Calculator A: To calculate amplifier power output requirements:

Input data required:	**Input data**	**Unit**
1) Speaker nominal impedance (Ohms)	4.00	Ohm
2) Sensitivity in dB/W at 1 Meter		dB
3) Sensitivity in dB/2.83 V at 1 Meter	89.50	dB
4) Seating distance (1 foot = 0.3048 Meter, 1 Meter = 3.281 foot)	3.35	Meter
5) Room gain for speaker placement near walls/corners, enter 0 to 3 dB max., to err on the conservative side	3.00	dB
6) Desired additional amplifier headroom (dB) Recommended minimum is 3		dB
7) Target SPL - THX reference is 85 dB, with 20 dB of headroom	**90.00**	dB
Calculated values from the input data:	**Calculated values**	
Sensitivity loss at seating distance (dB)	10.51	dB
SPL/W at seating distance calculated from the input data	**81.99**	dB
Amplifier power output based on 2.83 V and the assumed impedance at 1 Meter	2.00	Watt (W)
Power increase in multiples needed to achieve target SPL	6.32	
Power increase in dB needed to achieve target SPL	8.01	dB
Calculated amplifier output power required:		
For the target SPL at seating distance	**12.66**	Watt (W)
For the target SPL at seating distance, with the desired headroom included		Watt (W)

Calculator B: To calculate SPL (Sound pressure level) when Amplifier power is given:

Required input data	**Data input (dB, W, ft etc.)**	**Unit**
Input data 1) through 7) in Calculator A above are used in this calculator		
Given amplifier output power	12.66	Watt (W)
Calculated SPL at seating distance	**90.00**	dB