Information Sheet IS19007

Site Sentinel 16 – Update Software to Version 1.1.0

Issue 1.0 .... 23 October 2019

IS19007: GV Series – Site Sentinel 16 – Update Software Version 1.1.0
INFORMATION SHEET

1 INTRODUCTION

Site Sentinel 16 SW 1.1.0 adds additional remote input/output functionality that can be used when the Main/Standby transmitter system is operating in remote mode.

It will provide users with 4 active low control inputs (ST13 through ST16 on rear of the Site Sentinel) that can be used to select the main transmitter, as well as select the transfer control mode via external equipment. Note these additional inputs are only available when the transfer control panel has "Local Enable" set to "off".

It also provides four additional output relays (located on the rear of the Site Sentinel) which can be used to communicate with external equipment. These status signals are always available on the transfer control panel regardless of local or remote operation. See Addendum B for connection details.

- Transmitter A/B Main status (R3)
- Transfer Alarm Active status (L11)
- Antenna A/B status (R15)
- Auto/Manual Mode status (R16)

1.1 Equipment Affected

All Nautel Main-Standby systems that use the Site Sentinel 16 for remote control who wish to use the added functionality of the new software.

1.2 Responsibility for Implementation of Procedure

This procedure should be carried out by qualified station maintenance personnel who are familiar with the Site Sentinel 16 remote control system.

1.3 Scheduling

This procedure should be completed at the earliest convenience of the transmitter maintenance personnel. The transmitter will need to be "off air" while updating the software to avoid unintended operational mode changes.

1.4 Manpower Requirements

Implementing these instructions will require approximately 30 minutes of "off air" time.

1.5 Special Tools/Test Equipment

- PC or laptop with web access
- CAT5 ethernet cable

1.6 Publications Affected

Supplement Table 3-3, Relays Section and Table 3-4, Status Section of the Technical Instruction Manual for the Main-Standby System, with Addendum A showing the labels applicable to the new inputs for SW 1.1.0.

Supplement the electrical schematic SD-1, located in the Technical Instruction Manual for the Main-Standby System, with Addendum B which displays the additional inputs/outputs provided with SW 1.1.0.

2 RECORDING SETTINGS

Log in to the Site Sentinel 16 web interface and capture all applicable settings prior to update:

- Navigate to the Email/Network Setup page to record all the fields (screen capture and save the data if possible).
- Navigate to the I/O Setup page to record the low power thresholds established for Meter 1, 2 and 3 (select Metering/Temperature from the first drop down list then Metering from the section dropdown list).

3 DOWNLOAD SOFTWARE FILES

(a) Using a PC or laptop with web access, go to the Nautel FTP website www3.nautel.com and click on the Site Sentinel folder.

(b) Select the SS16_MS_SW_1.1.0 folder from the list of available software releases.

(c) Download and save the following files to the computer:

- SITESENTINEL_16_MS_MACROS_1.1.0.bin
- SITESENTINEL_16_MS_SETTINGS_1.1.0.bin

4 SOFTWARE UPGRADE

(a) Press RF OFF on both transmitters of the Main-Standby system.

(b) Connect the PC or laptop containing the downloaded software files to the Site Sentinel web interface as detailed in the "Web Setup and Operation" section of the Broadcast Tools Site Sentinel 16 Installation and Operation Manual. If the Site Sentinel 16 network defaults were previously updated, confirm the PC or laptop is on the same network.

<u>**NOTE**</u>

Ensure the following steps are performed onsite as once the new settings file is loaded, the network settings will revert to the default and remote connection will be lost.

(c) Login to the web interface and navigate to the Email/Network Setup page. Scroll to the bottom of the page and click the "Browse…" button.

(d) Navigate to the applicable directory and select the SITESENTINEL_16_MS_SETTINGS_1.1.0.bin upgrade file. Click Import, then click OK in the window that opens. The web browser will reboot.

(e) The network settings on the Site Sentinel 16 will revert to the default. If the connected PC or laptop network settings were not changed as described in the "Web Setup and Operation" section of the Broadcast Tools Site Sentinel 16 Installation and Operation Manual, do so now.

(f) Login to the Site Sentinel web interface again and navigate to the Macros page. Scroll to the bottom of the page and click "Browse…".

(g) Navigate to the applicable directory and select the SITESENTINEL_16_MS_MACROS_1.1.0.bin upgrade file. Click Import, then click Refresh.

(h) Re-enter the settings recorded in Step 2. Disconnect the PC or laptop from the Site Sentinel 16 and restore the PC network settings. The software update is complete.

Table 3-3: Relays Section

Label	Description	State Indicator
Rmt Main XMTR (B = Grn)	Remote Main Transmitter Status. Not for user control; software-controlled function. The state indicator color represents the current selected main transmitter.	Green = Xmtr B selected as main. Red = Xmtr A selected as main.
Rmt Auto(Red)/Man.(Grn)	Remote RF Transfer Control Status. Not for user control; software-controlled function. The state indicator color represents the current selected RF Transfer mode.	Green = Auto RF Transfer Control Red = Manual RF Transfer Control
Rmt Transfer Alrm (Grn)	Remote Transfer Alarm: Allows users to remotely monitor the changeover status. Not for user control; software-controlled function. This relay is energized when an auto RF transfer has occurred.	Green = Transfer Alarm active Red = Transfer Alarm inactive.
XMTR to ANT (B = Grn)	Remote Transmitter to Antenna Status. Not for user control; software-controlled function. The state indicator color represents the current transmitter to antenna connection.	Green = Xmtr B connected to antenna Red = Xmtr A connected to antenna.

Table 3-4: Status Section

Label	Description	State Indicator
Rmt XMTR A Sel (Grn)	Remote Main Transmitter A Select. Indicates the state of the Status 13 input on rear of Site Sentinel 16. Software uses this setting when the LOCAL ENABLE switch is set to OFF.	Green = XMTR A Selected. Red = XMTR A not selected.
Rmt XMTR B Sel (Grn)	Remote Main Transmitter B Select. Indicates the state of the Status 14 input on rear of Site Sentinel 16. Software uses this setting when the LOCAL ENABLE switch is set to OFF.	Green = XMTR B Selected. Red = XMTR B not selected
Rmt Auto Sel (Grn)	Remote RF Transfer Control Auto Select. Indicates the state of the Status 15 input on rear of Site Sentinel 16. Software uses this setting when the LOCAL ENABLE switch is set to OFF.	Green = RF Transfer Control Auto Selected. Red = RF Transfer Control Auto not Selected.
Rmt Manual Sel (Grn)	Remote RF Transfer Control Auto Select. Indicates the state of the Status 16 input on rear of Site Sentinel 16. Software uses this setting when the LOCAL ENABLE switch is set to OFF.	Green = RF Transfer Control Manual Selected. Red = RF Transfer Control Manual not Selected.

BROADCAST TOOLS
SITE SENTINEL 16

FWD PWR SAMPLE (A)	1	← MTR1		
GND (A)	2	← MGND		
FWD PWR SAMPLE (B)	3	← MTR2	TB2-TOP	
GND (B)	4	← MGND		
	5	← MTR3		

GND (A)	1	← ST1A		
# RF ON STATUS (A) -	2	← ST1B		
GND (B)	3	← ST2A		
# RF ON STATUS (B) -	4	← ST2B		
INTERLOCK	5	← ST3A		
EXTERNAL	6	← ST3B		
GND (MAIN SELECT)	7	← ST4A		
# MAIN A SELECT -	8	← ST4B	TB2-BOT	
# MAIN B SELECT -	10	← ST5B		
# AUTO MODE SELECT -	12	← ST6B		
GND (MODE SELECT)	11	← ST6A		
# MANUAL MODE SELECT -	14	← ST7B		
GND (LOCAL ENABLE)	15	← ST8A		
# LOCAL ENABLE -	16	← ST8B		

DUMMY LOAD	1	← ST9A		
INTERLOCK	2	← ST9B		
GND (INTERLOCK OVERRIDE)	3	← ST10A		
# INTERLOCK OVERRIDE -	4	← ST10B		
GND (MAIN SEL)	9	← ST13A	TB3-BOT	
# RMT A SEL -	10	← ST13B		
# RMT B SEL -	12	← ST14B		
# RMT AUTO MODE SEL -	14	← ST15B		
GND (MODE SEL)	13	← ST15A		
# RMT MANUAL MODE SEL -	16	← ST16B		

FROM REMOTE CONTROLLER

INTERLOCK (RETURN) (A)	2	← R11CM	TB9-BOT	
INTERLOCK (RETURN) (B)	5	← R12CM		

+24V/GND	2	← R13CM		
+5VDC	6	← R14NO	TB10-BOT	
	5	← R14CM		

BACKUP POWER SUPPLY INPUT ← ← 5-12VDC PF - J2

← ← 12VDC POWER - J4

R3NC →	1	# XMTR A MAIN STATUS -		
R3CM →	2	GND (XMTR MAIN STATUS)	TB5-BOT	
R3NO →	3	# XMTR B MAIN STATUS -		

L11NC →	1	N/C		
L11CM →	2	GND (TRANSFER ALARM STATUS)	TB9-TOP	
L11NO →	3	# TRANSFER ALARM ACTIVE -		

R15NC →	1	# XMTR A ANTENNA STATUS -		
R15CM →	2	GND (ANTENNA STATUS)		
R15NO →	3	# XMTR B ANTENNA STATUS -	TB11-BOT	
R16NC →	4	# AUTO MODE STATUS -		
R16CM →	5	GND (AUTO/MANUAL STATUS)		
R16NO →	6	# MANUAL MODE STATUS -		

TO REMOTE CONTROLLER

R8NC →	4	# XMTR A MAIN -		
R8CM →	5	GND (XMTR MAIN)	TB7-BOT	
R8NO →	6	# XMTR B MAIN -		

L9NO →	3	# CHANGEOVER STATUS -		
L9CM →	2	GND (CHANGEOVER STATUS)	TB8-TOP	
L10NO →	6	# INTERLOCK OVERRIDE STATUS -		
L10CM →	5	GND (INTERLOCK OVERRIDE STATUS)		

R9NC →	1	# AUTO MODE -		
R9CM →	2	GND (MODE)		
R9NO →	3	# MANUAL MODE -	TB8-BOT	
R10NC →	4	# LOCAL ENABLE STATUS -		
R10CM →	5	GND (LOCAL ENABLE STATUS)		

R11NO →	3	INTERLOCK (RETURN) (A)	TB9-BOT	
R12NO →	6	INTERLOCK (RETURN) (B)		

R13NO →	3	# SWITCH POS 1 CTRL (+/-) *	TB10-BOT	
R13NC →	1	# SWITCH POS 2 CTRL (+/-) *		

J1 - NET ← TO LAN

* DENOTES SOME RF SWITCH POSITIONS ARE
ARE ACTIVE LOW AND SOME ARE ACTIVE HIGH.

219-8840-02-SCH01-IS VA

nautel