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*GE Medical Systems*

# Technical Publications

## Direction 2319693
**Revision 0**

# Signa® Gradient Radial Support Upgrade



**Operating Documentation**

# DAMAGE IN TRANSPORTATION

All packages should be closely examined at time of delivery. If damage is apparent, have notation **"damage in shipment"** written on **all** copies of the freight or express bill **before** delivery is accepted or "signed for" by a General Electric representative or a hospital receiving agent. Whether noted or concealed, damage **MUST** be reported to the carrier **immediately** upon discovery, or in any event, within **14** days after receipt, and the contents and containers held for inspection by the carrier. A transportation company will not pay a claim for damage if an inspection is not requested within this **14** day period.

**Immediately** complete a "Damage Loss Claim Form", available via MS Exchange Mail, after the damage is found.

MS Exchange Path:

Outlook/Public Folder/All Public Folders/Medical Systems/!Global Initiatives/Information Management/Forms/Common Forms/DAMAGE LOSS CLAIM FORM.

Send the completed form to the email address listed in the form.

For more information about the Transportation Claim Procedure, access the GE Medical Systems Intranet and enter the following URL address (case sensitive):

ftp://3.87.40.2/globepro/qualsys/Docs/190016MF.PDF

Rev. 11/15/2000

# REVISION HISTORY

| REV | DATE | PRIMARY REASON FOR CHANGE |
|---|---|---|
| 0 | Feb 16, 2002 | Initial version for Release. |

| PAGE | REV | PAGE | REV | PAGE | REV | PAGE | REV |
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| Title Page | 0 | | | | | | |
| 2-10 | 0 | | | | | | |

* This revision/letter corresponds to the indicated document's revision control system.

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## INTRODUCTION

All Signa systems with BRM or CRM in a Cx/K4 (LCC) Magnets, GE S Series Magnets, GE Cx Magnets and Oxford magnets. The purpose of this upgrade is to prevent excessive gradient coil motion, which can result in image quality issue such as DW-EPI pixel voids.

## RELATED MODIFICATIONS

- Sign Cx/K4 Magnet Wide Open Enclosure Bridge Support Upgrade
- BRM RF Shield Grounding Upgrade

## FURNISHED MATERIALS

See Table 1 for the contents of Kit 2307608

TABLE 1
**2307608 GRADIENT RADIAL SUPPORT UPGRADE KIT**

| Item | Part # | Description | QTY |
|---|---|---|---|
| 1 | 2319693 | Gradient Coil Radial Support Instructions | 1 |
| 2 | 2325862 | Nylon Hex Nut M16 | 4 |
| 3 | 2307607 | Radial Support Spacer | 4 |
| 4 | 2293535 | Set Screw M16 | 4 |
| 5 | 213953-6 | CRM Mounting Pad with Neoprene | 4 |
| 6 | 2212715-2 | BRM Mounting Pad with Neoprene | 4 |
| 7 | 2181231-2 | Filler Pad | 4 |
| 8 | 2174929-9 | Open Cell Polyurethane Foam 112 Inches (284.5 cm) | 2 |

## MANPOWER REQUIREMENTS

One Service Engineer for three hours.

## SPECIAL TOOLS & TEST EQUIPMENT

None

## FIELD SUPPLIED MATERIALS

None

## PROCEDURE

This procedure must be performed on both ends of the magnet. Start with either end.

1. Pull out ½ Inch (1.27mm) rubber cord from between gradient coil and magnet bore down to the gradient support bracket.
2. Cut the rubber cord 3 inches (7.6 cm) from each side of the gradient support bracket and push the ends back in.

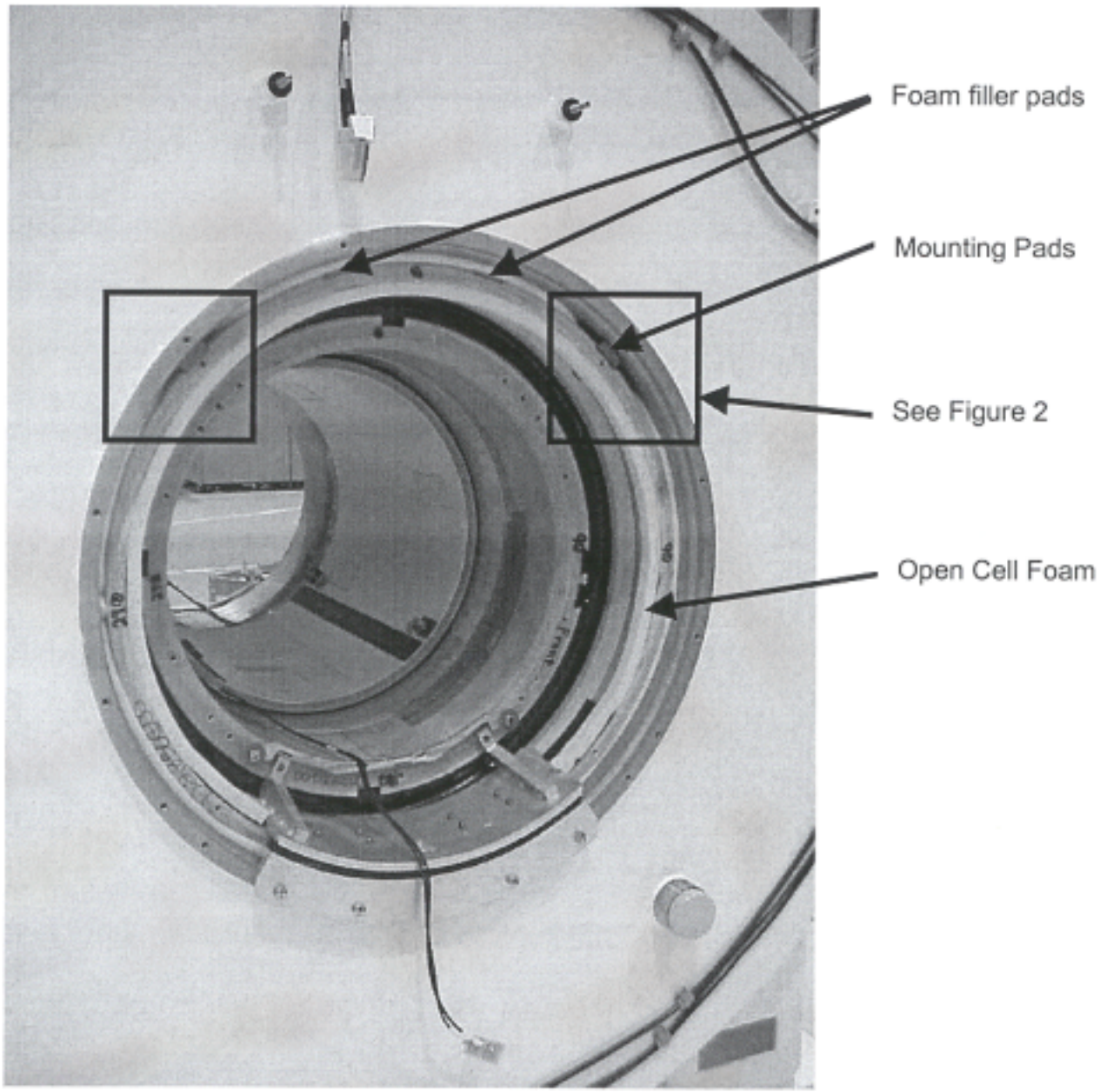


ILLUSTRATION 1
**OPEN MAGNET**

3. Install foam filler pad (2181231-2) in the 1 o'clock and 11 o'clock outer gradient coil slots as shown in Illustration 1. The filler pads are to prevent airflow.
4. Insert the cell foam (2174929-9) between the gradient and magnet bore, overlapping the remaining rubber cord at the bottom to form a good air seal. Trim as needed.
5. Refer to Illustration 2, 3 or 4 depending on your magnet, Install M16 allen head set screw (2293535) in the 10 o'clock and 2 o'clock positions.

**Note**

It is important to make sure the mounting pad is properly set in the gradient bore slot such that the set screw tip engages into the indent in the pad.

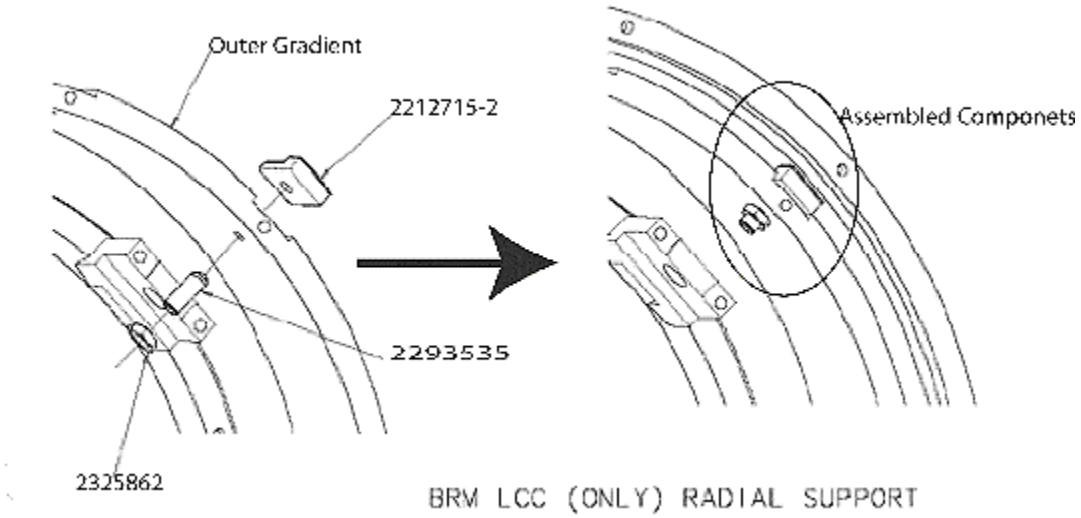


ILLUSTRATION 2
**BRM LCC RADICAL SUPPORT**

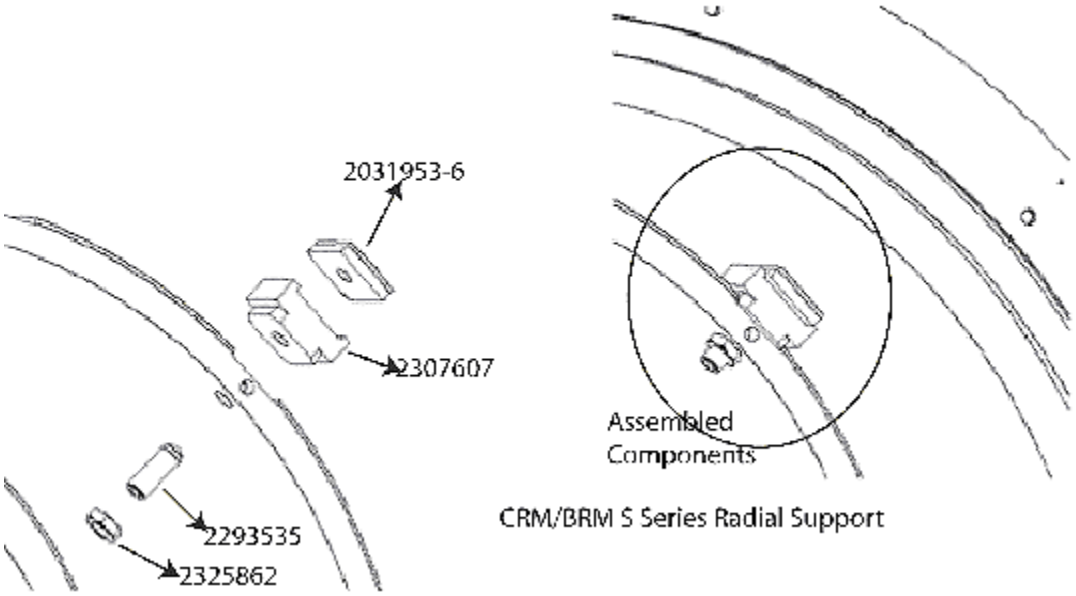


ILLUSTRATION 3
**CRM/BRM S SERIES RADIAL SUPPORT**

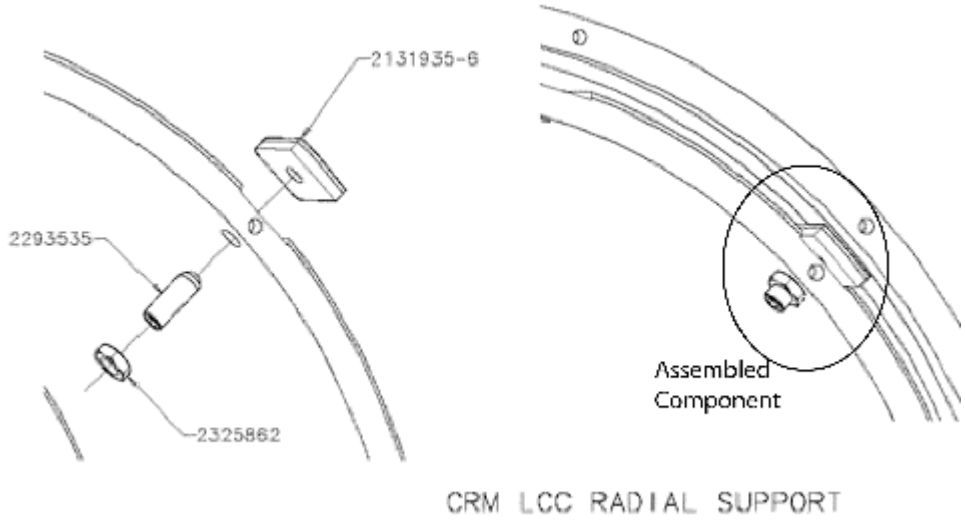


ILLUSTRATION 4
**CRM LCC RADIAL SUPPORT**

7. GE S series/Oxford/3T/4T Magnet only: Insert spacer (2307607) between set screw and mounting pad.
8. Tighten setscrew until snug (pad doesn't move), then torque each screw ¼ - ½ turn past snug.
9. Thread nut 2325862 over M16 setscrew until nut is snug against inner diameter of outer gradient coil. Then torque an additional 1/4 - 1/2 turn past snug.
10. Repeat all previous steps for the opposite end of bore.
11. Center the coil in the bore left and right by adjusting the radial supports so that the gap between the coil and magnet bore is equal at the 90 degree and 270 degree positions within 1 mm.
12. Indicate the modification has been completed in the site log.