

RS-232 and switching contacts for STAR ONE, STAR TWO and STAR THREE in combination with P561

SCPC / MCPC DVB Receiver Audio encoder / DVB Multiplexer



STAR ONE



STAR TWO,



And STAR THREE



P561

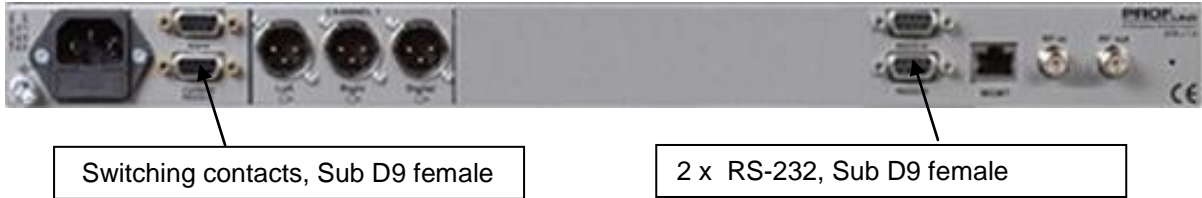
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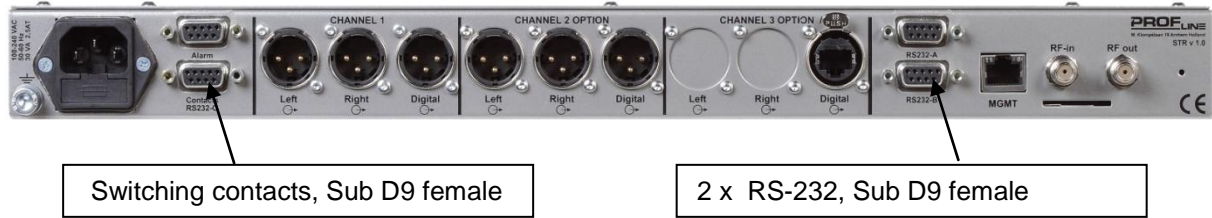
1. Connectors and wiring.

1.1. STAR ONE, STAR TWO and STAR THREE

Rear panel STAR ONE



STAR TWO



STAR THREE

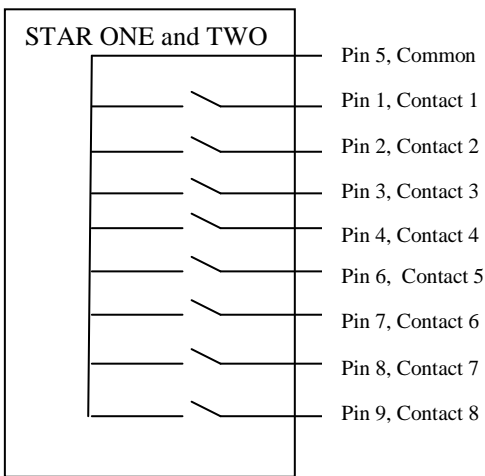


1.1.1. Contacts connector STAR ONE and STAR TWO

Solid state switches (maximum voltage is 100 V).

Pin	Description
1	CONTACT 1
2	CONTACT 2
3	CONTACT 3
4	CONTACT 4
5	Common
6	CONTACT 5
7	CONTACT 6
8	CONTACT 7
9	CONTACT 8

1.1.2. Conceptual drawing contacts

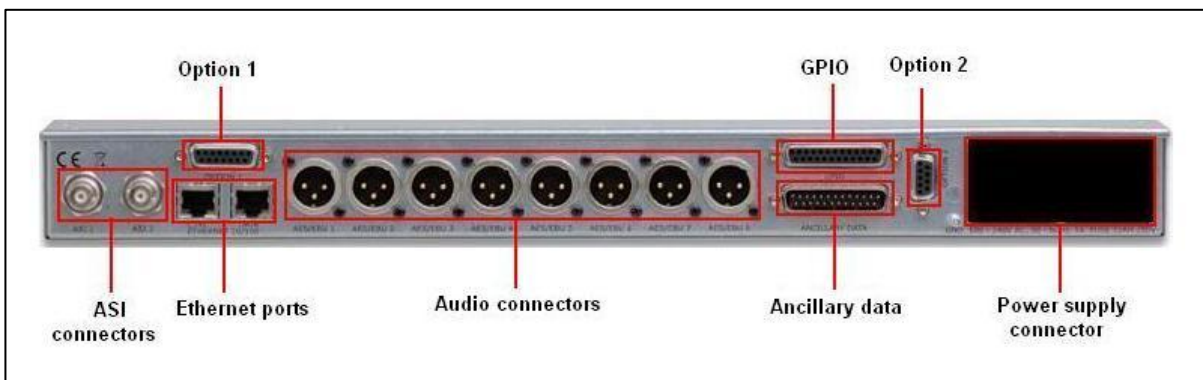


1.1.3. RS-232 9-pole sub-D female connector

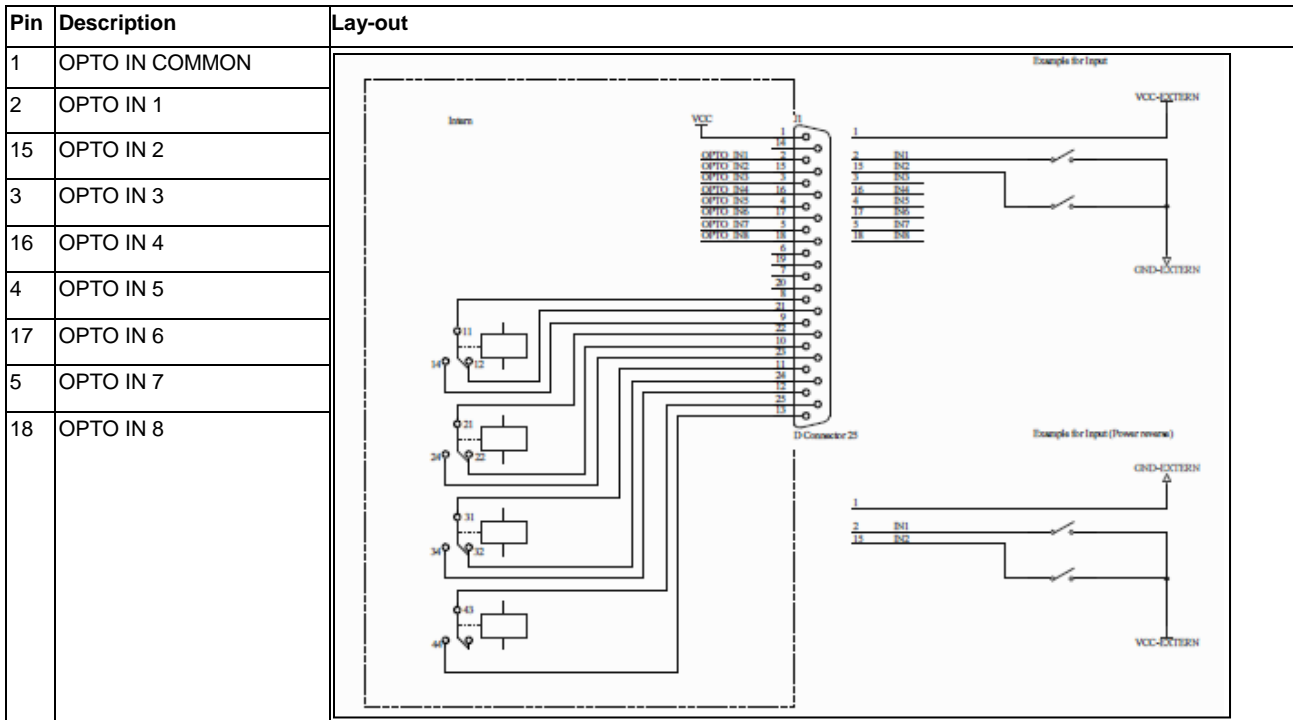
valid for STAR ONE, STAR TWO and STAR THREE

- Pin 2 = data out
- Pin 3 = data in
- Pin 5 = GND

1.1. P561



1.1.1.Opto-coupler-GPIO P561



VCC extern:5 Volt.

1.1.2. Ancillary data connector, Sub-D 25 connector

Pin	Description
1	GND
2	RECEIVE CH 1
3	TRANSMIT CH 2
4	GND
5	RECEIVE CH 3
6	TRANSMIT CH 4
7	GND
8	RECEIVE CH 5
9	TRANSMIT CH 6
10	GND
11	RECEIVE CH 7
12	TRANSMIT CH 8
13	GND

Pin	Description
14	TRANSMIT CH 1
15	GND
16	RECEIVE CH 2
17	TRANSMIT CH 3
18	GND
19	RECEIVE CH 4
20	TRANSMIT CH 5
21	GND
22	RECEIVE CH 6
23	TRANSMIT CH 7
24	GND
25	RECEIVE CH 8

2. Parameter configuration

2.1. P561 settings

P561 ancillary data configuration.

There is a pull down table with 4 choices (see below picture) :

- 1) OFF
- 2) Embedded
- 3) Private stream
- 4) Embedded and private

The switching contacts are in the STAR ONE and STAR TWO only available in the embedded ancillary data mode

Select: Embedded.

The screenshot displays a web-based configuration interface for the P561 device. It is divided into several sections:

- Encoder #4: Algorithm:** Contains dropdown menus for Audio input (enalog), Encoding algorithm (OFF), Channel mode (Layer II) (stereo), Channel mode (AAC LC) (stereo), Channel mode (HE-AACv1) (stereo), and Channel mode (HE-AACv2) (parametric stereo). A Bitrate field is set to 256000.
- Encoder #4: DVB Parameters (MPEG-TS):** Contains input fields for Audio PID (401), Ancillary Data PID (402), PMT PID (400), Service ID (4000), Service name (Radio 4), and Service provider name (PROFLine).
- Ancillary Data:** A section with a dropdown menu for Transport mode (currently set to 'embedded') and a list of options for RS232 baud rate: 'off', 'embedded', 'private stream', and 'embedded + private'. The 'embedded' option is highlighted.

Below the configuration fields are 'Submit' and 'Undo Changes' buttons. At the bottom of the interface, contact information for Qbit GmbH is provided: Stegwisenstr. 32 | D-76646 Bruchsal | Tel.: +49-7251-93193 0 | Fax: +49-7251-93193 93 | www.qbit.de | E-Mail. A zoom level of 110% is indicated in the bottom right corner.

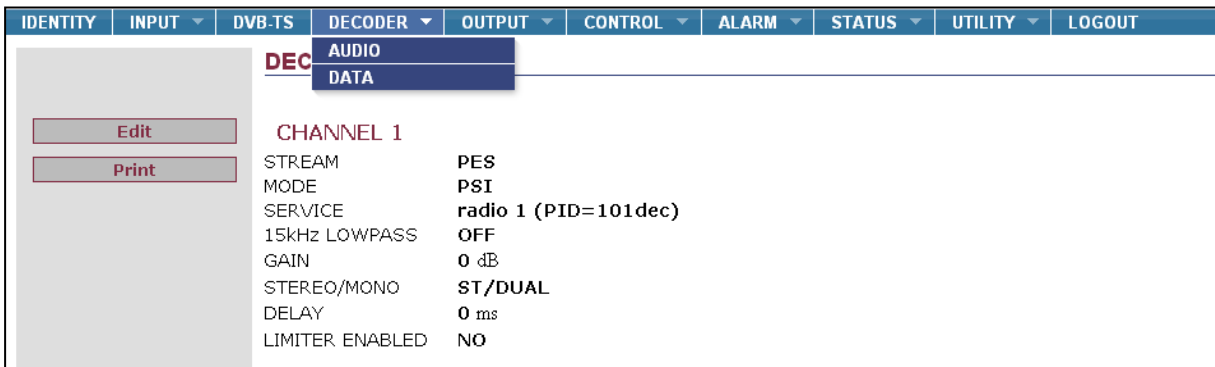
2.2. STAR ONE, STAR TWO and STAR THREE

2.2.1. Switching contacts and RS-232 settings

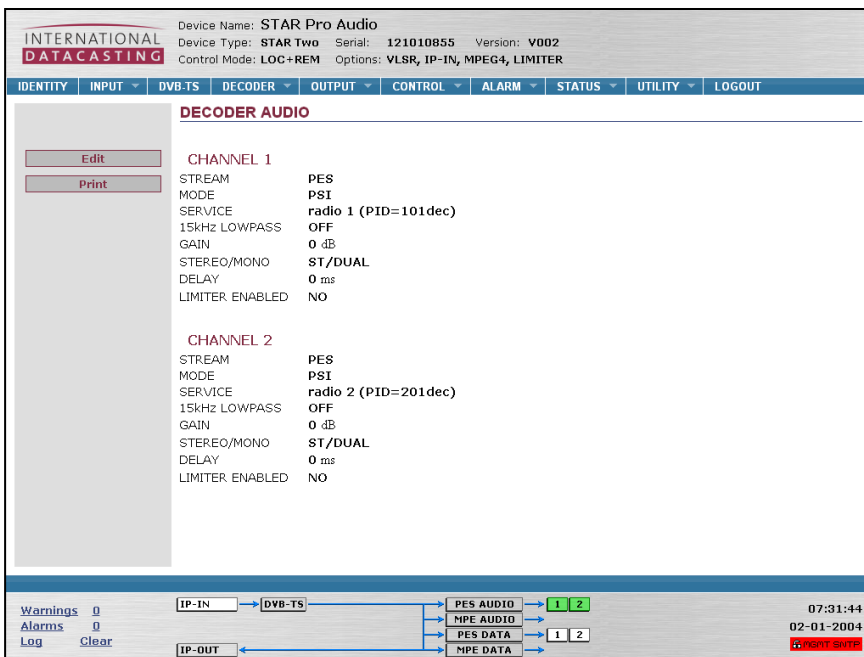
Be aware that the switching contacts are only connected with data port “CHANNEL 1 (RS 232-A)”!

For the STAR THREE the contacts are not available. The STAR THREE can only decode the RS 232, the parameter selection is equal to the STAR ONE and TWO in the case the P561 is set in the “embedded mode”.

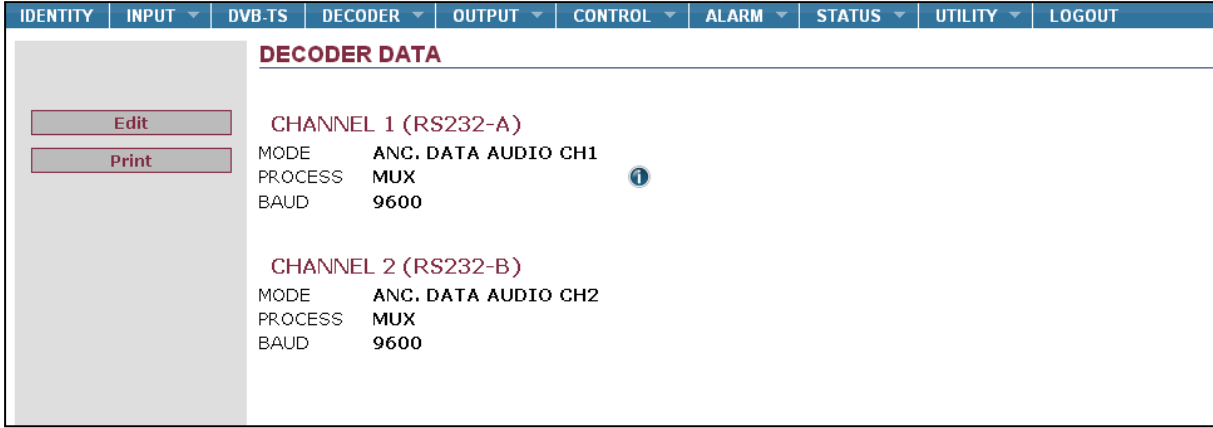
- 1) Go to the menu DECODER and select AUDIO



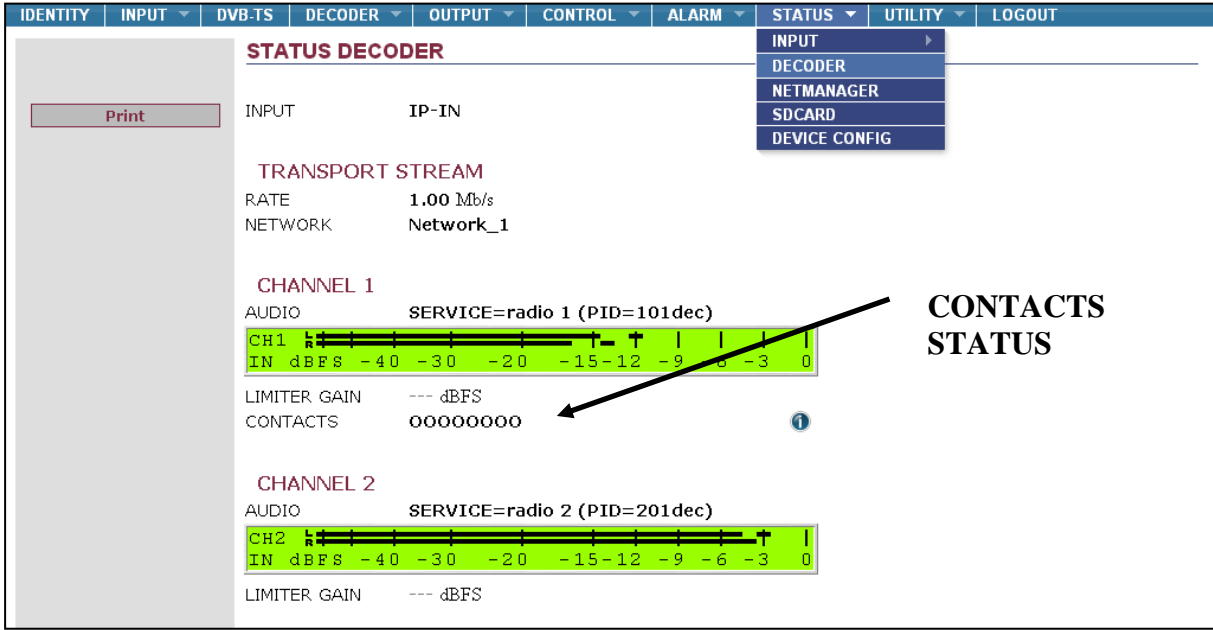
- 2) Push the “EDIT” button
- 3) MODE, select “PSI”
- 4) In the CHANNEL 1 part of this menu you select the audio service that has the switching contacts combined with the RS 232 data channel required. You can select the required service in a drop down menu.
- 5) In the CHANNEL 2 part of the menu you can select another audio channel with the associated embedded RS232 data channel.
- 6) In the CHANNEL 3 part of the menu (STAR THREE) you can select another audio channel with the associated embedded RS232 data channel



- 7) Go to the menu DECODER, DATA
- 8) PUSH the EDIT button
- 9) Configure CHANNEL 1 (RS 232-A) with the below settings, **PROCESS** must be "MUX". **The contacts are now available**
- 10) Configure CHANNEL 2 (RS 232-B) if you require the RS 232 ancillary data from the second audio channel. Also select the PROCESS "MUX".
- 11) Configure CHANNEL 3 (RS 232-C) if you require the RS 232 ancillary data from the third audio channel. Also select the PROCESS "MUX".



Go to the menu "STATUS DECODER" to monitor the audio signal and the status of the contacts.

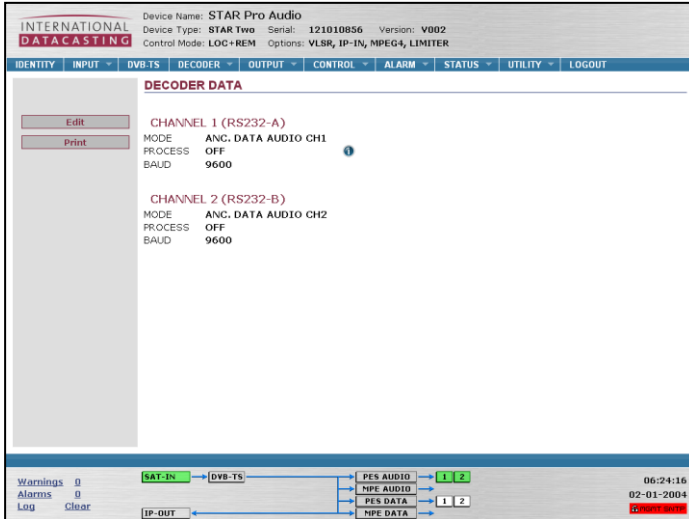


Note: The contact status is also displayed on the LCD in the menu 6.2 "IO CONTACTS".

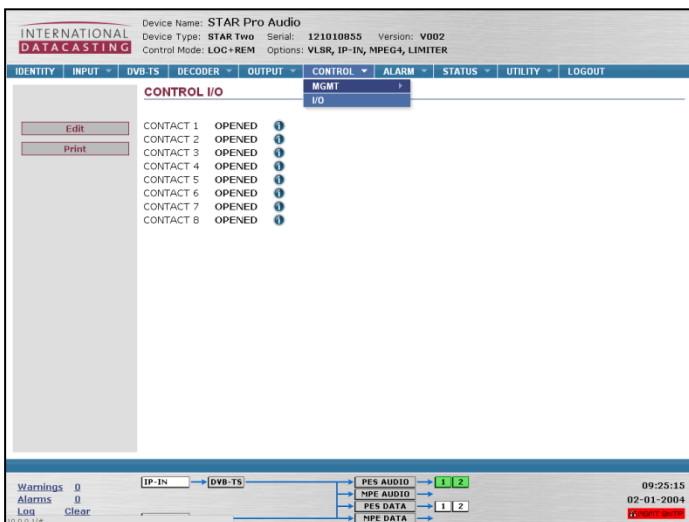
3. STAR ONE and STAR TWO testing mode for contacts

It is also possible to test the contact closures of the STAR ONE and STAR TWO locally.

- 1) Go to the menu “DECODER, DATA”
- 2) Switch the PROCESS “OFF”



- 3) Go to the menu “CONTROL, IO”
- 4) Push the Edit button to configure each contact individually in **OPEN** or **CLOSED**.



Results of this test can be monitored at the front panel LCD of the STAR ONE and STAR TWO (STAR THREE does not have contacts).

- 1) Goto Menu 6.2 “IO STATUS”
- 2) Pushing the key board button ➡ the status of each contact will be shown “CLOSED” or “OPENED”.