

# Patient-Simulation System



Technical system data & performance description as of 28.07.2020

# qubeSERIE

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## 1 Scope of delivery

### 1.1 Hardware qube L

1x qube „L“ hardcase for iPad Pro 12.9”  
1x All-round bag for qube “L” hardcase 12.9”  
1x Cable set for adults (EKG 4/12-Pol, SpO2 sensor, EtCo2 sensor, blood pressure cuff, connection cables for defibrillation electrodes, defibrillation electrodes for adults)  
1x Cable set for children and newborns (blood pressure cuff for children/newborns, SpO2 for children/newborns, defibrillation electrodes for children)  
1x Apple iPad 10,2” for Controller  
1x Apple iPad 12.9” for Monitor  
1x protective Cover for controller iPad  
1x iPod Touch 4”  
1x iPod Touch protective cover  
1x WLAN router (socket)  
1x WLAN router (battery)

The system has already been set when it is delivered.

Requirements iPad 12.9”.

- Memory 128 Gb
- Wi-Fi
- Model: MY2H2FD

Requirements iPad 10.2”.

- Memory 32 Gb
- Wi-Fi
- Model: MW742FD

### 1.2 Minimum requirements

#### 1.2.1 Monitor Software qubes

- Provider: SKILLQUBE GmbH
- Size: 43,2MB
- Category: Medicine
- Compatibility: Requires iOS 13
- Languages: German, English
- Age: The minimum age for loading the program is 17 years
- Copyright: © 2018 SKILLQUBE GmbH

#### 1.2.2 Monitor Software qube15

- Provider: SKILLQUBE GmbH
- Size: 36,7MB
- Category: Medicine
- Compatibility: Requires iOS 13
- Languages: German, English
- Age: The minimum age for loading the program is 17 years
- Copyright: © 2018 SKILLQUBE GmbH

### 1.2.3 Monitor Software qube7

- Provider: SKILLQUBE GmbH
- Size: 37,0MB
- Category: Medicine
- Compatibility: Requires iOS 13
- Languages: German, English
- Age: The minimum age for loading the program is 17 years
- Copyright: © 2018 SKILLQUBE GmbH

### 1.2.4 Monitor Software qubex

- Anbieter: SKILLQUBE GmbH
- Größe: 36,6MB
- Kategorie: Medizin
- Kompatibilität: Erfordert iOS 13
- Sprachen: Deutsch, Englisch
- Alter: Mindestalter zum laden des Programms ist 17 Jahre
- Copyright: © 2019 SKILLQUBE GmbH

### 1.2.5 Controller Software

- Anbieter: SKILLQUBE GmbH
- Größe: 4,6MB
- Kategorie: Medizin
- Kompatibilität: Erfordert iOS 13
- Sprachen: Deutsch, Englisch
- Alter: Mindestalter zum laden des Programms ist 17 Jahre
- Copyright: © 2018 SKILLQUBE GmbH

## 1.2.6 Assessment Software

- Anbieter: SKILLQUBE GmbH
- Größe: 186MB
- Kategorie: Medizin
- Kompatibilität: Erfordert iOS 13
- Sprachen: Deutsch, Englisch
- Alter: Mindestalter zum laden des Programms ist 17 Jahre
- Copyright: © 2018 SKILLQUBE GmbH

## 2 Start-up

a) Press the On/Off button.

An iPad has two buttons: the On/Off button at the top and the Home button on the front side of the tablet PC. The On/Off button is the button at the top of your iPad on the right side next to the camera.

b) Press and hold the On/Off button until the Apple logo is displayed.

If the logo is not displayed after five seconds, the battery is probably empty. Please charge the iPad at a socket for at least 15 to 30 minutes.

c) Unlock the display

Press the round button or the screen. Then swipe to the right.

### 2.1 Establishing a WLAN connection

Secured WLAN networks are password-protected and are indicated by means of a lock icon ( ) next to the network name.

1. Select “Einstellungen” > “WLAN” [“Settings” > “WLAN”] and make sure that the WLAN has been activated.
2. Touch the name of the secured WLAN network with which you would like to connect your device.
3. Enter the password for the secured WLAN network and then touch [Connect]. If “[Connect].” cannot be touched, the password entered has been wrong.

As soon as the network connection has been established, a tick mark is displayed next to the network and the WLAN icon is displayed at the top left of your screen (for iPhone X or later models at the top right). If you do not know the password of the WLAN network, please contact your network administrator.

## 2.2 Starting & Connecting the Software

### Monitor

- a) Choose the monitor which you would like to use
- b) Press „Start monitor“
- c) The monitor opens in the demo version and displays vital signs and Waveforms
- d) The Monitor is thus ready to be connected to the controller

### Assessment

- a) Select the icon of the assessment software
- b) If it has been opened, it is thus ready to be connected to the controller

### Controller

- a) Select the icon of the controller software
- b) Press Monitor & Assessment to have all available devices displayed
- c) Select the desired device by touching it with your finger
- d) A request to connect appears on the selected device. To confirm it, press “Verbinden” [“Connect”]
- e) The tick mark indicates when the device is connected

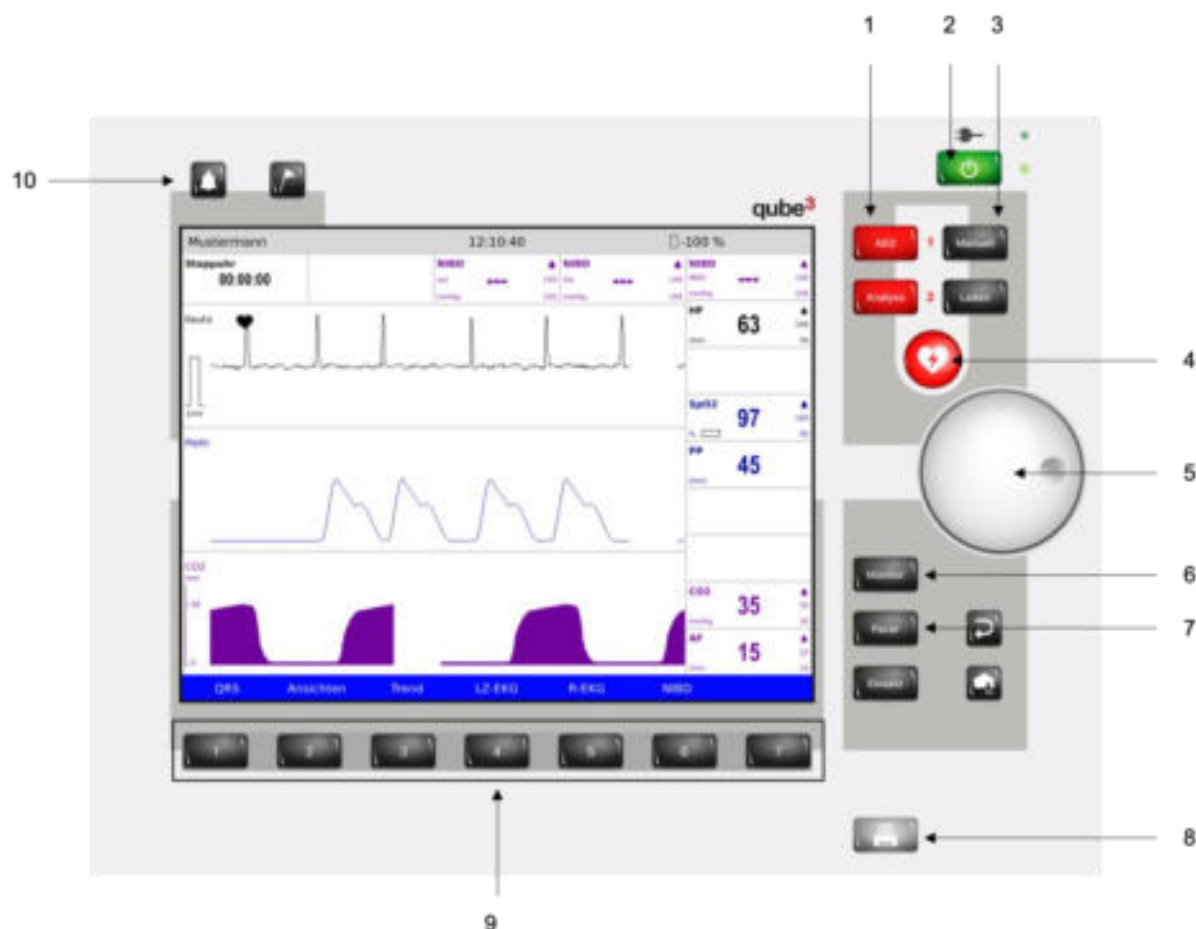
### 3 Overview Controller



- |                         |                                |
|-------------------------|--------------------------------|
| 1. Scenario-Phase       | 15. Latest monitor vital signs |
| 2. phase activities     | 16. Controll vital signs       |
| 3. scenario information | 17. On/Off Waveforms           |
| 4. scenario checklists  | 18. More settings              |
| 5. scenario media       | 19. Set auscultation           |
| 6. Start/Stopp scenario | 20. Set blood sugar            |
| 7. connection status    | 21. Set temperature            |
| 8. iPad media           | 22. Set electrodes             |
| 9. event documentation  | 23. On/off artefacts           |
| 10. trend time settings | 24. Activate PEA               |
| 11. Graduell on/off     | 25. open CPR menu              |
| 12. send to Monitor     |                                |
| 13. more settings       |                                |

## 4 qubeSERIE Monitors

### 4.1 Corpuls3 – qube3



- 1 Opening the AED menu
- 2 Switching the monitor on/off
- 3 Opening the manual defibrillator
- 4 Triggering a shock
- 5 Setting dial
- 6 Monitor button (main view)

- 7 Opening the Pacer menu
- 8 Printing the EKG
- 9 Function buttons
- 10 Displaying/muting alarms

## 4.2 LIFEPAK 15 – qube15



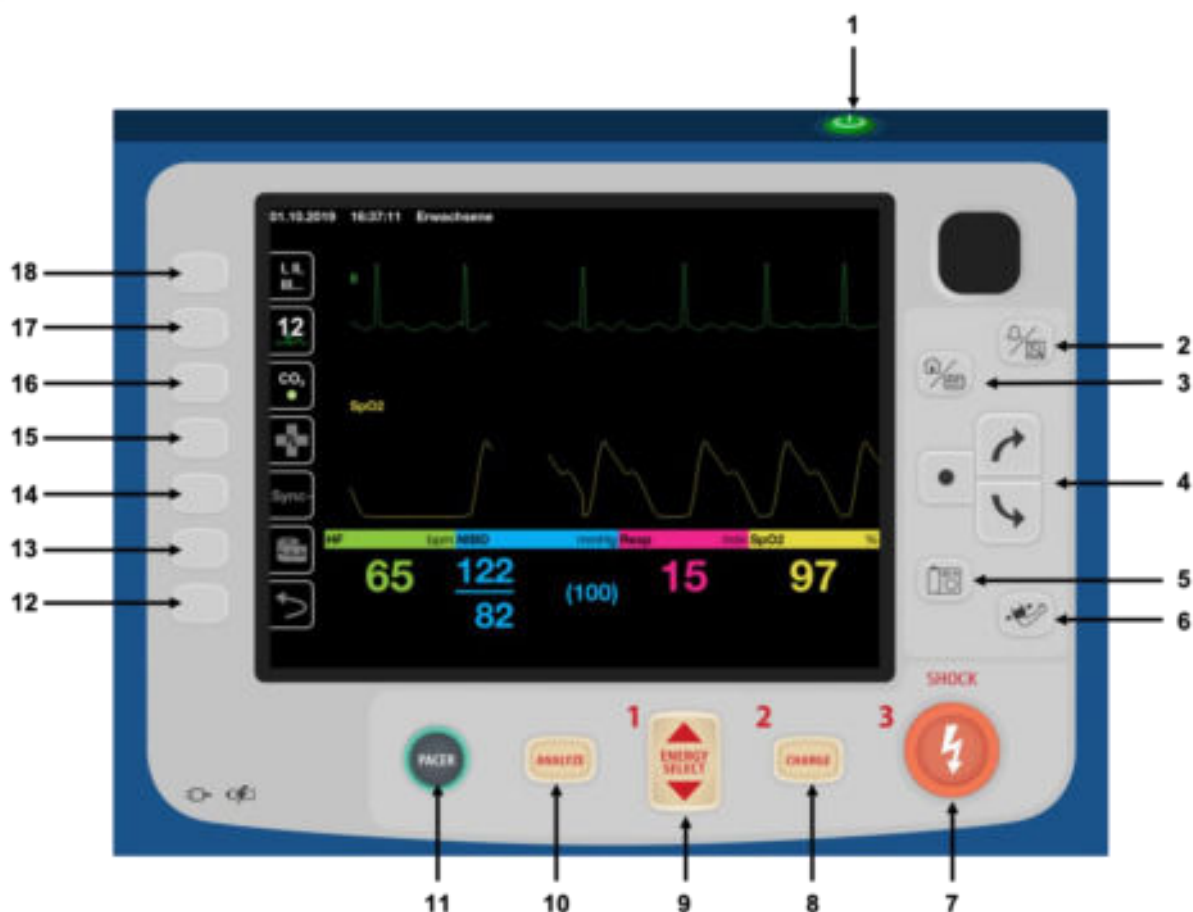
- |   |                             |
|---|-----------------------------|
| 1 Switching on/off                          | 6 Contrast mode             |
| 2 Energy selection for manual defibrillator | 7 Home button (main screen) |
| 3 Switching on the Pacer                    | 8 Setting dial              |
| 4 Starting the blood pressure measurement   | 9 Printing the EKG          |
| 5 Open the alarms menu                      | 10 Printing the 12-lead EKG |

### 4.3 DEFIGARD 7 – qube7



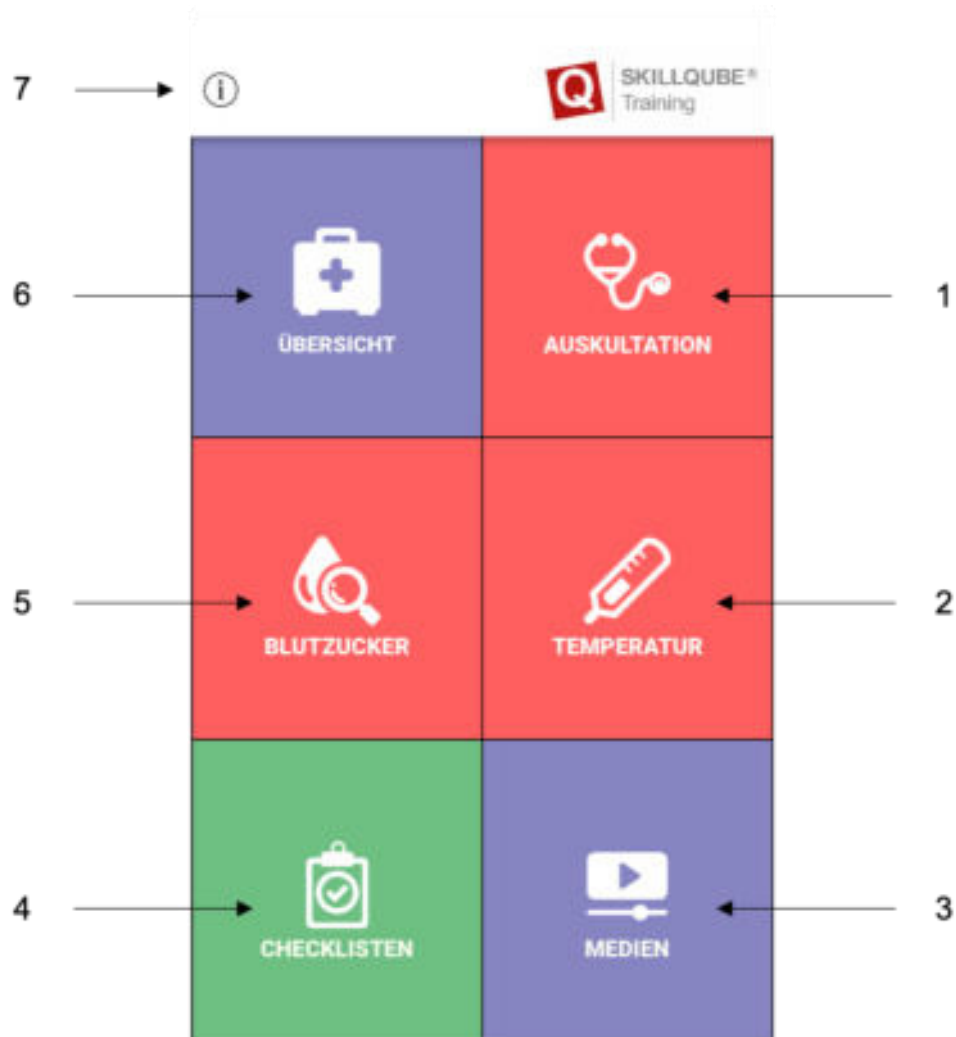
1. visual alarm
2. Touch area for use of Monitor
3. Deliver shock
4. Start AED
5. Back to main monitor
6. On/Off Switch

## 4.4 Monitor - qubeX



- |  |                           |
|--|---------------------------|
| 1. On/off                                    | 10. Start and analyse AED |
| 2. Mute alarms                               | 11. Start Pacer           |
| 3. Trend/Monitor                             | 12. Menu selection button |
| 4. Navigation                                | 13. Menu selection button |
| 5. Snapshot                                  | 14. Menu selection button |
| 6. Measure blood pressure                    | 15. Menu selection button |
| 7. Deliver shock                             | 16. Menu selection button |
| 8. Manual Defibrillator                      | 17. Menu selection button |
| 9. Start manual defibrillator/ Energy Select | 18. Menu selection button |

## 5 Overview Assessment



1 Opening the auscultation menu meter

2 Opening the thermometer values

3 Opening the media received

4 Opening/displaying media

5 Opening the blood glucose

6 Opening the overview of all

7 Information about licences/version

## 6 Waveforms

- Ventricular fibrillation 1 (fine)
- Ventricular fibrillation 2 (medium)
- Ventricular fibrillation 3 (coarse)
- Asystole
- P wave asystole
- Agonal rhythm
- Torsade de pointes
- Sinus rhythm 1
- Sinus rhythm 2
- Sinus rhythm paediatric
- Atrial fibrillation
- Pre-terminal T wave inversion
- Poor R wave progression
- Terminal T wave inversion
- P wave sinoatrial
- Ventricular tachycardia
- Ventricular escape rhythm
- Anterior STEMI
- Inferior STEMI
- Inferior infarct
- Posterior STEMI
- Anterolateral NSTEMI
- Inferior infarct
- Anterior myocardial infarct
- Inferior infarct at a subsequent stage
- Anterior AMI at a subsequent stage
- 1st degree AV block
- 2nd degree AV block, type 1
- 2nd degree AV block, type 2 2:1
- 2nd degree AV block, type 2 3:1
- 2nd degree AV block, type 2 4:1
- 3rd degree AV block
- Left anterior hemiblock
- Bifascicular block
- Left bundle branch block
- AV junctional escape rhythm

As of February 2019

## 7 Disposal

### 7.1 Instructions for environmental protection

As our deliveries may include batteries and accumulators, we are obliged under the Batteriegelgesetz (BattG) [German Battery Act] to point the following out to you: Batteries and accumulators must not be disposed of as household waste. Used batteries may contain harmful substances which may cause damage the environment or your health if they are not stored or disposed of properly.



However batteries also include important raw materials, such as iron, zinc, manganese or nickel, and can be recycled. After use, you can either send the batteries back to us or return them for free in the immediate vicinity (e.g. in a shop or at municipal collection points or in our dispatch warehouse). Returning batteries in retail shops is restricted to a reasonable quantity for end users as well as being restricted to those used batteries which the retailer offers or has offered as new batteries in their product range.