# OWNER'S MANUAL



Subwoofers









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You'll see our commitment to your satisfaction in our ongoing dedication to providing you with better products and services.

RE Audio was founded by audio enthusiasts for audio enthusiasts.

We understand the uses (and often abuses) in autosound and engineer products for the real world.

Our products have the finesse and sound quality to please the most discriminating audiophile, yet the durability to stand up to the extreme abuses of SPL competition. Here at RE, our passion drives us to design the products that we want to use.

Again, we thank you for choosing RE Audio.

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### **Limited Warranty**

RE Audio warrants all manufactured electronic products to be free from defects in material and workmanship for a period not to exceed ONE(1) YEAR from the date of purchase.

IMPORTANT WARRANTY NOTICE: RE Audio will only warrant and service products displaying valid RE Audio serial numbers. WARRANTY SERVICE WILL ONLY BE PERFORMED WHEN THE UNIT IS ACCOMPANIED BY A COPY OF THE ORIGINAL SALES RECEIPT FROM AN AUTHORIZED DEALER. All product returned to RE Audio for service MUST be accompanied by a Return Authorization Number, issued by RE Audio in advance of shipment. The Return Authorization Number must be clearly and conspicuously displayed on the shipping carton or RE Audio will refuse delivery.

For Return Authorization Numbers, first call your RE Audio dealer you purchased the products from. The dealer will help you to obtain Return Authorization Numbers.

This warranty extends only to the original purchaser and is not transferable. Defective equipment must be returned within the warranty period, freight prepaid, to the RE Audio Factory or an Authorized RE Audio Warranty Station.

This warranty covers only defects in materials and workmanship of manufactured electronic products(speakers). Incidents of misuse, abuse, neglect, or unauthorized modification will not be covered within the terms of this warranty.

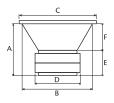
RE Audio reserves the right to refuse warranty service under such conditions.

RE Audio WILL NOT BE RESPONSIBLE FOR ANY DAMAGES, WHETHER INCIDENTAL OR CONSEQUENTIAL, RELATED TO THE USE OF THIS OR ANY OTHER PRODUCT BEARING OR SOLD UNDER THE RE Audio BRAND NAME. USE THIS PRODUCT AT YOUR OWN RISK.

IMPROPER USE OF THIS PRODUCT CAN RESULT IN PROPERTY DAMAGE, BODILY HARM, AND OR OTHER DAMAGE. RE Audio ASSUMES NO RESPONSIBILITY FOR YOUR HEALTH OR SAFETY.

#### **Notes**

### **Dimensions**



Model	SE Pro10	SE Pro12	SE Pro15	SX Pro10	SX Pro12	SX Pro15	SX18
Mounting Depth [A], inches	6.4	6.9	8.4	6.4	6.9	8.4	9.5
Mounting Hole Diameter [B], inches	9.3	11.2	14.0	9.3	11.2	14.0	16.75
Overall Diameter [C], inches	11.0	12.5	15.5	11.0	12.5	15.5	18.5
Bolt Hole Circle, inches	10.1	11.75	14.65	10.1	11.75	14.65	17.5
Motor Width [D], inches	7.3	7.3	7.3	7.3	7.3	7.3	6.5
Motot Depth [E], inches	3.4	3.44	3.6	3.4	3.44	3.6	3.25
Basket Depth [F], inches	2.94	3.46	4.8	2.94	3.46	4.8	6.25
Displacement, cubic feet	0.14	0.15	0.17	0.15	0.16	0.18	0.22
Weight, Ib	21.0	21.5	23.5	24.0	24.5	27.6	28.0

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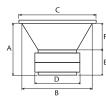
Model	RT Pro8	RT Pro10	RT Pro12	SR Pro10	SR Pro12	SR Pro15
Electrical Q Value [Qes]	0.30	0.35	0.42	0.39	0.41	0.45
Mechanical Q Value [Qms]	2.75	3.71	2.12	5.5	4.99	4.87
Total Speaker Q Value [Qts]	0.27	0.32	0.35	0.36	0.38	0.41
Free Air Resonance [Fs], Hz	33.6	23.3	25.0	25.3	23.6	23.0
Equivalent Compliance [Vas], liters	20.2	106	143	31.0	85.0	203.0
One-Way, Linear Excursion [Xmax], mm	15.0	15.0	15.0	18.0	18.0	18.0
Efficiency [SPL 1W/1m], dB	85.9	87.6	89.3	85.3	86.2	87.6
Effective Piston Area [Sd], cm <sup>2</sup>	227	430	590	310	480	810
DC Resistance Per Coil [Re], Ohm	3.6	3.6	3.6	1.8	1.8	1.8
Nominal Impedance [Znom]	4	4	4	2 or 4	2 or 4	2 or 4
Thermal Power Handling [Pe], Watts	200	200	200	300	300	300
Force Factor [BI]	10.12	9.36	9.78	14.35	14.35	14.35

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### **Specifications**

Model	SE Pro10	SE Pro12	SE Pro15	SX Pro10	SX Pro12	SX Pro15	SX18
Electrical Q Value [Qes]	0.46	0.49	0.55	0.29	0.32	0.38	0.53
Mechanical Q Value [Qms]	4.4	4.5	4.3	4.3	4.4	4.7	6.1
Total Speaker Q Value [Qts]	0.42	0.44	0.19	0.27	0.30	0.38	0.48
Free Air Resonance [Fs], Hz	26.6	25.1	22.0	30.7	30.6	27.8	33.2
Equivalent Compliance [Vas], liters	31.0	72.9	209.0	21.8	47.6	126.3	159.0
One-Way, Linear Excursion [Xmax], mm	18.0	18.0	18.0	22.0	22.0	22.0	22.0
Efficiency [SPL 1W/1m], dB	83.2	86.1	88.0	85.2	88.1	90.4	92.7
Effective Piston Area [Sd], cm <sup>2</sup>	310	480	810	310	480	810	1210
DC Resistance Per Coil [Re], Ohm	2.8	2.8	2.8	1.9	1.9	1.9	1.9
Nominal Impedance [Znom]	2 or 4	2 or 4					
Thermal Power Handling [Pe], Watts	600	600	600	1000	1000	1000	1000
Force Factor [BI]	17.7	17.7	17.7	21.0	21.0	21.0	21.0





#### Power Hanling Capacity

RE subwoofers will handle large amount of power in any of the recommended enclosures, sealed or vented. The smaller enclosures are best for use in limited-space applications. The larger recommended enclosures will yield slightly more bass at the lowest frequencies. The listed Power Handling capacities assume that both voice coils are in use. Always connect both coils in a dual voice-coil speaker.

Model	RT Pro8	RT Pro10	RT Pro12	SR Pro10	SR Pro12	SR Pro15
Mounting Depth [A], inches	4.9	5.5	6.3	6.0	6.5	7.9
Mounting Hole Diameter [B], inches	7.3	9.3	11.0	9.3	11.0	14.0
Overall Diameter [C], inches	8.7	10.9	12.8	10.9	12.8	15.6
Bolt Hole Circle, inches	8.0	10.5	12.0	10	12.0	14.7
Motor Width [D], inches	4.875	4.875	4.875	6.7	6.7	6.7
Motot Depth [E], inches	2.6	2.6	2.6	3.0	3.0	3.0
Basket Depth [F], inches	2.3	2.9	3.7	3.0	3.5	4.9
Displacement, cubic feet	0.07	0.09	0.10	0.12	0.14	0.16
Weight, lb	6.2	6.8	7.5	15.4	16.0	16.5

## **Enclosure Info** (Ported enclosure application - high efficiency)

- The Compact design increases bass efficiency and fits in many space-limited applications. Although it is the smallest recommended ported enclosure, the output from 30 to 80 Hz will be considerably higher than that of any sealed box.
- The Optimum is the largest and most efficient enclosure design. It delivers the sonic output needed to win SPL competitions.

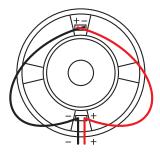
(PD: Port Displacement)

Model	RT Pro 8	RT Pro10	RT Pro12	SR Pro10	SR Pro12	SR Pro15
Ported (Compact), cubic feet	0.35+PD	0.65+PD	1.25+PD	0.65+PD	1.25+PD	2.5+PD
Tuning, Hz	35	35	35	35	35	35
Ported (Optimum), cubic feet	0.5+PD	1.0+PD	1.5+PD	1.0+PD	1.5+PD	3.0+PD
Tuning, Hz	35	35	35	35	35	34

Model	SE Pro10	SE Pro12	SE Pro15	SX Pro10	SX Pro12	SX Pro15	SX18
Ported (Compact), cubic feet	1.0+PD	1.5+PD	3.0+PD	1.0+PD	1.5+PD	3.0+PD	5.5+PD
Tuning, Hz	35	35	35	35	35	35	35
Ported (Optimum), cubic feet	1.25+PD	2.0+PD	4.0+PD	1.25+PD	2.0+PD	4.0+PD	8.0+PD
Tuning, Hz	34	33	34	34	33	34	34

### **Wiring Diagram**

(For DUAL Voice Coil Woofers)



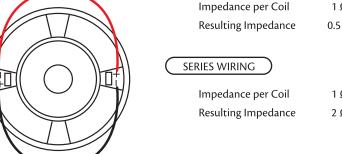
The diagram shows subwoofers with dual 1, 2 or dual 4  $\Omega(Ohm)$  voice coils. Both coils must be connected to a source of amplification.

The dual 1  $\Omega$  woofer will generate a 0.5  $\Omega$  load if the coils are wired in parallel or a 2  $\Omega$  load in series. The dual 2  $\Omega$  woofer will generate a 1  $\Omega$  load if the coils are wired in parallel or a 4  $\Omega$  load in series. The dual 4  $\Omega$  woofer will provide a 2  $\Omega$  load wired in parallel or 8  $\Omega$  load wired in series.

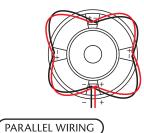


Impedance per Coil	1Ω	2 Ω	4 Ω
Resulting Impedance	0.5 Ω	1Ω	2 Ω

Impedance per Coil	1 Ω	2 Ω	4 Ω
Resulting Impedance	2 Ω	4 Ω	8Ω



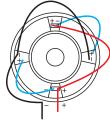
### **Wiring Diagram**



Final Impedance = Individual Impedance / 4

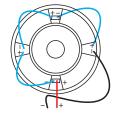
### (For QUAD Voice Coil Woofers)

The diagram shows subwoofers with quad voice coils. All coils must be connected to a source of amplification.



#### (PARALLEL/SERIES COMBINATION WIRING)

Final Impedance = Individual Impedance



SERIES WIRING

Final Impedance = Individual Impedance X 4





(Sealed enclosure application - moderate efficiency)

RE subwoofers perform well in any size sealed enclosure between Compact and Optimum volume recommendations. These systems will exhibit benefits of both designs: "Compact" produces high impact bass and "Optimum" generates greater low bass frequency extension.

(N	I/R:	Not	recommended)

Model	RT Pro8	RT Pro10	RT Pro12	SR Pro10	SR Pro12	SR Pro15
Sealed (Compact), cubic feet	0.3	0.35	0.4	0.35	0.5	1.5
Sealed (Optimum), cubic feet	0.35	0.5	0.75	0.5	0.75	2.0

Model	SE Pro10	SE Pro12	SE Pro15	SX Pro10	SX Pro12	SX Pro15	SX18
Sealed (Compact), cubic feet	0.4	0.75	1.5	N/R	N/R	N/R	N/R
Sealed (Optimum), cubic feet	0.65	1.0	2.0	N/R	N/R	N/R	N/R

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