

VOR-15.6-M-A HMI Flush Mounted Touch Screens User Manual and Datasheet

Suitable for iSMA MAC36, EasyI/O, JACE, TREND, DEOS, Cylon, Innotech Omni and devices with html5.0 web pages



Revision Issue

Rev	Date	Comments
1.0	15/05/2021	Original Issue
1.1	21/05/2022	Minor Amendments

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Introduction

The **VOR-15.6-M-A** HMI touch screen has been developed for use where BMS or PLC controllers have the capability to use HTML5 graphics.

Construction is a mild steel case with an aluminum alloy bezel, powder coated in matt black finish allowing it to be flush mounted on a panel door or on a wall surface.

A capacitive touch membrane sits in front of the LCD screen to provide the touch co-ordinates

Warranty

Vorex screens and all components are guaranteed for 12 months from the date of purchase. Vorex Screens Ltd will replace any screen which is found to be faulty during this period providing it has been used and installed correctly in accordance with the instruction included in this document

Before returning a screen email sales@vorexscreens.co.uk for a *Returned Material Authorisation* (RMA) which should be completed in full and returned with the screen. Vorex Screens Ltd are not responsible for the costs of the returned items

Vorex Screens Ltd reserves the right to repair or replace a faulty screen at their sole discretion.

Returns for Credit

Items correctly supplied will be accepted for re-stocking subject to an inspection on return and any c

redit due will be as follows:

- Un-opened and in original undamaged packaging – less 15%
- Opened and in original undamaged packaging – less 25%

Items supplied as part of a special order or non-stock screens will not be accepted back for credit

Operating Specifications

Ambient temperature:	-10°C to 60°C
Ambient humidity:	40% - 65%rH
Transport/Storage Temperature/Humidity:	-20°C to 60°C / 35% - 80%rH
Working Temperature:	0 – 45°C
Rated Voltage:	100Vac to 230V to 12Vdc, 2 part lead and adaptor
Rated Frequency:	50Hz to 60Hz
Rated Current:	5Amp

Technical Specifications

Screen Size:	15.6" LCD IPS Panel
Maximum Resolution:	1920 x 1080
Viewing Angle:	89/89/89/89
Colour Brightness:	16.7M
Contrast Ratio:	600:1
Brightness:	300cd/m2
Aspect Ratio:	16:9
Response Time:	5mS
Built-in speakers	3W *2
O/S:	Android 8.1
CPU	RK3399, Dual Cortex A72+Quag Cortex A53, 64bit, 2.0GHz
Storage	16GB EMMC
Memory	DDR3 2GB
External Storage:	Up to 64GB SD/TF card extension, also supports SATA driver extension
Wi-Fi	High performance Wi-Fi 802.11b/g/n. Can be completely removed if required.
I/O Port	2x USB2.0, 2x RJ45, 1x WiFi, 1x SD
Case Material	Metal Case, Steel/Aluminum
Case colour	Standard colour = black
Approvals and Listings:	CE, FCC, FOHS

Mounting Dimensions

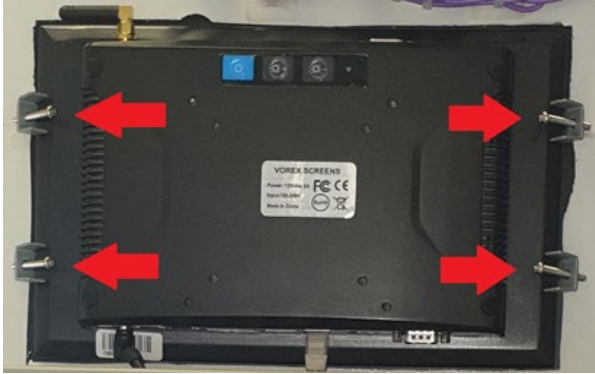
Flush Mount through panel door

Hole Cut Out Size:	400mm (w) x 250mm (h)
Overall Screen Size:	420mm (w) x 250mm (h)

Surface Mounting

	Requires VESA Mount (optional Extra)
Overall Screen size:	420mm (w) x 250mm (h) x 70mm (d)

Flush Mounting



The **VOR-15.6-M-A** is mainly installed in panel mounting mode. This requires cutting a hole in the panel door corresponding to the sizes given in the table above.

Once the screen has been offered up into the panel cut out, 4x clips are supplied to secure the screen in place. It is easier if two people carry out this operation See figure left

Alternatively, the **VOR-15.6-M-A** can be surface mounted using a suitable VESA bracket. 4x mounting holes are provided in the rear of the screen to secure the bracket.

Do not use any other screws than those supplied as they may damage the PCB motherboard.

If surface mounted the front of the screen will be 70mm from the fixing surface

Default Setup:

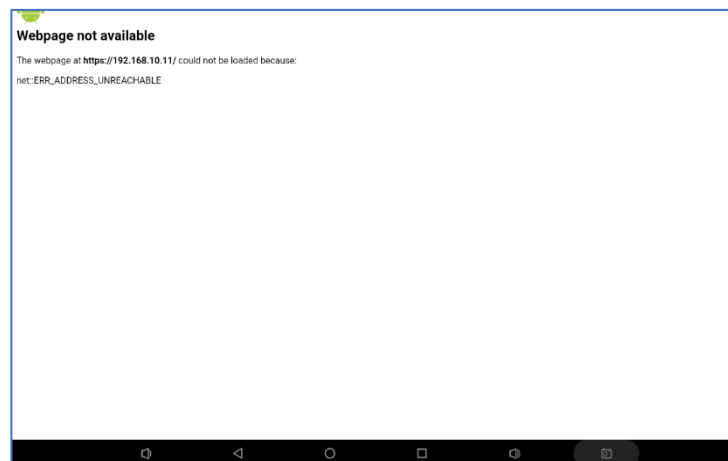
The screen is supplied with a pre-installed VOREX app.

The default settings of the screen are:

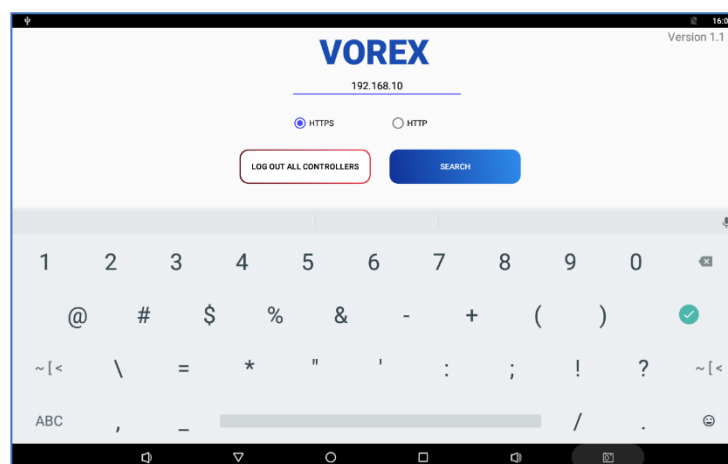
Screen IP Address:	192.168.10.20
Gateway Address:	192.168.15.6
Subnet:	255.255.255.0
DNS 1:	8.8.8.8
DNS 2:	8.8.4.4

On power up, the screen will attempt to connect to the target device set in the Vorex app (default 192.168.15.61)

If this target device does not exist, the connection will fail, and the following error message will appear



To overcome this, touch all five fingertips on one hand, to the screen and quickly release which takes you back to the Vorex App



Changing the Target IP Address

The screen will then return to the Vorex app as above

- Press the “log out of all controllers” button
- Reset the target device IP address
- Select the *HTTPS* or *HTTP* radio button and then press *Search*
- The app will then locate and connect to the target device
- The screen will be locked to the Vorex app and the Android menus will be disabled.

To return to the Vorex App screen repeat the “5 Fingertip press” action again.

The Vorex app retains the last entered IP address so to change it, position the cursor at the righthand end of the address, then press the back space key to delete the required numbers

Then enter the new address and press *Search*

Normal Start Up

After the initial setup if the screen is powered down at any time, the device remembers the last settings. When power is re-established it will re-connect to the target device.

After about 20secs a Vorex blue banner app will appear on the desktop along with the standard default Android apps.

Wait a further 15secs (approx.) and the Vorex App will find the target device (default 192.168.15.61) and connect.

Each time the screen is powered up it will always look for the default controller IP Address. The boot up time may vary slightly but is approximately 20/30 seconds. The screen will boot up faster than the controller, so you may need to run the VOREX app again once the controller has fully booted

(Note: this is being addressed in a new version of the Vorex app which is in development at this time. The new version when available will have a default scan time which can be pre-set in the Vorex App. It will continuously scan for the target device until it is found and the connection is established or it times out and the error screen will then appear)

Changing the Screen IP Address:



In the main Android home screen, locate the Settings icon (gear symbol)
Click on this icon and select *Network and Internet > Ethernet > Ethernet IP Mode > Static*

Please note the IP address settings are only displayed when a network connection is made via a Ethernet cable, otherwise 0.0.0.0 will be displayed in the IP Address.

The default IP settings are as per the table displayed on page 6.

Adding Kiosk Apps:



It is possible for the user to install their own Apps, use the Android APKInstaller program (see icon left) on the Home screen to do this

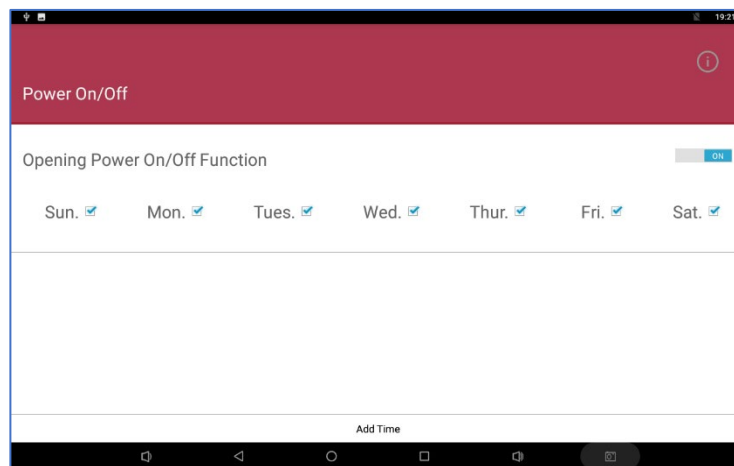
Warning: Before installing any other kiosk apps, remove both the Vorex app and the MobiLoc apps first. Failure to do this may result in the screen being locked and you may then be unable to get either to work or uninstall. This will not be covered under warranty

After removing the Vorex and MobiLoc apps, install the new one using a USB flash drive and follow the Apps installation instructions. Please note Vorex Screens will not provide support for 3rd party Apps.

Timer Auto On/Off and Multi-Function Clock:



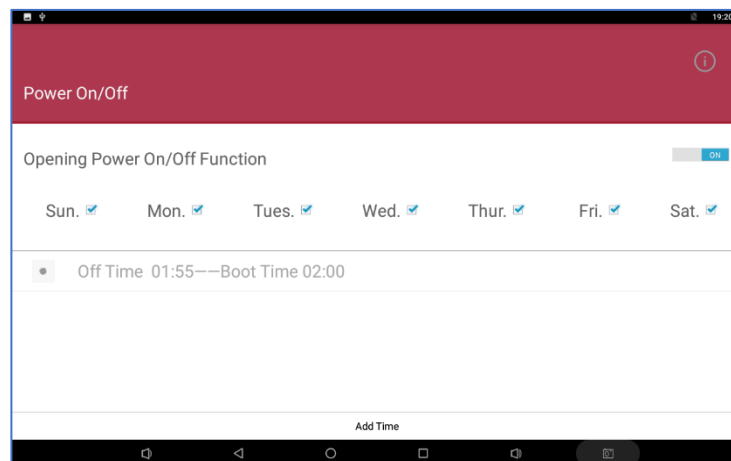
The Android Home page has a MultiFunctionClock app with the icon left. This function allows the user to specify times/days when the screen will power down. It has a 7day facility, Sun to Sat. Tap to start the App



To turn the Power on/Off function off, use the selector switch at the top left. Note: you cannot turn it off if there are times set.

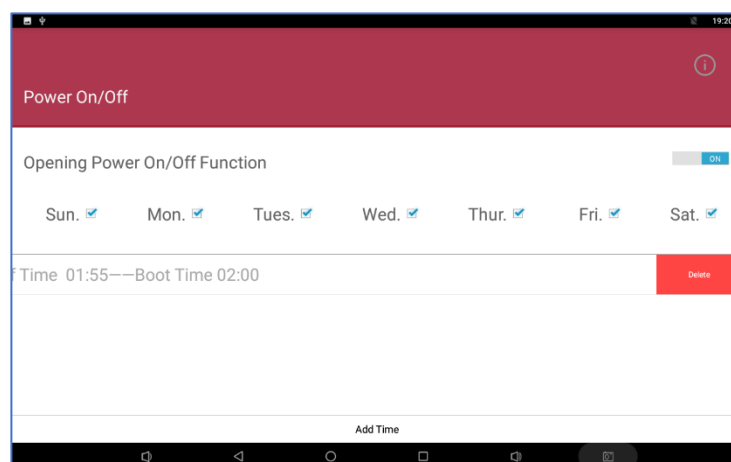
Select which days you want the function to work by ticking or unticking the respective days

- To add an On/Off time, select the *Add Time* at the bottom of the screen
- Select the OFF Time and the corresponding Boot time (ON), press *Add Time*



To remove a Off/Boot time

- Touch and hold the the time to be deleted and wait a second or so until the line is highlighted
- Then swipe left whilst still touching the screen



- The delete button will appear to the right, press *Delete* and the Off/Boot time will disappear

Remember to set the screens time and date up correctly before you use this app otherwise you may find the screen powers down during normal working hours.

Changing the Screen Time/Date:



In the main Android home screen, locate the Settings icon (gear symbol)

Click on this icon and scroll down the page to

System > Date & Time

Unless connected to a time server, turn off the following settings:

- *Automatic Date & Time*
- *Automatic Time Zone*

then,

- Set the date
- Set the Time
- Set the correct time zone
- Set the display option 12hr or 24hr

Return to the main menu

MobiLoc (Screen Lock) App

The screen is supplied with a screen locking app called MobiLock. This allows the installer to lock all unwanted apps from being accessed by other users. The default password is 2323

This is a 3rd party app and is not supported by Vorex Screens Ltd

Be Aware: if you change this password and forgot what it was, **we cannot help you.**

Screen Saver/Sleep Mode

Do not use this function.



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