

**ONE YEAR LIMITED WARRANTY**

R.L.DRAKE COMPANY warrants to the original purchaser this product shall be free from defects in material or workmanship for one (1) year from the date of original purchase.

During the warranty period the R.L.DRAKE COMPANY or an authorized Drake service facility will provide, free of charge, both parts and labor necessary to correct defects in material and workmanship. At its option, R. L. DRAKE COMPANY may replace a defective unit.

To obtain such warranty service, the original purchaser must:

- (1) Retain invoice or original proof of purchase to establish the start of the warranty period.
- (2) Notify the R.L.DRAKE COMPANY or the nearest authorized service facility, as soon as possible after discovery of a possible defect, of:
  - (a) the model and serial number,
  - (b) the identity of the seller and the approximate date of purchase; and
  - (c) A detailed description of the problem, including details on the electrical connection to associated equipment and the list of such equipment.
- (3) Deliver the product to the R.L.DRAKE COMPANY or the nearest authorized service facility, or ship the same in its original container or equivalent, fully insured and shipping charges prepaid.

Correct maintenance, repair, and use are necessary to obtain proper performance from this product. Therefore carefully read the Instruction Manual. This warranty does not apply to any defect that R.L.DRAKE COMPANY determines is due to:

- (1) Improper maintenance or repair, including the installation of parts or accessories that do not conform to the quality and specifications of the original parts.
- (2) Misuse, abuse, neglect or improper installation.
- (3) Accidental or intentional damage.

All implied warranties, if any, including warranties of merchantability and fitness for a particular purpose, terminate one (1) year from the date of the original purchase.

The foregoing constitutes R.L.DRAKE COMPANY'S entire obligation with respect to this product, and the original purchaser shall have no other remedy and no claim for incidental or consequential damages, losses or expenses. Some states do not allow limitations on how long an implied warranty lasts or do not allow the exclusions or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. This warranty shall be construed under the laws of Ohio.

**For service information contact:**

**Service Department**

**R.L. DRAKE HOLDINGS, LLC**

**710 Valley Drive**

**Springboro Ohio, 45066 U.S.A.**

**Customer Service Center Phone: +1 (937) 746-6990 TELEFAX: +1 (937) 806-1510**

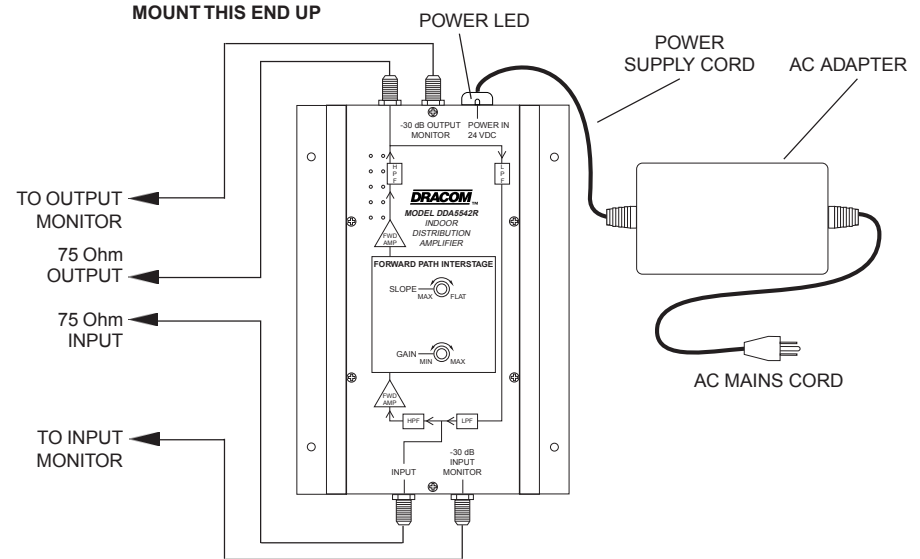
| CHANNEL LOADING CHART |                      |
|-----------------------|----------------------|
| CH. LOADING           | MAX. OUTPUT EACH CH. |
| 77                    | 44 dBmV              |
| 60                    | 46 dBmV              |
| 36                    | 48 dBmV              |
| 16                    | 51 dBmV              |
| 12                    | 52 dBmV              |
| 6                     | 55 dBmV              |
| 1                     | 60 dBmV              |



R.L. DRAKE HOLDINGS, LLC  
 710 Pleasant Valley Drive  
 Springboro, OHIO 45066 U.S.A.  
 WORLD WIDE WEB SITE: <http://www.rldrake.com>

The DRACOM model DDA5542R is a broadband distribution amplifier designed for indoor use in both residential and commercial buildings where RF signal distribution in the frequency range of 54 to 550 MHz is required. A passive return path is also provided with a frequency range of 5 to 36 MHz. The DDA5542R has a gain of 42 dB. The amplifier incorporates a push-pull hybrid output amplifier to provide a high quality, low distortion signal for a cable TV "drop", or, the output of an SMATV headend.

Gain is variable within a specified range using the Gain control. A Slope control is provided to slope the frequency response. An output test connector is provided for convenient monitoring of the signal path. The amplifier circuitry is designed for maximum stability and is housed in a rugged aluminum housing. The unit operates from 24 VDC provided by the supplied power supply. To facilitate installation, a connector is provided in the cable between the amplifier and supply.



**Installation:**

- 1) Unpack the Distribution amplifier and power supply.
- 2) Locate the Distribution amplifier to permit both the required signal cable connections and power connections. Note that the amplifier housing has holes to permit mounting the amplifier to a wall using screws, if desired. When mounting the amp on a wall, position the amp so that the heatsink fins are on the left and right sides and NOT on the top and bottom. Unplug the power cord connector to facilitate routing the cord.
- 3) With all cable connections made to the amplifier, and the power supply cord routed, reconnect the DC power cord and then plug the AC line cord into a source of 120VAC, 50/60 Hz power.
- 4) Use a screwdriver to adjust the Gain and/or Slope controls for the desired frequency response.

Be careful not to break the controls or force the screwdriver past the controls, as circuit damage could result. These types of adjustments will generally require monitoring of the signal path at the test connector. The levels measured at the input monitor connector are 30 dB lower than the input. The levels measured at the output monitor connector are 30 dB lower than the output. The output load must be connected to the output connector before measurement from the monitor output is accurate. Gain settings must take into account the maximum permissible output level of this amplifier unit for the total number of input channels. Refer to the CHANNEL LOADING CHART on page 4, for specific information. The gain adjustment range is limited and will not correct for unequal signal levels between channels in the same band. Establishing relatively equal signal levels between channels is essential. The Slope control permits sloping the overall frequency response to compensate for the effect of increasing signal loss of the higher frequency signals in a length of connected coaxial cable.

**DRACOM**™ is a trademark of the R.L. Drake Holdings, LLC

WARNING: TO PREVENT FIRE OR ELECTRICAL SHOCK DO NOT EXPOSE THIS PRODUCT'S AC ADAPTER OR AMPLIFIER TO RAIN OR MOISTURE.



An appliance and cart combination should be moved with care. Quick stops, excessive force and uneven surfaces may cause the appliance and cart combination to overturn.



The lightning flash with arrow head symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**WARNING:** TO REDUCE THE RISK OF FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE THIS PRODUCT'S AC ADAPTER OR AMPLIFIER TO RAIN OR MOISTURE. DO NOT OPEN THE CABINET, REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

**CAUTION:** TO PREVENT ELECTRIC SHOCK, DO NOT USE THE AC ADAPTER WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES OF THE AC ADAPTER CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

**ATTENTION:** POUR PREVENIR LES CHOCES ELECTRIQUES, NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR, UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

## IMPORTANT SAFETY INSTRUCTIONS

- Read Instructions**—All the safety and operating instructions should be read before the product is operated.
- Retain Instructions**—The safety and operating instructions should be retained for future reference.
- Heed Warnings**—All warnings on the product and in the operating instructions should be adhered to.
- Follow Instructions**—All operating and use instructions should be followed.
- Cleaning**—Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleansers. Use a damp cloth for cleaning.
- Attachments**—Do not use attachments that are not recommended by the product manufacturer as they may cause hazards.
- Water and Moisture**—Do not use this product near water—for example, near a bathtub, wash bowl, kitchen sink or laundry tub; in a wet basement; or near a swimming pool; and the like.
- Accessories**—Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
- A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.
- Ventilation**—Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or similar surface. This product should not be placed in a built-in installation such as bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
- Power Sources**—This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.
- Grounding or Polarization**—This product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

Alternate Warnings—If this product is equipped with a three-wire grounding-type plug, a plug having a third (grounding) pin, the plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.

**12 a. Mise à la terre ou Polarisation**—Cet appareil est équipé avec un cordon d'alimentation à trois fils. Il est à brancher sur une prise ayant un connecteur à la terre. Assurez-vous que la connection à la terre ne manque pas.

**13. Power-Cord Protection**—Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

**14. Outdoor Antenna Grounding**—If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure A.

**15. Lightning**—For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

**16. Power Lines**—An outside antenna system should not be located in the vicinity of overhead power lines, other electric light or power circuits, where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them may be fatal.

**17. Overloading**—Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

**18. Object and Liquid Entry**—Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

**19. Servicing**—Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

**20. Damage Requiring Service**—Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power-supply cord or plug is damaged,
- If liquid has been spilled, or objects have fallen into the product,
- If the product has been exposed to rain or water,
- If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation,
- If the product has been dropped or damaged in any way, and
- If the product exhibits a distinct change in performance—this indicates a need for service.

**21. Replacement Parts**—When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutes may result in fire, electric shock or other hazards.

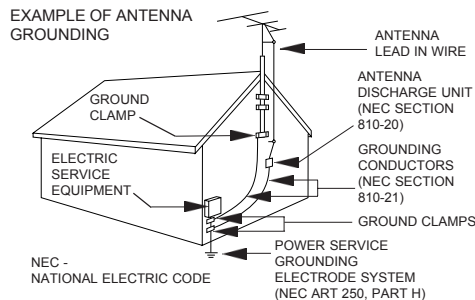
**22. Safety Check**—Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

**23. Wall or Ceiling Mounting**—The product should be mounted to a wall or ceiling only as recommended by the manufacturer.

**24. Heat**—The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

### NOTE TO CATV SYSTEM INSTALLERS:

THIS REMINDER IS PROVIDED TO CALL THE CATV SYSTEM INSTALLER'S ATTENTION TO ARTICLE 820 - 40 OF THE NEC THAT PROVIDES GUIDELINES FOR PROPER GROUNDING AND, IN PARTICULAR, SPECIFIES THAT THE CABLE GROUND SHALL BE CONNECTED TO THE GROUNDING SYSTEM OF THE BUILDING, AS CLOSE TO THE POINT OF CABLE ENTRY AS PRACTICAL.



### Forward Path

|                     |   |
|---------------------|---|
| Gain:               | 42 dB nominal, 40 dB minimum.                         |
| Gain Adjust Range:  | 15 dB minimum.  |
| Frequency Coverage: | 54 - 550 MHz.   |
| Flatness:           | ± 1.5 dB maximum.                                     |
| Slope Adjust Range: | Flat to greater than 15 dB tilt at 54 MHz.            |
| Noise Figure:       | 6 dB typical, 7 dB maximum (at maximum gain setting). |
| Impedance:          | 75 Ohms.  |

### Return Loss-

|         |                                  |
|---------|----------------------------------|
| Input:  | 16 dB typical, 14 dB worst case. |
| Output: | 16 dB typical, 14 dB worst case. |

|                               |                                      |
|-------------------------------|--------------------------------------|
| Output Test Port:             | -30 dB, ±2 dB.                       |
| Composite Triple Beat (CTB):  | -63 dB typical, -60 dB maximum*.     |
| Cross Modulation (XMD):       | -65 dB typical, -62 dB maximum*.     |
| Composite Second Order (CSO): | -60 dB typical, -57 dB maximum*.     |
| Maximum Output Level:         | See channel loading chart on page 4. |

\* Measured at +44 dBmV per channel with 77 channel loading.

### Power Requirements-

|                 |                  |                        |
|-----------------|------------------|------------------------|
| Amplifier Unit: | 24 VDC, 12 Watts | Power supply included. |
|-----------------|------------------|------------------------|

### Return Path

|                  |   |
|------------------|---|
| Configuration:   | Passive, Insertion loss 2 dB typical, 4 dB maximum. |
| Frequency Range: | 5 - 36 MHz.   |
| Return Loss:     | 16 dB typical, 14 dB worst case.                    |

### General

|                        |                                      |
|------------------------|--------------------------------------|
| Amplifier Type:        | Push-Pull Hybrid Amplifier Module.   |
| Operating Temperature: | -20° C to +50° C (-4° F to +122° F). |

|                      |                              |
|----------------------|------------------------------|
| Power Supply-        | Included with amplifier.     |
| Input Power Rating:  | 100-120 VAC, 50/60 Hz.       |
| Input Connection:    | 3 wire line USA plug.        |
| Output Power Rating: | 24 VDC, 700 mA.              |
| Output Connection:   | Power cable with disconnect. |

### Amplifier Unit-

|                  |   |
|------------------|---|
| Enclosure:       | Extruded aluminum.                            |
| Dimensions:      | 9" L, including connectors x 5.5" W x 2.5" H. |
| Shipping Weight: | 2.4 lbs., including power supply.             |