F-122CU (UL Listed)
The overhead music/paging speaker shall be a full-range bass-reflex enclosure type suitable for ceiling mounting, incorporating a 4.72” (12 cm) cone-type speaker and a wide-dispersion acoustical diffusor. The speaker shall be UL listed for Fire Protective, General Purpose Signaling and Air Handling Spaces, under UL standards 1480 and 2043. The speaker shall be designed for use with a dedicated, active, line-level signal processor providing electronic optimization of response shape while allowing acoustic optimization of dispersion and efficiency.

The speaker shall be compatible with low and high impedance speaker systems and include a built-in 25/70.7 V matching transformer. The front baffle shall have screwdriver-adjustable tap settings of: 30 W, 15 W, 5 W, 1.5 W, and 0.5 W for 70.7 V operation; and 3.7 W, 1.9 W, 0.6 W, 0.2 W, and 0.06 W for 25 V operation; plus settings for 16 ohm and direct 8 ohm operation. Built-in overload protection circuitry shall protect the speaker against excessive input power.

The output sound pressure level at a distance of 1 m with 1 W of input power applied shall be 90 dB SPL. The rated power handling (Continuous Program) shall be 120 W at 8 ohms, 60 W at 16 ohms, and 30 W when used with a 70.7 V line system. The speaker shall have a frequency response range from 70 to 20k Hz and a nominally hemispherical coverage pattern. Speaker directivity shall be less than Q = 12 for all ISO 1/3-octave bands up to 16k Hz, and less than Q = 6 for all ISO 1/3-octave bands from 3.15k to 10k Hz, when measured in a half-space anechoic environment using 1/3-octave band-limited pink noise.

The speaker baffle shall be made of fire-resistant ABS resin. The rear enclosure shall be made from a single piece of steel plate. The grille shall be white painted steel plate with fire-resistant ABS resin trim and shall be field re-paintable. Instructions for re-painting the grille shall be included in the speaker package. The speaker shall be equipped with a removable locking connector having two screw-down input terminals and two bridging screw-down pass-through terminals.

The speaker shall be no greater than 9.1” outside diameter shall require a circular cutout no greater than 8”, and shall be capable of mounting in surfaces up to 1.46” thick. The rear enclosure shall extend no more than 7.9” above the mounting plane. The speaker shall weigh no more than 8.16 lbs.

The overhead music/paging speaker shall be TOA model F-122CU.
The dedicated electronic signal processor shall be TOA model E-03R or AC-120.
The tile bridge for drop ceiling installation shall be TOA model HY-TB1.
The trim-ring for covering oversized holes (9” to 11.8”) shall be TOA model HY-TR1.
The black painted rear enclosure for exposed ceiling installation shall be TOA model HY-BC1.

F-2352C
The overhead music/paging speaker shall be a two-way bass-reflex enclosure type suitable for ceiling mounting. The low frequency component shall be a 4.72” (12 cm) cone-type speaker and the high frequency component shall be a 1” (2.5 cm) balanced-dome tweeter.

The speaker shall be compatible with low and high impedance speaker systems and include a built-in 25/70.7/100 V matching transformer. The front baffle shall have screwdriver-adjustable tap settings of: 30 W, 15 W, 5 W, 1.5 W, and 0.5 W for 70.7 V operation; 3.7 W, 1.9 W, 0.6 W, 0.2 W, and 0.06 W for 25 V operation; and 30 W, 10 W, 3 W, and 1 W for 100 V operation; plus settings for 16 ohm and direct 8 ohm operation. Built-in overload protection circuitry shall protect the speaker against excessive input power.

The output sound pressure level at a distance of 1 m with 1 W of input power applied shall be 90 dB SPL. The rated power handling (Continuous Program) shall be 120 W at 8 ohms, 60 W at 16 ohms, and 30 W when used with a 70.7, or 100 V line system. The speaker shall have a frequency response range from 70 to 20k Hz. Speaker directivity shall be less than Q = 8 for all ISO 1/3-octave bands up to 4k Hz when measured in a half-space anechoic environment using 1/3-octave band-limited pink noise.

The speaker baffle shall be made of fire-resistant ABS resin. The rear enclosure shall be made from a single piece of steel plate. The grille shall be white painted steel plate with fire-resistant ABS resin trim and shall be field re-paintable. Instructions for re-painting the grille shall be included in the speaker package. The speaker shall be equipped with a removable locking connector having two screw-down input terminals and two bridging screw-down pass-through

terminals.

The speaker shall be no greater than 9.1” outside diameter shall require a circular cutout no greater than 8”, and shall be capable of mounting in surfaces up to 1.46” thick. The rear enclosure shall extend no more than 7.9” above the mounting plane. The speaker shall weigh no more than 8.16 lbs.

The overhead music/paging speaker shall be TOA model F-2352C.
The tile bridge for drop ceiling installation shall be TOA model HY-TB1.
The trim-ring for covering oversized holes (9” to 11.8”) shall be TOA model HY-TR1.
The black painted rear enclosure for exposed ceiling installation shall be TOA model HY-BC1.

F-2852C
The overhead music/paging speaker shall be a two-way bass-reflex enclosure type suitable for ceiling mounting. The low frequency component shall be a 6.3” (16 cm) cone-type speaker and the high frequency component shall be a 1” (2.5 cm) dome tweeter.

The speaker shall be compatible with low and high impedance speaker systems and include a built-in 25/70.7/100 V matching transformer. The front baffle shall have screwdriver-adjustable tap settings of: 60 W, 30 W, 15 W, 7.5 W, and 1.5 W for 70.7 V operation; 7.5 W, 3.7 W, 1.9 W, 0.9 W, and 0.2 W for 25 V operation; and 60 W, 30 W, 15 W, and 3 W for 100 V operation; plus settings for 16 ohm and direct 8 ohm operation. Built-in overload protection circuitry shall protect the speaker against excessive input power.

The output sound pressure level at a distance of 1 m with 1 W of input power applied shall be 91 dB SPL. The rated power handling (Continuous Program) shall be 180 W at 8 ohms, 120 W at 16 ohms, and 60 W when used with a 70.7, or 100 V line system. The speaker shall have a frequency response range from 60 to 20k Hz. Speaker directivity shall be less than Q = 12 for all ISO 1/3-octave bands up to 4k Hz when measured in a half-space anechoic environment using 1/3-octave band-limited pink noise.

The speaker baffle shall be made of fire-resistant ABS resin. The rear enclosure shall be made from a single piece of steel plate. The grille shall be white painted steel plate with fire-resistant ABS resin trim and shall be field re-paintable. Instructions for re-painting the grille shall be included in the speaker package. The speaker shall be equipped with a removable locking connector having two screw-down input terminals and two bridging screw-down pass-through terminals.

The speaker shall be no greater than 11.1” outside diameter shall require a circular cutout no greater than 10”, and shall be capable of mounting in surfaces up to 1.46” thick. The rear enclosure shall extend no more than 7.9” above the mounting plane. The speaker shall weigh no more than 11.24 lbs.

The overhead music/paging speaker shall be TOA model F-2852C.
The tile bridge for drop ceiling installation shall be TOA model HY-TB1.

F-2322C
The overhead music/paging speaker shall be a full-range bass-reflex enclosure type suitable for ceiling mounting, incorporating a 4.72” (12 cm) cone-type speaker.

The speaker shall be compatible with low and high impedance speaker systems and include a built-in 25/70.7/100 V matching transformer. The front baffle shall have screwdriver-adjustable tap settings of: 30 W, 15 W, 5 W, 1.5 W, and 0.5 W for 70.7 V operation; 3.7 W, 1.9 W, 0.6 W, 0.2 W, and 0.06 W for 25 V operation; and 30 W, 10 W, 3 W, and 1 W for 100 V operation; plus settings for 16 ohm and direct 8 ohm operation. Built-in overload protection circuitry shall protect the speaker against excessive input power.

The output sound pressure level at a distance of 1 m with 1 W of input power applied shall be 90 dB SPL. The rated power handling (Continuous Program) shall be 120 W at 8 ohms, 60 W at 16 ohms, and 30 W when used with a 70.7, or 100 V line system. The speaker shall have a frequency response range from 70 to 20k Hz. Speaker directivity shall be less than Q = 6 for all ISO 1/3-octave bands up to 4k Hz when measured in a half-space anechoic environment using 1/3-octave band-limited pink noise.

The speaker baffle shall be made of fire-resistant ABS resin. The rear enclosure shall be made

from a single piece of steel plate. The grille shall be white painted steel plate with fire-resistant ABS resin trim and shall be field re-paintable. Instructions for re-painting the grille shall be included in the speaker package. The speaker shall be equipped with a removable locking connector having two screw-down input terminals and two bridging screw-down pass-through terminals.

The speaker shall be no greater than 9.1” outside diameter, shall require a circular cutout no greater than 8”, and shall be capable of mounting in surfaces up to 1.46” thick. The rear enclosure shall extend no more than 7.9” above the mounting plane. The speaker shall weigh no more than 8.16 lbs.

The overhead music/paging speaker shall be TOA model F-2322C.
The tile bridge for drop ceiling installation shall be TOA model HY-TB1.
The trim-ring for covering oversized holes (9” to 11.8”) shall be TOA model HY-TR1.
The black painted rear enclosure for exposed ceiling installation shall be TOA model HY-BC1.

F-2352SC
The overhead music/paging speaker shall be a two-way bass-reflex enclosure type suitable for ceiling mounting. The low frequency component shall be a 4.72” (12 cm) cone-type speaker and the high frequency component shall be a 1” (2.5 cm) balanced-dome tweeter.

The speaker shall be compatible with low and high impedance speaker systems and include a built-in 25/70.7/100 V matching transformer. The front baffle shall have screwdriver-adjustable tap settings of: 6 W, 3 W, 1.5 W, 0.5 W, and 0.25 W for 70.7 V operation; 0.75 W, 0.4 W, 0.2 W, and 0.06 W for 25 V operation; and 6 W, 3 W, 1 W, and 0.5 W for 100 V operation; plus settings for 16 ohm and direct 8 ohm operation.

The output sound pressure level at a distance of 1 m with 1 W of input power applied shall be 89 dB SPL. The rated power handling (Continuous Program) shall be 18 W at 8 ohms, 12 W at 16 ohms, and 6 W when used with a 70.7, or 100 V line system. The speaker shall have a frequency response range from 80 to 20k Hz. Speaker directivity shall be less than Q = 8 for all ISO 1/3-octave bands up to 4k Hz when measured in a half-space anechoic environment using 1/3-octave band-limited pink noise.

The speaker baffle shall be made of fire-resistant ABS resin. The grille shall be white painted steel plate with fire-resistant ABS resin trim and shall be field re-paintable. Instructions for re-painting the grille shall be included in the speaker package. The speaker shall be equipped with a spring-loaded push-in connector having two input terminals and two bridging pass-through terminals.

The speaker shall be no greater than 9.1” outside diameter shall require a circular cutout no greater than 8”, and shall be capable of mounting in surfaces up to 1.46” thick. The rear of the speaker shall extend no more than 4.5” above the mounting plane. The speaker shall weigh no more than 3.31 lbs.

The overhead music/paging speaker shall be TOA model F-2352SC.
The ceiling reinforcement ring for drop ceiling installation shall be TOA model HY-RR2.
The tile bridge for drop ceiling installation shall be TOA model HY-TB1.
The trim-ring for covering oversized holes (9” to 11.8”) shall be TOA model HY-TR1.
The black painted rear enclosure for exposed ceiling installation shall be TOA model HY-BC1.

F-1522SC
The overhead music/paging speaker shall be a full-range bass-reflex enclosure type suitable for ceiling mounting, incorporating a 3.94” (12 cm) cone-type speaker.

The speaker shall be compatible with low and high impedance speaker systems and include a built-in 25/70.7/100 V matching transformer. The front baffle shall have screwdriver-adjustable tap settings of: 6 W, 3 W, and 1.5 W for 70.7 V operation; 0.75 W, 0.4 W, and 0.2 W for 25 V operation; and 6 W and 3 W for 100 V operation; plus settings for 16 ohm and direct 8 ohm operation.

The output sound pressure level at a distance of 1 m with 1 W of input power applied shall be 88 dB SPL. The rated power handling (Continuous Program) shall be 18 W at 8 ohms, 12 W at 16 ohms, and 6 W when used with a 70.7, or 100 V line system. The speaker shall have a frequency response range from 65 to 18k Hz. Speaker directivity shall be less than Q = 8 for all ISO 1/3-

octave bands up to 4k Hz when measured in a half-space anechoic environment using 1/3-octave band-limited pink noise.

The speaker baffle shall be made of fire-resistant ABS resin. The grille shall be white painted steel plate with fire-resistant ABS resin trim and shall be field re-paintable. Instructions for re-painting the grille shall be included in the speaker package. The speaker shall be equipped with a spring-loaded push-in connector having two input terminals and two bridging pass-through terminals.

The speaker shall be no greater than 6.13” outside diameter, shall require a circular cutout no greater than 5.31”, and shall be capable of mounting in surfaces up to 1.46” thick. The rear of the speaker shall extend no more than 4.25” above the mounting plane. The speaker shall weigh no more than 2.2 lbs.

The overhead music/paging speaker shall be TOA model F-1522SC.
The ceiling reinforcement ring for drop ceiling installation shall be TOA model HY-RR1.