NOKIA

DX 200

BSC3i S10.5

Jumper Settings of the Cartridges in BSC3i

Site Documents

BSC3018_P

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Summary of changes

Changes between document issues are cumulative. Therefore, the latest document issue contains all changes made to previous issues.

Changes for issue 1–1

The links have been corrected throughout the document.

SW1C-C Switch group cartridge, C104596

Figure *Jumper blocks of the SW1C-C cartridge* has been updated.

SBCON1A, SWCOP-A bus connector board 1, C71010

Tables *Setting of the basic timing signal phase* and *Selecting the number of GSWB sections (W2)* have been updated.

Issue 1-0

This the first issue of DN01154813.

1 BSC3i, Jumper settings for the cartridges

The *BSC3i, Jumper Settings for the Cartridges* provides the basic information needed for setting the various jumper settings (strappings) of the cartridges in the BSC3i. The settings are referred to as standard when no changes are required, and alternative when the application delivered may need reconfiguration.

How to use this manual

This document provides the setting information, in a dedicated chapter, for those cartridges which have jumpers (strappings) to set.

Where to find more

The setting instructions for the plug-in-units installed into these cartridges are described in a separate document: *BSC3i Jumper Settings for the Plug-in Units*.

Typographic conventions

Table 1 presents the conventions used in this description.

Table 1. Typographic conventions

Emphasized font	Indicates a reference to a manual, chapter or section, for example: See Chapter *Installation.*
	Indicates a word or phrase that is emphasized, for example: *The CPU.*

Your comments

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2 Cartridge jumper settings overview

The hardware settings are made by means of jumper connectors; that is, jumper (U) connector, code 15291 00089.

The hardware settings of the cartridges are presented mainly in figures, but some alternative settings are shown in tables. The default settings are presented normally in the main figure of each cartridge motherboard.

Jumper settings are presented by the following cartridges:

- ET4C-B
- CLOC-B
- SW1C-C
- SBCON1A

3 ET4C-B Exchange terminal cartridge, C104300

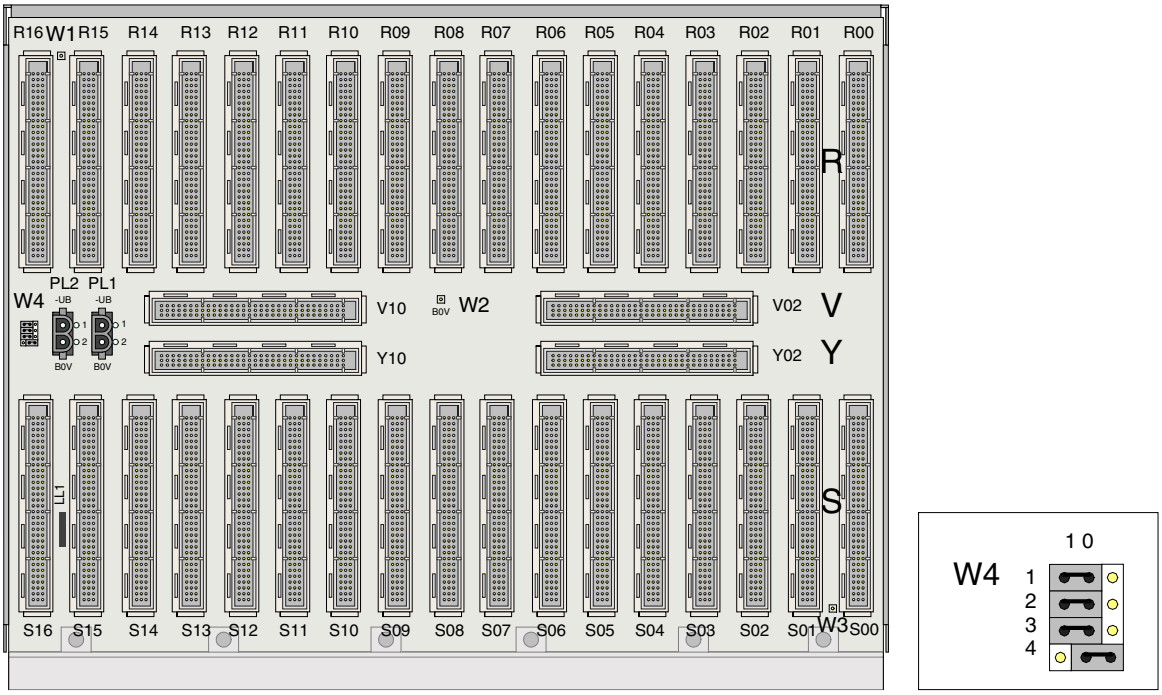

Figure 1. Jumper blocks of the ET4C-B cartridge

Standard settings

Jumpers for the standard settings (shown above) are set at the factory, and normally there is no need to change them.

Jumpers are used for time slot selection, nominal timing, setting control connections and for T0/control. The number of ET4C-B cartridges is 2. Both cartridges are set in the same way, as described below.

Selecting the time slot

If two or more cartridges are connected to the same PCM, row 4 of jumper block W4 must be set as follows:

Table 2. Setting the time slots (W4:4)

Row	Jumper	Equipping of the cartridge
W4:4	0	Cartridge 1 (default setting)
W4:4	1	Cartridge 2

Changing the serial bus nominal timing (NTIM)

Table 3. Nominal timing NTIM (W4)

Row	Jumper	Meaning
W4:1	1	Normal timing (default setting)
	0	Changed timing

Status of maintenance connection (CMD)

Interface signal CMD (1c9) indicates whether the operating environment of the ET2E contains a computer unit supervising the ET2E. Status of the maintenance connection is indicated with the jumper (state 0 or state 1 for CMD signal) on jumper block W4, row 2. It is connected as follows:

Table 4. Maintenance connection (W4)

Row	Jumper	Meaning
W4:2	1	Control connection exists (default setting)
	0	Control connection lacking

Selecting the maintenance serial bus (_SPRP)

If setting 6-11 in block W28 (see BSC3i, Jumper Settings for the Plug-in Units) on the ET2E board is left open, the maintenance serial bus to be used can be indicated to the ET2E by setting the jumper (pin _SPRP, 1c18) on jumper block W4, row 3 as follows:

Table 5. Maintenance bus (T0/control) PCM selection (W4)

Row	Jumper	Meaning
W4:3	0	Control PCM in use
	1	Time slot T0 in use (default setting)

4 CLOC-B Clock and synchronisation cartridge, C104222

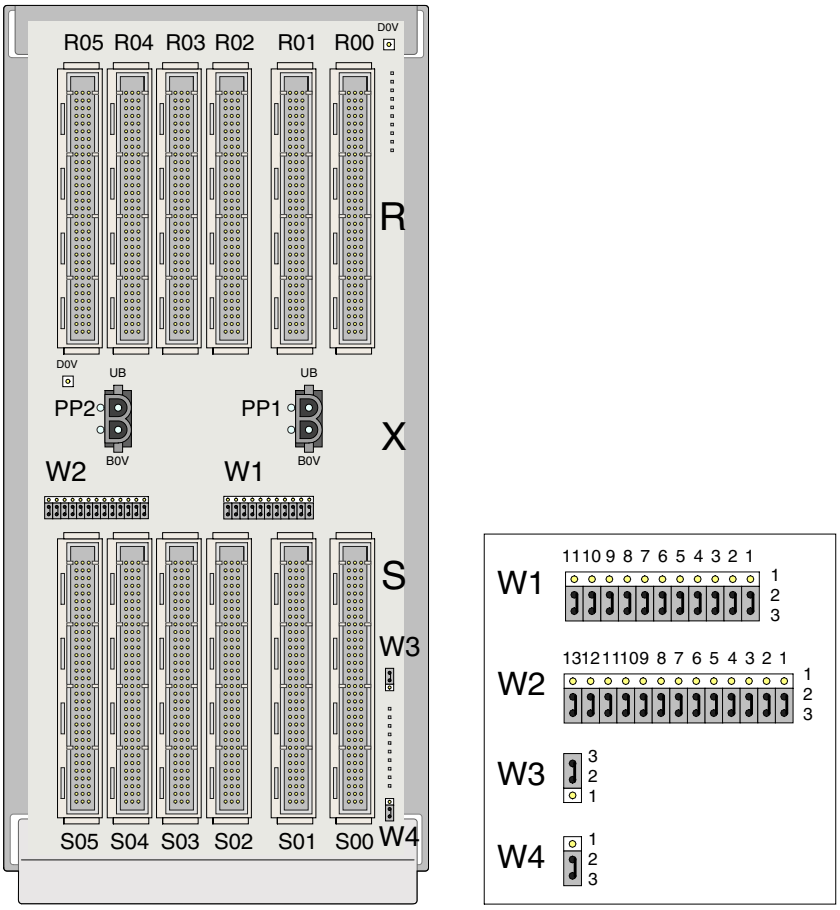

Figure 2. Jumper blocks of cartridge CLOC-B

Standard settings

Jumpers for these standard settings (shown above) are set at the factory, and normally there is no need to change them.

The CLOC-B cartridge accepts two CL3TG plug-in units, a primary active unit and a redundant passive unit in reserve.

The additional wirings are made using (U) jumper connectors.

Setting the operating mode of the CL3TG plug-in unit

The operating mode of the CL3TG is set using jumpers in the jumper blocks W1 and W2. When not set, the signals are in the normal state (state 1). The 0-state is obtained by placing a jumper between pins 1 and 2 or by interconnecting the pins by wiring. Normally, the jumpers are installed between pins 2 and 3 (state 1).

The unused basic timing outputs can be closed in both the active and the passive unit in groups of 5 pairs by means of _CLOFF1 to 3 signals (0-state). Normally, however, all basic timing outputs of the active unit are set active (1-state).

Settings of the CL3TG (W1 and W2) are presented in the table below.

Table 6. Settings of the CL3TG (W1 and W2)

Pins	Signal	State	Meaning
W1: 1, W2: 1	_TG0FF	0	PCM time slots 0 to 23 closed.
		1	PCM time slots 0 to 23 open (default setting).
W1: 2, W2: 2	BU	0	No backup unit.
		1	Backup unit exists (default setting).
W1: 3, W2: 3	PCM	0	PCM interface 2Mbit/s (RSS use).
		1	PCM interface 4 Mbit/s (default setting).
W1: 4, W2: 4	CGCL	0	Independent changeover disabled.
		1	Independent changeover enabled (default setting).
W1: 5, W2: 5	BUEN	0	8MU1 to 15, FPU1 to 15 open in passive unit if CLOFFn = 1.
		1	8MU1 to 15, FPU1 to 15 closed in passive unit (default setting).
W1: 7, W2: 7	_CLOFF3	0	8MU11 to 15, FPU11 to 15 closed in active and in passive unit.
		1	8MU11 to 15, FPU11 to 15 open in active unit (default setting).
W1: 8, W2: 8	_CLOFF2	0	8MU6 to 10, FPU 6 to 10 closed in active and passive unit.

Table 6. Settings of the CL3TG (W1 and W2) (Continued)

Pins	Signal	State	Meaning
		1	8MU6 to 10, FPU6 to 10 open in active unit (default setting).
W1: 9, W2: 9	_CLOFF1	0	8MU1 to 5, FPU1 to 5 closed in active and in passive unit.
		1	8MU1 to 5, FPU 1 to 5 open in active unit (default setting).
W1: 10, W2: 10	L2M	0	Sending to PCM circuit delayed by 61 ns.
		1	Sending to PCM circuit is not delayed (default setting).
W1: 11, W2: 11	RSS	0	Used in RSS.
		1	Used in BSC3i (default setting).

Biasing of the switch changeover selection signal

No biasing is applied to the BSC3i application. The biasing is made using jumpers in jumper block W2 at vertical rows 12 and 13.

Table 7. Biasing of switch side selection signal (W2)

Use	Row	Jumper	Meaning
BSC3i	W2-12	2-3	No biasing
	W2-13	2-3	No biasing

Adaptation of external frequency standards with CL3TG equipment

The synchronisation signals of an external frequency standard are adapted at jumper blocks W3 (FS1) and W4 (FS2). One connection is a 120 ohm balanced connection (jumper in position 2-3). The other connection is a 75 ohm unbalanced connection (jumper in position 1-2).

5 SW1C-C Switch group cartridge, C104596

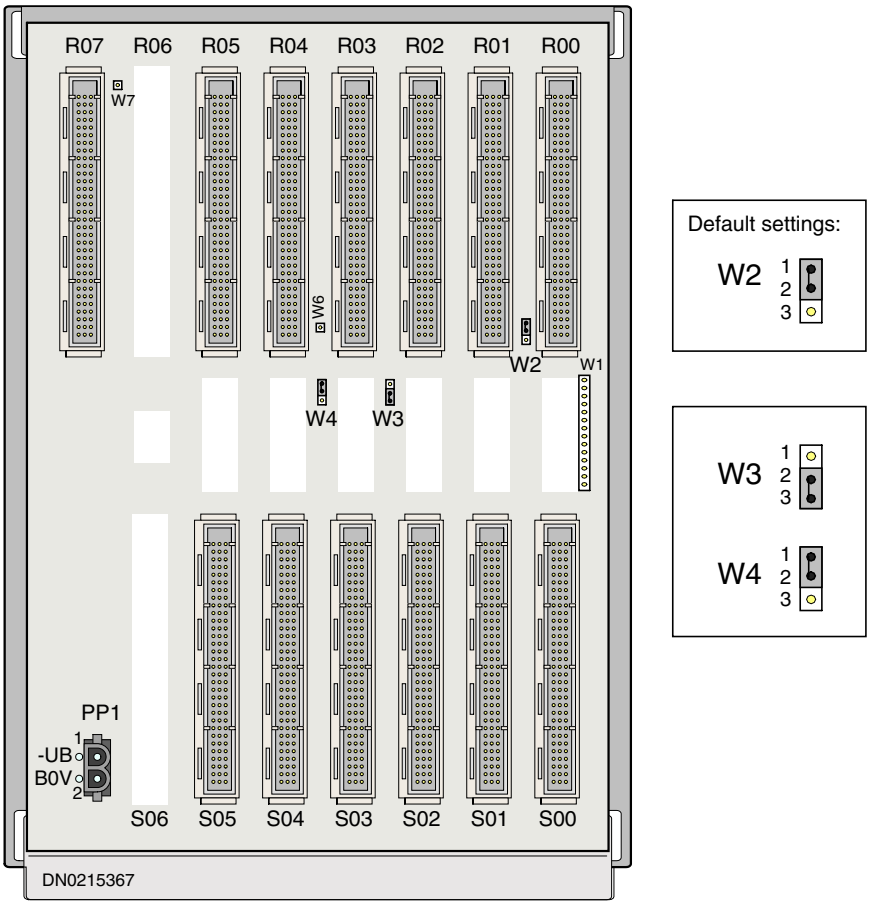

Figure 3. Jumper blocks of the SW1C-C cartridge

The rear side of the SW1C-C cartridge is provided with jumper groups. W2 is for selecting the switch group (GSWB) section and W3 and W4 are for setting the ALTST signal. W1 provides test points and requires no jumpers.

Selecting the group switch section

Jumper group W2 is used for selecting the GSWB section shown in the table below.

Table 8. Selecting the GSWB section (W2)

Jumper	GSWB	Note
W2:1-2	GSWB 0	Default setting for BSC3i
W2:1-2	GSWB 1	Default setting for BSC3i

Setting the ALTST signal

Jumper groups W3 and 4 are used for setting the ALTST signal. The ALTST signal is connected to SW64B plug-in units with jumper settings W3: 2-3 and W4:1-2 as shown in the table below.

Table 9. Setting the ALTST signal (W3, W4)

Jumper	GSWB	Note
W3:2-3	GSWB 0 GSWB1	Default setting for BSC3i
W4:1-2	GSWB 0 GSWB1	Default setting for BSC3i

6 SBCON1A, SWCOP-A bus connector board 1, C71010

The SBCON1A is a jumper setting module, which is related to SWCOP-A settings, described in the *Jumper Setting Instructions*. The SBCON1A is mounted into the Marker and Cellular Management cartridges (CC4C-A0 and CC4C-A1).

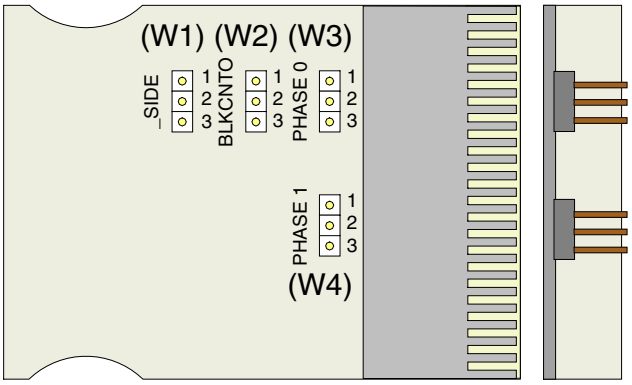

Figure 4. Jumper blocks on SBCON1A circuit board

Setting the phase of basic timing signals 16MOUTn and 8KOUTn

The basic timing signals 16MOUTn and 8KOUTn (n = 0.1) for each group switch section can be advanced or delayd in 30.5 ns increments depending on the interconnecting cable length (GSWB to CC4C-A). Jumpers (W3 and W4) and the alternative settings are shown in the table below.

Table 10. Setting of the basic timing signal phase

Selection	Cable length	W3	W4	Note
Advanced by 61 ns	Over 10 m	1-2	2-3	
Advanced by 30.5 ns	6.0 - 9.9 m	1-2	1-2	
±0 ns	2.6 - 5.9 m	2-3	1-2	
Delayed by 30.5 ns	0 - 2.5 m	2-3	2-3	Default setting

Selecting the group switch side

The group switch side (0 or 1) to which this SBCON1A module is attached is selected through jumper W1.

Table 11. Selecting the group switch side (W1)

Selection	W1
GSWB 0	2-3
GSWB 1	1-2

Selecting the number of group switch sections

By default, the SWCOP-A is set to control one GSWB section (256 PCMs); the _BLK signal is therefore grounded by setting jumpers W2 to 2-3 as shown in the table below.

Table 12. Selecting the number of GSWB sections (W2)

Jumper	1 section (256 PCMs in use)
BLKCNT0	2-3 (default setting for BCS3i)