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Minneapolis Speaker Company

*The World Leader in
Innovative Loudspeaker
Solutions*



Commercial and Professional Loudspeaker Catalog

April 2006



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Let MISCO provide you with innovative loudspeaker solutions.



**Commercial and Professional
Loudspeaker Catalog
April 2006**

Index

4" / 5" FULL RANGE SPECIAL APPLICATIONS	3
8" FULL RANGE LOUDSPEAKERS	4
8" FULL RANGE SPECIAL APPLICATIONS	5
JC80F	6
JC80PA	7
JC8WP	8
JC80WP	9
KC620W-B	10
dB PLUS SERIES	11
JJCN80PAT	12
COMMERCIAL SOUND PRODUCTS - COMPLETE PACKAGES	13
VANDAL-PROOF SPEAKER SYSTEMS	14
LINE TRANSFORMERS	15
WATERPROOF LOUDSPEAKER SERIES	16
WATERPROOF INTERCOM LOUDSPEAKER SERIES	17
STANDARD APPLICATION LOUDSPEAKER SERIES	18
WATERPROOF SYSTEM FOR VOICE - DCM-3	19
WATERPROOF SYSTEM FOR VOICE - T5977	20
WATERPROOF SYSTEM FOR VOICE - M201SWZ	21
MASS TRANSIT SERIES	22
SOUNDSCAPE® ATS-360	23, 24
SOUNDSCAPE® SS803	25, 26
PIEZO CERAMIC SPEAKERS	27
GEEK CAP	28

MODEL JC5FD-45, 45 OHM INTERCOM

Model JC5FD-45 is a 4" range transducer, 45 ohm, and shall meet the following specifications: Diameter: 5". Mounting Diameter: 4-11/16". Depth: 2-1/16". Weight 1-3/4 lbs. Cone Construction: Acoustically damped, cloth accordion edge suspension. The loudspeaker shall meet the electrical specifications: Magnet Weight: 10 oz. Ceramic. Flux Density: 10,500 Gauss. Voice Coil Diameter: 1". Rated Impedance: 8 ohm. Rated Power (Program): 30 watts. Rated Power (RMS): 15 watts. The loudspeaker shall meet the following acoustical specifications: Sensitivity: 93 dB SPL, average 500 - 2.5 kHz. Dispersion Angle: 160 degrees at 2 kHz -6dB. Resonance: 85 Hz. Frequency Response: 60 - 12,000 +/- 5 dB. The loudspeaker shall meet the following environmental specifications: Voice Coil Protection: Protected from ferrous and non-ferrous particles by Sealed-Linear design. See detailed specifications below.

JC5FD-45



MODEL JC5WP-FR FLAME RETARDANT

Model JC5WP-FR is a 4" full range waterproof, flame retardant transducer, and shall meet the following physical specifications: Diameter: 5". Mounting Diameter: 4-11/16". Depth: 2-1/16". Weight: 1-3/4 lbs. Cone Construction: Flame retardant, Vinyl impregnated cloth. The loudspeaker shall meet the following electrical specifications: Magnet Weight: 10 oz. Ceramic. Flux Density: 10,500 Gauss. Voice Coil Diameter: 3/4". Rated Impedance: 8 ohms. Rated Power (Program): 30 watts. Rated Power (RMS): 15 watts. The loudspeaker shall meet the following acoustical specifications: Sensitivity: 93 dB SPL, average 500 - 2.5 kHz. Dispersion Angle: 150 degrees at 2 kHz -6dB. Resonance: 200 Hz. Frequency Response: 120 - 8,000 Hz (+/- 5 dB). The loudspeaker shall meet the following environmental specifications: Ambient Operating Temperature: -67°F to +185°F. Water Resistance: Total immersion 96 hours without sound quality deterioration. Voice Coil Protection: Protected from ferrous and non-ferrous particles by Sealed-Linear design. See detailed specifications below.

JC5WP-FR AND JC5WP



MODEL JC5WP WATERPROOF

Model JC5WP is a 4" full range, waterproof transducer and shall meet the following physical specifications: Diameter: 5". Mounting Diameter: 4-11/16". Depth: 2-1/16". Weight: 1-3/4 lbs. Cone Construction: Vinyl impregnated cloth. The loudspeaker shall meet the following electrical specifications: Magnet Weight: 10 oz. Ceramic. Flux Density: 10,000 Gauss. Voice Coil Diameter: 3/4". Rated Impedance: 8 ohms. Rated Power (Program): 30 watts. Rated Power (RMS): 15 watts. The loudspeaker shall meet the following acoustical specifications: Sensitivity: 95 dB SPL, average 500 - 2.5 kHz. Dispersion Angle: 150 degrees at 2 kHz -6 dB. Resonance: 200 Hz. Frequency Response: 120 - 8,000 Hz (+/- 5 dB). The loudspeaker shall meet the following environmental specifications: Ambient Operating Temperature: -67°F to +185°F. Water Resistance: Total immersion 96 hours without sound quality deterioration. Voice Coil Protection: Protected from ferrous and non-ferrous particles by Sealed-Linear design. See detailed specifications below.

JC5WI



MODEL JC5WI WATERPROOF INTERCOM

Model JC5WI is a 4" full range, waterproof intercom, and shall meet the following physical specifications: Diameter: 5". Mounting Diameter: 4-11/16". Depth: 1-7/8". Weight: 1-3/4 lbs. Cone Construction: Vinyl impregnated cloth. The loudspeaker shall meet the following electrical specifications: Magnet Weight: 10 oz. Ceramic. Flux Density: 10,000 Gauss. Voice Coil Diameter: 3/4". Rated Impedance: 8 ohms. Rated Power (Program): 30 watts. Rated Power (RMS): 15 watts. The loudspeaker shall meet the following acoustical specifications: Sensitivity: 102 dB SPL, average 500 - 2.5 kHz. Dispersion Angle: 150 degrees at 2 kHz -6 dB. Resonance: 700 Hz. Frequency Response: 450 - 8,000 (+/- 5 dB). The loudspeaker shall meet the following environmental specifications: Ambient Operating Temperature: -67°F to +185°F. Water Resistance: Total immersion, 96 hours without deterioration of sound quality. Voice Coil Protection: Protected from ferrous and non-ferrous particles by Sealed-Linear Design. See detailed specifications below.

KCN5FD



MODEL KCN5FD SINGLE CONE HIGH SENSITIVITY

Model KCN5FD is a 4" range transducer, 8 ohm, and shall meet the following specifications: Diameter: 5". Mounting Diameter: 4-11/16". Depth: 2-1/16". Weight 1-3/4 lbs. Cone Construction: Acoustically damped, cloth accordion edge suspension. The loudspeaker shall meet the electrical specifications: Magnet Weight: 12 oz. Ceramic + 1 OZ NEODYMIUM. Flux Density: 13,000 Gauss. Voice Coil Diameter: 1". Rated Impedance: 8 ohm. Rated Power (Program): 40 watts. Rated Power (RMS): 20 watts. The loudspeaker shall meet the following acoustical specifications: Peak Sensitivity: 99 dB SPL. Average Sensitivity: 97 dB SPL 500 - 2.5 kHz. Resonance: 85 Hz. Frequency Response: 60 - 12,000 +/- 5 dB. Dispersion Angle: 160 degrees at 2 kHz -6 dB. See detailed specifications below.

MODEL	SIZE / SHAPE	SPEAKER RANGE OPTIMUM	MAGNET WEIGHT OUNCES	CONE BODY	POWER RATED WATTS	DEPTH TOTAL INCHES	IMPEDANCE RATED OHMS	FREQUENCY RESONANT HZ	FREQUENCY RANGE HZ	DISPERSION ANGLE -6 dB @ 2 kHz	SENSITIVITY AVERAGE 500 - 2.5 kHz 1WATT/METER dB SPL
JC5FD-45	5" ROUND	FULL RANGE	10	PAPER	15	2-1/16	45	85	60 - 12,000	160°	93
JC5WP-FR	5" ROUND	VOICE RANGE	10	ACRYLIC CLOTH	15	2-1/16	8	85	120 - 12,000	150°	93
JC5WP	5" ROUND	VOICE RANGE	10	F.R. TREATED ACRYLIC CLOTH	15	2-1/16	8	200	120 - 8,000	150°	95
JC5WI	5" ROUND	VOICE RANGE	10	ACRYLIC CLOTH	15	1-7/8	8	700	450 - 8,000	150°	102
KCN5FD	5" ROUND	FULL RANGE	12 + 1	CLOTH	15	2-1/16	8	85	60 - 12,000	160°	97

MODEL FC8PA 5 oz MAGNET

Model FC8PA is an 8" full range transducer, and shall meet the following physical specifications: Diameter: 8-1/8". Depth: 2-13/16". Weight: 1-3/4" lb. Cone Construction: Moisture treated paper. The loudspeaker shall meet the following electrical specifications - Magnet Weight: 4.8 oz. Magnetic Flux: 9,000 Gauss. Program material power rating: 24 watts (12 watts RMS). Impedance: 8 ohms. Voice Coil Diameter: 3/4". The loudspeaker shall meet the following acoustical specifications - Sensitivity: 94 dB SPL, average 500 - 2.5 kHz. Resonance: 95 Hz. Frequency Response: 55 to 13,000 Hz (+/- 5 dB). See detailed specifications below.

FC8PA



MODEL JC8PA 10 oz MAGNET

Model JC8PA is an 8" full range transducer, and shall meet the following physical specifications: Diameter: 8-1/8". Depth: 3". Weight: 2-1/8 lbs. Cone Construction: Moisture treated paper. The loudspeaker shall meet the following electrical specifications - Magnet Weight: 10 oz. Magnet Flux: 10,000 Gauss. Program material power rating: 30 watts (15 watts RMS). Impedance: 8 ohms. Voice Coil Diameter: 1". The loudspeaker shall meet the following acoustical specifications - 97 dB SPL, average 500 - 2.5 kHz. Resonance: 90 Hz. Frequency Response: 40 to 14,000 Hz (+/- 5 dB). See detailed specifications below.

JC8PA



MODEL JC8FD 10 oz MAGNET, FOAM EDGE

Model JC8FD is an 8" full range transducer, and shall meet the following physical specifications: Diameter: 8-1/8". Depth: 3-1/8". Weight: 2-1/8 lb. Cone Construction: Paper body, foam edge and high frequency dual cone. The loudspeaker shall meet the following electrical specifications - Magnet Weight: 10 oz. Magnetic Flux: 10,000 Gauss. Program material power rating: 30 watts (15 watts RMS). Impedance: 8 ohms, Voice Coil Diameter: 1". The loudspeaker shall meet the following acoustical specifications - Sensitivity: 94 dB SPL, average 500 -2.5 kHz. Resonance: 60 Hz. Frequency Response: 35 to 16,000 Hz (+/- 5 dB). See detailed specifications below.

JC8FD



MODEL JC8PAD 10 oz MAGNET, DUAL CONE

Model JC8PAD is an 8" full range transducer, and shall meet the following physical specifications: Diameter: 8-1/8". Mounting Diameter: 7-5/8". Depth: 3". Weight: 2-1/8 lbs. Cone Construction: Moisture treated paper and high frequency dual cone. The loudspeaker shall meet the following electrical specifications: Magnet Weight: 10 oz. Ceramic. Flux Density: 10,000 Gauss. Voice Coil Diameter: 1". Rated Impedance: 8 ohms. Rated Program Material Power: 30 watts. Rated Power (RMS): 15 watts. The loudspeaker shall meet the following acoustical specifications: Sensitivity: 97 dB SPL. Resonance: 90 Hz. Frequency Response: 40 to 16,000 Hz (+/- 5 dB). Voice Coil Protection: Protected from ferrous and non-ferrous particles by SEALED-LINEAR design. See detailed specifications below.

JC8PAD



All 8" speakers are available with 25 and 70 volt Line Matching Transformers.

8" FULL RANGE SPEAKERS										
MODEL	SIZE / SHAPE	SPEAKER RANGE OPTIMUM	MAGNET WEIGHT OUNCES	CONE BODY	POWER RATED WATTS	DEPTH TOTAL INCHES	IMPEDANCE RATED OHMS	FREQUENCY RESONANT HZ	FREQUENCY RANGE HZ	SENSITIVITY AVERAGE 500 - 2.5 kHz 1WATT/METER dB SPL
FC8PA	8" ROUND	VOICE & MUSIC	5	MOISTURE TREATED PAPER	12	2-13/16"	8	95	55 - 13,000	94
JC8PA	8" ROUND	VOICE & MUSIC	10	MOISTURE TREATED PAPER	15	3"	8	90	40 - 14,000	97
JC8FD	8" ROUND	VOICE & MUSIC	10	PAPER BODY, FOAM EDGE & HIGH FREQUENCY DUAL CONE	15	3-1/8"	8	60	35 - 16,000	94
JC8PAD	8" ROUND	VOICE & MUSIC	10	MOISTURE TREATED PAPER & HIGH FREQUENCY DUAL CONE	15	3"	8	90	40 - 16,000	97

MODEL JC8PA-FR FLAME RETARDANT

Model JC8PA-FR is an 8" full range transducer, flame retardant, and shall meet the following physical specifications: Diameter: 8-1/8". Depth: 3". Weight: 2-1/8 lbs. Cone Construction: Flame retardant paper. The loudspeaker shall meet the following electrical specifications - Magnet Weight: 10 oz. Magnetic Flux: 10,000 Gauss. Program Material Power Rating: 30 watts (15 watts RMS). Impedance: 8 ohms. Voice Coil Diameter: 1". The loudspeaker shall meet the following acoustical specifications- Sensitivity: 97 dB SPL, average 500 - 2.5 kHz. Resonance: 110 Hz. Frequency Response: 40 to 14,000 Hz (+/- 5 dB). See detailed specifications below.

JC8PA-FR AND JC8PA-45



MODEL JC8PA-45, 45 OHM INTERCOM

Model JC8PA-45 is an 8" full range transducer, 45 ohm intercom, and shall meet the following physical specifications: Diameter: 8-1/8". Depth: 3". Weight: 2-1/8 lbs. Cone Construction: Moisture treated paper. The loudspeaker shall meet the following electrical specifications - Magnet Weight: 10 oz. Magnet Flux: 10,000 Gauss. Program material power rating: 30 watts (15 watts RMS). Impedance: 45 ohms. Voice Coil Diameter: 1". The loudspeaker shall meet the following acoustical specifications - 97 dB SPL, average 500 - 2.5 kHz. Resonance: 90 Hz. Frequency Response: 40 to 14,000 Hz (+/- 5 dB). See detailed specifications below.

JC8PA-88



MODEL JC8PA-88, DUAL 8 OHM

Model JC8PA-88 is an 8" full range transducer, dual 8 ohm, and shall meet the following physical specifications: Diameter: 8-1/8". Depth: 3". Weight: 2-1/8 lbs. Cone Construction: Moisture treated paper. The loudspeaker shall meet the following electrical specifications - Magnet Weight: 10 oz. Magnet Flux: 10,000 Gauss. Program material power rating: 30 watts (15 watts RMS). Impedance: 8 ohms. Voice Coil Diameter: 1". The loudspeaker shall meet the following acoustical specifications - 97 dB SPL. Resonance: 90 Hz. Frequency Response: 40 to 12,000 Hz (+/- 5 dB). See detailed specifications below.

MODEL JC8WP WATERPROOF

Model JC8WP is an 8" full range waterproof transducer, and shall meet the following physical specifications: Diameter: 8-1/8". Mounting Diameter: 7-5/8". Depth: 3". Weight: 2-1/8 lbs. Cone Construction: Vinyl-impregnated cloth with treated edge suspension and curvilinear body. The loudspeaker shall meet the following electrical specifications: Magnet Weight: 10 oz. Ceramic. Flux Density: 10,000 Gauss. Voice Coil Diameter: 1". Rated Impedance: 8 ohms. Rated Program Material Power: 30 watts. Rated Power (RMS): 15 watts. The loudspeaker shall meet the following acoustical specifications: Sensitivity: 94 dB SPL. Resonance: 95 Hz. Frequency Response: 50 to 8,000 Hz (+/- 5 dB). The loudspeaker shall meet the following environmental specifications: Ambient Operating Temperature: -67° F to +185°F. Water Resistance: Total immersion, 96 hours without sound quality deterioration. Voice Coil Protection: Protected from ferrous and non-ferrous particles by SEALED-LINEAR design. See detailed specifications below.

JC8WP



MODEL JC80WP WATERPROOF COAX

Model JC80WP is an 8" extended range coaxial, waterproof transducer, and shall meet the following physical specifications: Diameter: 8-1/8". Mounting Diameter: 7-5/8". Depth: 3". Weight: 2-1/8 lbs. Cone Construction: L.F., vinyl-impregnated cloth with treated edge suspension and curvilinear body; H.F., treated paper. The loudspeaker shall meet the following electrical specifications: Magnet Weight: L.F., 10 OZ. Ceramic, H.F. Piezo-Ceramic. Flux Density: L.F., 10,000 Gauss. L.F. Voice Coil Diameter: 1". Rated Impedance: 8 ohms. Rated Program Material Power: 30 watts. Rated Power (RMS): 15 watts. The loudspeaker shall meet the following acoustical specifications: Sensitivity: 93 dB SPL. Resonance: 90 Hz. Frequency Response: 50 to 18,000 Hz (+/- 5 dB). Crossover frequency: 3,000 Hz. The loudspeaker shall meet the following environmental specifications: Ambient Operating Temperature: -67° F to +185°F. Water Resistance: Total immersion, 96 hours without sound quality deterioration. Voice Coil Protection: Protected from ferrous and non-ferrous particles by SEALED-LINEAR design. See detailed specifications below.

JC80WP



All 8" speakers are available with 25 and 70 volt Line Matching Transformers.

8" SPEAKERS FOR SPECIAL APPLICATIONS

MODEL	SIZE / SHAPE	SPEAKER RANGE OPTIMUM	MAGNET WEIGHT OUNCES	CONE BODY	POWER RATED WATTS	DEPTH TOTAL INCHES	IMPEDANCE RATED OHMS	FREQUENCY RESONANT HZ	FREQUENCY RANGE HZ	SENSITIVITY AVERAGE 500 - 2.5 kHz 1WATT/METER dB SPL
JC8PA-FR	8" ROUND	VOICE & MUSIC	10	FLAME RETARDANT PAPER	15	3"	8	110	40 - 14,000	97
JC8PA-45	8" ROUND	INTERCOM	10	MOISTURE TREATED PAPER	15	3"	45	90	40 - 14,000	97
JC8PA-88	8" ROUND	VOICE & MUSIC	10	MOISTURE TREATED PAPER	15	3"	8/8	90	40 - 12,000	97
JC8WP	8" ROUND	VOICE & MUSIC	10	ACRYLIC CLOTH	15	3"	8	95	50 - 8,000	94
JC80WP	8" ROUND	EXTENDED RANGE	10	ACRYLIC CLOTH	15	3"	8	90	50 - 18,000	93

8" EXTENDED RANGE COAXIAL LOUDSPEAKER

JC80F

- High Quality
- Wide-Angle Dispersion
- Extended Frequency Response



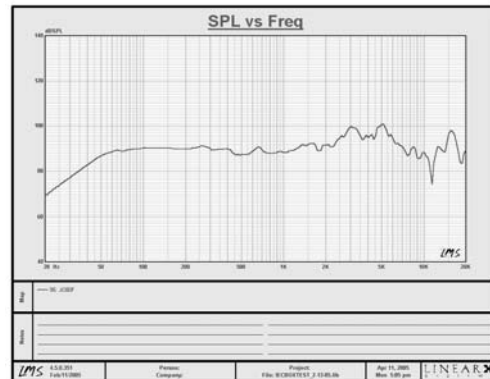
SPECIFICATIONS				
VOICE COIL IMPEDANCE:	8	OHMS +/-15% AT	1000	Hz (1 VOLT)
RESONANCE (fo):	55	Hz +/-15%		(1 VOLT)
SENSITIVITY:	94	dB +/-3dB AT		(1 W, 1 METER)
		AVERAGE 500 - 2.5 kHz		
FREQUENCY RANGE:	35	Hz TO	18,000	Hz +/-6dB
RATED POWER:	15	WATTS		
PROGRAM POWER:	30	WATTS		
MAGNET MATERIAL:	STRONTIUM FERRITE			
MAGNET WEIGHT:	10	OUNCES		
FLUX DENSITY:	10,000	GAUSS		
POLARIZATION:	WITH TERMINAL STRIP AT 6 O'CLOCK, CONE DOWN, TERMINAL LUG ON RIGHT SIDE IS POSITIVE (+)			
CONE CONSTRUCTION:	FOAM ROLL SUSPENSION			
VOICE COIL PROTECTION:	VOICE COILS ARE PROTECTED FROM FERROUS AND NON-FERROUS PARTICLES BY "SEALED-LINEAR" DESIGN			
DISPERSION:	130	DEGREES AT	2	kHz (-6dB DOWN)

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The loudspeaker shall be a 8" extended range, coaxial transducer and shall meet the following physical specifications: Diameter: 8-1/8". Mounting Diameter: 7-5/8". Depth: 3". Weight: 2-1/8 lbs. Cone Construction: L.F. Cone: Foam roll suspension. The loudspeaker shall meet the following electrical specifications: Magnet Weight: 10 oz. Ceramic; H.F. Piezo-ceramic. Flux Density: L.F. 10,000 Gauss. Voice Coil Diameter: 1". Rated Impedance: 8 ohms. Rated Program Material Power: 30 watts. Rated Power (RMS): 15 watts. The loudspeaker shall meet the following acoustical specifications: Average Sensitivity: 94 dB SPL 500 - 2.5 kHz. Resonance: 55 Hz. Frequency Response: 35 to 18,000 Hz. Crossover 3,000 Hz. Dispersion Angle: 130 degrees at 2 kHz -6 dB.

The loudspeaker shall be MISCO Model JC80F extended range coaxial loudspeaker.

All 8" speakers are available with 25 and 70 volt Line Matching Transformers.



Specifications subject to change without notice

MISCO/MINNEAPOLIS LOUDSPEAKER CO., INC. 2637 32nd AVENUE SOUTH / MINNEAPOLIS, MN 55406-1641 U.S.A.
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Innovative Loudspeaker Solutions

Designed & Made in U.S.A.

8" EXTENDED RANGE COAXIAL LOUDSPEAKER

JC80PA

- High Quality
- Wide-Angle Dispersion
- Extended Frequency Response



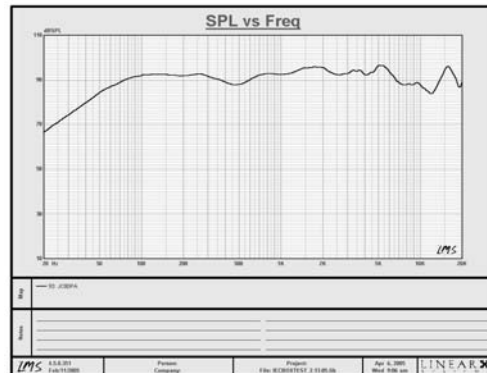
SPECIFICATIONS			
VOICE COIL IMPEDANCE:	8 OHMS +/-15% AT	1000 Hz	(1 VOLT)
RESONANCE (fo):	85 Hz +/-15%		(1 VOLT)
SENSITIVITY:	97 dB +/-3dB AT		(1 W, 1 METER)
	AVERAGE 500 - 2.5 kHz		
FREQUENCY RANGE:	45 Hz TO	18,000 Hz	+/-6dB
RATED POWER:	15 WATTS		
PROGRAM POWER:	30 WATTS		
MAGNET MATERIAL:	STRONTIUM FERRITE		
MAGNET WEIGHT:	10 OUNCES		
FLUX DENSITY:	10,000 GAUSS		
POLARIZATION:	WITH TERMINAL STRIP AT 6 O'CLOCK, CONE DOWN, TERMINAL LUG ON RIGHT SIDE IS POSITIVE (+)		
CONE CONSTRUCTION:	TREATED EDGE SUSPENSION		
VOICE COIL PROTECTION:	VOICE COILS ARE PROTECTED FROM FERROUS AND NON-FERROUS PARTICLES BY "SEALED-LINEAR" DESIGN		
DISPERSION:	130 DEGREES AT	2 kHz	(-6dB DOWN)

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The loudspeaker shall be a 8" extended range, coaxial transducer and shall meet the following physical specifications: Diameter: 8-1/8". Mounting Diameter: 7-5/8". Depth: 3". Weight: 2-1/8 lbs. Cone Construction: L.F. Cone: treated edge suspension. The loudspeaker shall meet the following electrical specifications: Magnet Weight: 10 oz. Ceramic; H.F. Piezo-ceramic. Flux Density: L.F. 10,000 Gauss. Voice Coil Diameter: 1". Rated Impedance: 8 ohms. Rated Program Material Power: 30 watts. Rated Power (RMS): 15 watts. The loudspeaker shall meet the following acoustical specifications: Average Sensitivity: 97 dB SPL 500 - 2.5 kHz. Resonance: 85 Hz. Frequency Response: 45 to 18,000 Hz. Crossover 3,000 Hz. Dispersion Angle: 130 degrees at 2 kHz -6 dB.

The loudspeaker shall be MISCO Model JC80PA extended range coaxial loudspeaker.

All 8" speakers are available with 25 and 70 volt Line Matching Transformers.



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8" WATERPROOF LOUDSPEAKER

JC8WP

- Smooth Response
- Maximum Reliability
- Completely Waterproof

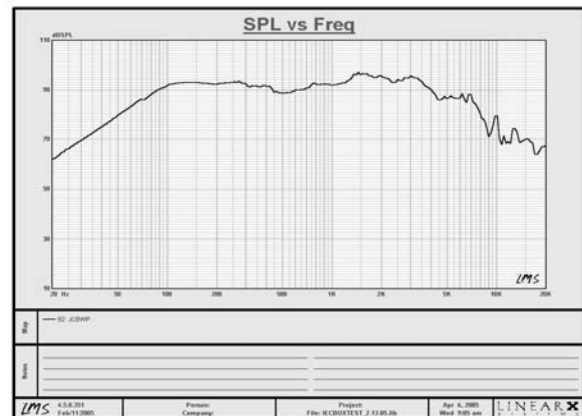


SPECIFICATIONS				
VOICE COIL IMPEDANCE:	8	OHMS +/-15% AT	1000 Hz	(1 VOLT)
RESONANCE (f ₀):	95	Hz +/-15%		(1 VOLT)
SENSITIVITY:	94	dB +/-3dB AT		(1 W, 1 METER)
		AVERAGE 500 - 2.5 kHz		
FREQUENCY RANGE:	50	Hz TO	8,000 Hz +/-5dB	
RATED POWER:	15	WATTS		
PROGRAM POWER:	30	WATTS		
MAGNET MATERIAL:	STRONTIUM FERRITE			
MAGNET WEIGHT:	10	OUNCES		
FLUX DENSITY:	10,000	GAUSS		
POLARIZATION:	WITH TERMINAL STRIP AT 6 O'CLOCK, CONE DOWN, TERMINAL LUG ON RIGHT SIDE IS POSITIVE (+)			
CONE CONSTRUCTION:	SINGLE PIECE VINYL IMPREGNATED CLOTH			
VOICE COIL PROTECTION:	VOICE COILS ARE PROTECTED FROM FERROUS AND NON-FERROUS PARTICLES BY "SEALED-LINEAR" DESIGN			
ENVIRONMENTAL TEST:	TOTAL IMMERSION FOR 96 HOURS WITHOUT DETERIORATION OF SOUND QUALITY			
AMBIENT OPERATING TEMPERATURE:	-67 F (-55 C) TO +185 F (+85C)			

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The loudspeaker shall be an 8" full range waterproof transducer, and shall meet the following physical specifications: Diameter: 8-1/8". Mounting Diameter: 7-5/8". Depth: 3". Weight: 2-1/8 lbs. L.F. Cone Construction: Vinyl-impregnated cloth with treated edge suspension and curvilinear body. The loudspeaker shall meet the following electrical specifications: Magnet Circuit Type: SEALED-LINEAR, 10 oz. Ceramic. Flux Density: 10,000 Gauss. Voice Coil Diameter: 1". Rated Impedance: 8 ohms. Rated Program Material Power: 30 watts. Rated Power (RMS): 15 watts. The loudspeaker shall meet the following acoustical specifications: Sensitivity: 94 dB SPL average 500 - 2.5 kHz. Resonance: 95 Hz. Frequency Response: 50 to 8,000 Hz (+/-5 dB). Crossover Frequency: 3,000 Hz. The loudspeaker shall meet the following environmental specifications: Ambient Operating Temperature: -67 F to +185 F. Water Resistance: Total immersion, 96 hours without sound quality deterioration. Voice Coil Protection: Protected from ferrous and non-ferrous particles by SEALED-LINEAR design. The loudspeaker shall be MISCO Model JC8WP, full range, waterproof transducer.

All 8" speakers are available with 25 and 70 volt Line Matching Transformers.



Specifications subject to change without notice

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8" WATERPROOF COAXIAL LOUDSPEAKER

JC80WP

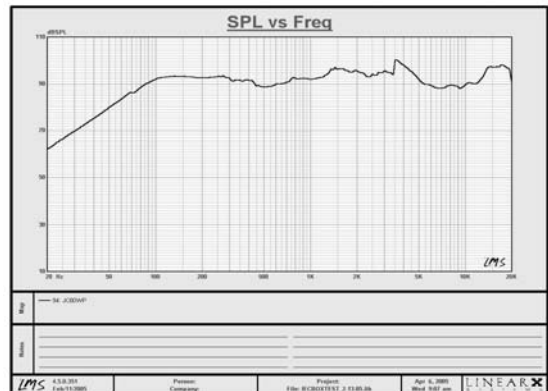
- Smooth Response
- Maximum Reliability
- Completely Waterproof



SPECIFICATIONS				
VOICE COIL IMPEDANCE:	8	OHMS +/-15% AT	1000 Hz	(1 VOLT)
RESONANCE (fo):	90	Hz +/-15%		(1 VOLT)
SENSITIVITY:	93	dB +/-3dB AT		(1 W, 1 METER)
		AVERAGE 500 - 2.5 kHz		
FREQUENCY RANGE:	50	Hz TO	18,000	Hz +/-6dB
RATED POWER:	15	WATTS		
PROGRAM POWER:	30	WATTS		
MAGNET MATERIAL:	PIEZO-CERAMIC ELEMENT			
MAGNET WEIGHT:	10	OUNCES		
FLUX DENSITY:	10,000	GAUSS		
POLARIZATION:	WITH TERMINAL STRIP AT 6 O'CLOCK, CONE DOWN, TERMINAL LUG ON RIGHT SIDE IS POSITIVE (+)			
CONE CONSTRUCTION:	VINYL-IMPREGNATED CLOTH WITH TREATED EDGE SUSPENSION AND CURVILINEAR BODY. TREATED PAPER TWEETER CONE			
VOICE COIL PROTECTION:	VOICE COILS ARE PROTECTED FROM FERROUS AND NON-FERROUS PARTICLES BY "SEALED-LINEAR" DESIGN			
TWEETER:	SOLID STATE PIEZO-CERAMIC ELEMENT			
DISPERSION:	130	DEGREES AT	2	kHz (-6dB DOWN)
AMBIENT OPERATING TEMPERATURE	-67 F (-55 C) TO +185 F (+85 C)			

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The loudspeaker shall be an 8" extended range coaxial transducer, and shall meet the following physical specifications: Diameter: 8-1/5". Mounting Diameter: 7-5/8". Depth: 3". Weight: 2-1/8 lbs. L.F. Cone Construction: vinyl-impregnated cloth with treated edge suspension and curvilinear body; H.F. treated paper. The loudspeaker shall meet the following electrical specifications: Magnet Circuit Type: L.F. SEALED-LINEAR, 10 oz. Ceramic, H.F. Piezo-Ceramic. Flux Density: L.F. 10,000 Gauss. L.F. Voice Coil Diameter: 1". Rated Impedance: 8 ohms. Rated Program Material Power: 30 watts. Rated Power (RMS): 15 watts. The loudspeaker shall meet the following acoustical specifications: Sensitivity: 93 dB SPL average 500 - 2.5 kHz. Resonance: 90 Hz. Frequency Response: 50 to 18,000 Hz (+/- 5 dB). Crossover Frequency: 3,000 Hz. Dispersion Angle: 130 degrees at 2 kHz (-6 dB). The loudspeaker shall meet the following : Environmental specifications: Ambient Operating Temperature: -67 F to +185 F. Water Resistance: Total immersion, 96 hours without sound quality deterioration. Voice Coil Protection: Protected from ferrous and non-ferrous particles by SEALED-LINEAR design. The loudspeaker shall be MISCO Model JC80WP, extended range, waterproof transducer. loudspeaker.



All 8" speakers are available with 25 and 70 volt Line Matching Transformers.

Specifications subject to change without notice

MISCO/MINNEAPOLIS LOUDSPEAKER CO., INC. 2637 32nd AVENUE SOUTH / MINNEAPOLIS, MN 55406-1641 U.S.A.
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6-1/2" Extended Range Coaxial Loudspeaker

- Extended Frequency Response
- Wide Angle Dispersion
- Excellent Fidelity

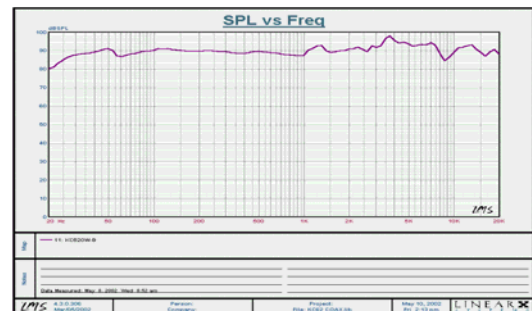
SPECIFICATIONS				
VOICE COIL IMPEDANCE:	8	OHMS +/-15% AT	1000 Hz	(1 VOLT)
RESONANCE (fo):	45	Hz +/-15%		(1 VOLT)
SENSITIVITY:	90	dB +/-3dB AT		(1 W, 1 METER)
		AVERAGE 200, 300, 400, 500 Hz		
FREQUENCY RANGE:	30	Hz TO	20,000 Hz	+/-6dB
RATED POWER:	25	WATTS		
PROGRAM POWER:	50	WATTS		
MAGNET MATERIAL:	STRONTIUM FERRITE			
MAGNET WEIGHT:	12	OUNCES		
FLUX DENSITY:	11,000	GAUSS		
POLARIZATION:	TERMINAL NEAREST RED DOT (+)			
CONE CONSTRUCTION:	TALC FILLED POLYPROPYLENE CONE WITH SANTOPRENE RUBBER SURROUND			
VOICE COIL PROTECTION:	VOICE COILS ARE PROTECTED FROM FERROUS AND NON-FERROUS PARTICLES BY "SEALED-LINEAR" DESIGN			
TWEETER:	POST MOUNTED PEI DOME TWEETER, FERROFLUID COOLED			
DISPERSION:	130	DEGREES AT	2 kHz	(-6dB DOWN)

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The loudspeaker shall be a 6.5" extended range coaxial transducer, and shall meet the following physical specifications: Diameter: 6.5". Mounting Diameter: 6-1/8". Depth: 3". Weight: 2-1/2 lbs. L.F. Cone Construction: Rubber roll suspension. The loudspeaker shall meet the following electrical specifications: Magnet Circuit Type: L.F. SEALED-LINEAR, 12 oz. Ferrite, H.F. 1 oz Ferrite. Flux Density: L.F. 11,000 Gauss. L.F. Voice Coil Diameter: 1". Rated Impedance: 8 ohms. Rated Program Material Power: 50 watts. Rated Power (RMS): 25 watts. The loudspeaker shall meet the following acoustical specifications: Sensitivity: 90 dB SPL. Resonance: 45 Hz. Frequency Response: 30 to 20,000 Hz (+/-6 DB). Crossover Frequency: 3,000 Hz.

The loudspeaker shall be MISCO Model KC620W-B, extended range coaxial loudspeaker.

KC620W-B



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MODEL KCN5FD 4" SINGLE CONE HIGH SENSITIVITY

Model KCN5FD is a 4" range transducer, 8 ohm, and shall meet the following specifications: Diameter: 5". Mounting Diameter: 4-11/16". Depth: 2-1/16". Weight: 1-3/4 lbs. Cone Construction: Acoustically damped, cloth accordian edge suspension. The loudspeaker shall meet the following electrical specifications: Magnet Weight: 12 oz. Ceramic + 1 oz. Neodymium. Flux Density: 13,000 Gauss. Voice Coil Diameter: 1". Rated Impedance: 8 ohms. Rated Power (Program): 40 watts. Rated Power (RMS): 20 watts. The loudspeaker shall meet the following acoustical specifications: Peak Sensitivity: 99 dB SPL. Average Sensitivity: 97 dB SPL 500 - 2.5 kHz. Resonance: 85 Hz. Frequency Response: 60 - 12,000 Hz +/- 5 dB. Dispersion Angle: 160 degrees at 2 kHz -6 dB. See detailed specifications below.



MODEL KCN8PAD 8" DUAL CONE HIGH SENSITIVITY

Model KCN8PAD is an 8" full range transducer, dual cone, and shall meet the following physical specifications: Diameter: 8-1/8". Mounting Diameter: 7-5/8". Depth: 3". Weight: 2-1/8 lbs. The loudspeaker shall meet the following electrical specifications: Magnet Weight: 12 oz. Ceramic + 1 oz. Neodymium. Magnet Flux: 13,000 Gauss. Rated Program Material Power: 40 watts. Rated Power (RMS): 20 watts. Rated Impedance: 8 ohms. Voice Coil Diameter: 1". The loudspeaker shall meet the following acoustical specifications: Peak Sensitivity: 102 dB SPL. Average Sensitivity: 100 dB SPL 500 - 2.5 kHz. Resonance: 85 Hz. Frequency Response: 45 to 12,000 Hz (+/- 5dB). Dispersion Angle: 120 degrees at 2 kHz -6dB. See detailed specifications below.

MODEL JJCN80PAT 8" COAXIAL HIGH SENSITIVITY

Model JJCN80PAT is an 8" extended range coaxial transducer, and shall meet the following physical specifications: Diameter: 8-1/8". Mounting Diameter: 7-5/8". Depth: 3". Weight: 2-1/8 lbs. Cone Construction: H.F. cone: 1" polypropylene dome, L.F. Cone: treated edge suspension. The loudspeaker shall meet the following electrical specifications: Magnet Weight: 20 oz. Ceramic + 1 oz. Neodymium. H.F. Piezo-ceramic. Flux Density: L.F. 13,500 Gauss. Voice Coil Diameter: 1". Rated Impedance: 8 ohms. Rated Program Material Power: 50 watts. Rated Power (RMS): 25 watts. The loudspeaker shall meet the following acoustical specifications: Peak Sensitivity: 102 dB SPL. Average Sensitivity: 100 dB SPL 500 - 2.5 kHz. Resonance: 85 Hz. Frequency Response: 45- 25 kHz +/- 5 dB . Crossover 3,000 Hz. Dispersion Angle: 130 degrees at 2 kHz -6 dB. See detailed specifications below.



MODEL	SIZE / SHAPE	SPEAKER RANGE OPTIMUM	MAGNET WEIGHT OUNCES	CONE BODY	POWER RATED WATTS	DEPTH TOTAL INCHES	IMPEDANCE RATED OHMS	FREQUENCY RESONANT HZ	FREQUENCY RANGE HZ	DISPERSION ANGLE -6 dB @ 2 kHz	SENSITIVITY PEAK 1 WATT/METER dB SPL	SENSITIVITY AVERAGE 500 - 2.5 kHz 1 WATT/METER dB SPL
KCN5FD	5" Round	Full Range	12 + 1	Moisture Treated Paper With Cloth Edge	20	2-1/2	8	85	60 - 12,000	160°	99	97
KCN8PAD	8" Round	Full Range	12 + 1	Moisture Treated Paper	20	3-5/8	8	85	45 - 12,000	120°	102	100
JJCN80PAT	8" Round	Extended Range	20 + 1	Moisture Treated Paper	25	3-7/8	8	85	45 - 25,000	130°	102	100

8" EXTENDED RANGE HIGH SENSITIVITY COAXIAL

JJCN80PAT

- 3 dB Higher Sensitivity
- 1" Polypropylene Dome Tweeter
- Powerful "Neo-Rite" Motor



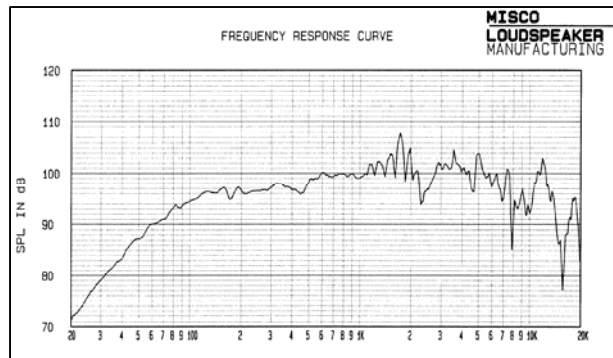
SPECIFICATIONS				
VOICE COIL IMPEDANCE:	8	OHMS +/-15% AT	1000	Hz (1 VOLT)
RESONANCE (fo):	85	Hz +/-15%		(1 VOLT)
AVERAGE SENSITIVITY:	100	dB		(1 W, 1 METER)
			AVERAGE 500 - 2.5 kHz	
FREQUENCY RANGE:	45	Hz TO	25,000	Hz
DISPERSION:	130	DEGREES AT	2	kHz (-6dB DOWN)
RATED POWER:	25	WATTS		
PROGRAM POWER:	50	WATTS		
MAGNET MATERIAL:	FERRITE + 1 NEODYMIUM			
MAGNET WEIGHT:	20 + 1	OZ		
FLUX DENSITY:	13,500	GAUSS		
CONE CONSTRUCTION:	H.F. CONE: 1" POLYPROPYLENE DOME, L.F. CONE: TREATED PAPER EDGE SUSPENSION			
VOICE COIL PROTECTION:	VOICE COILS ARE PROTECTED FROM FERROUS AND NON-FERROUS PARTICLES BY "SEALED-LINEAR" DESIGN			
TWEETER:	POST MOUNTED PEI DOME TWEETER, FERROFLUID COOLED			

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The loudspeaker shall be a 8" extended range coaxial transducer and shall meet the following physical specifications: Diameter: 8-1/8". Mounting Diameter: 7-5/8". Depth: 3". Weight: 2-1/8 lbs. Cone Construction: H.F. Cone: 1" polypropylene dome, L.F. Cone: treated edge suspension. The loudspeaker shall meet the following electrical specifications: Magnet Weight: 20 oz. Ceramic + 1 Neodymium. Flux Density: 13,500 Gauss. Voice Coil Diameter: 1". Rated Impedance: 8 ohms. Rated Program Material Power: 50 watts. Rated Power (RMS): 25 watts. The loudspeaker shall meet the following acoustical specifications: Peak Sensitivity: 102 dB SPL. Average Sensitivity: 100 dB SPL 500 - 2.5 kHz. Resonance: 85 Hz. Frequency Response: 45 to 25,000 Hz. Crossover 3,000 Hz. Dispersion Angle: 130 degrees at 2 kHz -6 dB.

The loudspeaker shall be MISCO Model JJCN80PAT extended range coaxial loudspeaker.

All 8" speakers are available with 25 and 70 volt Line Matching Transformers.



Specifications subject to change without notice

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- 8" Ceiling Baffles
- Complete Pre-packed Speaker/Transformer/Baffle

MODEL 8PBL - Plastic



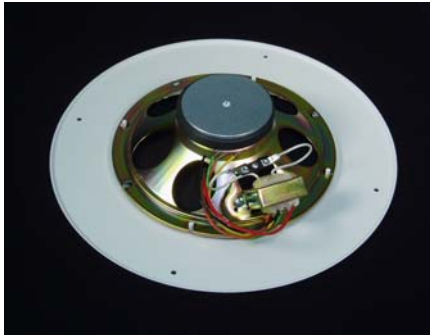
- White finish and natural contour edge
- Silicon treated for increased dispersion and reduced distortion
- Hidden speaker mounting stud
- High percentage of open area
- Comes complete with mounting hardware
- Excellent for high humidity applications with MISCO Waterproof Loudspeaker
- Can be used with industry standard mounting rings

MODEL 8WB - Steel



- Baked semi-gloss white enamel
- One piece construction to eliminate vibrations
- Mounts directly to ceiling or standard plaster ring
- Projects 1/4" from ceiling
- Comes complete with mounting hardware

MODEL	MATERIAL	BAFFLE DIAMETER	MOUNTING DIAMETER	SPEAKER ATTACHMENT	BAFFLE MOUNTING
8PBL	PLASTIC	13"	11.25"	STUD-MOUNT/NUT	1-1/2" SCREWS - STANDARD RINGS/ENCLOSURES
8WB	STEEL	13"	11.25"	STUD-MOUNT/NUT	1-1/2" SCREWS - STANDARD RINGS/ENCLOSURES



COMPLETE PACKAGES - Available for any MISCO 8" speaker, transformer, or baffle.

- Saves time, labor, and material costs
- Individually boxed and packed 5 units per master pack
- 25 or 70 volt transformers

8" COMMERCIAL SOUND PRODUCTS COMPLETE PACKAGES											
MODEL ¹	SIZE / SHAPE	SPEAKER APPLICATION	MAGNET WEIGHT OUNCES	SPEAKER TYPE	DEPTH TOTAL INCHES	MAX XFMR POWER ²	TRANSFORMER VOLTAGE ¹	FREQUENCY RESONANT HZ	FREQUENCY RANGE HZ	SENSITIVITY AVERAGE 500 - 2.5 kHz 1WATT.METER dB SPL	
FC8PA-4T70-8PBL	8" RD	PAGING	5	SINGLE CONE	2.7	4	70	95	55 - 13 kHz	95	
FC8PA-4T70-8WB	8" RD	PAGING	5	SINGLE CONE	2.7	4	70	95	55 - 13 kHz	95	
JC8PAD-4T70-8PBL	8" RD	VOICE & MUSIC	10	MOISTURE TREATED PAPER AND DUAL CONE	3	4	70	90	40 - 16 kHz	97	
JC8PA-4T70-PBL	8" RD	VOICE & MUSIC	10	SINGLE CONE	2.8	4	70	90	40 - 14 kHz	97	
JC8PA-4T70-8WB	8" RD	VOICE & MUSIC	10	SINGLE CONE	2.8	4	70	90	40 - 14 kHz	97	
JC80PA-4T70-8PBL	8" RD	FULL RANGE MUSIC	10	COAXIAL	2.8	4	70	85	45 - 18 kHz	97	
JC80PA-4T70-8WB	8" RD	FULL RANGE MUSIC	10	COAXIAL	2.8	4	70	85	45 - 18 kHz	97	
JC80PA-8HT70-8WB	8" RD	FULL RANGE MUSIC	10	COAXIAL	2.8	8	70	85	45 - 18 kHz	97	

¹ 4T25 specifies a 25 volt transformer.

² 4 Watt transformers have 4, 2, 1, .5, and .25 taps. 8 Watt transformers have 8, 4, 2, and 1 taps.

LOUDSPEAKERS AND RELATED PRODUCTS

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MISCO Vandal-Proof systems are surface mounted speaker systems for use in installations prone to vandalism. These systems can be used both indoors and outdoors in applications such as mass transit, correctional facilities, parking garages or other public areas.

- The Speaker is MISCO JC80WP, waterproof 8" coaxial for extended range paging and background music.
- The Transformer is MISCO 4T70, 4 watt, 70 volt.
- The Baffle is MISCO BAF-844GP, rugged 14 ga steel (can withstand over 55,000 pounds of impactile force) with baked white polyester powder finish and excellent for long-term outdoor applications.
- Interwoven steel security screen behind grille protects speaker from damage.
- The Enclosure is MISCO BAF-844EP, rugged 16 ga cold roll steel with baked white polyester powder finish and excellent for long-term outdoor applications.
- All hardware is vandal-proof made of a special heat treated alloy. Hardware is removed only with a special wrench which is supplied with each order.
- VP-8070-1T features six terminal screw type barrier strips for superior electrical connections.

SPECIFICATIONS

SPEAKER: JC80WP

Size: 8 inches round
 Frequency Range: 50 – 18,000 Hz
 Power Rating: 15 watts RMS, 30 Watts Maximum
 Sensitivity: 93dB (1watt, 1 meter)
 Magnet Size: 10 oz.
 Voice Coil Impedance: 8 ohms
 Cone Type: Vinyl impregnated linen with treated edge suspension, curvilinear body



TRANSFORMER: 4T70

Power rating: 4 watts
 Primary Voltage: 70 Volts
 Primary Taps: 4, 2, 1, 0.5, 0.25 watts
 Terminations: VP-8070-1: 6" color-coded leads, stripped & tinned ends
 VP-8070-1T: 6" color-coded leads attached to 6 terminal screw type barrier strips mounted inside enclosure

GRILLE: BAF-844GP

Material: 14 Gauge steel (can withstand over 55,000 pounds of impactile force)
 Finish: Baked white polyester powder finish – excellent for outdoor applications
 Security Screen: 24 Gauge interwoven steel barrier between grille and speaker

ENCLOSURE: BAF-844EP

Material: 16 Gauge (.060 inch) cold roll steel
 Finish: Baked white polyester powder finish – excellent for outdoor applications

ARCHITECTS & ENGINEERS SPECIFICATIONS

The surface speaker system shall be a MISCO (VP-8070-1) (VP-8070-1T) or approved equal. The speaker shall be a MISCO model JC80WP with 4T70 transformer premounted. The transformer shall be for 70 volt and have taps at 4, 2, 1, 0.5, 0.25 watts. The speaker frequency response shall be 50 – 18,000 Hz. The speaker sensitivity shall be 93 dB minimum at a distance of one meter with one watt applied. The speaker shall have a 10 oz ferrite magnet. The flux density shall be 10,500 gauss minimum. The speaker shall be factory assembled to a MISCO model BAF-844GP grille. The grille shall be constructed of 14 gauge steel able to withstand an impactile force of 55,000 pounds and finished in a polyester powder paint finish electrostatically applied for outdoor applications. Speaker cone security shall be provided by a layer of interwoven 24 gauge steel mesh mounted behind the grille section. VP-8070-1T shall have a six terminal screw type barrier strip (Cinch style) for superior electrical connections. The systems shall measure 11.5" high, 11.5" wide, and 4" deep. The enclosure shall be 16 gauge (0.060") and finished in a polyester powder paint finish electrostatically applied for outdoor applications.

MODEL 16T70, 16 WATT TRANSFORMERS

Model 16T70 is a high power, full range high quality transformer for use in a constant voltage sound reinforcement systems. The insertion loss does not exceed 1dB and the frequency response of +/-3 dB from 50 - 15KHz. The primary taps are 16, 8 and 4 watts. The secondary impedance is 8 ohms. Model 16T70 is designed for 70.7 volt lines. See detailed specifications below.

MODEL 10T70, 10 WATT TRANSFORMERS

Model 10T70 is a 10 watt line matching transformer for use in constant voltage sound reinforcement systems. These units feature an insertion loss that does not exceed 1.6 dB and the frequency response of +/- 1.5 dB from 100 - 10KHz. The primary taps are 10, 5, 2.5, 1.25, .63. The secondary impedance is 8 ohms. Model 10T70 is designed for 70.7 volt lines. See detailed specifications below.

MODEL 8HT70, 8 WATT TRANSFORMER

Model 8HT70 is a full range, high quality transformer utilizing an audio grade core. The insertion loss does not exceed .8 dB and the frequency response of +/-1dB from 60 - 15KHz. The primary taps are 8, 4, 2 and 1 watts. The secondary impedance is 8 ohms. Model 8HT70 is designed for 70.7 volt lines. See detailed specifications below.

MODEL 8T70, 8 WATT TRANSFORMER

Model 8T70 is a full range, high quality transformer utilizing an audio grade core. The insertion loss does not exceed .8dB and the frequency response of +/-1 dB from 60 - 15KHz. The primary taps are 8, 4, 2, 1 and .5 watts. The secondary impedance is 8 ohm. Model 8T70 is designed for 70.7 volt lines. See detailed specifications below.

MODELS 4T70 AND 4T25, 4 WATT TRANSFORMER

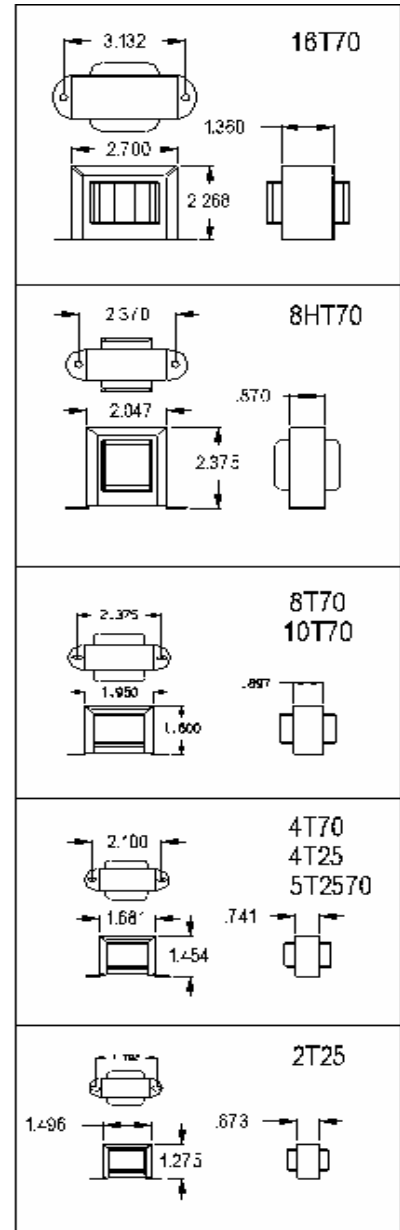
Models 4T70 and 4T25 are 4 watt line matching transformers for use in constant voltage sound reinforcement systems. These units feature an insertion loss that does not exceed 1 dB with a frequency response of +/-1.5 dB from 100 - 10KHz. The primary taps are 4, 2, 1, .5, and .25watts. The secondary impedance is 8 ohms. Model 4T70 is designed for 70.7 volt lines and 4T25 is designed for 25 volt lines. See detailed specifications below.

MODEL 2T25, 2 WATT TRANSFORMER

Model 2T25 is a 2 watt line matching transformer for use in constant voltage sound reinforcement systems. This unit has an insertion loss that does not exceed 1.5 dB with a frequency response of +/- 3.2 dB from 100 - 15KHz. The primary taps are 2, 1, .5, and .25 watts. The secondary impedance is 8 ohms. Model 2T25 is designed for 25 volt lines. See detailed specifications below.

MODEL 5T2570, DUAL VOLTAGE 5 WATT TRANSFORMER

Model 5T2570 is a 5 watt line matching transformer for use in constant voltage sound reinforcement systems. This unit has dual voltage capability and has an insertion loss that does not exceed 1 dB with a frequency response of +/-1.5 dB from 100 - 10KHz. The primary taps are 5, 2.5, 1, .5 and .25 watts. The secondary impedance is 8 ohms. See detailed specifications below.

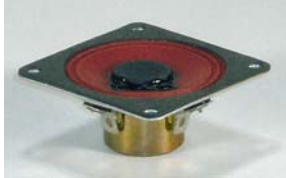


MODEL NUMBER	PRIMARY VOLTAGE	MAX POWER	PRIMARY TAPS	SECONDARY IMPEDANCE	INSERTION LOSS	CORE SIZE	FREQ RES
16T70	70.7	16 WATTS	16, 8, 4	8 OHMS	1 dB	7/8" X 1-1/4"	50 - 15KHZ +/- 3 dB
10T70	70.7	10 WATTS	10, 5, 2.5, 1.25, .63	8 OHMS	1.6 dB	5/8" x 5/8"	100 - 10KHZ +/- 1.5 dB
8HT70	70.7	8 WATTS	8, 4, 2, 1	8 OHMS	.8 dB	3/4" X 3/4"	60 - 15KHZ +/- 1 dB
8T70	70.7	8 WATTS	8, 4, 2, 1, .5	8 OHMS	.8 dB	5/8" X 5/8"	60 - 15KHZ +/- 1 dB
4T70	70.7	4 WATTS	4, 2, 1, .5, .25	8 OHMS	1 dB	5/8" x 1/2"	100 - 10KHZ +/-1.5 dB
4T25	25	4 WATTS	4, 2, 1, .5, .25	8 OHMS	1 dB	5/8" x 1/2"	100 - 10KHZ +/-1.5 dB
2T25	25	2 WATTS	2, 1, .5, .25	8 OHMS	1.5 dB	3/8" x 1/2"	100 - 15KHZ +/- 3.2 dB
5T2570	25 & 70.7	5 WATTS	5, 2.5, 1, .5, .25	8 OHMS	1dB	5/8" x 1/2"	100 - 10KHZ +/-1.5 dB

DESIGNS FOR DIFFICULT ENVIRONMENTAL APPLICATIONS
Maximum Reliability • Immersible • Protected Voice Coil

- Can be used for indoors for swimming pool, sauna, lockerroom, and bathroom areas or outdoors, for intercom systems, menu boards, shopping malls, or transit stations.
- Models FC8WP, JC8WP, and JC80WP use curvilinear cones with treated suspension to ensure a smooth, full-range frequency response.
- Models JC80WP features a treated paper cone piezo tweeter phase-coupled to the low frequency driver to eliminate phase distortion and to produce extended frequency range.
- Standard Impedance: 8 ohm (others including dual voice coils available)
- Features a rugged steel basket, with a zinc dichromate finish for protection against corrosion.
- A solid aluminum voice coil form maximizes heat dissipation and protection against humidity.
- "SEALED-LINEAR" Design insures that the voice coil area is protected from ferrous and non-ferrous particles.
- Cones: Constructed of vinyl impregnated cloth or treated Kevlar to withstand actual immersion for 96 hours without deterioration of sound quality.
- Ambient Operating Temperature: - 67°F (- 55°C) to + 185°F (+ 85°C)

A2WP



A2RWP



DC22WP



DC3WP



DC32WP, DC4WP, FC4WP-C



EC5WP



JC5WP



JC54WP



JC6WP



FC8WP



JC8WP



JC80WP



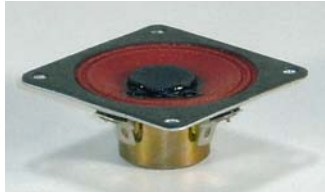
MODEL	SIZE / SHAPE	SPEAKER RANGE OPTIMUM	MAGNET WEIGHT OUNCES	CONE BODY	POWER MAX WATTS	POWER RMS WATTS	DIAMETER MOUNTING INCHES	DEPTH TOTAL INCHES	RATED IMPEDANCE OHMS	FREQUENCY RESONANT Hz	FREQUENCY RANGE Hz	SENSITIVITY 1 WATT/METER dB
A2WP	2" SQ	VOICE	0.53	CLOTH	6	3	2.375	0.937	8	600	475 - 4,500	82
A2RWP	2" RD	VOICE	0.53	CLOTH	6	3	-	0.937	8	550	475 - 4,500	82
DC22WP	2-1/2" SQ	VOICE	2.4	CLOTH	8	4	2.937	1.156	8	450	300 - 8,000	88
DC3WP	3" SQ	VOICE	2.4	CLOTH	8	4	3.375	1.218	8	200	250 - 7,000	87
DC32WP	3 1/2" SQ	VOICE	2.4	CLOTH	8	4	3.937	1.312	8	300	195 - 7,000	91
DC4WP	4" SQ	VOICE	2.4	CLOTH	8	4	4.687	1.406	8	200	180 - 8,000	93
FC4WP-C	4" SQ	VOICE	4.8	CLOTH	20	10	4.687	1.580	8	300	200 - 10,000	92
EC5WP	4" PIN	VOICE	3	CLOTH	12	6	4.750	1.718	8	250	120 - 8,000	92
JC5WP	4" RD	FULL	10	CLOTH	30	15	4.687	2.000	8	200	120 - 8,000	92
JC54WP	5-1/4" PIN	FULL	10	KEVLAR	30	15	5.500	2.062	8	110	100 - 10,000	90
JC6WP	6" PIN	FULL	10	CLOTH	30	15	6.187	2.375	8	110	100 - 8,000	95
FC8WP	8" RD	FULL	4.8	CLOTH	24	12	7.625	2.750	8	115	50 - 8,000	90
JC8WP	8" RD	FULL	10	CLOTH	30	15	7.625	2.812	8	100	50 - 8,000	94
JC80WP	8" RD	EXTENDED	10	CLOTH	30	15	7.625	2.812	8	90	50 - 18,000	93

SPECIAL DESIGN FOR VOICE COMMUNICATIONS IN STANDARD OR DIFFICULT ENVIRONMENTAL APPLICATIONS

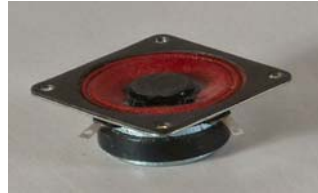
High Intelligibility ▪ Low Frequency Noise Filter ▪ Waterproof Construction

- Are used in intercom applications requiring excellent voice intelligibility.
- Especially useful in areas of high ambient noise levels: industrial stations, construction sites, and drive-thru services.
- Offers low distortions and high efficiency in the critical voice response range.
- In the talk back mode, this design filter distortion-generating low frequency noise.
- Standard Impedance: 8 ohm (other impedance and dual voice coils available)
- Built with structural durability to withstand punishing environmental conditions: extreme weather, dust, heat, and humidity.
- Cones: Constructed of vinyl impregnated cloth to withstand actual immersion for 96 hours without deterioration of sound quality.
- Ambient Operating Temperature: - 67°F (- 55°C) to + 185°F (+ 85°C)
- A solid aluminum voice coil form maximizes heat dissipation and protection against humidity.
- " SEALED-LINEAR" Design insures that the voice coil area is protected from ferrous and non-ferrous particles.

A2WI



AC2WI



A2RWI



AC2RWI



DC22WI



DC3WI



DC32WI



DC4WI



JC5WI



MODEL	SIZE / SHAPE	SPEAKER RANGE OPTIMUM	MAGNET WEIGHT OUNCES	CONE BODY	POWER MAX WATTS	POWER RATED WATTS	DIAMETER MOUNTING INCHES	DEPTH TOTAL INCHES	IMPEDANCE RATED OHMS	FREQUENCY RESONANT Hz	FREQUENCY RANGE Hz	SENSITIVITY 1 WATT/METER dB
A2WI	2" SQ	VOICE	0.53	CLOTH	6	3	2.375	0.937	8	650	475 - 4,500	82
AC2WI	2" SQ	VOICE	0.70	CLOTH	6	3	2.375	0.781	8	650	475 - 4,500	82
A2RWI	2" RD	VOICE	0.53	CLOTH	6	3	NONE	0.937	8	550	475 - 4,500	82
AC2RWI	2" RD	VOICE	0.70	CLOTH	6	3	NONE	0.781	8	550	475 - 4,500	82
DC22WI	2-1/2" SQ	VOICE	2.50	CLOTH	12	6	2.937	1.312	8	450	350 - 8,000	87
DC3WI	3" SQ	VOICE	2.50	CLOTH	12	6	3.375	1.218	8	340	400 - 4,500	87
DC32WI	3-1/2" SQ	VOICE	2.50	CLOTH	12	6	3.937	1.312	8	325	250 - 8,000	92
DC4WI	4" SQ	VOICE	2.50	CLOTH	12	6	4.687	1.406	8	265	250 - 6,000	93
JC5WI	5" RD	VOICE	10.00	CLOTH	32	16	4.687	1.875	8	700	450 - 8,000	102

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Designed & Made in U.S.A.

Designs for General Purpose and Replacement Applications

Maximum Reliability • High Intelligibility • Protected Voice Coil

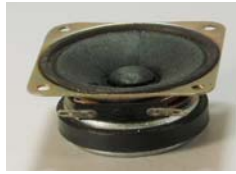
- Are for use in general voice and single tone applications requiring excellent clarity and intelligibility.
- Offer low distortion and high efficiency in the critical voice response range.
- Speakers are available 1" thru 8" * including round, square, pin cushion and oval shapes.
- Standard impedances 8 ohm.
- Other impedances are also available.

A22S

A3S



DC22S



DC3S



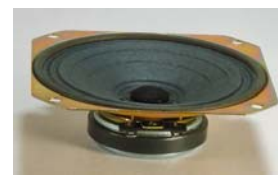
A32S



DC32S



DC4S



AC231S



A23S



DC23S



DC26S



DC35S



EC46S-4



MODEL	SIZE / SHAPE	MAGNET WEIGHT OUNCES	POWER MAX WATTS	POWER RATED WATTS	DIAMETER MOUNTING INCHES	DEPTH INCHES	IMPEDANCE RATED OHMS	FREQUENCY RANGE Hz	SENSITIVITY 1WATT/METER dB SPL
A22S	2-1/2" SQ	0.53	8	4	2-15/16	1-7/32	8	260 - 8,000	84
DC22S	2-1/2" SQ	2.5	12	6	2-15/16	1-5/32	8	260 - 8,000	89
AC231S	2"x3" OVAL	0.7	6	3	1-1/2 x 2-7/32	15/16	8	400 - 10,000	86
A23S	2"x3-3/4" OVAL	0.53	8	4	1-1/2x3-1/4	1-5/32	8	250 - 8,000	84
DC23S	2"x3-3/4" OVAL	2.5	12	6	1-1/2x3-1/4	1-1/5	8	250 - 8,000	89
DC26S	2"x6" OVAL	2.5	8	4	1-14/16x4-3/4	1-9/16	8	280 - 8,000	93
A3S	3" SQ	0.53	8	4	3-3/8	1-1/4	8	250 - 8,000	87
DC3S	3" SQ	2.5	12	6	3-3/8	1-7/32	8	250 - 8,000	92
A32S	3-1/2" SQ	0.53	8	4	3-15/16	1-11/32	8	220 - 10,000	88
DC32S	3-1/2" SQ	2.5	12	6	3-15/16	1-5/16	8	220 - 10,000	93
DC35S	3"x5" OVAL	2.5	12	6	2-9/16x3-9/16	1-1/2	8	200 - 10,000	93
DC4S	4" SQ	2.5	12	6	4-11/16	1-13/32	8	140 - 9,000	88
EC46S-4	4"x6" OVAL	3	12	6	20 holes	1-23/32	4	130 - 8,000	92

Voice Coil Impedance: 8 ohms at 1000 Hz. If 4, 16, 32, or 45 ohms are required, add the impedance to the model number as a suffix.

Example: "DC3S-45" for 45 ohms.

Voice Coil Construction: High-temperature copper wire precision-wound on aluminum voice coil forms provides maximum structural strength, heat dissipation, and resistance to environmental effects.

Magnet Type: Strontium-ferrite, except models beginning with letter "a", which contain Alnico 5.

Cone Material: Molded paper.

3-1/2" SPEAKER FOR VOICE COMMUNICATIONS

DCM-3

- Completely Waterproof
- Durable Construction
- High Intelligibility
- Black Enamel Finish



SPECIFICATIONS				
VOICE COIL IMPEDANCE:	8	OHMS +/-15% AT	1000 Hz	(1 VOLT)
RESONANCE (fo):	300	Hz +/-15%		(1 VOLT)
SENSITIVITY:	92	dB +/-5dB		(1 W, 1 METER)
FREQUENCY RANGE:	270	Hz TO	6,500	Hz +/-6dB
RATED POWER:	6	WATTS		
PROGRAM POWER:	12	WATTS		
ENCLOSURE	20 ga. ACOUSTICALLY DAMPED STEEL, BLACK POWDER COAT ENAMEL			
MAGNET MATERIAL:	STRONTIUM FERRITE			
MAGNET WEIGHT:	2.4 OUNCES			
MOUNTING:	VERSATILE GIMBAL BRACKET OR QUICK-MOUNT KEYHOLE IN BACK OF ENCLOSURE			
FLUX DENSITY:	10,000 GAUSS			
TERMINAL:	SCREW TERMINAL LUGS			
CONE CONSTRUCTION:	VINYL IMPREGNATED LINEN			
VOICE COIL PROTECTION:	VOICE COILS ARE PROTECTED FROM FERROUS AND NON-FERROUS PARTICLES BY "SEALED-LINEAR" DESIGN			
WATER RESISTANCE:	TOTAL IMMERSION FOR 96 HOURS WITH OUT DETERIORATION OF SOUND QUALITY.			
AMBIENT OPERATING TEMPERATURE	-67 F (-55 C) TO + 185 F (+85 C)			

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The loudspeaker shall be a 3.5" speaker for voice communications, and shall meet the following physical specifications: Size: 4" square, 20 ga. steel enclosure. Black powder coat enamel. Depth: 2-5/8". Weight: 1-1/2 lbs. L.F. Cone Construction: Vinyl impregnated cloth. The loudspeaker shall meet the following electrical specifications: Magnet Circuit Type: SEALED-LINEAR, 2.4 oz. ferrite, Flux Density: 10,000 Gauss. Voice Coil Diameter: 9/16". Rated Impedance: 8 ohms. Rated Program Material Power: 12 watts. Rated Power (RMS): 6 watts. The loudspeaker shall meet the following acoustical specifications: Sensitivity: 92 dB SPL. Resonance: 300 Hz. Frequency Response: 270 to 6,500 Hz (+/-5 DB).

The loudspeaker shall be MISCO Model DCM-3, voice range loudspeaker.



Specifications subject to change without notice

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3-1/2" SPEAKER FOR VOICE COMMUNICATIONS

T5977

- Completely Waterproof
- Durable Construction
- High Intelligibility
- Beige Enamel Finish



SPECIFICATIONS				
VOICE COIL IMPEDANCE:	8	OHMS +/-15% AT	1000 Hz	(1 VOLT)
RESONANCE (fo):	300	Hz +/-15%		(1 VOLT)
SENSITIVITY:	92	dB +/-5dB		(1 W, 1 METER)
FREQUENCY RANGE:	270	Hz TO	6,500 Hz +/-6dB	
RATED POWER:	6	WATTS		
PROGRAM POWER:	12	WATTS		
ENCLOSURE	20 ga. ACOUSTICALLY DAMPED STEEL, BEIGE POWDER COAT ENAMEL			
MAGNET MATERIAL:	STRONTIUM FERRITE			
MAGNET WEIGHT:	2.4 OUNCES			
MOUNTING:	VERSATILE GIMBAL BRACKET OR QUICK-MOUNT KEYHOLE IN BACK OF ENCLOSURE			
FLUX DENSITY:	10,000 GAUSS			
TERMINATION:	14" BLACK ZIP CORD			
CONE CONSTRUCTION:	VINYL IMPREGNATED LINEN			
VOICE COIL PROTECTION:	VOICE COILS ARE PROTECTED FROM FERROUS AND NON-FERROUS PARTICLES BY "SEALED-LINEAR" DESIGN			
WATER RESISTANCE:	TOTAL IMMERSION FOR 96 HOURS WITH OUT DETERIORATION OF SOUND QUALITY.			
AMBIENT OPERATING TEMPERATURE	-67 F (-55 C) TO + 185 F (+85 C)			



ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The loudspeaker shall be a 3.5" speaker for voice communications, and shall meet the following physical specifications: Size: 4" square, 20 ga. steel enclosure. Beige powder coat enamel. Depth: 2-5/8". Weight: 1-1/2 lbs. L.F. Cone Construction: Vinyl impregnated cloth. The loudspeaker shall meet the following electrical specifications: Magnet Circuit Type: SEALED-LINEAR, 2.4 oz. ferrite, Flux Density: 10,000 Gauss. Voice Coil Diameter: 9/16". Rated Impedance: 8 ohms. Rated Program Material Power: 12 watts. Rated Power (RMS): 6 watts. The loudspeaker shall meet the following acoustical specifications: Sensitivity: 92 dB SPL. Resonance: 300 Hz. Frequency Response: 270 to 6,500 Hz (+/-5 DB).

The loudspeaker shall be MISCO Model T5977, voice range loudspeaker.

Specifications subject to change without notice

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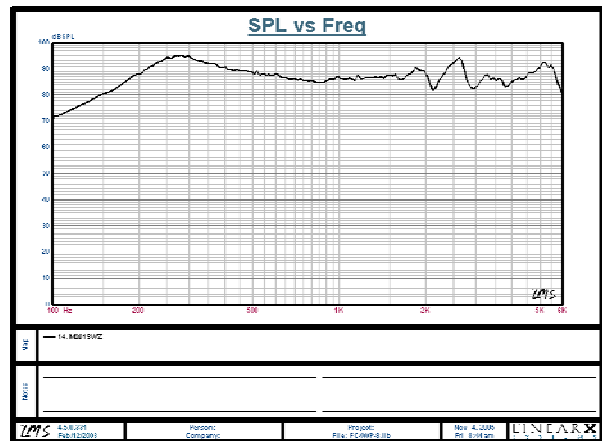
5" FLUSH MOUNT AUDIO EXTENSION SPEAKER

- 5" Square in Rugged White Marine Enclosure
 - Mounts to Bulk Head
- Durable, UV and Water Resistant Material Construction
 - High Intelligibility Audio Reproduction
 - 4 - 8 ohm Impedance Matches Most Radios
 - 8 Feet Zip Cord With 1/8" Phone Plug
- All Stainless Steeling Mounting Hardware Included
 - **MADE in the USA**



SPECIFICATIONS

VOICE COIL IMPEDANCE:	4 OHMS +/-15% A	1000 Hz	(1 VOLT)
RESONANCE (fo):	150 Hz +/-15%		(1 VOLT)
SENSITIVITY:	86 dB +/-5dB		(1 W, 1 METER)
FREQUENCY RANGE:	150 Hz TO	6,000 Hz +/-6dB	
RATED POWER:	6 WATTS		
PROGRAM POWER:	12 WATTS		
MAGNET MATERIAL:	STRONTIUM FERRITE		
MAGNET WEIGHT:	3.0 OUNCES		
CONE CONSTRUCTION:	VINYL IMPREGNATED CLOTH		
VOICE COIL PROTECTION:	VOICE COILS ARE PROTECTED FROM FERROUS AND NON-FERROUS PARTICLES BY "SEALED-LINEAR" DESIGN		
MOUNTING:	FLUSH MOUNT USING 8-32 STUDS AND KNOBS		
CONNECTION:	8", 18 GAUGE WHITE ZIP CORD WITH 1/8" PLUG		
ENCLOSURE	WHITE UV RESISTANT ABS, PLASTIC		
WATER RESISTANCE:	TOTAL IMMERSION FOR 96 HOURS WITH OUT DETERIORATION OF SOUND QUALITY.		
AMBIENT OPERATING TEMPERATURE	-67 F (-55 C) TO + 185 F (+85 C)		



Specifications subject to change without notice

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VOICE COMMUNICATIONS AND BACKGROUND MUSIC FOR BUS, SUBWAY, TRAIN, AND STATION PLATFORMS

- Custom tailored paging response
- Dual voice coil models for supervised circuits
- Available flame retardant
- Custom terminal boards and wiring for .250 quick connections commonly used
- Sizes: 2.5" - 8"
- Shapes: Round, Square, Pin Cushion, Oval
- Magnets: Alnico, Ferrite, and Neodymium
- Impedance: 2 - 100 ohm
- Voice Coil: Dual impedance available
- Small Signal Parameters Available



DC32S-16-16
DC32WI-4-8
DC32WI-88



DC32WI



DC22WP
DC22S



DC4S
DC4WP



FC4S



JC4C



JC5FD



JC5WP



FC6S
FC6S-FR
FC6S-4FR



N9870-2



JC62S-4T70



JC8WP-4T70



JC80WP-4T70



JC410CD-4T70



N9900

MODEL	SIZE / SHAPE	SPEAKER RANGE OPTIMUM	MAGNET WEIGHT OUNCES	CONE BODY	CONE EDGE	CONE TREAT	POWER MAX WATTS	POWER RATED WATTS	DIAMETER MOUNTING INCHES	DEPTH TOTAL INCHES	IMPEDANCE RATED OHMS	FREQUENCY RESONANT Hz	FREQUENCY RANGE Hz	SENSITIVITY 1 WATT/METER dB
DC22S	2.5 SQ	VOICE	2.4	PAPER	PAPER	RESISTANT	8	4	2.937	1.16	8	400	260 - 8,000	89
DC22WP	2.5 SQ	VOICE	2.4	PAPER	CLOTH	WATERPROOF	8	4	2.937	1.16	8	450	300 - 8,000	88
DC32S-16-16	3.5 SQ	VOICE	2.4	PAPER	PAPER	RESISTANT	8	4	3.937	1.31	16 / 16	200	220 - 10,000	93
DC32WI	3.5 SQ	VOICE	2.4	CLOTH	CLOTH	WATERPROOF	8	4	3.937	1.31	8	300	270 - 6,500	92
DC32WI-4/8	3.5 SQ	VOICE	2.4	CLOTH	CLOTH	WATERPROOF	8	4	3.937	1.31	4 / 8	300	270 - 6,500	90
DC32WI-88	3.5 SQ	VOICE	2.4	CLOTH	CLOTH	WATERPROOF	8	4	3.937	1.31	8 / 8	300	270 - 6,500	90
DC4S	4 SQ	VOICE	2.4	PAPER	PAPER	RESISTANT	8	4	4.687	1.41	8	150	140 - 9,000	88
DC4WP	4 SQ	VOICE	2.4	CLOTH	CLOTH	WATERPROOF	8	4	4.687	1.41	8	200	180 - 8,000	93
FC4S	4 SQ	VOICE	4.8	PAPER	PAPER	RESISTANT	24	12	4.687	1.58	8	180	140 - 10,000	95
JC4C	4 SQ	FULL	10	PAPER	CLOTH	RESISTANT	30	15	4.687	2.00	8	90	75 - 12,000	92
JC5FD	5 RD	FULL	10	PAPER	CLOTH	RESISTANT	30	15	4.687	2.07	8	85	60 - 12,000	93
JC5WP	5 RD	VOICE	10	CLOTH	CLOTH	WATERPROOF	30	15	4.687	2.07	8	200	120 - 8,000	95
FC6S	6 PIN	FULL	4.8	PAPER	PAPER	RESISTANT	24	12	6.187	2.19	8	110	60 - 16,000	94
FC6S-FR	6 PIN	FULL	4.8	PAPER	PAPER	FLAMEPROOF	24	12	6.187	2.19	8	110	70 - 16,000	94
FC6S-4FR	6 PIN	FULL	4.8	PAPER	PAPER	FLAMEPROOF	24	12	6.187	2.19	4	110	70 - 12,000	94
N9870-2	6 PIN	FULL	4.8	PAPER	PAPER	RESISTANT	24	12	6.187	2.19	8	110	70 - 16,000	94
JC62S-4T70	6.5 RD	FULL	10	PAPER	PAPER	RESISTANT	30	15	6.187	4.00	70 volt	100	60 - 16,000	96
JC8WP-4T70	8 RD	FULL	10	CLOTH	CLOTH	WATERPROOF	30	15	7.625	3.00	70 volt	95	50 - 8,000	94
JC80WP-4T70	8 RD	EXTENDED	10	CLOTH	CLOTH	WATERPROOF	30	15	7.625	3.00	70 volt	95	50 - 18,000	93
JC410CD-4T70	4 X 10	FULL	10	PAPER	PAPER	RESISTANT	30	15	3.25 x 6.875	2.31	70 volt	120	100 - 15,000	96
N9900	4 SQ	VOICE	0.41	CLOTH	CLOTH	WATERPROOF	-	5	Bracket	2.70	70 volt	300	270 - 6,500	92

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TYPICAL APPLICATIONS:

- [] Home patios & poolsides
- [] Business walkways
- [] Theme parks
- [] Hotel atriums and gardens
- [] Golf courses
- [] Restaurant patio dining
- [] Rooftop gardens
- [] Church entrance ways

These omni-directional outdoor speakers are designed for applications where smooth coverage, hidden audio is required. Rugged and built to be buried in any terrain, Mushroom® Speakers provide a music source that blends into the landscape. The sound radiates in a complete circle, creating a uniform 360° audio field without loud or dead spots.

The ATS-360 is a high-efficiency, high-reliability model suitable for most low-powered residential and commercial music and paging applications.

The ATS-360 Plus has a two-way, coaxial speaker that offers improved frequency response and higher power handling capability. This model is ideal for installations where loud or wide-range music is required.

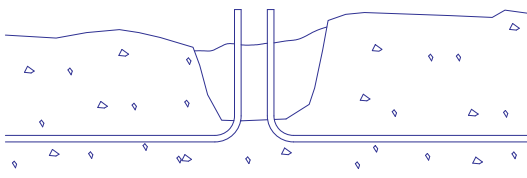
Both models are available in foliage green or bark brown, and several connection options are available. Enclosures carry a full five year warranty, limited warranty on speakers.

ATS-360 LOUDSPEAKER DATA

ITEM	ATS-360	ATS-360 Plus
Loudspeaker	8" Full Range	6½" Coaxial, two way
Speaker Material	Polypropylene	Polypropylene
Enclosure Material	Polyethelyne	Polyethelyne
Nominal Impedance	8 ohm	8 ohm
Coverage Angle	360° Horizontal x 40° Vertical	360° Horizontal x 40° Vertical
System Frequency Response	60Hz to 10kHz	40Hz to 18kHz
Sensitivity (Average SPL @ 1W 1M)	92 dB	90dB
Average Power	25 Watts	40 Watts
Peak Power	50 Watts	80 Watts
Loudspeaker Warranty	3 years	1 year
Enclosure Warranty	5 years	5 years
Shipping Weight with Transformer	9 lbs.	14 lbs.
Shipping Size	11" x 11" x 16"	11" x 11" x 16"
Connection Method	3/4" Conduit fitting	3/4" Conduit fitting
Options	Bark Brown or Foliage Green, 70V Transformer @ 1, 2, 4, 8 W Taps	

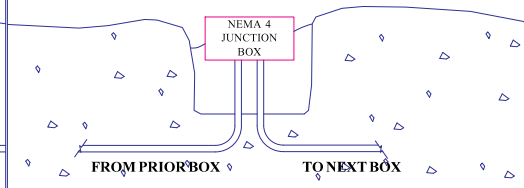
FACILITY PREPARATION

BURY CONDUIT BETWEEN GARDEN LOCATIONS
LEAVE ADEQUATE LENGTH ABOVE GRADE



WIRING INSTALLATION

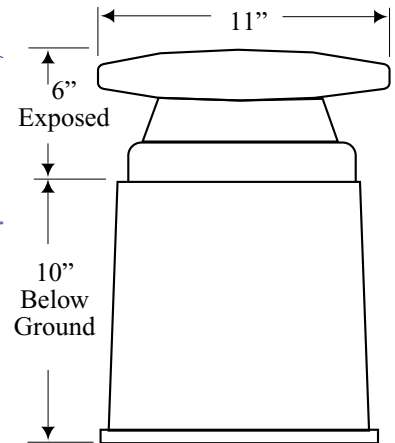
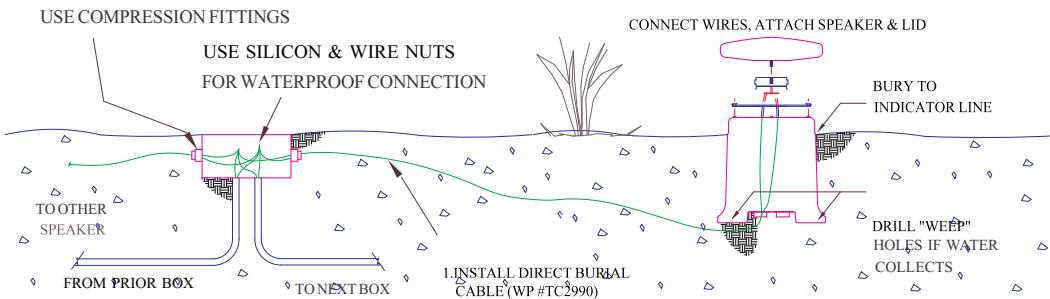
INSTALL WEATHER PROOF JUNCTION BOX NEAR
EACH GROUP OF SPEAKERS-INSTALL WIRE
BETWEEN THE JUNCTION BOXES AND AMPLIFIERS



SPEAKER INSTALLATION

AT JUNCTION FOR CABLES

DO NOT INSTALL NEXT TO SPRINKLERS!
PLACE SPEAKERS IN SHRUBS OR ANNUAL GARDENS
FOR BEST APPEARANCE, AVOID LAWN AREAS



Installation Recommendations:

The ATS-360 (and 360 Plus) should be installed in garden areas where foliage can hide the speaker. To extend the life of the speakers, protect them from direct spray on the grill from irrigation or other sources. Place the speakers six to ten feet back from walkways and approximately twenty feet apart for even sound coverage. The enclosure comes with a 3/4" threaded fitting for connection to PVC conduit, or a direct burial cable may be used.

Both ATS-360 models are water resistant, however the loudspeaker warranty does not cover damage caused by continuous or repeated contact with water or salt spray.

SoundScape®

P.O. Box 1563, Windermere, Florida 34786

Phone: (407) 876-6884 [] Fax: (407) 876-1463

8" ROUND EXTENDED RANGE COAXIAL SPEAKER

by MISCO



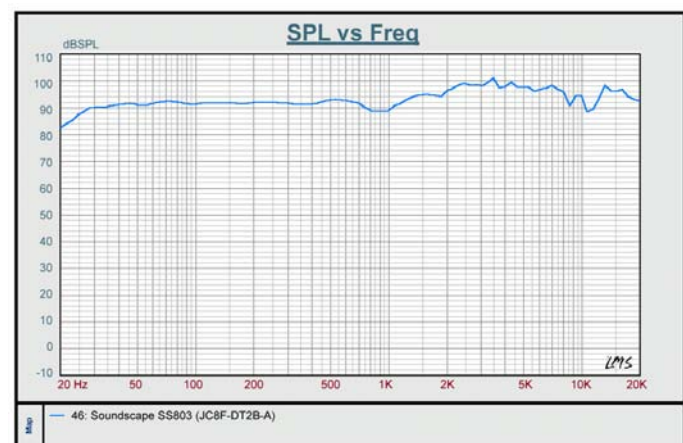
The SS803 is a high quality, full range-(coaxial), eight inch loudspeaker manufactured for commercial and residential applications. The SS803 speaker offers excellent frequency response, low distortion, and high output for systems that require high quality music and clear speech playback.

As an up-grade, this speaker can improve the sound quality of commercial systems, and is also a direct replacement for most other 8 inch speakers.

For new music and paging systems, the SS803 offers an excellent cost performance solution wherever high fidelity, high efficiency, and reliable sound playback are needed.

Typical Applications

- Meeting Rooms for ceiling installation where clear speech is required.
- Home Entertainment – Foreground Music from recessed ceilings or walls.
- Restaurants, Hotels, and Offices for Music and Paging.
- Up-grade and replacement of ceiling speakers in all commercial installations.



Performance Specifications

Frequency Response	40 Hz to 18 kHz ± 5 dB
Power Rating	30 Watts EIA, 16 Watts RMS
Max RMS Loudness @ 1 M –16 Watts	104 dB
Impedance	8 Ohms
Sensitivity	92 dB 1 W/ 1 M (rms)
Dispersion – Intelligibility Band	90 degrees @ 2 KHz
Depth	3.25 inches
Width	8 inches

Mounting Holes	Four holes equally spaced, 7 5/8 inch
Weight	3 Lbs.
Cone Material	Treated paper body, with Polyether foam edge
Tweeter	2 Inch Polycarbonate dome – post mounted
Voice Coil Diameter	1 Inch
Magnet Weight	10 oz
Flux Density	11,000 Gauss

Options

25V/70V/100V Input Transformers: Multi-tap 4watt, 8 watt and 16 Watt

Enclosures/ grills: Commercial enclosures and grills available in a variety of styles.

Pricing

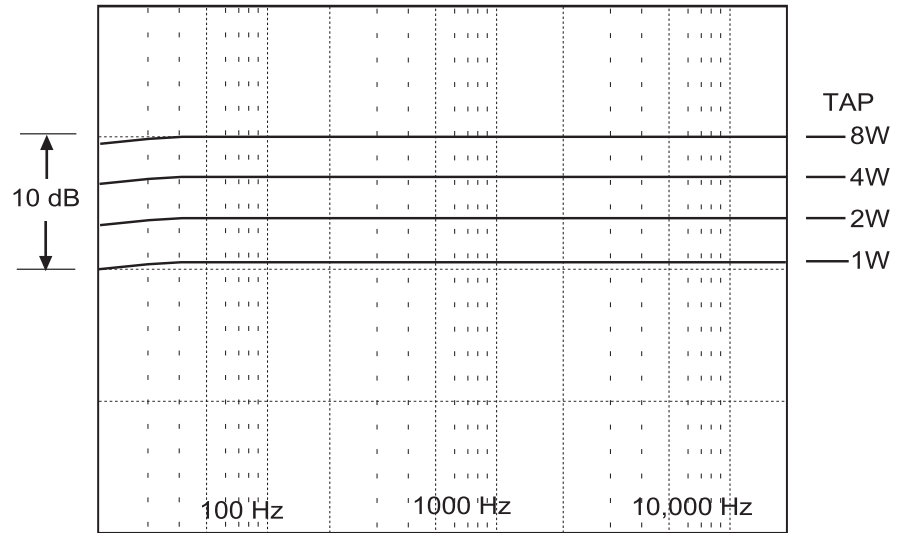
SS803 Retail Price \$30

SS803T8 Retail Price \$34

Special pricing for dealers, resellers and quantity purchases.

SS803

Typical Transformer Response Curve



Transformer Option Specifications

Part #	Wattage Taps	Freq. Response	Insertion Loss	Atlas Equiv	Lowell Equiv
T4	1/2, 1, 2, 4 Watt	±1 dB –60 Hz –12kHz	1 dB	HT-47	TLM470
T8	1,2, 4, 8 Watt	±1 dB –50 Hz –15kHz	1 dB	HT-87	TLM870
T16	4, 8, 16	±1 dB –40 Hz –12kHz	1 dB	HT-167	TLM1670

Replacement/ Upgrade guidelines

For customers who are replacing or upgrading existing 8 inch speakers please follow these steps:

1. Remove a sample of the existing speaker, and measure the distance across the face of speaker between the centers of two mounting holes.
2. If the speaker has a transformer attached, check input wires and record the input voltage & wattage tap value that is used. This typically should be 70 volt or 25 volt input, and wattage values anywhere from 1/2 watt to 16 watt.
3. Check the chart below to confirm mounting holes will match, and select the correct transformer option if required.

Mounting holes Distance	7 5/8 Inch
Transformer Input Voltage	25 V or 70 V- (70 Volt is the Default value)
Input wattage 1/2, 1, 2, 4	Order 4Watt transformer- SS803-T4
Input wattage 1, 2, 4, 8	Order 8 Watt transformer –SS803-T8
Input Wattage 4,8, 16	Order 16 Watt Transformer – SS803-T16

Direct Equivalent Products and Up-grade Chart

Manufacturer	SS803 Replaces
Altec Lansing	308, 309, 408, 409, all other 8 inch Ceiling products.
Atlas- Soundolier	C803, C10, CF883
Bogen	S86 Series, S810 Series
CDK	CX-801, CX-802
Dukane	5A403, 5A531, 5A606, 5A607
Lowell	CT-8320, CT-830, 8C10W, 8C10, 8C51W
Quam	8C10CO, 8C10FECO, 8C10Z45, 8C10PAX

Note: Product names may have trademark rights owned by the respective companies.

SoundScape®

P.O. Box 1563, Windermere, FL34786 ■ Ph: 407-876-6884 ■ Fax: 407-876-1463 ■ www.Soundscape.com

3.75 and 4 Inch Direct Radiating Tweeters

- High Frequency and Voice Applications
- High Impact, High Temperature Plastic
- Light Weight
- Excellent Transient Response and Low Distortion
- High Impedance
- Long Term Reliability

High Frequency and Voice Applications

MP-1034 and MP-1036 use light weight paper cones and are designed for high frequency tweeters in Professional, Commercial, Automotive and Home Audio. MP-1036 includes a perforated plastic grille to protect the cone. MP-1103 is designed for voice communications and includes a phenolic cone for outdoor or difficult environments.

High Impact, High Temperature Plastic

MP-1034, MP-1036, and MP-1103 are made of special high impact plastic designed to tolerate extremely temperatures variations. MP-1103 includes a high temperature phenolic cone.

Light Weight

The use of a piezo ceramic driver reduces the problems caused by size, weight, and stray magnetic fields of conventional dynamic speakers.

Excellent Transient Response and Low Harmonic Distortion

Pure response with minimal ringing provides "clean," pure sound with low harmonic distortion.

High Impedance

Over 1,000 ohms at 1kHz, and still above 20 ohms at 40 kHz, the piezo ceramic speaker adds no added load to the amplifier and filters low frequency power without needing a crossover network.

Long Term Reliability

MISCO piezo ceramic speakers are resistant to normal humidity variations and unaffected by a variety of external shock, vibration, and stress conditions. As a result of these driver improvements, MISCO piezo ceramic speakers are designed for quality performance as long as these devices are installed within their design specifications.

3.75", No Grille

MP-1034



3.75", With Grille

MP-1036

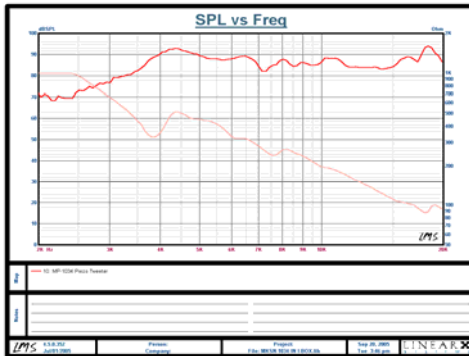


4", No Grille

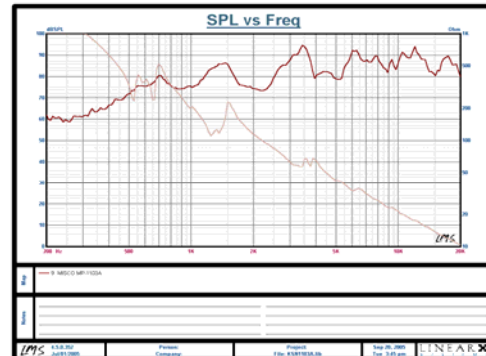
MP-1103



MP-1034 AND MP-1036



MP-1103



Model	Size / Shape	Mounting Diameter	Speaker Range Optimum	Cone Body	Grille	Power Rated Watts	Depth Total Inches	Impedance Rated Ohms	Frequency Range Hz	Sensitivity Average 2.83Volts/Meter dB SPL
MP-1034	3.75"	3.38"	Tweeter	Paper	None	50	0.75	1 k ohm	3k - 40k	90
MP-1036	3.75"	3.38"	Tweeter	Paper	Plastic	50	0.75	1 k ohm	3k - 40k	90
MP-1103	4"	3.63"	Voice	Phenolic	None	50	0.73	1 k ohm	450 - 20kHz	80

6 PANEL MULTI-COLORED PROPELLER CAP

GEEK CAP

- One Geek Fits All
- Unique Aerodynamic Feature that Glows in the Dark
- Matches any Outfit
- Identifies You as an Official Speaker Geek



**Yours for
 only
 \$14.95!**
 (You're a real
GEEK
 if you think the
 speakers are included!)

SPECIFICATIONS	
CONE CONSTRUCTION:	6-PANEL BRUSHED COTTON TWILL
COLOR:	ORANGE, RED, PURPLE, BLUE, GREEN, AND YELLOW ALL IN ONE CAP
DIAMETER:	ELASTIC BAND IN THE BACK
SIZES:	LARGE, X-LARGE
ACCESSORIES:	. GLOW IN THE DARK PROPELLER . STAR (TO DRAW UNWANTED ATTENTION) . COLORED BEADS (LIKE IN THE 60's) . BEAST (TO BRING THE ANIMAL OUT IN YOU)
MARKINGS:	IDENTIFIES YOUR STATUS AS A SPEAKER GEEK
MAGNETIZATION:	DON'T GET THE PROPELLER CONFUSED WITH A COMPASS

TECHNICAL SPECIFICATIONS

This specially designed cap is manufactured for the speaker geek in you, and shall meet the following physical specifications: Bald-head Diameter: 6-1/2". Big Hair Diameter: 9". Depth: 4-1/2". Depth including Propeller: 6-1/2". Weight: Not more than your head can stand. Cone Construction: 6-Panel brushed cotton twill, multi-colored to match any outfit. The cap shall meet the following electrical specifications: Propeller Type: Glow in the dark, flimsy plastic. Flux Density: Only a GEEK could measure this. Voice Coil Diameter: It's a wire! Rated Impedance: Depends on Your IQ. Rated Program Material Power: Depends on the wind. Force Factor: Wind x hot air. The cap shall meet the following acoustical specifications: Sensitivity (aka Razz Factor): High. Resonance: Many Hurts. Frequency Response: High pitch laughter. Cross-over Frequency: Depends on who you want to share it with. Dispersion Angle: 360 degrees at any frequency.

The cap shall be MISCO SPEAKER GEEK, Multi-colored Propeller Cap.

Specifications subject to change without notice



MISCO/Minneapolis Speaker Co., Inc.

2637 32nd Avenue South
Minneapolis, MN 55406

PHONE: (612) 825-1010 FAX: (612) 825-7010

WEBSITE: <http://www.miscospeakers.com>

E-MAIL: info@miscospeakers.com