

Release Notes



Grass Valley Series 6000 Signal Management System

**TP3554-00
Issue A2**

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Grass Valley

Series 6000



Release Notes

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Introduction

This document contains release notes for Version 1.0 (part number 170234-00) of the Series 6000 Signal Management System SMS-6000 Configuration Editor software and system software 4.0. The system can be configured to have up to 80 Sources, 80 Destinations, and 8 Levels.

- Sect. A—Getting Started
- Sect. B—SMS-6000 Configuration Editor Software Installation
- Sect. C—Software/Firmware Compatibility Matrix
- Sect. D—Firmware Installation
- Sect. E—Notes
- Sect. F—Known Defects

Section A—Getting Started

The SMS-6000 Configuration Editor provides you with the tools to fully setup the router to your specific requirements. A generic configuration has been installed in your system prior to shipment. One of your frames has been configured as the Master Frame, you may change this later. This generic configuration can be used to confirm that your system is functional and that all frames and control panels are operational prior to use of the SMS-6000 Configuration Editor program.

NOTE: *For systems with more than the quantities of frames or panels listed, address conflicts will result. If this is the case, the system must be cabled with a master frame and a partial complement of slave frames and panels.*

No two frames and no two panels may have the same address. Note that some frames contain 2 boards and actually have two addresses.

For the generic configuration, frame input and output BNCs are assigned in numeric sequence. A panel selection of Source 1 to Destination 1 for example will route the signal on input 1 to Output 1 of a frame. The BPS and Mini-XY panels are numbered left to right.

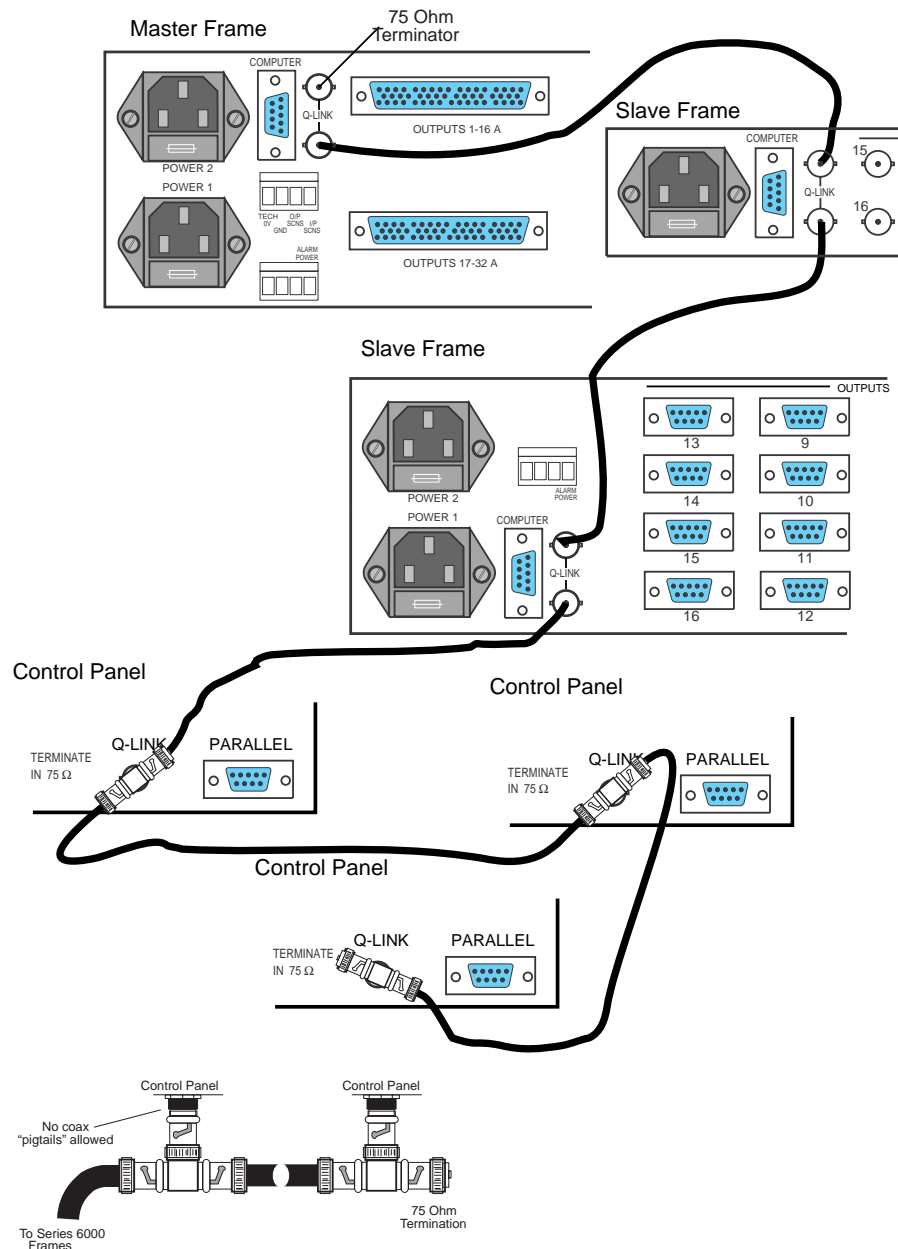
FACTORY ASSIGNED FRAME ADDRESSES & CONFIGURATION		
FRAME	ADDRESS	LEVEL
16X4 Analog Video	0	1
16X16 Analog Video	1	1
32X32 Analog Video 1	*2,3	1
32X32 Analog Video 2	*4,5	1
16x16 Digital Video	6	1
32X32 Digital Video	7	1
16X4 Analog Audio	8	2
16X16 Analog Audio	9	2
32X32 Analog Audio	A,B	2
16x16 Digital Audio	C	3
32X32 Digital Audio	D	3
8X8 Data Router	E	4
16X16 Data Router	F	4

* These frames contain two control boards and have 2 addresses

PANEL	ADDRESS	SOURCES	DESTINATIONS	LEVELS
Programmable XY1	0	1-32	1-32	1,2,3,4
Programmable XY2	1	1-32	1-32	1,2,3,4
Programmable XY3	2	1-32	1-32	1,2,3,4
MINI XY1	3	1-16	1-16	1,2,3,4
MINIXY2	4	1-16	1-16	1,2,3,4
MINIXY3	5	1-16	1-16	1,2,3,4
16BPS1	6	1-16	1	1,2,3,4
16BPS2	7	1-16	2	1,2,3,4
16BPS3	8	1-16	3	1,2,3,4
16BPS4	9	1-16	4	1,2,3,4
16BPS5	A	1-16	5	1,2,3,4
32BPS1	B	1-16	1-16	1,2,3,4
32BPS2	C	1-16	1-16	1,2,3,4
32BPS3	D	1-16	1-16	1,2,3,4
32BPS4	E	17-32	17-32	1,2,3,4
32BPS5	F	17-32	17-32	1.2.3.4

Model 6000 Setup for Verification

1. Verify the correct AC voltage selection at the rear of each device. Set as required to match your line voltage.
2. Attach line cords and connect power to each device.
3. Interconnect all devices using **75 ohm coax** (using the Q-LINK connectors). Note, the frames use loop-thrus and the panels require BNC Ts.
4. Connect a 75 ohm termination to each end of the Q-link as shown.



System Verification

Panels should now function. Blinking displays, lamps or *NO Q-LINK* indicate missing cables or terminations.

Erratic operation indicates address conflicts, or more than one master assigned. For DIP switch settings for Master and Slave Frames see DIP Switches in Series 6000 Definitions in this section.

Router switching can now be verified by connecting the correct signal to the frame inputs, and monitoring the output with the appropriate test equipment. Select the source and destination using the Control Panels.

After you have verified your model 6000 equipment using the generic configuration, refer to the *Series 6000 Compact Signal Management System*, Section 2, "Installation" for instructions to complete the equipment setup.

When the installation of your equipment is complete, install the SMS-6000 Configuration Editor on a Windows-based PC. The instructions for loading the software and cabling the PC to the Master Frame are in Sections B and D of these Release Notes.

Series 6000 Definitions

The following definitions will provide a basic understanding of the Model 6000 control system.

System

Consists of a maximum of 16 frames and 16 panels connected on the same Q-LINK. A system has a single Master frame. All other devices are slaves.

Q-link

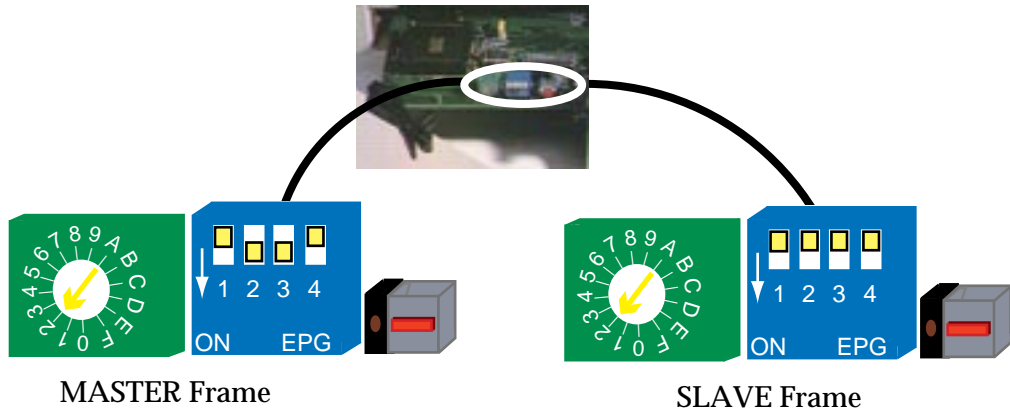
The model 6000 serial control hardware consists of 75 ohm coax interconnecting all panels and frames. Frames are equipped with loop-thru connectors. Panels are interconnected using BNC Ts. See the figure for an example of Q-LINK connections in a typical system.

Address Switches

Used to assign unique locations to each frame and panel. The switches are selectable to addresses 1,2,3,4,5,6,7,8,9,A,B,C,D,E,F. They are accessed by loosening the two knurled screws and removing the front panel. A panel and frame may have the same address, but no two Panels and no two Frames may have the same address.

DIP Switches

Four miniature switches installed in frames only, used to identify their control status as MASTER or SLAVE. The switches are accessible by loosening the two knurled screws on the frame front panel and removing it. Since Panels are always slave devices they have no DIP switches.



Master Frame

The controlling frame of a system. The DIP-Switches on the main board (behind the front frame cover) are set (UP-DN-DN-UP). The serial interface resides in this frame to facilitate download of a setup from the SMS-6000 Configuration Editor or remote control via the frame's computer port. This Frame also contains two NVRAM components in the User ROM and RAM sockets. The serial interface and NVRAM devices are normally pre-installed by the factory. Any frame has capability of being a Master.

Slave Frame

All other frames in a system. The DIP-Switches on the main board (behind the front frame cover) are set (UP-UP-UP-UP). The frame contains standard RAM components in the User ROM and RAM sockets.

User ROM

An NVRAM (battery backed RAM) device in the Master Frame which contains the system configuration downloaded by the configuration Editor. This device is pre-installed by the factory.

RAM

An NVRAM (battery backed RAM) device in the Master Frame which contains the last router setup information prior to loss of power.

Status Label

A label attached to each frame and panel top-upper-left corner. It identifies the control status and address of each device.

Examples are:

MASTER, 0 SLAVE, F These are pre-assigned by the factory, but can be changed by the customer if required by the application.

Section B—SMS-6000 Configuration Software Installation

The SMS-6000 Configuration Editor allows the creation of configuration files on a Windows PC platform for the SMS-6000 Signal Management System. These configuration files can be downloaded to the router and/or saved to disk.

SMS CFGSW Configuration Software 170234-000

System Software Version 1.0	159398-00
Acrobat Reader Version 2.0	159366-00

Installation

After completing the installation process, Windows will be restarted. Please close all open applications before beginning the installation.

1. Place the Series 6000 Configuration Editor disk (159398-00) in the A: disk drive.
2. From the Program Manager in Windows chose *RUN* under the *FILE* menu.
3. Type **A:\INSTALL** in the Command Line box.

Follow the directions on the screen to install the SMS-6000 Configuration Editor and the on-line documentation. The installation program will make a directory on the hard disk drive (C:\sms6ce) in systems using Windows 3.1.

NOTES: *When installing the Configuration Editor, if you get a message stating that CTL3DV2.DLL CANNOT BE INSTALLED BECAUSE IT IS CURRENTLY IN USE, just click on IGNORE.*

The Configuration Editor's on-line help file, sms6ce.pdf, will be installed in the same directory as the Configuration Editor itself. After you click on Help, you may need to go to this directory to open the file.

If you are running Windows95, you will want to create a "shortcut to the Configuration Editor" program icon; consult your Windows95 documentation for instructions on how to do this.

4. Put the Adobe Acrobat disk (159366-00) in the A:disk drive.
5. From the Program Manager in Windows chose *RUN* under the *FILE* menu.

6. Type **A: \SETUP** in the Command Line box.

This will install Acrobat Reader in a directory on the hard disk drive (C:\acroread).

Total disk space required is approximately 3.5 megabytes.

NOTES: *If you have Acrobat Reader 2.0 or higher already installed on your computer it is not necessary to install this version.*

*When accessing the on-line documentation using the HELP buttons in the SMS-6000 Configuration Editor, Acrobat Reader's default directory is expected to be C:\acroread. If the Acrobat Reader is in another directory go to the SMS-6000 Configuration Editor. Select **OPTIONS**, then **HELP LOCATION**. Enter the correct path in **HELP FILE VIEWER PATH**.*

After you have installed the SMS-6000 Configuration Editor and connected the PC (Section D) to the Master Frame, refer to the *Series 6000 Compact Signal Management System*, Section 3, "Configuration Editor" for instructions on using the Configuration Editor to configure your system.

Section C—Software/Firmware Compatibility Matrix

The table below is a matrix of the software and firmware required to support the SMS-6000 Configuration Editor

Software Compatibility Matrix

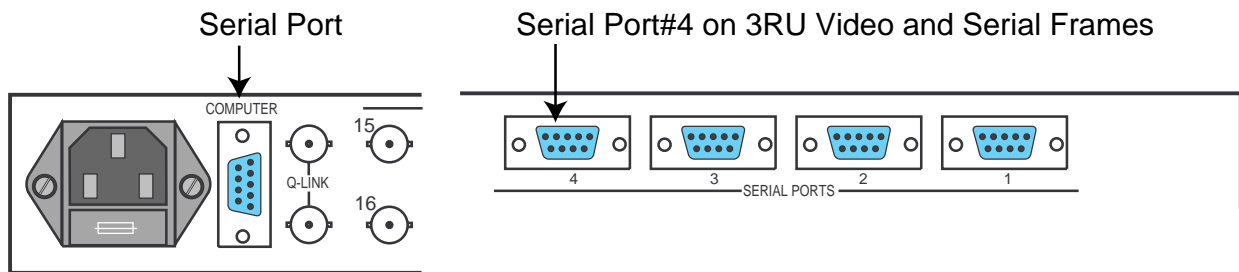
Model Numbers	Part Number	System Software	GAL
SMS—C1604AA	180172-00	SYS-1 V4.00 (159331-01)	G001 V1.3
SMS—C1616AA	180173-00	SYS-1 V4.00 (159331-01)	G001 V1.3
SMS—C3232A	180174-00	SYS-1 V4.00 (159331-01)	G001 V1.3
SMS—C1604V	180166-00	SYS-1 V4.00 (159331-01)	G003 V1.1
SMS—C1616V	180167-00	SYS-1 V4.00 (159331-01)	G003 V1.1
SMS—C3232V	180168-00	SYS-1 V4.00 (159331-01)	G003 V1.1
SMS—C1616AE—1 (w/PC 131)	180169-00	SYS-1 V4.00 (159331-01)	G006 V1.1
“ “ (w/PC 150)	“	PC150 V4.00 (156056-00)	G009 V1.1
SMS—C3232AE—1	180170-00	PC150 V4.00 (156056-00)	G009 V1.1
SMS—C3232AE—2	180171-00	PC150 V4.00 (156056-00)	G009 V1.1
SMS—CSSM—88 (w/PC 131)	180175-00	SYS-1 V4.00 (159331-01)	G006 V1.1
“ “ (w/PC 150)	“	PC150 V4.00 (156056-00)	G009 V1.1
SMS—CSSM—1616 (w/PC 131)	180176-00	SYS-1 V4.00 (159331-01)	G006 V1.1
“ “ (w/PC 150)	“	PC150 V4.00 (156056-00)	G009 V1.1
SMS—C1616DV	180164-00	SYS-1 V4.00 (159331-01)	G010 V1.0
SMS—C3232DV	180165-00	SYS-1 V4.00 (159331-01)	G005 V1.1
SMS—C16BPS	180160-00	CP3201 V4.00 (156058-00)	G007 V1.1
SMS—C32BPS	180161-00	CP3201 V4.00 (156058-00)	G007 V1.1
SMS—CMXY	180162-00	CP1600 V4.00 (156059-00)	NONE
SMS—CXY	180163-00	CP3200 V4.00 (156060-00)	G007 V1.1

Section D—Firmware Installation

PC to Master Frame Cable Connection

To download the configuration file from the SMS-6000 Configuration Editor to the Master Frame connect the RS232 cable from one of the PC's serial (COM) ports to the Master Frame's serial port. The configuration file can only be loaded into the Master Frame.

The connectors (9-pin D-type sockets) for the computer ports are fitted on the rear of each frame. Most units have just one connector, but the 3RU video and serial frames have four connectors of which only one, **Serial 4** port, is supported at present.



IMPORTANT!

The following Serial Interface and firmware is installed at the factory prior to shipment. The installation instructions are for use if the Serial Interface or firmware is supplied or upgraded after shipment.

Serial Interface

The Serial Interface can be used to enable a computer to be used with the SMS-6000 Configuration Editor, or for remote control applications. It is an option which is installed in the Master frame.

Installation

Remove the serial interface submodule from its packing. Check that its pins are straight and undamaged. Set the jumpers on the Serial Interface module for either RS422 or RS232 mode. The SMS-6000 Configuration Editor requires the RS232 mode.

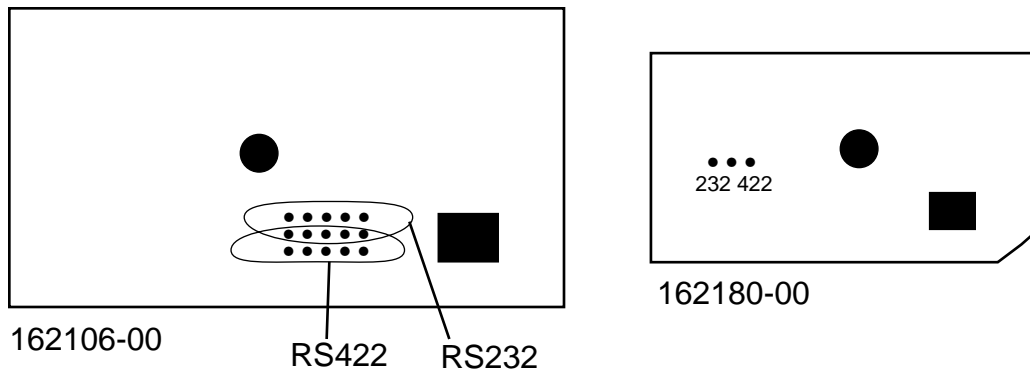
The RS422 or RS232 is the hardware standard supported by the Computer Port. Set it to suit the computer or terminal to be used by moving jumper links on the Serial Interface module. Position the module so that the hole in the Serial Interface lines up with the hole in the main board.

Depending on which Serial Interface module you have, the jumper settings are as follows:

Set jumpers LK1-5 toward the front of the frame for RS422 or toward the rear of the frame for RS232

or

Set the single jumper to the left for RS232 or to the right for RS422 as indicated on the module



Installation in the Master Frame

1. Unplug the power.
2. Unscrew the front cover retaining screws, and fold down the cover. Unplug the connector at the power supply front. The cover can now be set out of the way.
3. Use the extractor levers at the sides of the module to release the locks which hold the module in place. Then pull the levers outwards to eject the module from its edge connectors.
4. Remove the module and carefully place it on an anti-static surface.
5. Position the serial interface submodule over the module using the hole as a guide.

CAUTION

If the module is positioned incorrectly, damage may result to both assemblies.

6. Line the pins over the sockets and push the submodule down gently and evenly so that all pins enter the sockets at the same time. Push firmly to completely seat the submodule.

7. Reinstall the module in the frame. Press the module in firmly to seat it in its connector.
8. Plug the panel cable into the power supply connector.
9. Reconnect the power.

Baud Rate and Data Format

The emulation mode used by the computer interface is set to VT100 or compatible at the factory. The baud rate is set to 9600 with 8 data bits, 1 stop bit, and no parity.

NVRAM

The Master Frame contains two NVRAM components in the User ROM and RAM sockets. NVRAM devices are normally pre-installed by the factory. Any frame has capability of being a Master. When changing NVRAM verify that you are installing it in the Master Frame for your system. There can only be one Master Frame in a system.

1. Turn off power to the system and pull the main module part way out of the frame (in some cases, there will be two modules physically tied together) to expose the RAM ICs (USER RAM and RAM) in the left front corner of the module.
2. Remove the ICs in the USER ROM and RAM locations behind the SYSTEM ROM and replace them with the new ICs provided (SC1071-00), orienting them in the same manner as the SYSTEM ROM.

System ROM

All frames and control panels have a System ROM. It is labeled with the system software version.

Frames

1. Disconnect the power cable from the frame.
2. Turn off power to the system and pull the module part way out of the frame (in some cases, there will be two modules physically tied together) to expose the IC in the location labeled SYSTEM ROM in the left front corner of the module.
3. Remove the IC in the SYSTEM ROM location.
4. Verify the new IC part number using the Software/Firmware Compatibility Matrix (Section C) Replace it the new IC, orienting the socket with the silk screen to prevent damage.
5. Return the module to its original location and apply power to the frame.

Control Panels

1. Disconnect the power cable from the panel.
2. Disconnect the power cord and Q-LINK connector to a Control Panel.
3. Remove the Control Panel from the rack.
4. Remove the screws holding the panel's top cover in place and set the cover aside.
5. Locate the System ROM in the U2 ROM location at the back of the module.
6. Remove the System ROM in the U2 ROM location and replace it with the new System IC provided, orienting the socket with the silk screen to prevent damage.
7. Replace the top cover and all screws, remount the Control Panel in the rack, and re-connect the power cable and Q-LINK connector.
8. Repeat steps 2-7 until all Control Panel System ROMs have been replaced.
9. Turn on power to the system.

Section E—Notes

The 16BPS and 32BPS Control Panels cannot be split into multiple panels.

The 16BPS Panel is configured to take any 16 sources to a single destination on a given level or set of levels.

The XY Panel button function assignments are a 6 character limit prefix and the suffix can be configured using Calculator, Calculator +A-F, Telephone, or Telephone + A-F patterns.

You cannot split the 16x16 Stereo Audio Frame channels into separately controllable "Right" and "Left" levels.

The Local Panels have a set configuration that cannot be modified by the SMS-6000 Configuration Editor. The button assignments for the Sources/Destinations are in a numerical sequence of 1,2,3,4,5,etc. left to right.

The SMS-6000 Configuration Editor does not support Parallel I/F (PI-4 and PI-8) or the Video Status Display.

The MiniXY Panel can only control the first 16 Sources, the first 16 Destinations, and the first 4 Levels in the Source, Destination, and Level lists.

Section F—Known Defects

Deleting Sources

If you delete more than one source from the source list, and you don't create new sources to take their place, then the XY control panel's **NEXT** key won't scroll past the gap. You can work around this problem either by using the **PREV** key to scroll in the other direction, or by using the keypad to enter the desired source name directly.

Data Matrix Disconnects

If the system is configured such that a Take of a source without the data matrix level, to a destination *with* the data matrix level, will do a Disconnect on the data matrix level of the destination, then the status after that Take will still (misleadingly) report that source as status on the data matrix level, even though the disconnect has actually occurred.

Data Matrix Destinations

If you have a data matrix, its destinations must be within the first 16 items in the full destination list.

Configuration File Download

Occasionally when downloading a configuration to the router, the first attempt at establishing contact will be unsuccessful. Attempt the download again before changing connectors or configuration parameters.