

Rad-X Medical Power Filtration System[®] **(Rad-X Filter)**

Installation Instructions

Important notice to the installing contractor

Before beginning installation of the Rad-X Filter, check the nameplate information on the inside of the front cover of the Filter cabinet:

Does the Rad-X Filter voltage requirement match your available voltage?

Yes _____ No _____

The Rad-X Filter is produced in Wye or Delta configuration. Is the Rad-X Filter the proper configuration for your application?

Yes _____ No _____

If you answered no to either of these questions, please contact APQS at 480-214-5676 before continuing.

Installation Instructions for the Rad-X Medical Power Filtration System[®] (Rad-X Filter)

Introduction

The Rad-X Filter is a low pass, bi-directional, pi configuration power filtration system with transient voltage surge suppression (TVSS). It is manufactured exclusively for imaging, diagnostic and interventional radiology, neurology, oncology and nuclear medicine systems. The Rad-X Filter includes two cabinets:

1. The main filter cabinet.
2. The wireway cabinet.

Mechanical Installation

The Rad-X Filter should be installed as close to the protected equipment as possible. Ideally, that will be in the treatment or adjacent power room.

- The Rad-X Filter is designed to be wall mounted and the two cabinets are unistrut ready. (**Refer to Figure 3, page 6**). The unistrut itself, however, must be provided by the installing contractor.
- The wireway cabinet is mounted below the main filter cabinet.
- The two cabinets are mechanically joined using two, 2" nipples which are supplied with the Rad-X Filter.
- The Rad-X Filter may be installed at any height (including above drop ceiling), so long as the required working clearance is met. The required working clearance in the front of the Rad-X Filter is 42" minimum (Refer to the National Electric Code (NEC) Article 110-26).

| Rad-X Filter | Weight | Height | Width | Depth |
|---------------------|---------------|---------------|--------------|--------------|
| Filter Cabinet | 125 lbs | 30" | 24" | 12" |
| Wireway Cabinet | 20 lbs | 8" | 24" | 8" |

Electrical Installation

All connections are made within the Wireway Cabinet only (**Figure 2, page 5**). Final electrical connections between the Rad-X Filter and Wireway Cabinets are made by APQS engineers.

The Rad-X Filter is electrically installed in series with the feeder conductors that supply the protected equipment. Whenever possible, it is preferable to install the Rad-X Filter on **the line side of the main circuit breaker (CB)** that is typically located within the protected equipment suite (**Figure 1, page 4**).

For Wye Configuration Rad-X Filters (3-phases, neutral and equipment ground):

1. Make one (1) appropriately sized knock-out on each side of the Wireway Cabinet.
2. Route the Line Side Phase Conductors to the Line Side Distribution Block.
(Since the Filter is bi-directional, either side may be set up as the line side.)
3. Route the Line Side Neutral Conductor to the Neutral Distribution Block.
4. Route the Line Side Equipment Ground Conductor to the Ground Distribution Block.
5. Route the Load Side Phase Conductors from the Load Side Distribution Block to the protected equipment.
6. Route the Load Side Neutral Conductor from the Neutral Distribution Block to the protected equipment.
7. Route the Load Side Equipment Ground Conductor from the Ground Distribution Block to the protected equipment.
8. **Do not remove the Factory Installed Jumpers.**

For Delta Configuration Rad-X Filters (3-phases and equipment ground):

1. Make one (1) appropriately sized knock-out on each side of the Wireway Cabinet.
2. Route the Line Side Phase Conductors to the Line Side Distribution Block.
(Since the Filter is bi-directional, either side may be used as the line side.)
3. Route the Line Side Equipment Ground Conductor to the Ground Distribution Block.
4. Route the Load Side Phase Conductors from the Load Side Distribution Block to the protected equipment.
5. Route the Load Side Equipment Ground Conductor from the Ground Distribution Block to the protected equipment.
6. **Do not remove the Factory Installed Jumpers.**

******Ensure that your installation meets all local and national codes******

Rad-X Filter Installation One-Line Diagram

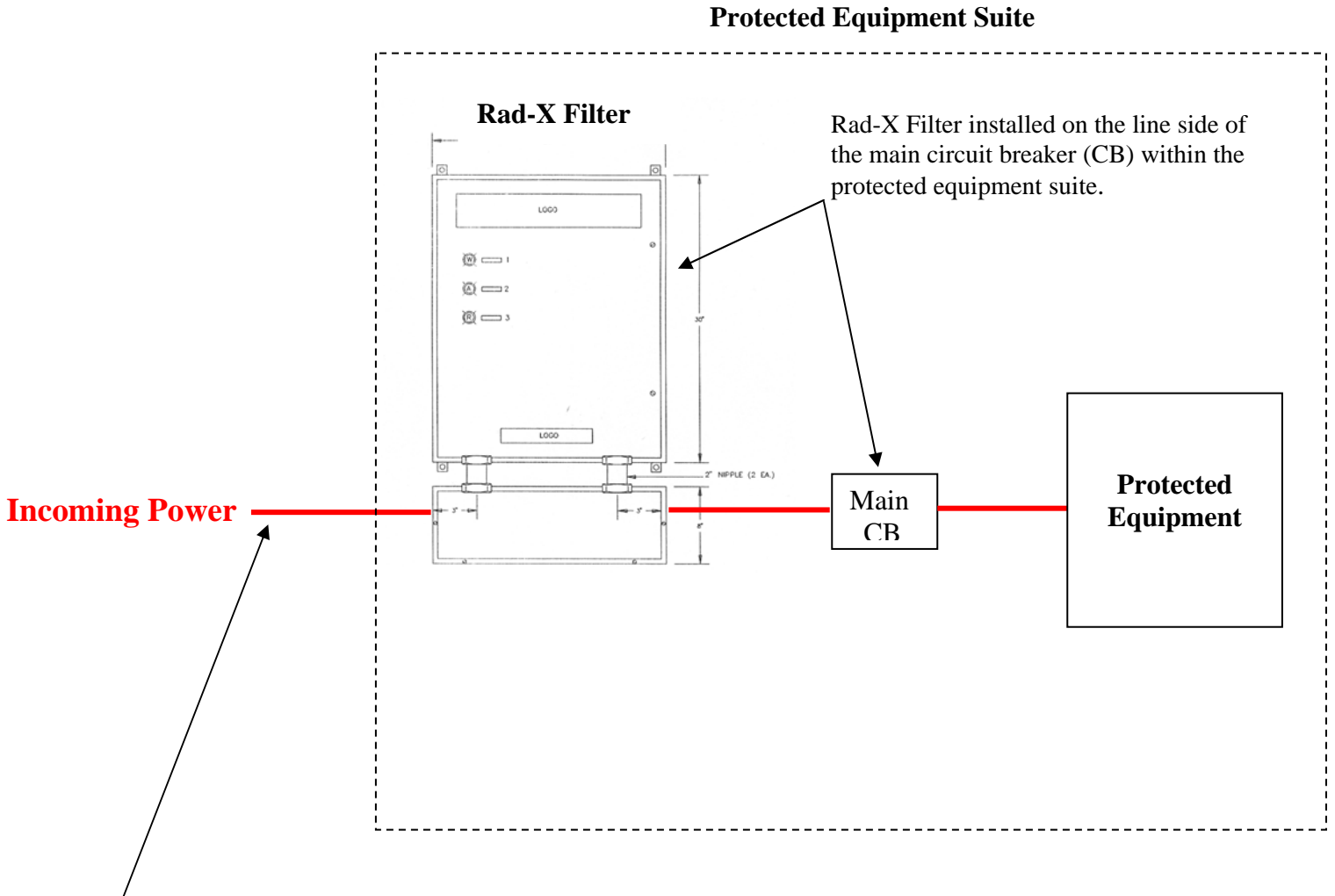


Figure 1

Wireway Cabinet

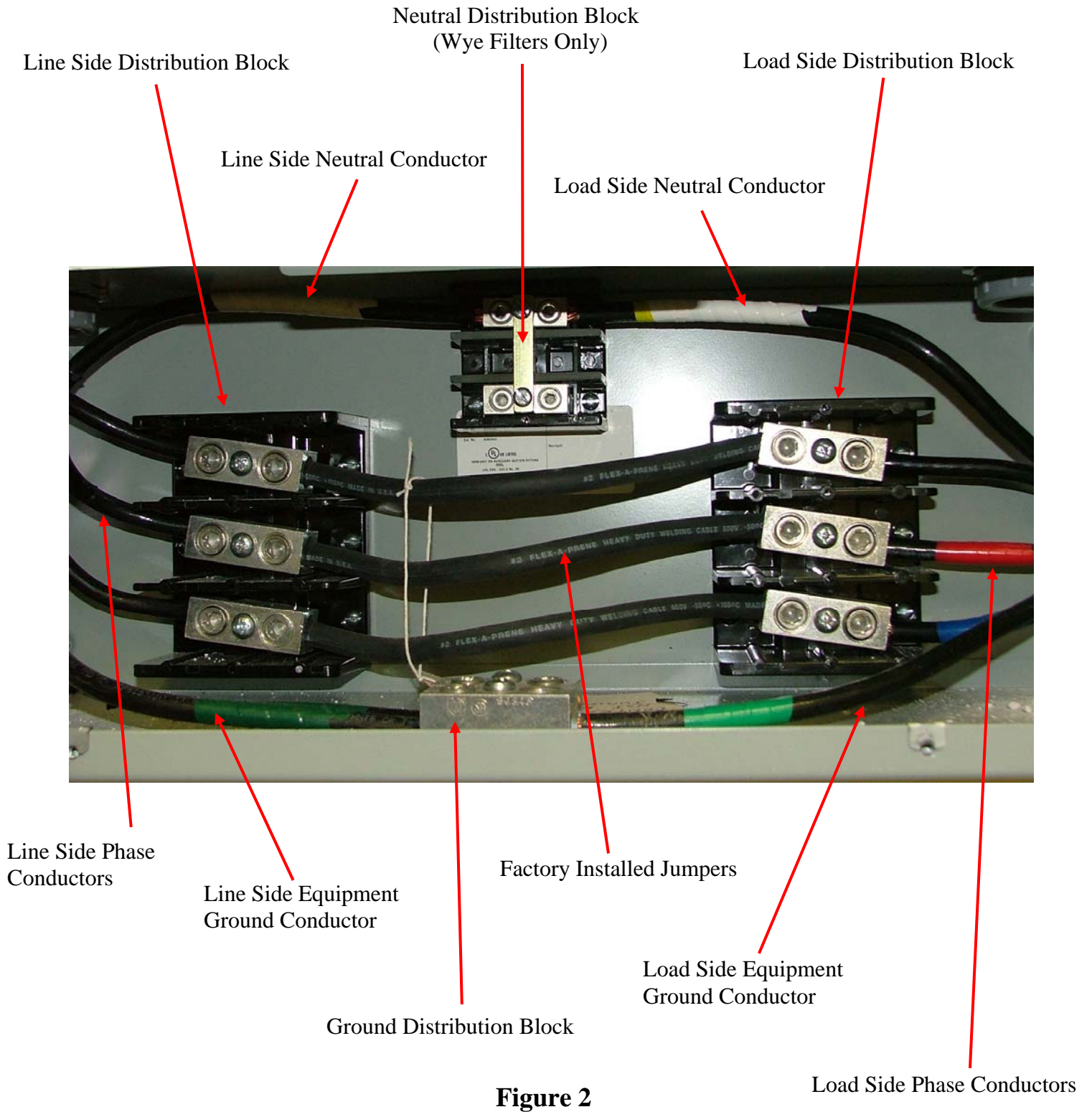
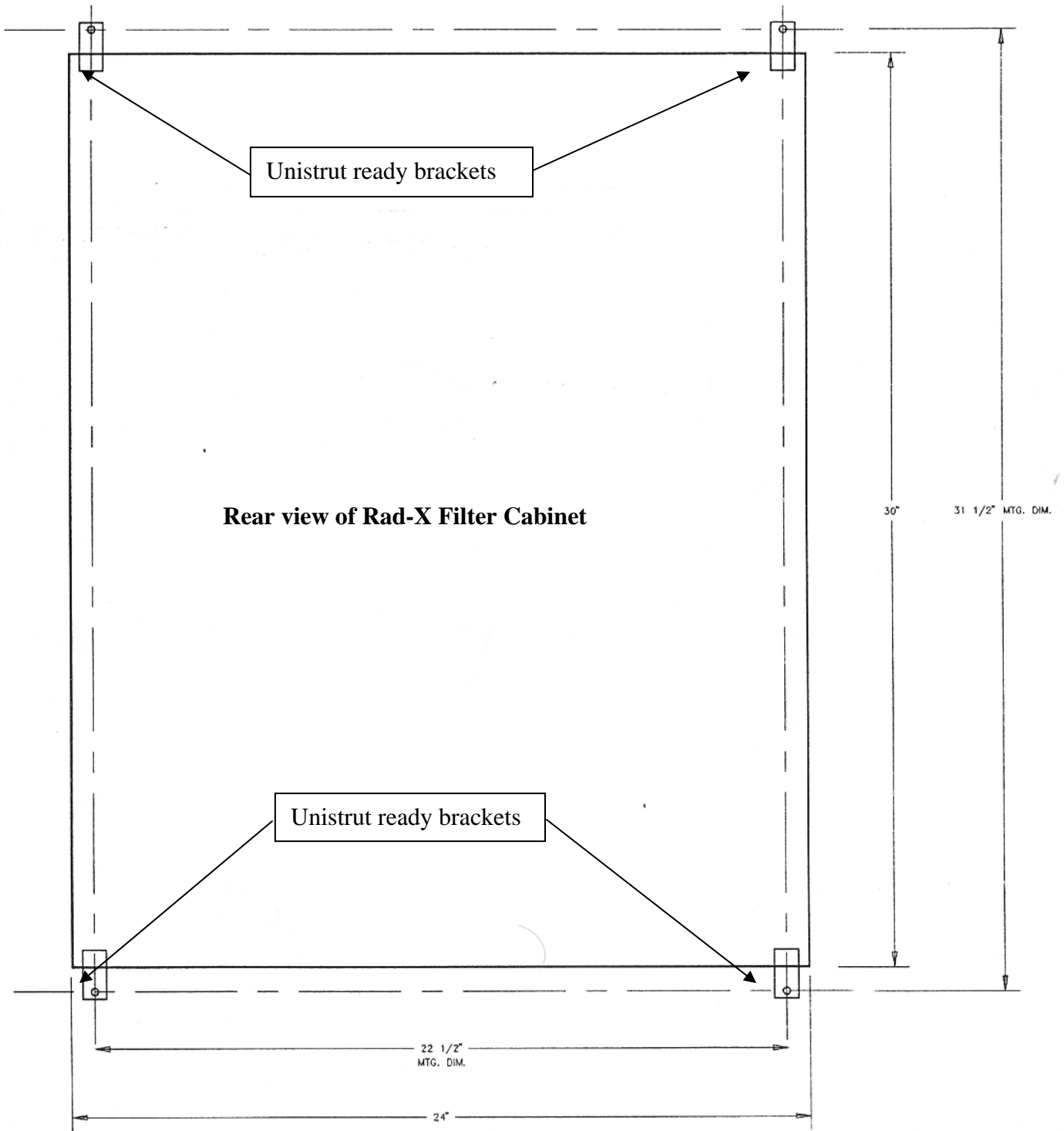


Figure 2

Unistrut Detail



Rear view of Rad-X Filter Cabinet

Figure 3