Description: This document describes the procedure for checking or correcting the cartridge management. It is not possible to manage potential positions of tool holders, known as cartridges, using Siemens standard management. As a result, only the two places at which there is currently no cartridge are disclosed to the system.

Cartridge management:

The cartridge management must be notified of every position and status change of a cartridge. A position change can only occur when shifting from magazine -> provisioning place or PP -> magazine. A status change (cartridge occupied or empty) can only occur when switching the tool from the provisioning place to the gripper or spindle. Two places without cartridges must be available in the overall system (chain magazine and buffer). When commissioning the cartridge management, these must be the provisioning place and final place of the chain magazine. There may be up to two places with empty cartridges in the overall system (chain magazine and buffer) for holding tools from the buffer (return cartridge).

DB_KOEVERW (DB702) contains the cartridge management data:

DB702.DBW0:	1st place without cartridge
DB702.DBW2:	2nd place without cartridge
DB702.DBW30:	3rd place without cartridge
DB702.DBW4:	Magazine place of the cartridge for tool 1 from buffer (usually spindle)
DB702.DBW6:	Magazine place of the cartridge for tool 2 from buffer (only occupied in event of tool change abort, tool from gripper)

Possible values for DBW0 and DBW2:

1 – 50	(with 50 place chain magazine)
9998	(number of provisioning place)

If there are more than 2 empty magazine places in the system due to defective cartridges, they must be blocked. There are always only 2 empty places in the system, those from DM702.DBW0 and DBW2.

Possible values for DBW4 and DBW6:

1 – 50	(with 50 place chain magazine)
9998	(number of provisioning place)
-1	(means there is no return cartridge because all tools are in cartridges)

As a general rule (no tool change abort), a return place is always only defined for the spindle tool whose cartridges are located either at the provisioning place or the last magazine place.

Improper handling or user errors may cause interference situations in the management. If the cause is not detected and the errors cannot be corrected, a manual data modification is possible as a final option. Data changes must however only be carried out with care, as there is a risk of collision. Proceed as follows in this case.

Restoring the normal state of the magazine: (create mechanical conditions using set-up functions)

Empty spindle	(no tool)
Empty provisioning place	(no cartridge)
Empty place 50	(no cartridge at last mag. place)

- Set manufacturer password.
- Select [Settings] in menu.
- Focus cartridge and tool management, and press [Open] softkey.
- The menu shown below opens
- Enter the correct values in the cartridge and tool management menu.

Example normal state of the chain magazine

1	1st location without tool cartridge POK1 (9998 = provisioning place)	-9999	-	SO
2	2nd location without tool cartridge POK2 (9998 = provisioning place)	9998	-	SO
3	3rd location without tool cartridge POK3 (setting station)	0	-	SO
4	1. Place with empty cartridge for tool from spindle or gripper RKK1 (9998 = provisioning place)	-1	-	SO
5	2. Place with empty cartridge for tool from spindle or gripper RKK1 (9998 = provisioning place)	-1	-	SO