

Field Modification Note

075068900

REFERENCE ECO: **148J**

EFFECTIVITY DATE: **OCTOBER 2002**

ZODIAK

VIDEO FRAME CONTROL PROCESSOR (671-6346-00/-01)

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Software Downloads — Software updates, drivers, and patches can be downloaded.

FMN 075068900

Zodiak Video Frame Control Processor (671-6346-00/-01)

Purpose

This field modification provides a new single board computer submodule (SBC1000 671-6448-00) for the Zodiak Control Processor module (671-6346-00/01) in the Video Processor frame. The new SBC1000 submodule replaces the current single board computer submodule with a faster processor.

Installation of this new submodule requires that Zodiak software version 2.2 be installed and running on the system before installation (see [Software Requirements on page 4](#)). Any Zodiak system running software version 2.1 or later also requires the addition of heat sinks on the Dual M/E modules (see [Hardware Requirements on page 4](#)).

Because of the heat sink requirement, software release 2.2 is only available through Customer Service. To obtain this release, go to <http://www.thomsongrassvalley.com> and select Support, then your world region for contact information.

Also included in this kit is a revised Frame Recovery floppy disk. This disk is used only for an emergency rebuild of the Video Processor frame hard drive as described in Section 5, Diagnostics and Troubleshooting of the *Zodiak Installation and Service Manual*. It replaces the Frame Recovery disk shipped with your system with part number 063-8067-01.

Parts List

The parts provided for this modification are listed in [Table 1](#).

Table 1. Parts List for FMN 075068900

Component	Part Number	Description	Quantity
SBC1000 submodule	671-6448-00	Brd, SBC1000 Sngl Brd Computer Ebx Form Factor	1
Spacers	SH2092-00	STDF,FEM 4-40 .187 HEX .5625L	4
Frame Recovery disk	063-8067-02	SFTWR,ZODIAK FRAME BUILD (1.44 Mb Floppy Disk)	1

Hardware Requirements

All Zodiac systems running software version 2.1 and later require that heat sinks be installed on the Dual M/E modules in slots 2 and 3 (3-M/E systems only). These heat sinks were included in the software version 2.1 release FMN kit (part number 075-0693-00). Verify that your system has the correct heat sinks installed before installing or using software version 2.2 by doing the following:

1. Remove the Dual M/E module from slot 2 in the frame. The module can be removed and reinserted with power on.
2. Locate the four large PLCC-socketed ICs labeled U12, U13, U45, and U46 on the component side of the module. Self-adhesive heat sinks should be installed on the top of each IC.
3. Locate the four smaller PLCC-socketed ICs labeled U54, U55, U66, and U67 to the right of the larger ICs above. Self-adhesive heat sinks should be installed on the top of each of these ICs.
4. For a 3-M/E system, remove the M/E module in slot 3 of the frame and verify that heat sinks are installed on ICs labeled U13, U46, U56, and U67.
5. If heat sinks are properly installed, return the modules to the frame.
6. If heat sinks are needed, contact Customer Service for FMN 075-0693-00.

CAUTION Failure to install the correct heat sinks required for software version 2.1 and later can result in overheating and damage to the M/E modules in your system.

Software Requirements

The SBC1000 is compatible with Zodiac software version 2.2 or later.

CAUTION The 2.2 software is required for installation of the new SBC1000 submodule and will also run on earlier Control Processor submodules. After the 2.2 software has been installed in a Zodiac system and the SBC1000 installed, you can then back down to 2.1 if required. Software versions 2.0 and earlier are not compatible with the SBC1000 submodule. Once a Zodiac Control Processor has been upgraded with a SBC1000, to back down to 2.0 or earlier software you will need to first reinstall the earlier model Control Processor submodule.

For installation procedures for earlier Zodiac software versions refer to the Release Notes for the version of software that is currently installed in the Zodiac system.

Control Processor Identification

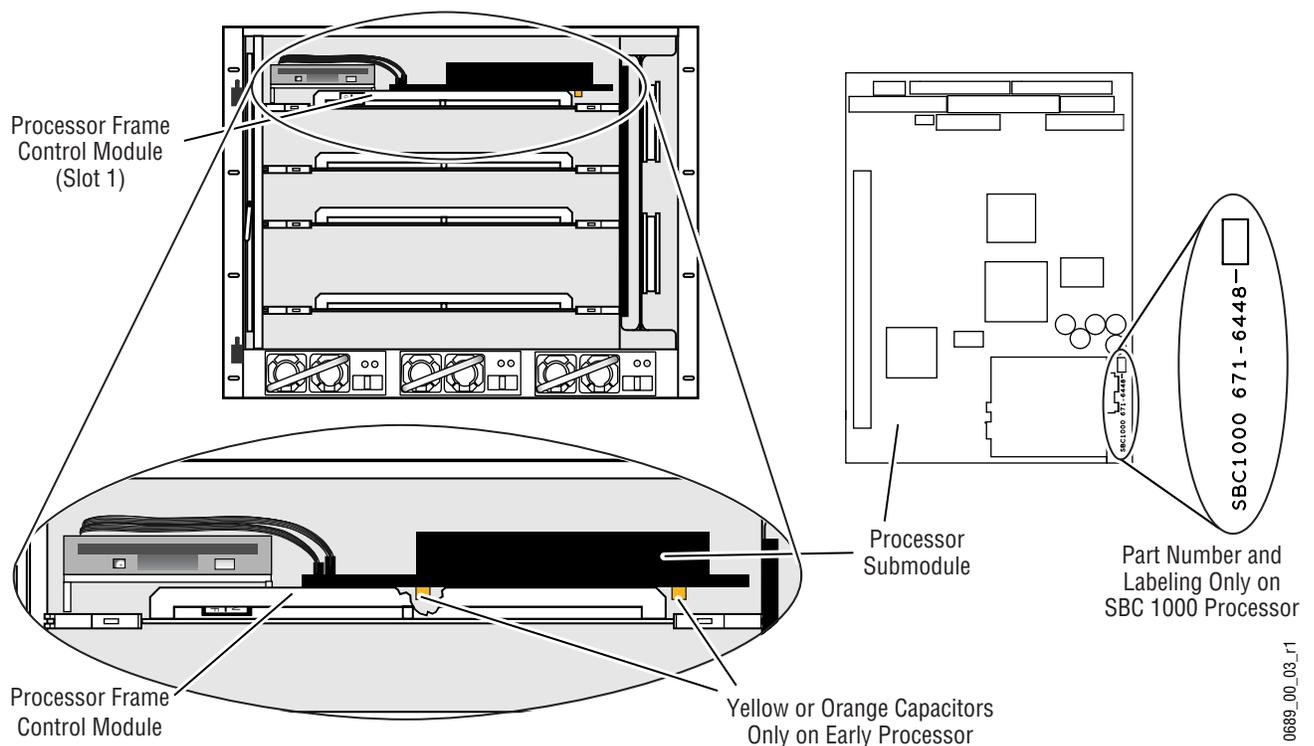
Control Processors shipped from the factory with the new SBC1000 sub-module already installed will have a part number ending in -02 and above. This Field Modification Note is for Control Processors with part numbers ending in -00 and -01. The part number on the Control Processor is located behind the LED banks on the right edge of the module when it is seated in the frame. The number is hard to see without unseating the module.

Submodule Identification

Figure 1 will help you verify which submodule is currently installed on your Control Processor. Original submodules are not labeled, but can be identified without removing the module from the frame by locating the yellow or orange capacitors mounted on the underside of the submodule.

SBC1000 submodules are labeled as illustrated on the right of the figure, and can be identified by removing the Video Processor frame Control Module. The module can be removed and reinstalled with the frame powered up.

Figure 1. Control Processor Identification



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Instructions

Use the procedure below to install the new SBC1000 or replace the original submodule (for using older software versions, v2.0 or earlier).

CAUTION Removing the Video Processor Frame Control Module causes loss of Zodiac system control, and reinserting the module causes a reset that takes the Zodiac system outputs to black.

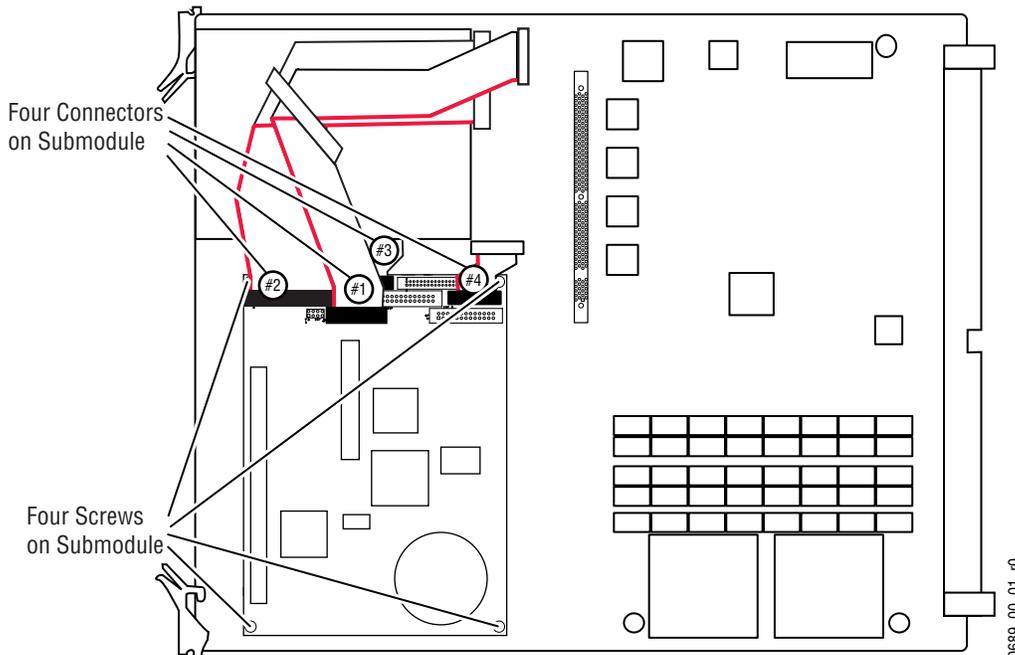
1. Verify that the system is running software version 2.2.

To view the currently installed software version, select the **Status & Diag** button on the Menu panel. The currently installed software versions of the Video Processor frame, Main panel and Menu panel will be shown.

If not, contact Customer Service to acquire software version 2.2. Make sure to install the new software kernel when prompted in the software installation routine.

2. Once software version 2.2 is installed or verified, remove the Control Processor module from slot 1 (far left) of the Video Processor frame. The module can be removed with the frame powered up.

Figure 2. Video Processor Frame Control Processor Module



3. Disconnect the four cables identified in [Figure 2](#). Cable #1 is on top of cable #2 which is on top of cable #3.
4. Use a #10 Torx screwdriver to remove the four screws identified in [Figure 2](#).

- Remove the submodule from the Control Processor module.

Note The four spacers provided with the kit can be used with either the SBC1000 or the original submodule. You can discard the original spacers. Once you have installed the new spacers you can skip steps 5 and 6 when re-installing the submodule.

- Remove the four spacers.
- Install the four new spacers.

CAUTION Careful alignment between the module and submodule connectors will prevent bent pins. Check the alignment before pressing the submodule on to the Control Processor.

- Check the connector pins on the solder side of the SBC1000 to be sure they are not bent. Align the SBC1000 submodule and press it lightly on to the Control Processor module. Do not seat the submodule yet.
- Check the alignment.
- Seat the SBC1000 submodule.
- Use the four #10 Torx screws to secure the corners of the submodule.
- Connect the four cables, see [Figure 3](#). Cable #3 must be connected before cable #2, and cable #2 before cable #1.

Figure 3. Cable Connector Location for SBC1000 and Original Submodules



0689_00_04_r0

- If the module was a -01 version, the dash version on the Control Processor module increments to a -02. You may re-ink the dash version or make a note of this change on the module. If the module was a -00, make a note of this change.
- Return the Control Processor module to its original location in the frame. You may plug the module back into the frame while it is powered up. The module will reset and take the Zodiac system outputs to black.
- Locate the original Frame Recovery floppy disk labeled with part number 063-8067-01 that shipped with your system. This floppy disk should no longer be used. Once you have installed the new SBC1000 you will need the Frame Recovery floppy disk labeled with version 2.2 included with this FMN for doing frame recovery.



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