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HANDBOOK FOR THE  
**MOBYL DATA CENTER 22**





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# HANDBOOK FOR THE MOBYL DATA CENTER 22

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# Introduction

The MobyL Data Center (MDC-22) comes equipped with 22 BioDigitalPC<sup>®</sup>/MobyIPC<sup>™</sup> Server docking stations along with a backplane to form a cohesive scalable server cluster.

The MDC-22 can be scaled from one to twenty-two complete servers simply by plugging in more BioDigitalPC<sup>®</sup>/MobyIPC<sup>™</sup> Servers. Users can accommodate ever-changing requirements in the field with minimum effort. For example, add a node to the server cluster by simply plugging in a BioDigitalPC<sup>®</sup>/MobyIPC<sup>™</sup> Server Card and allowing it onto the network.

The MDC-22 comes equipped with the capability of hot swappable batteries and BioDigitalPC<sup>®</sup>/MobyIPC<sup>™</sup> Server Cards.

When completely scaled out, the MDC-22 allows for 22 BioDigitalPC<sup>®</sup>/MobyIPC<sup>™</sup> Server Cards containing between 22 to 88 CPU cores, 44 to 176GB DDR3, up to 2.8TB of ultra-fast SSD storage and a maximum of 12TB optional SSD storage.

The internal batteries allow for over 4 hours of scaled out server uptime. The MDC-22 also features a full LCD display and battery charging status lights.

# Operation



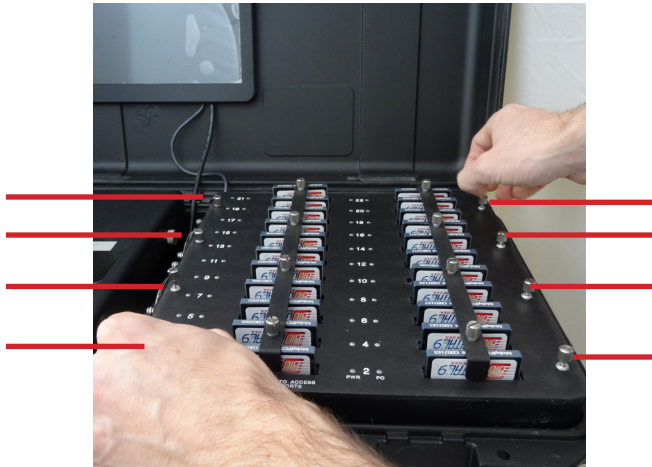
To begin using the MDC-22 you must insert the server cards. To do this, you must remove the card holder.

1. Start by removing the screws securing the holder in place.
2. Remove holder by lifting straight up.
3. Place the BioDigitalPC<sup>®</sup>/MobyIP<sup>™</sup> card in the corresponding slot and push gently until you feel it connect. Make sure the top side of the card is facing the front of the MDC-22. Note: Do not try to force the card in. If aligned correctly, it should gently click.





# Input/Output



## Unscrew to remove reader cover

You Must remove the reader cover to access the USB and Video ports

## Removing Reader Cover

To remove the reader cover you must

1. Remove all eight screws holding the cover down.
2. Lift straight up and away.



Mini DP++  
Video  
Connector

USB 2.0 Ports  
for USB Devices  
(ie: Keyboard & Mouse)

## Keyboard

Plug the keyboard's USB connector into one of the MDC-22's available USB ports

## Video

Plug the monitor's MiniDP connector into one of the MDC-22's available MiniDP++ ports

## Mouse

Plug the mouse's USB connector into one of the MDC-22's available USB ports

# Network



## Network

Features a 1 Gb Ethernet Connector each

To connect to your network

1. Find the ports on the back of the MDC-22
2. Unscrew the screw holding the ethernet cover plate down
3. Move the ethernet cover plate out of the way
4. Plug in an Ethernet cable

## FOR MAINTENANCE ONLY

How To Access Server Power Connector



# Power Up/Down/Fail Over

Press the main power button labelled MAIN PWR to turn the MDC-22 on. If plugged into AC or DC power, the batteries (if installed) will begin to charge.

In the event of power loss from either the AC or DC power inputs, the BioDigitalPC<sup>®</sup>/MobyIPC<sup>™</sup> cards will continue running if the batteries are installed and sufficiently charged.

Press the server power button labelled SERVER PWR to turn on the fans and the BioDigitalPC<sup>®</sup>/MobyIPC<sup>™</sup> cards. Hold the server power button for approximately two seconds to turn off the fans and all BioDigitalPC<sup>®</sup>/MobyIPC<sup>™</sup> cards.

Press and hold the MAIN PWR button for approximately three seconds to stop the batteries from charging (if batteries are installed), and turn off the MDC-22 completely. Failure to do so may result in the batteries



Battery  
DC Power  
AC Power



## Backplane Voltage Output Display

The MDC-22 has a backplane voltage display to ensure the power control is working properly. The reading should be between 4.8 and 5.3 at all times. If the reading is not at acceptable levels the MDC-22 will not work properly. Please ensure that you have the proper input power levels in the appropriate AC/DC inputs (AC: 115/230 VAC, DC: 12/24 VDC).



# Hardware Maintenance



## Modular Battery

To remove battery

1. Remove both side screws on battery cover
2. Lift cover until the cover is vertical
3. Grasp and evenly pull battery straight up and out of MDC-22

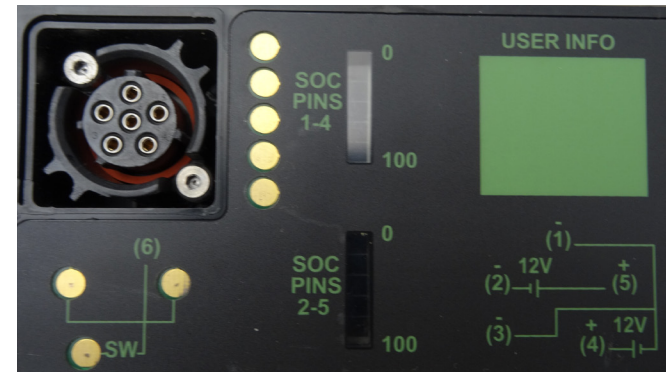


When reinstalling battery make sure it firmly connects with the connectors.

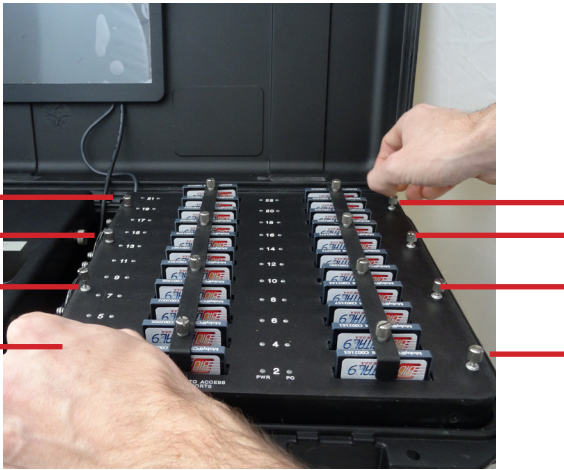


## COVER WARNING!

Please make sure to close the battery cover prior to closing the MDC-22 top.



# Hardware Maintenance



## Unscrew to remove reader cover

### Removing Reader Cover

To remove the reader cover you must

1. Remove all eight screws holding the cover down.
2. Lift straight up and away.



## Removing Docking Station

1. Remove each screw at each end of the M4 reader row.
2. Carefully pull the row up and out.



## Removing M4 Reader

1. Remove both screws holding the M4 Reader in place.
2. The M4 Reader should fall freely.



# Additional Storage

The MDC-22 comes with up to 32TB of expanded storage. This storage is optional and can be added or removed.

**ALL EXPANDED STORAGE IS CONNECTED THROUGH A BIODIGITALPC®/MOBYLPC™ CARD CONNECTED TO THE MARKED SLOT(S). THE READER IN THESE SLOT(S) FOR THE EXPANDED STORAGE UNITS ARE NON REMOVABLE.**

## Removing & Inserting Additional Storage

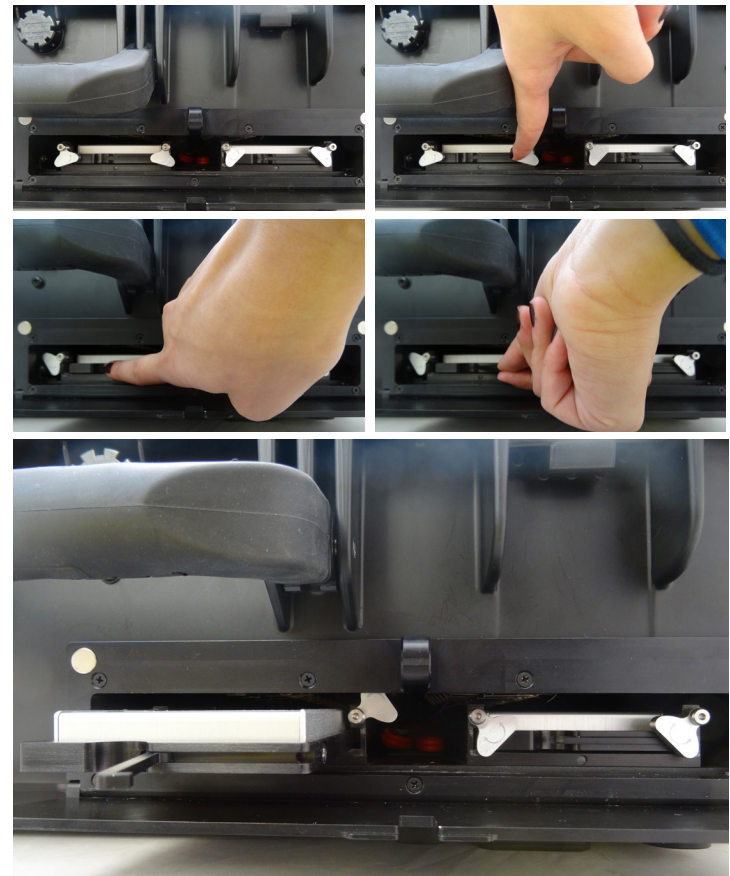
### Removing Hard Drive

1. Open door at the front right bottom of the MDC-22.
2. Move the hard drive clips up and out.
3. Firmly grasp the hard drive and pull it straight out

### Inserting Hard Drive

1. Push the hard drive into hard drive slot squarely.
2. Push firmly until it locks into place.
3. Move the hard drive clips down and in making sure to cover the ends of the hard drive.
4. Close door.

You also have the option to add additional storage through the network.



# THIS PAGE ONLY for MDC-22R

## Modified Version with Router



Router Control Panel is located below the card slots, behind cover panel.



Pinhole Router  
Reset Button

Router Touch  
Display Screen

MDC-22 with an optional router. Port 24 default WAN.  
Please check packing slip or invoice with specific router information.