



HDDS™

BRC1 CONTROL MODULE



HIGH DEFINITION DISTRIBUTED SYSTEM BRC1 CONTROLLER

OWNERS MANUAL

IMPORTANT SAFETY INSTRUCTIONS!

Please read this very carefully before operating this unit

- Read **ALL** instructions carefully before using this unit.
- Do not operate this unit near water, in the rain, or where there is moisture. If this warning is ignored a serious electrical shock or death may occur.
- Do not attempt to service this unit. No user serviceable parts inside. Refer servicing to qualified, ISP approved service personnel.
- Never remove or defeat the ground connection on the power cord of this unit.
- Care should be taken to avoid spilling any foreign objects or liquid into this unit.
- Failure to follow these instructions may void the warranty.



INTRODUCTION

Thank you for your purchase of the ISP Technologies High Definition Distributed System BRC1 CONTROL MODULE. This product provides a new level of performance in distributed audio systems allowing greater system flexibility and easy installation of distributed sound. All outputs and control connections are made via Cat5 RJ45 connections making installation of systems faster and easier using the BRC1 Control Module.

PRECAUTIONS

NOTE: IT IS VERY IMPORTANT THAT YOU READ THIS SECTION TO PROVIDE YEARS OF TROUBLE FREE USE. THIS UNIT REQUIRES CAREFUL HANDLING.

All warnings on this equipment and in the operation instructions should be adhered to and all operating instructions should be followed.

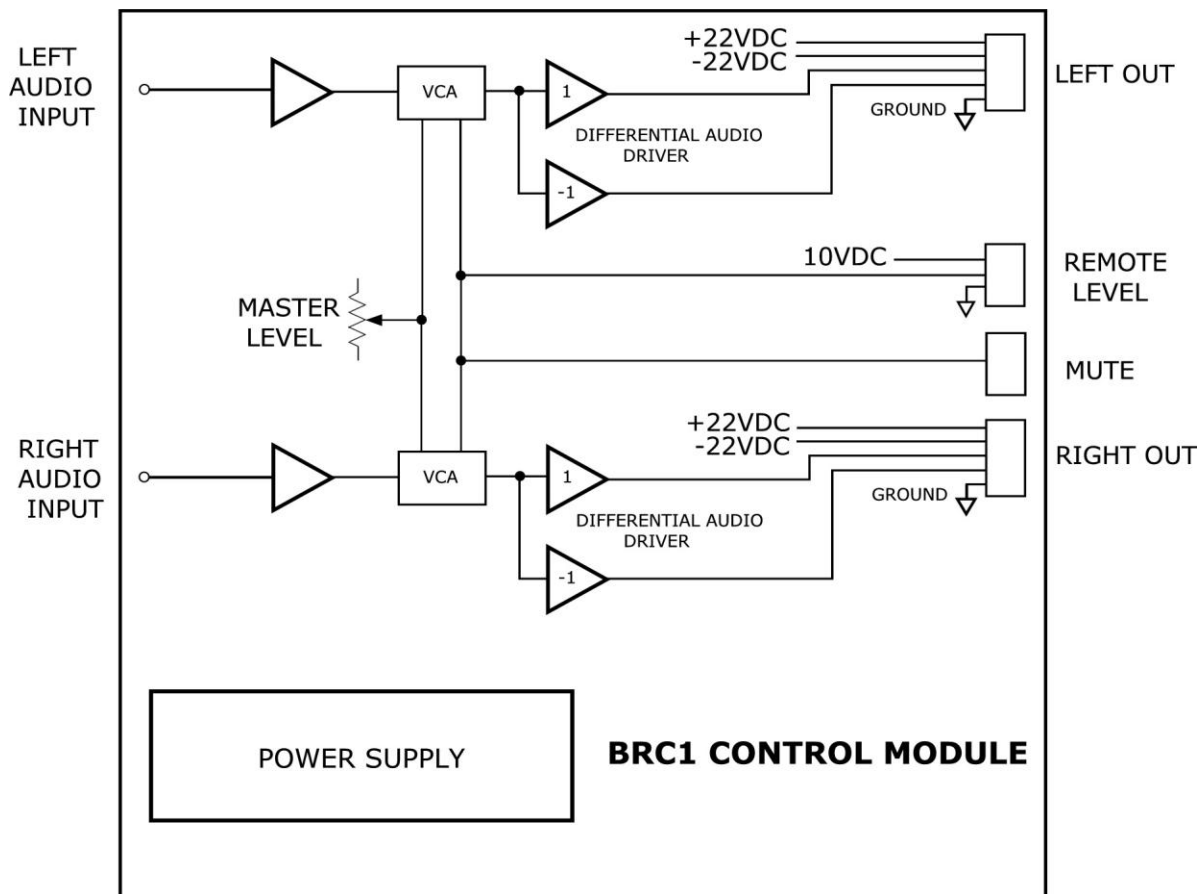
Do not use this equipment near water. Care should be taken so that objects do not fall onto and liquids are not spilled into the unit through any openings.

The power cord should be unplugged from the outlet when the unit is left unused for an extended period of time.

DO NOT ATTEMPT TO SERVICE THIS EQUIPMENT. THIS EQUIPMENT SHOULD BE SERVICED BY QUALIFIED SERVICE PERSONNEL ONLY. DO NOT MAKE ANY INTERNAL ADJUSTMENTS OR ADDITIONS TO THIS EQUIPMENT AT ANY TIME. DO NOT TAMPER WITH INTERNAL ELECTRONIC COMPONENTS AT ANY TIME. FAILURE TO FOLLOW THESE INSTRUCTIONS WILL VOID THE WARRANTY OF THIS EQUIPMENT, AND MAY CAUSE A SHOCK HAZZARD.

OPERATION

The HDDS BRC1 Control Module is used as a control module for distributed sound systems using the HDDS technology. The BRC1 Control Module provides a single stereo zone designed to be used as a stand-alone distributed sound system. The simplified block diagram below shows the basic configuration of the BRC1 Control Module.



Front Panel Controls



1

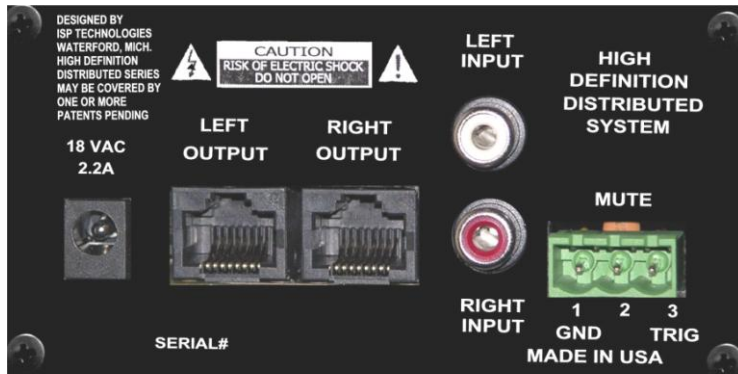
2

3

4

1. 1/8 inch RTS Input Jack
2. Master Level Control
3. Power LED
4. Remote Level RJ45 Port

Rear Panel



1

2

3

4

5

1. Power Connector
2. Left Zone Output
3. Right Zone Output
4. Left / Right RCA Input Jacks
5. External Mute Trigger

Principles of the Master Control Module operation:

The HDDS BRC1 allows connection of a stereo source via the rear panel Left / Right RCA input connector. A second input on the front panel allows connection for any external 1/8 inch RTS jack for connection to an IPOD, mp3 player or Computer Audio connections. When a jack is plugged into the 1/8 connector on the front panel it will defeat any audio connected to the rear stereo RCA connectors on the back panel. Power from the included external 18VAC adaptor is internally converted to +/- 22VDC and fed to the output RJ45 connectors providing the Left and Right outputs. When power is applied to the BRC1, the front panel power LED will illuminate. Cat5 cable is used to connect the BRC1 Left and Right RJ45 outputs to any of the HDDS series speakers. The BRC1 allows connection via the Remote Level port on the front panel to an external Remote Level Control, HDDS RM10. The Remote Level Control is a 10-volt DC control connected over a Cat5 cable to a simple potentiometer that adjusts a DC voltage fed back to the internal Voltage Controlled Amplifiers (VCA). This means that no audio is fed down the cable and a single DC voltage is used to simultaneously adjust both the Left and Right output levels. The rear panel also includes a Phoenix style connector providing a MUTE function. The connector provides a ground connection at Pin 1 and a MUTE trigger signal at pin 3. When the trigger line (pin 3) is pulled to ground the BRC1 will mute both the Left and Right outputs.

The power adaptor supplied with the BRC1 is capable of driving two to four speakers with a total of 40 watts. If more power is required for a specific application a high-output 18-volt power adaptor is available from ISP Technologies, which can provide higher output current, thus providing more power per speaker.

The front panel Master Level control is the "Zone MASTER" and sets the system maximum level while the front panel Remote Level control will only allow adjustment from a minimum setting to the maximum level set on the front panel Master Level. This allows the Master Control Module to be placed in a location where access to the Master Level can be restricted and yet allow Remote Level access at a remote location.

SPEAKER POWER:

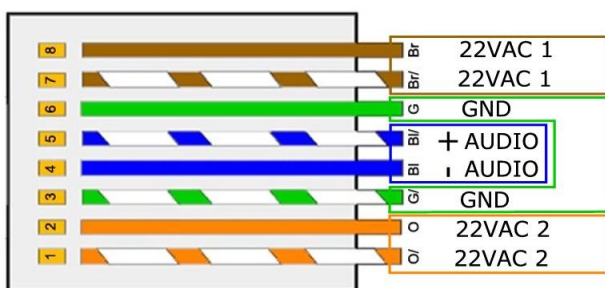
The HDDS BRC1 distributes low voltage Direct Current over the Cat5 cable plus high level balanced audio and is capable of 40 watts continuous power in total. An external power adaptor may also be connected to each external speaker's power connector as an alternative option thus allowing for higher levels of total system power if required.

Cat5 Connections

The figure below shows the connections for the Left and Right outputs. Connections are done via standard Cat5 cables where pins 1 through 8 are connected common to the same pins 1 through 8 at each end. As shown below two wires in the Cable are used for balanced audio and 6 wires are used for power with two providing ground and two for each of two 22VAC power signals fed down the cable.

NOTE: The HDDS rack mount Master Control Module feeds 22VAC over the Cat5 cable and the HDDS BRC1 feeds +/-22VDC over the Cat5 cable. The inputs of the HDDS speakers will accept either 22VAC or 22VDC to power the onboard amplifiers.

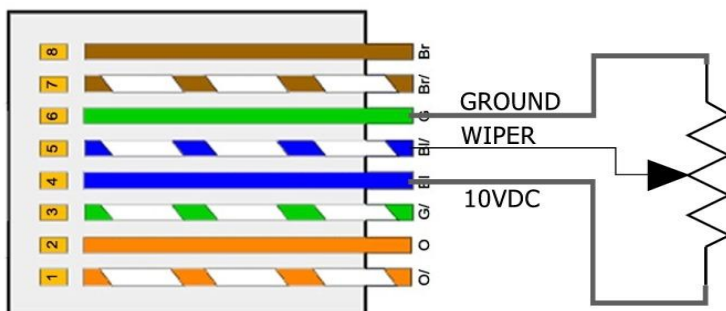
RJ45 CAT5 CONNECTIONS



Remote Level Control Connections

The figure below shows the connections used for the external Remote Zone Level Control. The BRC1 feeds 10VDC down the Cat5 cable and sets the zone level based on the DC Voltage that appears on pin 5 of the Cat5 cable. The level adjustment is done with an internal Voltage Controlled Amplifier VCA, which means that a simple DC voltage is used to set the remote level eliminating the need to feed low level audio down a long run of cable.

REMOTE LEVEL CONNECTIONS



HDDS MASTER CONTROL MODULE SPECIFICATIONS

POWER CONSUMPTION:	2.2 Amp Typical @18VAC
AUDIO INPUT:	Stereo RCA , Stereo RTS 1/8 inch
LEVEL CONTROL:	INTERNAL VCA CONTROL
REMOTE CONTROL LAW:	10VDC – OVDC 1V / 10DB
MUTE CONTROL:	Pull to ground 100db
L / R OUTPUT POWER:	+/- 22VDC
WEIGHT:	1.7 LBS

WARRANTY AND SERVICE

The unit, parts and workmanship are fully guaranteed to be free of defects under normal use and service for a period of 3 years from the date of purchase.

Any damage resulting from the misuse or the failure to follow the precautions and instructions will void the warranty.

In the event that the unit needs to be repaired, please return the unit to ISP Technologies directly. Simply repack the unit, send a copy of the original receipt, a note stating the problem, and send it to:

ISP Technologies, LLC
5479 Perry Drive Unit B
Waterford, MI 48329
Attn: Repair Dept.

All shipping charges must be fully prepaid.

ISP will not be responsible for any damages incurred in shipping of any unit. Any claim will need to be settled with the shipping company.

The warranty will be voided if the serial number has been tampered with in any way.

The warranty card must also be filled out and returned in order to activate the warranty.

Should you have any questions for the repair department prior to returning the product please call 1-(248)-673-7790

NOTE: This Product may be covered under one or more of the following patents with other patents pending: 7,035,413; 6,944,305; 6,931,134; 6,831,514; 6,091,013



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