



# SP70vTA

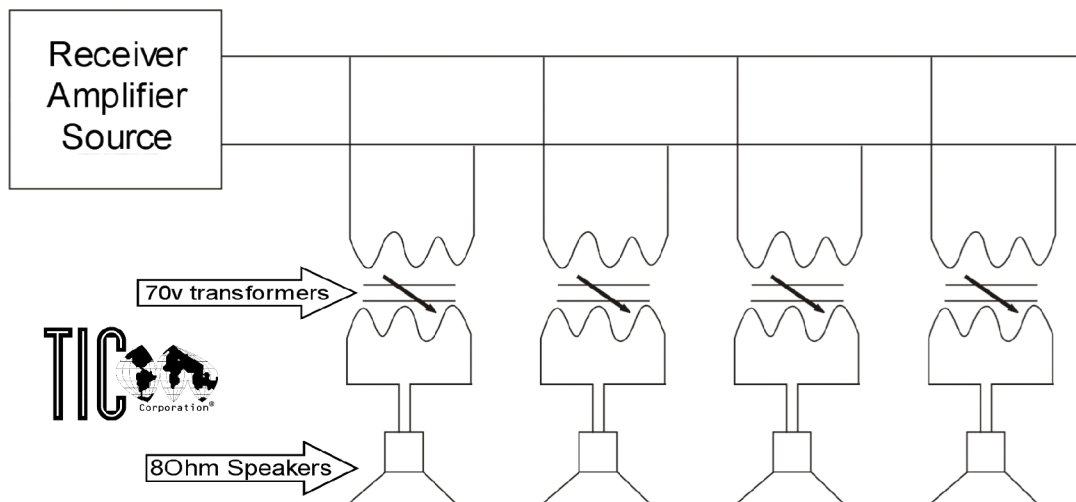
## 8Ω to 70v In-Line Transformer



The TIC SP70vTA is a totally new idea in supplying a commercial grade exterior 70v in-line distribution transformer for PA, telephony and multi line speaker use. It offers a simple alternative to the wiring, soldering or even poorly contained switches on speakers normally used for 70v supply.

This self contained SP70vTA unit offers weatherproof, dustproof 70v supply to almost any standard 8 Ohm speaker including TIC's famous Omnispeakers®, Rock Speakers or standard outdoor speakers. The SP70vTA also offers "on the fly" switching between the most popular 70v tap wattages including 2.5W, 5W, 10W, 15W and 20W for ease of use in almost any installation.

Basic design of a 70v system:



The "standard" 70v amplifiers shown above are set or "tapped" to 2.5W, 5W, 10W, 15W or 20W as desired

and required by the specific installation performance criteria.

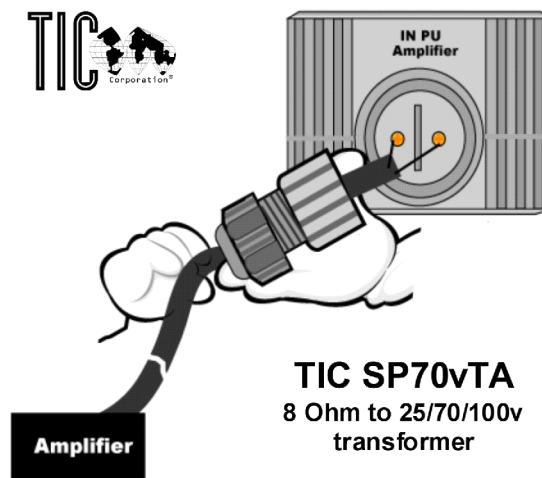
The TIC SP70vTA exterior 70v switch is stated as being capable of supplying 70v installations world wide. A basic equivalency chart is shown below:

<b>Tap</b>	“5W”	“10W”	“15W”	“20W”
<b>Equivalent output</b>	120V	100V	70V	50V

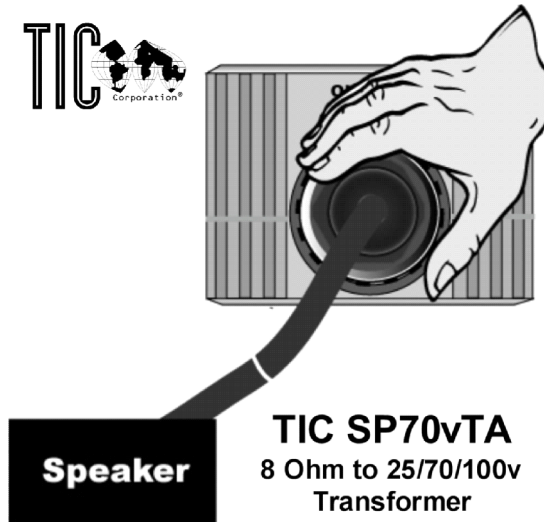
70v in-line distributed audio systems generally require less cable gauge than standard 4/6/8 Ohm systems. However some attention should be paid to the cable type vs speakers used to obtain the right output. Note the general recommendations below:

<b>Cable type</b>	5W	10W	15W	20W
15G (1.29mm)	4300mm	2150mm	1400mm	1100mm
18G (1.02mm)	2700mm	1350mm	900mm	675mm
20G (0.813mm)	1700mm	840mm	550mm	420mm

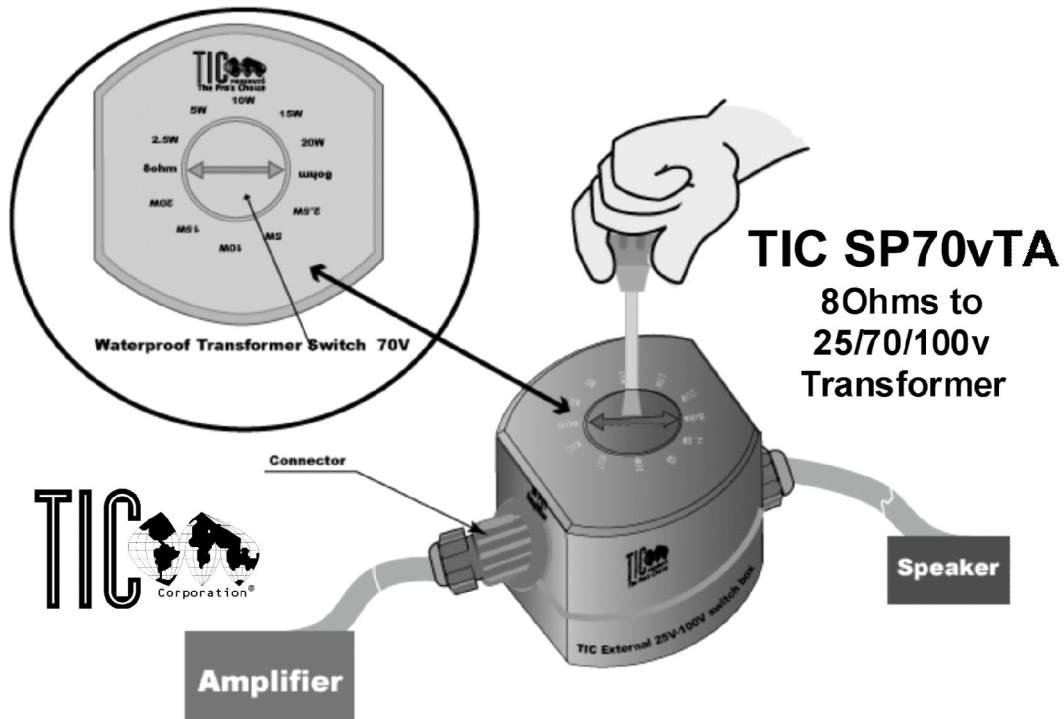
Please carefully select the receiver amplifier input side or “IN Amplifier” side of the TIC SP70vTA transformer and remove the screw cap. Insert your cable from the amplifier being careful not to lose or misplace the waterproof “O ring” or washer seal. Strip about half inch of insulation from the positive and negative/ common cables and screw connect accordingly. Re-tighten the screw/ seal over the cable to complete that connection. See picture below:



Please repeat carefully on the "Output" side to the speaker.



The TIC SP70vTA is normally factory pre-installed at a setting of 80ohms to alleviate mistakes by those less familiar with distributed audio systems. You should carefully check this setting and then choose your preferred wattage tap 2.5/5/10/15/20W tap based upon the requirements of your particular installation. Experienced audio installers will know and should note; not to exceed acceptable impedance matching at the chosen receiver amplifier for the system.



Power/ voltage drops or dead zones in an audio installation or broadcast area are always of concern. Please note the recommended cable gauge vs cable runs listed below:

Distance	15m	45m	60m	75m
Cable gauge	18g	16g	14g	12g

Some general notes to ensure a trouble free installation;

1. Pay close attention to your installation hook ups, pay attention to "phase". Ensure it's positive to positive and negative to negative. **Insuring Proper Polarity;** When connecting multiple TIC outdoor speaker systems, it is absolutely vital that you observe proper polarity at all times. If you mix the polarity, the sound delivered by your sound system will be substandard. The system may sound excessively "boomy", and output levels may be substantially diminished. It is also possible some damage to the amplifier or TIC speaker components may occur.
2. Ensure the combined Impedance of your installation does not go below that accepted by your chosen Receiver Amplifier as this will cause poor or lack of performance and possibly amplifier damage.
3. Ensure your amplifier volume is set to minimal when first powering the system.



Enjoy a Quality Outdoor Music Room!