

# Installation Guide

DRV

Direct Radiography System

VetStandard

X-Ray System by  
Quantum Medical Imaging

Digital Integration by  
SimonDR, Inc.



**What this manual covers....**

**What to do first**

**Unpacking**

**Setting up the x-ray machine**

**DRV imager connections**

**Server Set-up**

**Calibration**

**Light-Field Alignment**

## What to do first

Before even thinking about installing the equipment, plan for the location of the server, monitor, and keyboard. The monitor and keyboard should be located near the x-ray table, but out of reach of unruly animals. What works best - always - is a wall mount system that mounts the monitor, keyboard and mouse on an articulating arm.

The monitor should be easily viewable by the operators of the x-ray equipment.

### **Electrical Planning:**

The DRV and computer system need only one 110v outlet in which to plug in a Universal Power Supply (UPS). The computer, monitor, and imager reset switch plug into the UPS. So, plan for a place to keep the UPS. Near or under the X-Ray table is a good place.

The table brakes require another 110v outlet.

The VetStandard X-Ray machine requires 208v or 240v single-phase 100 amp minimum service.

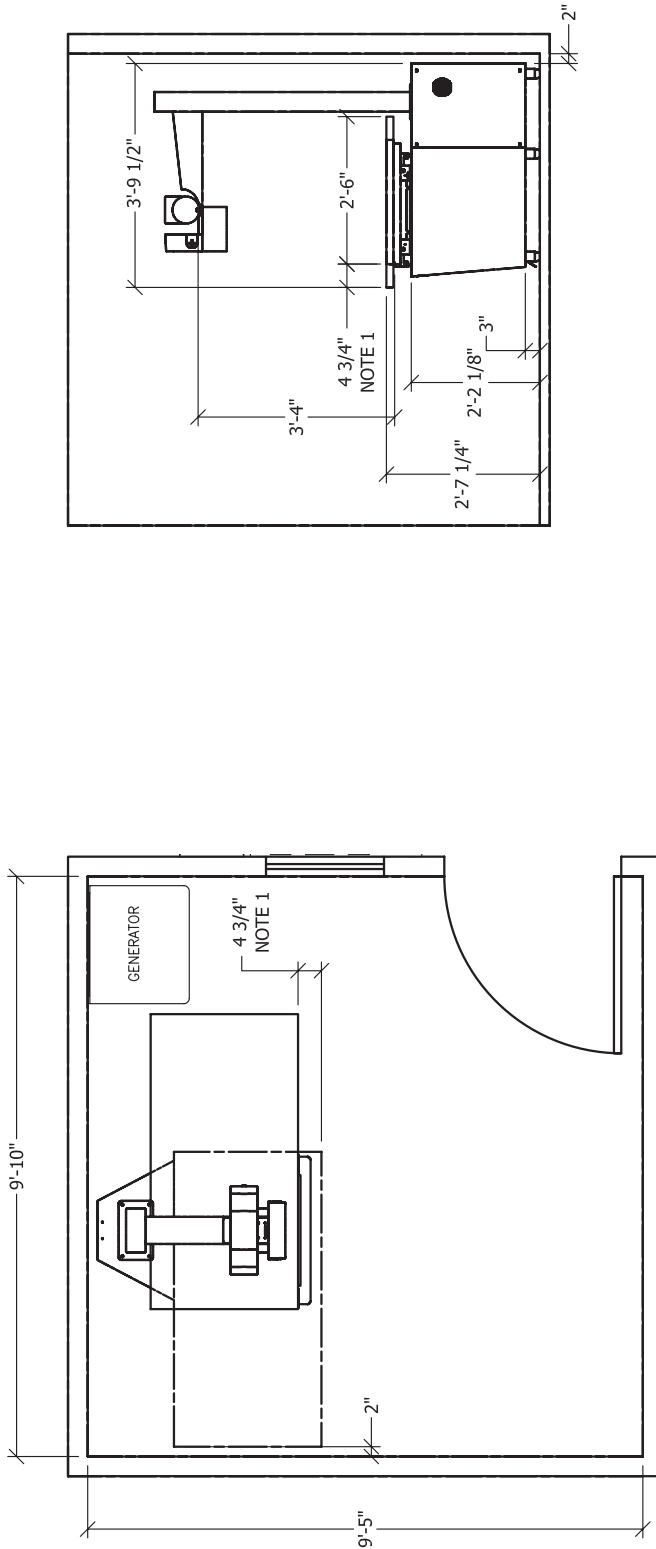
### **Network Planning**

Further ensure that there is either a high-speed connection to the internet where the computer is installed or a connection to the local network, and therefore internet. Use of CAT6 is preferred to CAT5 cabling, but either will work. Consult with your network administrator for their preference. If the connection is direct, the user is responsible for installation and setup of a hard-firewall between the server and the internet.

### **Other Notes:**

Use the following as a guide for room layout and minimum room size.

REVISIONS	
REV	DESCRIPTION
1	PROTOTYPE RELEASE



**NOTES:**

- TABLE IN CENTER POSITION HAS 14 INCH TRAVEL ON -X AND +X AXIES AND 2-3/8 INCH TRAVEL ON -Y AND + Y AXIES.

DATE	08/30/06
DRAWN BY	P. GREENING
CHECKED BY	
ENG. APPROVAL	
QA APPROVAL	
MFG APPROVAL	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
FRACTIONS 1/8, 1/4, 3/8, 1/2, 5/8, 3/4, 7/8, 1	DECIMALS .005, .01, .015, .02, .025, .03, .04, .05, .06, .07, .08, .09, .1, .12, .15, .2, .25, .3, .375, .5, .75, 1
MATERIAL	N/A
FINISH	N/A
NEXT ASSY	N/A
USED ON	N/A
APPLICATION	

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Quantum Medical II  
TITLE: Q-VET GENERAL D  
DWG/PART NO: QP12-01  
SCALE: NTS  
DWG CAT: MIN. ROOM

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## Unpacking

### Pallet 1

- Box 1 Server
- Box 2 Imager
- Box 3 Monitor
- Box 4 UPS
- Box 5 Wallmount (optional)

Other boxes may be on this pallet, so please check your packing list

### Pallet 2

- Box 1 Table Base, collimator, manuals, tube, cables.
- Box 2 Tubestand, control panel, and foot switch

### Pallet 3

- Box 1 Generator

### Pallet 4

- Table top - usually no pallet.

## Setting up the x-ray machine

First, this Manual in no-way shape or form replaces any Quantum manuals, training, and good common sense. We provide this only as a quick reference guide. The installer should read all Quantum manuals and attend Quantum training when practical.

Do not power up the x-ray machine until the imager has been turned on and tested.

Set the table in the room and mount the tubestand.

Mount the tube/collimator arm

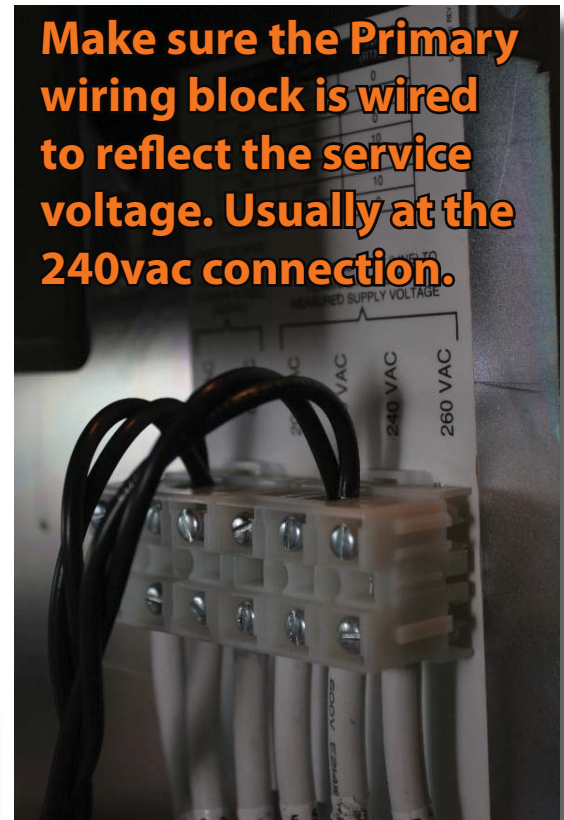
Mount the Operator Control Panel (OCP)

Mount the tube and collimator

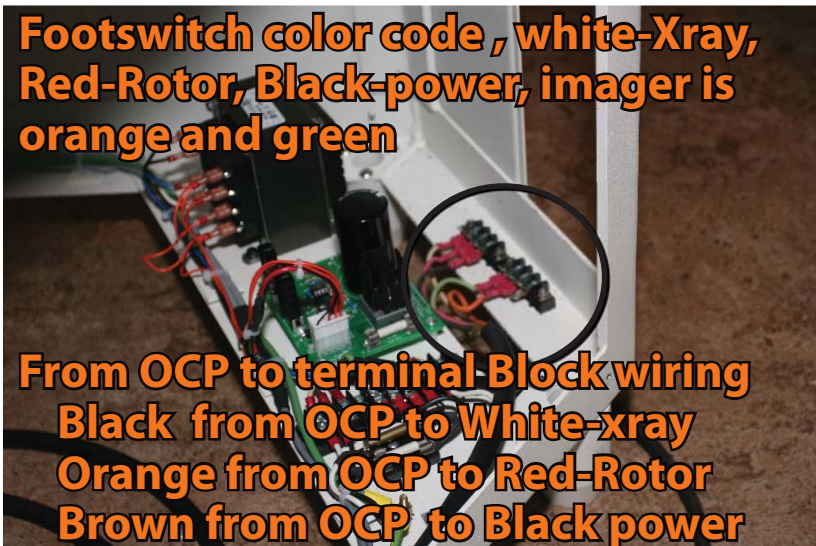
Use the following a quick guide to connecting a Quantum System - get your official instructions from the Quantum Manuals. Verify by reading the Quantum Manuals that these quick instructions are correct.



**240 volt incoming service - from panel L1 black L2 White**

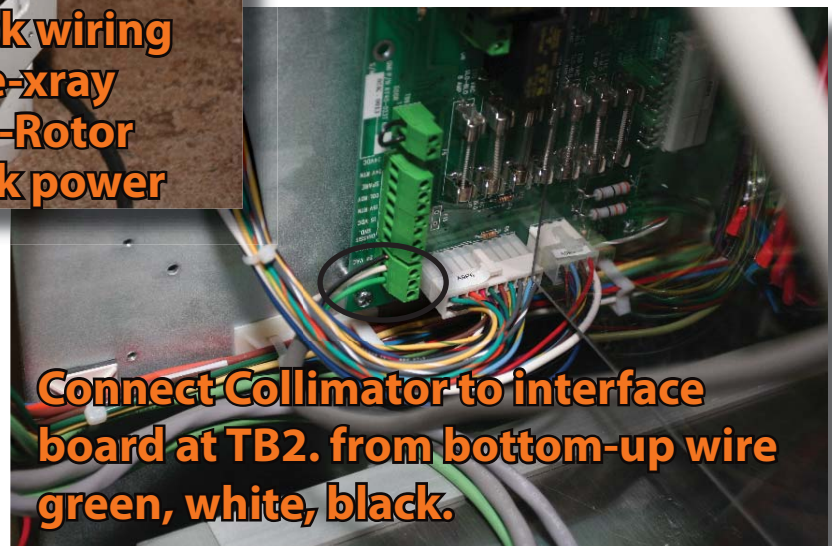


**Make sure the Primary wiring block is wired to reflect the service voltage. Usually at the 240vac connection.**

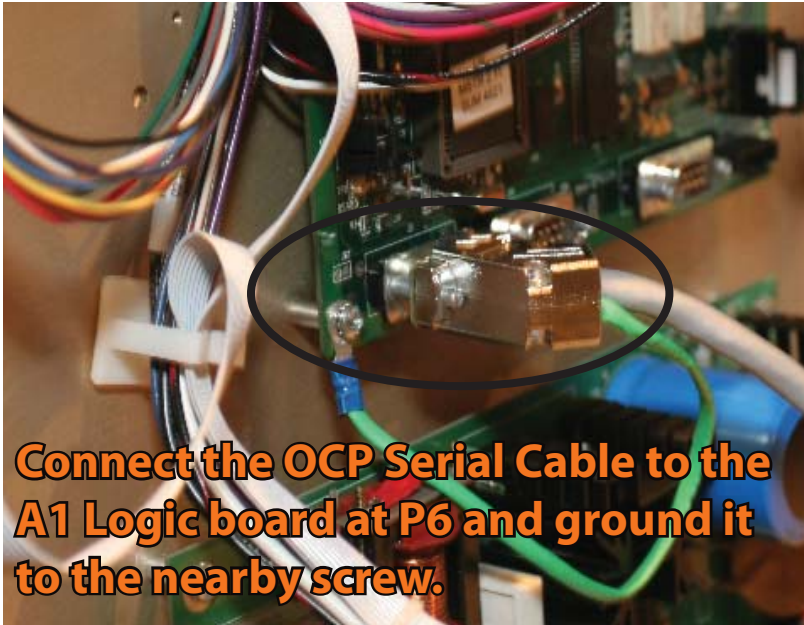


**Footswitch color code , white-Xray, Red-Rotor, Black-power, imager is orange and green**

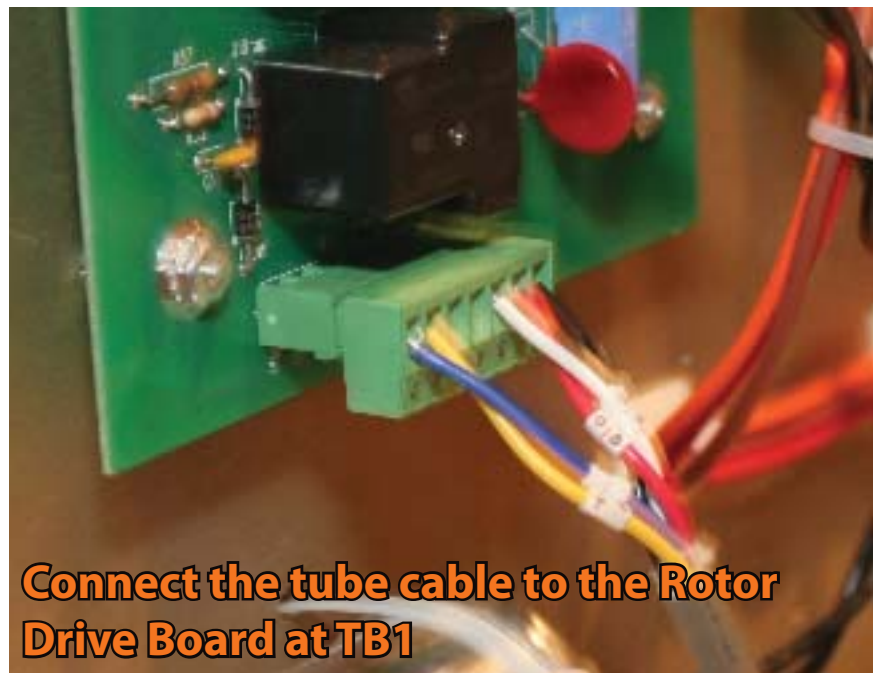
**From OCP to terminal Block wiring  
Black from OCP to White-xray  
Orange from OCP to Red-Rotor  
Brown from OCP to Black power**



**Connect Collimator to interface board at TB2. from bottom-up wire green, white, black.**



**Connect the OCP Serial Cable to the A1 Logic board at P6 and ground it to the nearby screw.**



**Connect the tube cable to the Rotor Drive Board at TB1**

## Imager Connections

Connect the imager to the footswitch as on page 7. Do not power up the x-ray machine until the imager has been turned on and tested.

Plug the black and white reset switch into the UPS. Plug the imager into the reset switch. Route the switch to a convenient location near the keyboard.

Test the imager to ensure that wiring has not crossed. Turn the imager on. Listen carefully to the imager and step on the foot switch. You should hear a “click” noise once and then again 10 seconds later. If this is successful, turn the imager off for the rest of setup.

Connect the white usb connection to a USB extension and then to the number 1 slot on the USB expansion board at the bottom of the server.

## Server Set-up

The USB cable from the imager is plugged into the number 1 slot on the usb expansion board at the bottom of the server.

Plug the monitor into the blue port on the video card at the bottom of the server.

Plug the keyboard into the PS2 or USB slot on the motherboard.

Plug the mouse into the USB slot on the motherboard.

Connect the network cable to either NIC.

Power the server on and browse to Google to ensure a proper internet connection.

## Calibration

Follow the instructions below to calibrate the anode and cathode line voltage, prior to calibrating the x-ray machine output. **WARNING - THIS SHOULD ONLY BE COMPLETED BY EXPERIENCED SERVICE PERSONNEL AS HIGH VOLTAGE CAN CAUSE DEATH AND SERIOUS INJURY.**

Enter setup menu by first powering up OCP and pressing the upper left function button at the sight of the initial screen

Enter access code (i.e., 58623)

Enter "Configuration"

Select "AEC" function key until it reads "AEC Standard"

Select "Main"

Select "Calibration"

Select "A/D Calibration"

After taking a voltage reading across the anode capacitors on the generator (right side), select "400V Anode"

Using the function keys adjust the "Measure #1" voltage to match the reading obtained

from the anode capacitors on the right side of the generator

Select "Save calibration"

Select "Previous screen"

Select "400V cathode"

Adjust "Measure # 1" voltage to match the capacitors tested on the generator (left side)

Select "Save calibration"

Select "Previous screen"

Select "Previous screen" again on the next screen

Select "Main"

Select "Exit"

Calibrate the x-ray output according to the instructions in the Quantum manual.

## Light-field alignment

When all of the above has been completed call 800-835-3852 to allow a technician to dial in and check the settings. You will receive quick training on light-field alignment as it pertains to viewing images during alignment.