

Hardware Installation Guide

The Operations Team must follow the steps below

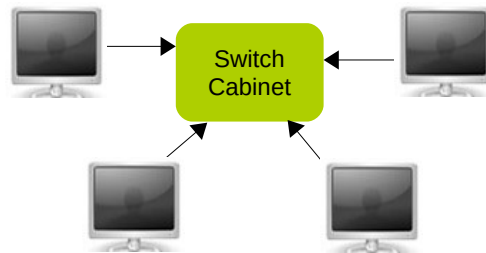
PRE-INSTALLATION:

1. Technical Reconnaissance (scope site layout & choose cabinet locations)
2. Plan the project (time-line, project lead, components needed, etc)
3. Start a hardware requisition
4. Order materials/components
5. Reconcile procurement of materials with project needs
6. Modify exiting hardware:
 1. **Cabinet**
 - Drilling and mounting of fans
 - Fan 1 Should be blowing inside
 - Fan 2 Should be blowing out
 - Fan 3 Should be blowing inside
 - Add block board to Power and server cabinets covering the entire interior back wall of the cabinet
 - Wiring of the carbinet
 - Installation of battery cables
 - installation of wire to the fans
 - Install Double surface Socket, AVS, AC cables to the main Switch
 - Drill possitions for Charger, LVD.
 -
 2. **Power Socket**
 - Drill holes for speakon connectors
 - Soldering and mounting of speakon connectors
 - Speakon connector should be mounted the side of the one gang switch two way switch.

HOW TO CHOOSE CABINET LOCATIONS:

1. Pick a central location for the Switchboard:
 - Distance between cabinet & workstations **should not be** > 90m
 - If distance between any 2 points exceed 90m add another switch cabinet

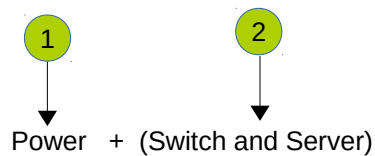




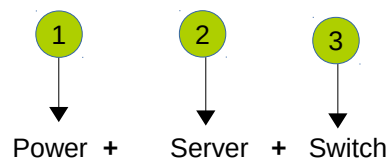
2. Choose a central location for the Server Cabinet:
 - Needs to be in a well ventilated room, at least a window
 - Room needs to be secure: windows with bars and door with locks
3. Choose a well ventilated area for the Power cabinet:
 - For J2's are more than 10 workstations add one more power cabinet Power Cabinet (a full back up system with 4 batteries)

CABINET DESIGNS:

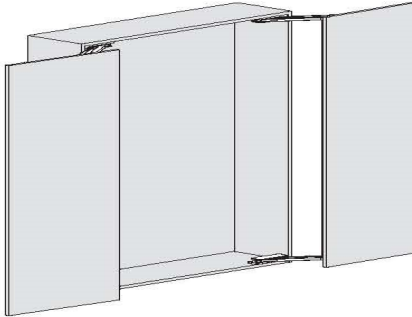
Standard Design = 2 cabinets.



Alternative Design = 3 cabinets.

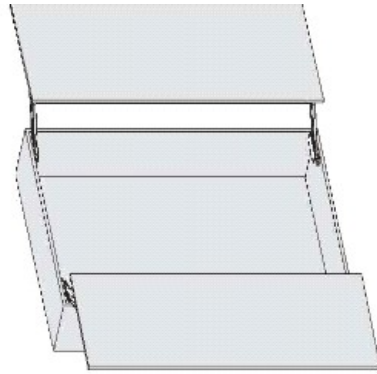


CABINET LAYOUT



Correct

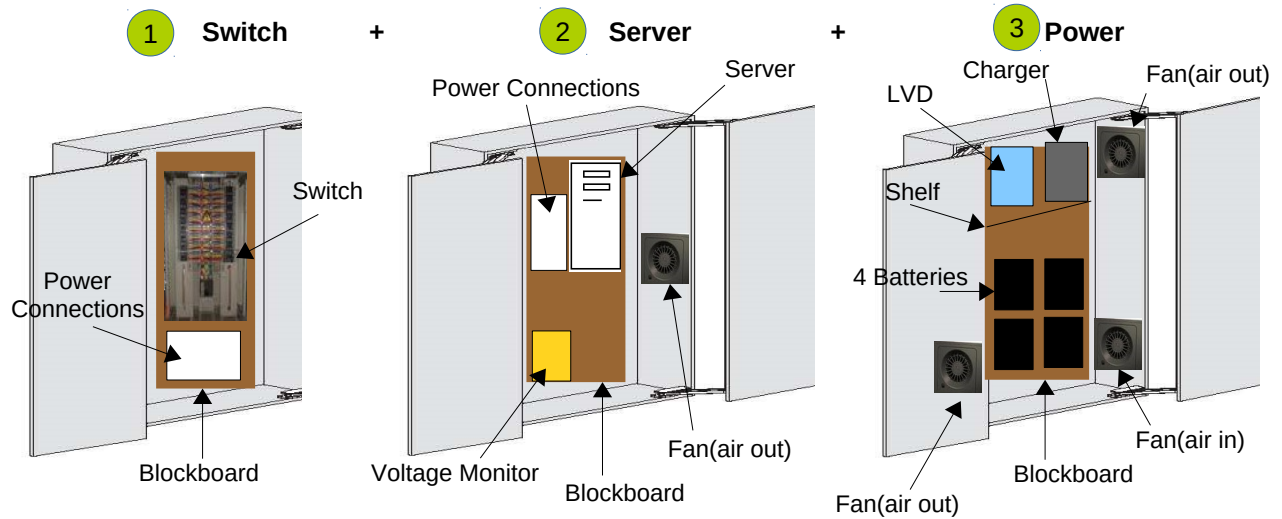
NOT



Incorrect

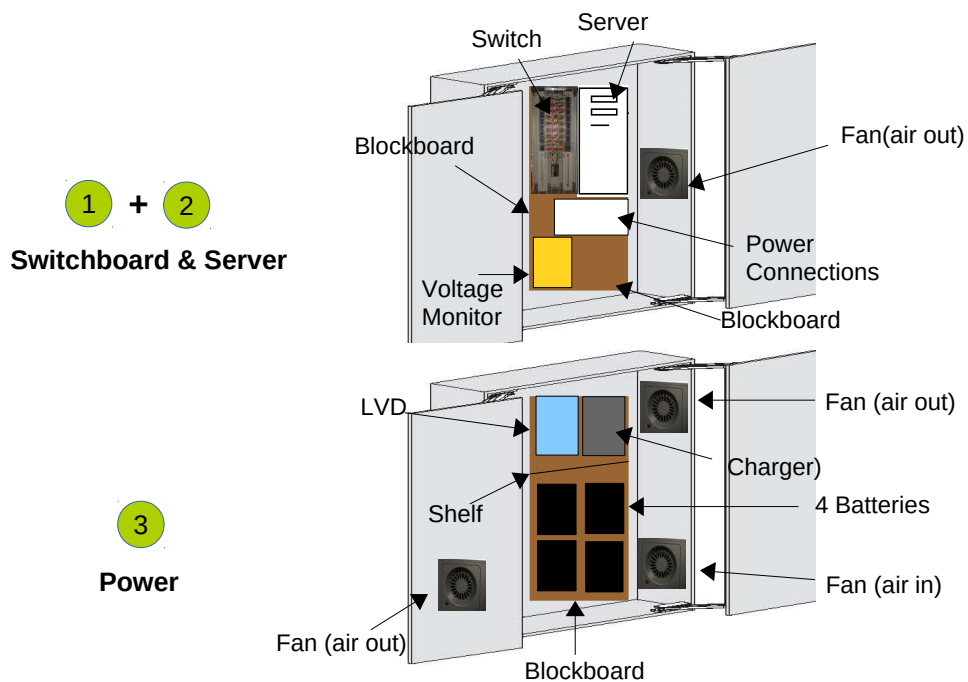
STANDARD DESIGN

All cabinets in different rooms: see below



ALTERNATIVE DESIGN

Server & Switch in the same cabinet stacked vertically on top of the Power Cabinet: see below



DAY OF INSTALLATION

Should be done prior to Back Data Entry by Support & Deployment Team

Alternative Back Data Entry: The Support & Deployment Team connects touch-screens to a local server and ESCOM electricity, with a working hospital generator or Baobab generator, then migrate data later.

PRIOR TO DEPARTURE:

Use the "Hardware Check-list" to confirm you have all materials needed to bring to the site.

Stage 1: RUN WIRES & PIPES

1. Install of cabinets
 - Power
 - Should be centered in the room where installed wherever possible
 - Server
 - Should be installed on top of the power cabinet
 - In case there are in different locations with the power cabinet then it should be installed 1.5m from the ground
 - Switch
 - Should be installed 2m from ground

Stage 2: INSTALL CABINETS

2. Install PVC pipe for power and network cables
3. Install PVC trunking
4. Installation of power and data sockets
 - Should be installed at 250cm from the ground

Stage 3:

5. Pulling cables
6. Terminate Ethernet cables

Stage 3: TEST

1. Test Power Connections with volt multimeter to make sure 48 volts are coming from each power socket.
2. Test Connectivity- (i.e. "ping" server IP addresses). Test point of care at each station.
3. Test connectivity between Baobab system & HMIS office (i.e. "ping" server IP address)
4. If site has internet, configure Baobab server on site to access Baobab HQ network.

SECURITY & SAFETY: FINAL CHECK

1. All cabinets must have a padlock
 - Padlocks should have short locking hook.
2. All rooms must be locked
3. Label keys: 1 set of with HMIS Officer & 1 set at Baobab HQ in Operations Department key cabinet
4. Every room with a power cabinet needs to have a fire extinguisher

OPERATIONS HARDWARE CHECKLIST

CHECK LIST FOR NEW SITE HW INSTALLATION

TOOLS/ MATERIALS REQUIRED

QTY
CHECK

Keys for server room & cabinets

2.5mm earth wire

48V cooling fan

Babble level

Batteries

Battery Charger

Battery Charger for drill machine

Battery terminals

Circuit Breaker
server

Drill bits (concrete, steel, wood bits)

Drill machines (both electric & battery power)

Fish tape

Hacksaw

Hammer

Hydrolic cutting machine

Insulation tape

Ladders

LVD

Multimeter

Network Switch

Padlocks for cabinets

Plain bend

Pliers

Power Extension cord

PVC coupling

PVC Nipples

PVC pipes (25mm,110mm,20mm)

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PVC saddles

PVC trunking

RJ45 connectors

RJ45 Crimping tool

Router if necessary

Screw drivers

Screws, Nut & bolts

Side Cutters

Soldering station, Solder wire

SW Mounting Bracket

Spanners

Speakon connectors

Spring bender

Surge protector

Tape measure

Torch

Twin surface switch

USB-Serial adapter

Voltage monitor

Water pipe

Work Suit