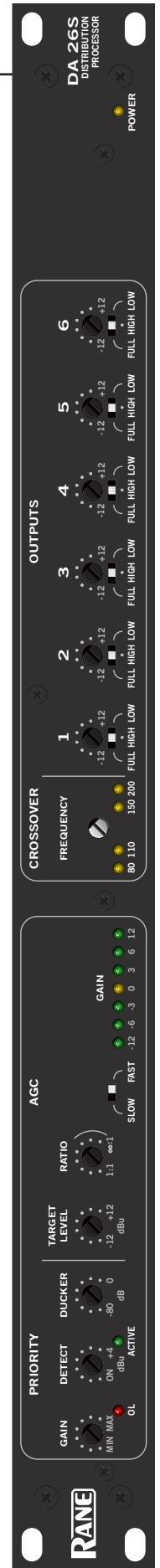




# DA26S

DISTRIBUTION AMPLIFIER WITH PAGING



# IMPORTANT SAFETY INSTRUCTIONS



1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with manufacturer's instructions.
8. Do not install near any heat sources such as radiators, registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord and plug from being walked on or pinched particularly at plugs, convenience receptacles, and the point where it exits from the apparatus.
11. Only use attachments and accessories specified by Rane.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. The plug on the power cord is the AC mains disconnect device and must remain readily operable. To completely disconnect this apparatus from the AC mains, disconnect the power supply cord plug from the AC receptacle.
16. This apparatus shall be connected to a mains socket outlet with a protective earthing connection.
17. When permanently connected, an all-pole mains switch with a contact separation of at least 3 mm in each pole shall be incorporated in the electrical installation of the building.
18. If rackmounting, provide adequate ventilation. Equipment may be located above or below this apparatus, but some equipment (like large power amplifiers) may cause an unacceptable amount of hum or may generate too much heat and degrade the performance of this apparatus.
19. This apparatus may be installed in an industry standard equipment rack. Use screws through all mounting holes to provide the best support.

**WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

## WARNING



To reduce the risk of electrical shock, do not open the unit. No user serviceable parts inside. Refer servicing to qualified service personnel.

The symbols shown below are internationally accepted symbols that warn of potential hazards with electrical products.



This symbol indicates that a dangerous voltage constituting a risk of electric shock is present within this unit.



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

**WARNING:** This product may contain chemicals known to the State of California to cause cancer, or birth defects or other reproductive harm.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**CAUTION:** Changes or modifications not expressly approved by Rane Corporation could void the user's authority to operate the equipment.

# INSTRUCTIONS DE SÉCURITÉ



1. Lisez ces instructions.
2. Gardez précieusement ces instructions.
3. Respectez les avertissements.
4. Suivez toutes les instructions.
5. Ne pas utiliser près d'une source d'eau.
6. Ne nettoyer qu'avec un chiffon doux.
7. N'obstruer aucune évacuation d'air. Effectuez l'installation en suivant les instructions du fabricant.
8. Ne pas disposer près d'une source de chaleur, c-à-d tout appareil produisant de la chaleur sans exception.
9. Ne pas modifier le cordon d'alimentation. Un cordon polarisé possède 2 lames, l'une plus large que l'autre. Un cordon avec tresse de masse possède 2 lames plus une 3<sup>e</sup> pour la terre. La lame large ou la tresse de masse assurent votre sécurité. Si le cordon fourni ne correspond pas à votre prise, contactez votre électricien.
10. Faites en sorte que le cordon ne soit pas piétiné, ni au niveau du fil, ni au niveau de ses broches, ni au niveau des connecteurs de vos appareils.
11. N'utilisez que des accessoires recommandés par Rane.
12. N'utilisez que les éléments de transport, stands, pieds ou tables spécifiés par le fabricant ou vendu avec l'appareil. Quand vous utilisez une valise de transport, prenez soin de vous déplacer avec cet équipement avec prudence afin d'éviter tout risque de blessure.
13. Débranchez cet appareil pendant un orage ou si vous ne l'utilisez pas pendant un certain temps.
14. Adressez-vous à du personnel qualifié pour tout service après vente. Celui-ci est nécessaire dans n'importe quel cas où l'appareil est abîmé : si le cordon ou les fiches sont endommagés, si du liquide a été renversé ou si des objets sont tombés sur l'appareil, si celui-ci a été exposé à la pluie ou l'humidité, s'il ne fonctionne pas correctement ou est tombé.
15. La fiche du cordon d'alimentation sert à brancher le courant alternatif AC et doit absolument rester accessible. Pour déconnecter totalement l'appareil du secteur, débranchez le câble d'alimentation de la prise secteur.
16. Cet appareil doit être branché à une prise terre avec protection.
17. Quand il est branché de manière permanente, un disjoncteur tripolaire normalisé doit être incorporé dans l'installation électrique de l'immeuble.
18. En cas de montage en rack, laissez un espace suffisant pour la ventilation. Vous pouvez disposer d'autres appareils au-dessus ou en-dessous de celui-ci, mais certains (tels que des gros amplificateurs) peuvent provoquer un buzz ou générer trop de chaleur au risque d'endommager votre appareil et dégrader ses performances.
19. Cet appareil peut-être installé dans une baie standard ou un chassis normalisé pour un montage en rack. Visser chaque trou de chaque oreille de rack pour une meilleure fixation et sécurité.

**ATTENTION:** afin d'éviter tout risque de feu ou de choc électrique, gardez cet appareil éloigné de toute source d'humidité et d'éclaboussures quelles qu'elles soient. L'appareil doit également être éloigné de tout objet possédant du liquide (boisson en bouteilles, vases,...).

## ATTENTION



Afin d'éviter tout risque de choc électrique, ne pas ouvrir l'appareil. Aucune pièce ne peut être changée par l'utilisateur. Contactez un SAV qualifié pour toute intervention.

Les symboles ci-dessous sont reconnus internationalement comme prévenant tout risque électrique.



Ce symbole indique que cette unité utilise un voltage élevé constituant un risque de choc électrique.



Ce symbole indique la présence d'instructions d'utilisation et de maintenance importantes dans le document fourni.

**REMARQUE:** Cet équipement a été testé et approuvé conforme aux limites pour un appareil numérique de classe B, conformément au chapitre 15 des règles de la FCC. Ces limites sont établis pour fournir une protection raisonnable contre tout risque d'interférences et peuvent provoquer une énergie de radiofréquence s'il n'est pas installé et utilisé conformément aux instructions, peut également provoquer des interférences aux niveaux des équipements de communication. Cependant, il n'existe aucune garantie que de telles interférences ne se produiront pas dans une installation particulière. Si cet équipement provoque des interférences en réception radio ou télévision, ceci peut être détecté en mettant l'équipement sous/hors tension, l'utilisateur est encouragé à essayer de corriger cette interférence par une ou plusieurs des mesures suivantes:

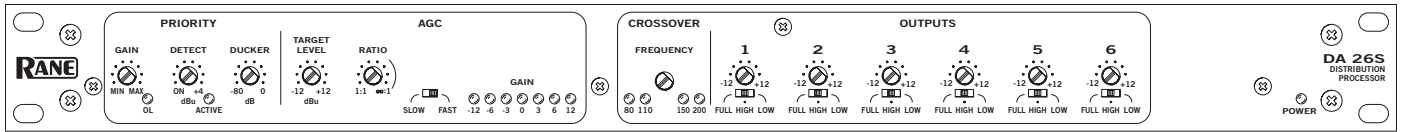
- Réorienter ou déplacer l'antenne de réception.
- Augmenter la distance entre l'équipement et le récepteur.
- Connecter l'équipement à une sortie sur un circuit différent de celui sur lequel le récepteur est branché.
- Consulter un revendeur ou un technicien radio / TV expérimenté.

**ATTENTION:** Les changements ou modifications non expressément approuvés par Rane Corporation peuvent annuler l'autorité de l'utilisateur à manipuler cet équipement et rendre ainsi nulles toutes les conditions de garantie.

CAN ICES-3 (B)/NMB-3(B)



Cartons et papier à recycler.



## Quick Start

Are you in a hurry? For optimum system performance, we recommend reading the detailed **Setup & Operation** below and on page Manual-4. For those who can't wait, at least be aware of these points:

- There are two inputs: **PRIORITY** and **LINE**. The **PRIORITY Input** accepts MIC or LINE level.
- The **PRIORITY Input** sums with an output when assigned by the **PRIORITY ASSIGN Port**, and **PRIORITY DETECT** is active.
- The level of the **PRIORITY Input** is unaffected by the **AGC**, **Output Level** controls or **Remote Level** controls.
- The **AGC** only operates when the signal is within 26 dB of the **Target Level**. If the Line Input level is out of **AGC** range, the **0 dB** indicator on the **AGC GAIN** meter is off.
- With the **RATIO** set to  $\infty:1$ , the **AGC GAIN** meter should indicate about **0 dB** for nominal Line Input levels.
- The **AGC SLOW / FAST** switch only affects the gain reduction time constant. The gain increase time constant is fixed.
- Only the **LINE Input** is processed by the **AGC**, **CROSSOVER**, **Output Level** and **Remote level** controls.
- The three **Crossover Outputs** (full-range, high-pass and low-pass) may be selected by any of the six Outputs.
- Set the initial Output levels using the **Output Level** controls on the front panel.
- **Remote Level** controls allow end user adjustment of Output level.
- Any combination of **Remote Ports** may be controlled by a single Remote device.
- **Remote Level** controls provide automatic loudness compensation for low-pass Outputs. Loudness compensation is not provided for full range Outputs.
- The optional **VR1 Remote Level control** provides audio taper control over a range of 0 dB to -80 dB.

## Setup & Operation

The outline below is detailed in the following procedure.

1. Set Line Input level
2. Set AGC (Automatic Gain Control) Target Level and Ratio
3. Set Crossover frequency
4. Select Source for each Output (Full-range, High-pass or Low-pass)
5. Set Output Level controls
6. Connect Output Remote Level controls
7. Connect the Priority Input for the intended source
8. Set the Priority Input automatic Detect threshold
9. Set Ducking depth for the application
10. Priority Assign selection

1. Connect a balanced line level source to the Line Input. The Line Input accepts an unbalanced Input connected to (+) and (GND). We do not recommend unbalanced operation unless the distance to the source is less than 3 feet [one meter].
2. The Line Input signal is processed by the AGC circuit. The AGC GAIN meter 0 dB indicator lights when the Line Input signal is within 26 dB of the set TARGET LEVEL. For Line Input levels more than 26 dB *below* the Target Level, the 0 dB indicator is *off* and AGC returns to unity. The AGC GAIN indicates the amount of attenuation used to make the Line Input level equal the set TARGET LEVEL. For

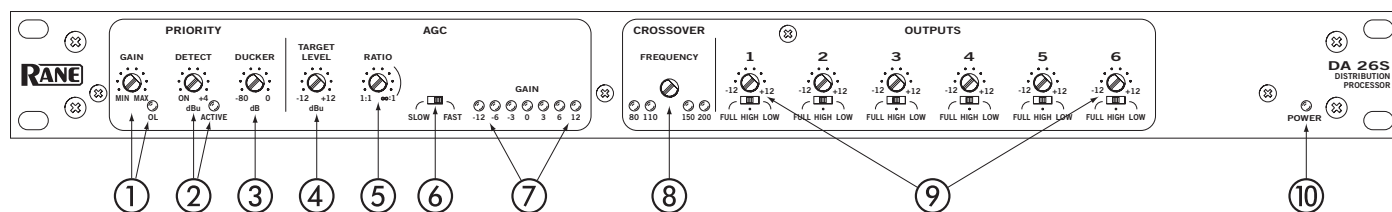
best results, the AGC GAIN meter should indicate about 0 dB for nominal Line Input signals. *The best resolution for this adjustment is achieved with the AGC RATIO set to  $\infty:1$ .*

The TARGET LEVEL is set in one of two ways:

- a) If you have a source output level control, set the TARGET LEVEL to the desired setting and adjust the Line Input level so that the AGC GAIN meter indicates 0 dB for nominal signal levels.
  - b) If a source output level control is not available, adjust the TARGET LEVEL so the AGC GAIN meter indicates 0 dB for nominal Line Input levels. The difference between the resulting AGC Target Level and the desired Target Level is compensated with the OUTPUT trims. With Input level and TARGET LEVEL correctly set, adjust the AGC RATIO to the desired value. We recommended values between 2:1 and  $\infty:1$  as marked by the gray band. The soft-knee-response of the AGC results in a natural sounding response with AGC Ratios as high as  $\infty:1$ .
3. The CROSSOVER splits the Line Input signal into three separate Outputs: Full-Range, High-pass and Low-pass, each selectable for each of the six Outputs. Select the desired FREQUENCY (80, 110, 150 or 200 Hz).

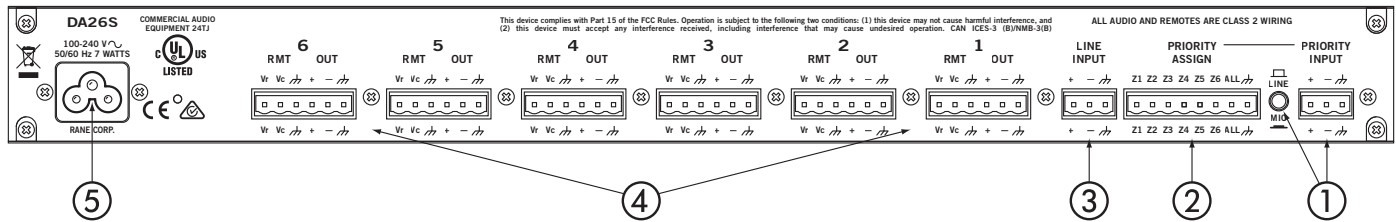
*continued on page Manual-4...*

## Front Panel Description



- ① **PRIORITY GAIN trim and OL indicator:** adjusts the gain for the PRIORITY INPUT. Set this trim to prevent overloading the Input — if the Priority Gain OL illuminates, turn down the GAIN.
- ② **PRIORITY DETECT trim and ACTIVE indicator:** sets the threshold in dBu for the PRIORITY INPUT to override the LINE INPUT. When the threshold has been reached, the ACTIVE indicator illuminates. *Set the GAIN(①), then set the DETECT trim.* The range of operation is +4 dBu to ON. The release time for the auto-detect circuit is fixed at about 6 seconds, after which the LINE INPUT signal returns to its previous level.
- ③ **PRIORITY DUCKER trim:** sets the amount of attenuation applied to the LINE INPUT signal when the PRIORITY INPUT is activated by the DETECT threshold. DUCKER depth is continuously adjustable over a range of 0 dB to –80 dB. For equal mixing of PRIORITY and LINE, set the DUCKER to 0 dB. For PRIORITY replaces LINE operation, use –80 dB. A value of –12 dB (1 o'clock) is typical for PRIORITY (page) talks over LINE (music) operation.
- ④ **AGC TARGET LEVEL trim:** is best set so the average signal at the LINE INPUT reads 0 dB on the GAIN meter. This gives the best performance of the AGC (Automatic Gain Control). Active constant gain range of the AGC is  $\pm 12$  dB (24 dB range). When the Input falls 26 dB below the AGC Target Level, gain returns to unity. See *Setup and Operation*, step 2.
- ⑤ **AGC RATIO trim:** determines the Ratio applied to the AGC with a soft-knee response. Increased clockwise rotation increases the amount of AGC. The full counter-clockwise position disables the AGC. The normal range of operation is between 2:1 and  $\infty$ :1 as marked by the gray band.
- ⑥ **AGC SLOW/FAST release switch:** determines the gain reduction time constant of the AGC circuit. SLOW = 230 ms (best for music), FAST = 11 ms (best for voice). The gain increase time constant is fixed at 1100 ms.
- ⑦ **AGC GAIN meter:** indicates the amount of AGC applied to the LINE INPUT. The 0 dB GAIN indicator is off if the Input is more than 26 dB below the Target Level.
- ⑧ **CROSSOVER FREQUENCY switch and indicators:** select the FREQUENCY for the 2-way Crossover when High-Pass and/or Low-Pass outputs are used (80, 110, 150 or 200 Hz). High, Low or Full-Range is selectable for each of the six Outputs.
- ⑨ **OUTPUT trims and Crossover select switches:** The  $\pm 12$  dB trims set the levels for each of the six Outputs. High, Low or Full-Range is switch selectable for each of the six Outputs. *Note: the Output trims do not affect Low-pass loudness compensation or Priority Input level.* See **Setup & Operation**, step 5.
- ⑩ **POWER indicator LED:** This yellow illumination device lights up to let the operator know the thing is plugged in.

## Rear Panel Description



- ① **PRIORITY INPUT connector and MIC/LINE switch:** The balanced PRIORITY INPUT operates at line or mic level, determined by the MIC / LINE switch. This Input accepts unbalanced signals, however, we do not recommend unbalanced operation unless the source is within 3 feet [one meter]; then only connect (+) and (GND). *Note: the Priority Input is not influenced by the AGC, Crossover, Output trims or Remote Level controls.* The gain range for MIC level Input is 30 to 60 dB. The gain range for LINE level Input is 0 to 30 dB.
- ② **PRIORITY ASSIGN port:** The state of the PRIORITY ASSIGN port determines Priority Input assignment to each of the six Outputs. Assignment pins are active low with passive internal pull-up. Any combination of pins may be active at one time. The select ALL pin is provided for convenience. To complete an assignment, the Output must be selected by the PRIORITY ASSIGN port and Priority Detect must be active. *Note that if a combination of Crossover Outputs is used in one zone, all Outputs serving the zone must be selected by the PRIORITY ASSIGN port.* Variations in wire type do not greatly affect the performance of this port. However, 22-gauge stranded wire with a flexible jacket is recommended. Unshielded multi-conductor cable is OK for shorter runs (less than 100 feet). For longer runs, we recommend shielded cable.
- ③ **LINE INPUT connector:** Connect a balanced line level source to the Line Input. The Line Input accepts an unbalanced Input connected to (+) and (GND), but we do not recommend unbalanced connection unless the distance to the source is less than one meter; then only connect (+) and (GND).
- ④ **OUTPUT and REMOTE connectors:** are on single 6-pin Euroblocks, one set for each Output. Outputs are line-level, balanced, and hopefully driving a balanced equalizer or amplifier. If not, keep cable lengths short and consult the RaneNote, "Sound System Interconnection" located elsewhere in this manual.  
Connections for optional wired Remote Level controls are provided for each Output. *Note: Remote Level controls do not affect the level of the Priority Input.* Each port provides a 5 volt reference voltage (REF), a control voltage input (Vc) and a ground reference. Gain control law is 50 mV/dB. See *Setup and Operation*, step 6 for details.
- ⑤ **Universal Voltage Input:** via a miniature IEC 60320 C6 appliance inlet. With the right cord, you can plug anywhere in the world between 100 and 240 VAC. This mates with an IEC 60320 C5 line cord (USA domestic). Do **not** lift the ground connection!



*Setup & Operation...continued from page Manual-1...*

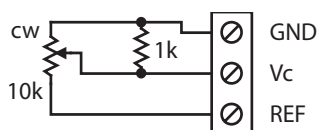
4. Next, set up the six OUTPUTS. First, determine the number of zones served and the signals to be sent to each. Using a drawing like the example application diagram in the Data Sheet is helpful. For ease of wiring, make Outputs serving a common zone adjacent. Select Full-range, High-pass or Low-pass as required for each output. The following are possible zone configurations:

- Full-range only for medium size bookshelf speakers.
- High-pass only for small distributed ceiling speakers.
- Full-range output combined with Low-pass Output to enhance bass response.
- High-pass output combined with Low-pass Output for true bi-amp operation.

5. The  $\pm 12$  dB OUTPUT trims set Output levels, with relative levels between Full-range, High-pass and Low-pass. *Note: the Output trims do not affect Low-pass loudness compensation or Priority Input level.* The idea is to set system levels for proper operation at the maximum required SPL (with Remote Level controls set for unity gain). Remote Level controls then attenuate the level as required.

**Automatic loudness compensation** is achieved by altering the gain control law of any Remote port associated with a Low-pass Output. A Low-pass Output is always used in conjunction with a high-pass or full-range Output. Because the Remote Level control turns the low-pass Output down at a lesser rate than the high-pass or full-range Output, bass response is enhanced. The corner frequency for loudness compensation is set by the CROSSOVER frequency selection. The reference level for the room is set with the OUTPUT trim on the front panel. Any Remote Level gain change results in automatic loudness compensation.

6. A port for a wired Remote Level control is provided for each Output. *Note: Remote Level controls do not affect the level of the Priority Input.* Each port provides a 5 volt reference voltage (REF), a control voltage input (Vc) and a ground reference. The gain control law for Vc is 50 mV/dB. Using the optional VR1 Remote control provides an audio taper response from 0 dB to  $> -80$  dB. *To control more than one Remote Port with a single Remote control, it is only necessary to connect the Vc pin of each additional port.* An external ground referenced control voltage with a range of 0 to 5 volts may be used with the Remote ports. If the ratiometric output of a linear potentiometer is used, (GND to CW, Vc to center tap, REF to CCW), a linear log response results. Audio taper response requires a potentiometer with a reverse log taper. Audio taper response is achievable using a linear potentiometer by connecting a resistor equal to 1/10th the value of the potentiometer between GND and Vc as shown below:



Variations in wire type do not greatly affect the performance of the Remote controls. However, 22-gauge stranded wire with a flexible jacket is recommended. You may use 3-conductor unshielded remote control signal cable for shorter runs (less than 100 feet [30 meters]). For longer runs, we recommend using shielded cable. The type of wire required is influenced by your installation and local electrical codes. Rane Corporation does not provide cable— please contact your local retail or wholesale outlet.

7. The balanced PRIORITY INPUT operates at line or mic level, determined by the MIC / LINE switch, on the rear panel next to the PRIORITY INPUT jack. See Rear Panel (①) for unbalanced connection rules. *Note: the Priority Input is not influenced by the AGC, Crossover, Output trims or Remote Level controls.* The gain range for MIC level Input is 30 to 60 dB. The gain range for LINE level Input is 0 to 30 dB. Set the PRIORITY GAIN to prevent overloading the Input — if the Priority Gain OL illuminates, turn down the GAIN.
8. The PRIORITY DETECT threshold is calibrated in dBu, and monitors the signal after the input preamp. Any change in PRIORITY GAIN setting affects the DETECT sensitivity. *Set the GAIN, then set DETECT.* The range of operation is +4 dBu to ON. The consequence of setting DETECT too low is premature triggering due to background noise. Setting DETECT too high results in excess delay and a sudden large step in amplitude (perceived as a “pop”). If a paging mic is used in an environment with a lot of background noise, we recommend a push-to-talk device. The release time is fixed at about 6 seconds. The release delay is based on the typical time required to accommodate a pause in speech or dead-time between music programs.
9. The PRIORITY DUCKER depth sets the amount of attenuation applied to the LINE INPUT signal when the PRIORITY INPUT is activated by the DETECT threshold. DUCKER depth is continuously adjustable over a range of 0 dB to -80 dB. For equal mixing of PRIORITY and LINE, set the DUCKER to 0 dB. For PRIORITY replaces LINE operation, use -80 dB. A value of -12 dB (2 o'clock) is typical for PRIORITY (page) talks over LINE (music) operation.
10. The state of the PRIORITY ASSIGN port determines Priority Input assignment to each of the six Outputs. Assignment pins are active low with passive internal pull-up. Any combination of pins may be active at one time. The select ALL pin is provided for convenience. To complete an assignment, the Output must be selected by the PRIORITY ASSIGN port and Priority Detect must be active. *Note that if a combination of Crossover Outputs is used in one zone, all Outputs serving the zone must be selected by the PRIORITY ASSIGN port.* The type of wire recommended is similar to the description in Step 6 above.



## **FACTORY AUTHORIZED SERVICE**

Your unit may be serviced by the Rane Factory or any Authorized Rane Service Center. To find a Service Center near you, please call the Rane factory, or check the Rane website. Please do not return your unit to Rane without prior authorization.

Rane Corporation

To obtain service or a Return Authorization, please phone 425-355-6000

or Fax 425-347-7757

The current list of U.S. Rane Authorized Service Centers is found on our website: [www.rane.com/service.html](http://www.rane.com/service.html)

## **LIMITED DOMESTIC WARRANTY**

RANE CORPORATION WARRANTS ALL RANE PRODUCTS (EXCEPT THOSE ITEMS CLASSIFIED AS *WEAR PARTS*, AND LISTED ON THE MANUAL-1 PAGE OF EACH OPERATORS MANUAL) PURCHASED IN THE USA AGAINST DEFECTS IN MATERIAL OR WORKMANSHIP FOR A PERIOD OF TWO (2) YEARS. *WEAR PARTS* ARE LIMITED TO A PERIOD OF NINETY (90) DAYS FROM THE INITIAL DATE OF RETAIL PURCHASE FROM AN AUTHORIZED RANE DEALER—WEAR PARTS REQUIRE PROOF OF PURCHASE DATE. This limited warranty extends to all purchasers or owners of the product during the warranty period beginning with the original retail purchase. Rane Corporation does not, however, warrant its products against any and all defects: 1) arising out of material or workmanship not provided or furnished by Rane, or 2) resulting from abnormal use of the product or use in violation of instructions, or 3) in products repaired or serviced by other than authorized Rane repair facilities, or 4) in products with removed or defaced serial numbers, or 5) in components or parts or products expressly warranted by another manufacturer. Rane agrees to supply all parts and labor to repair or replace defects covered by this limited warranty with parts or products of original or improved design, at its option in each respect, if the defective product is shipped prior to the end of the warranty period to any Rane authorized warranty repair facility in the U.S. or to the Rane factory in the original packaging or a replacement supplied by Rane, with all transportation costs and full insurance paid each way by the purchaser or owner.

### **LIMITED WARRANTY OUTSIDE THE U.S.A.**

RANE PRODUCTS ARE WARRANTED ONLY IN THE COUNTRY WHERE PURCHASED, THROUGH THE AUTHORIZED RANE DISTRIBUTOR IN THAT COUNTRY, AGAINST DEFECTS IN MATERIAL OR WORKMANSHIP, THE SPECIFIC PERIOD OF THIS LIMITED WARRANTY SHALL BE THAT WHICH IS DESCRIBED TO THE ORIGINAL RETAIL PURCHASER BY THE AUTHORIZED RANE DEALER OR DISTRIBUTOR AT THE TIME OF PURCHASE. Rane Corporation does not, however, warrant its products against any and all defects: 1) arising out of materials or workmanship not provided or furnished by Rane, or 2) resulting from abnormal use of the product or use in violation of instructions, or 3) in products repaired or serviced by other than authorized Rane repair facilities, or 4) in products with removed or defaced serial numbers, or 5) in components or parts or products expressly warranted by another manufacturer. Rane agrees, through the applicable authorized distributor, to repair or replace defects covered by this limited warranty with parts or products of original or improved design, at its option in each respect, if the defective product is shipped prior to the end of the warranty period to the designated authorized Rane warranty repair facility in the country where purchased, or to the Rane factory in the U.S., in the original packaging or a replacement supplied by Rane, with all transportation costs and full insurance paid each way by the purchaser or owner.

ALL REMEDIES AND THE MEASURE OF DAMAGES ARE LIMITED TO THE ABOVE SERVICES, IT IS POSSIBLE THAT ECONOMIC LOSS OR INJURY TO PERSON OR PROPERTY MAY RESULT FROM THE FAILURE OF THE PRODUCT; HOWEVER, EVEN IF RANE HAS BEEN ADVISED OF THIS POSSIBILITY, THIS LIMITED WARRANTY DOES NOT COVER ANY SUCH CONSEQUENTIAL OR INCIDENTAL DAMAGES. SOME STATES OR COUNTRIES DO NOT ALLOW THE LIMITATIONS OR EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

ANY AND ALL WARRANTIES, EXPRESS OR IMPLIED, ARISING BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE, OR OTHERWISE, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO A PERIOD OF TWO (2) YEARS FROM EITHER THE DATE OF ORIGINAL RETAIL PURCHASE OR, IN THE EVENT NO PROOF OF PURCHASE DATE IS AVAILABLE, THE DATE OF MANUFACTURE, SOME STATES OR COUNTRIES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE, COUNTRY TO COUNTRY.



## WARRANTY PROCEDURE - Only Valid in the USA

**NOTICE!** You must complete and return the warranty card or register your product online to extend the Warranty from 2 years to 3 years!

TO VALIDATE YOUR EXTENDED WARRANTY: Use the postcard that came in the box with your unit, or go to [www.rane.com](http://www.rane.com) and click on **New Product Registration**. Fill out the warranty completely, being sure to **include the model and serial number** of the unit since this is how warranties are tracked. If your Rane product was purchased in the USA, mail the completed card or register online with to Rane Corporation within 10 days from the date of purchase. **If you purchased the product outside the USA you must file your warranty registration with the Rane Distributor in that country.** It is advised that you keep your bill of sale as proof of purchase, should any difficulties arise concerning the registration of the warranty card. **NOTICE: IT IS NOT NECESSARY TO REGISTER IN ORDER TO RECEIVE RANE CORPORATION'S STANDARD TWO YEAR LIMITED WARRANTY.**

WARRANTY REGISTRATION is made and tracked by **model and serial numbers only**, not by the purchaser's or owner's name. Therefore any warranty correspondence or inquires **must** include the model and serial number of the product in question. Be sure to fill in the model and serial number in the space provided below and keep this in a safe place for future reference.

WARRANTY SERVICE MUST BE PERFORMED ONLY BY AN AUTHORIZED RANE SERVICE FACILITY LOCATED IN THE COUNTRY WHERE THE UNIT WAS PURCHASED, OR (if product was purchased in the USA) AT THE RANE FACTORY IN THE USA. If the product is being sent to Rane for repair, please call the factory for a Return Authorization number. We recommend advance notice be given to the repair facility to avoid possible needless shipment in case the problem can be solved over the phone. UNAUTHORIZED SERVICE PERFORMED ON ANY RANE PRODUCT WILL VOID ITS EXISTING FACTORY WARRANTY.

### FACTORY SERVICE

If you wish your Rane product to be serviced at the factory, **it must be shipped fully insured, in the original packing box or equivalent.** This warranty will **not** cover repairs on products damaged through improper packaging. If possible, avoid sending products through the mail. Be sure to include in the package:

1. Complete return street shipping address (P.O. Box numbers are **not** acceptable).
2. A detailed description of any problems experienced, including the make and model numbers of any other system equipment.
3. Remote power supply, if applicable.

Repaired products purchased in the U.S. will be returned prepaid freight via the same method they were sent to Rane. Products purchased in the USA, but sent to the factory from outside the USA **must** include return freight funds, and the sender is fully responsible for all customs procedures, duties, tariffs and deposits.

In order to qualify for Rane's one year extended warranty (for a total of 3 years parts and labor), the warranty must be completely filled out and sent to us immediately. Valid in USA only.

**We recommend you write your serial number here in your owners manual and on your sales receipt for your records.**

**SERIAL NUMBER:** \_\_\_\_\_ **PURCHASE DATE:** \_\_\_\_\_

# Declaration of Conformity

## Application of Council Directive(s):

2001/95/EC  
2002/96/EC  
2004/108/EC  
2006/95/EC  
2011/65/EU

## Standard(s) to which conformity is declared:

EN60065: 2002/A1:2006/A11:2008/A2:2010/A12:2011  
EN55103-1:2009  
EN55103-2:2009  
EN50581:2012  
ENVIRONMENT E2  
CE MARK FIRST AFFIXED IN 2008  
SERIAL NUMBERS 850000 - 950000

## Manufacturer:

**Rane Corporation**  
**10802 47th Avenue West**  
**Mukilteo WA 98275-5000 USA**

This equipment has been tested and found to be in compliance with all applicable standards and regulations applying to the EU's Low Voltage (LV) directive 2006/95/EC, and Electromagnetic Compatibility (EMC) directive 2004/108/EC. In order for the customer to maintain compliance with this regulation, high quality shielded cable must be used for interconnection to other equipment. Modification of the equipment, other than that expressly outlined by the manufacturer, is not allowed under this directive. The user of this equipment shall accept full responsibility for compliance with the LV directive and EMC directive in the event that the equipment is modified without written consent of the manufacturer. This declaration of conformity is issued under the sole responsibility of Rane Corporation.

## Type of Equipment: Professional Audio Signal Processing

**Brand:** Rane

**Model:** DA 26S

## Immunity Results:

THD+N re: 4 dBu, 400 Hz, BW=20-20kHz

### Test Description

### Results

### Conditions

#### RF Electromagnetic Fields Immunity

80 MHz - 1000 MHz, 1 kHz AM, 80% depth, 3V/m

< -66 dB

80 MHz - 400 MHz

< -50 dB

400 MHz - 500 MHz

< -60 dB

500 MHz - 1000 MHz

#### Conducted RF Disturbances Immunity

150 kHz - 80 MHz, 1 kHz AM, 80% depth, 3V rms

< -72 dB

Power Lines

< -72 dB

Signal Lines

#### Magnetic Fields Immunity

50 Hz - 10 kHz, 4.0 - 0.4 A/m

< -72 dB

*I, the undersigned, hereby declare that the equipment specified above conforms to the Directive(s) and Standard(s) shown above.*

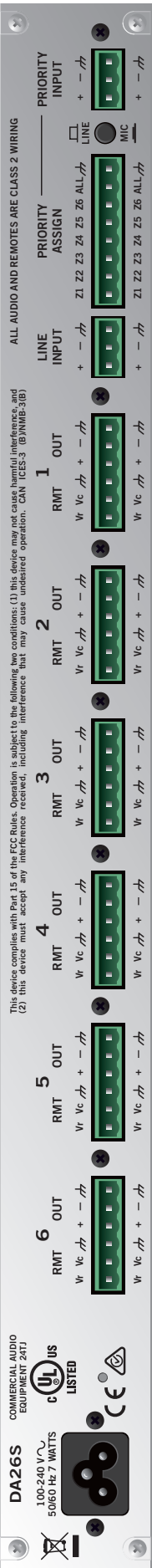
  
(Signature)

**Roy G. Gill**  
(Full Name)

**Compliance Engineer**  
(Position)

**June 30, 2010**  
(Date)

**Mukilteo WA USA**  
(Place)



# DA26S

## DISTRIBUTION AMPLIFIER WITH PAGING

