Absolute Performance - The Series 3000 is an extremely versatile line of Integrated Amplifiers. The unique features provided in all models are easily adaptable to most sound applications. The numerous connectivity possibilities, indicate the powerful functions available and stimulate the creativity of the designing applications engineer on providing the best and the most cost effective solution for a given project. The most popular series selected for music background applications. Proven field reliability in thousands of installations. Trouble-free continuous operation under extreme environmental conditions. Total versatility meets most demanding applications for music, paging and music or messaging on hold. The Amplifier is fully protected against overloads and short circuit with automatic reset in case of a short or overload. Rack mounting is possible by using the optional Rack Kit available as an accessory (see accessories).

MODELS

T3115BGM - 15 W INTEGRATED AMPLIFIER

T3130BGM - 30 W INTEGRATED AMPLIFIER


- ULTRA WIDE POWER BANDWIDTH
- VERY LOW DISTORTION CHARACTERISTICS
- HIGH RELIABILITY/EXCEPTIONAL PERFORMANCE
- 4 CHANNEL INPUTS - 2 ZONE OUTPUTS
- BUILT-IN TELEPHONE PAGING INTERFACE
- BALANCED MICROPHONE INPUT
- PHANTOM POWER ON MIC INPUT
- BALANCED PROGRAM INPUT
- BUILT-IN JUKEBOX SWITCHER
- INDEPENDENT PHONE PAGING LEVEL CONTROL
- AUX INPUT WITH STEREO SUMMING
- AUX INPUT WITH SENSITIVITY CONTROL
- MUSIC ON HOLD 600 OHM BALANCED OUTPUT
- INDEPENDENT MOH & 2ND ZONE OUTPUT
- ZONE 2 - 1 WATT 8 OHM OUTPUT
- ADDRESSABLE VOX - VOICE ACTIVATED MUTING
- DIRECT MUTING AND UNMUTING
- POWER SURGE AND OVERLOAD PROTECTION
FEATURES AND FUNCTIONS

INPUT 1
Microphone Input
Low Impedance Microphone Input. Impedance is 250 ohm balanced and this input can be muted or unmuted (see Muting/Unmuting function).

INPUT 2
Telephone Paging Input
Input 2 provides Telephone Paging Interface. Input Impedance is 600 ohm Transformer balanced. A rear panel Output Level Control is provided.

INPUT 3
Auxiliary Input
Input 3 can be AUX, CD or SATELLITE RECEIVER Input. The AUX Input impedance is 47K ohm unbalanced.

INPUT 3 ATTENUATOR
A rear panel Variable Attenuator is provided to set the Sensitivity Threshold of this input. By adjusting the Attenuator the sensitivity may be changed from 100 Mv to 5 Volt.

STEREO SUMMING - Two separate RCA Jacks are provided for Input 3 (Left and Right). A Stereo signal connected to either Input is buffered and internally summed to Mono.

INPUT 4
Program Input
Balanced Program Input may be used as a Satellite Receiver Input, Message Repeater Input or Line Input.

CONTROLS
Front Panel Controls - Microphone, Auxiliary, Program, Bass and Treble

Rear Panel Controls - Telephone Output Level, AUX Attenuator and MOH/ZONE 2 Output Level.

VOX - Voice Activated Muting - The VOX Muting System is activated by the Microphone Input or the Telephone Input and mutes the AUX and PROGRAM Inputs.

ADDRESSABLE VOX - The AUX INPUT and the PROGRAM INPUT may be Muted or not Muted by internal Jumper. If the MUTE is ON (can be selected independently for AUX and PROGRAM) a Page from the Microphone or Telephone will mute either the AUX or the PROGRAM INPUT or both.

DIRECT UNMUTING - The MICROPHONE Input can be set to be normally MUTED (by internal jumper) until activated by contact closure of the UNMUTE and G Terminals.

MUSIC ON HOLD OUTPUT - Provides a 1 Volt, 600 ohm, Transformer balanced output for Music/Message on Hold. Internal jumper selects the source from either Aux Input or Program Input. Level Control is provided. Not affected by paging or muting.

ZONE 2 OUTPUT - Provides a 1 Watt, 8 ohm output for Zone 2 Speaker Output. Internal jumper selects the source from either Aux Input or Program Input. Level Control is provided. Not affected by paging or muting.

AC ACCESSORY OUTLET - 500 Watt unswitched.

ACCESSORIES
Absolute Reliability - The DMA SERIES is like no other Amplifier Line. Every component utilized is Heavy-Duty. Built tough to take the daily punishment required for continuous operation. DMA delivers Outstanding Sonic Performance at any level of rated power and with any Speaker System Load. Breakthrough Technology is applied to every critical Circuitry from Power Surge Protection and Speed Controlled Fans for Thermal Protection to massive High Current Power Supplies. The Load Management System has the ability to adapt the power transfer to specific speaker loads. By delivering more current on demand to the Output Stages when Peak Power is needed the Amplifier will automatically provide the additional Reserve Headroom required. Sound purity is maintained with lower distortion for “Heavier Bass” and “Clearer Highs”. Four models from 15 Watt to 120 Watt.

Models

DMA2015 - 15 W INTEGRATED AMPLIFIER
DMA2030 - 30 W INTEGRATED AMPLIFIER
DMA2060 - 60 W INTEGRATED AMPLIFIER
DMA2120 - 120 W INTEGRATED AMPLIFIER

DMA SETS NEW STANDARDS FOR DIGITAL MUSIC REPRODUCTION

- Ultra Wide Power Bandwidth
- Very Low Distortion Characteristics
- High Reliability/Exceptional Performance
- Addressable Vox and Muting System
- Independent MOH & 2nd Zone Output
- Intelligent Input/Output Versatility
- Automatic Load Management System
- 24 Volt DC Auxiliary Power Supply
- Power Surge and Overload Protection
- Built-In Jukebox Switcher
- Built-In Zone Paging System
- Built-In Telephone Paging Interface

Specifications are subject to change without notice.
Input 1 is a Microphone Input. Impedance is 250 ohm electronically balanced.

Input 2 is Phone Paging to interface with a Phone System. Input Impedance is 600 ohm, Transformer Balanced. A level control is available on the Front Panel.

Phantom Power - Provided on all Inputs set as MIC provided for Input 3 and 4 (Left and Right). A Stereo signal connected to either Input is buffered and internally summed to Mono.

Input 3 & 4 Attenuators - When the Inputs are set as AUX 1 and AUX 2 the input sensitivity may be varied by a rear panel Variable Attenuator. This feature allows to set the output level of Programs originating from different sources (CD, Satellite Receiver, etc.).

MIX BUSS - This Input/Output may be utilized to parallel two amplifiers or as an input for a Microphone Mixer or other audio source. When used as an input the Amplifier Level and Equalization Controls have no effect.

Remote Volume Control - The INPUT 3/AUX 1 Input Volume may be adjusted from a remote location. Remote Volume Inputs utilize a 10K Pot and are immune to Audio Interference (DC Operation).

Addressable VOX System - The VOX System can be individually selected to operate independently on all 4 Inputs.

Addressable Muting System - All Inputs may be set to be Muted when the Vox is activated.

Direct Muting/Unmuting System - The MUTE function may be activated by external contacts. MIC 1 Input may be set to normally off and turned-on by shorting the Unmute Terminals.

Music on Hold - Output Channel 1- Channel 1 provides a 1 Volt, 600 ohm Transformer Balanced Output. Internal Jumper selects the source from either AUX 1 or AUX 2. Level Control is provided.

Output Channel 2 - Channel 2 provides a 2 Watt Max., 8 ohm output for Zone 2 Speaker Output. Internal Jumper selects the source from either AUX 1 or AUX 2. Level Control is provided.

Tone By-Pass Switch - The Tone by-pass switch defeats the setting of the Treble and Bass Controls. Should be used when an External Equalizer is utilized.

24 VDC Supply Output - A 24 Volt DC, 250 mA regulated Power Supply with dynamic filter is provided for external accessories.

ACCESSORIES


AC3 - Programmable Multi-Tone Chime Module, Internal Plug-in Card. Mounts on main printed circuit board of Amplifier. Provides eight Electronic Chime Tones and Westminster. DIP-Switch Programming and Output Level Trimmer. Tone is triggered each time the Mute terminals are closed.


RVC10W - Remote Volume Control for Amplifiers. Decora Style Plate mounts on standard single Gang Box. Complete with mounting hardware. Control Potentiometer: 10 K Ohm • Termination: 4" Pigtail, stripped and tinned • Dimensions: 4.5" H, 2.75" W, 0.6" Behind Front Plate. (115X70X16 mm) • Net Weight: 3 oz (0.088 Kg)

FOR ADDITIONAL INFORMATION SEE THE INDIVIDUAL ENGINEERING DATA BROCHURE
Absolute Versatility - Never before a Series of Amplifiers so ingeniously engineered has been offered to the Modern Systems Integrator. Addressing the requirements of today’s demanding installations, DMAB meets those needs beautifully, totally and with innovation and cost effectiveness unequalled by any other competitive system available. The advanced technology utilized in the electro-mechanical integration of all internal components affords High Performance, Superb Quality and Extreme Reliability in a rugged, compact package. The Load Management System has the ability to adapt the power transfer to specific speaker loads. By delivering more current on demand to the Output Stages when Peak Power is needed the Amplifier will automatically provide the additional Reserve Headroom required. Sound purity is maintained with lower distortion for “Heavier Bass” and “Clearer Highs”. Five models are available from 15 Watt to 260 Watt in only 2U of Rack space.

Models

**DMA2015B** - 15 W INTEGRATED AMPLIFIER
**DMA2030B** - 30 W INTEGRATED AMPLIFIER
**DMA2060B** - 60 W INTEGRATED AMPLIFIER

- **HIGH PERFORMANCE MULTI MEDIA INTEGRATED AMPLIFIERS**
- **PHOENIX CONNECTORS**
- **DIP SWITCH REAR PANEL PROGRAMMABLE**
- **FIVE CHANNEL FULLY ADDRESSABLE INPUTS**
- **THREE AUX INPUTS - RCA CONNECTORS**
- **600 OHM TRANSFORMER BALANCED PHONE PAGING INPUT**
- **ALL CHANNEL REMOTE VOLUME CONTROL CAPABILITY**
- **MASTER REMOTE VOLUME CONTROL**
- **MULTISOURCE INPUTS CONTROLLER USING CAT 5 CABLEING**
- **ALL CHANNEL INPUT SENSITIVITY CONTROL**
- **PORT FOR INPUT/OUTPUT AUDIO MODULES**

**DMA2120B** - 120 W INTEGRATED AMPLIFIER
**DMA2260B** - 260 W INTEGRATED AMPLIFIER

- **VOX ACTIVATED RELAY WITH NO/NC CONTACTS**
- **BUILT-IN REMOTE CONTROL ROOM COMBINING SYSTEM**
- **BUILT-IN ZONE PAGING SYSTEM**
- **AUTOMATIC LEVEL CONTROL/COMPRESSORS ON AUX 2, 3 AND 4**
- **WIDE POWER BANDWIDTH AND VERY LOW DISTORTION**
- **2ND 3 WATT 8 OHM ZONE - 3RD 3 WATT 70 VOLT ZONE**
- **24 VOLT DC - 500 MA REGULATED AUXILIARY POWER SUPPLY**
- **MUSIC ON HOLD OUTPUT WITH INDEPENDENT LEVEL CONTROL**
- **AUTOMATIC LOAD MANAGEMENT SYSTEM**
- **THERMALLY ACTIVATED VARIABLE SPEED COOLING FAN**
- **BUILT-IN SURGE PROTECTION**
The optional Model PRMS4 Controller is a cost effective accessory providing On-Off and Output Level Control for each of the Amplifier 4 Inputs either independently or collectively using CAT5 cabling up to a distance of 1000 ft. Each of the illuminated push-buttons 1-2-3-4 corresponds to the Amplifier Inputs 1-2-3-4. Labels and additional color lenses for the push-buttons are provided. NOTE: The controls of the PRMS4 do not alter the Output level set by the MOH - ZONE 1-ZONE 2 Controls.

A C C E S S O R I E S

PRMS4 - 4-Multi-Source Remote Controller with independent Level Control. Utilizes a CAT5 Socket and Phoenix Connector for connection to Amplifier. On-Off Switch and Level Control for each Input. Uses a 4” Square Backbox. White Plate.
Dimensions: 4.75”X4.75”, 1.5” D.

The optional Model PRMS4 Controller is a cost effective accessory providing On-Off and Output Level Control for each of the Amplifier 4 Inputs either independently or collectively using CAT5 cabling up to a distance of 1000 ft. Each of the illuminated push-buttons 1-2-3-4 corresponds to the Amplifier Inputs 1-2-3-4. Labels and additional color lenses for the push-buttons are provided. NOTE: The controls of the PRMS4 do not alter the Output level set by the MOH - ZONE 1-ZONE 2 Controls.
Absolute Reliability - The DMS B SERIES is like no other Amplifier Line. Every component utilized is Heavy-Duty. Built tough to take the daily punishment required for continuous operation. DMS B delivers Outstanding Sonic Performance at any level of rated power and with any Speaker System Load. Breakthrough Technology is applied to every critical Circuitry from Power Surge Protection and Speed Controlled Fans for Thermal Protection to massive High Current Power Supplies. The Load Management System has the ability to adapt the power transfer to specific speaker loads. By delivering more current on demand to the Output Stages when Peak Power is needed the Amplifier will automatically provide the additional Reserve Headroom required. Sound purity is maintained with lower distortion for “Heavier Bass” and “Clearer Highs”. Four models are available from 40 Watt to 260 Watt in only 2U of Rack space.

MODELS

DMS3040B - 40 W INTEGRATED AMPLIFIER  DMS3120B - 120 W INTEGRATED AMPLIFIER
DMS3080B - 80 W INTEGRATED AMPLIFIER  DMS3260B - 260 W INTEGRATED AMPLIFIER

CONVERTIBLE INPUTS - PHOENIX CONNECTORS - REAR PANEL PROGRAMMING

- HIGH PERFORMANCE MULTI MEDIA INTEGRATED AMPLIFIERS
- PHOENIX CONNECTORS
- DIP SWITCH REAR PANEL PROGRAMMABLE
- SEVEN CHANNEL FULLY ADDRESSABLE INPUTS
- FOUR AUX INPUTS - RCA CONNECTORS
- 600 OHM TRANSFORMER BALANCED PHONE PAGING INPUT
- ALL CHANNEL REMOTE VOLUME CONTROL CAPABILITY
- MASTER REMOTE VOLUME CONTROL
- ALL CHANNEL INPUT SENSITIVITY CONTROL
- PORT FOR INPUT/OUTPUT AUDIO MODULES
- BUILT-IN ROOM COMBINING SYSTEM
- BUILT-IN ZONE PAGING SYSTEM
- BUILT-IN ADDRESSABLE AUTO VOX RELAY
- AUTOMATIC LEVEL CONTROL/COMPRESSORS ON AUX 3 AND 4
- WIDE POWER BANDWIDTH AND VERY LOW DISTORTION
- 2ND 5 WATT 8 OHM ZONE - 3RD 5 WATT 70 VOLT ZONE
- 24 VOLT DC - 500 MA REGULATED AUXILIARY POWER SUPPLY
- MUSIC ON HOLD OUTPUT WITH INDEPENDENT LEVEL CONTROL
- AUTOMATIC LOAD MANAGEMENT SYSTEM
- THERMALLY ACTIVATED VARIABLE SPEED COOLING FAN
- ON-OFF POWER REMOTE RELAY CAPABILITY
- BUILT-IN SURGE PROTECTION
ACCESSORIES

PM01ML - Microphone/Line Input Module - Amplifier Module for PASO Amplifiers. Mounts on rear panel port. Versatile Input Module provides balanced Microphone Input switchable to Line Input. Remote Volume Control capability

- Microphone Input: 250 Ohm Balanced • Sensitivity: 1.5 mV • Line Input: 47 K unbalanced • Sensitivity: 100 mV • Microphone/Line Switch: Slide Switch on PCB • MIC Input Phantom Power: 16 + 16 Volt (PCB Jumper) • MIC Low-Cut Filter: -10 dB at 100 Hz (PCB Jumper) • Line Output Control: Front Panel Screwdriver Adjust • Remote Volume Control of MIC and Line: 10 K Pot • Terminations: MIC Input = Screw terminals, Remote Volume = Screw terminals, Line = Dual RCA Jacks • Dimensions: 1.38" W., x 3" H. x 3" D. (35x78x78 mm) • Net Weight: 5 oz (0.15 Kg)

PML1X6 - Line Distribution Amplifier Module - Mounts on rear panel port. This is an extremely versatile Line Distribution Module providing one Line Input (L+R) and Six independent Mono Line Outputs. Ideally suited for Multi-Amplifier Installations and for Music Distribution Systems using one source for up to six Outputs.

- Input: 47 K unbalanced • Output: 47 K unbalanced • Gain: Unity • THD: Less than 0.03% at 1 Khz • Frequency Response: 20 - 20,000 Hz • EQ Set Flat • Signal to Noise Ratio: > -80 dB below +4 dBu • Terminations: Input and Output RCA Jacks • Contacts: Internal PCB Contacts • Supply Voltage: 24 VDC, 25 mA internally derived from amplifier • Panel Finish: Black • Dimensions: 1.38" W., x 3" H. x 3" D. (35x78x78 mm) • Net Weight: 5 oz (0.15 Kg)

AC3 - Programmable Multi-Tone Chime Module, Internal Plug-in Card. Mounts on main printed circuit board of Amplifier. Provides eight Electronic Chime Tones and Westminster. DIP-Switch Programming and Output Level Trimmer. Tone is triggered each time the Mute terminals are closed.


- Input: MIC or TELPAGE • Input 7: Module Port • RVC: Remote Volume on all Inputs • EQ: On all Inputs via DIP Switch • Module Port: Accepts Standard Module • Line Output: Line Out 600 ohm - 1.5 V loaded • MOH Output: 600 ohm-1 Volt Xfmr Balanced • Zone 2 Output: 5 W-8 ohm with Control • Zone 3 Output: 5 W-8 ohm/70 Volt with Control • Main Output Z: 8 ohm, 25 Volt and 70 Volt line • Terminations: Phoneix Connectors, RCA Jacks • Housing Finish: Black • Dimensions: 17" W., 15" D., 4" H. w/feet (432X380X102 mm) • Net Weight: 8 Lbs (3.6 Kg)

RVC10W - Remote Volume Control for Amplifiers. Decora Style Plate mounts on standard single Gang Box. Complete with mounting hardware. Control Potentiometer: 10 K Ohm • Termination: 4" Pigtail, stripped and tinned • Dimensions: 4.5" H. 2.75" W. 0.6" Behind Front Plate. (115X70X16 mm) • Net Weight: 3 oz (0.088 Kg)

FOR ADDITIONAL INFORMATION SEE THE INDIVIDUAL ENGINEERING DATA BROCHURE
Absolute Performance - The DMS PLUS SERIES is like no other Amplifier Line. Every component utilized is Heavy-Duty. Built tough to take the daily punishment required for continuous operation. DMS PLUS delivers Outstanding Sonic Performance at any level of rated power and with any Speaker System Load. Breakthrough Technology is applied to every critical Circuitry from Power Surge Protection and Speed Controlled Fans for Thermal Protection to massive High Current Power Supplies. The Load Management System has the ability to adapt the power transfer to specific speaker loads. By delivering more current on demand to the Output Stages when Peak Power is needed the Amplifier will automatically provide the additional Reserve Headroom required. Digital Coax Inputs and Outputs are provided for outstanding sound purity with lower distortion for “Heavier Bass” and “Clearer Highs”. Two models are available from 260 Watt to 360 Watt plus a Preamplifier Mixer in only 2U of Rack space.

MODELS

DMS10X - 10 CHANNEL PREAMPLIFIER MIXER
DMS260P - 260 W INTEGRATED AMPLIFIER
DMS360P - 360 W INTEGRATED AMPLIFIER

CONVERTIBLE INPUTS - PHOENIX CONNECTORS - REAR PANEL PROGRAMMING

- HIGH PERFORMANCE MULTI MEDIA INTEGRATED AMPLIFIERS
- 10 CHANNEL FULLY ADDRESSABLE INPUTS
- PHOENIX CONNECTORS - REAR PANEL PROGRAMMABLE
- ANALOG TO DIGITAL AND DIGITAL TO ANALOG CONVERTERS
- DUAL COAX DIGITAL INPUTS AND COAX AUX DIGITAL OUTPUT
- 600 OHM TRANSFORMER BALANCED PHONE PAGING INPUT
- ALL CHANNEL REMOTE VOLUME CONTROL CAPABILITY
- ALL CHANNEL INPUT SENSITIVITY CONTROL
- PORT FOR INPUT/OUTPUT AUDIO MODULES
- BUILT-IN REMOTE CONTROL ROOM COMBINING SYSTEM
- BUILT-IN AUTOMATIC ROOM LEVEL CONTROLLER
- BUILT-IN ZONE PAGING SYSTEM
- AUTOMATIC LEVEL CONTROL/COMPRESSORS ON AUX 3 AND 4
- WIDE POWER BANDWIDTH AND VERY LOW DISTORTION
- 2ND 5 WATT 8 OHM ZONE - 3RD 15 WATT 70 VOLT ZONE
- MUSIC ON HOLD OUTPUT WITH INDEPENDENT LEVEL CONTROL
- AUTOMATIC LOAD MANAGEMENT SYSTEM
- THERMALLY ACTIVATED VARIABLE SPEED COOLING FAN
- ON - OFF POWER REMOTE RELAY CAPABILITY
- BUILT-IN SURGE PROTECTION
DMS10X - 10 CHANNEL PREAMPLIFIER MIXER - DIGITAL COAX INPUTS/OUTPUTS


RVC10W - Remote Volume Control for Amplifiers. Decora Style Plate mounts on standard single Gang Box. Complete with mounting hardware. Control Potentiometer: 10 K Ohm • Termination: 4" Pigtail, stripped and tinned • Dimensions: 4.5" H, 2.75" W, 0.6" Behind Front Plate. (115X70X16 mm) • Net Weight: 3 oz (0.088 Kg)

AC3 - Programmable Multi-Tone Chime Module, Internal Plug-in Card. Mounts on main printed circuit board of Amplifier. Provides eight Electronic Chime Tones and Westminster. DIP-Switch Programming and Output Level Trimmer. Tone is triggered each time the Mute terminals are closed.


DMSB SERIES

4 INPUT CHANNEL - INTEGRATED POWER AMPLIFIERS

MODEL - DMS4361B - 360 Watt Power Amplifier

- High Performance High Reliability Design
- Wide Frequency Response - Very Low Distortion
- 4 Channel Inputs - 3 Zone Outputs
- Balanced Microphone Input
- Phantom Power on MIC Input with Selector
- Telephone Paging Input
- Telephone Input Level Control
- Auxiliary Input With Stereo Summing
- Auxiliary Input Attenuator
- Independent Input Controls
- Addressable VOX - Voice Activated Muting
- VOX Variable Time Delay Function
- Addressable MUTE Buss
- Direct Mutting or Unmutting

- Rear Panel Port Accepts Standard Module
- External EQ Link
- 600 ohm and 8 ohm 1 Watt - Music on Hold Amplifier
- MOH Amplifier Source Selector
- Zone 2-3, 1 W 8 ohm Output - Independent Control
- MIX Buss and 600 ohm Line Output
- NO/NC VOX Operated Relay
- AUX1 and Master Remote Volume Controls
- 24 V DC 250 mA Regulated Power Supply Output
- 8 ohm, 25 Volt & 70 Volt Output
- Pre-EQ Subwoofer Output
- Post-EQ Subwoofer Output
- 19" Rack Mounting Ready
- Low profile - 2-U of Vertical Rack space

Rack Mounting with 27/3501 KIT
5 INPUT CHANNEL - DIGITAL INTEGRATED POWER AMPLIFIERS

MODEL - DX5480P - 480 Watt Power Amplifier

- High performance multimedia digital power amplifiers
- 5 channel fully addressable inputs
- Phoenix connectors - rear panel programmable
- Analog to digital and digital to analog converters
- Coax digital input and coax digital output
- 600 Ohm transformer balanced phone paging input
- All channel remote volume control capability
- All channel input sensitivity control
- All inputs source selector with Cat 5 cabling
- Port for input/output audio modules
- Built-in VOX activated relay with NO and NC contacts
- 4 high pass filters 30 - 60 - 80 - 120 Hz
- Built-in zone paging system
- Automatic level control/compressors on all inputs
- Wide power bandwidth and very low distortion
- 2nd 5 watt 8 Ohm zone - 3rd 15 watt 8 Ohm and 70 volt zone
- Music on hold output with independent level control
- Automatic load management system
- Thermally activated variable speed cooling fan
- On - off power remote relay capability
- Built-in surge - over current and overload protection
- Front panel master volume control with by-pass switch

See Specifications for PRMS4 - CAT5 Controller on page 15

CONVERTIBLE INPUTS - PHOENIX CONNECTORS - REAR PANEL PROGRAMMING
DIGITAL COAX INPUT/OUTPUT - CAT 5 INPUTS CONTROLLER - 2ND 15 Watt Zone

FOR ADDITIONAL INFORMATION SEE THE INDIVIDUAL ENGINEERING DATA BROCHURE
AC3 - Multi-Tone Chime Card
Programmable Multi-Tone Chime Module, Internal Plug-in Card. Mounts on main printed circuit board of Amplifier. Provides eight Electronic Chime Tones and Westminster, DIP-Switch Programming and Output Level Trimmer. Tone is triggered each time the Mute terminals are closed.

PM03W - 3-Watt 4 Ohm and 70 V Amplifier Module - Amplifier Module for DMS Series Amplifiers. Mounts on rear panel port. This is an extremely versatile output module that provides a fourth and independent 3 Watt output Zone. Internal Source Switch (3 position) allows to select the source from Input 2 or 3 (internal connection) of the Amplifier or a separate source by using the Module Line Input. Power is derived internally from the Amplifier. 4 ohm and 70 Volt line output are provided.

- **Power Output:** 3 Watt RMS  •  **Frequency Response:** 40 - 18 KHz  •  **Output Impedance:** 4 ohm, 70 Volt line  •  **Input Impedance:** 47K ohm  •  **Sensitivity:** 200 mV  •  **Panel Control:** Output Level (screwdriver adjust)  •  **Internal Source Selector:** Input2, Input 3, External Input  •  **Terminations:** Line Input = RCA Jack, Output = Screw terminals  •  **Supply Voltage:** 24 V DC (derived from amplifier)  •  **Finish:** Black  •  **Dimensions:** 1.38” W., x 3” H. x 3” D.

M3EQ - 3-Band Audio Equalizer Module - Audio Equalizer Standard Module for DMS Series Amplifiers. Mounts on rear panel port. This is an extremely versatile equalizer module providing three independent EQ adjustments for Low, Mid and High audio spectrum ranges. Standard Input and Output jacks permit connection through the EQ Link circuit of the Amplifier. Each of the three band controls are detented for positive center positioning (no EQ). Power is derived internally from the Amplifier.

- **Input:** 47 K unbalanced  •  **Output:** 47 K unbalanced  •  **Gain:** Unity THD: Less than 0.030% at 1 KHz  •  **Frequency Response:** 20 - 20,000 hz EQ set flat  •  **Signal to Noise Ratio:** -80 dB below +4 dBu  •  **Equalization:** Low Band: ± 12 dB at 100 Hz  •  Mid Band: ± 12 dB at 1 KHz  •  High Band: ± 12 dB at 10 KHz  •  **Controls:** Zero Detented  •  **Terminations:** Input and Output RCA Jack  •  **Contacts:** Internal PCB Contacts  •  **Supply Voltage:** 24 VDC, 25 mA internally derived from amplifier  •  **Panel Finish:** Black  •  **Dimensions:** 1.38” W., x 3” H. x 3” D. (35X78X78 mm)  •  **Cable Supplied:** 12” Dual RCA Cable with Male Plugs on both ends.  •  **Net Weight:** 5 oz (0.15 Kg)


- **Microphone Input:** 250 Ohm Balanced  •  **Sensitivity:** 1.5 mV  •  **Line Input:** 47 K unbalanced  •  **Sensitivity:** 100 mV  •  **Microphone/Line Switch:** Slide Switch on PCB  •  **MIC Input Phantom Power:** 16 + 16 Volt (PCB Jumper)  •  **MIC Low-Cut Filter:** -10 dB at 100 Hz (PCB Jumper)  •  **Output Level Control:** Front Panel Screwdriver Adjust  •  **Remote Volume Control MIC and Line:** 10 K Pot  •  **Terminations:** MIC Input = Screw terminals, Remote Volume = Screw terminals, LINE/AUX = Dual RCA Jacks  •  **Dimensions:** 1.38” W., x 3” H. x 3” D. (35X78X78 mm)  •  **Net Weight:** 5 oz (0.15 Kg)

PML1X6 - Line Distribution Amplifier Module - Mounts on rear panel port. This is an extremely versatile Line Distribution module providing one Line Input (L+R) and Six independent Mono Line Outputs. Ideally suited for Multi-Amplifier Installations and for Music Distribution Systems using one source for up to six Outputs.

- **Input:** 47 K unbalanced  •  **Output:** 47 K unbalanced  •  **Gain:** Unity THD: Less than 0.03% at 1 KHz  •  **Frequency Response:** 20 - 20,000 hz EQ set flat  •  **Signal to Noise Ratio:** -80 dB below +4 dBu  •  **Terminations:** Input and Output RCA Jack  •  **Contacts:** Internal PCB Contacts  •  **Supply Voltage:** 24 VDC, 25 mA internally derived from amplifier  •  **Panel Finish:** Black  •  **Dimensions:** 1.38” W., x 3” H. x 3” D. (35X78X78 mm)  •  **Net Weight:** 5 oz (0.15 Kg)

P4035 - RACK MOUNTING SHELF - 2 AND 3 RACK UNITS

**P 4035/2B 2 Units**
19” Utility Rack Mounting Shelf. Heavy-Duty Steel Construction. Occupies 2 Units of Vertical Rack Space (3.1”).  •  **Construction:** Heavy-Duty Steel  •  **Finish:** Matte Black  •  **Dimensions:** 19” W., 3½” H., 14¾” D. (482 x 89 x 375 mm)  •  **Net Weight:** 4 Lb (1.8 Kg)

**P 4035B 3 Units**
19” Utility Rack Mounting Shelf. Heavy-Duty Steel Construction. Occupies 3 Units of Vertical Rack Space (5.1¼”).  •  **Construction:** Heavy-Duty Steel  •  **Finish:** Matte Black  •  **Dimensions:** 19” W., 5½” H., 14¾” D. (482 x 134 x 375 mm)  •  **Net Weight:** 5 Lb (2.3 Kg)
The optional Model PRMS4 Controller is a cost effective accessory providing On-Off and Output Level Control for each of the Amplifier 4 Inputs either independently or collectively using CAT5 cabling up to a distance of 1000 ft.. Each of the illuminated push-buttons 1-2-3-4 corresponds to the Amplifier Inputs 1-2-3-4. Labels and additional color lenses for the push-buttons are provided. NOTE: The controls of the PRMS4 do not alter the Output level set by the MOH - ZONE 1-ZONE 2 Controls. May be used with the PASO Series DMAB and DXP Series.

PRMS4 - CAT5 - 4 INPUT REMOTE CONTROLLER

PRMS4 - CAT5 INPUT REMOTE CONTROLLER

PRMS4 - 4-Multi-Source Remote Controller with independent Level Control. Utilizes a CAT5 Socket and Phoenix Connector for connection to Amplifier. On-Off Switch and Level Control for each Input. Uses a 4” Square Backbox. White Plate.

Dimensions: 4.75”X4.75”, 1.5” D.

PGR12 - DUAL CHANNEL 6 WATT + 6 WATT UTILITY AMPLIFIER AND CONTROLLER

PGR12 - 12 Watt Utility Digital Amplifier ideally suited for Overhead Projector Audio Amplifier and other applications requiring a small size utility Amplifier. Dual Audio Output 6+6 Watt. Three built-in Relay Switching Contacts, voice activated and direct trigger. Automatic switching between external and internal speakers. Independent Remote Volume Control for Channel A & B via a PASO Model RVC10W wall mount Remote Volume Control. May be Wall, Ceiling or Shelf mounted. Phoenix Connectors. Switching Power Supply. MAY BE USED TO POWER SMALL AREAS WITH PAGING, MUSIC, DOOR ALARMS, CLASS ROOMS PA, PROJECTORS, ETC.


- Dual Amplifiers 6 Watt + 6 Watt
- Automatic Speaker switching
- VOX Activated Operation
- Recessed Output Level Controls
- Remote Output Level Controls for Channel A and B
- External Line Input
- External Line Output
- Wide Frequency Response
- Dual VOX Relay Contacts NO/NC
- 4 - 8 ohm Outputs
- Input for Greeter Box Audio
- VOX Sensitivity Control
- Phoenix Connectors
- External Switching Power Supply provided
- FCC - CSA - UL Listed
100 Channel UHF True Diversity IrDA INFRARED SYNC Wireless System

MODELS

RDU2500/MW593 - 100 CHANNEL UHF SYSTEM WITH BELT PACK TRANSMITTER
RDU2500/MW595 - 100 CHANNEL UHF SYSTEM WITH HAND-HELD TRANSMITTER

RDU2500 RECEIVER

- UHF PLL Synthesized 100 Channels selectable
- True Diversity System for highest quality reception with no dropouts
- LCD Display Menu assisted digital operation
- Menu driven Frequency, Channel, Squelch and Output Level functions
- Microprocessor Control RF Technology for greater operating range
- AUTOSCANN function simplifies multi-channel setup
- Low Battery indicator on the Receiver monitors Transmitter Battery status

100 Channel UHF - IrDA True Diversity Wireless System

Frequency Agile - Extended Range
Dual Front End - Digitally Synthesized
Bidirectional IrDA Infrared Channel Sync

FOR ADDITIONAL ACCESSORIES, ANTENNAS, ETC. SEE PAGE 26

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE
Bidirectional IrDA Channel Sync between Receiver and Transmitters

Microprocessor Controlled Antenna Diversity vs. True Diversity
The heart of an Antenna Diversity system is the Microprocessor that constantly processes and analyzes the signal strength received from the two antennas. When it detects that the signal is becoming weak and dropout is imminent, it forces the Receiver to switch over to the other antenna to avoid "dropout" as the signal strengths from two antennas are never the same. In a True Diversity System two sets of identical RF Front End and IF circuits coexist. The Diversity Comparator electronics constantly compares the two signal strengths and switches between the two received signals depending on which is stronger thus efficiently eliminating dropout due to a weak signal. Technically speaking a Microprocessor Controlled Antenna Diversity System performs better than a non-Diversity system and are suitable for many PA applications which are budget conscious, however, for Broadcast, Concert and best performance applications, the True Diversity is the only solution.

AUTOSCANN Function
The Autoscan Function automatically searches for the next clean channel simplifying a multi-channel application set-up.

MW593 - 100 CHANNEL UHF IrDA SYNC PENDANT/BELTPACK TRANSMITTER
Complete with Electret Microphone, Wind Screen and Tie Clip - MIC Input Termination: 4-pin XLR Mini Connector - Multifunction LCD Display - Channel Selector: Digital on Display - Power Switch with Auto turn-off - Audio ON/OFF Mute Switch with LED Indicator - Battery Type: 2 X 1.5 V AA - Battery Life: 4-6 Hours (time may vary upon use) - UHF Frequency: 625 Mhz Band - Color Finish: Matte Black - Dimensions: 3.75” H. (7.5” including Antenna), 2.5” W., 1.2” D. (including Belt Clip). (95 mm (191 mm with antenna) X 65 mm X 31 mm) - Net Weight: 3 Oz. (76 grams). Batteries not included.

MW595 - 100 CHANNEL UHF IrDA SYNC HANDHELD TRANSMITTER
Microphone: Unidirectional Dynamic - Low Handling Noise - Multifunction LCD Display - Channel Selector: Digital on Display - Power Switch with Auto turn-off - Momentary ON LED Indicator - Battery Type: 2 X 1.5 V AA - Battery Life: 4-6 Hours (time may vary upon use) - UHF Frequency: 625 Mhz Band - Color Finish: Matte Black - Dimensions: 9.5” H., 1.5” Dia. (Tapered Body), 2” Dia. (Mic. Head). (242 mm X 38 mm Dia. (Body) X 51 mm Dia. (Mic Head) - Net Weight: 9 Oz. (255 grams). Batteries not included.
THE PTR200 IS A DUAL UHF WIRELESS BASE STATION. WILL ACCEPT EITHER TWO OPTIONAL RM190 RECEIVER MODULES (DUAL UHF WIRELESS SYSTEM, TRANSMITTERS ARE REQUIRED) OR ONE OPTIONAL RM190 UHF RECEIVER AND ONE OPTIONAL TM190 UHF TRANSMITTER ONLY.

PTR200 CONFIGURATION TABLE

<table>
<thead>
<tr>
<th>Channels</th>
<th>Frequency</th>
<th>Gain</th>
<th>Power Output</th>
<th>Audio Level Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>625 MHz</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

USING TWO RM190U 100 CHANNEL UHF RECEIVERS
Up to two 100 Channel UHF Frequency Agile Receivers may be used with the PTR200. Receivers are plug-in and easily install on the front panel ports provided. The two Receivers can be simultaneously operated by using the optional Transmitters MW293 Beltpack or MW295 Hand-Held described on the next page.

USING ONE RM190U UHF RECEIVER AND ONE TM190U TRANSMITTER
In this configuration the UHF Receiver audio output is routed to the Transmitter audio input for re-broadcasting (Repeater) to other UHF Receivers operating at the Transmitter set frequency channel (up to 800 Ft. distance).

USING ONE TM190U 100 CHANNEL UHF TRANSMITTER
Up to one 100 Channel UHF Frequency Agile TM190U Transmitter may be used with the PTR200. In this configuration the Transmitter can broadcast up to 800 Ft. to various UHF Receivers operating at the same frequency. Ideally suited for Transmitting via UHF to numerous Wireless Portable Sound Systems.
The PR400 is a quad UHF Wireless Base Station. Will accept up to four optional RM190 Receiver Modules (Four UHF Wireless Microphone System) all into one unit of vertical Rack space. Optional UHF Transmitters Models MW293 Beltpack, MW295 Hand-Held or WBM500/18 Desk base are required (see below).

**PR400 - QUAD PORT UHF WIRELESS RECEIVER BASE**

**MODEL PR400 - QUAD UHF RECEIVER BASE STATION**

**MODEL PR400 - FRONT PANEL - Photo Shown with optional RM190 Modules Installed**

**MODEL PR400 - REAR PANEL**

**MODEL RC21 - 19” METAL ROAD CARRYING CASE FOR PR400**

**RC21 - PR400 19” METAL ROAD CARRYING CASE**
Heavy-Duty Metal Carrying Case for PR400. Removable Front and Rear Covers. Covers Metal Snap-Latches. 19” Rack Mounting Housing. Reinforced Corners and Large Carrying Handle. Finish: Silver and Black. Dual removable Covers with Storage Compartment. Dimensions: 20.5” W., 16” D., 3” H. (520 X 406 X 76 mm) Net Weight: 5.6 Lbs (2.6 Kg) empty.

**SHOWN WITH OPTIONAL PR400 AND FOUR RM190U RECEIVERS INSTALLED**
The WPCS50M is a sophisticated, compact, highly versatile sound system specifically engineered for a variety of Multimedia Sound Reinforcement Applications. The numerous available options allow to tailor a system that suits the individual requirement with maximum performance, efficiency and cost effectiveness. The rugged, compact enclosure makes the unit easy to carry and easy to install anywhere indoor or outdoor.

The acoustically engineered Speaker System provides controlled sound dispersion with maximum power output concentration where it is needed. Sound coverage is uniform, with full articulation of speech in the entire area served. The Unidirectional Wireless Microphone is combined with an effective Speaker System that greatly minimizes feedback “howl” and reverberation resulting when sound bounces from ceiling and wall surfaces. Whether you address small or large audiences, your voice is carried over effectively and efficiently. The WPCS50M will cover an area up to 20,000² Feet (1,900² Meters).

The Wireless System operates on the 625 MHz UHF Band.
50 WATT - MODULAR - CLASS "D" ALL DIGITAL WIRELESS PORTABLE SOUND SYSTEM

MW323 - 16 CHANNEL UHF PENDANT/BELTPACK TRANSMITTER
Supplied with Electret Microphone, Wind Screen and Tie Clip - Complete with Lanyard and Belt Clip - MIC Input Termination: 4-pin XLR Mini Connector - Multifunction LCD Display - Channel Selector: Digital on Display - Power Switch - Audio ON/OFF Mute Switch with LED Indicator - Battery Type: 2 x 1.5 V AA - Battery Life: 4-6 Hours (time may vary upon use) - UHF Frequency: 625 MHz Band - Color Finish: Matte Black - Dimensions: 3.75” H. (7.5” including Antenna), 2.5” W., 1.2” D. (including Belt Clip). (95 mm (191 mm with antenna) X 65 mm X 31 mm) - Net Weight: 3 Oz. Batteries not included. TRANSMITTER OPERATES ON THE 625 MHZ UHF BAND.

MW326 - 16 CHANNEL UHF HAND-HELD TRANSMITTER
Microphone: Unidirectional Dynamic - Low Handling Noise - Multifunction LCD Display - Channel Selector: Digital on Display - Power Switch - Momentary ON LED Indicator - Battery Type: 2 x 1.5 V AA - Battery Life: 4-6 Hours (time may vary upon use) - UHF Frequency: 625 MHz Band - Color Finish: Matte Black - Dimensions: 9.5” H. , 1.5” Dia. (Tapered Body), 2” Dia. (Mic. Head). (242 mm X 38 mm Dia. (Body) X 51 mm Dia. (Mic Head) - Net Weight: 9 Oz. Batteries not included. TRANSMITTER OPERATES ON THE 625 MHZ UHF BAND.

FOR ADDITIONAL INFORMATION SEE THE INDIVIDUAL ENGINEERING DATA BROCHURE
The WPSS150M is a sophisticated, high power, highly versatile digital sound system specifically engineered for a variety of Multimedia Sound Reinforcement Applications. The numerous available options allow to tailor a system that suits the individual requirement with maximum performance, efficiency and cost effectiveness. The rugged, compact enclosure makes the unit easy to carry and easy to install anywhere indoor or outdoor.

**COVERS AN AUDIENCE OF 2000 OR MORE**

**INDOOR OUTDOOR OPERATION**

**HIGH INTELLIGIBILITY - SUPERIOR SOUND**

**SUPPLIED ACCESSORIES CARRYING CASE**

**VERSATILE MULTIMEDIA COMPACT SYSTEM**

**RUGGED - HIGH IMPACT ENCLOSURE**

**AC - DC OPERATION**

**BUILT-IN RECHARGEABLE BATTERY (SUPPLIED)**

**INDEPENDENT INPUT LEVEL CONTROLS**

**HIGH POWER TRIAXIAL SPEAKER SYSTEM**

**UP TO 4 UHF WIRELESS SYSTEM OPERATION**

**OR UP TO 3 UHF RECEIVERS AND 1 UHF TRANSMITTER**

**BUILT-IN CASTERS AND 3 STAGE HANDLE**

**COVERS AN AREA UP TO 25,000 SQ. FT. (2,400 SQ METERS)**

RM190U - 100 CHANNEL UHF TRUE DIVERSITY PLUG-IN RECEIVER MODULE

Mounts on WPSS150M Rear Panel - LED Channel Selector Display - Channel Selectors: UP-DOWN - Power Switch with Audio Level Control - Squelch Control - Autoscan Button - RF-AB LED Diversity Indicators - Transmitter low battery indicator - UHF Frequency: 625 Mhz Band - Panel Color Finish: Matte Black - Dimensions: 6" D., 3" W., 1.5" H. (153 mm X 77 mm X 38 mm) - Net Weight: 9 Oz (255 grams). **RECEIVER OPERATES ON THE 625 MHZ UHF BAND.**
WBM500/18 - 100 CHANNEL UHF DESK BASE TRANSMITTER
Microphone: Removable Unidirectional Electret with 18" (43 cm) Gooseneck and XLR Connector - Multifunction LCD Display - Channel Selector: Digital on Display - Gain Control - XLR Connector: MIC Output and Line Input on rear panel - Illuminated Push to talk and Push to Lock Pads - Power Switch - Power LED Indicator - Battery Type: 2 X 1.5 V AA - Battery Life: 4-6 Hours (time may vary upon use) - UHF Frequency: 625 Mhz Band - Color Finish: Dark Grey and Silver - Dimensions Base: 5" W., 6" D. (Tapered) (127 mm X 153 mm), Gooseneck Mic: 18" H., ((430 mm) - Net Weight: 1.7 Lbs (800 grams) . AC Adapter/Recharger included - Batteries not included.
TRANSMITTER OPERATES ON THE 625 MHZ UHF BAND.

FOR ADDITIONAL INFORMATION SEE THE INDIVIDUAL ENGINEERING DATA BROCHURE
The TA50 (WTA50) is a sophisticated, compact, highly versatile sound system specifically engineered for a variety of Multimedia Sound Reinforcement Applications. The numerous available options allow to tailor a system that suits the individual requirement with maximum performance, efficiency and cost effectiveness. The rugged, compact enclosure makes the unit easy to carry and easy to use anywhere indoor or outdoor.

- **MORE THAN 200 FT (60 Meters) EFFECTIVE RANGE**
- **INDOOR OUTDOOR OPERATION**
- **HIGH INTELLIGIBILITY - SUPERIOR SOUND**
- **SUPPLIED WITH WIRED MICROPHONE**
- **Built-in USB Port and MP3 Player (WTA50 only)**
- **RUGGED - HIGH IMPACT ENCLOSURE**
- **Built-in LITHIUM ION Rechargeable Battery**
- **INDDEPENDENT INPUT LEVEL CONTROLS**
- **RETRACTABLE CARRYING HANDLE**
- **SUPPLIED WITH SHOULDER STRAP**
- **MAY BE MOUNTED ON A FLOOR STAND**
- **16 Ch. UHF RECEIVER (WTA50 only) requires Transmitter**
- **AC - DC OPERATION**
- **AC - DC OPERATION**

The acoustically engineered Speaker System provides controlled sound dispersion with maximum power output concentration where it is needed. Sound coverage is uniform, with full articulation of speech in the entire area served. The Unidirectional Wireless Microphone is combined with an effective Speaker System that greatly minimizes feedback “howl” and reverberation resulting when sound bounces from ceiling and wall surfaces. Whether you address small or large audiences, your voice is carried over effectively and efficiently. The TA50-WTA50 has an effective Voice Range in excess of 200 Ft. (61 Meters).
MODEL TA50 - BASIC SYSTEM WITH M555 DYNAMIC MICROPHONE

- Wireless system operates on the 625 MHz UHF band

MODEL WTA50 - BUILT-IN 16 CHANNEL UHF RECEIVER - USB MP3 PLAYER AND M555 UNIDIRECTIONAL DYNAMIC MICROPHONE WITH CABLE

- Built-in 16 channel UHF receiver
- USB MP3 player
- M555 unidirectional dynamic microphone with cable

WIRELESS SYSTEM OPERATES ON THE 625 MHZ UHF BAND

FOR ADDITIONAL INFORMATION SEE THE INDIVIDUAL ENGINEERING DATA BROCHURE
The PAD416 is an active unity-gain, UHF Diversity Antenna Distribution System. It provides one REMOTE ANTENNA A Input to four Receiver Outputs and one REMOTE ANTENNA B Input to four Receiver Outputs. The PAD416 also provides DC Power to up to four Diversity Receivers (12V - 14V). Rack Mount Ears, prewired BNC to BNC Antenna Cables, DC Power Cables and BNC/TNC Connector Adapters for the Diversity Receivers are included. The Remote Antennas AR216, DA80, Antenna Boosters AB80, and RF connecting cables are optional.

**SPECIFICATIONS**

- **Frequency Range:** 600 to 1000 Mhz
- **Input Impedance:** 50 ohm
- **Output Impedance:** 50 ohm
- **Nominal Gain:** 0 dB
- **BNC Antenna Jacks:** 4 Antenna A, 4 Antenna B
- **Remote Ant. Jacks:** 1 Antenna A, 1 Antenna B
- **DC Power Output:** 12V - 14V, 3.6 A
- **DC Output Jack:** Four 12 - 14 VDC
- **Power Requirement:** 100 - 240 V, 50-60 hZ
- **Rack Mount:** 19" with Rack Ears supplied
- **Rack Space:** 1 Unit of vertical space
- **Dimensions:** 17" W., 7.75" D., 1.75" H. (432 X 197 X 45 mm)
- **Net Weight:** 3.6 Lb. (1.65 Kg)

**BLOCK DIAGRAM** - The Block Diagram shows the PAD416 with 4 RDU2500 UHF Diversity Receivers, 2 optional AR216 Remote Antenna and 2 optional AB80 Antenna Booster. The Antenna Booster is required only if the distance between the PAD416 and the AR216 Antenna exceeds 100 ft.. Please note that if it is required for the RDU2500 Receivers to be mounted in a Rack the optional PRK216 Rack Kit is required, one Kit for two receivers.

**Accessories**

**SPECIFICATIONS**

- **DA-80 - UHF Unidirectional Antenna** - Wideband design for use with all UHF Wireless Systems. Increased range and reduced interference as compared to omnidirectional 1/2-wave antennas. Improves RF Signal Gain by up to 10 dB or more. Radiation Pattern: Directional, Cardioid. Frequency Range: 470 ~ 952 Mhz - Input Termination: BNC Female - Dimensions: 10.5" W., 12" H., 1.10" D. (267X305X28 mm) Net Weight: 10.4 oz (295 grams) Mounting: 5/8"-27 thread on integral swivel adapter bracket for mounting on flange or on microphone stand. Shipped in pair for diversity systems. May be wall or ceiling mounted with WMB50 listed on page 21. RF Cable not included.

- **AR216 - UHF Ground Plane Antenna** - Frequency Range: 600 ~ 1000 Mhz - Input Termination: BNC Male - Mounting: 5/8"-27 thread on rod for mounting on flange (supplied) or on microphone stand - 90° elbow adapter for wall mounting - Dimensions: 19.25" (489 mm) H. fully extended - Net Weight: 1 Lb (0.45 Kg) - 2 Antennas are required for diversity system. Termination: BNC Female. RF Cable not included.

- **AB80 - Antenna Booster** - Frequency Range: 600~1000 Mhz - Input Gain: +12.5 dB - Noise: <1.4 dB - Input/Output: Impedance: 50 ohm - Terminations: BNC Male to BNC Female - Dimensions: 4" L. (including Connectors), 1.25" Diameter: (105 X 32 mm) - Net Weight: 0.22 Lb (0.2 Kg) - Mounts in series with Antenna RF Cable.
SOUND SYSTEM
The figure at left shows the vertical and horizontal sound radiation pattern of the Sound Column Lecterns. The acoustically engineered sound column enclosure provides controlled sound dispersion with maximum power output concentration where it is needed. Sound coverage is uniform, with full articulation of speech in the entire area served. The built-in electronic Speech-Filter Equalizer greatly minimizes feedback "howl" and reverberation resulting when sound bounces from ceiling and wall surfaces. Whether you address small or large audiences, your voice is carried over effectively and efficiently. The Lectern will cover an area up to 20,000² Feet (2,000² Meters).

The large figure at left shows the approximate “Effective Sound Range” of a Paso Sound Column Lectern when used at rated power. Approx. Range: 250 Ft. (80 m.).

TILT AND ROLL™
TILT AND ROLL™ Selected models incorporate two recessed casters within the floor base. By tilting the cabinet rearward, the Lectern can be easily moved from location to location. Once the Lectern is returned to its vertical position, the Lectern is stationary and locked in position.

DC OPERATION
DC OPERATION: Most models may be operated on DC by using the optional rechargeable battery pack (see accessories). The battery is automatically recharged by the built-in recharger when the Lectern is operated on AC.

All PASO Lecterns and Cabinets are Handcrafted in the USA
150 Watt Sound Powered Lecterns
Exceptional Power and Clarity

Class D Digital Amplifier - Optional UHF Wireless Microphones
Optional DVD/CD/USB Player and MP3 Digital Recorder Modules
WILL COVER AN AUDIENCE OF 2500 OR MORE

Reading Light
Retractable Projector Shelf
Locking Compartment
Utility Shelf
Casters for Mobility
DC operation with optional Battery

Computer and Projector not supplied
The extremely flexible "MODULAR" concept allows the Lectern to be fitted with a number of Modules to meet the individual application with maximum cost effectiveness!

* OPTIONAL MODULAR EQUIPMENT

SL400 - SL500 - SL600
CONTROLS REAR PANEL SHOWN
WITH OPTIONAL MODULES INSTALLED

TM190 - 100 CHANNEL TRANSMITTER/REPEATER MODULE. TRANSMITS ALL SOURCES FROM THE LECTERN TO THE POWERED SLAVE UNIT*

DVDM5U - DVD PLAYER - PLAYS DVD/CDR/CDRW/MP3 AND USB THUMB DRIVE MP3 TRACKS - REMOTE CONTROL INCLUDED *

MP3M50 - MP3 RECORDER/PLAYER DIGITAL RECORDING AND PLAY-BACK - SD MEMORY CARD SLOT - BUILT-IN 128 MB RESIDENT MEMORY - USB PORT FOR PC CONNECTION *

All PASO Lecterns and Cabinets are Handcrafted in the USA
Handcrafted Lectern constructed by using the finest Solid Hardwoods and Veneers. The reading table is wide and deep providing over 300² inches of usable surface. A recessed reading light is provided. The classic design and the commanding size makes this Lectern ideally suited for boardrooms, conference rooms, convention centers, auditoriums, large meeting rooms, schools, hospitals, hotels, restaurants, etc. The SL400 Sound System has been specifically engineered to provide clean, uniform sound dispersion with amazing power and clarity and twice the output power of similar competitive models. Acoustic feedback is virtually eliminated by using a directional Sound Column Speaker design, Unidirectional Dynamic Microphone and Speech Filter Equalization. The Sound Lectern will effectively cover audiences of 1500 or more indoor. Dimensions: 48” H., 22½” W., 21¼” D. Net Weight: 70 Lbs (34 Kg).

**AVAILABLE WITH OR WITHOUT SOUND SYSTEM**
(see below for models available)

- Optional Wireless Microphone (Up to 4)
- Optional DVD/CD/USB Player
- Unidirectional Dynamic Microphone
- Powerful Sound Column Speaker System
- Built-In Speech Filter Equalizer
- Volume and Tone Controls
- Output for Auxiliary Speaker
- Inputs for up to two Wired Microphones
- Output for Tape Recording Device
- Recessed Casters for Mobility
- Recessed Reading Light
- DC Operation with Optional Battery

---

**MODELS WITH SOUND**

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Cabinet Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>SL400DO</td>
<td>Dark Oak</td>
</tr>
<tr>
<td>SL400NW</td>
<td>Natural Walnut</td>
</tr>
<tr>
<td>SL400NO</td>
<td>Natural Oak</td>
</tr>
<tr>
<td>SL400NM</td>
<td>Natural Mahogany</td>
</tr>
<tr>
<td>SL400DM</td>
<td>Dark Mahogany</td>
</tr>
<tr>
<td>SL400RM</td>
<td>Red Mahogany</td>
</tr>
</tbody>
</table>

**CABINETS ONLY**

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Cabinet Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLC400DO</td>
<td>Dark Oak</td>
</tr>
<tr>
<td>SLC400NW</td>
<td>Natural Walnut</td>
</tr>
<tr>
<td>SLC400NO</td>
<td>Natural Oak</td>
</tr>
<tr>
<td>SLC400NM</td>
<td>Natural Mahogany</td>
</tr>
<tr>
<td>SLC400DM</td>
<td>Dark Mahogany</td>
</tr>
<tr>
<td>SLC400RM</td>
<td>Red Mahogany</td>
</tr>
</tbody>
</table>

**DIMENSIONAL DRAWINGS**

- **Front View**: 22.5” W., 16.5” D.
- **Rear View**: 31.25” W., 15.5” D.
- **Side View**: 21.75” W., 9.00” H.

**FEATURES**

- **TILT AND ROLL™**: The Lectern incorporates two recessed casters within the floor base. By tilting the cabinet rearward, the Lectern can be easily moved from location to location. Once the Lectern is returned to its vertical position, the Lectern is stationary and locked in position.

- **DC OPERATION**: The Lectern may be operated on DC by using the optional rechargeable battery pack (see accessories). The battery is automatically recharged by the built-in recharger when the Lectern is operated on AC.

- **ACCESSORIES**
  - M941M - Auxiliary Unidirectional Dynamic Microphone. Complete with 15ft (5 m) Cable and XLR male connector.
  - CV24 - 30ft. (10 m) Microphone Extension Cable complete with XLR connectors.

---

**SEE OPTIONAL UHF WIRELESS SYSTEMS & DVD/CD/USB PLAYER**

MP3 RECORDER MODULES ON PAGE 29

---

**Econo-Friendly Green Product**

---

PAGE 30 SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE
Wide Body - Solid Hardwood Cabinets and Digital Sound Powered Lecterns

SL 500 - 150 Watt - 25” Wide Body
SOLID HARDWOOD SOUND POWERED LECTERN
AC and Optional DC Operation
Class D Digital Amplifier
Covers an audience of up to 2500

Handcrafted Lectern constructed by using the finest Solid Hardwoods and Veneers. The reading table is wide and deep providing over 300² inches of usable surface. A recessed reading light is provided. The classic design and the commanding size makes this Lectern ideally suited for boardrooms, conference rooms, convention centers, auditoriums, large meeting rooms, schools, hospitals, hotels, restaurants, etc. The SL500 Sound System has been specifically engineered to provide clean, uniform sound dispersion with amazing power and clarity and twice the output power of similar competitive models. Acoustic feedback is virtually eliminated by using a directional Sound Column Speaker design, Unidirectional Dynamic Microphone and Speech Filter Equalization. The Sound Lectern will effectively cover audiences of 2500 or more indoor. Dimensions: 49” H., 25” W., 23” D. Net Weight: 90 Lbs (41 Kg).

AVAILABLE WITH OR WITHOUT SOUND SYSTEM
(see below for models available)

SEE OPTIONAL UHF WIRELESS SYSTEMS
& DVD/CD/USB PLAYER
MP3 RECORDER MODULES ON PAGE 29

MODELS WITH SOUND

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Cabinet Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>SL500DO</td>
<td>Dark Oak</td>
</tr>
<tr>
<td>SL500NW</td>
<td>Natural Walnut</td>
</tr>
<tr>
<td>SL500NO</td>
<td>Natural Oak</td>
</tr>
<tr>
<td>SL500NM</td>
<td>Natural Mahogany</td>
</tr>
<tr>
<td>SL500DM</td>
<td>Dark Mahogany</td>
</tr>
<tr>
<td>SL500RM</td>
<td>Red Mahogany</td>
</tr>
</tbody>
</table>

CABINETS ONLY

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Cabinet Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLC500DO</td>
<td>Dark Oak</td>
</tr>
<tr>
<td>SLC500NW</td>
<td>Natural Walnut</td>
</tr>
<tr>
<td>SLC500NO</td>
<td>Natural Oak</td>
</tr>
<tr>
<td>SLC500NM</td>
<td>Natural Mahogany</td>
</tr>
<tr>
<td>SLC500DM</td>
<td>Dark Mahogany</td>
</tr>
<tr>
<td>SLC500RM</td>
<td>Red Mahogany</td>
</tr>
</tbody>
</table>

TILT AND ROLL™: The Lectern incorporates two recessed casters within the floor base. By tilting the cabinet rearward, the Lectern can be easily moved from location to location. Once the Lectern is returned to its vertical position, the Lectern is stationary and locked in position.

DC OPERATION: The Lectern may be operated on DC by using the optional rechargeable battery pack (see accessories). The battery is automatically recharged by the built-in recharger when the Lectern is operated on AC.

ACCESSORIES
M941M - Auxiliary Unidirectional Dynamic Microphone. Complete with 15ft (5 m) Cable and XLR male connector.

27/12 - 12 Volt sealed rechargeable battery pack. Lectern operates 5-6 hours on each charge. Mounts inside Lectern. Two required.

CV24 - 30ft. (10 m) Microphone Extension Cable complete with XLR connectors.

All PASO Lecterns and Cabinets are Handcrafted in the USA
MODELS WITH SOUND
SL 371 - 50 Watt
Class D Digital Amplifier
SOUND POWERED LECTERN
Covers an audience of up to 1000

Streamlined Sound Lectern for voice reinforcement in Conference and Meeting Rooms, Auditoriums, Churches, Hotels, Motels, Schools, Clubs, Meeting Halls, etc. The handcrafted cabinet is durable and decorative, finished in either wood-grain walnut or light oak laminate. The powerful amplifier is combined with a high efficiency Sound Column Speaker System completely integrated within the Lectern’s cabinet. The result is superb voice reproduction with a minimum of reverberation. Additional features include: Unidirectional Dynamic Microphone, shock-mount holder for the microphone, input for second microphone, output for tape or external PA system, output for external speaker, speech equalizer with switch, auxiliary input, volume and tone controls. The unit may operate on DC with the optional rechargeable battery. The battery is recharged while the lectern is used on AC.

AVAILABLE WITH OR WITHOUT SOUND SYSTEM (see below for models available)

MODELS WITH SOUND
SL371W - Walnut Finish
SL371K - Light Oak Finish

SL371CW - Walnut Finish
SL371CK - Light Oak Finish

CABINETS ONLY

SL370W - Walnut Finish
SL370K - Light Oak Finish

SL370CW - Walnut Finish
SL370CK - Light Oak Finish

Power Output: 50 Watt RMS
Microphone: Unidirectional Dynamic
Microphone Holder: Anti-shock with Gooseneck
Speaker System: 4X 8” (200mm) Heavy Duty Speakers
Inputs: 1 Mic., 1 Aux.
Outputs: Tape/Line Out, External Speaker (4 Ohm)
Controls: Mic/Aux Volume, Speech Filter, Bass & Treble
Terminations: 1/4” Phono Jacks
Supply: 100-240V 50-60 Hz AC
DC: 24-28V DC with optional Battery
Power Consumption: AC 90 VA, DC 60 W

Material: High Density Wood Compound
Finish: Formica Laminate
Front Grill: Molded with Acoustic Cloth
Dimensions: 45” H., 21” W., 14½” D. (115 X 54 X 37 cm)
Net Weight: 65 Lbs (30 Kg)

SHIPPING INFORMATION
Shipping Weight: Carton 1: 67 Lbs (30.5 Kg)
Carton 2: 25 Lbs (11.5 Kg)
Dimensions: Carton 1: 47”X14”X23” (120X36X59 cm)
Carton 2: 25”X19”X6” (63.5X49X15 cm)
Carton Volume: Carton 1: 8.8³ Ft. (0.26³ m)
Carton 2: 1.7³ Ft. (0.047³ m)

Table-Top Sound Powered Lecterns - Laminate Finish

SL 370 - 50 Watt
Class D Digital Amplifier
SOUND POWERED LECTERN

Economy model, self-contained, table-top Sound Lectern for sound reinforcement in Conference and Meeting Rooms, Schools, Motels, Private Clubs or wherever voice or music amplification is required. The lectern is acoustically engineered to provide clear reproduction with uniform coverage. The Unidirectional Dynamic Microphone is removable from its support on the lectern and can be used up to 15 ft. away from the lectern. A second microphone may be connected to the lectern. The tape output provides for direct connection to a recording device. The optional rechargeable battery permits the lectern to be used anywhere on DC power. The built-in battery recharger automatically recharges the battery while the lectern is operating on AC power.

AVAILABLE WITH OR WITHOUT SOUND SYSTEM (see below for models available)

MODELS WITH SOUND
SL370W - Walnut Finish
SL370K - Light Oak Finish

SL370CW - Walnut Finish
SL370CK - Light Oak Finish

CABINETS ONLY

SL370W - Walnut Finish
SL370K - Light Oak Finish

Power Output: 50 Watt RMS
Microphone: Unidirectional Dynamic
Microphone Holder: Anti-shock with Gooseneck
Speaker System: 8” (200mm) Heavy Duty Speaker
Inputs: 1 Mic., 1 Aux.
Outputs: Tape/Line Out, External Speaker (4 Ohm)
Controls: Mic/Aux Volume, Speech Filter, Bass & Treble
Supply: 100-240V 50-60 Hz AC

DC: 24-28V DC with optional Battery
Power Consumption: AC 90 VA, DC 60 W

Dimensions: 13¼” H., 21” W., 14½” D. (34 X 54 X 37 cm)
Net Weight: 38 lbs (18 Kg)

SHIPPING INFORMATION
Shipping Weight: 41 Lbs, (18.7 Kg)
Carton Dimensions: 24”X17”X17” (61X43X43 cm)
Carton Volume: 4.1³ Ft. (0.113³ m)

PAGE 32

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE
SL 381 - 50 Watt
Class D Digital Amplifier
SOUND POWERED LECTERN
Covers an audience of up to 1500

Streamlined Sound Column Lectern for voice reinforcement in Conference and Meeting Rooms, Auditoriums, Churches, Hotels, Schools, Clubs, Meeting Halls, etc. The handcrafted cabinet is durable and decorative, finished in either woodgrain walnut or light oak laminate and a matching acoustic front grille. The total Lectern height is adjustable by means of a locking knob on the rear panel. The height can be varied from 49” to 55” (125 to 140 cm) to facilitate the use by persons of different height. A hand polished brass anti-shock with Gooseneck microphone holder is both durable and decorative, finished in either woodgrain walnut or light oak laminate with Reading Light. Two casters are recessed within the floor base for mobility. High efficiency Sound Column Speaker System provides high voice intelligibility with a Unidirectional Dynamic Microphone, shock-mount holder, input for second microphone, output for tape or external PA system, output for external speaker, speech equalizer with switch, auxiliary input, volume and tone controls. The unit may operate on DC with the optional rechargeable battery pack. The battery is recharged while the lectern is used on AC.

Available with or without Sound System (see below for models available)

MODELS WITH SOUND

SL372W - Walnut Finish
SL372K - Light Oak Finish

MODELS WITHOUT SOUND

SL372CW - Walnut Finish
SL372CK - Light Oak Finish

DIGITAL SPECIFICATIONS

Power Output: 50 Watt RMS
Microphone: Unidirectional Dynamic
Microphone Holder: Anti-shock with Gooseneck
Speaker System: 4X 8" (200mm) Heavy Duty Speakers
Inputs: 1 Mic., 1 Aux.
Outputs: Tape/Line Out, External Speaker (4 Ohm)
Controls: Mic/Aux Volume, Speech Filter, Bass & Treble
Terminations: 1/4" Phono Jacks
Supply: 100-240V 50-60 Hz AC
DC/24-28V DC with optional Battery
Power Consumption: AC 90 VA, DC 60 W
CABINETRY
Color Finish: Woodgrain Walnut or Light Oak

SL 381 - 50 Watt
Class D Digital Amplifier
SOUND POWERED LECTERN

The SL381 is a streamlined, manually adjustable, Sound Lectern for voice reinforcement in Conference and Meeting Rooms, Auditoriums, Churches, Hotels, Schools, Clubs, Meeting Halls, etc. The handcrafted all wood construction is both durable and decorative, finished in either woodgrain walnut or light oak laminate and a matching acoustic front grille. The total Lectern height is adjustable by means of a locking knob on the rear panel. The height can be varied from 49” to 55” (125 to 140 cm) to facilitate the use by persons of different height. A hand polished brass anti-glare reading light provides full illumination of the reading table. The powerful amplifier and the high efficiency Sound Column Speaker System provide superb voice reproduction and high intelligibility with a minimum of reverberation. Additional features include: Recessed casters for easy mobility, Unidirectional Dynamic Microphone, shock-mount holder for the microphone, input for second microphone, output for tape or external PA system, output for external speaker, speech equalizer with switch, auxiliary input, volume and tone controls.
High Performance Unidirectional Electret & Dynamic Microphones

Push-to-talk, Desk Base Unidirectional Electret Microphone with integral push-to-talk switch and push-to-lock switch. The microphone is supplied with a 15-ft. shielded cable and is attached to the base by a female XLR Connector (the male XLR Connector is built-in the base of the Microphone). The cable consists of two conductors shielded for a balanced microphone input. Muting is provided by the VOX Circuit of the PASO Amplifier.

B 500EX Unidirectional Electret

- Push to Talk and Push to Lock Switches
- Die-Cast Base with Flexible Gooseneck
- Low Impedance
- Shock Mounted Gooseneck and Element
- Built-in XLR Male Connector
- Furnished with 15 cable and XLR (at MIC end)

Phantom Power required - 12 to 48 Volt

Element: Electret
Frequency Response: 60 - 14,000 Hz
Polar Pattern: Cardioid
Impedance: 250 ohm
Output Level at 1 Khz: -74 db (.20 mV) (0 db=1 V/mbar)
Open Circuit Voltage: -77 db (.13 mV) (0 db=1 V/mbar)
Talk Switches: Push to talk Illuminated, Push to Lock Illuminated
Base: Heavy Duty Die-Cast
Finish: Dark Grey and Silver
Dimensions: Base, 5" W., 6" D. Tapered, 2" H. (127 X 153 X 51 mm)
Gooseneck: Removable Black with XLR
Length: 18" (458 mm)
Net Weight: 1.7 lbs (0.8 Kg)

A desirable sound system begins with a good microphone. Paso unidirectional dynamic microphones' frequency response has been tailored to provide the best possible reproduction regardless of environmental noise, undesirable acoustics and microphone placement. Most Paso "Handlers" series microphones feature a rugged die-cast zinc alloy enclosure. This mechanical solution insures high tensile strength and great resistance to shock. The dynamic element is then surrounded by a heavy-duty woven wire mesh grille and further protected by a foam "pop" and windscreen. Finally the exclusive non-reflecting scratch and stain resistant finish is electroplated on the enclosure for long lasting protection and beauty.

Model Configurations

M911F - With Female Connector
M911M - With Male Connector
M911X - Without Connector

A general purpose Unidirectional Dynamic Microphone that offers good quality in a handsomely designed enclosure. The high sensitivity and high output cartridge is shock mounted to minimize handling noise. Specifically designed for voice applications the uni pattern is particularly useful for cancelling acoustic feedback and background noise. The smooth response is tailored to provide a crisp and clear reproduction without annoying boominess. Other characteristics include rugged wiremesh wind screen, On Off switch, non-reflecting scratch resistant black electroplated finish, standard mount stand holder, 15 ft. cable and protective carrying case.

High Output Unidirectional Dynamic General Purpose

Element: Dynamic Shock Mounted
Frequency Response: 60 - 14,000 Hz
Polar Pattern: Cardioid
Impedance: 250 ohm
Output Level at 1 Khz: -77 db (.13 mV) (0 db=1 V/mbar)
Open Circuit Voltage: -74 db (.20 mV) (0 db=1 V/mbar)
Talk Switch: On-Off
Base: Zinc Diecast
Finish: Matte Black
Dimensions: 4.5" (115 mm) Long
Gooseneck: 18" (458 mm) Black with XLR
Net Weight: 11 oz (312 grams)

Model Configurations

M921F - With Female Connector
M921M - With Male Connector
M921X - Without Connector

A general purpose, Unidirectional Dynamic Microphone particularly suited for sound reinforcement and recording. The rugged high sensitivity and high output cartridge is shock mounted to minimize handling noise. Specifically designed for voice applications the uni pattern is particularly useful for cancelling acoustic feedback and unwanted background noise. Other characteristics include metal wind screen, On Off switch, matte black non-reflecting scratch and stain resistant electroplated finish, standard mount stand holder and a 15 ft. detachable cable.

High Output M921

Model Configurations

M921F - With Female Connector
M921M - With Male Connector
M921X - Without Connector

* 3 pin audio connector attached at equipment end

PAGE 34 SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE
**High Performance Unidirectional Dynamic Microphones**

**Model Configurations**

- **M941F** - With Female Connector*
- **M941M** - With Male Connector*
- **M941X** - Without Connector

* 3 pin audio connector attached at equipment end

**Hypercardioid**

**M941**

- Unidirectional Dynamic Super Grade, Vocal, Stage

- **Element**: Dynamic Shock Mounted
- **Frequency Response**: 50 - 17,000 Hz
- **Polar Pattern**: Hypercardioid
- **Impedance**: 250 ohm
- **Output Level**: At 1,000 Hz
- **Power Level**: -57 dB (0 dB=1 mw/10 mbar)
- **Open Circuit Voltage**: -77 dB, .013 Mv (0 dB=1 V/mbar)
- **Switch**: On-Off
- **Case**: Zinc Diecast
- **Finish**: Matte Black
- **Dimensions**: 7" (178 mm) long
- **Accessories Included**: Tapered Stand Holder 5/8-27

**Net Weight**: 13.5 oz (348 grams)

**M951**

- Unidirectional Dynamic Professional, Studio, Stage, Vocal

- **Model Configurations**
  - **M951F** - With Female Connector*
  - **M951M** - With Male Connector*
  - **M951X** - Without Connector

* 3 pin audio connector attached at equipment end

Produced for those who need a hand-held, high performance professional microphone. Big bass sound for close "miking", wide frequency response for crisp sound, rugged design, built-in pop filter and high output. A doubly redundant, highly damped suspension system completely isolates the cartridge from the outer case, greatly minimizing handling noise. Hypercardioid design provides front to back rejection greater than 25 db at 1 KHz, permitting higher usable output with less "howling problems" and background noise. Other features include high efficiency anti-pop filter, On-Off switch, black non-reflecting scratch resistant electroplated finish, anti-shock holder, 15-ft. cable and carrying case.

**Net Weight**: 12.2 oz (315 grams)

**M960**

- Neodymium Ultracardioid Dynamic Professional, Studio, Stage, Vocal

- **Model Configurations**
  - **M960F** - With Female Connector*
  - **M960M** - With Male Connector*
  - **M960X** - Without Connector

* 3 pin audio connector attached at equipment end

- Neodymium Magnet with almi-chromate coating
- Ultracardioid Pattern
- Shock Mount Element
- High Output Level
- Leather-Touch non-reflectant Finish
- Dual Wind Screen
- Heavy-Duty Zinc Die-Cast Enclosure
- Integral 3 pin XLRM gold plated connector
- Positive pressure on diaphragm produces a positive voltage on Pin 2 of XLR connector
- Protective Carrying Case included

**Net Weight**: 310 grams (11 Oz) less cable

**ACCESSORIES**


- **S12** - Anti-shock microphone holder. Drastically minimizes stand handling noise. Accepts microphones with up to 1¼" (3.1 cm) diameter. Standard threaded brass insert. Black finish.

FOR ADDITIONAL INFORMATION SEE THE INDIVIDUAL ENGINEERING DATA BROCHURE
Wide Range Dual Cone Speaker

SP500 - 8" Dual Cone Speaker Only

- Power Handling: 10 Watt RMS
- Music Power Max.: 15 Watt
- Frequency Response: 50 - 18 Khz
- Sensitivity: 96 db at 1 W - 1 Meter
- Speaker Type: 8" (200 mm) Dual Cone
- Magnet: 5.4 Oz (153 g) Ceramic
- Flux Density: 9,600 Gauss
- Impedance: 8 ohm
- Net Weight Each: 1.2 Lbs (0.6 Kg)
- Standard Packaging: 12 Pcs per Carton

SP570 - Speaker with 25/70 V Transf.

Same as SP500

Power Taps: 25 Volt 70 Volt
- 5-2.5-1.25-0.625 Watt
- 2.2 Lbs (1.0 Kg)
- Standard Packaging: 12 Pcs per Carton
- Gross Carton Weight: 24.2 Lbs (11 Kg)

Wide Range High Efficiency Speaker

SP1070 with 25/70V Transformer

Wide Range Dual Cone Speaker

SP1000 - 8" Dual Cone Speaker Only

- Power Handling: 15 Watt RMS
- Music Power Max.: 25 Watt
- Frequency Response: 50 - 18 Khz
- Sensitivity: 97 db at 1 W - 1 Meter
- Speaker Type: 8" (200 mm) Dual Cone
- Magnet: 10 Oz (285 g) Ceramic
- Flux Density: 10,700 Gauss
- Impedance: 8 ohm
- Net Weight Each: 1.7 Lbs (0.8 Kg)
- Standard Packaging: 12 Pcs per Carton

SP1070 - Speaker with 25/70 V Transf.

Same as SP1000

Power Taps: 25 Volt 70 Volt
- 5-2.5-1.25-0.625 Watt
- 2.2 Lbs (1.0 Kg)
- Standard Packaging: 12 Pcs per Carton
- Gross Carton Weight: 29.7 Lbs (13.5 Kg)

Full Range Coaxial Speaker

SP810CXT with 25/70V Transformer

2 Way Coaxial Speaker

SP810CX - 8" Coaxial, Speaker Only

- Power Handling: 20 Watt RMS
- Music Power Max.: 30 Watt
- Frequency Response: 40 - 20 Khz
- Sensitivity: 98 db at 1 W - 1 Meter
- Speaker Type: 8" (200 mm) Coaxial Tweeter: Polypropylene
- Magnet: 10 Oz (285 g) Ceramic
- Flux Density: 10,700 Gauss
- Impedance: 8 ohm
- Net Weight Each: 2.5 Lbs (1.3 Kg)
- Standard Packaging: 12 Pcs per Carton

SP810CXT - Spkr with 25/70 V Transf.

Same as SP810CX

Power Taps: 25 Volt 70 Volt
- 10-5-2.5-1.25 Watt
- 2.8 Lbs (1.3 Kg)
- Standard Packaging: 12 Pcs per Carton
- Gross Carton Weight: 34.75 Lbs (15.8 Kg)

Line Transformer

T2570/10 - 10 Watt, 25/70V


- Power Handling: 10 Watt
- Line Voltage: 25 Volt and 70.7 Volt
- Power Taps: 25 Volt: 10 - 5 - 2.5 - 1.25 W
- Secondary Impedance: 8 ohm
- Termination: Stripped Wire Pigtail
- Insertion Loss: 1.0 db

Ceiling Speaker Back Box

ERD8 - Closed Steel Enclosure

- Ceiling loudspeaker back box. Heavy-gauge steel construction. Complete with mounting straps and J-nuts for attaching Ceiling Baffles. Knockouts for armored cable mount. Integral Polymer damper. UL Listed

- Power Handling: 10 Watt
- Line Voltage: 25 Volt and 70.7 Volt
- Power Taps: 25 Volt: 10 - 5 - 2.5 - 1.25 W
- Secondary Impedance: 8 ohm
- Termination: Stripped Wire Pigtail
- Insertion Loss: 1.0 db

Ceiling Speaker Tile Bridge

SSB3 - Tile Bridge Assembly

Ceiling loudspeaker tile bridge. Permits mounting of ceiling speaker over suspended ceiling frame. Prevents sagging of tile by supporting speaker weight over frame.

- Power Handling: 10 Watt
- Line Voltage: 25 Volt and 70.7 Volt
- Power Taps: 25 Volt: 10 - 5 - 2.5 - 1.25 W
- Secondary Impedance: 8 ohm
- Termination: Stripped Wire Pigtail
- Insertion Loss: 1.0 db
Ceiling Speaker Assemblies - Line Attenuators

**Wide Range Dual Cone**

**C15TST** - 8" Dual Cone Speaker, 5.4 Oz Magnet with 25/70 Volt Transformer and White Steel Baffle

Recessed mount Ceiling Speaker assembly. 8" Wide Range, Dual Cone Speaker with Line Transformer. White Steel Baffle. Supplied with mounting hardware.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>C15TST</td>
<td>10 Watt RMS</td>
<td>15 Watt</td>
<td>50 - 18 KHz</td>
<td>96 db at 1 W - 1 Meter</td>
<td>SP570</td>
<td>8&quot; (200 mm) Dual Cone</td>
<td>5.4 Oz (153 g) Ceramic</td>
<td>9,600 Gauss</td>
<td>5 Watt - 25/70 Volt</td>
<td>5-2.5-1.25 Watt</td>
<td>13&quot; (330 mm) Diameter</td>
<td>2.4 Lbs (1.1 Kg)</td>
<td>White</td>
<td>Steel</td>
<td>Individually Boxed</td>
<td>12 Pcs per Carton</td>
</tr>
</tbody>
</table>

**Wide Range High Efficiency**

**C16TST** - 8" Dual Cone Speaker, 10 Oz Magnet with 25/70 Volt Transformer and White Steel Baffle

Recessed mount Ceiling Speaker assembly. 8" Wide Range, Dual Cone Speaker with Line Transformer. White Steel Baffle. Supplied with mounting hardware.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>C16TST</td>
<td>15 Watt RMS</td>
<td>25 Watt</td>
<td>50 - 18 KHz</td>
<td>97 db at 1 W - 1 Meter</td>
<td>SP1070</td>
<td>8&quot; (200 mm) Dual Cone</td>
<td>10 Oz (285 g) Ceramic</td>
<td>10,700 Gauss</td>
<td>5 Watt - 25/70 Volt</td>
<td>5-2.5-1.25 Watt</td>
<td>13&quot; (330 mm) Diameter</td>
<td>3 Lbs (1.5 Kg)</td>
<td>White</td>
<td>Steel</td>
<td>Individually Boxed</td>
<td>12 Pcs per Carton</td>
</tr>
</tbody>
</table>

**Full Range Coaxial**

**C20CXTS** - 8" Coaxial Speaker, 10 Oz Magnet with 25/70 Volt Transformer and White Steel Baffle

Recessed mount Ceiling Speaker assembly. 8" Full Range, 2 Way Coaxial Speaker with Tweeter and with Line Transformer. White Steel Baffle. Supplied with mounting hardware.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>C20CXTS</td>
<td>20 Watt RMS</td>
<td>30 Watt</td>
<td>40 - 20 KHz</td>
<td>98 db at 1 W - 1 Meter</td>
<td>SP810CXT</td>
<td>8&quot; (200 mm) Dual Cone</td>
<td>Polypropylene</td>
<td>10 Oz (285 g) Ceramic</td>
<td>10,700 Gauss</td>
<td>10 Watt - 25/70 Volt</td>
<td>10-5-2.5-1.25 Watt</td>
<td>13&quot; (330 mm) Diameter</td>
<td>4 Lbs (1.8 Kg)</td>
<td>White</td>
<td>Steel</td>
<td>Individually Boxed</td>
<td>12 Pcs per Carton</td>
</tr>
</tbody>
</table>

**Speaker Line Attenuators**

**GENERAL PURPOSE AUTO TRANSFORMER ATTENUATORS** - High quality 20 and 100 watt auto transformer series provides wide frequency response, low insertion loss and reliable performance for volume control application in 25 Volt and 70 Volt systems. Attenuation rate of 3 db steps is accomplished with a non-shorting rotary switch with ten steps plus positive off position. Contacts are silver plated for noise-free operation. Selection includes one or two gang sized models with stainless steel plate, stamped and filled dial scale and skirted black knob. Available in mono configuration only.

- **VC20**
  - Model No: VC20
  - Power Rating: 20 Watt
  - Positions: 10-Off
  - Attenuation Per Step: 3 db
  - Total Attenuation: 30 db
  - Insertion Loss: .4 db
  - Mounting Size: 1 Gang

- **VC100**
  - Model No: VC100
  - Power Rating: 100 Watt
  - Positions: 10-Off
  - Attenuation Per Step: 3 db
  - Total Attenuation: 30 db
  - Insertion Loss: .6 db
  - Mounting Size: 2 Gang

**DIMENSIONAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>VC20</td>
<td>4½&quot; (114 mm)</td>
<td>2-1/8&quot; (54 mm)</td>
<td>1½&quot; (38 mm)</td>
<td>2¾&quot; (70 mm)</td>
<td>1¾&quot; (45 mm)</td>
</tr>
<tr>
<td>VC100</td>
<td>4½&quot; (114 MM)</td>
<td>2-5/8&quot; (67 mm)</td>
<td>2&quot; (51 mm)</td>
<td>4½&quot; (116 mm)</td>
<td>2½&quot; (64 mm)</td>
</tr>
</tbody>
</table>
Horn Speakers - Power Megaphones

30 Watt Reflex Rectangle Speaker - 25V - 70V - 100V Transformer

Paging and talk back reflex speakers for low to medium power output levels in paging, emergency alarm, protective signalling, intercom systems, public address and mobile applications both indoor or outdoor. The speakers employ a new high compression driver system that provides high efficiency, peak-free response and superior sound penetration and range. The wide-angle design of the rectangle type further improves the acoustic efficiency by concentrating more power where it is needed. High impact molded construction is virtually immune to extremes in weather conditions, deterioration and abuse. The exclusive dual swivel support of the model TR30/T permits continuous horizontal and vertical orientation of the speaker. Superior sound penetration. Rugged construction. Weatherproof.

30 Watt, General Purpose, Rectangle Speaker with 25V-70V-100V Transformer and Swivel Mounting Support

A rectangular double reentrant paging and talk-back speaker engineered for paging, public address, indoor or outdoor emergency alarm, protective signalling and intercom system applications. It is primarily recommended for use in indoor or outdoor areas where maximum speech intelligibility and sound coverage are required. It incorporates a high efficiency driver with a new high compression acoustic coupling system, a heavier narrow gap magnetic structure and a precision self-aligning driver unit assembly. Efficiency and effective sound coverage have been greatly improved for even better intelligibility and voice penetration. High impact ABS construction with die-cast driver and transformer housing. Built-in 25 Volt, 70 Volt and 100 Volt line transformer with rotary power tap selector. Armored cable adapter is optional.

ACCESSORIES

ACB30 - Armored Cable Bracket. Attaches on to Speaker Input Terminals Housing.

SPECIFICATIONS

- Power Handling: 30 Watts continuous
- Frequency Response: 275 to 14,000 Hz (nominal)
- Power Taps 100 Volt: 30, 15, 7.7, 4.0 Watt
- Power Taps 70 Volt: 30, 15, 7.5, 3.7, 1.8 Watt
- Power Taps 25 Volt: 15, 7.5, 3.7, 1.8 Watt
- Power Taps Selector: Rotary Screwdriver adjustable
- Talk Back Impedance: 45 ohm (Tap No. 7)
- Dispersion Angle: 120° Hor., 60° Ver.
- Sensitivity (SPL): 125 db at 30 watt (peak)
- Sensitivity as Microphone: 120 db at 30 Watt at 1 meter
- Horn Material: High Impact ABS
- Driver Housing Material: Zinc Die-Cast
- Terminals: Screw Type with cover
- Dimensions: 11”W 6¾”H 12¾”D
- Color Finish: Beige
- Net Weight: 5.5 lbs (2.5 Kg)

MEGAVOICE® - Power Megaphone

The Paso TA25W is a ruggedly constructed, Power Megaphone. The powerful amplifier utilizes a reflex horn speaker to provide a narrow sound dispersion with greater power concentration, sound penetration and effective range. It may be used for indoor applications or outdoors in any weather. The reduced dimensions of the Megaphone permit greater mobility and freedom of movement. Virtually indestructible, the non-corrosive, shockproof construction will withstand the abuse encountered in portable use. A hand carrying strap is provided. Operates on eight size C batteries. Alkaline batteries recommended. Batteries not included.

25 Watt Power Megaphone with Signal Alarm, 800 Yard Range

- Power Output: 25 Watt
- Microphone: Unidirectional Dynamic
- Speaker System: Reflex Horn
- Signal Alarm: Whistle Tone
- Controls: Volume, Hand-grip On-Off Switch, Signal Alarm Switch
- Supply: 8 Size C Batteries
- Battery Life: Approx. 15 Hours Alkaline Batt.
- Carrying Strap: Furnished
- Color Finish: White Bell with Navy Blue Body
- Dimensions: Bell 9” (23 cm), 15” (38 cm) L.
- Net Weight: 3.5 Lbs (1.6 Kg) less batteries
- Shipping Weight: Carton: 1: 5 Lbs (2.3 Kg)
- Dimensions: Carton: 1: 17”X10”X10” (44X26X26 cm)
- Carton Volume: Carton:1: 0.999 Ft. (0.028 m³)

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE
A waterproof speaker system created specifically for background or foreground music systems and paging. The watertight design allows extended use indoors in environments experiencing high humidity or the presence of moisture such as Ice Skating Rinks, Sporting Arenas, Indoor Pools, Kitchens, Manufacturing Facilities, etc. or outdoors, the speaker can be used literally everywhere, on walls, poles, roofs, ground, etc. The wide frequency response and the acoustically balanced enclosure provide superb music reproduction and high efficiency. It is highly recommended for Patio Speaker applications as an outdoor speaker for Restaurants, Gardens, Around Pools, Shopping Malls, Marinas, etc. This ruggedly constructed, fully damped speaker utilizes a heavy-duty, fiberglass, acoustic suspension transducer and a hard polymer dome tweeter for long life and constant performance with time. Ergonomically engineered, the C55DMST can be rapidly mounted on ceiling, wall or shelf, etc. with the mounting bracket provided or can be used in arrays. Dynamically styled the enclosure is finished in designer Off-White with a metal mesh speaker grille. Supplied with an adjustable sliding mounting bracket and vandal resistant hardware. Built-in 25 - 70 - 100 Volt Line Transformer.

**Specifications**

- **Power Output:**
  - Continuous Program: 80 Watt Music
  - Applications: Waterproof Outdoor use, long term Music Reproduction and Paging
- **Line Transformer:**
  - Power Taps:
    - 25 Volt: 40 - 10 - 5 - 2.5 - 1.2 - 0.7 Watt
    - 70 Volt: 40 - 20 - 10 - 5 - 2.5 Watt
- **Dispersion Angle:**
  - 70º
- **Sound Pressure Level:**
  - 40 - 10 - 5 - 2.5 - 1.2 - 0.7 Watt: 110 db Anechoic Environment
  - 40 - 20 - 10 - 5 - 2.5 Watt: 110 db 1 Watt/1 Meter on axis
- **Transducer Size:**
  - Type:
    - High Efficiency, Fiberglass with Polyester Urethane Cone Surround
  - Tweeter:
    - 1” Neodymium Magnet Hard Polymer Dome
- **Housing Material:**
  - ABS - meets UL 94 VO
- **Speaker Grille:**
  - High Impact Stainless Steel
- **Termination:**
  - Multicolor Wire Pigtail
- **Mounting:**
  - Adjustable Bracket Supplied
- **Hardware:**
  - Stainless Steel Vandal Resistant
- **Dimensions:**
  - 8” W., 8½” D.(204 X 216 mm)
- **Net Weight:**
  - 6 Lb. (2.75 Kg)

- Waterproof for Outdoor Applications
- Foreground/Background Music Systems
- High Quality Music Reproduction
- Sound Reinforcement Systems
- Environmental Music Systems
- High Efficiency Music or Paging
- Can be Used Outdoors Indefinitely
- 2-Way Air Suspension, Wide Range System
- Rugged Fiberglass Transducer with Tweeter
- Dual Gasket Watertight Construction

- High Impact Stainless Steel Grille Protector
- Built-in 25V-70V Multi-Tap Line Transformer
- Single Cable Multi-Wire Tap Selector
- Controlled Sound Radiation Pattern
- Adjustable Mounting Bracket Supplied
- Vandal Resistant Stainless Steel Hardware
- Neodymium Magnet Hard Polymer Dome Tweeter
- Wide Frequency Response Transformer
- Available In White
- Rugged ABS UL 94VO Enclosure

FOR ADDITIONAL INFORMATION SEE THE INDIVIDUAL ENGINEERING DATA BROCHURE