



SPEAKER SYSTEM

SR-F09
SR-L09
SR-L05

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Thank you for purchasing TOA's Speaker System.
Please carefully follow the instructions in this manual to ensure long, trouble-free use of your equipment.

1. SAFETY PRECAUTIONS

- Before installation or use, be sure to carefully read all the instructions in this section for correct and safe operation.
- Be sure to follow all the precautionary instructions in this section, which contain important warnings and/or cautions regarding safety.
- After reading, keep this manual handy for future reference.

Safety Symbol and Message Conventions

Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety hazards.



WARNING

Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.



CAUTION

Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.



WARNING



CAUTION

When Installing the Unit

- Refer all installation work to the dealer from whom the speaker was purchased. Installation for flying requires extensive technical knowledge and experience. The speaker may fall off if incorrectly installed, resulting in possible personal injury.
- Install the unit only in a location that can structurally support the weight of the unit and the mounting bracket. Doing otherwise may result in the unit falling down and causing personal injury and/or property damage.
- Flying Precautions (SR-F09 only)
Be sure to follow the instructions below. Otherwise, the suspension wires or belts may be off or snap and the speaker may fall off, causing personal injury.
 - Check to confirm that the suspension wires and belts are strong enough to withstand the speaker load.
 - The connectors of the suspension wires and belts must be securely linked with those of the speaker.
 - All parts and components (such as enclosures, metal pieces, and screws) must be free from any deformation, crack, and corrosion.
 - Be sure to use screws supplied with the optional flying hardware when installing the speaker using such hardware.

When Installing the Unit

- Install the unit only in stable locations, and make appropriate arrangements to prevent it from falling down or rolling cross the floor. If it falls down or moves, this may cause personal injury and/or property damage.
- When unpacking or moving the unit, be sure to handle it with two or more persons. Falling or dropping the unit may cause personal injury and/or property damage.

When the Unit is in Use

- Do not stand or sit on, nor hang down from the unit as this may cause it to fall down or drop, resulting in personal injury and/or property damage.
- Do not operate the unit for an extended period of time with the sound distorting. Doing so may cause the connected speakers to heat, resulting in a fire.

2. GENERAL DESCRIPTION

The SR-F09, SR-L05, and SR-L09 are designed for on-the-road applications. They are all high-power, high quality speaker systems that can stand up.

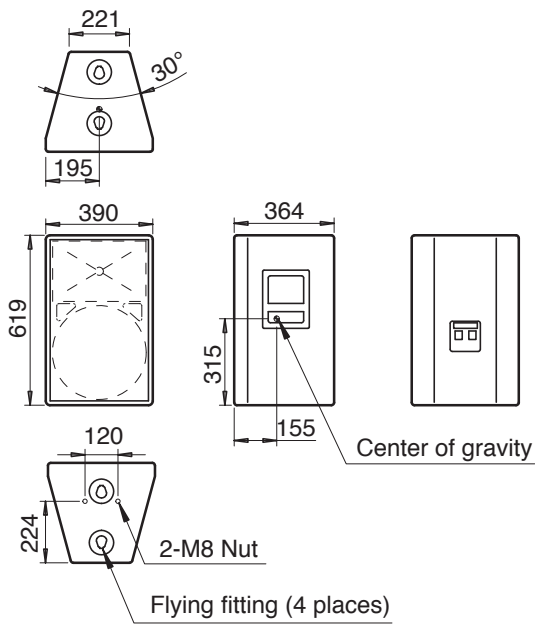
3. FEATURES

- The SR-F09 has an internal passive network and is driven by a single amplifier. (This can be changed to bi-amplifier drive by changing their internal connector connections.) The SR-L05 and SR-L09 are both sub-woofer systems. These speakers are all used in conjunction with a digital processor.
- The SR-F09 houses a constant directivity (CD) horn as a tweeter with directional angle of 60° horizontal by 40° vertical.
- The SR-F09 has flying hardware on their top and bottom panels. The bottom panel is also provided with nuts for installing an optional stand.
- "Neutrik" connector NL4MP and a screw terminal are both provided for input. The SR-F09 is equipped with two "Neutrik" connectors so as to permit parallel speaker connection.

4. DIMENSIONAL DIAGRAMS

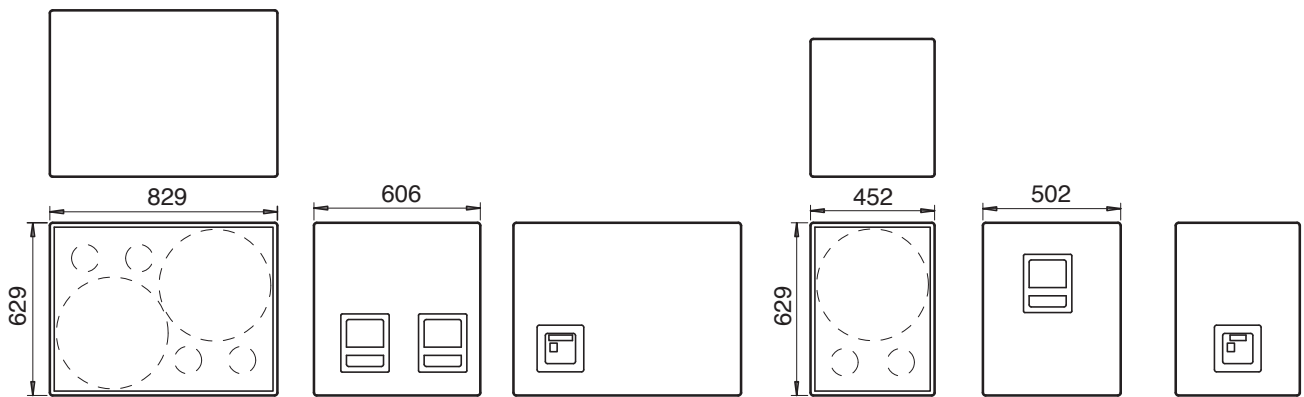
[SR-F09]

Unit: mm



[SR-L09]

[SR-L05]

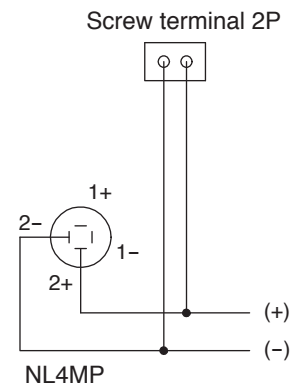
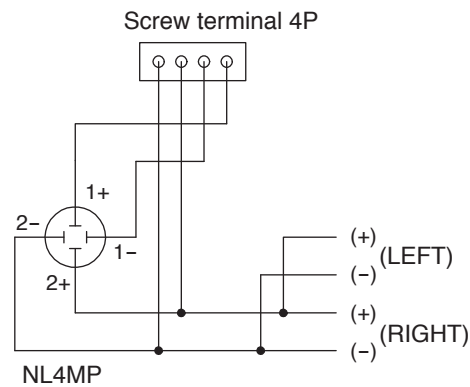
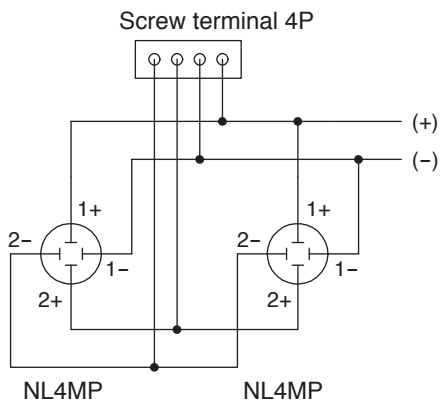


5. WIRING DIAGRAMS

[SR-F09]

[SR-L09]

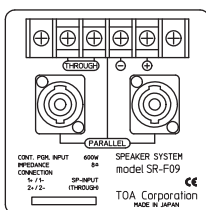
[SR-L05]



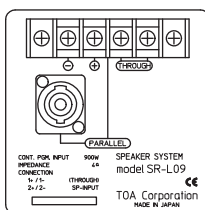
6. INPUT CONNECTORS

- The figures below show each speaker's input configuration. Because the connector is internally connected in parallel to the screw terminal, you can use either of the two.

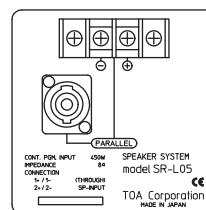
[SR-F09]



[SR-L09]



[SR-L05]



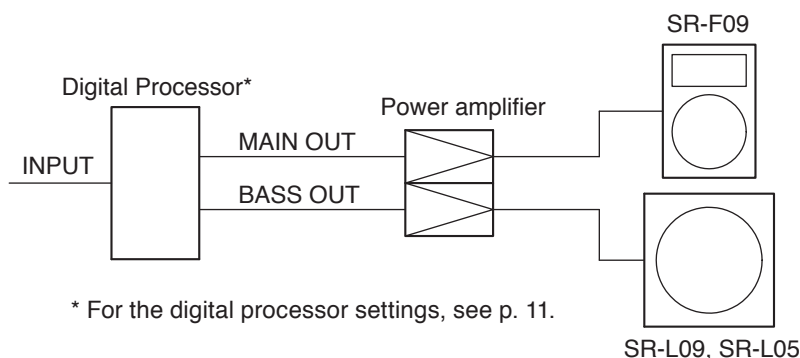
- Pins of the Neutrik connector are connected as shown in the table below.

Pin No.	SR-F09	SR-L09	SR-L05
1 +	Speaker +	—	—
1 -	Speaker -	—	—
2 +	—	Speaker +	Speaker +
2 -	—	Speaker -	Speaker -

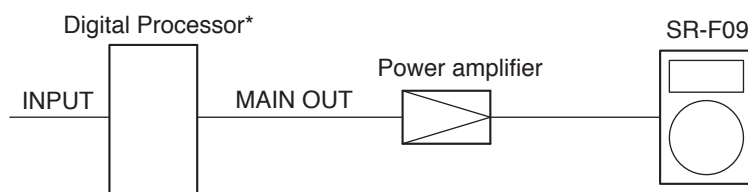
- The usable connector (on the cable end) for the NL4MPR connector is Neutrik's NL4FC.

7. CONNECTIONS

7.1. Combination with a Sub-woofer



7.2. Singular System of SR-F09



7.3. About the Power Amplifier to Connect

It is recommended that you use a power amplifier with output of over 400 W (per channel when an 8 Ω load is connected).

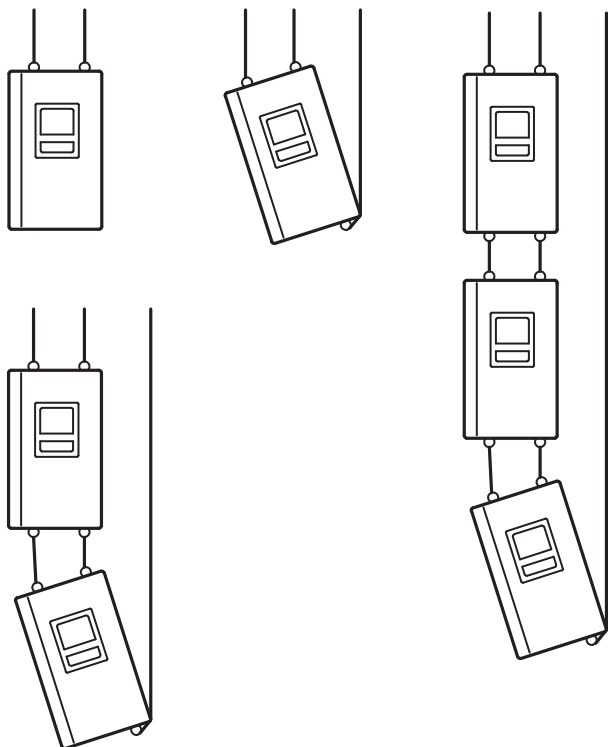
8. FLYING (SR-F09 ONLY)



WARNING

Be sure to refer flying construction work to the dealer from whom the speaker was purchased.

Shown below are the general flying methods:



[Precautions]

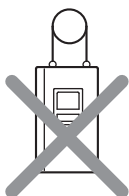
- Two flying fittings are provided on each of the top and bottom panels.
- Provide at least 2 suspension points at each speaker.
- The maximum number of speakers that can be suspended vertically is three.

Never suspend as illustrated below:

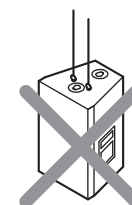
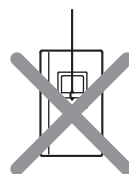
- Flying through only one suspension point on the top panel.
- Vertical suspension of more than 3 speakers.



- Flying with a single looped wire



- Flying through handles.
- Flying using the nuts on the bottom surface



9. SPEAKER STAND FOR SR-F09

The speaker stand manufactured by Köning & Meyer GmbH (K & M) of Germany is made available for use with TOA's SR-F09 speaker.

The speaker stand consists of a Stand and a Stand Bracket, which are sold separately.

In addition, separately prepare 2 speaker mounting screws to secure the bracket to the speaker.

- Speaker stand: Model 213
- Stand bracket: Model 195/8
- Speaker mounting screw: M8 x 20

⚠ CAUTION

- Only use the stand on the flat, hard ground or floor surfaces.
- Avoid installing the stand in the passage where people could trip over the tripod legs.
- When using the stand outdoors, avoid locations exposed to strong winds.
- To minimize the chance of the stand toppling over, avoid extending the stand too high.
- When the stand could fall down, be sure to secure it with guy wires or other devices.

9.1. USAGE (Refer to Fig. 1.)

Step 1. Extend the stand's legs.
Loosen the tripod fixing screw and open the tripod legs outward so that the stays become level.

Step 2. Attach the stand bracket to the speaker using the speaker mounting screws and plain washers. (Fig. 2).

Step 3. Loosen the bracket fixing screw, then place the speaker on the stand.
After setting the speaker's orientation, retighten the bracket fixing screw.

Step 4. Adjust the stand height.

4-1. Loosen the height fixing screw.

4-2. Loosen the handle fixing screw and raise the handle, then retighten the handle screw.

4-3. While holding down the lock button, adjust the speaker's height by turning the height adjustment handle. (Clockwise rotation raises the speaker.)

Note

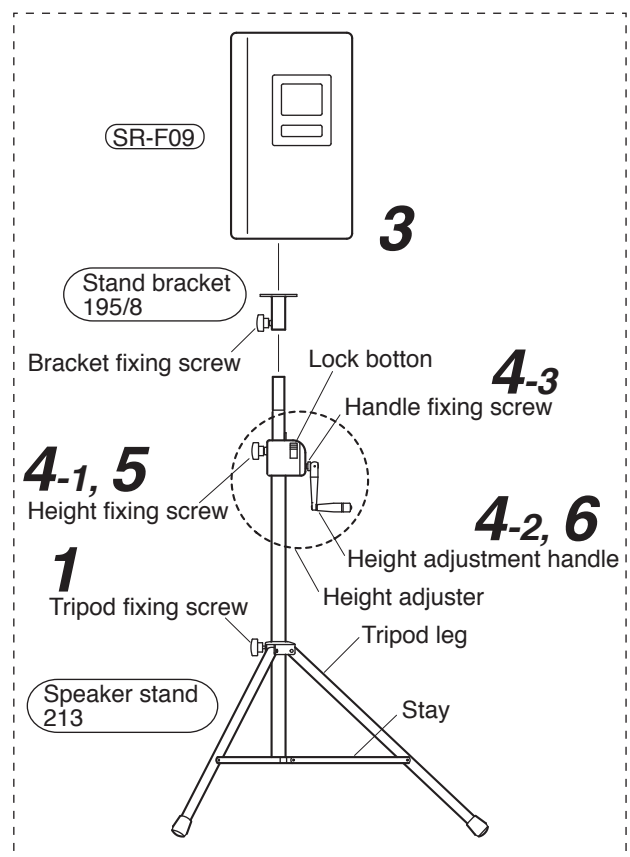
You cannot rotate the handle unless the lock button is continuously pressed. To complete the height adjustment, ensure that the shaft is locked when the lock button is released. (This can be checked by rotating the handle slightly.)

Step 5. Retighten the height fixing screw.

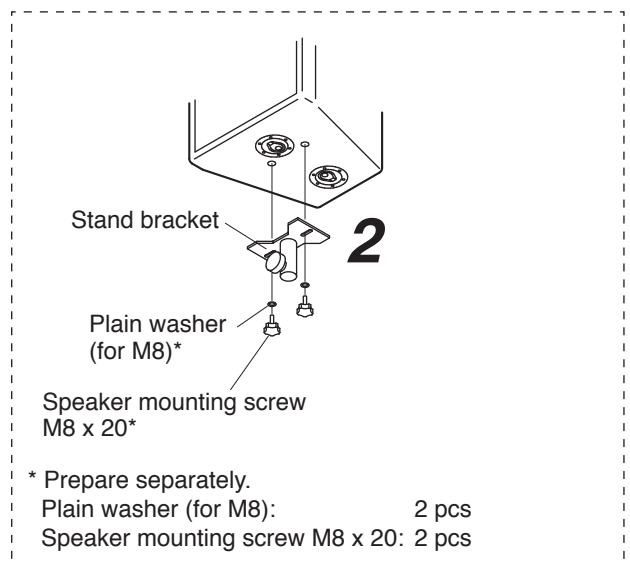
Step 6. Loosen the handle fixing screw and replace the handle by tilting it up, then retighten the handle screw. Leave the handle tilted up except when adjusting the height.

Step 7. After use, reverse the above procedures to put away the stand.

(Fig. 1)



(Fig. 2)



10. CHANGE FROM SINGLE- TO BI-AMPLIFIER DRIVE

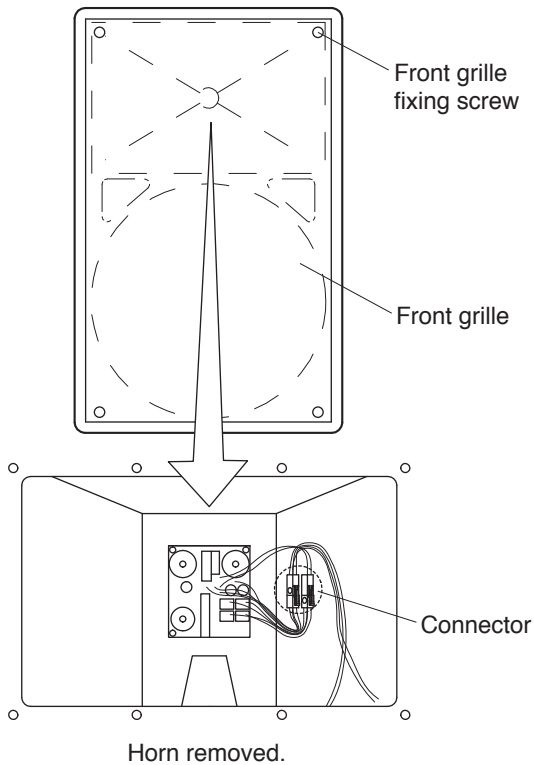
The SR-F09 can be driven by bi-amplifiers if wiring of their internal connectors is changed. When using these speakers in combination with the SR-L09, its internal wiring must also be changed.

10.1. Changing Internal Wiring

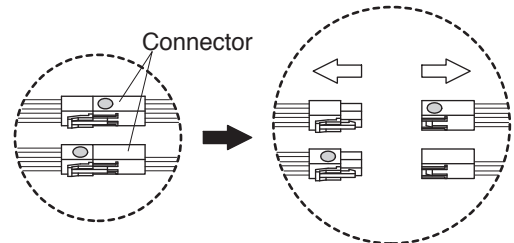
10.1.1. SR-F09

Step 1. Remove front grille fixing screws (4 places) to remove the front grille.

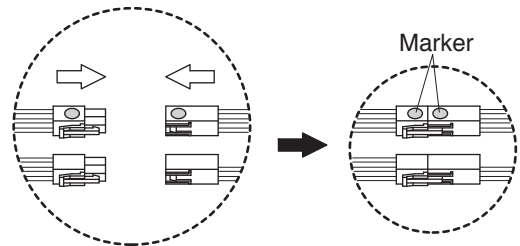
Step 2. Remove horn fixing screws (8 places) to remove the horn



Step 3. Disconnect connectors inside an enclosure.



Step 4. Connect a connector having a marker on it to a similarly marked connector, and an unmarked connector to an unmarked connector.



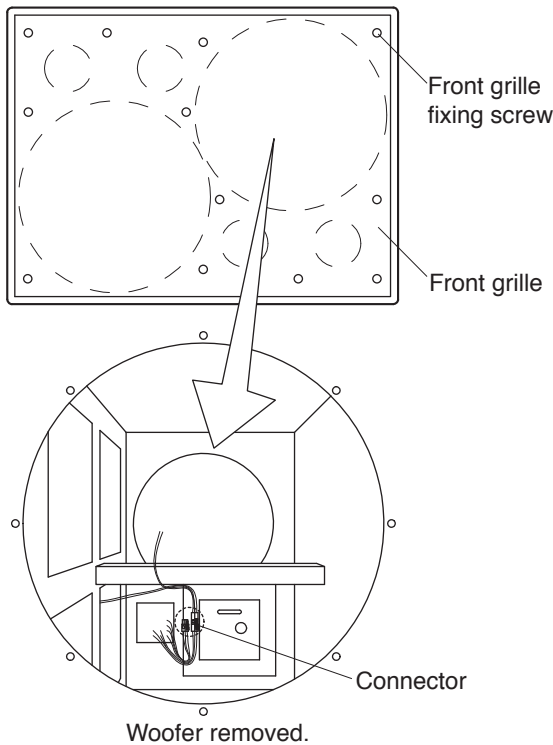
Step 5. Replace the horn using screws.

Step 6. Replace the front grille using front grille fixing screws.

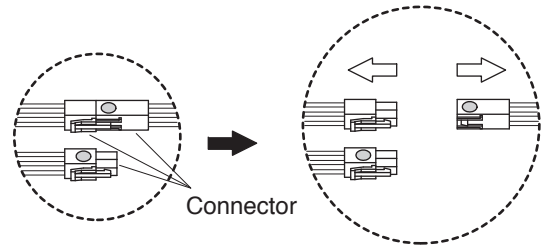
10.1.2. SR-L09

Step 1. Remove front grille fixing screws (12 places) to remove the front grille.

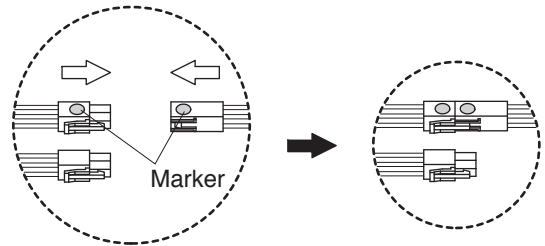
Step 2. Remove the woofer located on the right hand side as viewed from the front by removing eight screws.



Step 3. Disconnect connectors inside an enclosure.



Step 4. Connect a connector having a marker on it to a similarly-marked connector.



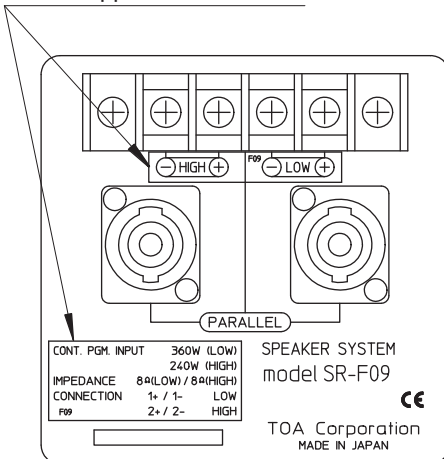
Step 5. Replace the woofer using screws.

Step 6. Replace the front grille using the front grille fixing screws.

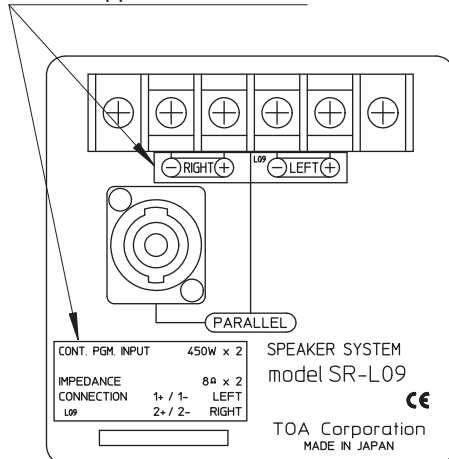
10.2. Input Connector Connections

• Change each speaker's input connectors as follows. Also, attach the supplied marker (label) to change the indication.

Label supplied with SR-F09



Label supplied with SR-L09



• Pins of the Neutrik connector are connected as shown in the table below.

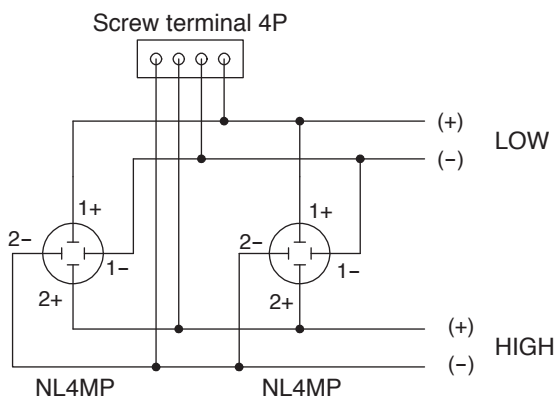
Pin No.	SR-F09	SR-L09
1 +	LOW +	LEFT* +
1 -	LOW -	LEFT* -
2 +	HIGH +	RIGHT* +
2 -	HIGH -	RIGHT* -

* The "LEFT" and the "RIGHT" are the directions as viewed from the front.

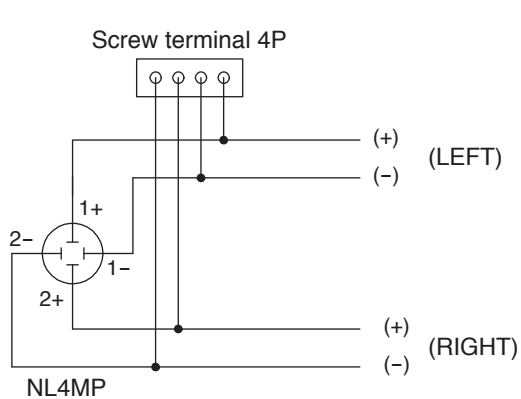
• Because the connector is internally connected in parallel to the screw terminal, you can use either of the two.

10.3. Connection diagram

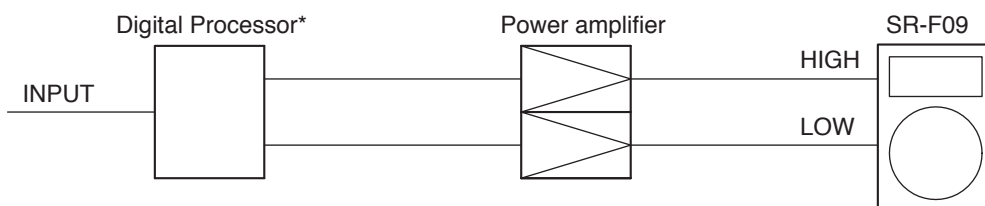
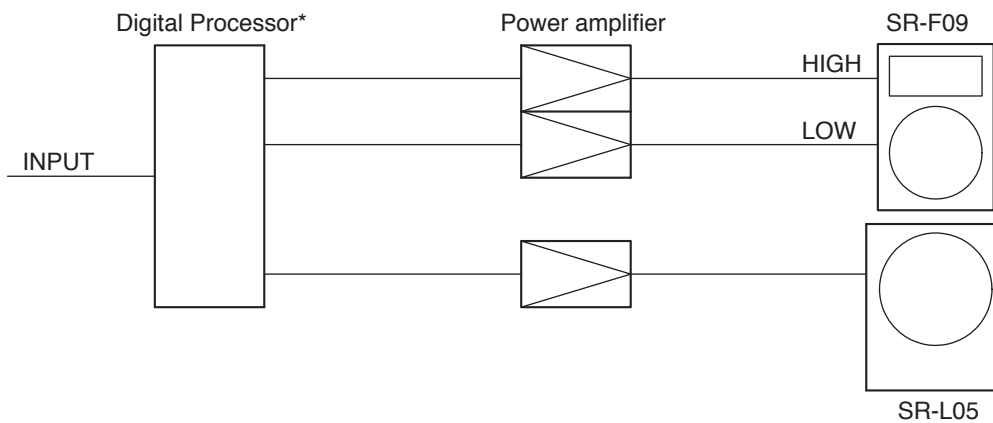
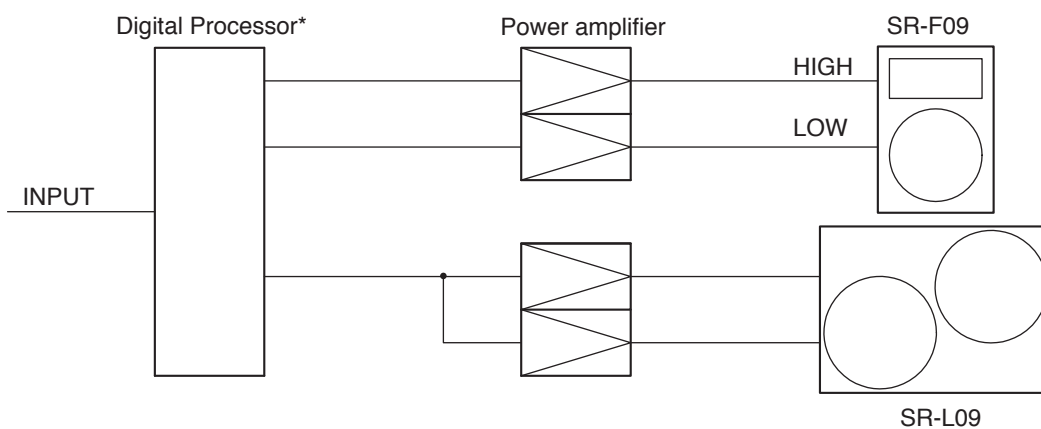
[SR-F09]



[SR-L09]



10.4. Connections



* For the digital processor settings, see p. 11.

11. DIGITAL PROCESSOR SETTINGS

[Single-amplifier drive for SR-F09+SR-L09/L05]

Channel	Gain (dB)	Polarity	X-over Combination			Filter				Delay (ms)
			HPF/LPF	TYPE	Freq. (Hz)	TYPE	Freq. (Hz)	Gain (dB)	Q	
SR-L09	+6.0	INVERSE	—	—	—	LPF (12dB)	50	—	1.000	0
SR-F09	0	NORMAL	HPF (12dB)	LinkwitzRiley	70	—	—	—	—	0
			—	—	—	PEQ	200	+3.0	1.414	
			—	—	—	PEQ	550	-3.0	2.997	
			—	—	—	PEQ	1.7k	-3.0	2.997	
—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	PEQ	16k	+6.0	2.997	—

[Single-amplifier drive for SR-F09]

Channel	Gain (dB)	Polarity	X-over Combination			Filter				Delay (ms)
			HPF/LPF	TYPE	Freq. (Hz)	TYPE	Freq. (Hz)	Gain (dB)	Q	
SR-F09	0	NORMAL	HPF (12dB)	LinkwitzRiley	70	—	—	—	—	—
			—	—	—	PEQ	70	+8.0	1.414	
			—	—	—	PEQ	200	+3.0	1.414	
			—	—	—	PEQ	550	-3.0	2.997	
			—	—	—	PEQ	1.7k	-3.0	2.997	
			—	—	—	—	—	—	—	
—	—	—	—	—	—	PEQ	16k	+6.0	2.997	—

[Bi-amplifier drive for SR-F09+SR-L09/L05]

Channel	Gain (dB)	Polarity	X-over Combination			Filter				Delay (ms)
			HPF/LPF	TYPE	Freq. (Hz)	TYPE	Freq. (Hz)	Gain (dB)	Q	
SR-L09	+5.0	NORMAL	HPF (24dB)	LinkwitzRiley	20	—	—	—	—	0.667
			LPF (24dB)	LinkwitzRiley	80	—	—	—	—	
			—	—	—	PEQ	40	+2.5	4.318	
SR-F09 LOW	0	NORMAL	HPF (24dB)	LinkwitzRiley	100	—	—	—	—	0.292
			LPF (24dB)	LinkwitzRiley	1.0k	—	—	—	—	
			—	—	—	PEQ	160	+5.0	1.414	
—	—	—	—	—	—	PEQ	580	-3.5	2.079	—
SR-F09 HIGH	-10.0	INVERSE	HPF (24dB)	LinkwitzRiley	1.0k	—	—	—	—	0
			—	—	—	PEQ	3.15k	-4.0	3.633	
			—	—	—	PEQ	11.8k	+10.0	2.371	
			—	—	—	High Shelving	12.5k	+3.5	—	

[Bi-amplifier drive for SR-F09]

Channel	Gain (dB)	Polarity	X-over Combination			Filter				Delay (ms)
			HPF/LPF	TYPE	Freq. (Hz)	TYPE	Freq. (Hz)	Gain (dB)	Q	
SR-F09 LOW	0	NORMAL	HPF (12dB)	LinkwitzRiley	30	—	—	—	—	0.292
			LPF (24dB)	LinkwitzRiley	1.0k	—	—	—	—	
			—	—	—	PEQ	100	+6.0	1.414	
			—	—	—	PEQ	580	-3.5	2.079	
SR-F09 HIGH	-10.0	INVERSE	HPF (24dB)	LinkwitzRiley	1.0k	—	—	—	—	0
			—	—	—	PEQ	3.15k	-4.0	3.633	
			—	—	—	PEQ	11.8k	+10.0	2.371	
			—	—	—	High Shelving	12.5k	+3.5	—	

12. SPECIFICATIONS

[SR-F09]

Enclosure	Bass-reflex type
Power Handling Capacity	Continuous pink noise: 200 W Continuous program: 600 W
Rated Impedance	8 Ω
Sensitivity	100 dB (1 W, 1 m)
Frequency Response	70 Hz to 20 kHz*
Crossover Frequency	1 kHz*
Speaker Component	Low frequency: 30 cm cone-type High frequency: CD horn (60° horizontal x 40° vertical) fitted with compression driver
Input Connector	Neutrik NL4MP x 2 and M4 screw terminal, distance between barriers: 10 mm
Finish	Enclosure: Plywood, black, paint Front grille: Steel plate, black, acrylic paint
Dimensions	390 (w) x 619 (h) x 364 (d) mm
Weight	35 kg
Accessories	Label 2 pcs

* When recommended parameters are applied by the optional digital speaker processor DP-SP3

Note: The design and specifications are subject to change without notice for improvement.

[SR-L09, SR-L05]

Model	SR-L09	SR-L05
Enclosure	Bass-reflex type	
Power Handling Capacity	Continuous pink noise: 300 W Continuous program: 900 W	Continuous pink noise: 150 W Continuous program: 450 W
Rated Impedance	4 Ω	8 Ω
Sensitivity	96 dB (1 W, 1 m)	93 dB (1 W, 1 m)
Frequency Response	35 Hz to 1 kHz	
Crossover Frequency	125 Hz*	
Speaker Component	Low frequency: 38 cm cone-type x 2	Low frequency: 38 cm cone-type
Input Connector	Neutrik NL4MP and M4 screw terminal, distance between barriers: 10 mm	
Finish	Enclosure: Plywood, black, paint Front grille: Steel plate, black, acrylic paint	
Dimensions	829 (w) x 629 (h) x 606 (d) mm	452 (w) x 629 (h) x 502 (d) mm
Weight	67 kg	36 kg
Accessories	Label 2 pcs	

* When recommended parameters are applied by the optional digital speaker processor DP-SP3

Note: The design and specifications are subject to change without notice for improvement.

Traceability Information for Europe

Manufacturer:
TOA Corporation
7-2-1, Minatojima-Nakamachi, Chuo-ku, Kobe, Hyogo,
Japan

Authorized representative:
TOA Electronics Europe GmbH
Suederstrasse 282, 20537 Hamburg,
Germany

URL: <https://www.toa.jp/>