

# Assembly Instructions

English

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Grundig SAT Systems

## Head-End Station

PST 19-1



# Contents

<b>1</b>	<b>Notes about safety and hazards</b> .....	<b>3</b>
<b>2</b>	<b>General information</b> .....	<b>4</b>
2.1	Meaning of the symbols used.....	4
2.2	Scope of delivery.....	4
2.3	Required accessory.....	5
2.4	Available accessories.....	5
2.5	Technical specifications.....	5
2.6	Description.....	6
<b>3</b>	<b>Overview</b> .....	<b>7</b>
3.1	Front view.....	7
3.2	Rear view.....	7
3.3	Control unit.....	8
<b>4</b>	<b>Mounting the cassette and the head-end station</b> .....	<b>9</b>
4.1	EMC regulations.....	9
4.2	Potential equalisation.....	10
4.3	Power supply.....	10
4.4	Installing a cassette.....	11
4.5	Mounting in a cabinet.....	12
4.6	Mounting on a shelf.....	13
4.7	Connecting the cassette / the head-end station.....	13
<b>5</b>	<b>Putting the cassette into operation</b> .....	<b>13</b>

# 1 Notes about safety and hazards



- Observe the relevant VDE regulations.
- Replace the power cord and the power supply only by the OEM power cord and the OEM power supply.
- Earth the receiving system according to DIN EN 50083-1 / 60728-11.
- Before starting installation or service work disconnect the receiving system from mains.
- Do not perform installation and service work during thunderstorms.



- Assembly, installation and servicing must be carried out by an authorised electrician.
- Install the head-end station
  - in a dry, dust-free environment
  - in such a manner that it is protected from moisture, fumes, splashing water and dampness
  - where it is protected from direct exposure to sunlight
  - on a vibration-free wall or floor construction
  - not within the immediate vicinity of heat sources
- The head-end station should only be installed in a room where the permissible ambient temperature range (0 °C to +40 °C ) can be maintained, even during fluctuations in climatic conditions.
- Ensure that the head-end station is adequately ventilated.
- Do not cover the ventilation openings!
- To avoid too strong heating of the head-end stations it is not admissible to mount them one upon the other without using thermic precautions (e.g. permanently air recirculation, heat deflectors etc.).
- Do not install the head end in cabinets or recesses which are not ventilated.
- If additional fans are to be used to circulate the air, ensure that the system will be shut down (disconnected from mains) should any one of the fans fail.
- Do not place any vessels containing liquids on the head-end station.
- Due to the risk of fires caused by lightning strikes, we recommend that all mechanical parts (e.g. distributor, equipotential bonding rail, etc.) be mounted on a non-combustible base. Wood panelling, wooden beams, plastic covered panels and plastic panels are all examples of combustible bases.
- Avoid short circuits!
- Observe the relevant standards, regulations and guidelines on the installation and operation of antenna systems.

- To ensure electromagnetic compatibility, make sure all connections are tight and that the covers are screwed on securely.
- No liability is accepted for damage caused by faulty connections or inappropriate handling of the device.
- You can obtain additional information from the "Planning handbook" brochure which can be found on the website "[www.gss.de](http://www.gss.de)" under the "**Service**" category.



Electronic devices should never be disposed of in the household rubbish. In accordance with directive 2002/96/EC of the European Parliament and the European Council from January 27, 2003 which addresses old electronic and electrical devices, such devices must be disposed of at a designated collection facility. At the end of its service life, please take your device to one of these public collection facilities for proper disposal.

## 2 General information

### 2.1 Meaning of the symbols used



Important note



Danger by electrical shock

### 2.2 Scope of delivery

- 1 PST 19-1 head-end station (without cassette and control unit)
- 4 prestole nuts M 6
- 4 fixing screws M 6 x 16 mm with plastic washers
- 1 Power supply
- 1 Mains cable
- 2 Ferrite sleeves
- 1 HF connector
- 1 CD (assembly instructions)
- 1 Brief assembly instructions
- Self-adhesive feet

## 2.3 Required accessory

Control unit      order number GAG 8800

## 2.4 Available accessories

For cassettes and accessories see website "[www.gss.de](http://www.gss.de)".

## 2.5 Technical specifications

The requirements of the following EU directives are met:

2006/95/EG, 2004/108/EG

The product fulfils the guidelines and standards for CE labelling.

Cassette slots:	1
Types of cassettes:	all cassettes of the Standard and Professional marketing programmes with restrictions (s. page 6)
Mains voltage:	100–240 V~; 50/60 Hz
Power consumption:	12 V / max. 2.5 A
Admissible ambient temperature:	0 °C to +40 °C; without humidification and dehumidification
Dimensions W x H x D:	482 mm x 1 HU (44.5 mm) x 254 mm
Inner dimensions W x H x D:	448 mm x 1 HU x 251 mm
Weight:	equipped approx. 3.3 kg

## 2.6 Description

This head-end station is used for the specific retrofitting of already available cable systems with one cassette.

It is exclusively designed for the operation with one cassette of the Standard and Professional marketing programmes with following restrictions:

The cassettes listed below can only be operated with a control unit "**BE REMOTE**" connected permanently (s. page 13):

HRC 310 AV

HRC 312 AV / PAVP 3000

HRM 326/4 / PTFE 2000

HRM 39x / PTAP x000

HRM 123x A / PSAP x000

HRM 333 / 334 / 335

HRM 343 / 344 / 345

To operate the cassettes listed below without a control unit their operating software must be version "**V.20**" minimum:

HDM 236x P CI

HDM 2370 P CI

HDMT 216x

PSDP 1200 - 5200

PTDP 1200 - 5200

Cassettes with the code numbers "**8xx**" (e. g. HRM 838, HRM 858) cannot be used with this head-end station.

All other cassettes can be operated with this head-end station without the control unit. Only for programming the cassette installed the control unit "**BE REMOTE**" is required. The control unit is not contained in the scope of delivery and must be ordered separately.

You can find lists of the current Standard and Professional cassettes on the website "[www.gss.de](http://www.gss.de)".

The HF output signal is fed into the cable network via a pluggable HF connector and an external standard level control.

## 3 Overview

### 3.1 Front view

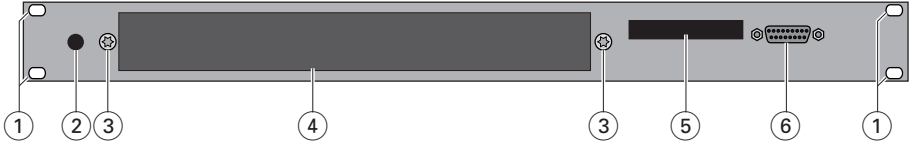


Fig. 1

- ① Fixing holes of the head-end station
- ② Opening for a cable terminal (F connector)
- ③ Fixing screws for the cassette
- ④ Slot for 1 cassette
- ⑤ Type plate
- ⑥ 15-pin D-SUB socket

### 3.2 Rear view



Fig. 2

- ⑦ Ventilation
- ⑧ Power supply socket
- ⑨ Opening for the HF connector
- ⑩ Earth connection terminal

### 3.3 Control unit



The control unit is not contained in the scope of delivery. To use it please regard the notes in the description on page 6.

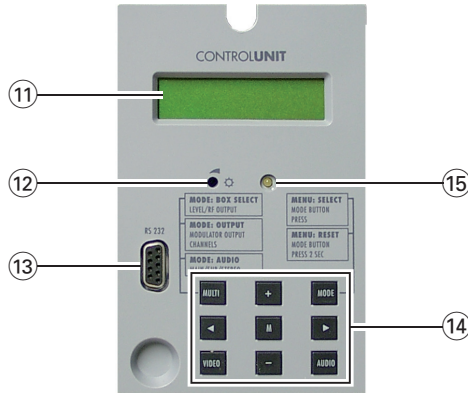


Fig. 3

- ① LC display
- ② Control to set the contrast of the LC display.
- ③ 9-pin D-SUB socket to update the operating software of the control unit.
- ④ Control buttons (control panel)
- ⑤ Operation display



## 4 Mounting the cassette and the head-end station



- Install the head-end station vibration-free.  
Avoid, for example, mounting the head-end station onto a lift shaft or any other wall or floor construction that vibrates in a similar way.
- **To avoid too strong heating of the head-end stations it is not admissible to mount them one upon the other without using thermic precautions (e.g. permanently air recirculation, heat deflectors etc., minimum distance = 1 height unit).**
- Ensure that
  - there is an adequate ventilation
  - the permissible ambient temperature will be maintained
  - the mounting position is dry and protected against splashing water.

### 4.1 EMC regulations



To comply with the current EMC regulations, it is necessary to connect the lines leading in and out of the 19" cabinet using standard cable terminals.

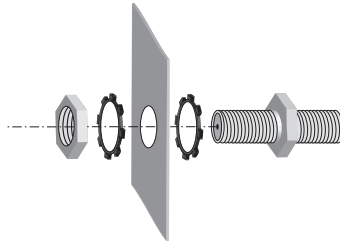


Fig. 4

- According to figure 4 insert a standard cable terminal in the opening provided in the front of the head-end station (Fig. 1 (2), page 7).



Tighten the nuts on the cable terminals until a good connection is made between the housing and the cable terminals.

## 4.2 Potential equalisation



Earth the head-end station in accordance with DIN EN 50083-1 / 60728-11 and VDE 0855.

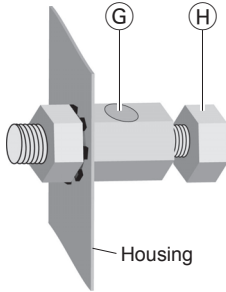


Fig. 5

- Put the earth wire ( $Cu \geq 4 \text{ mm}^2$ ) into the hole **G** (Fig. 5) of the earth connection terminal **10** (Fig. 2, page 7) and fasten the earth wire with the screw **H** securely.
- Connect the earth connection terminal to a potential equalisation rail (supplied by customer) using the earth wire.

## 4.3 Power supply



To maintain compliance with the current EMC regulations (electromagnetic compatibility), it is necessary to route the mains cable supplied and the power cord of the power supply with two loops through one of the supplied ferrite sleeves each. Mount the ferrite sleeves as near as possible to the connector plug of the mains cable (Fig. 6) and to the connector plug of the power supply (Fig. 7).



Fig. 6



Fig. 7

- Open the ferrite sleeves.
- Make two loops in the mains cord or the power cord and lay them inside the ferrite sleeve as shown in Fig. 8.
- Close the ferrite sleeves (Fig. 9).

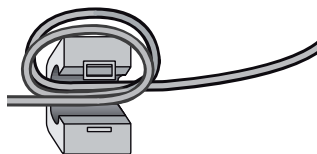


Fig. 8

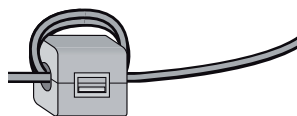


Fig. 9

- Connect the power cord of the power supply to the power supply socket ⑧ (Fig. 2, page 7) of the head-end station.
- Connect the mains cable to the power supply.

#### 4.4 Installing a cassette



Before installing or changing the cassette unplug the power cable of the power supply from the mains power socket.

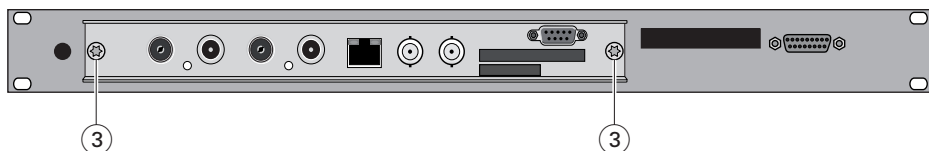


Fig. 10

- Remove the fastening screws ③ of the slot from the head-end station.
- Insert the cassette into the head-end station so that the HF output at the rear of the cassette corresponds to the loop-through for the HF connector ⑨ (Fig. 2, page 7).
- Push the cassette into the housing, align it according to the connections in the board inside the cassette and contact it with low pressure.
- Fasten the cassette with the screws ③.
- Push the HF connector through the loop-through ⑨ (Fig. 2, page 7) and connect it to the HF output of the cassette.
- Connect the HF output to the cable network via a standard level control.

## 4.5 Mounting in a cabinet



- The head-end station has been designed for installation into 19" cabinets.
- In cabinets a circular aeration (e.g. by means of ventilators) is to be ensured. In addition it is necessary to permanently control the ambient temperature of max. +40 °C by means of thermo elements. If the ambient temperature inside the cabinet exceeds +40 °C, a thermo switch with re-close inhibition must automatically disconnect the system from the mains power supply.
- Install the support elements for the head-end station into the cabinet.  
→ The installation height of the head-end station is 1 height unit (HU).  
1 height unit corresponds to about 44.5 mm.
- Fit the four prestole nuts (16) accurately into the frame of the cabinet (Fig. 11).

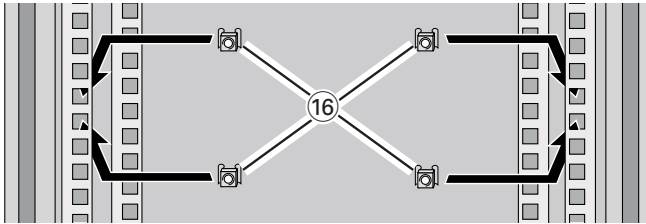


Fig. 11

- Push the head-end station into the cabinet on the preinstalled support elements and fix it with the enclosed screws (17) and the appropriate plastic washers (18) (Fig. 12).

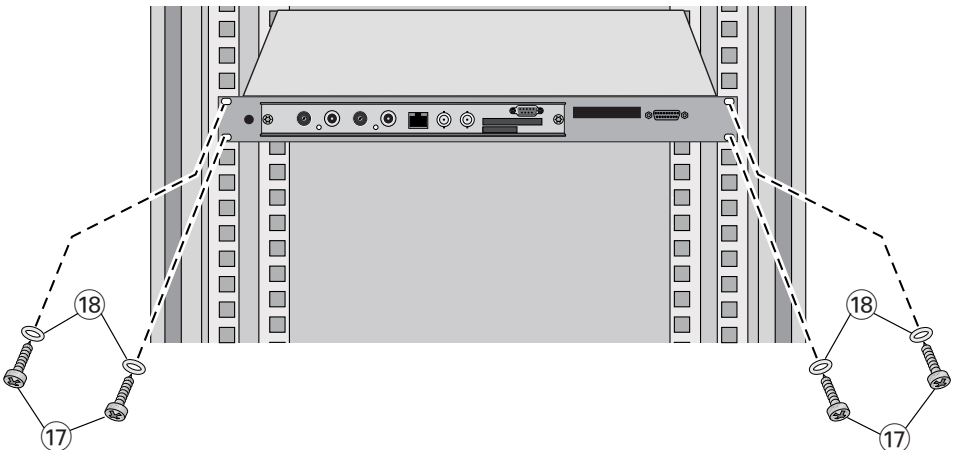


Fig. 12

## 4.6 Mounting on a shelf

- Stick four self-adhesive feet of the scope of delivery on the bottom side of the head-end station.
- Position the head-end station on the shelf so that the sideways distances to the shelf walls are minimum 20 cm. Ensure a minimum distance of 1 height unit (approx. 44.5 mm) of free space above the head-end station and a minimum distance of 10 cm behind as well.

## 4.7 Connecting the cassette / the head-end station

- Connect the cassette according to the appropriate assembly instructions.
- Connect the mains cable to the power supply and the mains socket.

# 5 Putting the cassette into operation



- To put the cassette into operation it is necessary to use the control unit **"BE REMOTE"** offered as an accessory. If necessary the software of the control unit must be updated.
- The RS 232 interface of the control unit enables you to use a PC or a notebook and the **"BE-Flash"** software to update the operating software of the control unit. You can find the current operating software for the control unit and the software **"BE-Flash"** on the website **"www.gss.de"**.
- With restrictions (s. page 6) the cassettes of the Standard and Professional marketing programmes can be used without the control unit after programming.

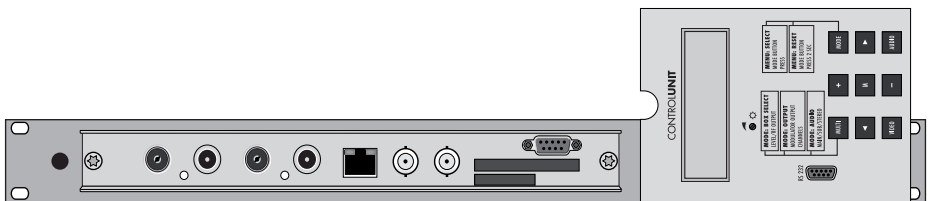


Fig. 13

- Put the control unit according to figure 13 onto the 15-pin D-SUB socket ⑥ (Fig. 1, page 7).

—> For this use an “one-to-one” extension cable with a standard 15-pin D-SUB plug and a 15-pin D-SUB socket, if necessary.

- Adjust the contrast of the display using the controller (12) (Fig. 3, page 8).
- To update the software use an “one-to-one cable” (see fig. 14 for circuit) to connect the control unit’s RS-232 interface and the PC or notebook.  
—> If necessary use a standard RS-232 / USB adapter.



Fig. 14

- Start the “**BE-Flash**” software and update the software of the control unit.
- Programme the cassette according to the appropriate assembly instructions.
- Set the output level according to the needs of the cable network.

**Service:**

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