## primeTOUCH flat IR Touch Overlay



#### Manual Version 1.0

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## 1. General Information

## **1.1 Explanation of symbols**

The symbols used in this technical description are explained below.



This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included. Therefore, it must be read carefully and strictly be observed. Failure to comply with this information results in injuries to persons or damage to the equipment.



This symbol warns the user that uninsulated voltage may have sufficient magnitude to cause electric shock. Therefore, it must be read carefully and strictly be observed. Failure to comply with this information results in injuries to persons or damage to the equipment.



Notice! This symbol indicates text passages containing important information.

## 1.2 Preamble

The primeTOUCH flat products has been developed and manufactured with the highest care and attention. However, improper handling can cause a risk for safety and / or damage. Read these instructions carefully before handling and installing the product so that you can safely enjoy your device.



Note: This user's manual is an addendum to the standard user's manuals of the basis NEC LC displays listed in 4.3 Specifications. Read the original Manuals carefully for all adjustments regarding the basis LC displays. The manuals can be downloaded from <u>www.exactsolutions.de</u>



Note: The room light sensing function of the basis NEC LC display cannot be used if a primeTOUCH overlay is mounted, so the device is not able to make automatic adjustments to the backlight setting.

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## 2. Safety instructions

## 2.1 Warnings

This manual must be handed over to the persons who install and operate the product. Please read the manual and all instructions carefully. If you ignore the safety instructions in this manual, humans may be seriously injured or there is a possibility of an accident or death. Installation, handling, service and other similar actions must be carried out by qualified persons! Qualified persons, hereinafter referred to as "qualified persons", are specialists such as electricians and specialist personnel with equivalent or higher qualifications.





Warning: This user's manual is an addendum to the standard user's manuals of the basis NEC LC displays listed in 4.3 Specifications. Read the Safety Instructions written in the original Manuals carefully, humans may be seriously injured or there is a possibility of an accident or death.



Warning: Do not open the monitor. There are no user serviceable parts inside and opening or removing covers may expose you to dangerous shock hazards or other risks. Refer all servicing to qualified persons



Warning: Do not bend, crimp or otherwise damage the provided cables. Damage to the cables may cause shock or fire.



Cable Information CAUTION: Use the provided specified cables with this product so as not to interfere with radio and television reception. For USB please use a shielded signal cable with ferrite core. For HDMI, DisplayPort and D-Sub 9-pin, please use a shielded signal cable. For Audio, please use a signal cable with ferrite core. Use of other cables and adapters may cause interference with radio and television reception.



Warning: Do not place heavy objects on the screen as this could cause scratches on the front glass or front glass can even break. This can lead to serious injury or death.



Warning: Installation, operation and maintenance only by trained fully qualified persons.

- Use the rated voltage only. The product can be damaged or persons may be electrocuted or injured.
- Be careful not to step or place heavy objects on the power or USB cord. Be careful not to damage the power or USB cord with sharp objects, by bending, stretching, cutting or similar. Damaged power cords may cause a fire or electric shock.
- Never disassemble, repair or modify the primeTOUCH flat or any accessory. This may cause serious accidents or death. Contact your vendor if you are in the need of support.
- Prior to every installation, check all mounting threads and ensure correct function. If a damage or defective function is detected contact your vendor for service.
- Keep away from heat sources like heaters. Electrical shock, fire, malfunction or deformation may occur.
- Keep the packing anti-moisture material or vinyl packing out of the reach of children. This material is harmful if swallowed. Vinyl packing can cause suffocation.
- If smoke can be smelled/detected or if you hear a strange sound or anything else that is uncommon, disconnect the device from mains power. For example, by



unplugging the power or USB cord. Contact your vendor. If usage is continued, electrical shock or fire can occur.

- Do not drop an object or apply strong forces to the product. It can cause injury to humans and damage the product.
- Do not use the product outdoors. This product is made only for indoor usage. Using it outdoor can cause serious accidents and property damage.
- Do not expose the primeTOUCH flat to water or moisture to prevent any damage and danger.
- If water or any foreign substance goes inside the product, disconnect the mains power immediately and contact your vendor. Otherwise, this may cause a fire or electric shock due to damage to the product.
- If you install the product in a place that does not meet the recommended conditions, this may cause injuries to humans and cause serious damage to the product's quality, life cycle, and appearance. This caution applies to places where there is an abundance of fine dust or oil mist, chemical substances are used, infrared light sources or direct sunlight are pointed at the front glass, the temperature is very high or low or the humidity is very high. This kind of conditions will invalidate the warranty.

## 2.2 Risk Situations

Risk of injury due to the possibility of falling objects during the set up or dismounting of the primeTOUCH flat product in heights from 1,60m.

- Protection objective: avoid injury from falling parts.
- Wear appropriate safety shoes, gloves and helmet.
- Make sure the area under the product is clear during installation and no persons are present.

## Risk of injury due to the possibility of falling parts or objects during set up or dismounting the product.

- Protection objective: avoid injury or product damage from falling parts.
- Never unscrew parts of the primeTOUCH flat that are mounted in delivery condition.
- Make sure the persons that install the primeTOUCH flat are aware that there is no need to unscrew or disassemble anything that is mounted in delivery condition.

## Risk of hitting the head with the primeTOUCH flat product during set up or dismounting process.

- Protection objective: avoid injury from hitting the head.
- Wear a helmet if product is installed at heights from 1,60m

## Incorrect installation may lead to certain parts of the primeTOUCH flat product or the entire primeTOUCH flat product to fall down.

- Protection objective: prevent personal injury and property damage.
- Double check the primeTOUCH flat and its installation.

## Insufficient load capacity of the supporting structure may lead to certain parts of primeTOUCH flat product or the entire primeTOUCH flat product to fall down.

- Protection objective: prevent personal injury and property damage.
- Provide adequate dimensioning of the supporting structure. The supporting structure must be able to support the combined weight of all the equipment attached to, or hung from it.
- Ensure correct installation of the supporting structure.

# Only use correct mounting material to attach the primeTOUCH flat product to the supporting structure (wall, ceiling, truss etc). Otherwise parts or the whole system may fall down.



- Protection objective: prevent personal injury or property damage.
- Only use correct mounting material such as screws, screw anchor etc depending on the given circumstances.

## The fingers or the hand of the user can be caught between movable parts during installation, maintenance or service work

- Protection objective: prevent personal injury.
- When the product is mounted to the supporting structure be careful to avoid personal injury. Wear safety gloves.

# Risk of injuries by broken glass. The front side of the primeTOUCH flat product is made of glass. If the glass breaks, the persons who are doing service work or may cut themselves with parts of a broken glass.

- Protection objective: prevent personal injury from broken glass.
- Be careful while handling and always wear safety gloves.

#### Risk of injury or death by electrical shock.

- Protection objective: Prevent personal injuries or death.
- If the housing of the device is opened, parts that can cause an electrical shock are accessible
- Do not open the housing, there are no user serviceable parts inside, if service work must be done contact your vendor.

#### Risk of injury or death by electrical shock.

- Protection objective: Prevent personal injuries or death.
- If the housing of the device is damaged, deformed etc. there is an increased risk that the inside is also damaged. Persons who touch the housing might get an electrical shock. This endangers all persons who might touch a damaged product.
- When there is any damage, disconnect power supply of the device by qualified persons. Contact vendor / service partner.

#### Risk of injury, product damage or incorrect functionality.

- Protection objective: prevent personal injury, product damage and incorrect functionality.
- Using non original spare parts may lead to incorrect functionality, broken devices or injury of humans. These spare parts could be for example screws or cables. This endangers persons who are near the product and could be caused by falling objects, electrical shock etc.
- Avoid incorrect functionality or product damage or injury of persons by only using original spare parts.

#### Disposal.

- Protection objective: avoid incorrect disposal and risk for humans and nature.
- Disposing the product needs to be done correctly following local laws and regulations. Wrong disposal endangers mankind and nature.

#### Risk of product damage or injury by wrong cleaning procedure.

- Protection objective: prevent personal injury and product damage.
- Incorrect cleaning procedure / treatment causes a risk for personal injury and damage to the device.
- The primeTOUCH flat product shall only be cleaned with a soft cloth and with nonaggressive cleaning supplys like LCD cleaner.
- Do not immerse into water

#### Risk of incorrect functionality.

- Protection objective: Avoid incorrect functionality.
- primeTOUCH flat works with infrared light, infrared light in the environment can disturb the touch functionality.



- Using the primeTOUCH flat in environments where infrared light sources or direct or reflected sunlight is directed to the front screen may lead to incorrect functionality
- Keep infrared light sources away from the product.

#### Risk of product damage or injury by non-intended usage.

- Protection objective: avoid personal injury and product damage.
- The product shall not be used for other than its intended purpose.
- primeTOUCH flat shall only be used indoors.

## 3. Scope of delivery



Note: Please check the delivery for completeness and damage immediately after you receive the shipment. Please contact your vendor in case of missing or damaged parts.

Item	quantity
primeTOUCH flat	1
USB A extension (A male/ A female)	1
USB A cable (A male/ A male)	1
Manual	1

## 4. Description of the product

## 4.1 Intended Use

The primeTOUCH flat is a touch overlay which is mounted to a professional LC Display. This results in an independent multi touch screen, based on infrared diode technology. primeTOUCH flat provides an ultra-flat touch surface with anti-glare front glass and a very thin bezel where the small IR diodes are located. As primeTOUCH flat can communicate via the HID interface it is a plug&play solution. Always pay attention to the original manuals of the professional LC Displays, they can be downloaded on <u>www.exactsolutions.de</u>. We or our partners would be happy to advise you if you have any questions.



## 4.2. Hardware design

The mechanical design is the similar for all primeTOUCH flat models. The touch overlay is mounted to the LC display with black powder coated steel brackets.



Figure 1: Exemplary exploded view of primeTOUCH flat touch overlay and LC display

## 4.3 Specifications

Model Number	Used display model	Size*1	simultaneous touch points* <sup>2</sup>
primeTOUCH-flat-32V	NEC V323-3	32" (16:9)	12
primeTOUCH-flat-40P	NEC P404	40" (16:9)	12
primeTOUCH-flat-40V	NEC V404	40" (16:9)	12
primeTOUCH-flat-48P	NEC P484	48" (16:9)	12
primeTOUCH-flat-48V	NEC V484	48" (16:9)	12
primeTOUCH-flat-55P	NEC P554	55" (16:9)	12
primeTOUCH-flat-55V	NEC V554	55" (16:9)	12
primeTOUCH-flat-75P	NEC P754Q	75" (16:9)	32
primeTOUCH-flat-75V	NEC V754Q	75" (16:9)	32
primeTOUCH-flat-86V	NEC V864Q	86" (16:9)	32
primeTOUCH-flat-98V	NEC V984Q	98" (16:9)	32

\*1 Drawings can be downloaded from https://exactsolutions.de/en/produkte/primetouch-en/

\*2 More on request (up to 50 possible)

Parameter	Value
Touch technology	Flat IR touch frame
Minimum detectable object size	1.5 mm
Sample rate	Up to 250 fps
Programming interface	Windows native Touch, TUIO
HID compatibility	Up to 12 touch points without driver
	Up to 50 touch points with driver



## Manual primeTOUCH flat Series

Operating system *3	Windows 10/8/7/Vista/XP, Mac OS X
IR Protect feature	Yes, all sizes (touch function works in bright day light)
Power supply	USB powered
Data interface	USB 2.0 (Full speed), compatible with USB 3.0/ USB 1.1 port
Front glass	4 mm toughened safety glass with anti-glare surface
Size	Drawings incl. weight indication can be downloaded from
Weight	https://exactsolutions.de/en/produkte/primetouch-en/
Operation time	24/7
Operation area	Only indoor

\*<sup>3</sup> Linux or Android on request

## 5. Setup and operation



Warning: Setup, Handling, Service must be done by a qualified person! Qualified persons are specialists like electricians or persons with similar or higher qualification



Note: This user's manual is an addendum to the standard user's manuals of the basis NEC LC displays listed in 4.3 Specifications. Read the original Manuals carefully before setting up the corresponding primeTOUCH flat product.



Attention: primeTOUCH flat works with infrared light, infrared light in the environment can disturb the touch functionality. Using the primeTOUCH flat in environments where infrared light sources or sunlight is directed to the front screen may lead to incorrect functionality. Keep infrared light sources away from the product.



Attention: primeTOUCH flat works with infrared light, if more than one primeTOUCH flat is set up in a row, make sure there is a suitable angle between the units so that they won't interfere with each other.

## 5.1 Notes on installation and operation

The primeTOUCH flat was carefully inspected and subjected to a functional check before delivery. The high-quality packaging is designed to prevent damage in transit. Even with the most careful handling, damage cannot be completely avoided. Possible transport damage must be communicated immediately after receiving. Check the completeness of the delivery using the parts list (chapter 3. Scope of delivery).



Attention: The device shall only be installed with an intact cable. Check cables and connectors before installation



Attention: Check the primeTOUCH flat including LC display for intactness before installation.





Attention: Use the provided specified cables with this product so as not to interfere with radio and television reception. For USB please use a shielded signal cable with ferrite core. For HDMI, DisplayPort and D-Sub 9-pin, please use a shielded signal cable. For Audio, please use a signal cable with ferrite core. Use of other cables and adapters may cause interference with radio and television reception.



Any handling of the devices must be carried out by at least two people. Additional people may have to be included in the installation process.

### 5.2 Mechanical setup



Attention: Not all kind of mechanical installation is allowed. Please refer to the following instructions and to the standard user's manuals of the basis NEC LC displays listed in 4.3 Specifications to prevent injury or damage.



Note: The primeTOUCH flat is mounted to the LC Display in delivery condition. There is no need to attach or screw off mechanical parts. Do not unscrew anything because personal injury or product damage can occur.



Note: This user's manual is an addendum to the standard user's manuals of the basis NEC LC displays listed in 4.3 Specifications. Read the corresponding original manual carefully before starting the mechanical set up of the primeTOUCH flat product.

#### Orientation

The device can be mounted in landscape, in portrait or in face up mode. It must be mounted to a suitable mounting bracket, table stand or floor stand. Always use the correct mounting brackets and mounting material

#### Face Up Installation:

Not all displays are allowed to be installed horizontally, "Face Up". Check the display operation manual and contact your vendor.

Always make sure that the display is mechanically supported in a way that it can't bend or twist. It is recommended to use the VESA mounting holes to mount the display to your construction, additionally the display boarder has to be support by your construction.

Please make sure the Display can endure the way you want to install it, contact us for special installations. In some cases it might be necessary to install additional fans to guarantee a safe ventilation of the display.



WARNING: Make sure to use correct mounting brackets and mounting material to fix the primeTOUCH flat to a supporting structure like a wall or floor. Also make sure the supporting structure is capable of carrying the overall weight



## 5.3 Electrical setup



Note: This user's manual is an addendum to the standard user's manuals of the basis NEC LC displays listed in 4.3 Specifications. Read the corresponding original manual carefully before starting the electrical set up of the primeTOUCH flat product.

1. Connect the NEC display like described in the corresponding original NEC manual to power and PC. The assignment of the different models can be found in chapter 4.3 Specifications.



## WARNING: Electrical work shall only be done by a fully qualified and trained electrician. Follow the local laws and regulations.

If you want to use the remote control of the display, for example to set the correct image source, please note that the infrared receiver is barely visible, it is located at the bottom-right part of the screen (viewed from front, red circle in Figure 2).



Figure 2: Position of IR receiver

2. To set up the touch function connect one end of the included USB cable A-male/A-male to the USB port (A-female) at the lower right corner (backside view, red circle in Figure 3) of the primeTOUCH flat overlay and connect the other end to your PC.





Figure 3: Position of USB port

 If you want to use the primeTOUCH flat as HID device no further steps are necessary, the operating system recognises the primeTOUCH flat automatically as HID device.
 If you want to use the calibration or TUIO function please go ahead with chapter 6 Driver and User Interface.



Note: If the touch is not working please check the USB connection and possibly change the USB port at the PC. If that doesn't help refer to chapter 7 Errors, causes, measures



Note: Not all operating systems support HID native touch, so please make sure your PC can handle HID touch devices. More information regarding compatible operating systems can be found in chapter 4.3 Specifications.

## 5.4 Operation

Although primeTOUCH flat works in bright environments please note that infrared diode technology can be sensitive to light that includes infrared parts. It's recommended to check the light condition at the installation place in the forefront. Please avoid direct sunlight to prevent overheating and malfunction.

#### 5.4.1 Cleaning instructions

The glass surface should be cleaned regularly with a soft, lint free cloth. It is recommended to use an anti-static plastic and glass cleaner suited for PMMA/acrylic glass/Plexiglas, or water with a small amount of washing-up liquid.



The cabinet should gently wiped with a soft cloth. If a cleaning is necessary the cloth can be dampened with a neutral detergent and water, wipe the cabinet and follow with a dry cloth.



NOTE: Unplug the power supply before cleaning.

DO NOT clean with benzene thinner, alkaline detergent, alcoholic system detergent, wax, polish cleaner, soap powder or insecticide. Rubber or vinyl should not be in contact with the cabinet for an extended period of time. These types of fluids and materials can cause paint to deteriorate, crack or peel.

## 6 Driver and User Interface



Note: The following instructions are based on the driver installation on Windows OS. If you use other OS the screenshots and information may differ. Please contact your vendor if you have trouble with other OS.

## 6.1 Definition of words

- MultiTouch Platform: Control panel (installs itself with driver installation)
- MultiTouch Doctor: A debug tool integrated into MultiTouch Platform
- GUI: Graphical User Interface
- OS: Operating System
- TUIO: A third party protocol supporting multi-touch feature
- Ambient lights: In some working conditions, there might be light sources like special lamps, devices that work with infrared light or sunlight that may interfere with the touch function.

## 6.2 GUI and function

The MultiTouch Platform application includes two sections: Platform and Doctor.

#### 6.2.1 Platform

Platform main functions:

- TUIO protocol support: Any application developed by TUIO protocol can get touch messages from the MultiTouch Platform
- Windows Native Touch support: Support for applications which development is based on Windows native touch
- Mouse/Keyboard mode support: Support for other operating systems which do not support the above mentioned touch features. Under this circumstance, the touch overlay works as a mouse/keyboard to support applications.



## Manual primeTOUCH flat Series

1 Touchscreen Information	2 Version 4.1510 (build 111945)
Serial Number: EN460007337	Windows Native Touch Passive Pen Support
Firmware Version: 31.0040	✓ Tuio Support ✓ FlashTuio Support
Description: G5 Series 4K 32 points	Double Click Optimization I Handwriting Optimization
	□ Night Club Mode (Where Ambient Light Flashing Frequently)
Status: running ok	Log Touch Data
Calibration Calibrate Reset Calibration	Mouse/Keyboard Simulation Close Top Application by Multi-fingers Pinching
4 (115ks.)	Launch When Windows Starts Up
Diagnose(D)	Default Normal Maximum
	Reset Default Settings(R)
	OK Cancel Apply

Figure 4: MTPlatform main interface

• Platform version: Version of the driver

#### Section 1 – Touchscreen Information

- Serial Number: Unique ID of a touchscreen Serial Number: EN460007337
- Firmware Version: Internal firmware version of a touchscreen Firmware Version: 31.0040
- Description: Maximum touch points that a physical touch screen supports Description: G5 Series 4K 32 points
- Status:
  - Show current status of a touch screen. It may be:

a. Working normal

Status: running ok

b. Open bulk device failed

Status: fail: open device [IC321111111]

c. Open virtual digitizer failed

Status: fail: open vir digitizer [0]

d. Open physic digitizer failed

Status: fail: open phy digitizer [IL2151111116]



#### Section 2 - Options

- Windows Native Touch: Enable/Disable Windows Native Touch, enabled by default
   Windows Native Touch
- Tuio Support: Enable/Disable TUIO UDP support, enabled by default
   Tuio Support
- Passive Pen Support: Enable/Disable Passive Pen Support, disabled by default
   Passive Pen Support
- Flash Tuio Support: Enable/Disable TUIO TCP support, enabled by default
   FlashTuio Support
- Double Click Optimization: Make you easier to double click to open an item, disabled by default
   Double Click Optimization
- Handwriting Optimization: When you draw a line to the end and release your finger, it may cause a "joggle", this feature enabled will reduce that "joggle", enabled by default
   Handwriting Optimization
- Night Club Mode:

This feature can enhance anti-jamming performance of the primeTOUCH flat hardware. When there are changing light conditions, this feature will let touch screen work normal. Disabled by default.

Night Club Mode (Where Ambient Light Flashing Frequently)

• Log Touch Data:

This feature can log touch data, it can be enabled to make a log file for the support team. Disabled by default.

Log Touch Data

Mouse/Keyboard Simulation:

support for other operating system which does not support touch feature. Under this circumstance, primeTOUCH flat hardware works as a mouse/keyboard to support your applications. Enabled by default.

✓ Mouse/Keyboard Simulation

 Close Top Application by Multi-fingers Pinching: Close Top Application by Multi-fingers Pinching. Disabled by default.

Close Top Application by Multi-fingers Pinching

- Launch when Windows Start up: Strongly recommended to enable it. Enabled by default.
   ✓ Launch When Windows Starts Up
- Flexible Scan Rate: Allows to adjust scan rate of hardware, you may get a higher FPS of hardware.
   Flexible Scan Rate (already being maximum)

Default Normal Maximum



Reset Default Settings(R):
 Reset to these feature settings in factory

Reset Default Settings(R)

#### **Section 3 - Calibration**

- Calibration:
   Allows to execute a calibration
   Calibrate
- Reset Calibration: Discard stored calibration data, and reset to default data in theory (For large and customized hardware, this function is recommended if hardware mounts precisely)

#### Section 4 - Utility

 Diagnose: Calls the MultiTouch Doctor tool for troubleshooting.
 Utility

Diagnose(D)

#### 6.2.2 MultiTouch Doctor

The MultiTouch Doctor is used for troubleshooting if a problem occurs MultiTouch Doctor interface:



Figure 5: MultiTouch Doctor interface





#### Section 1 - Device Information

This area shows basic information of the primeTOUCH flat hardware, including serial number, and firmware version.

- Serial Number: the unique identification of hardware
- Firmware: Firmware version

#### **Section 2 - Preparation**

Check and close other MT applications:

Stop other applications which may occupy primeTOUCH flat hardware and prepare an suitable environment for the MultiTouch Doctor.

primeTOUCH flat hardware is disconnected from all other application connection

X Running environment is not suitable

• Check Windows 7 native multi-touch: Check if current Windows OS supports native touch, or if native touch feature is disabled.

Windows native touch and multi-touch feature are supported

X Windows native touch is not supported, or multi-touch feature is disabled.

#### Section 3 - Diagnose Steps

 Check compatibility: Check if current plugged hardware is supported by the Platform



X Current driver is too old to support the hardware

 Open bulk device: Check if current plugged hardware data can be read correctly

primeTOUCH flat hardware can be read correctly

X primeTOUCH flat hardware cannot be read correctly

• Check power supply:

This option is only meaningful for part series product which is powered by USB cable. This option will report if current got from PC is enough

enough power is supplied by USB or function not available for power adapter

X Power from USB cable is not enough

Check touchscreen data:

It will give out a score after finishing this option check.

Hardware check is ok;

Hardware may be not in a good status, please click on 'send report' and contact the support team

 Check ambient light: Check if surrounding light condition is good

No lights interference, or within normal range

X Surrounding lights is too strong, the hardware may be disturbed



#### 6.2.3. How to install/uninstall driver and MultiTouch Platform

- Supportet OS: Windows XP/Vista/7/8/10.
- Driver can be downloaded here: <u>https://exactsolutions.de/en/produkte/primetouch-en/</u>

To install the driver including MultiTouch Platform please follow the steps below: double click the exe file "mt\_driver\_kit\_v0.0x.exe"  $\rightarrow$  Click on "Yes"  $\rightarrow$  Click on "Next"  $\rightarrow$ Select a different install path if you need  $\rightarrow$  Click on "Install"  $\rightarrow$  Click on "Finish" to reboot

To uninstall the driver including MultiTouch Platform please follow the steps below: Open install path "C:\Program Files (x86)\MultiTouch\MultiTouchPlatform"  $\rightarrow$  Click on "unist.exe"  $\rightarrow$  Click on "Yes" on the new popup.

## 7 Errors, causes, measures

In the following you will find possible errors, their causes and measures. Contact us or your vendor if malfunctions or errors occur.



Note: This user's manual is an addendum to the standard user's manuals of the basis NEC LC displays listed in 4.3 Specifications. Read the corresponding original manual and especially the chapter about trouble shooting before starting to take measures.



The hardware tests and possible measures required in the event of faults must be carried out by qualified persons! Qualified persons are professionals such as electricians and persons with equivalent or higher qualifications.



WARNING: Do not replace defective or faulty parts with parts that have not been approved by the manufacturer. This can lead to serious injuries and property damage

## 7.1 Overview

Error	Cause	Measure
No touch function.	No USB Connection	<ul> <li>Check USB port and cable connection, try another USB port or replace the USB cable if necessary</li> </ul>
	PC doesn't recognise touch	• Try to connect with another PC
	overlay	• Refer to 7.2 Trouble shooting
	<ul> <li>Internal error of touch overlay</li> </ul>	with MultiTouch Doctor
Touch is not working well	Bad USB connection	<ul> <li>Check USB port and cable connection, try another USB port or replace the USB cable if necessary</li> </ul>
	<ul> <li>Something disturbs the touch function</li> </ul>	<ul> <li>Refer to 7.2 Trouble shooting with MultiTouch Doctor</li> </ul>



Touch is not calibrated	<ul> <li>Accidently reset calibration data or inaccurate calibration</li> </ul>	<ul> <li>Calibrate the touch overlay by clicking the calibrate button in the Platform interface and follow the displayed steps</li> </ul>
No picture	<ul> <li>No power supply</li> <li>No or bad signal cable connection</li> </ul>	<ul> <li>Check the power cable and power switch of the display</li> <li>Refer to the corresponding original basis NEC LC display manual</li> </ul>
Remote control of display is not working	Remote control is not pointed in correct direction	<ul> <li>Point the remote control in correct direction. Refer to 5.3 Electrical setup</li> </ul>
Dust or particles in active screen area	<ul> <li>Dust or particles got behind the front glass</li> </ul>	<ul> <li>Contact your vendor. Do not try to remove the touch overlay by yourself</li> </ul>

## 7.2 Trouble shooting with MultiTouch Doctor

What can I do when the touch overlay fails to work?

 Build a diagnosis session: Start the Doctor: Click on "Diagnose(D)" → Click on "start"



Figure 6: Starting MultiTouch Doctor

#### • Diagnosis result analysis:

If you find a red error in test result, please refer these below options to find a solution.

• Check compatibility





Upgrade to latest driver from https://exactsolutions.de/en/produkte/primetouch-en/

o "Open bulk device" fails

🛱 MultiTouchDoo	ctor (Devic	e Connected)
Device Information Serial Number: EN460007337	✓ Firmware:	31.0040
Preparation Check and close other PQMT applications Check Windows 7 native multi-touch	*	Details Notes: Please DO NOT touch the touchscreen while MultiTouch Doctor is rupping
Diagnose Steps Check compatibility Open bulk device Check power supply Check touchscreen data		**** The touch function is DISABLED when doctor running, please manipulate with mouse/keyboard here ****
Check ambient light	Diagnose	<u>R</u> eset Touchscreen Data       Cancel       Send Report
Solution:		

## Reinstall primeTOUCH driver



• Check power supply

C MultiTouchDo	octor (Device Connected)
Device Information Serial Number: EN460007337	✓ Firmware: 31.0040
Preparation Check and close other PQMT applications Check Windows 7 native multi-touch	Details     Power supply check failed.     Please check the power cable and
Diagnose Steps Check compatibility Open bulk device	connect the AC adapter to touchscreen.
Check power supply Check touchscreen data Check ambient light	Reset Touchscreen Data
[	Diagnose Cancel Send Report

Solution:

Check if the USB A male cable is connected to the computer Change the USB port if necessary Replace the cable if necessary

o Check touchscreen data

C MultiTouchDoc	tor (Device Connected)
Device Information Serial Number: EN460007337	Firmware: 31.0040
Preparation Check and close other PQMT applications Check Windows 7 native multi-touch Diagnose Steps Check compatibility Open bulk device Check power supply Check Touchscreen Data	Details Touchscreen data check failed. Please make sure the touchscreen is clear and NO TOUCH happens. If the checking still failed, please click "Reset Touchscreen Data" to reset, and then do the diagnoses again. Notes: Please DO NOT touch the touchscreen while doing the reset.
Check ambient light	Reset Touchscreen Data       Diagnose     Cancel       Send Report



Make sure the touch surface is clear and that nothing is present that could block the IR signal.

Clean the IR filters on bottom, left side, right side and top with a soft cloth to remove dirt or dust

If that doesn't help you can create a report to send it to the support team: Steps: Click on "Send Report"

	Send Report Mail		×
*Reporter:	1		
* From:	Click here to enter your email: "sample@email.com"	Send	
* To:	info@exactsolutions.de		
Subject:	[diagnose report]:		]
Attached:	D:WultTouch/MultiTouchPlatform/Report/DA2402020043.pqrd		
	Attention: executable file is not allowed to send for safe.		_
Hi Support, [detailed descr	iption]		
Status:		More	

 $\rightarrow$  Fill out the new popup window with your information and issue description, just click "Send" button if the PC has an internet access.

 $\rightarrow$  If it is without internet connection, please package the report folder located at "C:\Program Files (x86)\MultiTouch\MultiTouchPlatform" by default and send to Support Team(Email: <u>info@exactsolutions.de</u>)

• Check ambient light





😅 MultiTouchD	octor (Device	e Connected) ×	
Device Information Serial Number: EN460007337	✓ Firmware:	31.0040	
Preparation Check and close other PQMT applications Check Windows 7 native multi-touch	*	Details Ambient light is too strong. Please turn off some of the spot lights or	
Diagnose Steps Check compatibility Open bulk device Check power supply Check Touchscreen Data	move the touchscreen, and then do diagnoses again.		
Check ambient light	×	Reset Touchscreen Data	
	Diagnose	Cancel Send Report	

Generally primeTOUCH flat IR touch overlay is resistant to bright environmental light. But if there are light sources that emit infrared light in a certain wave length this may cause this error. Please try to remove or decrease any strong lights directly shining to the touch screen.

- If the problem persists, please click on "Send Report" to contact the support like described in chapter 7.3 How to send a report
- Check Windows 7 native multi-touch:

MultiTouchDoctor (Device Connected)					
Device Information Serial Number: EN460007337	✓ Firmware: 31.0040				
Preparation Check and close other PQMT applications Check Windows 7 native multi-touch Diagnose Steps Check compatibility Open bulk device Check power supply Check Touchscreen Data	s Control of the problem is not solved, dick "Send Report" for turning to support@pqlabs.com.				
Check ambient light	Reset Touchscreen Data				
	Diagnose Cancel Send Report				



Go to "Control Panel"  $\rightarrow$  "Hardware and Sound"  $\rightarrow$  "Pen and Touch"  $\rightarrow$  Click on the tab "Touch"  $\rightarrow$  Make sure both "Use your finger..." and "Enable multi-touch..." options are checked  $\rightarrow$  "OK"

∠ Pen and Touch 🛛 🕅 🔀							
Pen Options Flicks Handwriting Touch Panning							
<ul> <li>Use your finger as an input device</li> <li>Enable multi-touch gestures and inking</li> <li>Touch actions</li> <li>Use your finger to interact with items on the screen. You</li> </ul>							
Touch action	Equivalent mouse action						
Double-tap	Double-click						
Press and hold	Right-click						
	Settings						
Touch pointer Show the touch pointer when I'm interacting with items on the screen. Advanced Options							
OK Cancel Apply							



Note: If the OS is Windows 10 or above it may not be possible to get into the Pen and Touch configuration menu. In this case please check if your OS is able to receive Windows Multi Touch Messages at all

## 7.3 How to send a report

If the MultiTouch Doctor cannot help you out, and you have no idea what could be the problem that is causing an error, please contact the support team.

You can either send an e-mail directly to <u>info@exactsolutions.de</u> or you can create a diagnose report and set it via the MultiTouch Doctor by following the steps below:

- Run the MultiTouch Platform as Administrator
- Run the doctor tool by clicking the Diagnose Button, like described above, to build a diagnose session
- Click on "Send report"



	Send Report Mail	×
* Reporter: * From: * To:	Click here to enter your email: "sample@email.com"	Send
Subject:	[diagnose report]:	
Attached:	D:\PQLabs\MultiTouchPlatform\Report\DA2402020043.pqrd  v Attention: executable file is not allowed to send for safe.	
Hi Support, [detailed descr	iption]	
Status:		More

- Please add your name and your e-mail address to get feedback directly.
- Please add more information and, if possible, an error description in the text window.
- If the computer is connected to the internet just click on "Send" to transmit the report
- If there is no internet connection please package the report folder located at "C:\Program Files (x86)\MultiTouch\MultiTouchPlatform" by default and send it to <u>info@exactsolutions.de</u>

## 8. Disposal of components



Note: This user's manual is an addendum to the standard user's manuals of the basis NEC LC displays listed in 4.3 Specifications. Read the corresponding original manual and especially the chapter about disposal before starting to dispose components or entire devices.

## 8.1 Steel parts and packaging

All steel parts and packaging can be recycled.

#### 8.2 Disposal of entire devices

You have the possibility to send old devices back to us. Please note that you have to take over the transportation costs for this. Please send the devices to:

EXACT solutions GmbH Lustheide 85 51427 Bergisch Gladbach GERMANY



## Imprint

EXACT solutions GmbH Lustheide 85 51427 Bergisch Gladbach GERMANY

Tel.: +49 2204 9485 30 E-Mail: info@exactsolutions.de Web: www.exactsolutions.de

