

April 23, 2014

Kory Atkinson
Itasca School District 10
200 N. Maple Street
Itasca, IL 60143

Proposed Project: FRANZEN 2014 ADDITION
Existing Rauland Intercom & Master Clock Additions

Dear Kory,

Sound Incorporated is pleased to provide you with this proposal to perform the following scope of work:

- ✓ Furnish appropriate Intercom Back boxes for Electrician to Install
- ✓ Furnish & Install System Cabling
- ✓ Furnish & Install the following Equipment:

<u>Qty.</u>	<u>Part#</u>	<u>DEVICES:</u>	<u>Manufacture:</u>	<u>Rough-In by Electrician:</u>
3	ACC1411	Flush Horn Assembly (Outdoor)	Rauland	X
5	ACC1105	Flush Square Backbox	Rauland	X
7	TCDPB2	Dual Push Button Call Button	Rauland	X
12	ACC1400	Ceiling Speaker Assembly	Rauland	
12	ACC1101	Round Backbox	Rauland	Bathrooms Only
12	ACC1104	Support	Rauland	
2	ACC1003	Square Speaker Baffle (Corridor)	Rauland	
2	USO188	Speaker/Transformer	Rauland	
5	WCA1312AC	13" 24V Clock	Rauland	X
2	ACCWB5VC	Surface Speakers (Lower Level)	Rauland	X
		<u>HEAD-END UPGRADES:</u>		
1	TCSLM	Circuit Card	Rauland	
1	TCCBS1	Connector Cable	Rauland	
1	S66M1-50	66-Block w/Amph Connector	Graybar	
1	2515	24 VAC Power Supply for Clocks	Rauland	
1	WCXATRAN	5 Watt Wireless Transmitter	Rauland	

Proposal Clarifications

1. Pricing based on Conduit, Sleeves, and Flush Box Installation required for this project to be supplied by the successful Electrician.
2. Pricing based on the assumption existing microphone jacks, cabling & Intercom feed cabling are in good working condition. Repair and/or replacement would require a separate work order.
3. We have not included any provisions for any civil work such as cable ducts, poles and AC work.
4. Any necessary AC or circuits required to complete the said work of this contract, will be by Customer or Customer's contractors (others), or through Sound Incorporated as a change order to the contract.

Thank you Kory.

Should you have any question(s), please feel free to contact me at the office. I'd be glad to answer any question you may have.

Respectfully Submitted by:



John May
Sound Incorporated
Main: 630-369-2900 X3199
Direct: 630-718-3199
Fax: 630-369-1211
Email: jmay@soundinc.com

Acceptance of Proposal:

The above specifications, terms and conditions are satisfactory.
You are authorized to do the work as specified

Buyer's Acceptance:

Sound Incorporated's Acceptance:

Accepted by: _____ Accepted by: _____
(Printed name) (Printed name)

Title: _____ Title: _____

Signature: _____ Signature: _____

MODEL: ACC1411 – HORN ASSEMBLY



ACC1411

FEATURES

- Shallow Depth for Easy Mounting
- Baked White Epoxy Finish on a Galvanized, Carbon Steel Baffle for Excellent Durability
- Built-in Driver for up to 16 Watts to Produce a Sound Level up to 121 dB
- Vandal Resistant, 14-Gauge, Carbon Steel Baffle with Tamper Resistant Screws
- Surface or Flush Mount
- Universal 25 / 70 V Line Matching Transformer
- Mar-Proof, Baked Epoxy Finish

SPECIFICATIONS

Horn: **Type:** Double re-entrant
Power Rating: 16 Watts RMS
Frequency Response: 350 to 10,000 Hertz
Sensitivity: 108 dB @ 1W / 1m / 1KHz
Dispersion: 180°
Power Taps: 25 / 70 V - 1, 2, 4, 8, 16 Watts
Impedance:

Tap (Watts)	25 V	70.7 V
1	1,300 Ohm	5,000 Ohm
2	666 Ohm	2,500 Ohm
4	333 Ohm	1,300 Ohm
8	89 Ohm	666 Ohm
16	45 Ohm	333 Ohm

Baffle: **Type:** Square, two-piece construction
Material: 14-gauge, carbon steel
Finish: Baked white epoxy finish
Dimensions: 11.7" (29.6 cm) square
4.0" (10.2 cm) depth
Weight (full assembly): 4.5 lbs (2.0 kg)

Recommended Backbox:

ACC1105 – Flush Mount Square Backbox

ACC1113 – Surface Mount Square Backbox

ACC1114 – Vandal Resistant, Tapered, Surface Mount Square Backbox

DESCRIPTION

With a mounting depth requirement of only 4", the ACC1411 can be used in a much wider range of applications than comparable horns that typically require 6" or more of mounting depth. The shallow depth and baked white epoxy finish allow for an esthetically pleasing installation in most indoor or outdoor environments. The ACC1411 is supplied with four tamper resistant screws to prevent unwanted intrusions.

The ACC1411 uses a double-reentrant, high efficiency horn that can be employed in a variety of applications. With a vandal resistant, heavy gauge baffle, the ACC1411 is ideal for use in schools, gymnasiums, correctional facilities, playgrounds, parking garages and other public places where vandalism and durability are major concerns. With surface and flush mounting available, the ACC1411 is a versatile horn with excellent voice reproduction qualities.

ASSOCIATED EQUIPMENT

Telecenter Communication Systems

ACC1105 – Flush Mount Square Backbox

ACC1113 – Surface Mount Square Backbox

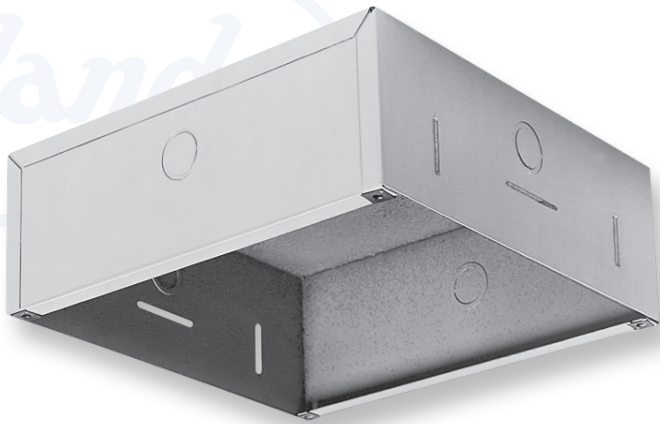
ACC1114 – Vandal Resistant, Tapered, Surface Mount Square Backbox

ACC1104 – Speaker/Baffle Support Tile Bridge

*Architect and Engineer (A&E) Specifications available online at: customerconnection.rauland.com
Specifications subject to change without notice*

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MODEL: ACC1105 – SQUARE SPEAKER BACKBOX



ACC1105

FEATURES

- Heavy Gauge, Spot-Welded, Cold-Rolled Steel
- Acoustically Treated Inner Surfaces
- White Powdered Epoxy Finish
- Ample Conduit Knockouts
- Equipped with Tinnerman Clips

SPECIFICATIONS

Type: Recessed backbox

Material: Heavy gauge, cold-rolled steel

Finish: White powdered epoxy

Dimensions: 10.75" (27.3 cm) x 10.75" (27.3 cm)
3.75" (9.5 cm) deep

Weight: 2.9 lbs (1.3 kg)

Recommended Baffle:

ACC1003 Square Speaker Baffle
ACC1005 Square Digital Clock/Speaker Baffle
ACC1012 Square, Vandal Resistant Speaker Baffle
ACCSAC12 Rectangular, Analog Clock/Speaker Baffle

DESCRIPTION

The Rauland Model ACC1105 Backbox is a recessed enclosure for installation in new or exiting construction. Made of heavy gauge, cold-rolled steel, and spot-welded for stability, it has a white powdered epoxy finish and an acoustically treated interior to eliminate mechanical resonances. The backbox accommodates 8" speaker/baffle assemblies, as well as a digital or analog

clock display (when used with the Rauland ACC1005 or ACCSAC12 baffle). Four 0.5" (1.3 cm) and 0.75" (1.9 cm) conduit knockouts are provided as well as Tinnerman clips in each corner. The backbox measures 10.75" (27.3 cm) x 10.75" (27.3 cm) x 3.75" (9.5 cm) deep.

ASSOCIATED EQUIPMENT

Telecenter Communication Systems

ACC1003 – Speaker Baffle

ACC1005 – Digital Clock/Speaker Baffle

ACC1012 – Vandal Resistant Speaker Baffle

ACCSAC12 – Analog Clock/Speaker Baffle

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MODEL: TCDPB2 — DUAL PUSH-BUTTON CALL SWITCH



TCDPB2

Features

- Mounts in a standard single-gang electrical box
- Rugged design and construction
- Multi-purpose design works with Telecenter 1100, System 21, IV, V, VI, and ICS

Specifications

Environmental

Parameters: Temp.: 32° F (0° C) to 122° F (50° C)
Rel. Humidity: 0 to 90% (non condensing)

Wiring Requirements: Two (2) conductors

Connector: Multi-conductor pig-tail

Maximum Distance (to TCSLM or TCACM): 2000 ft. (600 m.)

Backbox Requirements: Raco 674 single-gang or equal

Dimensions: H: 4½" (11.4 cm)
W: 2¾" (6.5 cm)
D: 2" (5.1 cm)

Weight: 2.5 oz. (7.1 g)

Description

The Rauland TCDPB2 Dual Push Button Call Switch is designed specifically for use with Rauland Telecenter systems. It features a high-impact Cylolac (UL94V-0 rated) faceplate finished in cool grey to match other Telecenter components. The TCDPB2 is designed for single-gang flush mounting either alone or in the single-gang opening of the TCSPKR module.

The TCDPB2 features a "Normal" call button and an "Emergency" call button in red. "Normal" and "Emergency" call-ins are placed by momentarily depressing either the Norm or Emer call button respectively. The TCDPB2 is compatible with most Telecenter systems. Depending on the type of Telecenter system and its programming, call-ins may be cancelled directly from the TCDPB2.

Associated Equipment

Telecenter ICS:

TCACM — Audio and Control Module
ICSRES — Call Switch Conversion Resistor Pack
TCSLM — Station Line Module
ICS2SLMG2 — Station Line Module, global two (2)-channel

Telecenter 1100 System

Telecenter IV System

Telecenter V System

Telecenter VI System

Telecenter System 21:

TC2113 — Station Line Card, three (3) conductor
TC2114 — Station Line Card, four (4) conductor

TCSPKR — Universal Three (3)-gang Speaker Module

Architects and Engineers Specifications available on disk. Specifications subject to change without notice.

Rauland-Borg Corporation

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In Canada: 4025 Sladeview Crescent, Units 4-6 • Mississauga, ON CANADA L5L 5Y1 • (905) 607-2335 • (905) 607-3554 Fax



MODEL: ACC1400 — SPEAKER ASSEMBLY



ACC1400

FEATURES

- Preassembly Saves Installation Time And Money
- Includes 25 / 70V Line Matching Transformer
- “Whizzer” Cone for Extended High Frequency Response
- High Efficiency, Full-Range Speaker
- Mar-Proof, Baked White Epoxy Finish

SPECIFICATIONS

Speaker: Type: 8" (20.3 cm) PM
Power Rating: 8 Watts RMS
Frequency Response: 65 to 17,000Hz
Sensitivity: 93dB @ 1W / 1m / 1KHz
Magnet Weight: 5.0 oz. (141.7 g) ceramic
Voice Coil Impedance: 8 ohms
Voice Coil Diameter: 0.75" (1.9 cm)
Flux Density: 9,500 gauss
Transformer: 25 / 70V;
Taps: 5/16, 5/8, 1-1/4, 2-1/2, 5 Watts
Depth: 2.75" (7.0 cm)
Finish: Baked enamel

Baffle: Type: Round, one-step contour
Material: 22-gauge, zinc treated, cold-rolled steel
Finish: Baked white epoxy
Dimensions: 12.9" (32.7 cm) diameter
Weight (full assembly): 2.7 lbs. (1.2 kg)

Recommended Backbox:

ACC1100 — Flush Mount Square Backbox
ACC1101 — Flush Mount Round Backbox
ACC1103 — Flush Mount Round Backbox
ACC1110 — Flush Mount Round Backbox

DESCRIPTION

The ACC1400 Speaker Assembly consists of an 8", five ounce magnet speaker complete with a 25 / 70V line matching transformer, assembled on an ACC1000 Baffle. Each component in the assembly is a high quality unit. The loudspeaker, with its “whizzer” cone for extended high frequency response, delivers exceptional tone quality. With an efficiency rating of 93dB, the ACC1400 provides maximum sound output with reduced amplifier power consumption.

The one-piece, steel speaker baffle, with its handsome white finish, blends harmoniously with any interior. The baked epoxy finish is highly resistant to scratches and marring. The ACC1400 has pre-drilled mounting holes and can be screw attached to all standard backboxes, plaster rings and support bridges.

ASSOCIATED EQUIPMENT

Telecenter Communication Systems

ACC1100 — Flush Mount Square Backbox
ACC1101 — Flush Mount Round Backbox
ACC1103 — Flush Mount Round Backbox

ACC1110 — Flush Mount Round Backbox
ACC1104 — Speaker/Baffle Support Tile Bridge
ACC1109 — Speaker/Baffle Support Channel

*Architect and Engineer (A&E) Specifications available online at: customerconnection.rauland.com
Specifications subject to change without notice*

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MODEL: ACC1101 SPEAKER BACKBOXES



ACC1101



FEATURES

- Deep-Drawn 22 Gauge Seamless Steel
- Acoustic Foam Pad Resonance Control
- Non-Perforated Conduit Knockouts
- Readily Nested for Storage or Shipping
- UL Listed

SPECIFICATIONS

Type: Round recessed backbox
Material: 22 gauge one-piece steel
Finish: White powdered epoxy

Size: Round: 9 3/4" (24.8 cm)
Deep: 4 1/16" (10.3 cm)
Weight: 29 1/2 oz. (0.84 kg)

DESCRIPTION

The Rauland Model ACC1101 Backbox is a round, recessed enclosure for installing 8" speaker/baffle assemblies in new or existing construction. It is made of one-piece 22 gauge drawn steel, with a white powdered epoxy finish, and an interior treated with a fire-retardant resonance damping material. The bottom inside of the backbox has an affixed 9" (22.86 cm) pad of 3/8" (0.95 cm) thick

acoustic foam for additional resonance control. The four combination conduit knockouts of 1/2" (1.3 cm) and 3/4" (1.9 cm) are deeply scored, but not cut through, to preserve the leak-free integrity of the enclosure in air plenum installations. These combination knockouts are spaced 90° apart.

ASSOCIATED EQUIPMENT

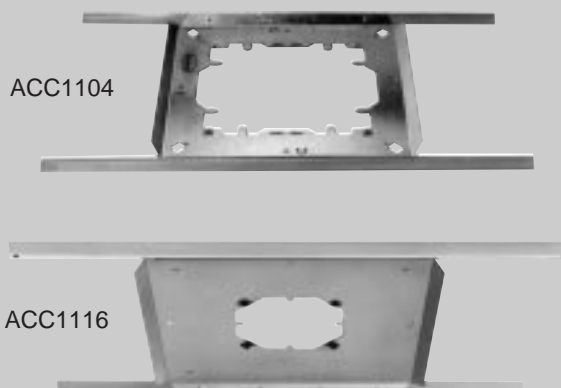
ACC1000 Baffle
ACC1001 Baffle
ACC1002 Baffle
ACC1004 Baffle
ACC1011 Baffle

Architects and Engineers Specifications available on disk. Specifications subject to change without notice.

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**FEATURES**

- Universal Speaker Mounting Versatility
- Speeds, Simplifies Speaker Installation
- Eliminates Ceiling Tile Sag
- Accepts Virtually All Speaker Baffles

SPECIFICATIONS**Material:** All-Steel**Finish:** Durable protective coating**Dimensions:** 14-1/2" (36.83 cm) wide; 23-3/4" (60.33 cm) long**Weight:** ACC1104; 1-1/2 lbs. (.68 kg)

ACC1116; 1 lb. 14 oz. (.85 kg)

Mtg. Dimensions:

ACC1104; A: (4) J-nuts #8-32 on 11.250" dia. circle

B: (4) provisions for (4) J-nuts #8-32
on 10" x 10" square

C: (4) torsion spring slots at 8-1/4" spacing

ACC1116; A: (4) J-nuts #8-32 on 5.625" dia. circle

B: Provisions for (4) J-nuts #8-32
on 10" x 10" square**DESCRIPTION**

The Rauland (ACC1104) (ACC1116) Speaker/Baffle Support Bridge is a universal mounting device for attaching (8") (4") speaker assemblies to suspended ceilings. It not only markedly reduces installation time but eliminates the sag caused by the weight of the installation on ceilings of this type.

The ACC1104 Bridge is designed for 8" loudspeakers and baffles; the ACC1116 is for 4" loudspeakers and baffles. Both units accept virtually all screw-mounted round or square baffles with or without backboxes and any torsion spring

baffle with most round or square backboxes. This eliminates the need for stocking a large variety of mounting devices to match various configurations.

Practical design makes speaker installation fast and easy. Speaker positioning is made simple by locking tabs on the center plate; the bridge mounts with an easy-to-cut square ceiling hole rather than the round hole most other bridges require; finally, the hole dimension is well within the baffle dimension so that even a miscut mounting hole will be completely covered by the baffle.

ARCHITECTS AND ENGINEERS SPECIFICATIONS

The Speaker/Baffle Bridge shall be a Rauland Model (ACC1104 for 8" speakers) (ACC1116 for 4" speakers) or approved equal. It shall serve as a universal mounting device for attaching (8") (4") speaker assemblies to suspended ceilings. It shall not only reduce installation time but eliminate the sag frequently caused by the weight of the installation in ceilings of this type.

The bridge shall accept virtually all existing round or square baffles with or without backboxes, and any torsion spring baffle with most round or

square backboxes, thus eliminating the need for stocking a large variety of mounting devices to match various configurations.

The design of the bridge shall simplify and speed speaker/baffle installation as follows: locking tabs on the center plate shall simplify speaker positioning on the ceiling; mounting shall require an easy-to-cut square hole rather than a round one; the hole dimension shall be well within the baffle diameter so that even a miscut mounting hole shall be concealed by the baffle.

Specifications subject to change without notice.

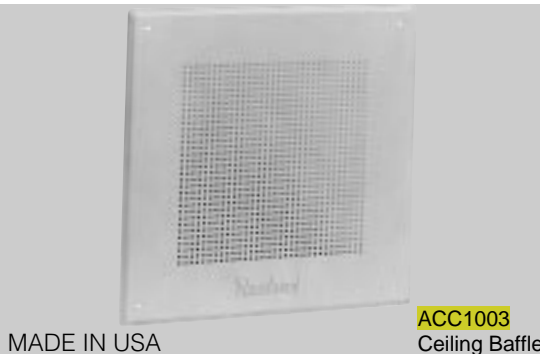
RAULAND-BORG CORPORATION**3450 West Oakton Street, Skokie, Illinois 60076-2958 • Tel: (847) 679-0900 • FAX: (847) 679-0625**

In Canada: RAULAND-BORG (CANADA) INC. • 6535 Millcreek Drive, Unit 5, Mississauga, Ontario, Canada L5N 2M2 • (905) 821-2225 • FAX: (905) 821-8325

ACC1002/ACC1003 Baffles



SPEAKERS • HORNS • SPEAKER ACCESSORIES



FEATURES

- Handsome Brushed Aluminum Finish
- Sturdy One-Piece Construction
- Matches Many Existing Installations
- Exceptional Baffle Value

SPECIFICATIONS

Type: Round one-step contour

Material: Heavy spun aluminum

Finish: Brushed aluminum

Size: 12-5/8" (32.06 cm) diameter

Weight: 6.5 oz. (184.27 g)

Recommended Backbox: ACC1100, ACC1101, ACC1103, ACC1110, ACC1104 Bridge ACC1109 Channel Support

DESCRIPTION

The Rauland ACC1002 Baffle is designed for efficient and attractive flush wall or ceiling mount. It is constructed of aluminum in one piece, with attractive brushed satin finish. Designed to accommodate 8" speakers, it has a diameter of 12-5/8" (32.06 cm). The unit has pre-drilled holes for easy speaker mounting, and may be mounted in all standard backboxes, plaster rings or support bridges. An economical ceiling baffle, it is designed to complement the environment in which it is installed.

ARCHITECTS AND ENGINEERS SPECIFICATIONS

The Flush-Mount (Ceiling/Wall) Baffle shall be a Rauland ACC1002 or approved equal. It shall be constructed in one piece of aluminum and shall have a brushed satin finish. It shall accommodate any 8" speaker and shall have a diameter of 12-5/8" (32.06 cm). The baffle shall have pre-drilled holes for convenient speaker mounting. It shall mount in all standard backboxes, plaster rings or support bridges. The baffle weight shall not exceed 6.5 oz. (184.27 g).

FEATURES

- Mar-Proof Baked Epoxy Finish
- 22-Gauge Steel One-Piece Construction
- Attractive Square Design
- Concealed Speaker Mounting Studs

SPECIFICATIONS

Type: One-step contour square

Finish: White, baked epoxy

Material: 22-gauge cold-rolled steel, zinc-treated

Size: 11-1/2" (29.21 cm) square

Weight: 20 oz. (567.0 g)

Recommended Backbox: ACC1104 Bridge, ACC1105, ACC1112, ACC1113, ACC1114

DESCRIPTION

The Rauland ACC1003 Baffle is intended for flush-mounting 8" speakers in walls or ceilings. It is constructed of 22-gauge cold-rolled steel, zinc-treated to resist corrosion. The finish is baked powdered epoxy which is virtually scratch-and mar-proof. The one-piece steel construction eliminates vibration, and the perforation pattern provides wide sound dispersion and exceptional audio quality. The baffle is designed for screw attachment to most standard backboxes and support bridges. It has four concealed welded studs for simple speaker mounting.

ARCHITECTS AND ENGINEERS SPECIFICATIONS

The Flush-Mount (Ceiling/Wall) Speaker Baffle shall be a Rauland ACC1003 or approved equal. It shall be constructed of 22-gauge cold-rolled steel, zinc-treated to resist corrosion. The external finish shall be white baked powdered epoxy which shall be virtually scratch-and mar-proof. Construction shall be one-piece to eliminate vibration, and the perforation pattern shall be designed for wide sound dispersion. The baffle shall be designed for screw attachment to most standard backboxes and support bridges.

Specifications subject to change without notice.

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FEATURES

- Dual-Cone Quality Loudspeaker Design
- Full 8 Watts RMS Power Output
- "Whizzer" Cone for Extended High Frequency
- Full 5-Ounce Ceramic Magnet
- With 25V/70V Line Matching Transformer

SPECIFICATIONS

Type: 8" (20.32 cm) dual-cone PM
Frequency Range: 65 to 17,000Hz
Power Rating: 8 watts RMS (per ESA Standard 426A)
Sensitivity: 93dB @ 1 meter with 1 watt input
Magnet Weight: 5 oz. (141.75 g) ceramic
Voice Coil Impedance: 8 ohms

Voice Coil Diameter: .75" (1.91 cm)
Flux Density: 9,5000 gauss
Transformer: 25V/70V; taps 5/16, 5/8, 1-1/4, 2-1/2, 5 watts
Speaker Depth: 2.75" (6.99 cm)
Finish: Baked enamel
Net Weight: 1 lb. 8 oz. (.68 kg)

DESCRIPTION

The Rauland USO188 Speaker is especially suited for use in classrooms or in small areas where quality music distribution is desired. The use of a hard fiber "whizzer" cone provides extended high frequency response with exceptional clarity, while the

molded fiber moisture-resistant main cone delivers excellent mid and low range frequency response. The USO188 speaker features rugged construction; with its heavy-gauge metal basket it offers superior protection against shock and aging deterioration.

ARCHITECTS AND ENGINEERS SPECIFICATIONS

The Speaker shall be a Rauland USO188 or approved equal. It shall be an 8" permanent magnet seamless cone type, with an additional cone provided to extend high frequency response. Frequency range shall be 65 to 17,000Hz; ceramic magnet weight shall be at least 5 oz. (141.75 g); axial sensitivity shall be 93dB at 1 meter with

1 watt input; power rating shall be 8 watts RMS; voice coil impedance shall be 8 ohms and shall measure .75" (1.91 cm) in diameter; speaker depth shall be 2.75" (6.99 cm). The speaker shall be equipped with a universal line matching transformer for 25V/70V output line tapped at 5/16, 5/8, 1-1/4, 2-1/2 and 5 watts.

Specifications subject to change without notice.

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Time Control Equipment

Rauland

MODEL: WCA1312AC — 13" 24 VAC, WIRELESS ANALOG CLOCK



WCA1312AC

FEATURES

- Powered by 24 VAC
- Fast Installation to Reduce Costs
- Maintenance Free
- High Durability ABS Casing
- Shatter Resistant Polycarbonate Lens
- Microprocessor Controlled, High Efficiency Clock Movement
- 5 Year Warranty
- High Performance 467MHz Receiver for Wireless Time Synchronization Signals
- UL Listed per Standard UL863 (File Number 130982)

SPECIFICATIONS

Materials:

Body: ABS plastic
Lens: Shatter resistant polycarbonate
Hands: Aluminum

Environmental Parameters:

Operating Temperature: 32° F (0° C) to 122° F (50° C)

Power Requirements: 24 VAC @ 40 mA

Mounting: Three (3) mounting keyholes accommodate #8 or #10 pan head screws

Dimensions: Diameter: 13.2" (33.5 cm)
Depth: 3.0" (7.6 cm)

Weight: 1.95 lb. (0.9 kg)

DESCRIPTION

The stylish WCA1312AC 13" wireless clock is designed to easily add a synchronized clock display to any facility. Connect to a 24 VAC power source and the WCA1312AC is ready to mount using the three keyholes on the rear of the clock enclosure. WCA1312AC can be mounted in minutes, and the use of 24 VAC for power means no conduit is necessary in most locations. Check local electrical codes for compliance. The WCA1312AC has a channel molded

into the back of the enclosure to accommodate surface mounted wiring, i.e., Wiremold™.

State of the art efficiency and wireless technology make the WCA1312AC the best choice in your wireless clock application. Using an internal antenna with a stylish design and high visibility numbers on the clock dial, the WCA1312AC can be used in both new and renovated installations.

ASSOCIATED EQUIPMENT

All Telecenter Communication Systems

All Responder Health Care Communication Systems

2515 – UL Listed 24 VAC Power Supply

TCCKINFM – Clock Interface Module

WCXATLAN – Wireless Transmitter

WCXTANTKT – External Antenna Kit for Transmitter

WCXREPEAT – Wireless Transmitter Repeater

WCAMC2 – Ceiling Mount Dual Face Mounting Kit

WCAMW2 – Wall Mount Dual Face Mounting Kit

WCANAHB – Analog Clock Hanger Bracket

WCANAHBRF – Analog Clock Hanger Bracket for Simplex Retrofit

WCANA13WG – 13" Clock Wire Guard

WCP24AC1 – 120 VAC to 24 VAC Step-down Transformer Assembly

Architect and Engineer (A/E) Specifications available online at: customerconnection.rauland.com
Specifications subject to change without notice

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Rauland

Rauland-Borg Corporation

MODEL: ACCWB5/ACCWB5VC — SPEAKER ASSEMBLIES



ACCWB5/ACCWB5VC

FEATURES

- Attractive acoustically-correct baffle
- Compact configuration for universal use
- High quality 8" speaker with 25V/70V line matching transformer
- Pre-assembled for installation convenience
- Matched components for quality performance
- Textured off-white epoxy semi-gloss finish
- "Whizzer" cone for extended high-frequency response
- Optional volume control with detachable knob to prevent unwanted volume adjustment

SPECIFICATIONS

Speaker Type: 8" (20.3 cm) permanent magnet

Power Rating: 8W RMS – 5 oz. magnet

Sensitivity: 93 dB @ 1 meter with 1 W input

Frequency Response: 65-17,000 Hz

Magnet: 5 oz. (141.7 g) ceramic

Voice Coil Impedance: 8Ω

Voice Coil Diameter: $\frac{3}{4}$ " (1.9 cm)

Transformer: 25V/70V; taps at $\frac{5}{16}$, $\frac{5}{8}$, $1\frac{1}{4}$, $2\frac{1}{2}$, & 5W

Baffle: ACC1003 - 22-gauge cold-rolled steel

Baffle Size: Square $11\frac{1}{2}$ " (29.2 cm)

Width: $11\frac{5}{8}$ " (29.5 cm)

Depth: $5\frac{1}{2}$ " (14.0 cm) deep at top

$3\frac{1}{8}$ " (7.9 cm) deep at bottom

Height: $11\frac{3}{8}$ " (28.9 cm)

Weight: ACCWB5 – 4 lbs. 2 oz. (1.8 kg)

ACCWB5VC – 4 lbs. 4 oz. (1.9 kg)

DESCRIPTION

The Rauland ACCWB5 Series Speaker Assemblies consist of a Rauland USO188 8" loudspeaker complete with a 25V/70V line matching transformer, mounted in a Rauland ACC1003 Wall Baffle. These speaker assemblies are available with a 5 oz. (141.8 g) ceramic magnet.

The model with "VC" in the part number includes a volume control in the base of the enclosure. The volume control is located on the bottom side of the enclosure and features a detachable knob that facilitates administrator-only control.

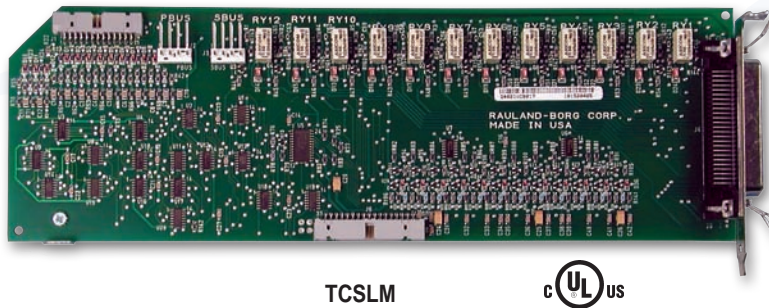
The ACCWB5 Series Speaker Assemblies are particularly suitable for use in classrooms, meeting rooms, or small areas where surface mount speakers of excellent reproduction quality are required. They can be special-ordered in black. Mounting hardware is included with each Speaker Assembly and they are packaged as a complete unit, which reduces installation time and costs.

Architects and Engineers Specifications available on disk. Specifications subject to change without notice.

Rauland-Borg Corporation

3450 West Oakton Street • Skokie, IL 60076-2958 • (847) 679-0900 • (847) 679-4106 Fax • www.rauland.com

In Canada: 4025 Sladeview Crescent, Units 4-6 • Mississauga, ON CANADA L5L 5Y1 • (905) 607-2335 • (905) 607-3554 Fax

MODEL: TCSLM — STATION LINE MODULE

TCSLM

**FEATURES**

- 12 station capacity
- Standard 50-pin "D" connector
- Each port supports a speaker, call switch, and non-dialing telephone
- One-touch feature operation (with ICSSPA)
- Works with both Telecenter VI and ICS systems
- Specially designed for use with Cat 5/5E/6 cable

SPECIFICATIONS**Environmental Parameters:**

Temperature: 32° F (0° C) to 122° F (50° C)
Relative Humidity: 0 to 90% (noncondensing)

Station Capacity: 12 room stations (includes speaker, call switch, and/or non-dialing staff phone), or 12 control outputs

Audio Power Capacity: 5 watts per room station port

Contact Closure Capacity: Up to 2 amps at 28 Volts DC

Wiring Requirements: Two (2) pair Cat 5/5E/6 or two (2) twisted pair (one or both pair shielded) or 3 conductor with shield

Maximum Distance: 1000 feet (300 m)

Terminations: One (1) 50-pin "D" connector

Mounting: Mounts within ICS2BASE, ICS2BASERM, or ICS2XPRRM

Dimensions: L: 14" (35.6 cm)
W: 4½" (11.4 cm)
D: ¾" (1.9 cm)

Weight: 0.6 lbs. (0.27 kg)

DESCRIPTION

The TCSLM Station Line Module is designed specifically for the Telecenter VI and ICS systems. TCSLM provides 12 station ports. Each port includes call switch sensing (normal, emergency, privacy, etc.), security, and audio switching configuration for intercom, paging, and program distribution. Depending on the configuration of the system, each station input can receive up to two (2) levels of call-in from an associated call switch and a security level signal from an appropriate security device. The station relays support a speaker load of up to 5 Watts, a call switch, and 1 non-dialing telephone. Alternately, each station port can be configured as a contact closure output (up to 2 amps @ 28 Volts DC) to control low voltage devices such as security cameras, external bells, access controls, etc.

TCSLM mounts into Telecenter ICS' ICS2BASE, ICS2BASERM, or ICS2XPRRM. All field wiring terminations are via a 50-pin "D" (Amphenol) connector. The home-run field wiring from each room station to the TCSLM for both intercom and call-in is accomplished using two pair Cat 5/5E/6 cabling, two twisted pair shielded (one or both pair shielded), or three conductor shielded (one twisted pair with an additional conductor outside a continuous overall shield).

The TCSLM can be used on single channel or partitioned two channel configurations of the Telecenter ICS.

ASSOCIATED EQUIPMENT

ICS2BASE — Telecenter ICS Desktop Controller
ICS2BASERM — Telecenter ICS Rack-mount Controller
ICS2XPRRM — Telecenter ICS Expander Chassis
ICSSPA — Telecenter ICS Switch Panel Adapter
TCSCS1 — Single Call Switch
TCDSC2 — Dual Call Switch
TCSPB1 — Single Call Switch
TCDPB2 — Dual Call Switch
TCPVY — Single Call Switch with Privacy
TCSPKR — 3-Gang Intercom Speaker
ICSCBS1 — Single SLM cable, 10'
TCCBS1 — Single SLM cable, 15'
ICSCBF5 — Five-pack SLM cable, 10'
TCCBF5 — Five-pack SLM cable, 15'

Architects and Engineers Specifications available on disk. Specifications subject to change without notice.

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MODEL: 2515 — 24 VAC UL LISTED POWER SUPPLY



FEATURES

- Two (2) outputs providing 24 VAC @ 3.5 A each
- Each output is listed as Class 2
- Carries UL/cUL mark
- Built in switching from 24 VAC to 16 VAC for digital clock correction
- Provision for mounting TCKINFM Clock Interface Module
- Allows clock and speaker wiring in same conduit
- High capacity power supply for analog and digital clocks

SPECIFICATIONS

Environmental Parameters:

Temperature: 40°F (4°C) to 90°F (32°C)

Relative Humidity: 0 to 85% (non-condensing)

Capacity: Two (2) 24 VAC outputs (switchable to 16 VAC) providing 3.5 A each

Power Input: 120 VAC, 60 Hz, 1.5 A

Signal Input: Internal AC coil relays, 40 mA switched by Master Clock contacts

Wiring: Class 2 rating

Terminations: Screw terminals for signal input and output

Indicators: Two (2) green LED indicators, one (1) per output

Protection: Each output protected by a PTC fuse: 3.75 A (hold) & a slow blow fuse 4 A, 250 VAC

Mounting: Floor or wall of equipment rack using four (4) #6 screws

Dimensions: L: 8" (20.32 cm)
W: 6 3/8" (16.19 cm)
D: 3 7/8" (9.84 cm)

Weight: 8 lbs (3.6 kg)

UL: File No. E160695

DESCRIPTION

The 2515 24 VAC Power Supply provides 24 VAC power for all Rauland analog or digital secondary clocks. It can also be used to power other manufacturers' clocks that require a 24 VAC power supply. The 2515 is a UL/cUL Listed Class 2 power supply that complies with UL 1310 and Canadian Standard (C22.2 No. 223-M91) requirements. This allows the clock wiring to be installed in the same conduit as speaker wiring for significant installation time and money savings.

The 2515 is designed to internally mount the TCKINFM Clock Interface Module. When combined with the TCKINFM, the 2515 can provide power and correct up to twelve (12) digital secondary clocks or up to two hundred (200) analog clocks (TCKAN12) on each output. Additional TCKINFM/2515 modules can be used for applications that have a larger number of analog and/or digital secondary clocks. See KI-2158 for more information.

Use of the 2515 meets most electrical code requirements in both education and healthcare settings.

ASSOCIATED EQUIPMENT

TCKAN12 – 12" Analog Clock

TCKAN16 – 16" Analog Clock

TCAMCS – Atomic to Master Clock Synchronization Module

TCKINFM – Clock Interface Module

2418 – A.C. Buffer Module

2420 – Series Digital Clocks

2520 – Series Digital Clocks

All Rauland 24 VAC analog and digital secondary clocks

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Time Control Equipment

Rauland

MODEL: WCXATRAN — WIRELESS TRANSMITTER



WCXATRAN

FEATURES

- Time Synchronization Using Global Positioning Satellites (GPS) or Network Timeserver (NTP) Receiver
- Wired Output for Telecenter Time Synchronization
- 467 MHz Transmitter Frequency Provides Large Coverage Area
- Powerful 5 Watt Transmitter
- Non-Volatile Memory
- 10 Selectable Channels
- Rack Mount or Desktop
- Pre-Programmed Time Zones
- LCD Time/Day/Date/Year Display
- Automatically Adjusts for DST and After Power Outages
- Small 7" Rear Mounted Antenna
- 5 Year Warranty

SPECIFICATIONS

Input: 110 ~ 240 VAC @ 0.55 A

Output: 5 W at 467 MHz

Front Panel:

- Power indicator LED
- Synchronization indicator LED
- Two (2) programming switches
- Two (2) line, twenty (20) character LCD display

Body Material: ABS plastic

Environmental Parameters:

Operating Temperature: 32° F (0° C) to 122° F (50° C)

Mounting: Shelf mount. Rack mountable using optional mounting kit

Dimensions: Height: 1.75" (4.4 cm)

Width: 12" (30.5 cm)

Depth: 6.0" (15.2 cm)

Weight: 2.0 lb. (0.9 kg)

DESCRIPTION

The WCXATRAN Wireless Transmitter is designed for quick, "plug and play" installation of a synchronized, wireless clock system. The easy 2-button operation and 20 character, 2-line LCD front panel display make using the transmitter very easy. The clean, sleek and stylish design of the WCXATRAN provides a refreshing look to any décor.

Good looks and simple operation hide the cutting edge technology of the WCXATRAN. The WCXATRAN can receive time synchronization from either a GPS satellite using the WCXRVRGPS receiver or a network (LAN) timeserver with NTP using the WCXRVRNTP receiver. One time sync receiver is required for proper operation of the WCXATRAN. The WCXATRAN uses a 467 MHz transmitter

frequency and 10 selectable channels, to synchronize all Rauland wireless clocks. Typical coverage for the WCXATRAN with the antenna mounted on the rear of the transmitter is a 700' (213.4 m) diameter circle centered at the antenna. This is equivalent to a coverage range of 350' (106.7 m) from the antenna.

The optional external transmitter antenna (WCXTANTKT) can be used for large, campus-like applications where a wide coverage area is required. Automatic time adjustments for Daylight Saving Time and after a power outage provide the user with the assurance that the wireless clock system will always be on time. The WCXATRAN also features pre-programmed time zones and non-volatile memory, so all programming is kept safe in case of a power loss.

ASSOCIATED EQUIPMENT

All Telecenter Communication Systems

All Responder Health Care Communication Systems

All Rauland Wireless Clocks

WCXREPEAT – Wireless Repeater

WCXRVRGPS – GPS Receiver

WCXRVRNTP – NTP Receiver

WCXTANTKT – External Antenna Kit for Transmitter

WCTRRBKT – Open Rack Mount Brackets for Transmitter

WCTRRMK – Enclosed Rack Mount Kit for Transmitter

WCTRWS – Wall Mount Shelf

WCLFCCNP10 – Non-Profit 10-year FCC License

WCLFCCFP10 – For-Profit 10-year FCC License

WCLCANADA – IC (Industry Canada) License

Architect and Engineer (A/E) Specifications available online at: customerconnection.rauland.com
Specifications subject to change without notice

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