SMPTE/MIDI/SOUND Interface for Martin Case controllers

The Case SMPTE/MIDI/AUDIO interface replaces the MQX-32M (Music-Quest) and S-MPU/AT (Roland) interfaces for Martin Case controllers. The new interface is compatible with the MQX-32M interface, but only for Martin Case controller usage.

1. Features

- 2 MIDI inputs. Both inputs can be used together. The MIDI codes will be merged.
- 2 MIDI ouputs. Both outputs will be used as MIDI through when MIDI is input on the MIDI inputs. The MIDI codes will be merged with the MIDI codes generated from the Martin Case controller.
- SMPTE INPUT and SMPTE OUTPUT.
- SOUND INPUT. The sound input signal will be filtered to 5 frequency trigger levels (60Hz, 400 Hz, 1.5 KHz, 5KHz and 12KHz).
- VITC timecode (future use)
- LANC (future use)
- 2 relay outputs (future use)
- 3 analogue inputs (future use)
- 1 analogue output (future use)

2. Switch settings

- Address and interrupt settings compatible with MQX-32M interface:

SW1	SW2	SW3	SW4	ISA-address	
ON	ON	ON	ON	200	
OFF	ON	ON	ON	210	
ON	OFF	ON	ON	220	
OFF	OFF	ON	ON	230	
ON	ON	OFF	ON	240	
OFF	ON	OFF	ON	250	
ON	OFF	OFF	ON	260	
OFF	OFF	OFF	ON	270	
ON	ON	ON	OFF	300	
OFF	ON	ON	OFF	310	
ON	OFF	ON	OFF	320	
OFF	OFF	ON	OFF	330	Default Martin Case
ON	ON	OFF	OFF	340	
OFF	ON	OFF	OFF	350	
ON	OFF	OFF	OFF	360	
OFF	OFF	OFF	OFF	370	

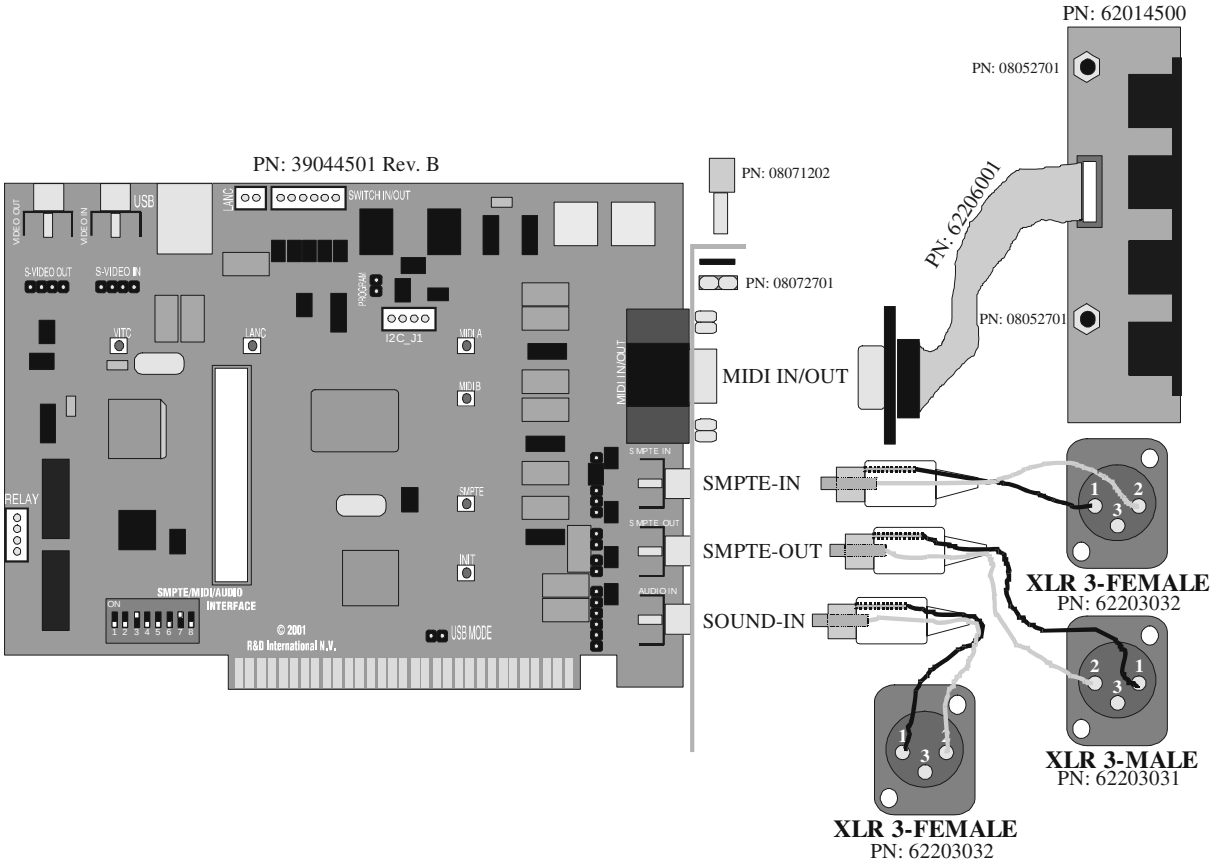
SW5	SW6	SW7	SW8	IRQ	
ON	OFF	OFF	OFF	2/9	
OFF	ON	OFF	OFF	7	
OFF	OFF	ON	OFF	5	Default Martin Case
OFF	OFF	OFF	ON	3	

- Address range on selected address
  - 0 : MIDI dataport (R/W)
  - 1 : MIDI command port (W)
  - 1 : MIDI status port (R)
  - 4 : SOUND 60 Hz level (R) (not on MQX-32M)
  - 5 : SOUND 400Hz level (R) (not on MQX-32M)
  - 6 : SOUND 1.5KHz level (R) (not on MQX-32M)
  - 7 : SOUND 5KHz level (R) (not on MQX-32M)
  - 8 : SOUND 12KHz level (R) (not on MQX-32M)
  - 9 : Analogue input EXT1 (R) (not on MQX-32M)
  - A: Analogue input EXT2 (R) (not on MQX-32M)
  - B: Analogue input EXT3 (R) (not on MQX-32M)

3. Connecting

The external connections are the same as those used with the MQX-32M interface, 1 extra sound input is added:

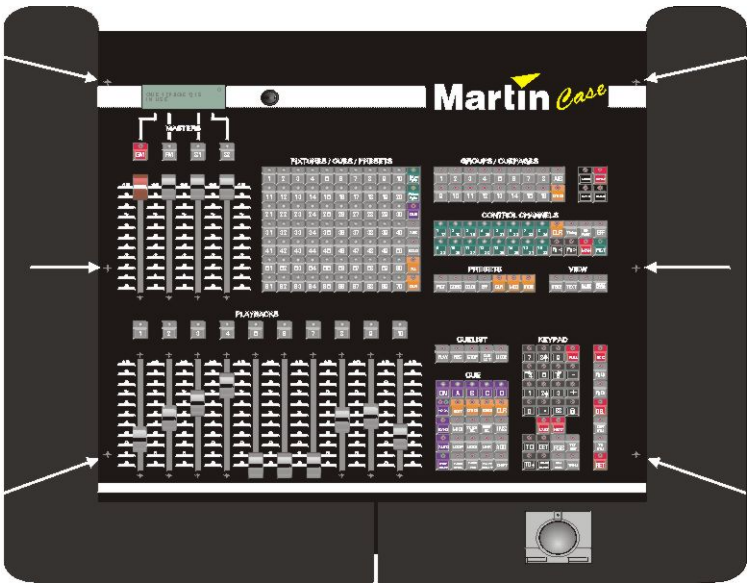
- MIDI: Use PCB (PCB Case, 4 x DIN connector PN: 62014500 and ribboncable PN: 62206001) to connect the MIDI IN/OUT to the interface.
- SMPTE-IN : Use (wireset SMPTE, Case controller PN: 62203032)
- SMPTE-OUT : Use (wireset SMPTE, Case controller PN: 62203031)
- SOUND-IN : Use (wireset SMPTE, Case controller PN: 62203032)



4. Installing the interface

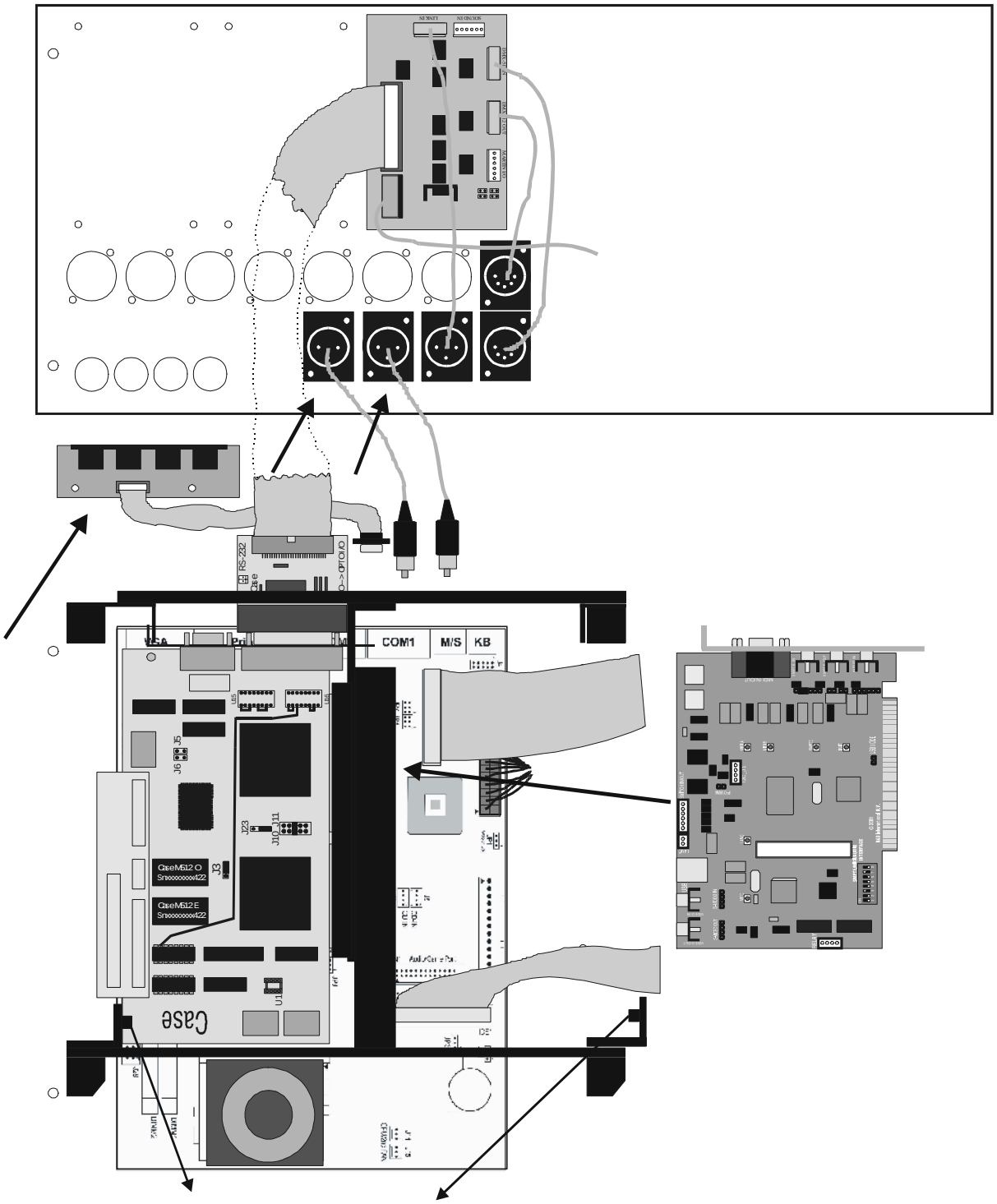
4.1 Opening the controller

Unscrew the frontpannel and remove it.



4.2 Installing the MIDI DIN connector PCB and XLRs (see fig next page)

- Install the DIN connector PCB with 5mm spacers, M3 screws and nuts to the bottom of the controller.
- Install the SMPTE-IN XLR (3 pin female), SMPTE-OUT XLR (3 pin male) and SOUND-IN XLR (3 pin female)
- Locate an empty slot to install the SMPTE/MIDI/SOUND interface. The empty slot can be found either at the left side of the raiserboard (under the master DMX interface) or at the right side of the raiserboard. **Do not use the lowest connector at the left side if you have a 370 ML mainboard** (the interface will push against the DIMM memory modules).
  - unscrew the interface fixing clamp of the side where you want to install the interface.
  - Remove the Master interface if you use a slot at the left side. **Do not change the jumper settings of the Master interface.**
  - Set the dipswitches of the SMPTE/MIDI/SOUND interface:
    - Switch 3 and 7 to ON, the rest to OFF
  - Mount the interface with the M4 screw , the lock washer and M4 nut.
  - Mount the interface fixing clamp.
  - Remount the Master interface (if removed).

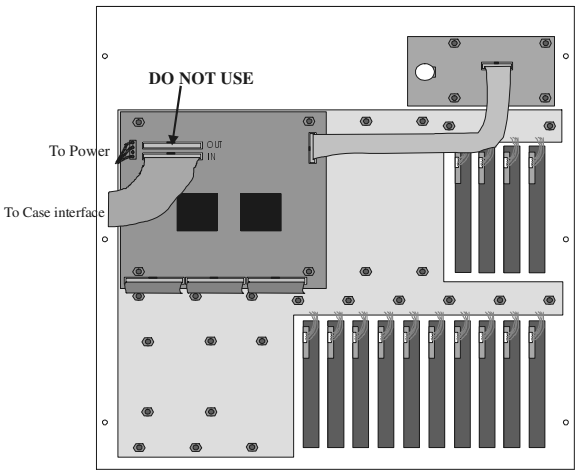


Interface fixing clamp

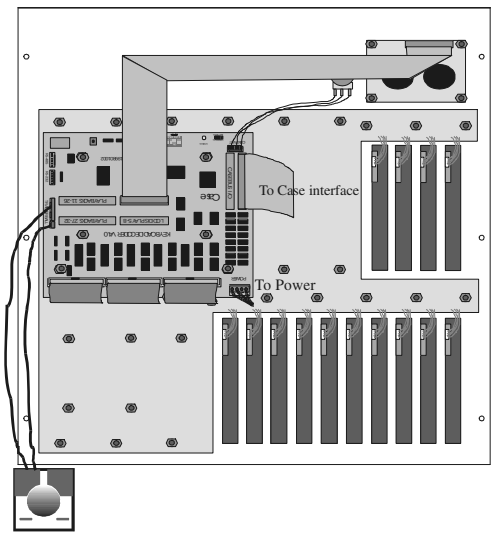
4.3 Reconnect the frontpannel

- Reconnect the ribboncable with the Master interface
- Reconnect the power cable to the frontpannel
- Reconnect the trackerball to the frontpannel (not for keyboard decoder V2.x controllers)

Front with Keyboard decorder V2.x



Front with Keyboard decoder V4.0 PCB



4.3 Checking the software

- Restart the controller.
- When the software is loaded, press **SHIFT + SETUP** (for 2 seconds).
- From the menu, select **TEST UTILITIES --- CHECK HARDWARE:**
    - Select in the testprogram option **J : CHECKING SMPTE**
        - The SMPTE timer should start on 24 fr./sec. With the + and – key you can test other framerates (25 fr/sec, 30 fr/sec and 30D fr/sec)
        - If a SMPTE signal is connected to the SMPTE-IN input, you can test the SMPTE-IN input by pressing the space-bar.
        - If the test software gives following error: ERROR SMPTE-DRIVER NOT FOUND, then go to 4.4.

4.4 Solving problems

If the above test procedure gives an error message, then something has gone wrong with the installation :

- When restarting the controller, after starting operating system and before loading the lightprogram, a box should appear:

```
 SMPTE/MIDI Driver V3.0X
(C)  R&D International 1998
  MQX-32 INTERFACE READY
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    - When this box doesn't appear, or only 1 box appears with the last line indicating ROLAND INTERFACE ....., reinstall the latest version of the software. The software can be downloaded from the web: HTTP://www.martin.dk
    - When the last line of the box indicates: MQX INTERFACE ABSENT, then check the dipswitch settings of the interface (SWITCH 3 and 7 to ON, the rest to OFF). If the dipswitch settings are correct, clean the goldplated ISA contacts of the interface.