

MFO2 Phased Array CTL Spine Coil SNR Check Method

Effectivity

Phased Array CTL Spine Coil installed in MFO2 systems

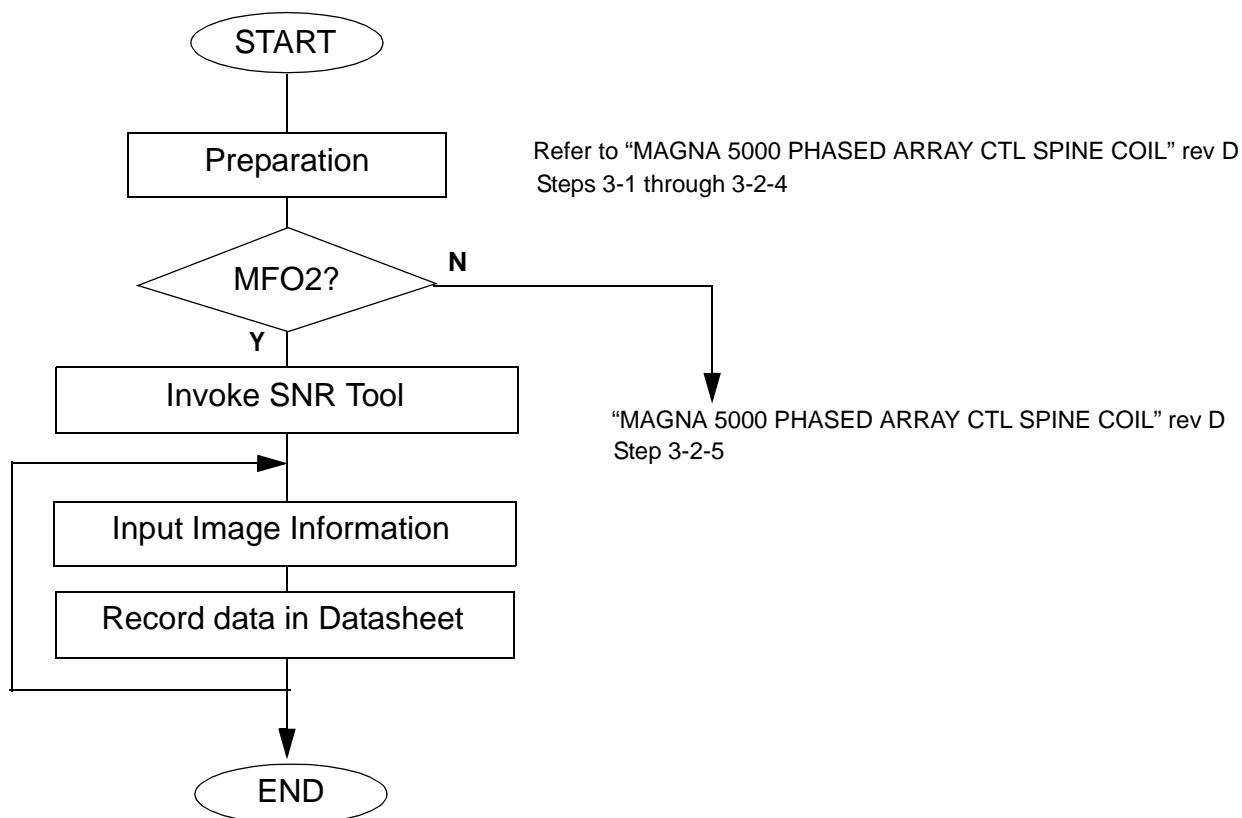
Problem

The calculation method of SNR has changed for MFO2 from MFO. If you use the conventional method of Phased Array CTL Spine Coil SNR Check in a MFO2 system, you might get an out-of-spec SNR value, although it is a satisfactory coil.

Solution

When performing SNR check of Phased Array CTL Spine Coil in MFO2 system, **do not** use the conventional method described in SV CDROM "MAGNA 5000 PHASED ARRAY CTL SPINE COIL" rev D. Instead, use the CTL SNR Tool explained in this document. This tool will generate accurate SNR value, and also it is much easier to measure SNR. If the coil is used in MFO system, CTL SNR tool is not available, so use the conventional method.

PHASED ARRAY CTL SPINE COIL Functional Check Procedure



FLOW CHART
ILLUSTRATION 1

PHASED ARRAY CTL SPINE COIL Functional Check Procedure (continued)

1. Preparation

Perform Steps 3-1 through 3-2-4 of "MAGNA 5000 PHASED ARRAY CTL SPINE COIL" rev D in MFO SVDOC (p/n 2283085). The document is also found in following URL.
<http://3.36.8.50/mr/MFOdocs/scoil/index.html> (Click "Vendor Coil")

2. Determine MFO version

Determine the whether the system is MFO or MFO2.

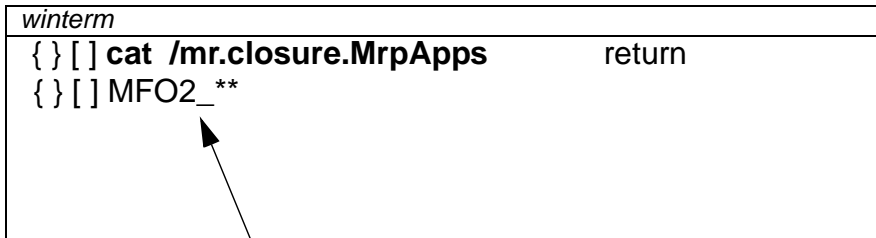
a. Open Service Desktop and click "**Cshell**"

b. In the C-shell, type "**cat /mr.closure.MrpApps**" and then press "**return**"

If the displayed value is MFO_**, the system is not MFO2. Proceed to Section 3-2-4 of "MAGNA 5000 PHASED ARRAY CTL SPINE COIL" rev D.

If the displayed value is MFO2_**, then the system is MFO2. Proceed to "Invoke CTL SNR Tool". This tool will be available in later systems than MFO2, so if the number after "MFO" is greater than 2, use this tool to perform SNR check.

```
winterm
{ } [ ] cat /mr.closure.MrpApps      return
{ } [ ] MFO2_**
```



If the displayed value is MFO2_** or greater,
then the system is MFO2 or later.

DETERMINE MFO VERSION

ILLUSTRATION 2

3. Invoke CTL SNR Tool

a. Place cursor in the C-shell.

b. Type "**cd /usr/g/bin**" and press "**return**".

c. Type "**mfoctl**" and press "**return**".

```
winterm
{ } [ ] cd /usr/g/bin                return
{ } [ ] mfoctl                       return
```

INVOKING CTL SNR TOOL

ILLUSTRATION 3

4. Input image information
 - a. Type the first letter of the appropriate mode (ex: “c” if you are calculating SNR for C-mode) and press “**return**”.
 - b. Input the exam number, series number, and image number of the 1st image
 - c. Input the exam number, series number, and image number of the 2nd image.
 - d. Coil SNR Tool will display the SNR value.

```

winterm
Select mode [C/T/L]:c      return
Enter exam for signal 1: 54211  return
Enter series for signal 1: 8    return
Enter image for signal 1: 1    return
You selected 54211/8/3 for signal 1.
Enter exam for signal 2: 54211  return
Enter series for signal 2: 8    return
Enter image for signal 2: 2    return
You selected 54211/8/6 for signal 2.
ROI(P50, S/I0): mean1 = 1095.10 mean2 = 1093.51 SD = 4.73 SNR = 327.347
  
```

INPUT IMAGE INFORMATION

ILLUSTRATION 4

5. Record SNR value in the datasheet.

Note

SNR value specification is listed in SN62700. Refer to the newest revision of this document. You can find this document at following URL.
 URL : <http://3.36.8.50/mr/index.html>

6. Repeat Steps 4 through 5 for T-Spine and L-Spine images.

Note

This tool can be also used in research operations when troubleshooting a Phased Array CTL Spine Coil installed in MFO2 or later systems. When you are performing step 3-7 “Troubleshooting Strategy” of “MAGNA 5000 PHASED ARRAY CTL SPINE COIL” rev D, enter the image number of the intermediate images, and the tool will display SNR values of the intermediate images.

SERVICE NOTES

Mar 25, 2002

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FILE TITLE

MFO RF Coil

SN62702

Note

All MFO/Profile/Contour Service Notes including this Service Note is available on WEB for GE employees. URL : <http://3.36.8.50/mr/index.html>

MR TP Gr.
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