

VOR-15.6-M-A Touch Screen

User Manual and Datasheet

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

For VOR-15.6-M-A flush mount screens



Screen front view



Screen rear View

Revision Issue		
Rev	Date	Comments
2.0	15/05/2022	Original Issue
2.1	03/07/2022	Changes to Vorex App

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Introduction

The HMI touch screen has been developed for use where BMS or PLC controllers have the capability to use HTML5 graphics.

Construction is a hard plastic case with matt black finish. An optional high polished black edge trim can be added to allow it to be flush mounted on a panel door or 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 credit 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%
Transport/Storage Temperature/Humidity:	-20°C to 60°C /35 – 80%
Working Temperature:	0°C to 45°C
Rated Voltage:	AC100V to 230V to 12VDC, 2-part lead and adaptor
Rated Frequency:	50Hz to 60Hz
Rated Current:	5Amp
Technical Specification	
Screen Size:	15.6" LCD IPS Panel
Maximum Resolution:	1920 x 1080 pixels
Viewing Angle:	89 / 89/ 89 /89
Colour Brightness:	16.7M
Contrast Ratio:	600:1
Brightness:	300cd/m ²
Aspect ratio:	16:10
Response Time:	5ms
Built In Speakers:	3w x 2
CPU:	RK3399E, 2.0GHz Cortex A72, Cortex A53
Storage:	32GB
Memory:	4GB
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 supplied without (Special order)
I/O Ports:	2x USB, 2x RJ45, 1x HDMI, 1x USB-C OTG
Case Material:	Aluminium
Colour:	Black (Standard)
Operating System:	Android 9
Approvals and Listings:	CE, FCC, FOHS

Mounting Dimensions:	
Flush Mounting through panel door	
Hole Cut Out size:	385mm (W) x 234mm (H)
Overall Screen Size:	420mm (W) x 289mm (H)
Surface Mounting	
	Requires VESA mount (optional)
Overall Screen Size:	420mm x 289mm x 62mm

Flush Mounting

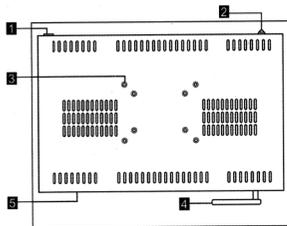


The **VOR-15.6-M-A** is primarily installed in panel mounting mode.

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 picture left)

Surface Mounting



- 1 Switch Power
- 2 Power LED lights
- 3 VESA hole
- 4 WIFI Antenna
- 5 Interface panel

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.

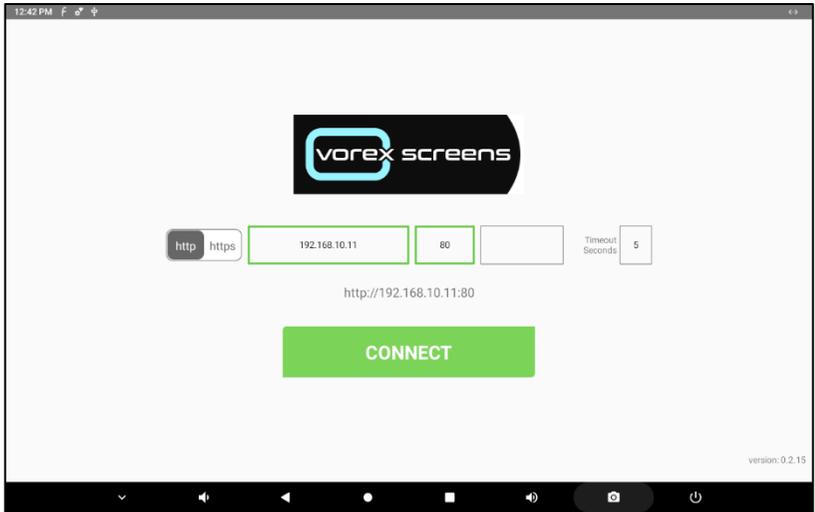
Do not use any other screws than those supplied as they may damage the PCB motherboard.

If surface mounted the front of the screen will be approximately 50mm from the fixing surface.

If the panel is to be shipped, we strongly recommend the screen is removed and packed in its original box inside the panel and then refitted on site.

A protective film is also applied to the screen surface. This should only be removed when the system has been handed over.

Vorex App



This is the latest Vorex App, compatible with Android v9 onwards

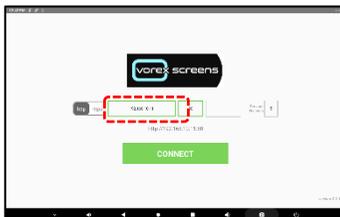
You now have the following options:

http/https:



http/https – this determines the network connection type. *Hypertext Transfer Protocol Secure* or https is used for secure communication over a computer network using a SSL certificate, *Hypertext Transfer Protocol* or http lacks this security level.

IP Address:

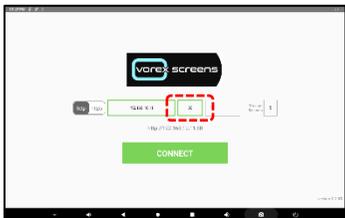


The default is:

192.168.10.11

but this can be changed at any time by returning to this screen, tap in the address box (keypad should appear) and then just enter the new target address.

Port Number:



This is the default port the connection will use.

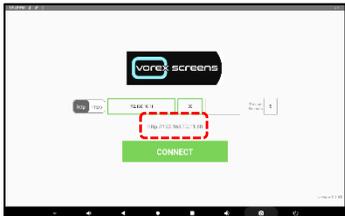
To change it, return to this screen, tap in the box and when the keyboard appears, enter the correct number.

Parameters Field



This is a new feature.

If additional parameters are required other than IP address and Port number, enter these in this box, e.g. /ng/



The complete target URL will then be displayed below, e.g.

192.168.10.11:80/ng/

Or similar

Timer Seconds:



This is a new feature.

This is the time delay, in seconds, for the connection to be established to the target device. This needs to be set to a sensible time relative to your target device e.g. a heavily loaded JACE may take 3 or 4 minutes or more

to fully boot so set this value accordingly

Connect Button:



When you are ready to connect, tap the *Connect* button and one of two things should happen.....



First, the “Connecting...” with a rotating symbol will appear.

This will continue until either the target device is found and the connection is established



or

The error message, left, appears.

This is because the target device couldn't be found before the timeout expired.

At this point you will need to check

- the target device is powered up and has fully rebooted
- the connection details for both the target IP and the screen, are correct
- the cable is OK

then try again

To return to the Vorex App, just touch 5 fingertips (from the same hand) briefly on the screen and remove

Default Screen Settings & making changes:

The default settings of the screen are:

Screen IP Address: 192.168.10.20

Gateway Address: 192.168.10.1

Subnet: 255.255.255.0

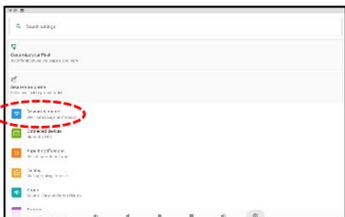
DNS 1: 8.8.8.8

DNS 2: 8.8.4.4

To change these settings, it is necessary to disable the Kiosk App (page 14) first, so you can return to the main Android screen below



Click on the gear wheel icon



Which will take you to the *Settings* page

Then click on the Network & Internet icon

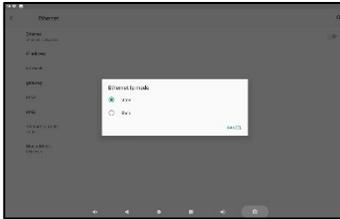


Then click on the *Ethernet One* link



Make sure Ethernet is Enabled

Then click on *Ethernet IP Mode*



Select *Static* as the *Ethernet IP mode*



The default IP Address settings will appear, but only if connected to another network device.

Select the settings you want to change, use the back space to remove the characters and then enter new details.

When you get to the DNS1 entry, you will need to press the green > to get to the DNS2 line

Kiosk Mode

Due to changes in the security of Android 9, it has been necessary to remove the AutoStart and screen locking functions in the original Vorex App.

Google are very keen to prevent apps containing a screen locking function from running on Android for very simple and sensible reasons, if you were to download a rogue app, it could lock your device completely and prevent it from being accessed until a fee (or ransom!) was paid. Even rebooting the device wouldn't help as it would just restart in the same app each time.

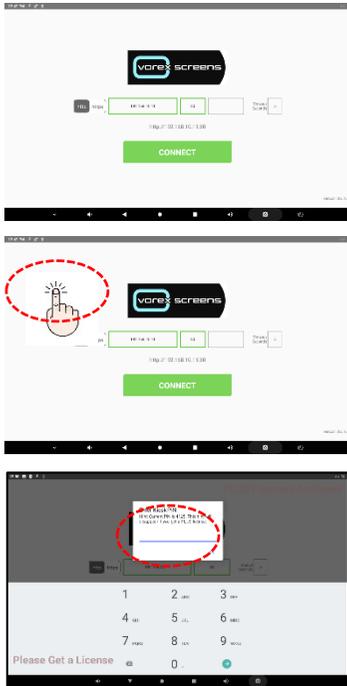
So, to still have the screen lock function it is necessary to put the device into a Kiosk mode which will only allow the nominated app to run, in this case the Vorex App. This is how the device is supplied as default.

The app we use is called the **Fully Single App Kiosk** and is supplied as a fully licenced version.

Initial Start Up/Disabling Kiosk Mode

As supplied the device will default to the Vorex App which will start and attempt to connect to the target device.

If the connection fails because the address settings are incorrect and the setup needs to be changed, proceed as follows:



Return to the Vorex App screen, you may need to wait until the error screen appears and then using 5 fingertips (same hand) touch them briefly on the screen and remove. The Vorex App screen should appear.

In a blank part of the screen, using your forefinger, tap very rapidly 7 times and the Kiosk Pin dialogue box will appear.

If it doesn't, repeat and tap faster....!

Enter the Kiosk PIN and press OK.

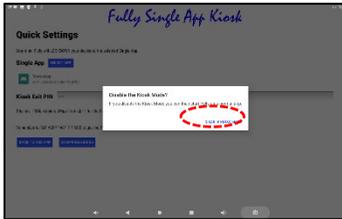
The default PIN is 4125.

DO NOT give this information to your customers as it will allow them to unlock the Kiosk App and change, modify or even un-install apps.

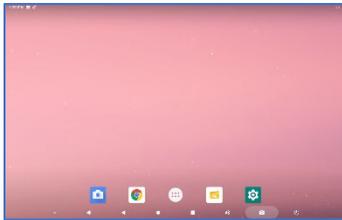
Fixing issues caused by this will not be covered under warranty and may require the screen to be returned to us for a complete reset.



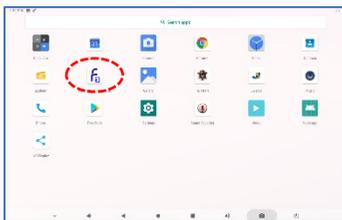
Press *Stop Kiosk Mode*



Then press *Disable Kiosk Mode*



Which will return you to the main Android screen where you can follow the section **Default Settings and making changes to these** to change the screen setup or swipe up from the bottom of the screen to get to the apps screen



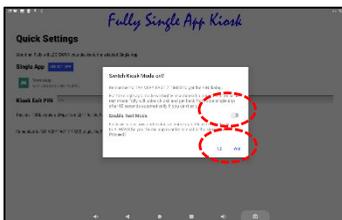
To return to the Kiosk Mode and the Vorex App, go to the apps screen (left) and select the *Fully Single App Kiosk* icon



To change the Kiosk PIN, tap in the Kiosk Exit Pin box, delete the current PIN and enter the new one

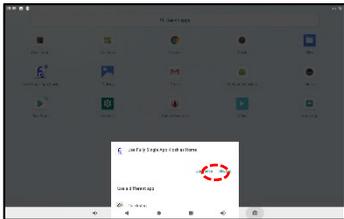
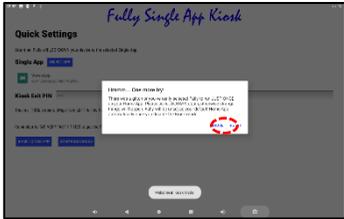
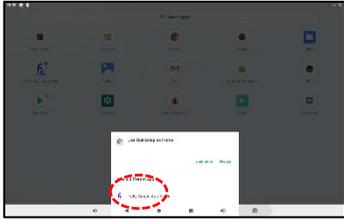
If you forget it, the device will have to be returned to us to be reset.

If keeping the default PIN, tap the *Start Kiosk Mode* button



Leave the *Enable Test Mode* switch off, wait a few seconds and the *Yes* option will appear.

Press *Yes*



Next select the default homepage.
 To do this slide the box up slightly and select the **Fully Single Kiosk App**
 Do not select the Quick Step option otherwise you'll have to start again.

The previous option doesn't allow you to select Always at the same time as the **Fully Single Kiosk App** so this is just a reminder to do that
 Click **RETRY**

Check that **Use Fully Single App Kiosk as Home** is displayed at the top
 Then click **Always**

Which then returns you to the Vorex App.

Adding Kiosk Apps

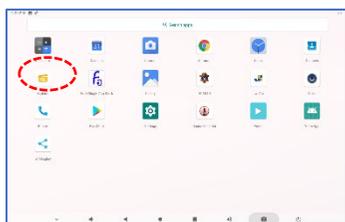
It is possible for the user to install their own Apps.

Warning: Before installing any other kiosk apps, remove both the Vorex app and the Fully Single Kiosk 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.

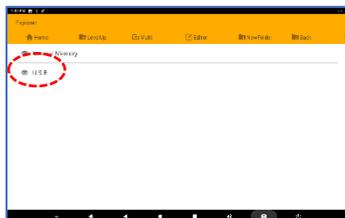
This will not be covered under warranty

Please note Vorex Screens will not provide support for 3rd party Apps.

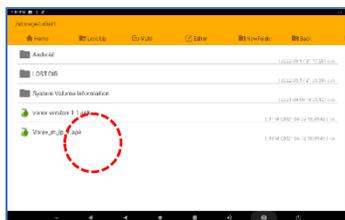


If you have the .APK file then load this onto a USB flash drive and place in one of the USB ports.

Select **Explorer**



Then select **USB Drive**

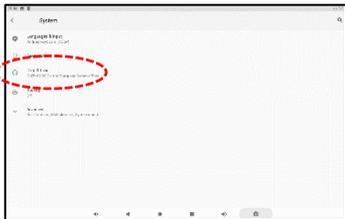


Then select the App you want to install and follow the on screen instructions

Changing the Screen Date/Time



Return to the main menu page and swipe down until you see **System**.



Select the **Date and Time** Option



Unless connected to a network with a Time Server disable the **Use network provided time** option, then,

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

Return to the main menu.

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