# Fil m-Tech

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## The new CA21 Interlocking Scheme

There is a new interlock scheme which uses the RS-485 line for interlock but does not require CA-link. For this scheme an interlock group number must be set. A zero interlock group disables this interlock scheme. If a CA21 has interlock enabled then it is interlocked with all other CA21's with the same non-zero interlock group number.

### Setting the Interlock Group

The interlock group is set by pressing the "INTERLOCK" button on the CA21 while in exit mode. The volume display then displays "IG" and the current interlock group is displayed in the time display. To change the interlock group use the timer up and down buttons and then press the "CUE" button to lock the changes in.

#### The two RS-485 interlock schemes

There are two types of interlocking performed over the RS-485 line: one using the CA-Link central control computer and one using the RS-485 line without the CA-Link computer. If the CA21 detects that CA-Link is running then CA-Link is used for interlocking. If the interlock group is set non zero, and the CA21 does not detect that CA-Link is running, then interlocking is performed over the RS-485 line without the CA-Link computer.

## Use of the relays and inputs interlock scheme

If CA-Link is not running, and the interlock group is set to zero, then the relays and inputs interlock scheme is used. The interlock relays and inputs are ignored totally if CA-Link is running or if the interlock group is non zero.

Note that setting the CA21's cinema number to zero will force the relays and inputs interlock scheme to be used.

# **Interlock Scheme Usage Table**

Value of "Cn" setup option	Value of "IG" setup option	State of CA-Link	Interlocking scheme used
Zero	Ignored	Ignored	Use Relays and Inputs
Non-zero	Zero	Not running	Use Relays and Inputs
Non-zero	Ignored	Running	Use RS-485 with CA-Link
Non-zero	Non-zero	Not running	Use RS-485 without CA-Link

## Notes:

- If CA-Link is running, but is then switched off, the CA21 will automatically switch to using the RS-485 scheme which does not required CA-Link. Note that this assumes that the interlock groups "IG" had already been manually set correctly on all CA21's in the interlock group.
- 2/ Status Panels can be used on the RS-485 line at the same time as either form of RS-485 interlock.
- 3/ RS-485 provides a quicker response time that the relays and inputs interlock scheme (especially for film breaks).
- If RS-485 is used for interlocking without CA-Link then the "CA" setup option should be set to 1. Note that non CA-Link RS-485 interlock will still work with "CA" = 0 but it should be used with "CA" = 1 to ensure the quickest possible response time. When "CA" = 1 the response time is faster because a baud rate of 38.4k baud is used instead of 9600 baud. Note that Status Panels with software before version 2.5 did not allow operation at 38.4k baud. If it is required to use these status panels then "CA" should be set to 0.