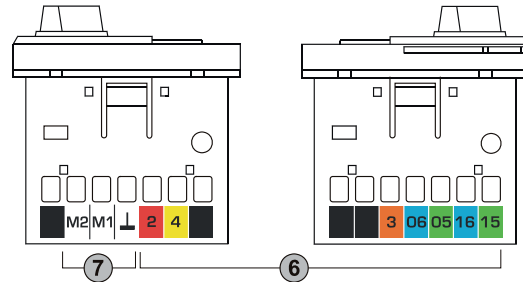
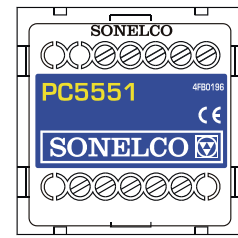




- 1 - Level adjustment of microphone or auxiliary sound unit.
- 2 - Connection / disconnection pushbutton. It has two functions:
 - a) -Switching the pre-amplifier module on or off.
 - b) -Automatically disconnecting the distributed sound system to send micro or auxiliary signal.
- 3 - Working mode selector pushbutton: MIC (for Dynamic or Electret microphones) and AUX (for auxiliary sound unit on line level).
- 4 - Operating and mode indicator LED (RED - Auxiliary, GREEN- Microphone).
- 5 - 3.5 mm jack female connector to permit front connection of microphone or auxiliary sound unit. It has preference over the strip (7).
- 6 - Strip for connection to sound system line.
- 7 - Strip for rear connection of microphone or auxiliary sound unit.



DESCRIPTION

With the Pre-amplifier for microphone Mod. PC5551, any type of monophonic microphone or an auxiliary stereo sound unit (on line level) can be connected to a sound system carried out with the Prestige Series. The microphone can be connected both asymmetrically (traditional) or symmetrically (balanced).

The pre-amplifier also carries out the automatic switch over between the existing distributed sound system (if appropriate) and the local sound unit (micro or auxiliary). The pre-amplifier output is amplified so it can be connected directly to a set of loudspeakers or baffles. Obviously when greater power is required than that supplied, any of the amplified loudspeaker or power amplifier models can be connected to its output.

CONNECTION

Before proceeding to make the connection, make sure that the system supply unit is off. Insert the control into the metal base plate and make the connection according to the following indications:

TERMINALS

- 2 - Supply positive. +16V DC
- 4 - Supply negative and signal ground.
- 3 - Voltage output +16 DC (after switch)
- 15 - Audio input (left-hand channel in stereo system)
- 16 - Audio input (right-hand channel in stereo system)
- 05 - Audio output (left-hand channel in stereo system)
- 06 - Audio output (right-hand channel in stereo system)
- M1 - Rear microphone or auxiliary signal connection (left-hand channel)
- M2 - Rear microphone (symmetric connection) or auxiliary (right-hand channel) signal connection. If a microphone is used with asymmetric connection through the rear terminal it must be short-circuited to ground .
- Ground for signal inputs (for rear connection)

NOTE: The system wiring must be installed separately from the electricity supply mains, according to regulations.

NOTE 1 - When the Pre-amplifier is disconnected, the audio inputs 5 and 6 are electrically connected to outputs 05 and 06 respectively, so the module can be used both in a mono and a stereo sound system. When the module is switched on with the ON key, outputs 05 and 06 are disconnected from the inputs 5 and 6 and give the output of the Preamplifier (corresponding to the microphone or auxiliary sound unit, correctly amplified). In the case of the microphone the output is monophonic (that is, both outputs 05 and 06 provide the same signal).

NOTE 2 - Terminal 3 provides a 16V / 1 A output when the module is connected using the ON key, so it can be used both to provide the logic commutation signal (wire 9) in a system with general call, and to supply active speakers or to connect the power amplifiers (in the case of a system with local public address).

OPERATION

The pre-amplifier permits the connection of a fixed input (by means of the rear strip) and connecting another input by means of the front jack. The front sound unit has preference over the rear one, disconnecting the latter. It is advisable for both inputs (front and rear) to be the same kind (two microphones or two auxiliaries) to prevent having to change the working mode of the pre-amplifier, with the subsequent risk of sudden variations in the output level. The connection of the front microphone can be different from that of the rear microphone (for example the rear can be symmetric and the front asymmetric).

Connection of asymmetric/symmetric microphone

The PC5551 pre-amplifier admits both types of connection for microphones. For auxiliary signals (on line level) only the asymmetric connection is possible.

The asymmetric connection (one signal wire and one ground wire, normally screen) is normally used in commercial microphones, such as dynamic and electret, for wiring distances of less than 10 m. For distances over 10 m, or for use in areas with a particularly high level of electromagnetic noises or possible interferences, it is advisable to use microphones with symmetric or balanced connection, as they give much greater noise immunity. In this case two wires are necessary for the signal and one for the screening ground.

The majority of the Electret microphones, commercially available for use in sound systems, already include the supply necessary within the microphone itself (normally by means of a small long-lasting battery), so no special type of connection is necessary. An Electret microphone with built-in supply is connected in the same way as a Dynamic microphone, so everything that has been indicated above is also valid for this. This pre-amplifier must not be used with microphones which require Phantom type supply (through the audio lines themselves)

IMPORTANT NOTE: All the input signal connections (microphone or auxiliary) both through the rear strip and by means of the front jack, must always be carried out with screened cable, to avoid capturing buzzing noises and parasite signals.

TECHNICAL CHARACTERISTICS

Supply voltage: 16V DC
 Consumption: 10 mA with charge of 1+1 KOhm. 380 mA with charge of 8+8 Ohm.
 Maximum output signal: 3 V RMS
 Maximum sound power: 1.5+1.5 W RMS. Minimum output impedance: 8+8 Ohm.
 Output voltage (V3): 15V. Max. output current (I3): 1 A

	Mic	Aux
Frequency response	180 Hz. - 18 KHz. (-3dB)	120 Hz. - 18 KHz. (-3dB)
Noise/Signal ratio:	> 69dB	> 67dB
Distortion:	< 0.2 %	< 0.2 %
Sensitivity:	0.7 mV	100 mV
Dimensions: (LxWxD)	45x45x47 mm.	
Weight:	85 grams	

CONNECTION EXAMPLES

Possible connections through front jack:

Normally the microphones are equipped with a 6.35 mm. jack (mono, for asymmetric connection, or stereo for symmetric or balanced connection) so we will need a 6.35 mm. stereo female adapter to 3.5 mm. stereo male, or we will have to change the connector for a 3.5 mm. one.

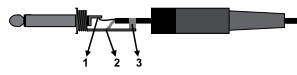
To connect an auxiliary sound unit we will have to carry out the wiring using a 3.5 mm. stereo jack male connector and a two-wire screened cable and screen. It is advisable to choose quite a solid wire (minimum outer diameter 3 mm.)

Firstly, the outer protective coating of the wire will have to be peeled off (1 cm. is sufficient). Separate all the wires which form the screen to one side, taking care not to leave any, and twist them carefully to form a single strand. Peel the central wire or wires (core) around 3 mm. and twist the wires of each cable together to make them more solid. It is advisable to pre-tin both the outer mesh and the middle wire.

Insert the connector cover through the cable and weld the wires according to the figure corresponding to the type of connection desired. It is advisable to make sure that the wire is secure by bending the clamp with some pliers. Screw on the protective cover.

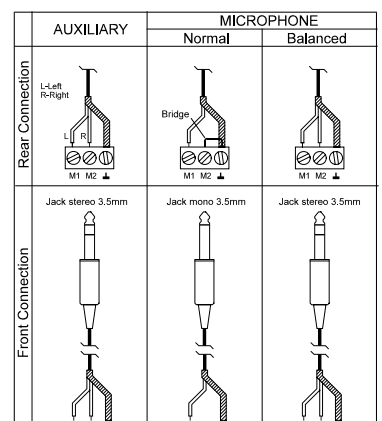
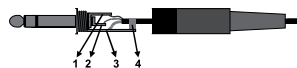
ASYMMETRIC CONNECTION

- 1 - Central wire (signal)
- 2 - Screen (ground)
- 3 - Cable securing clamp



SYMMETRIC OR BALANCED CONNECTION

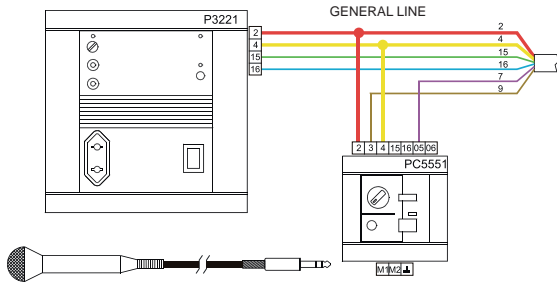
- 1 - Central wire (signal)
- 2 - Central wire (signal)
- 3 - Screen (ground)
- 4 - Cable securing clamp



Pre-amplifier to give messages and general calls to the whole system

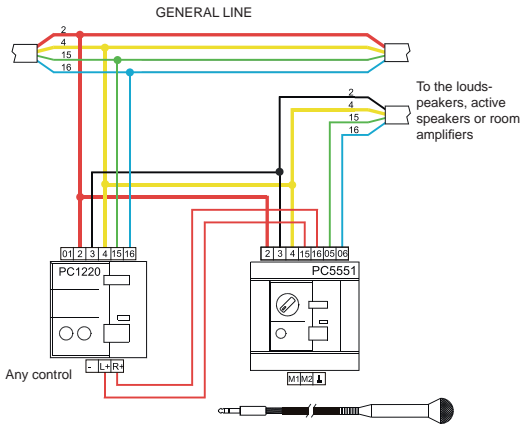
This example permits messages to be issued in a general fashion to the whole distributed sound system. If connection key of the pre-amplifier is depressed, the distributed sound system will be momentarily cut off in all the areas where a Control with message receipt is installed, so the message can be heard. The message will also be heard if the controls are off or at minimum volume.

In this type of system, the level adjustment control, built into the Pre-amplifier, will enable the level of the messages to be adjusted in the whole system. This connection can be made in systems of the 4000, and Prestige Line series.



Local public address system in a room. System only with distributed sound system.

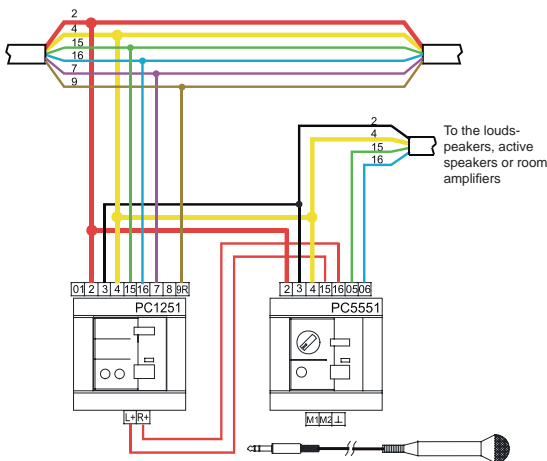
This systems permits the connection of a microphone or another auxiliary sound unit (cordless microphone receiver, recorder, VCR, etc.) to the distributed sound system of a room. With this, we can send messages or conferences through the active speakers or power amplifiers of this room, using that part of the sound system for local public address. With this type of connection, which is added to the normal distributed sound system, when the pre-amplifier is connected, the music in the room is automatically disconnected and the signal coming from the microphone or auxiliary unit is reproduced. The volume of the microphone is adjusted with the pre-amplifier regulator, regardless of the pre-selected volume for the distributed sound system in the regulator control. This connection can be done to any of the controls of the 4000, Prestige Compact and Prestige Multifunction Series. The main applications of this type of system are classrooms in education centres, polyvalent rooms in hotels and meeting rooms with one single microphone.



Local public address system in one room. Installation with distributed sound system and messages

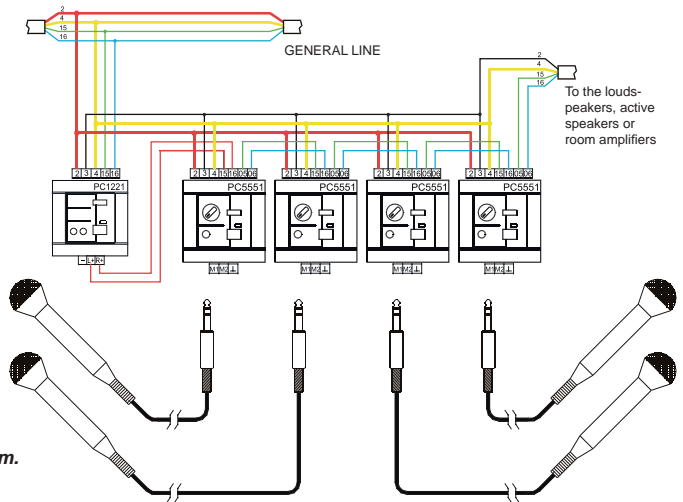
This example is the same case as the above, the only difference being that the regulator control of the distributed sound system also has the possibility of receiving messages (in this example only general messages, although it can also be for areas, emergencies, etc. depending on the control model and connection used). The operation and applications are similar to the previous case. In this example the control and the pre-amplifier have been interconnected so that when we connect the pre-amplifier for the local public-address system, the message receipt is disconnected (to prevent being bothered during the conference, for example).

For other possible combinations or different priorities in message receipt, consult our Technical Service Department for the right way to make the connection. This connection can be done to any of the controls of the Prestige Compact and Prestige Multifunction Series.

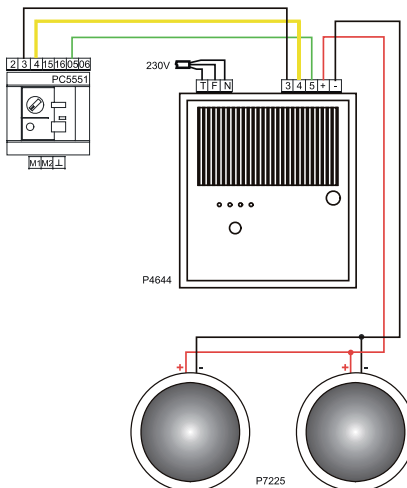
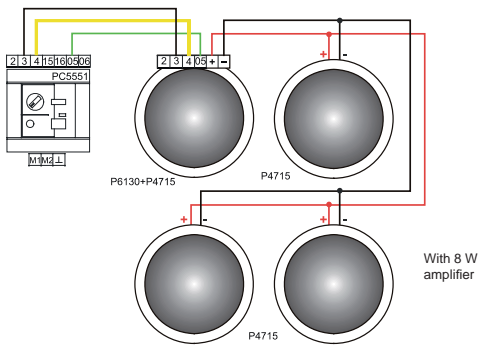
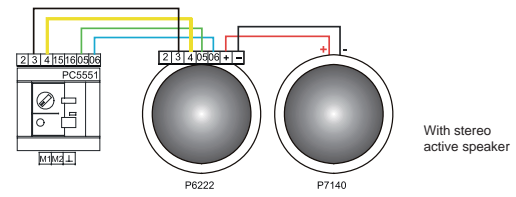
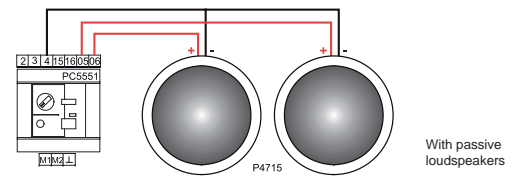


Chain connection to several pre-amplifiers

If desired, as many PC5551 pre-amplifiers as you wish can be chain connected, forming a series where only one of them will be heard (as when one pre-amplifier is connected the output of the previous ones is disconnected)



Possible connections to output: (Examples)



NOTE: In the connection examples, one regulator control model has been fitted, but the preamplifier can be used with any control model of the Prestige Line.

These characteristics are only given as reference. The manufacturer reserves the right to introduce any amendments without prior notice in order to improve the product.