NE IBOC

Software Installation

IS05005A NE IBOC Software Installation
INFORMATION SHEET

1 INTRODUCTION
This document describes how to install software and perform subsequent reconfiguration on the NE IBOC.

1.1 Equipment Affected
This procedure involves the NE IBOC-AM or FM exciter and its associated transmitter and exciter(s).

1.2 Responsibility for Implementation of Procedure
This procedure should be carried out by suitably qualified station maintenance personnel.

1.3 Scheduling
This procedure may be implemented at the convenience of station maintenance personnel. Note that it is necessary to discontinue the IBOC (digital) portion of the transmission during this procedure.

1.4 Manpower Requirements
This procedure requires approximately 30 minutes to complete.

NOTE
This document makes frequent reference to operations and checks on the NE IBOC exciter. Refer to its Technical Instructions Manual for detailed information.

2 PRE-INSTALLATION REQUIREMENTS
Perform the following steps before installing the software:

(a) If the NE IBOC is operational, record the parameters in the "Pre-install Parameter Value" column of Table 1 before proceeding. Upon completion of this procedure, re-enter the parameter values in the "Post-install Parameter Value" column of Table 1

WARNING
Any other custom values or network information (Host name and IP address) will be overwritten during the software installation process.

(b) Refer to the accompanying information sheet - *IS05007 NE IBOC Network Configuration* – to document the current settings for host name and IP address. This information sheet also provides instructions to modify the host name and IP address.

(c) <u>For AM transmitter systems</u>, discontinue IBOC (digital) transmission:

- If possible, initiate a changeover to the backup analog exciter or transmitter.

- Disconnect the Magnitude and Phase cables from the rear panel of the NE IBOC-AM exciter.

(d) <u>For FM+HD (hybrid) transmitter systems</u>, discontinue transmission of the IBOC (digital) portion:

- Remove the HDR Data cable from the rear panel of the NE IBOC-FM. The M50 exciter's diagnostic display will indicate **No HD Data** in its status log screen.

- Verify the transmitter is still operating in analog mode.

(e) <u>For HD (all digital) transmitter systems</u>, remove the transmitter from service:

- Turn off the transmitter.

- Remove the HDR Data cable from the rear panel of the NE IBOC-FM.

Table 1: NE IBOC Pre-install Parameters

Transmission Type	Parameter	Record pre-install parameter value in this column	Default value
AM	Magnitude/Phase Delay		12700
AM	Magnitude DC Offset		0
AM	Analog Gain		1
AM or FM	Analog Diversity Delay Value		368000
AM	Frequency		930 kHz
AM or FM	Call Sign		HD

3 SOFTWARE INSTALLATION

Install the NE IBOC's software as follows:

(a) Turn on the NE IBOC (if necessary).

(b) Open the CD ROM drive at the rear of the NE IBOC and insert the provided installation CD. Gently close the CD ROM drive (you should hear a click).

(c) Reboot the NE IBOC by cycling (turning off and then back on) the ac power.

(d) The software installation process should begin automatically. A progress bar indicates the current status of the installation.

NOTE
The NE IBOC should be factory configured to boot from the CD drive first. If not, the installation will fail. If there is a problem with the installation, check and, if necessary, change the NE IBOC's BIOS settings as follows:

- *To enter the BIOS utility, restart the NE IBOC and press* **DELETE** *several times as the NE IBOC starts up.*

- *Locate the boot device settings. Configure the first boot device as CD ROM and the second boot device as HDD.*

- *Save the changes and exit the BIOS utility.*

(e) When the installation is complete (approximately ten minutes), the NE IBOC will eject the installation CD. Remove the CD and gently close the CD ROM drive.

NOTE
If software installation is not complete within 30 minutes, cycle the ac power again to restart the installation process.

(f) The NE IBOC will boot up to its default operating graphic user interface (GUI). It should now be operational.

4 RESETTING NE IBOC PARAMETERS

Reset the NE IBOC for its original parameters as follows:

(a) Using the GUI, enter and verify your call sign, and specific operating parameters recorded in section 2.

(b) For AM transmitter systems, change the frequency by pressing the displayed frequency within the GUI. A number pad entry screen will appear. Enter the correct operating frequency of the transmitter.

(c) Save the entered configuration values:

• Select the **System** Menu

• Select **Configuration**

• From the System Configuration Menu, press **Save Config**

(d) Save the entered configuration values to the default directory:

- Select the **System|Command** menu

- If prompted, enter your password (default = password)

- Select the Display Results check box

- Enter "makedef" in the command field and press **Execute**

- The display should indicate that the operation completed successfully

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WARNING
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For AM transmitter systems, ensure that the NE IBOC's operating frequency is set to the transmitter's operating frequency before turning on the transmitter.

(e) Return the NE IBOC to service.