

AmpC trig

Amplifier Control with remote power ON

Features

- Softstart circuit
- Mute control
- 12Vdc remote trig Power ON
- Local power ON switch option

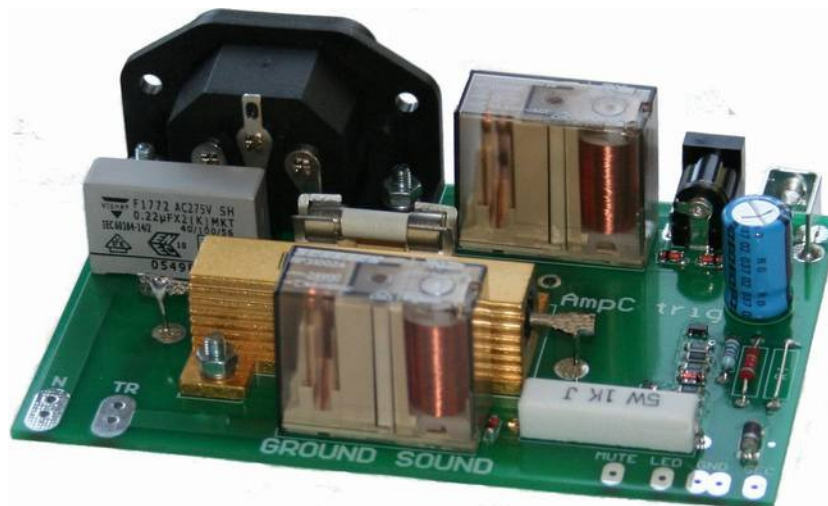
Applications

- Power amplifiers

Description

AmpC trig is a combination of softstart and mute control circuit. The softstart circuit ramps up the capacitor bank via power resistors, which limit the inrush current to about 7A. At an internal threshold voltage the limit resistors are shorted by a relay and the power amplifiers are enabled by **pullup** to GND.

AmpC trig Module

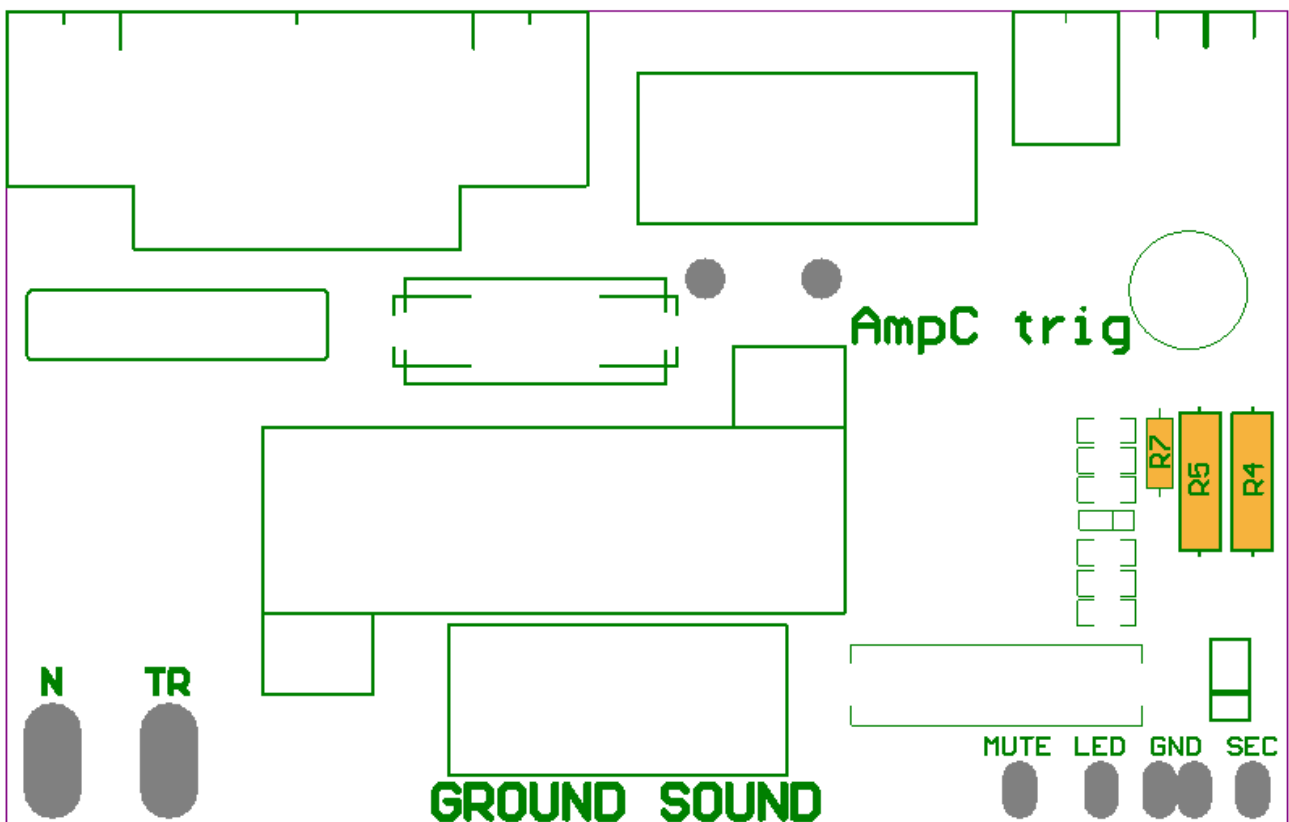


Operating Conditions

	Min	Typ	Max	Units
Mains voltage supply	110	230	240	Vac
Mains frequency	50		60	Hz
Mains fuse, switched power transformer			T10	A

Technical Specifications

	Min	Typ	Max	Units
Transformer secondary voltage RMS	2 x 30		2 x 67	Vac
Softstart inrush current		7		A
Mute control drive GS amp modules			4	#
Remote trig DC voltage	9	12	20	V
Remote trig current @ 12V		45		mA



A local power switch ON option is also possible by connecting the switch between the two pads besides the fuse and AmpC text on the PCB.

Connection pads

Label	Type	Description
N	Output	Neutral power transformer primary
TR	Output	Live output power transformer primary, switch with softstart
GND	Input	System power ground
SEC	Input	Power transformer secondary - one or the other
MUTE	Output	Mute control for power amp, open collector pullup to GND (20mA)
LED	Output	Anode with reference to GND

Softstart circuit

The softstart circuit is “fast on”. It monitors the voltage of the capacitor bank and switches the relay and mute output when the threshold level is reached. This threshold level is set by two resistors R4 and R7. R5 is only used with the LED output. The setting of the threshold level is chosen from the table below:

Softstart circuit resistors

Transformer nominal secondary voltage	R7	R5*	R4
2 x 35Vac (+/-49Vdc)	10kΩ/0,7W	8k2	0R
2 x 40Vac (+/-56Vdc)	18kΩ/0,7W	10k	0R
2 x 45Vac (+/-63Vdc)	27kΩ/0,7W	12k	0R
2 x 50Vac (+/-70Vdc)	33kΩ/0,7W	12k	100R/2W
2 x 55Vac (+/-77Vdc)	39kΩ/0,7W	15k	100R/2W
2 x 60Vac (+/-84Vdc)	33kΩ/0,7W	15k	150R/2W
2 x 65Vac (+/-91Vdc)	39kΩ/0,7W	18k	150R/2W

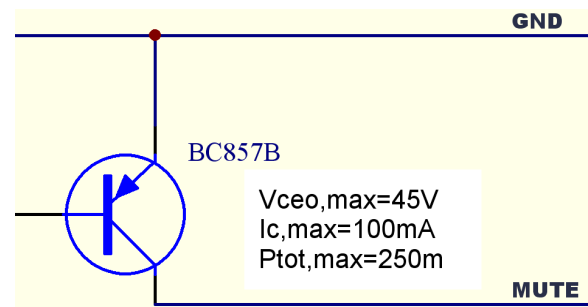
Please refer to the AmpC trig outline above for location of R4, R5 and R7 marked orange.

R5* Value listed for single LED with normal intensity. Other values can be used if preferred, but do not exceed 15mA totally.

Mute circuit

The mute circuit ensures pop free switching of the attached amplifiers. It switches on at the same threshold level as the relay. The output is an open collector PNP transistor which **pullup** to GND.

The above schematic shows the mute output circuit. The output needs no glue components to control our own power amplifier modules PA1CC, PA3CC, PA6CC and PA12CC.



Wiring

The **transformer’s** primary wiring has to be double isolated, which our transformers are and others normally are.

It is possible to solder FASTON tabs at the high power connections - if preferred. Experience tells us that these “Easy mounting/easy service” connections often are the course for early service, whereas soldering connections lasts. This is the reason we rely mainly on soldering pads.

Connect one of the secondary wires of the transformer to the SEC pad (tapped at the bridge rectifier) and power ground (tapped at transformer entry to power ground) wired to GND pad – recommended wire 0.5-0.75mm.

The **MUTE** output is simply wired to the mute pad of PA1CC/PA3CC/PA6CC - recommended wire 0.2mm.

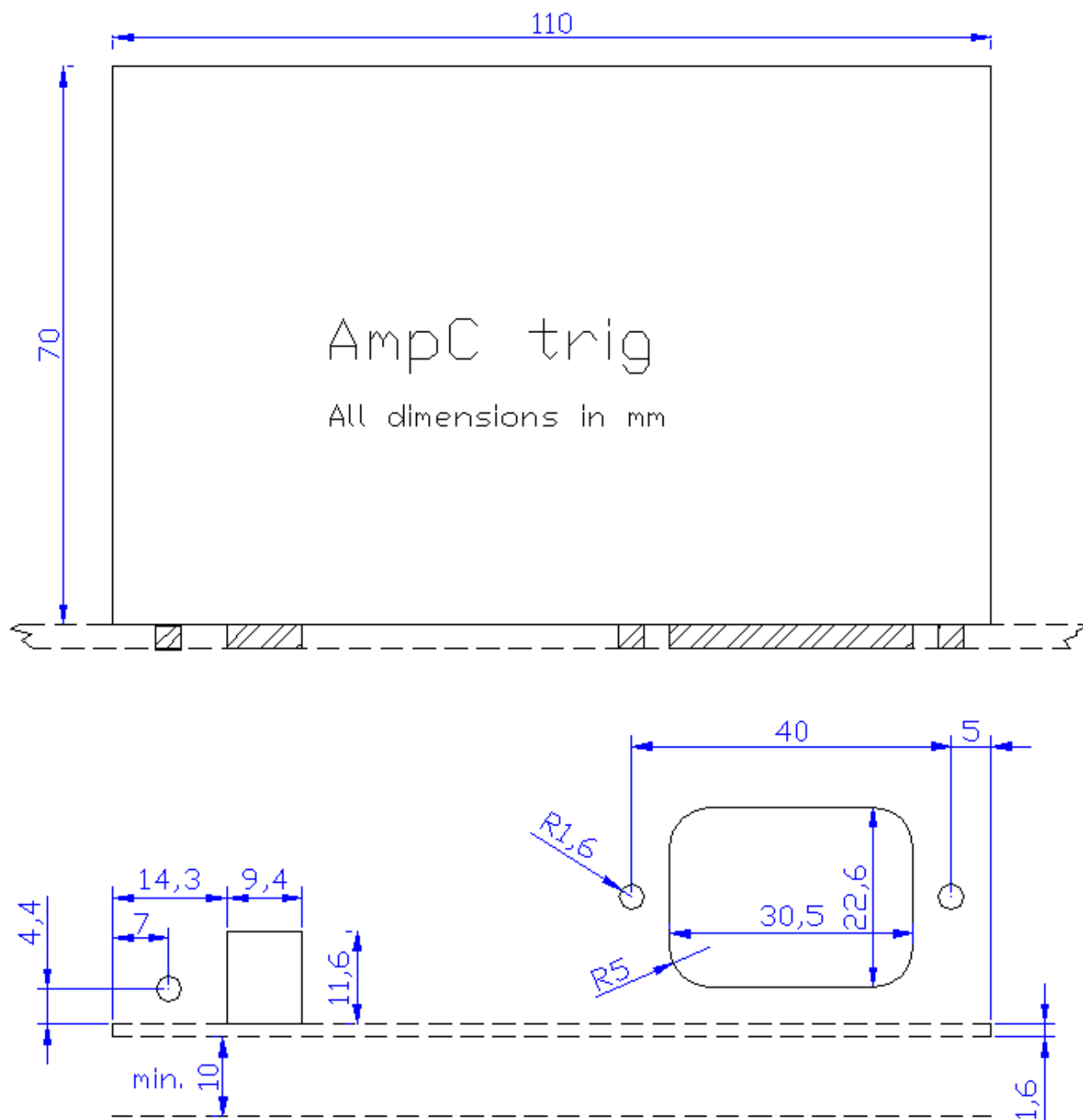
Mechanical dimensions

The mounting of AmpC trig requires:

3 pcs M3 x 10mm screws

2 pcs 3mm spring washers

2 pcs 3mm nuts



Ground Sound reserves the rights to make alterations without prior notice.

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