Product Bulletin

TITLE: DCS 400si Technical Manual Update
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The Samsung 400si was released in May of 1999. Since the release we have improved the 400si Technical Manual to assist you in several of the installation and maintenance aspects of the system and also to correct typographical errors. The first printing of the 400si Technical Manual is dated April 1999. The modified technical manual updates are dated February 2000.

Please review the attached technical manual updates, remove the appropriate pages in your 400si Technical Manual, and replace them with the enclosed updates. An overview of the updates are explained below. Also included in this product bulletin are 400si PCMMC Technical Notes that provide information to assist you in performing remote access via modems to the 400si system.

TECHNICAL MANUAL UPDATES

1. The Installation Section Part 3 has an improved description of the 400si DCCP card and the functions of the DIP switch setting. The original installation manual omitted a description of the RAM CLEAR (JP14) jumper on the DCCP. This jumper allows a RAM clear without removing the battery backup (JP12) jumper. See the enclosed replacement page, Figure 3-2 for the jumper locations and positions. Also included is an update to the Installation Section Part 4.2, Initialization of the DCS 400si System.

There are two ways to perform a RAM clear on the 400si DCCP card:

a. The recommended method is to move the RAM CLEAR jumper (JP14) to the CLEAR position then return the jumper to the NORMAL position.

b. The second method available is to move the memory BATTERY BACKUP jumper (JP12) from the BACKUP position to the OPEN position for approximately 10 seconds.

The DCCP card is delivered with the BATTERY BACKUP jumper in the OPEN position. Prior to installation of the DCCP card the BATTERY BACKUP (JP12) jumper should

be moved from the OPEN position to the BACKUP position then the RAM CLEAR jumper (JP 14) should be moved to the RAM CLEAR POSITION and then back to the NORMAL position.

Please remove from the 400si Manual Installation Part 3, Installing Printed Circuit Cards, Section 3.1 and Figure 3-2 dated June 99 and replace with the provided sections dated February 2000.

2. Section 3.5, DT1PRI in the Installation Section has been modified to clarify the T1/PRI clocking sources. The first printing indicated that the primary and secondary clocking sources were in the first cabinet (DMCAB), left to right and then the second cabinet (DECAB), left to right. This has been changed to show that the primary clocking sources can ONLY be in the first cabinet (DMCAB). This provides the shortest possible route to derive clocking from the digital span(s) to the PLL (clock) on the DCCP. This also eliminates distortion possibilities when having the primary clock source pass through the HDLC cable from the DECAB to the DMCAB.

Please remove from the 400si Manual Installation Part 3, Installing Printed Circuit Cards, Section 3.5 dated June 1999 and replace with the provided sections dated February 2000.

3. A replacement page for Part 5, Connecting to Telco Circuits, Figure 5-5, has been modified to show the correct alignment of the DTPRI card RJ45 jack. The pin out for the digital circuit connection is correct but the orientation of the modular jack was reversed causing some confusion when connecting to this card.

Please remove the original Figure 5-5, dated April 1999, and replace with the enclosed Figure 5-5, dated February 2000.

4. Section 7.5, Power Failure Transfer, and Figure 7-4, Power Failure Transfer Connections have both been modified to explain and show the possible connections to the DPFT board. The basic difference is that there are two possible ways to connect to the DPFT depending upon the individual application.

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The two types of wiring to the DPFT are as follows:

a. When there are single line stations that are normally in use on the 400si system in a non-power failure mode and are to be connected to trunks or CO lines in a power failure mode.

b. The second possible way is if there are dedicated locations where a single line instrument(s) would be used only during the power failure mode.

Please remove Installation Section 7.5, Power Failure Transfer (PFT), Figure 7-4A and Figure 7-4B dated June 1999 and replace with section dated February 2000.

5. Figure 7-5B of the Installation Section Part 7 shows 5 modular jacks on the DMAP1. There are only 4 modular jacks on the DMAP1.

Please remove Installation Section 7, Figure 7-5B dated June 1999 and replace with Figure 7-5B dated February 2000.

6. Part 10, Section 10.2 Grading for DSP's has been corrected to show that when a DSP daughterboard is mounted on the DCCP 16 DSP resources are available. The first printing of the 400si manual stated that there were 24 DSPs available when the D4SWD daughterboard was mounted on the DCCP and that there were 24 CID DSPs when a DR2CID daughterboard was mounted on the DCCP.

The DCCP supports 16 additional DSPs when D4SWD or DR2CID daughterboards are mounted. The update of Part 10 includes a new DSP mapping matrix showing the correct relationship of DSPs when grading a 400si system.

Please remove Installation Section Part 10, Adding Cards to the System, dated June 1999 and replace with the new Part 10 Section, dated February 2000.

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7. MMC 806 Card Pre-Install is incorrect in our initial printing. The first printing provided programming examples for the DCS Compact. The correct version of MMC 806 Card Pre-Install for the 400si is attached.

Please remove MMC 806 Card Pre-Install dated June 1999 and replace with the new 400si MMC 806 Card Pre-Install dated February 2000.

8. Special Applications Section 2.4 Caller ID has been updated to show the addition of CID Code Insert. This allows the digit 1 to be inserted or removed on an incoming CID call.

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PCMMC TECHNICAL NOTES

PCMMC AND REMOTE MODEM ACCESS

Uploading and downloading to the 400si can be accomplished remotely. To perform remote access to the 400si system considerations must be made to determine if the correct driver software that supports the modem being used is installed in the Windows 95 or Windows 98 program. The 400si PCMMC is a Windows 95/98 supported program and therefore requires Windows to provide the setup string to the modem. The correct drivers must be installed via Windows to match the modem that is to be used for remote access. The modem manufacturers usually provide the drivers on a disk or they can usually be downloaded from the modem manufacturer's web site via the Internet.

MODEM SELECTION AND PROTOCOLS

Most of the newer modems use the latest compression and speed enhancement techniques during data transmission. These protocols are being changed and enhanced upon very quickly. Because of the speed of development of these protocols it has been very difficult to test all of them and modify the 400si PCMMC program to support these protocols. The 400si PCMMC program supports modems using up to the V. 34 and V. 42 Bis modes. The 400si PCMMC does not support the V. 90 mode. This means that if some of the newer 56 Kbps modems are used for remote maintenance the PCMMC program will not connect if the V. 90 standard is used at both ends of the connection. The nature of modem connections are that if two different standards are used the connection can be supported with the lesser of the two standards. For example, if a V. 34 standard modem is used at the 400si system end and a V. 90 standard equipment is used at the personal computer end, the connection will be made using the V. 34 standard. Another example is if a V. 90 standard 56K modem is used at your office and a V. 34 standard 33.6 Kbps modem is at the 400si system site, the V. 90 standard modem will only operate in the V. 34 mode and match the 33.6 Kbps V. 34 standard modem. This is because one piece of equipment in the communications scheme can only support the V. 34 standard.

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MODEM SPEED

Using remote modems connected to the 400si system via a SIM, the 400si database download and/or upload tests have shown that the PCMMC program takes approximately 30 minutes. An example of modem speed differences using modem utilizing the V. 34 standards, a download using a 9600 bps modem took 30 minutes to perform. A download using a 33.6 Kbps modem with a set speed of 19200 bps took 28 minutes.

DOWNLOADING AND UPLOADING TIPS

When downloading or uploading a database from the 400si is recommended to close all applications on the computer except PCMMC. Screen saver programs should also be removed during the upload pr download process. When screen saver programs are launched while uploading or downloading the upload/download process can stop while the screen saver program is running. Also, when a screen saver program is running you cannot see the status of the upload or download process.

HARDWARE AND PROGRAMMING REQUIREMENTS FOR REMOTE PCMMC V1.04

The 400si comunicates with modems via a Serial Interface Module (SIM) in 400si ROM versions 1.04. The SIM is supported on the 400si via a DRAD (Data Rate Adapter Daughterboard) which mounts on the DCCP card. (See 400si Technical Manual Section, 3.15). The DRAD supports up to 2 SIMs. SIM settings must be programmed in MMC 311, Assign SIM Parameters, and MMC 804, System IO Parameters. Connect a modem to the SIM with the proper cable. (See 400si Technical Manual Section, Figure 7–7). Future 400si software releases will support direct modem connections to SIO ports 1 and 2 on the DCCP card.

CONNECTING TO THE 400SI VIA PCMMC

After setting the Link Type and reconnect timers in the PCMMC program via the Options Window the Address Book for modem dialing can be accessed. Select the Load option on the Main Screen Toolbar. Select Remote MMC in the pulldown menu. Once selected the Address Book screen will become available to input the name and telephone number for modem dialing. Once a name and number is input select the Connect option.

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The PCMMC program will initialize the modem via Windows and dial the destination in the selected Address Book location.