Mounting Instruction

Compact Mini EGC Amplifier 93230 and 93240

Application

The Compact Mini EGC Amplifier type 93230 and type 93240 has one active output and is mainly used as distribution amplifier. The only different between the two types is that ROSA® Element Management System cannot monitor the 93230. All equalizers and pads are electronic and can be set with the handheld terminal type 91200. The plug-in filters in the reverse path allow flexible choice of frequency range for both forward and reverse path.
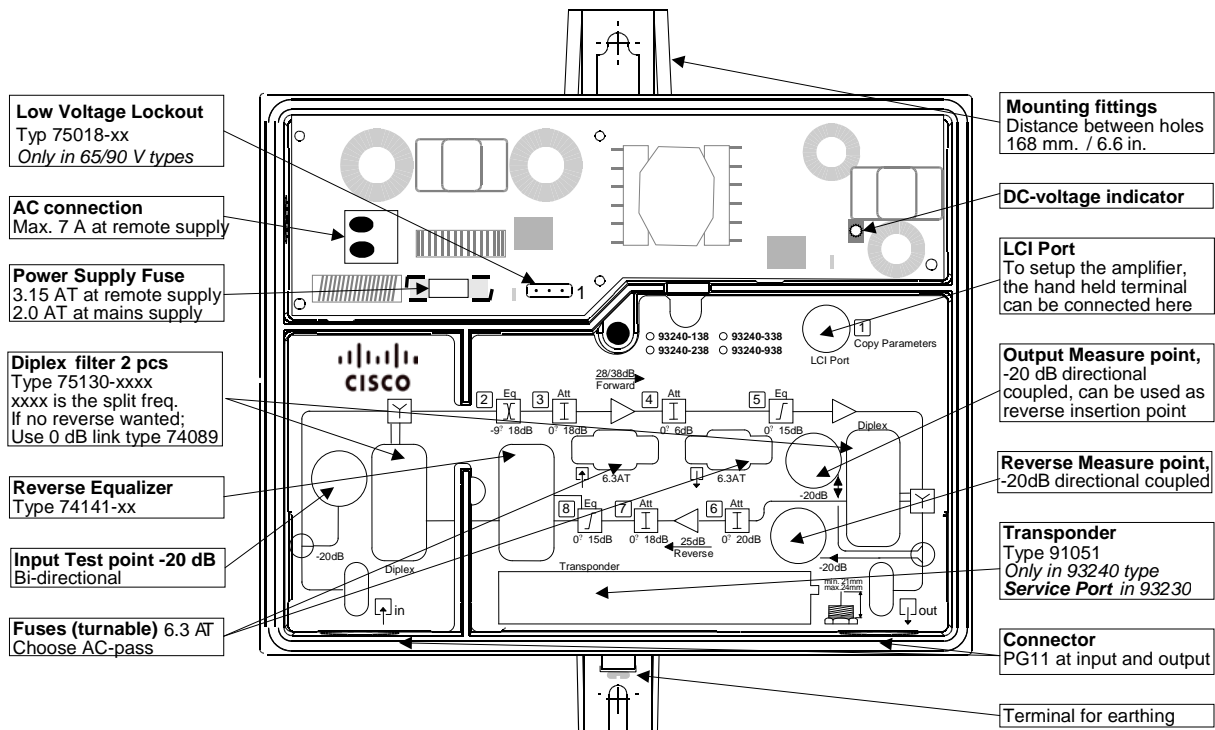

Figure 1: Amplifier overview
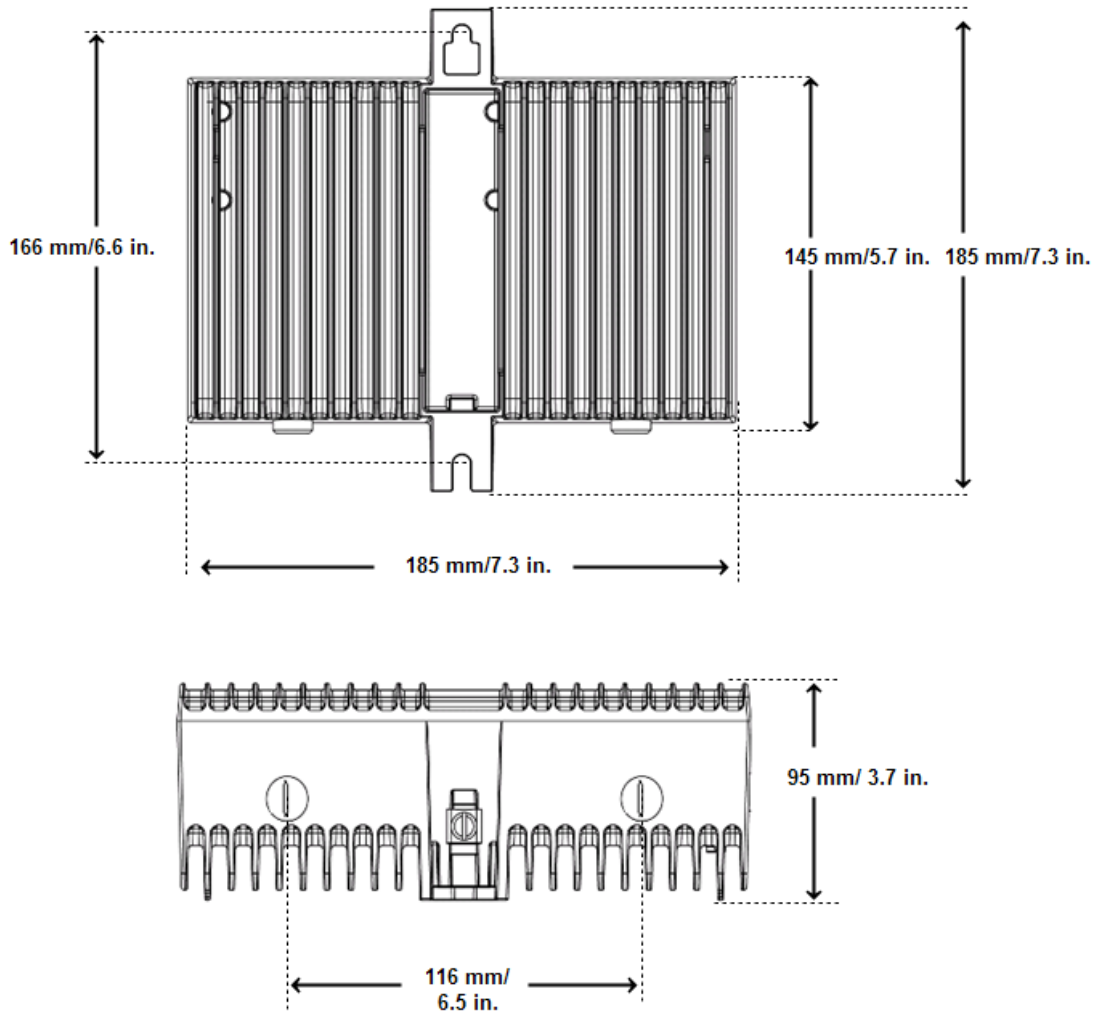
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Housing Dimensions

The standard housing dimensions are 7.3 inches/185 mm x 5.7 inches/145 mm x 3.7 inches/95 mm.

The distance from the top edge of the amplifier to its bottom edge is also 7.3 inches/185 mm, as long as its length.

The distance between two RF ports is 6.5 inches/116 mm.

The diagram below shows the dimensions of the amplifier housing.

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## To Mount the Amplifier

> ⚠ **CAUTION:**
>
> **Be aware of the size and weight of the amplifier when mounting. Ensure that the mounting location has a stable flat surface, and can safely support the amplifier's maximum weight. Please use the appropriate type of screws and screwdrivers, depending on the mounting method.**

Mounting Material:

The amplifier should be *mounted vertically* with the cable input underneath, to allow natural ventilation and to secure the best possible operation conditions. Use a 4 mm Allen key for screw in lid and fasten with 5 Nm. The pin length of the PG 11 cable connector at input and output is shown on the cover plate of the amplifier. The amplifier can be mounted on the wall of concrete, brick, wood, metal, etc., or in the cabinet.

Mounting Steps:

1 Use two mounting screws to mount the amplifier. The screw size is M5 and the distance between two mounting screws is 166 mm.

2 Tighten the two mounting screws. Make sure the amplifier is fixed steadily. See the following diagram for instructions:
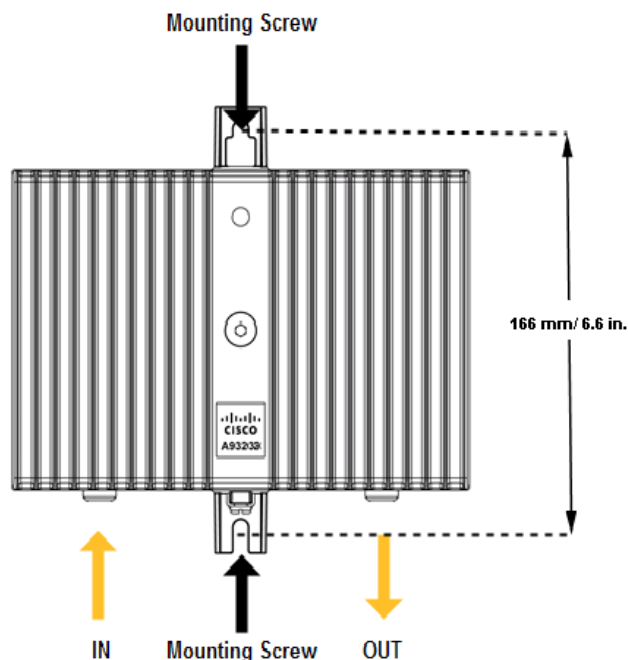
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Please Notice:

This product can only be setup with a hand held terminal **type A91200.11** or with a hand held terminal **type A91200.10 containing the necessary driver for the EGC amplifier.** New drivers can be installed by means of download kit A91210.10.

Plug-in units

Three plug-in units are necessary.

- Two diplex filters type 75130 with the required split frequency.
  Use two links type 74089 if the reverse path not is used.

- Plug-in reverse equalizer type 74141 with the required filter frequency determines the frequency range for the built-in active reverse path.
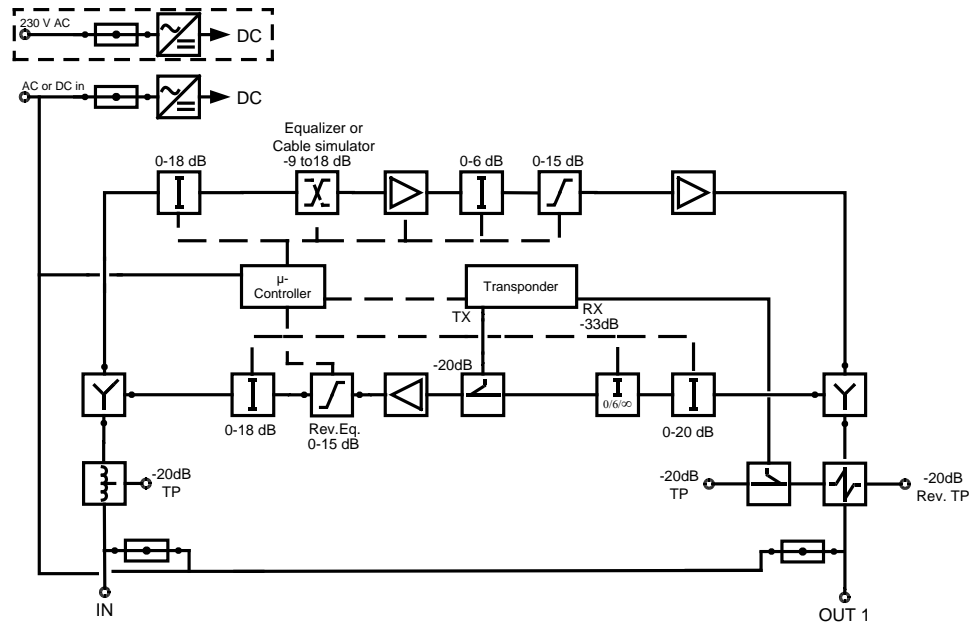
Figure 2: Block diagram for the amplifier type 93230 and type 93240.
The transponder and tri-state switch cannot be used in the amplifier type 93230

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Power Supply

230 V (or 115 V) Mains Supply

The amplifier has factory mounted mains cable and plugs, which according to approval provisions may not be altered. The power unit is double insulated, and supplies only this single amplifier. When the power unit DC voltage lights indicate the power unit is supplying correct DC voltage.

Remote Supply 24-65 V AC (or 35-90 V AC)

The amplifier can be supplied with 24-65 V AC either via coaxial cables (max. 5 A) or directly to the AC input (max. 7 A).

AC Pass

On delivery, ports are provided with insulating fuses. Desired AC pass is obtained by turning the fuse holder *after connecting* the cable or before disconnecting, to prevent damage of cable connectors.

> **Permanent excess of max. Remote current implies a risk of damage.**

Low Voltage Lockout

For all coax line powered power supplies an undervoltage switch type 75018-xx can be delivered that switches off the power supply if the voltage drops below the rated value (24 V or 35 V) thus, the network is not damaged due to increased current consumption.

Setting up the amplifier

The hand held terminal type 91200 is used to set up the amplifier. Use the menu structure below to navigate through the different menus.

Shortcuts

Use the short cuts shown on the cover plate to do a fast selection of the required menu. Ex. The output equalizer is marked with⑤. By pressing the button"5" in approx. 1 sec. the terminal returns to the menu where the output equalizer can be is changed.
The menu numbers can also be used as short cuts. Please see the menus structure below to determine the number for the required menu. Ex. Press"35" and the handheld terminal will return to the menu where the reverse switch can be set.

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Or use the following buttons:

|	
▶ or **◆**	Is used to navigate to the submenus and to open a menu for editing. The value can then be changed. Additional the button can be used to reject a value entered by the keypad.
◀ or **◀**	Is used to navigate to the root menus and to delete wrong digits when a menu is open for editing. Additional the button can be used to reject a value entered by the keypad.
1 2 3 4 5 6 7 8 9 . 0 - keypad	All numbers, "." and "-" are used to enter values with. The numbers can also be used as short cuts.
▼	Is used to navigate through menus at the same level and to select the settings in some menus. Additional these buttons can be used to fine-tune some values.
ENTER ◀	Is used to confirm a setting or a change.
In the menu "Copy Parameters" the setting of an amplifier can be saved (menu 51) and downloaded to another amplifier (menu 52).	
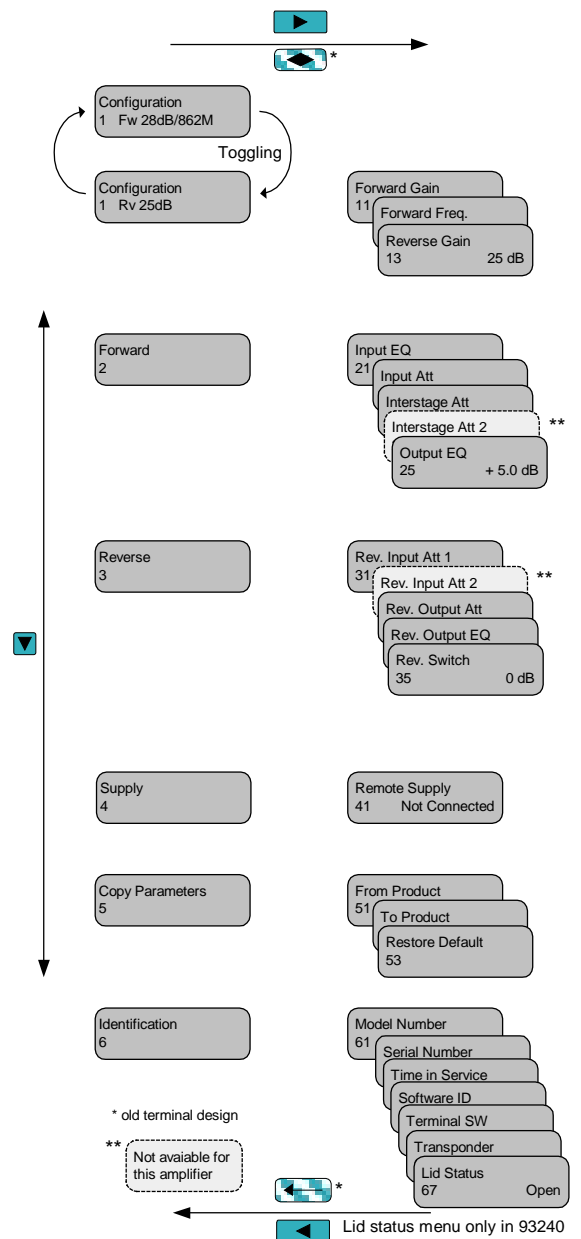
Figure 3: Menu structure

Compact Mini EGC Amplifier 93230 and 93240

ROSA Element Management System in Type 93240

Monitoring of the amplifier requires the installation of the transponder type 91051 in the amplifier. This transponder will communicate back to the head-end by means of the reverse path. The transponder signal is received at the test point at output. Please see fig. 2. The level measured by the transponder will be attenuated by approx. 33 dB relative to the output signal at output. The transponder transmitter level is adjusted to the same level as the other reverse signals. The level from the transponder will be attenuated by approx. 20 dB at the reverse path since it is inserted with a 20 dB coupler.

With a transponder it is possible to monitor and control different parameters in the amplifier. As seen in Fig. 2, the built-in reverse path switch can be controlled in order to locate ingress noise in the reverse path – This can be useful in the search for errors in larger networks.

Programming of a Compact Transponder type 91051 is done by using the Handheld Terminal 91200. The transponder can be set with:

SMC ID	Transponder adress	1-65535
TX FREQ	Transmit frequency	5-65 MHz
RX FREQ	Receive frequency	45-174 MHz
TX LEVEL	Transmit level	84-110 dBµV
BAUD RATE	Data speed	9.6-19.2-38.4 kbps
MODE	Transponder mode	IEP

Accessories

Test adapter, F type   A71004

Fuses

2AT, for 230 Vac   A38008
2AT, for 115 VAC   A38024
3.15AT, for 24-65 V (35-90 V)   A38010
6.3 AT, for input/output port   A38015

For Information

If You Have Questions

Region	Centers	Customer Service Numbers
North America	USA	■ Toll-free: 1-800-722-2009
Europe, Middle East, Africa	Belgium	■ Telephone: 32-56-445-133 or 32-56-445-118
Japan	Japan	■ Telephone: 81-3-5908-2153 or +81-3-5908-2154
Korea	Korea	■ Telephone: 82-2-6205-6004
China (mainland)	China	■ Telephone: 86-400-8108886 Press 4 at the prompt
Other Asia-Pacific countries, Australia	Hong Kong	■ Telephone: 852-2522-5059
Brazil	Brazil	■ Telephone: 55-11-3845-9154, ext 109
Mexico, Central America, Caribbean	Mexico	■ Telephone: 52-55-50-81-8425
All other Latin America countries	Argentina	■ Telephone: 770-236-5662

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