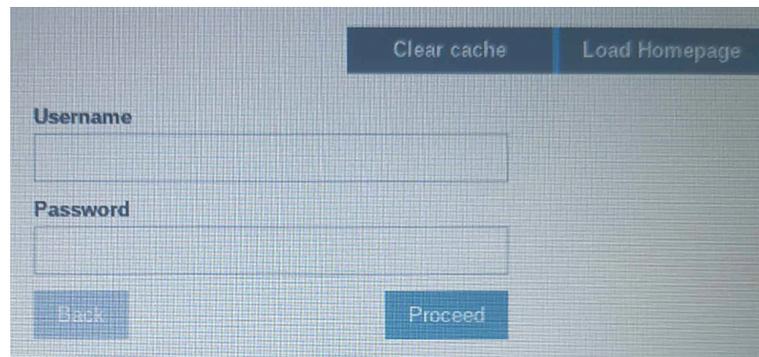
## Configuration of the web client

### The Settings Page

The settings page is the default start page.

Enter the credentials to open the configuration menu or press **Load Homepage** on the top right of screen to access the configuration done in the web browser setup.

If you download a new application, you can force the panel to clear the cache.

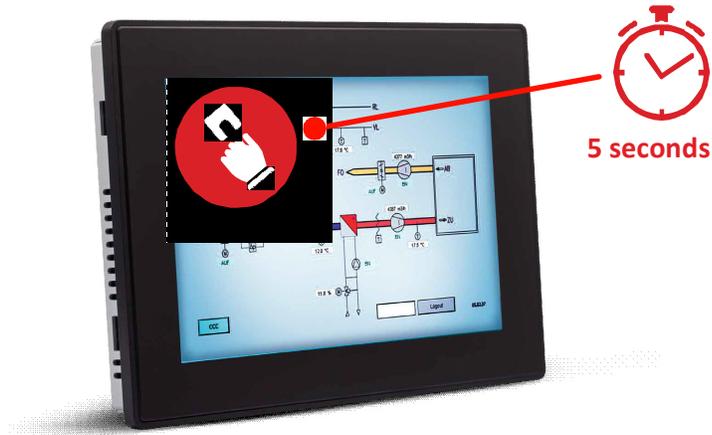


The screenshot shows a login interface with the following elements:

- Top right: Two buttons, "Clear cache" and "Load Homepage".
- Username: A text input field with the label "Username" above it.
- Password: A text input field with the label "Password" above it.
- Bottom left: A button labeled "Back".
- Bottom right: A button labeled "Proceed".

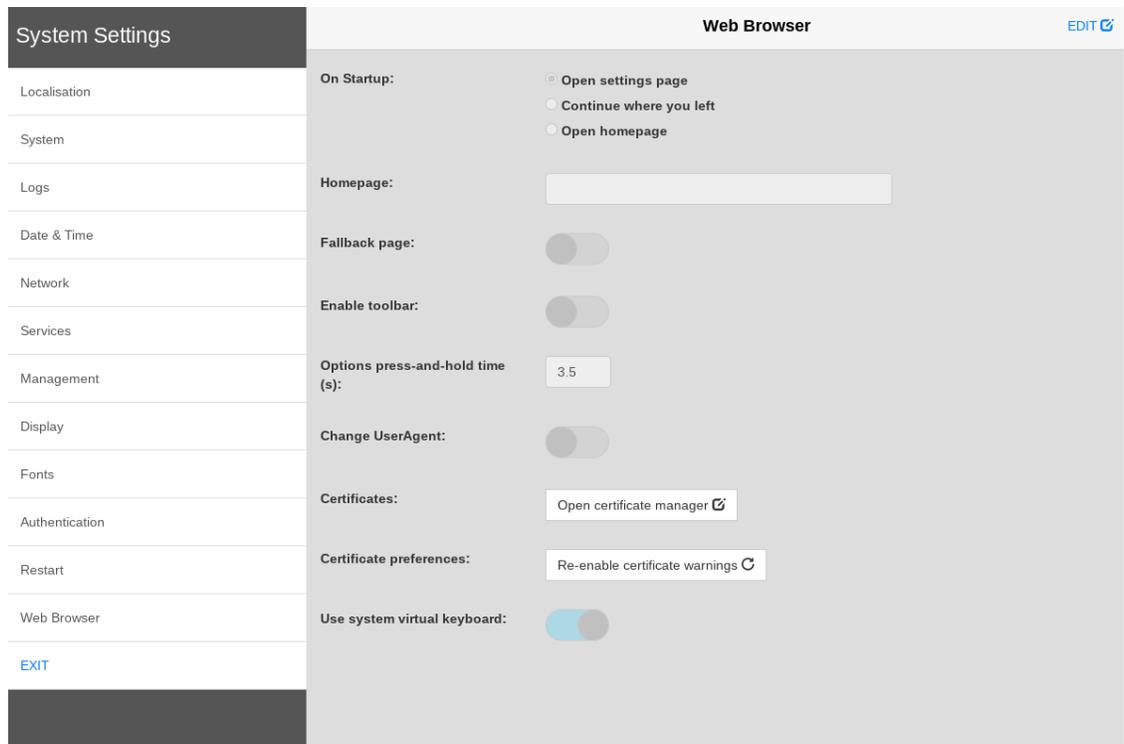
## Accessing the System Settings Screen

On the HTML5 web application, tap and hold the top left corner of the touchscreen for 5 seconds to open the settings page.



## The Web Browser Settings

After entering the configuration menu, Web Browser **System Settings** panel displays. To change the web Browser configuration, press **EDIT** on the right top on the page.



## Change the “on start” behavior of the device

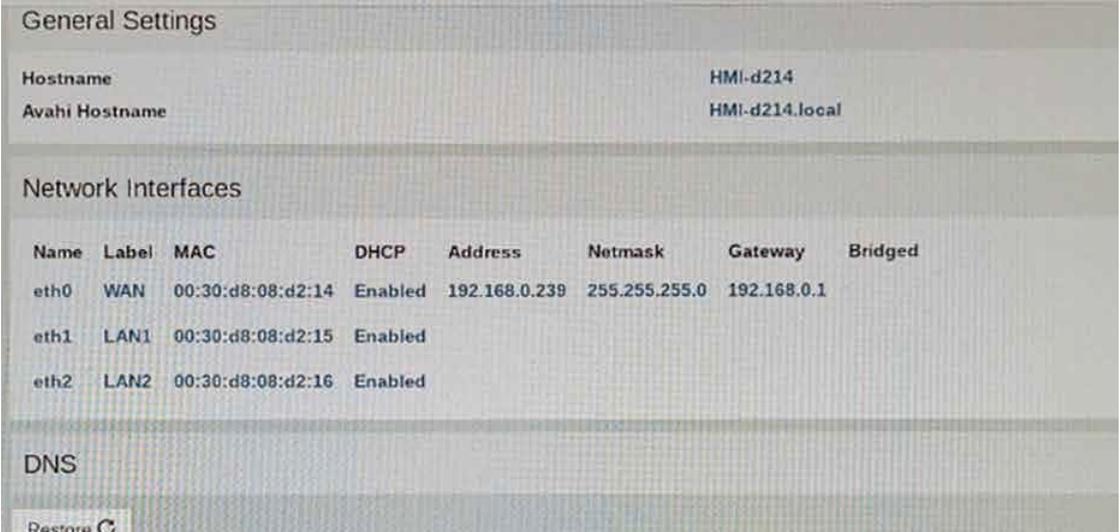
Item	Default	Description
On Startup	Open settings page	After a restart of the device the setting page displays
	Continue where you left	Jump to the application where you left
	Open homepage	Open the configured Homepage
Homepage	https://google.com	Enter the start page which you want to load as homepage including http:// or https://

## Configure the Network interface

By default, all network interfaces are configured for DHCP. The ETH0 (For capacitive touchscreens, beside the power connector) is configured as WAN port.

- If you connect the panel to the network using ETH0 and a DHCP server is running the IP address is automatically requested from the DHCP server.
- If no DHCP server is available or can't be used on site, the configuration can be changed to static IP.

To configure the network interface, open the “**Network**” tab and press the **EDIT** button on the top right.



The screenshot displays the network configuration interface. It is divided into three main sections: General Settings, Network Interfaces, and DNS. The General Settings section shows the Hostname as 'HMI-d214' and the Avahi Hostname as 'HMI-d214.local'. The Network Interfaces section contains a table with columns for Name, Label, MAC, DHCP, Address, Netmask, Gateway, and Bridged. The table lists three interfaces: eth0 (WAN, 192.168.0.239), eth1 (LAN1), and eth2 (LAN2), all with DHCP enabled. The DNS section is currently empty. A 'Restore' button with a circular arrow icon is located at the bottom left of the interface.

General Settings							
Hostname	HMI-d214						
Avahi Hostname	HMI-d214.local						

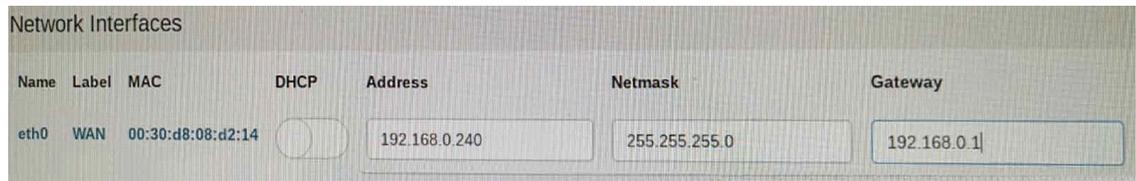
  

Network Interfaces							
Name	Label	MAC	DHCP	Address	Netmask	Gateway	Bridged
eth0	WAN	00:30:d8:08:d2:14	Enabled	192.168.0.239	255.255.255.0	192.168.0.1	
eth1	LAN1	00:30:d8:08:d2:15	Enabled				
eth2	LAN2	00:30:d8:08:d2:16	Enabled				

DNS							
Restore 							

Disabling the DHCP switch will allow you to enter the IP address manually. After you press **save**, the manually entered IP address will be used for the device.



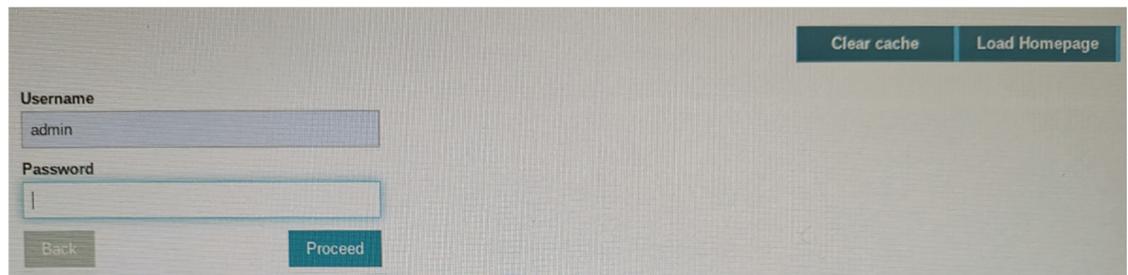
Name	Label	MAC	DHCP	Address	Netmask	Gateway
eth0	WAN	00:30:d8:08:d2:14	<input type="checkbox"/>	192.168.0.240	255.255.255.0	192.168.0.1

**Note:** The device has an internal firewall that blocks all incoming network traffic, including Internet Control Message Protocol (ICMP) ping requests. Therefore, you cannot ping the device to test the network connectivity.

## Finish Quick start

The device is now configured to load the homepage you entered.

Therefore, you can close the setup menu to access the homepage by clicking **EXIT** in the “System Settings” view. Depending on the Web Browser configuration “On Startup”, the application launches or you need to press Load Homepage on the Settings Page.



Clear cache Load Homepage

Username  
admin

Password  
|

Back Proceed

## Open the System settings menu

The system settings menu displays after powering on the device and entering valid credentials “Username” and “Password” into the login page.

## The system settings

The main topics of configuration are listed on the left side of the system settings screen.

<b>System Settings</b> Localisation System Logs Date & Time Network Services Management Display Fonts Authentication Restart Web Browser EXIT	<b>WEB BROWSER</b>	
	Localisation	Setup the language of the device
	System	System information, Status and Timers
	Logs	Configure log file generation
	Date & Time	Configure the date and time of the device
	Network	Configure the network settings of the Ethernet interfaces
	Services	Use to enable the network bridge
	Management	Firmware updates and basic FW and booter configurations
	Display	Display setup like colors, timeouts and touch-screen calibration and more
	Fonts	Use to install additional fonts.
	Authentication	Change passwords or create SSL certificates
	Restart	Restart the main or config OS
	Web Browser	Configure the web browser properties like home page
	EXIT	Close the system settings view

# Localisation

Use to set the language used for the text in the System Settings screen only. Select the required language from the listed options.

- **County Code:**  
Select from the listed options. Required for WLAN regulatory domain.
- **System keyboard layout:**  
Use this option to change the layout of the virtual keyboard according to the required language. The default keyboard layout is American English.

**Note:** The “Localisation” option does not affect the language of any other web browser content.

# System

Parameter	Description
Info	Provide 'Device information' like: <ul style="list-style-type: none"><li>- Name</li><li>- Kernal version</li><li>- Build date</li><li>- Hardware code</li><li>- Total available RAM</li></ul>
Status	Provides device 'Status' like: <ul style="list-style-type: none"><li>- Free RAM</li><li>- Uptime</li><li>- Average CPU Usage</li></ul>
Timers	Provides device 'Timers' information like: <ul style="list-style-type: none"><li>- System on: Shows how many hours the HMI panel has been powered.</li><li>- Backlight on: Shows how many hours the HMI panel backlight has been powered.</li></ul>

# Logs

- **Persistent log:**  
Set the persistent log option if you want to maintain the log files saved after a power reset.

**Note:** The log file manager cyclically fills 3 files of 4Mb.

- **Save:**  
Use save button to export a copy of the log files. This option allows the log file(s) to be saved to an external storage device, e.g. USB device.

**Note:** Log file entries are timestamped with the HMI panel date and time settings.

## To download the log files:

- Step 1. Access the System Settings screen. Then, select Logs.
- Step 2. Select Save. The file system screen is displayed.
- Step 3. Insert a USB memory stick into one of the USB ports of the HMI panel.
- Step 4. Select the USB device (e.g. usbmemory).
- Step 5. Select Save. This will save a file called 'logs.tar.gz' to the USB device.

**Note:** The files are downloaded in a compressed format and will require a decompression tool (e.g. 7-Zip) in order to view the files.

## To view the log files:

- Step 1. Access the USB device on a PC and navigate to the 'logs.tar.gz' file.
- Step 2. Using a suitable tool (e.g. 7-Zip) open the file to reveal a file called logs.tar.
- Step 3. Open the 'logs.tar' file to view its contents.

## Date & Time

Provides access to the HMI panel date and time and to setup NTP operation if required. Currently, HMI panel only makes use of date and time settings to provide an accurate timestamp to entries in the log files.

Parameter	Description
Current Timezone	Choose the required country/timezone from the displayed options.
Current Date	Set the onboard date
Local Time	Sets the onboard clock (24-hour)
Automatic Update (NTP)	When enabled, use to specify the address of an NTP server.
Accept NTP requests	When enabled the date and time will be synchronised to the remote NTP server.

# Network

Tap **Network** to configure the network parameters. Available parameter in edit mode are as follows:

Parameter	Description
General Settings	Device hostname Avahi Hostname
Network Interface	Network parameters of the available interfaces - Name (eth0, eth1 or eth2) - Label (WAN , LAN1 or LAN2) - MAC Address - DHCP (enabled or disabled) - Address - current IP address - Netmask - current subnet mask - Gateway - network gateway IP address - Bridged - network bridge address  For more details refer to the Configure the Network interface section.
DNS	DNS Servers Generally provided from the DHCP servers, but can be modified in edit mode  Search Domains Optional domains that will be used in concatenation with the provided urls.

# Services

This screen allows the Bridge/Switch Service to be enabled and configured. Using this service it is possible to connect together the primary WAN (eth0) network adapter with the secondary network interfaces (eth1 and eth2).

When enabled, the secondary interfaces (eth1 and eth2) share the same IP address as eth0, and any devices connected to eth1 and eth2 behave as though were directly connected to eth0.

- Enabled: Off (default)/ On (default).
- Type: SW Bridge (br0) is the default and only option.
- Network Interfaces: eth0, eth1, eth2 - select which Ethernet ports are active.

# Management

From the management area, it is possible to Update System Components of the WEB-HMI device.

**Caution:** Working in the Management area is a critical operation and, when not performed correctly, may damage product, requiring service of the product. Contact technical support for assistance.

Use the "Clear" command inside the "Data" section to remove HMI Runtime from the device (Factory Restore).

# Display

This option enables user to set various characteristics of the display to be changed:

Parameter	Description
Brightness	Adjust the backlight level between '0' (minimum) and '10' (maximum) by touching a position along the Brightness bar or by using the + or - buttons.
Back light timeout	Adjust the backlight timeout period between 'always on' and '60 minutes' (in 1 minute intervals) by touching a position along the Backlight timeout bar or by using the + or - buttons.
Orientation	If required, select a different Orientation from the displayed options.

**Note:** Changing the orientation will ask you to confirm the new setting and will require the HMI panel to reboot before the new orientation to take effect.

# Fonts

Lists the fonts installed on the HMI panel and allows other fonts to be installed.

- Standard Fonts: This area lists all fonts that are included as standard - these cannot be removed.
- Custom Fonts: Shows any user-installed fonts. You can install/remove new fonts from here.

## Install additional fonts

Step 1. Select  (+ sign) to add a new font. The following dialogue box is displayed:



Step 2. Select Browse. The following screen is displayed:

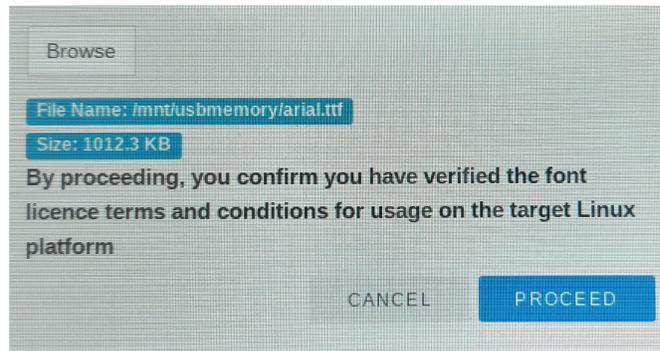


Step 3. Insert a USB memory stick (containing the required font(s)) into one of the USB ports on the lower edge of the HMI panel and wait for the device name (e.g. usbmemory) to appear on the screen.

Step 4. Double-tap the USB device name.

Step 5. Locate the required font file and select it.

Step 6. Select Ok. The following screen will be displayed:



Step 7. Select PROCEED. The selected font will now be installed on HMI panel.

**Note:** Each style of a font (e.g. regular, bold, italic, bold italic, etc.) requires a separate font file.

Step 8. Unplug the USB device when finished.

## To remove a custom font

Step 1. Access the System Settings screen.

Step 2. Select Fonts.

Step 3. Select Custom Fonts to view a list of any additional installed fonts.

Step 4. Locate and select the font to be removed.

Step 5. Select  (- sign).

Step 6. When prompted to delete the selected font, select OK.

## Authentication

Enter in edit mode to change the authentication passwords.

## Restart

Enables HMI device to be restarted in either of the following modes:

- Config OS: Select to restart the HMI device in special configuration mode. Do not use this mode unless requested by Technical Support team.
- Main OS: Select to restart the HMI device as it would normally behave on power up.

## Web Browser

This option enables user to configure the behaviour and display options for the HMI device.

**Note:** This menu option is not accessible when viewing System Settings via the 'tap-tap' method.

Parameter	Description
On Startup	Defines the behaviour of the HMI panel on power up or following a restart. This can be set one of the following: <ul style="list-style-type: none"><li>- Open settings page: The login page is displayed. After a successful login the System Settings screen is displayed.</li><li>- Continue where you left: Option not supported.</li><li>- Open homepage: The specified Homepage is displayed. The HMI panel login page does not appear.</li></ul>
Homepage	The primary web page to be displayed when On Startup - Open Homepage is selected, or when Load Homepage is selected from the login screen. For example: <a href="https://192.168.0.85">https://192.168.0.85</a>
Fallback page	If enabled, this allows a secondary webpage to be specified which will be displayed if the Homepage is unavailable.
Enable toolbar	If enabled, this displays a toolbar along the top edge of the display, providing access to the login screen or allowing a different web page to be entered. The following options are also available when the toolbar is enabled: <ul style="list-style-type: none"><li>- Show toolbar only on error: If enabled, the toolbar will only be displayed if there is a problem displaying the specified Homepage or Fallback page.</li><li>- Show history buttons: Not supported.</li><li>- Show loading controls: Not supported.</li></ul>
Allow downloading files	Not supported.
Options press-and-hold time (s)	Sets how long you need to touch and hold the top left corner of the screen to access the System Settings from the Web Browser.

<b>Parameter</b>	<b>Description</b>
Change UserAgent	If enabled, a user agent can be specified (e.g. Android) to ensure the Homepage is displayed correctly.
Use system virtual keyboard	Enables or disables the onscreen virtual keyboard. Once the “Virtual keyboard” option is disabled, the only way to enter text will be by using a keyboard connected to one of the HMI panel USB ports.
Enable password management	When enabled, the web browser will prompt the user to save any passwords entered for the connected site. The next time that the user accesses the site HMI panel will auto fill the saved password. Changing this setting requires a restart.

## Exit

Exit from the System Settings.

# FACTORY RESET

## Factory reset

Device restore deletes all configuration items and all customer data on the device, except installed firmware and application updates.

## Reset Procedure

- Step 1. Power cycle the device
- Step 2. Keep tapping the touch screen until "TAP-TAP DETECTED" appears on the top of the screen.
- Step 3. Remove the finger from the touch screen. The ">>" is pointing to "SYSTEM SETTINGS".
- Step 4. Wait 5 seconds until "\*\*\* ENTERING SYSTEM SETTINGS \*\*"
- Step 5. Touch and hold the screen. The ">>" is pointing to "DEVICE RESTORE".
- Step 6. Hold the touch screen until the device starts resetting.

## Create the recovery USB device

Format the device with a FAT32 filesystem and copy the complete file "un6x-chromium-xx-x.x.zip" onto the USB Flash Drive.

## UPDATES

Always ensure that all components of the system run the latest firmware and software components. See Firmware Update section.

### Firmware Update

The product has four firmware elements that can be updated.

- BSP, Bootloader, ConfigOS and MainOS
- Application, the Chromium Browser

Always ensure that the latest BSP and Application is installed on the product.

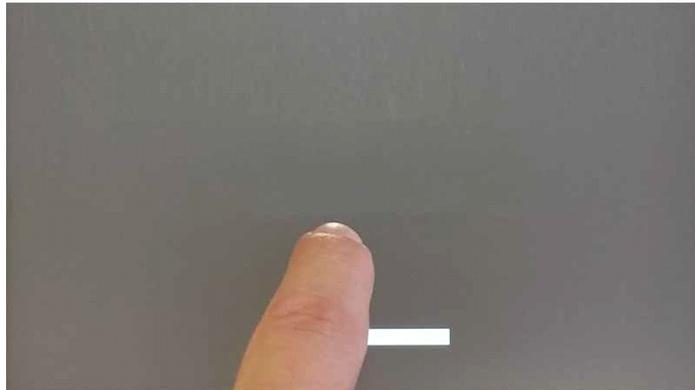
### Updating the BSP

1. Put the new BSP firmware files into the root directory of a FAT formatted USB Stick.
2. Enter ConfigOS.  
There are two ways to enter ConfigOS to update the BSP components.
  - a. Via Admin Area
    - i. Enter the Admin Area.
    - ii. Open Restart tab on the left side.
    - iii. Select "ConfigOS" and confirm reboot.
  - b. Power cycle device
    - i. Power cycle the device.
    - ii. Keep tapping the touch screen until "TAP-TAP DETECTED" appears on the top of the screen.

- iii. Touch and hold the screen. The ">>" is pointing to "RESTART: ConfigOS".
  - iv. Do not lift the finger until the panel starts rebooting to ConfigOS.
3. Authentication with admin user.
  4. Open tab "Management".
  5. Click the "Update" button in the section "Bootloader", "Config OS" and/or "Main OS" to start the update process of the corresponding part.
  6. Insert the USB stick. Until the product beeps. Then press the "Browse Image" button.
  7. Browse to "usbmemory" and select the image to install.
  8. Press "Proceed" to install the update.

## Updating the Chromium Application

1. Put the new application files into the root directory of a FAT formatted USB Stick.
2. Boot into System Settings
  - a. Power cycle the device.

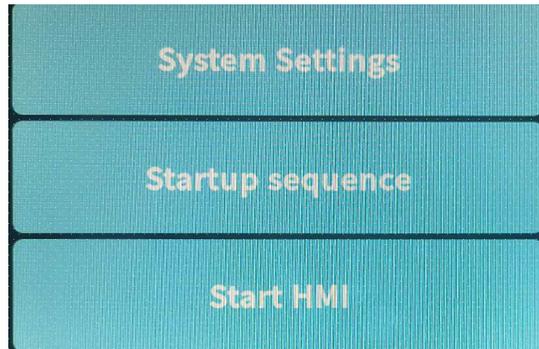


- b. Keep tapping the touch screen until "TAP-TAP DETECTED" appears on the top of the screen.

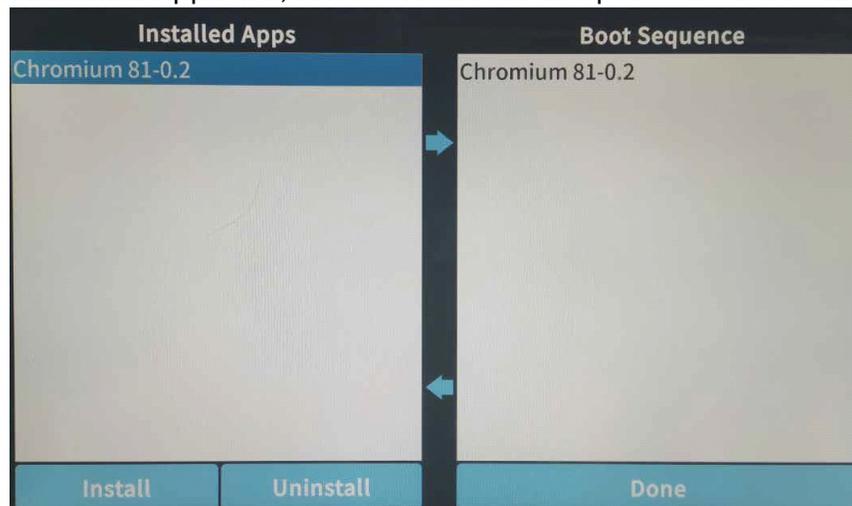


- c. Wait until the product boots into "System Settings".

3. Press the "Startup Sequence" button.

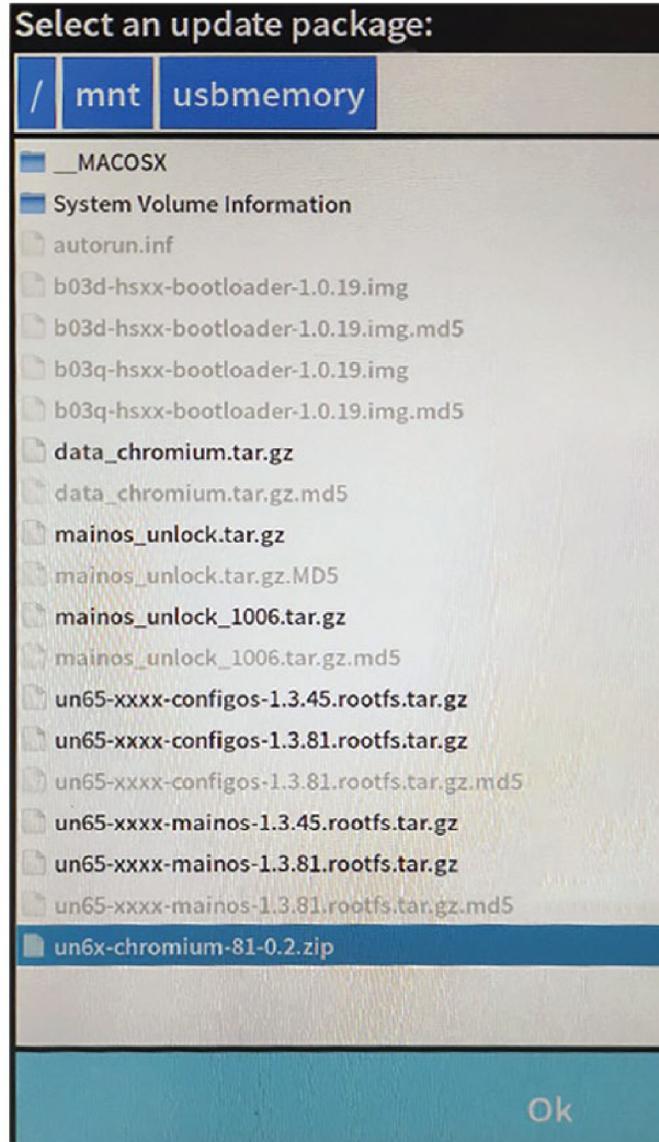


4. Authentication with admin user.
5. Open tab "Management".
6. On the "Installed Apps" list, select Chromium and press the uninstall "Button".



7. Insert the USB stick. Until the product beeps. Then press the "Install" button.

8. Browse to "/mnt/usbmemory" location and select the image to install "un6x-chromium-xx-x.x.zip".



9. After the installation is complete press the "Done" button to execute the restart sequence.

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