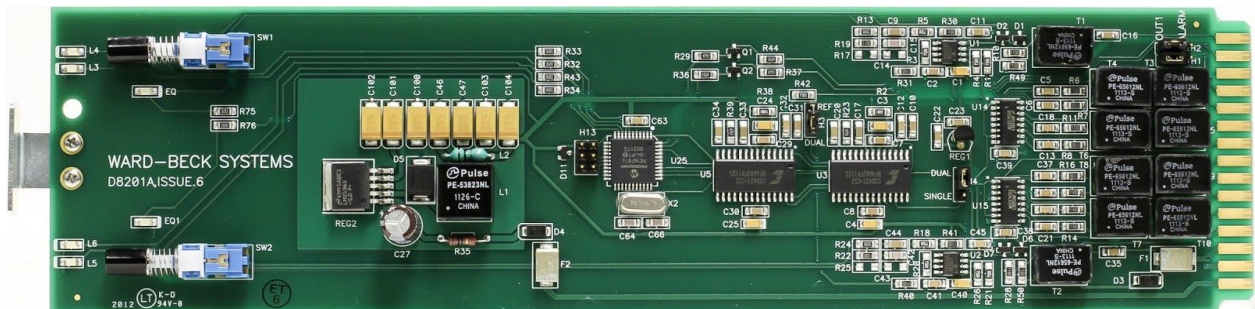
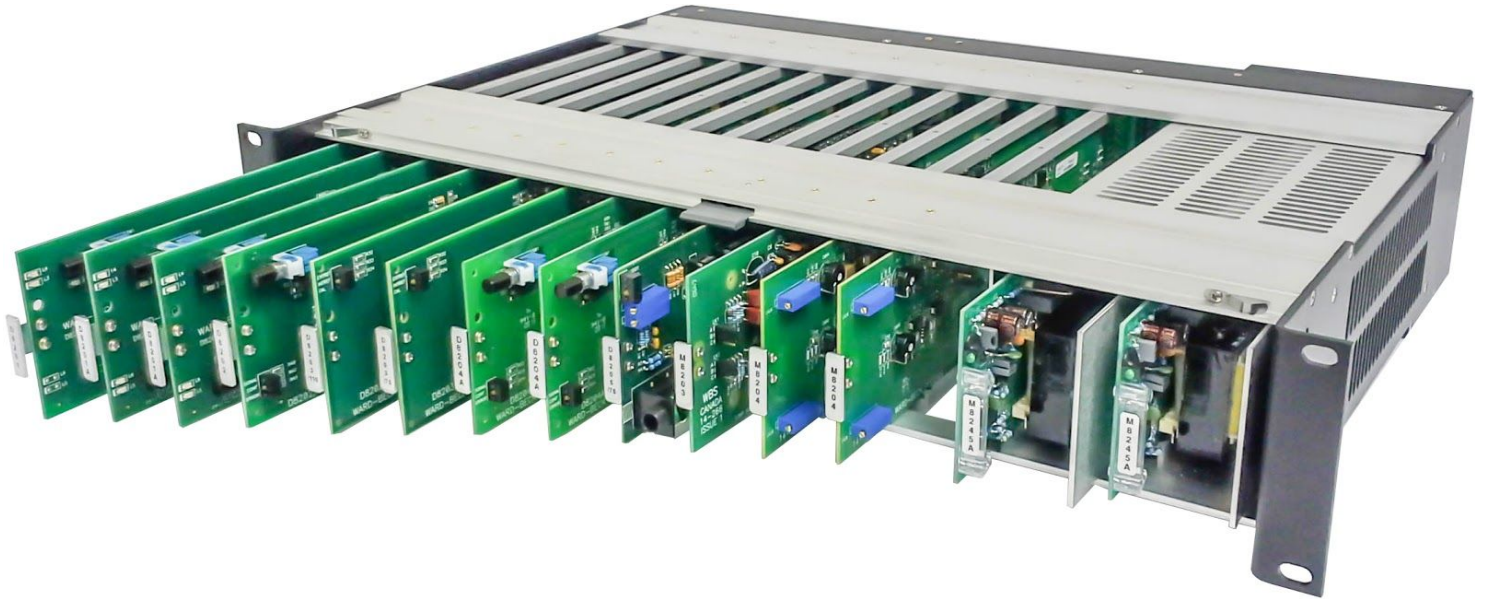


D8201A

8200 SERIES DISTRIBUTION SYSTEM
AES/EBU RECLOCKING DISTRIBUTION AMPLIFIER



by Ward-Beck Systems

Rev:Jan.01 2015

D8201A AES/EBU RECLOCKING DISTRIBUTION AMPLIFIER

GENERAL

The D8201A is an eight output AES/EBU distribution amplifier. All inputs and outputs are transformer balanced. Cable equalization and reclocking techniques enable this unit to reliably recover the incoming digital audio signal.

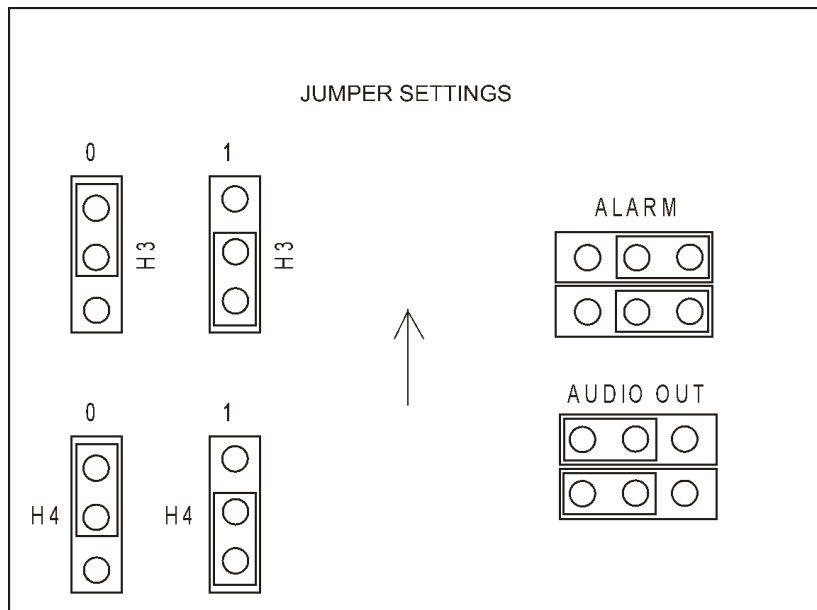
Lock and No Lock LED tallies are located on the front edge of the amplifier card. No Lock alarms may be brought out via the rear connector in place one of the eight outputs. The D8201A mounts in any standard Ward-Beck MF82 rack-mounting frame, is fully compatible with other products in the 8200 Distribution Series and can be installed in any position within the frame. To install the D8201A in an MF82 frame, orient the card with the letters on the handle reading from the top down.

The terminal assembly for connection to the D8201A distribution amplifier mounts on the rear of the MF82 frame, directly behind the D8201A module.

SETUP AND INSTALLATION

Configuration

The D8201A can be configured as a single 1x8 or a dual 1x4 distribution amplifier. Refer to the Jumper Settings Diagram below. If jumper H4 is set in position 0, the D8201A is in dual mode (1x4). If jumper H4 is set in position 1, the D8201A is in single mode (1x8). The AES2 input can be a local frame input or from the rear terminal block. With jumper H3 in position 0 the D8201A will pick up the frame reference signal. If the jumper for H3 is in position 1, AES2 is from the BIN on the rear terminal block. This is useful for DARS distribution or duplication applications.



NOTE: The arrow points to the top of PCB.

Equalization

For most applications, the D8201A only requires installation in the appropriate mounting frame and connection of input and output wiring. Factory calibrated, the D8201A can recover digital audio signals conforming to AES/EBU specifications and transmitted over 110 Ohm, shielded, twisted pair cable up to 250 metres (750 ft) long. For cables lengths in excess of 250 metres, we recommend that the input equalization be activated.

To activate the cable equalization, simply press the button located on the front edge of the card. The yellow LED will illuminate to indicate that cable equalization is activated.

NOTE: In installations with consistently long runs, consideration should be given to using the D8204, a six output distribution amplifier, designed for 75 Ohm, co-axial cable installations.

External Alarms

The controls that trigger two LED status indicators on the front edge of the amplifier card AES1 and AES2 NO LOCK (red) may be brought out via the rear connector to activate external alarms. These controls are open collector outputs. In order to bring the alarms out, output A1 of the distribution amplifier must be relinquished. Please refer to the Jumper Settings Diagram on the previous page to configure the alarm jumpers. Two 3 pin berg headers are provided. Each header corresponds to one alarm output. Both jumpers are normally installed in position AUDIO OUT enabling output A1. To bring the alarms out, move the jumpers on both headers to position ALARM.

STATUS TALLIES AND MONITOR

Status

The D8201A is equipped with six LED status tallies, located on the front edge of the card above the handle. The function of these tallies are:

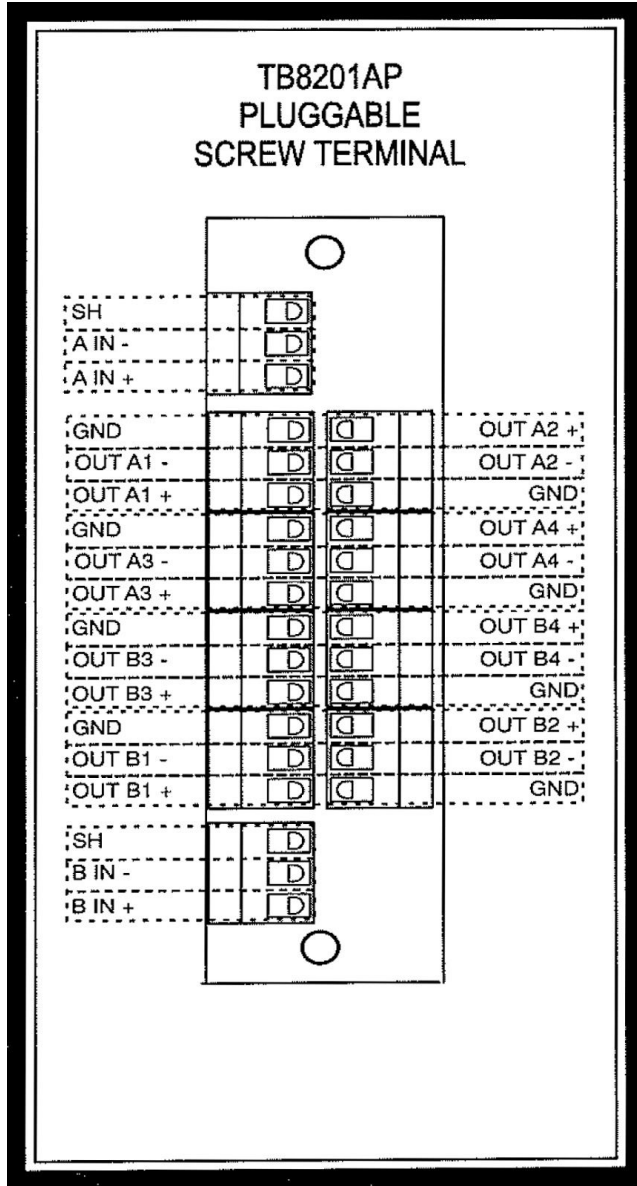
GREEN LED1	AES1 LOCK - Indicates that the receiver is locked to the incoming AES/EBU signal in the A Channel.
RED LED1	AES1 NO LOCK - Indicates that the receiver cannot lock to the incoming signal in the A Channel. This may mean that there is no signal or the signal is beyond the recoverable range of the receiver and may require equalization.
YELLOW LED1	AES1 EQUALIZER - Indicates that the cable equalization has been enabled for the A Channel.
GREEN LED2	AES2 LOCK - Indicates that the receiver is locked to the incoming AES/EBU signal in the B Channel.
RED LED2	AES2 NO LOCK - Indicates that the receiver cannot lock to the incoming signal in the B Channel. This may mean that there is no signal or the signal is beyond the recoverable range of the receiver and may require equalization.
YELLOW LED2	AES2 EQUALIZER - Indicates that the cable equalization has been enabled for the B Channel.

SPECIFICATIONS

Input Impedance	110 Ohm transformer balanced
Input Level	0.2-7 Vp-p
Output Level	2.5 V p-p terminated
Sampling Frequency Range	30 kHz to 96 kHz
Jitter (average 1k-100kHz)	Less than 5 ns
Output Impedance	110 Ohm transformer balanced
Equalization	2000 ft twisted pair 110 Ohm digital audio cable
O.C. Outputs	10 Ohm 60 mA MAX 30 V MAX
Power Requirements	+20 V, 100 mA, MAX -20 V, 12 mA, MAX
Dimensions	approx. 1" wide x 2.75" high x 10.06" deep (25.4 mm x 70 mm x 270 mm)
Weight	approx. 0.255 lbs. (116 grams)

Ward-Beck Systems Inc. reserves the right to change performance specifications without prior notice.

D8201A Terminal Options



WARRANTY

All Ward-Beck Systems Inc. products are warranted against defective materials and workmanship for a period of one year from the date of shipment.

Ward-Beck Systems Inc. will repair or replace, at its option and without charge, all said products or parts thereof which upon factory inspection prove to be defective during the warranty period, provided that:

1. The original serial numbers are intact and have not been tampered with.
2. The purchaser shall return any equipment or parts thereof to Ward-Beck Systems Inc. only after obtaining prior authorization and shipping instructions from the factory. (Ward-Beck Systems Inc. reserves the right to inspect or repair equipment on the purchaser's premises).
3. The purchaser assumes the obligation for all expenses in connection with the shipping and return of such goods, once authorization has been obtained.

This warranty does not cover items normally considered expendable, such as fuses and lamps.

This warranty does not cover damages caused by misuse, accident, neglect, unauthorized alteration, repair by unauthorized personnel, or damage caused by an act of God, war, or civil insurrection.

In no event shall Ward-Beck Systems Inc. be liable for consequential damages. Ward-Beck Systems Inc. shall have the rights to final determination as to the application of this warranty.

Ward-Beck Systems Inc. reserves the right, at any time and without notice, to make changes in its equipment, components, specifications or designs, as may be warranted by progress in state-of-the-art technology.

Ward-Beck Systems Inc. reserves the right to make design changes, additions to, and improvements in its products, without obligation to install such revisions in products previously manufactured.

The warranty set forth herein is in lieu of all other warranties expressed or implied, including the warranties of merchantability and fitness.

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