

Planning and Installation Guide

Revision 1.0

BrainSUITE Data Wall Screen 57"- CONRAC

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Preface

This **Planning and Installation Guide** provides an introduction and reference for the effective and correct implementation planning of BrainLAB's **BrainSUITE Data Wall Screen 57"- CONRAC** with respect to:

- Display positioning
- Architectural, structural, mechanical, electrical and equipment implementation
- Construction site requirements

This Planning and Installation Guide is written for all members of the clinical, architectural, hospital and consulting team who are involved in the planning and implementation of the BrainSUITE Data Wall Screen 57"- CONRAC or parts of it.

The **Planning and Installation Guide** is available to all involved parties at the beginning of the planning process.

Since each project varies from site to site, the specifications indicated in this manual will have to be adapted accordingly.

You should read the **Planning and Installation Guide** carefully and acquaint yourself sufficiently with the system before planning its implementation.

Support

If you cannot find the information you need in this manual, contact the BrainLAB technical consulting team:

- E-mail United States: us.technical.consulting@brainlab.com
- E-mail Rest of the World: europe.technical.consulting@brainlab.com

Or BrainLAB support:

- United States and Canada (800) 597-5911, (708) 409-1619 (fax)
- Africa, Asia, Australia, Europe, Latin America, South America
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Feedback Despite careful review, errors may appear. We look forward to your comments and suggestions, and can be contacted at the contact information listed above.

Manufacturer The **BrainSUITE Data Wall Screen 57"**- **CONRAC**[®] are registered trademarks of BrainLAB in Germany and the US.

Model **CONRAC 6057 PD**[®] is a registered trademark of **CONRAC**.

Certificates

Regulation Compliance:

EN55022 class A
EN55024, EN61000-3-2/-3
Safety: EN60950,
CE

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Warnings and Cautions

This **Planning and Installation Guide** uses the following cues to alert you to safety-critical information.



Warnings are used to alert the user to possible injury, death or other serious consequences associated with the use or misuse of the equipment.



Cautions are used to alert the user to the possibility of a problem with the device associated with its use or misuse. Such problems include device malfunctions, device failure, damage to the device or damage to property.



This symbol alerts the user that important literature concerning the operation of this unit has been included. Therefore, it should be read carefully in order to avoid potential problems.



This symbol warns user that un-insulated voltage within the unit may have sufficient magnitude to cause electrical shock. Therefore, it is dangerous to make contact with any part inside the unit.

Important

This **Planning and Installation Guide** covers standard information and general specifications. It must be adapted to the specific needs and requirements of each individual site. For the implementation of any project, detailed site planning is necessary.



The customer is responsible for all structural preparations, such as wall reinforcement or wall mounts.

In the case of technical deviations to the specifications described in this manual, such as country-specific codes and standards, planning and execution must be reworked in order to fulfill all applicable regulations.



The customer is responsible for notifying BrainLAB if changes are required in order to meet applicable regulations.

The general descriptions and specifications in this document are in no way to be construed as a legally binding representation or warranty whatsoever. The information given is subject to change without notice. BrainLAB, the customer and any third party are not bound by any legal obligations with relation to the planning, sale, delivery, installation or operation of a **BrainSUITE Data Wall Screen 57"-CONRAC**, except as stipulated by duly executed written agreements between the parties and attachments thereto.



This **Planning and Installation Guide** must be read thoroughly. Non-observance of the guidelines it contains may cause severe or even fatal injury to the patient or user.



The **BrainSUITE Data Wall Screen 57"- CONRAC** components and accessory instrumentation comprise precise mechanical parts which must be handled with care.



The **BrainSUITE Data Wall Screen 57"- CONRAC** component may only be operated by trained medical personnel.

Product Overview

BrainSUITE Data Wall Screen 57"- CONRAC

The **BrainSUITE Data Wall Screen 57"- CONRAC** consists of one or more flatscreens integrated as a single screen on the OR wall that displays patient image information provided by other sources, such as nearby computers or video systems.

The **CONRAC 6057 PD** is a 57-inch High Performance LCD/TFT Display for specific applications. It's made in a modular construction with robust aluminum housing and special laminated safety glass panel with high efficiency anti-glare treatment.



Figure 1: BrainSUITE Data Wall Screen 57"- CONRAC



This **BrainSUITE Data Wall Screen 57"- CONRAC** may not be used in the presence of flammable anesthetics mixture with air, oxygen or nitrous oxide.



Recycling: Follow local governing ordinances and recycling plans regarding the recycling or disposal of this equipment.



The lamp contains mercury inside. Please follow the regulations or rules established by local authorities at its disposal.



Do not use the **BrainSUITE Data Wall Screen 57"- CONRAC** after an abnormal impact, such as an earthquake or explosion. Because of the possibility of fundamental structural damage to the building, a new structural evaluation must be performed.



The **BrainSUITE Data Wall Screen 57"- CONRAC** and the **on-wall mounting** have to be installed only by trained and qualified personnel who have read the **Planning and Installation Guide for BrainSUITE Data Wall Screen 57"- CONRAC** before starting the installation. The BrainLAB installation personnel must also have read the BrainLAB **SOP 18-09**, which defines an MR Environment and rules for the behavior in an MR Environment, before starting the installation.



The **BrainSUITE Data Wall Screen 57"- CONRAC** is MR-conditional and installed outside the 5 Gauss (0,5 mT) field.



The display provided by the **BrainSUITE Data Wall Screen 57"- CONRAC** monitors is not suitable for diagnostic imaging. For this reason, the information displayed on these monitors should not be used for diagnostic patient analysis. Only the original display monitors may be used for diagnosis.



Do not place undue stress on the wall mount by attaching additional devices or any type of weight to the **BrainSUITE Data Wall Screen 57"- CONRAC** and the **on-wall mount!** Do not exceed the maximum load of the wall mount of the **BrainSUITE Data Wall Screen 57"- CONRAC!**



This symbol warns user that un-insulated voltage within the unit may have sufficient magnitude to cause electrical shock. Therefore, it is dangerous to make contact with any part inside the unit. To reduce the risk of electric shock, **DO NOT** remove cover (or back). **There are no user serviceable parts inside.** Refer servicing to qualified service personnel.

Available options with CONRAC 6057 PD



Figure 2: Option 1



Figure 3: Option 2



Figure 4: Option 3

Planning Specifications



The **CONRAC 6057 PD** is not a medical device. Pay attention to this during the planning process!

Planning Layouts

The **BrainSUITE Data Wall Screen 57"- CONRAC** is installed inside the OR, ideally parallel to the OR table. The **BrainSUITE Data Wall Screen 57"- CONRAC** is wall mounted on the OR wall. The **BrainSUITE Data Wall Screen 57" - CONRAC** has to be connected to the **19" Computer Rack** in order to provide the video signal.

The **19" Computer Rack** is usually positioned in a non-sterile environment outside the OR (e.g. in a technical room or a control room next to the OR). The location of the rack must be defined at the beginning of the site planning process. The customer is responsible for providing sufficient space to access all BrainLAB components for maintenance and for the rack itself. The location will be validated together with local experts during the site planning process.

The following diagrams show typical layouts for the **BrainSUITE Data Wall Screen 57"- CONRAC**.

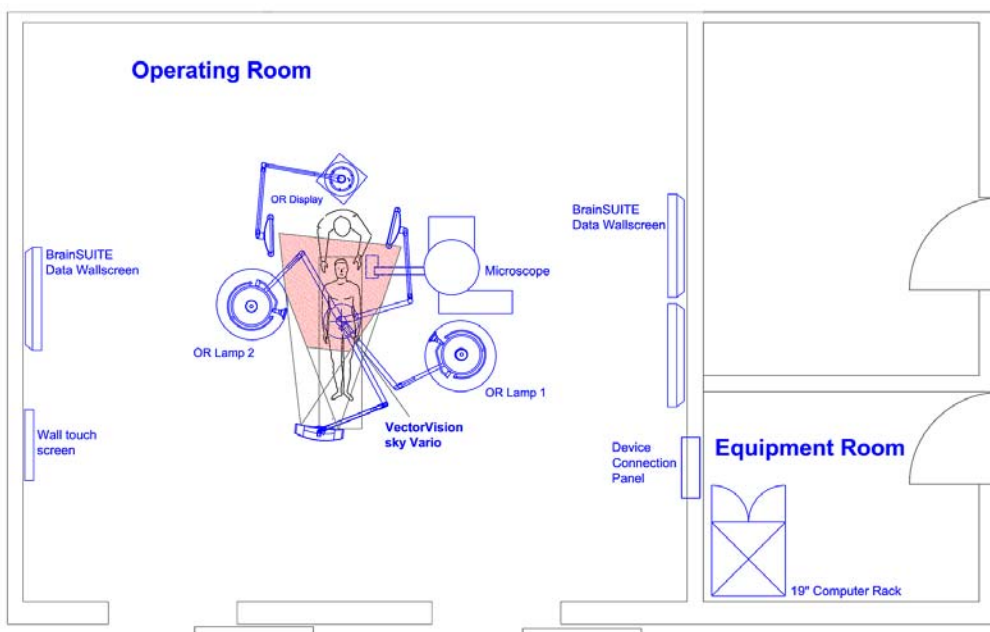


Figure 5: Layout BrainSUITE NET – Neurosurgery Solution

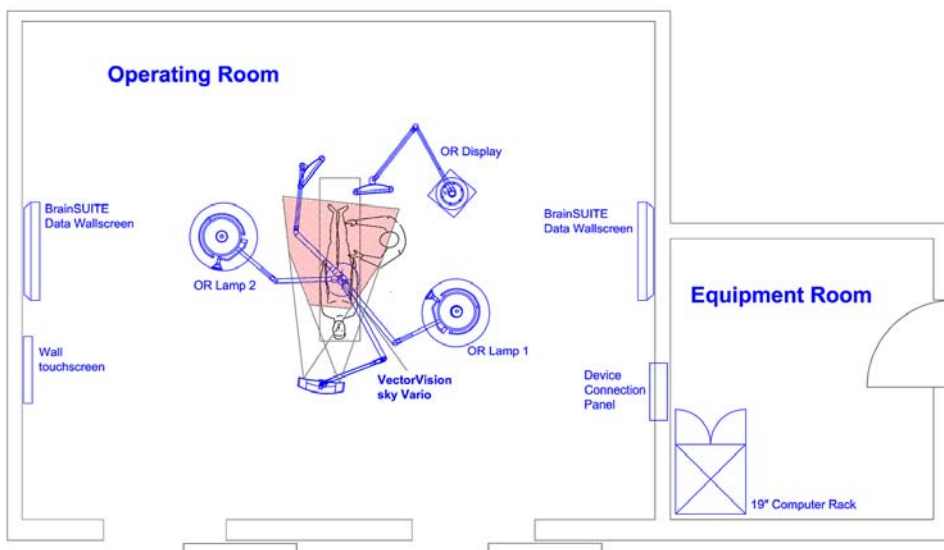
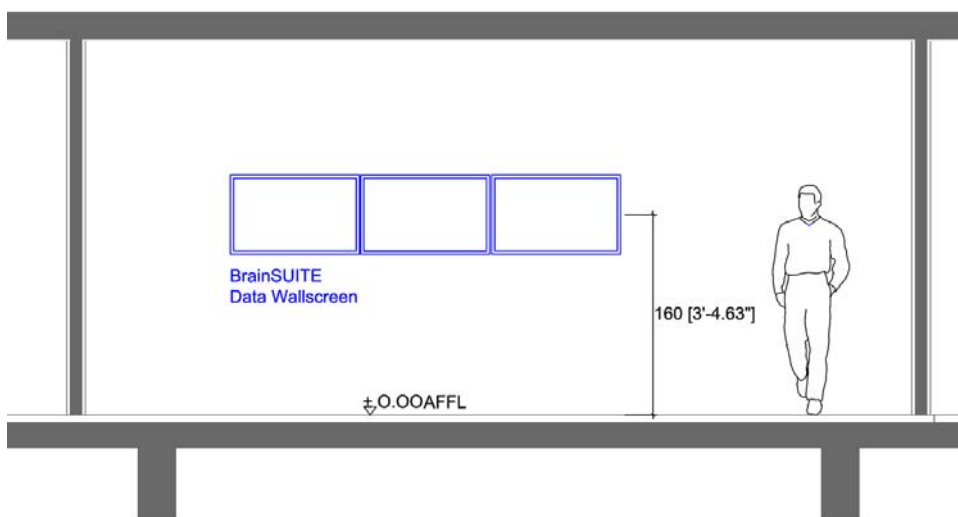


Figure 6: Layout BrainSUITE NET - Orthopaedic-Trauma Solution



AFFL: Above Finished Floor Level

Figure 7: Section BrainSUITE Data Wall Screen 57"- CONRAC

As shown above, the recommended height for the **BrainSUITE Data Wall Screen 57"- CONRAC** is 1,60 m (center of the wallscreen) above finished floor level. This height is relating to the eye level standard.

MR Environment

The **BrainSUITE Data Wall Screen 57"- CONRAC** should be positioned outside the 5 Gauss (0,5mT) field.

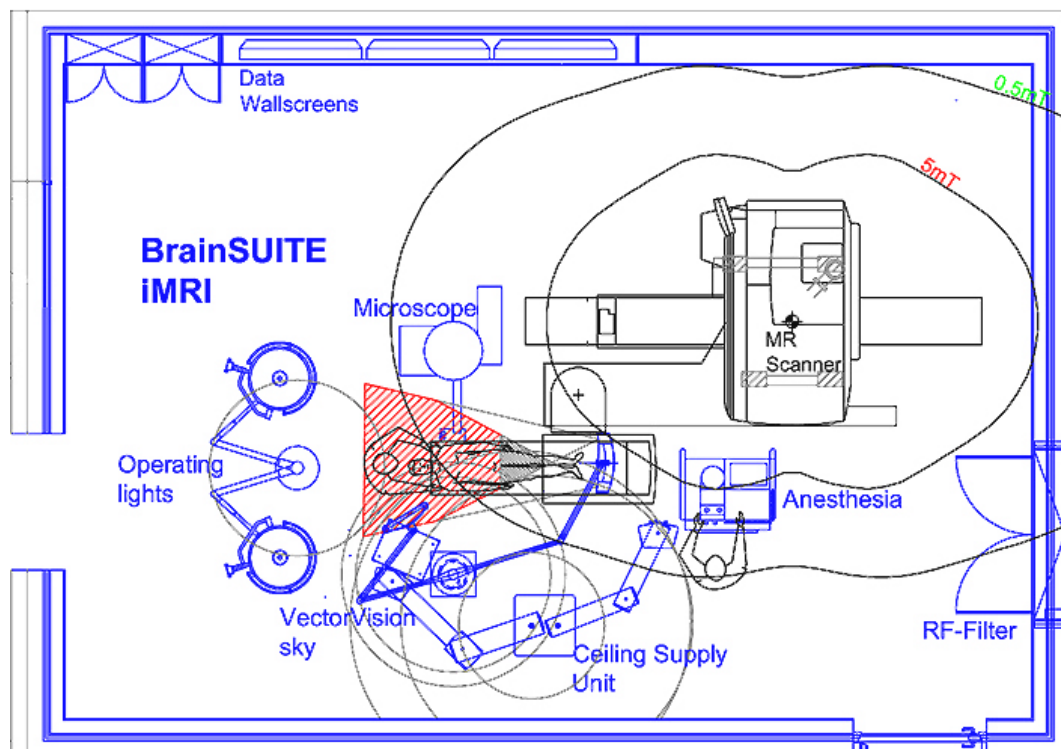


Figure 8: Layout BrainSUITE iMRI with Data Wall Screens

Patient Environment

The **BrainSUITE Data Wall Screen 57"- CONRAC** may not be positioned within the patient environment which is defined as a distance of 1,50m (4'11") in each direction according to IEC 60601-1.

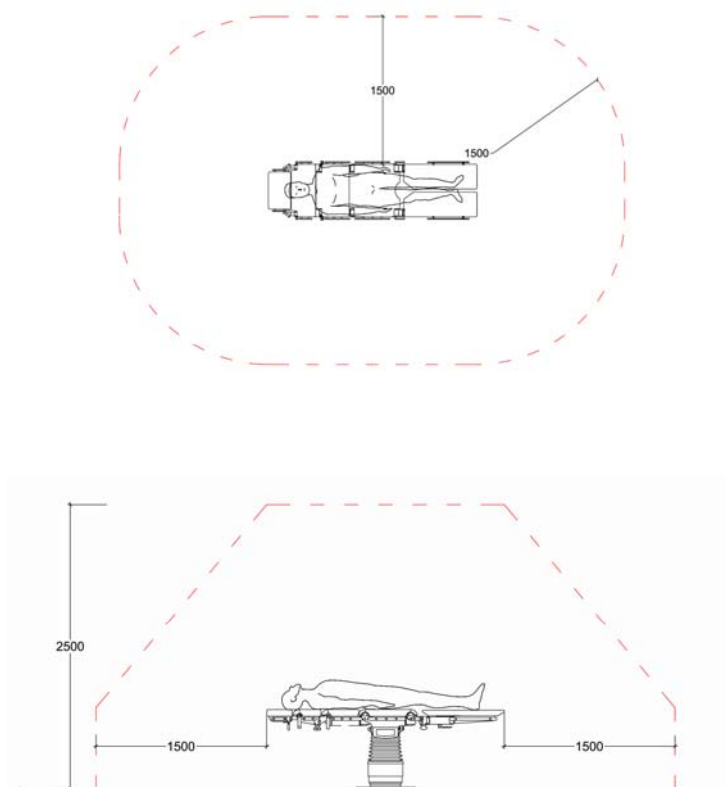


Figure 9: Patient Environment

Specifications and Requirements

Dimensions of BrainSUITE Data Wall Screen 57"- CONRAC



Figure 10: Dimension of BrainSUITE Data Wall Screen 57" - Conrac

Dimensions of one CONRAC 6057 PD are:

H x W x D: 845mm x 1402 x 154.7mm (33.27" x 55.20" x 6.09")

Technical Specifications

Static Specifications

	BrainSUITE Data Wall Screen 57" - CONRAC
Display Weight	64 kg +/- 10% (141.10 lb)
Wall Mount Weight	9,10 kg (20.06 lb)
Total	73,10 kg (161.16 lb)

Maximum tilt angle up to 17,5° with usage of mount system (as illustrated under mounting instructions on page 18 et seq.).

Electrical Specifications

	BrainSUITE Data Wall Screen 57" - CONRAC
Power Consumption (nominal)	470W
Power Supply	115V / 230 V AC, 50/60 Hz +/- 6%

Environmental Specifications

	BrainSUITE Data Wall Screen 57" - CONRAC
Storage Temperature	-20°C - +60°C (-4 °F – 140°F)
Operating Temperature	0°C - +40°C (32°F – 104°F)
Relative Humidity	10% - 90%

Mounting

Mounting specifications



The backside of the wall on which the **BrainSUITE Data Wall Screen 57"-CONRAC** are mounted has to be reinforced adequately. It is in the customer's responsibility to calculate, examine and mount accordingly to official and local requirements.



For installation within an MR-environment:

The **BrainSUITE Data Wall Screen 57"-CONRAC** has to be fixed with a safety cord (details see below) as shown below fixed with snap hooks (details see below) at eye bolts (details see below) both at the wallscreen and at the wall.

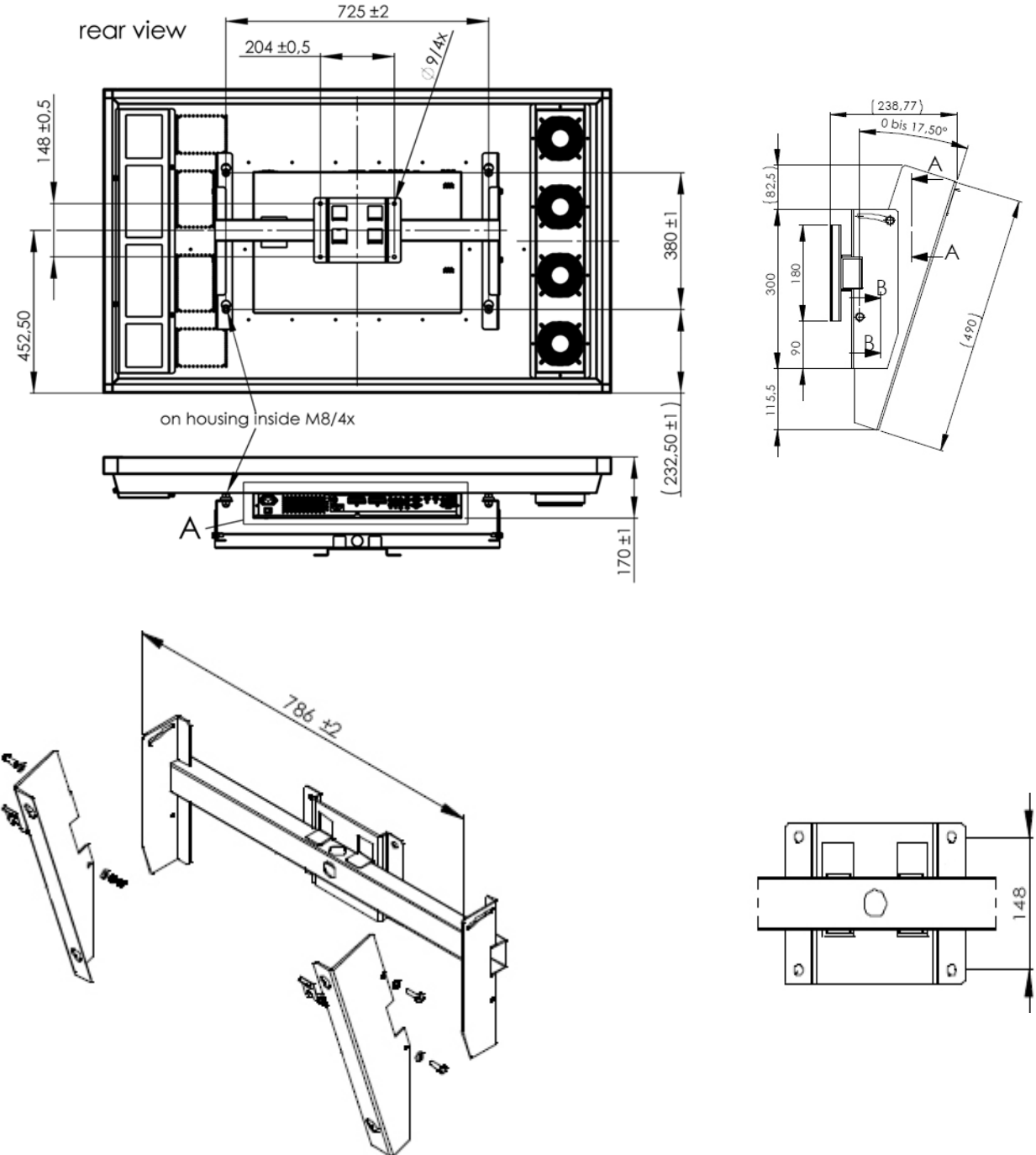


Figure 11: Example of a Safety Cord with snap hook

Mounting Element	Details
Safety Cord	DIN 56927 Load capacity 60 kg
Snap Hook	DIN 5299 C
Eye Bolt	DIN 580 / DIN 582 M8

Mount systems by CONRAC

Wall Mount



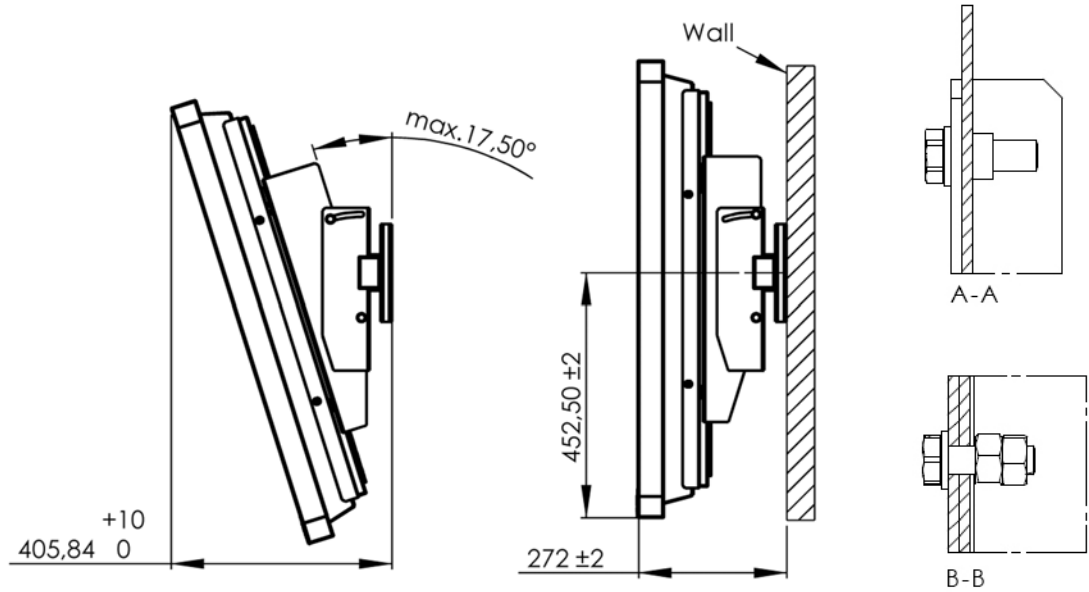


Figure 12: Wall mount System by CONRAC



Do not place undue stress on the wall mount by attaching additional devices or any type of weight to the **BrainSUITE Data Wall Screen 57"- CONRAC** and the **on-wall mount!** Do not exceed the maximum load of the wall mount of the **BrainSUITE Data Wall Screen 57"- CONRAC!**



A correct installation is extremely essential. The fastening material provided, is exclusively intended for installations on walls made of solid wood, bricks, concrete or solid wood columns with a maximum of 3 mm wall finishing.
For walls made of other materials, for example hollow bricks, please consult your installer and/or specialist. Maximum weight of LCD/plasma screen: **VFW 065 / VFW 165: 70 kg (154 lbs).**



PLEASE NOTE:

BrainLAB is only responsible for the on-wall installation within the BrainSUITE based on the signed "**Confirmation of Structural Calculation and Execution**" (see last page) by the customer



The guidelines for the installation of the **BrainSUITE Data Wall Screen 57"- CONRAC** and the **on-wall mount** have to be followed according to this **Planning and Installation Guide.**

Electrical Preparation

The customer is responsible for:

- Providing a medically isolated power supply in the wall with typical line voltage in accordance with the international standard IEC 60364-7-710:2002-11 (for USA NFPA99).
- Providing 3 conduits (minimum of 40mm, 1.57"), including taut wire, for laying fiber optic signal lines from the **BrainSUITE Data Wall Screen 47" - BARCO** to the **19" Computer Rack** for the signal source.
- Providing 3 conduits (1 per monitor, minimum of 40mm, 1.57", including taut wire) per monitor from the power b Providing to each monitor for power supply of the converters.
- Providing 2 conduits (minimum of 40mm, 1.57", including taut wire) from the power box to the **19" Computer Racks**.
- Mounting the power box on the ceiling and providing access to the ceiling mounted power box for maintenance purposes.

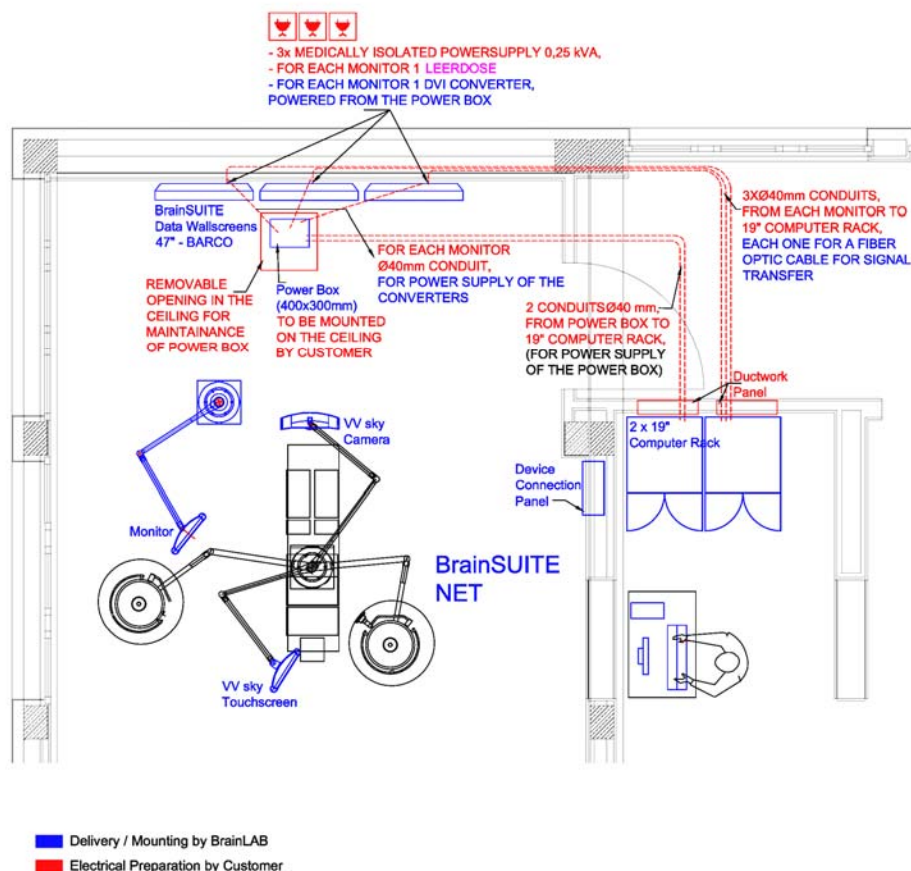


Figure 13: Electrical Planning for the BrainSUITE Data Wall Screens



Check the power rating on your outlet before connecting the devices to the wall outlet or a power strip. Contact facility manager or a qualified electrician if you are not sure what type or power is supplied to your building.





The devices are designed to operate with single-phase power systems having a grounded neutral conductor. To reduce the risk of electrical shock, do not plug into any other type of power system.

Certificates

BESCHEINIGUNG DER TECHNISCHEN ÜBEREINSTIMMUNG

CERTIFICATE OF CONFORMITY

FB3.203 Rev. A00

Auftrags-Nr./ Order No.			X
Vertrags-Nr./ Contract No.			X
Beschreibung der Liefermenge (Menge, Bezeichnung) Description of Supplies (Quantity, Designation)	Zeichnungs-Nr./ Drawing No.	Änd.Ind./ Rev.Inc.	Serien, Los Nr./ Serial, Lot No.
X St. TFT Display 6057 PD	6057-PDXX-XXX		X
Prüfunterlagen Test Documents	Änd.Ind./ Rev.Inc.	Bemerkungen/Remarks	
6040-0000-9834			
<p>Das oben genannte Gerät wurde unter Beachtung der Anforderungen der/des The above supply has been manufactured in compliance with the provisions of</p> <p>EN 60950</p> <p>hergestellt. Es sind die danach notwendigen Überwachungsmaßnahmen bei der Fertigung der Erzeugnisse dieses Typs getroffen. The monitoring requirements layed down for the production of that type of equipment have been fulfilled.</p> <p>Hierdurch wird bescheinigt, daß die oben aufgeführte Lieferung im Zeitpunkt der Prüfung den oben angeführten Unterlagen entsprach. Die durchgeführten Endprüfungen wurden protokolliert und stehen in Form von Prüf- protokollen auf Anforderung zur Einsichtnahme zur Verfügung.</p> <p>This is to certify, that the supplies listed above have been in conformance with the above mentioned Test Documents in time of inspection and test performance. The performed Final Test have been recorded and are available in form of Test Records for examination upon request.</p> <p>Diese Bescheinigung der Technischen Übereinstimmung hat keinen Einfluß auf die Gewährleistungspflichten des Lieferers. This Certificate of Conformity does not affect the warranty obligations of the Supplier.</p>			
Datum Date	Unterschrift/ Signature	Prüfstempel/ Stamp	
28.03.07	 R. Ziemiński	 CONRAC GmbH 97930 Weikersheim	

Confirmation of Structural Calculation and Execution



This page contains important information concerning your responsibilities with regards to the installation of the wall mounted device **BrainSUITE Data Wall Screen 57"- CONRAC**, and their wall loads.

Please read carefully and sign below.

I have received the **Planning and Installation Guide for BrainSUITE Data Wall Screen 57"- CONRAC** for the following wall mounted devices and their wall mounting requirements:

BrainSUITE Data Wall Screen 57"- CONRAC

I have carefully read the **Planning and Installation Guide for BRAINSUITE Data Wall Screen 57"- CONRAC** and have fully understood its content. I have consulted third party experts where necessary.

I understand that it is Customer's sole responsibility to ensure that the installation site meets all requirements specified in the **Planning and Installation Guide for BrainSUITE Data Wall Screen 57"- CONRAC** and I agree that BrainLAB cannot be held liable for any damages that are caused by failure to meet these requirements.

I am duly authorized by Customer to make these representations on Customer's behalf.

Customer: _____

Address: _____

Name 1: _____ Name 2: _____

Title: _____ Title: _____

Date: _____ Date: _____

Signature: _____ Signature: _____

