

B&K Components, Ltd.

B&K Components, Ltd.

DT-1 RF Digital Demodulator / Auto Selector



AC-3 RF



COAX



TOSLINK

DT-1 Owner's Manual

B&K Components, Ltd

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p/n 11042 Rev.9810B

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CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



SAFETY PRECAUTIONS

PLEASE READ BEFORE INSTALLING

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

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

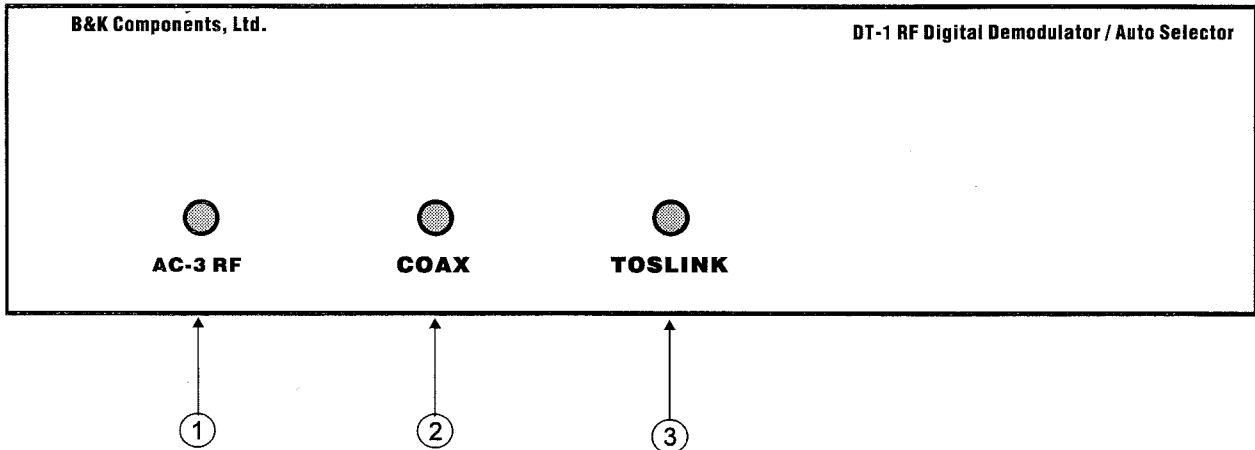
The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the unit.

Caution: To prevent the risk of electric shock, do not remove cover. Refer servicing to qualified service personnel.

- Turn demodulator 'off' (remove the power cable) when plugging in or unplugging source cables!!!
- The DT-1 is equipped with raised feet so that continuous ventilation can be maintained. They also help to reduce acoustic feedback into the preamplifier and provide a measure of protection against scratching any surface the unit might be resting on. **Do not alter or remove them.**
- Do not stack anything on top of the demodulator (processor, source, etc).
- Do not stack the DT-1 on top of an amplifier.
- Always connect the DT-1 power cord to an unswitched AC outlet for normal operations.

Front panel view

The figure below shows the front panel features.



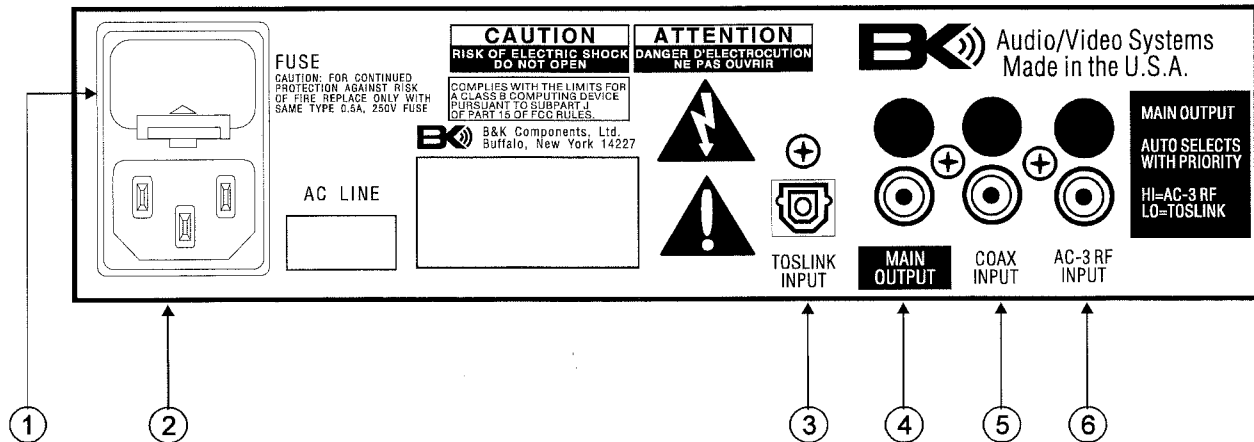
1. AC-3 RF LED
2. COAX LED
3. TOSLINK LED

Front panel description

- 1. AC-3 RF LED** - Indicates that a RF Dolby Digital signal is present at the DT-1's AC-3 RF input and the DT-1 is working.
- 2. COAX LED** - Indicates that a digital PCM signal is present at the DT-1's COAX input and the DT-1 is working.
- 3. TOSLINK LED** - Indicates that a digital optical signal is present at the DT-1's TOSLINK input and the DT-1 is working. This LED will also stay lit when no signal is present at any input.

Rear panel view

The DT-1's back panel is pictured here. The inputs and outputs are labeled on the chassis for easy identification as shown below.



1. AC fuse holder
2. AC input receptacle
3. TOSLINK INPUT

4. MAIN OUTPUT (COAXIAL)
5. COAX INPUT
6. AC-3 RF INPUT

Rear panel description

- 1. AC fuse holder -** Holds the AC line fuse. This fuse is a 0.5 A ($\frac{1}{2}$ A) 250 V fast blow fuse.
- 2. AC input receptacle -** For attaching the supplied AC power cord to the DT-1.
- 3. TOSLINK INPUT -** To connect a TOSLINK output (optical) from a digital source to the DT-1 to be converted to a coax digital signal that the AVP series preamplifiers will accept.
- 4. MAIN OUTPUT -** This output provides a coaxial digital PCM or Dolby Digital output that the AVP series preamplifiers can process.
- 5. COAX INPUT -** For connecting a coaxial digital signal to be switched between other sources.

6. AC-3 RF INPUT - This input accepts the Dolby Digital RF signal from most laserdisc players on the market and is demodulated into a digital Dolby Digital bitstream that the AVP series preamplifiers will accept.

Description of operation

The B&K Components, Ltd. DT-1 is a Dolby Digital RF demodulator and an auto selector. The DT-1 will demodulate a Dolby Digital RF signal from most laserdisc players on the market into a digital Dolby Digital signal to be processed by the AVP series preamplifiers with Dolby Digital processing.

For your convenience, the DT-1 will automatically select the appropriate input, depending on the activated source and internal jumper configuration.

Auto select mode (factory default mode)

There is a priority for the inputs on the DT-1. The unit will select the Dolby Digital RF demodulator when any Dolby Digital RF signal is present at the AC-3 RF INPUT. The unit will select the COAX input if no Dolby Digital RF signal is present and a coax digital PCM signal is present. The unit will select the TOSLINK input only when no other signals are present at any other input. (See the chart below)

INPUT	PRIORITY
AC-3 RF INPUT	1
COAX INPUT	2
TOSLINK INPUT	3

Anytime a Dolby Digital RF signal is present at the AC-3 RF INPUT the DT-1 will always switch to Dolby Digital demodulation regardless of a signal at the other inputs. If you have a signal present at the COAX or TOSLINK INPUTS (or both), they will not be selected when a Dolby Digital signal is present.

The DT-1 will switch to the COAX INPUT when there is a signal present at the COAX INPUT, if there is no signal present at the AC-3 RF INPUT. If you have a signal present at the COAX INPUT and TOSLINK INPUT, only the COAX will be selected.

The unit will select the TOSLINK input only when no other signals are present at the AC-3 RF or COAX inputs. When a signal is present at the TOSLINK INPUT, the DT-1 will covert the digital optical to digital coax.

The TOSLINK INPUT is also the default input. The DT-1 will always switch back to this input when the system is idle and power is still available to the DT-1.

AC-3 demodulator only mode

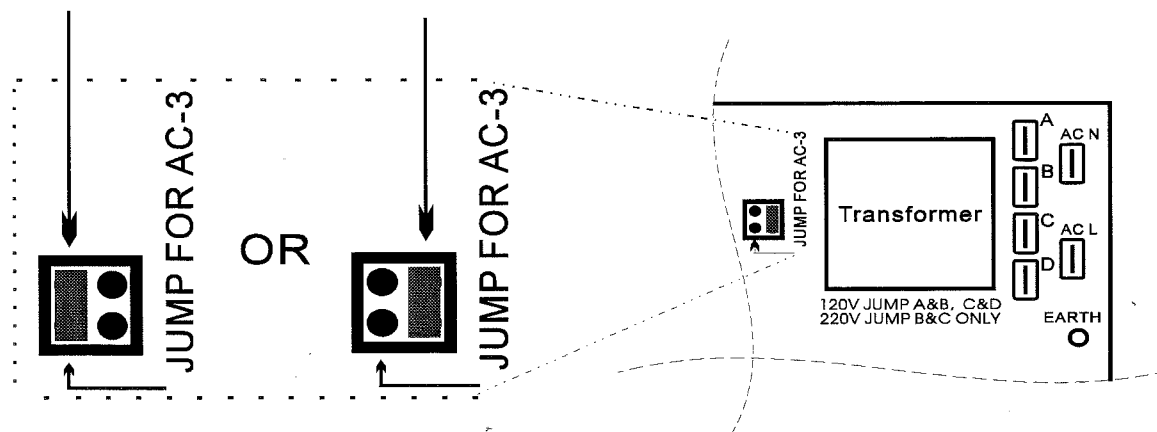
The DT-1 may also be put in AC-3 RF demodulator only mode. Use the AC-3 demodulator only mode if you will not be using the COAX or TOSLINK inputs.

To configure this mode simply remove the top cover of the DT-1 and change the jumper position to disable the auto select operation of the DT-1. See figure below.

FIGURE 1

Place jumper here for AC-3 Demodulator operation only.

DEFAULT POSITION FROM FACTORY Place jumper here for auto selector operation.



Mode change

To change the DT-1's mode of operation, perform the following instructions.

- ◆ **REMOVE THE POWER CORD BEFORE OPENING UNIT!**
- ▶ Remove the 4 screws holding the top cover on.
- ▶ Orient the DT-1 so the front is facing you.
- ▶ Locate the jumper inside the DT-1. It will be near the back of the DT-1 and to the left of the power transformer.
- ▶ Use a pair of pliers or tweezers to lift straight up on the jumper, removing it from the pins.
- ▶ To put the DT-1 in AC-3 demodulator only mode, place the jumper on the two pins marked "JUMP FOR AC-3". These are the two pins farthest from the transformer.

- ▶ To put the DT-1 in auto select mode (*factory default mode*), move the jumper out of the location marked "JUMP FOR AC-3" and onto the two pins closest to the transformer.
- ▶ Reinstall the top cover with the four screws you removed earlier.

DT-1 Connections

The DT-1 is designed to operate with two inputs connected to it (unless it is in AC-3 demodulator only mode). These inputs should both come from the same laserdisc player. When a laserdisc player has both TOSLINK and COAX PCM outputs, connect only one to the DT-1. The PCM digital outputs will carry the same information. Connecting both will be redundant.

Dolby Digital RF connection

Connect a cable from the laserdisc players Dolby Digital RF output to the DT-1's AC-3 RF INPUT.

Coax digital connection

Connect a cable from the laserdisc players digital PCM output to the DT-1's COAX INPUT.

Toslink digital connection

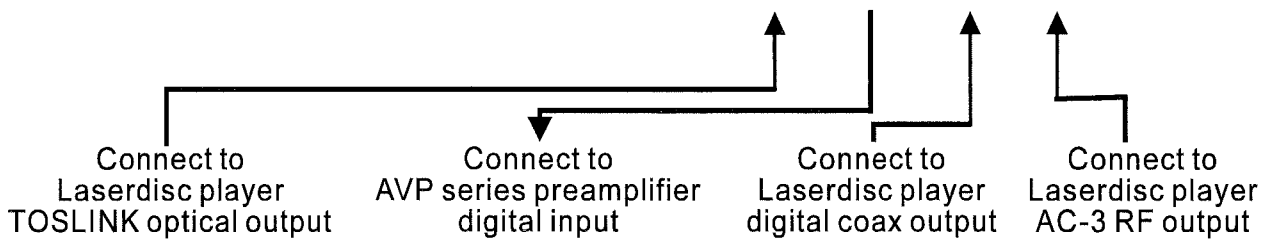
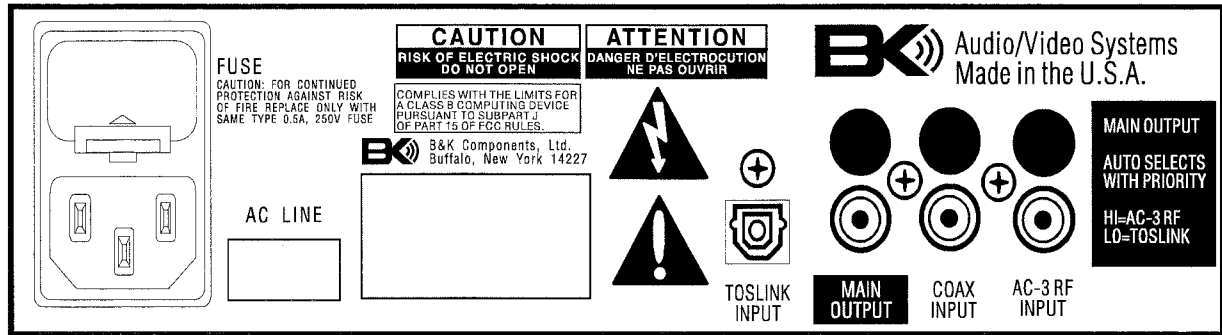
Connect a TOSLINK cable from the laserdisc players TOSLINK digital output to the DT-1's TOSLINK INPUT.

Main output connection

Connect a cable from the DT-1's MAIN OUTPUT to any one of the AVP's digital inputs (DVD/VLD, CD, TUNER, V1, V2, TV-V3).

The empty input may be used for another digital source. Remember the priority for the switching associated with the DT-1. Should you decide to use COAX INPUT for a laserdisc player and the TOSLINK INPUT for a CD player, remember to turn the laserdisc player off before attempting to play the CD player. The DT-1 COAX INPUT overrides the TOSLINK INPUT. The DT-1 will not pass the TOSLINK signal until the COAX signal is removed.

Figure 2



Troubleshooting

PROBLEM	POSSIBLE CAUSE	POSSIBLE SOLUTION
No LED's light.	<ol style="list-style-type: none"> 1. Power off at AC source. 2. Power cord not plugged in. 3. AC power inlet fuse blown or faulty. ** 	<ol style="list-style-type: none"> 2. Check power at the plug. 3. Reconnect power cord. 4. Check for shorts or overloading. **
The unit not switching properly	<ol style="list-style-type: none"> 1. No signal present at appropriate input. 2. Source material not encoded for Dolby Digital. 3. An incorrect hookup. 4. DT-1 in AC-3 demodulator only mode. 	<ol style="list-style-type: none"> 2. Ensure the source is playing. 3. Play Dolby Digital recording. 4. Check cable connections. 5. Move the internal jumper to factory default. See changing mode page 6.

**** Note:** If the unit continues to blow power inlet fuses, **DO NOT USE A HEAVIER FUSE!!**, have it serviced.

Limited Warranty

B&K Components Ltd., referred to herein as B&K, warrants your B&K equipment against all defects in material and workmanship for a period of five years from the date of purchase. This warranty applies only to the original purchaser and only to equipment in normal residential use and service. Defective equipment must be returned to B&K, prepaid, accompanied by sufficient payment to cover the cost of return shipping and handling, and will be repaired or replaced at the discretion of B&K whose decision as to the method of reparation will be final.

This warranty shall not apply to any equipment which is found to have been improperly installed, incorrectly fused, misused, abused, or subjected to harmful elements, used in any way not in accordance with instructions supplied with the unit, or to have been modified, repaired or altered in any way without the expressed, written consent of B&K. This warranty does not apply to the cabinet, the remote controller, or appearance items such as the faceplate, control buttons, or display lenses, nor does it cover any expenses incurred in shipping the unit to and from the manufacturer's service depot.

No warranty, implied or otherwise created by State law shall extend beyond the terms of this warranty and B&K shall not be liable for any incidental or consequential damage arising out of a defect in material or workmanship of the unit during the terms of this warranty or thereafter. Some States do not allow the exclusion or limitation of incidental or consequential damages and the foregoing exclusions may not apply to you.

This warranty gives you specific legal rights. You may also have other rights which vary from State to State.

No agent, representative, dealer or employee of B&K has the authority to increase or alter the obligations or terms of this warranty.

B&K Components Ltd.

RETURNING EQUIPMENT

No equipment may be returned to B&K Components Ltd. Without a RETURN AUTHORIZATION. Should you find it necessary to return equipment to B&K, for any reason, a RETURN AUTHORIZATION (RA) number must be issued by B&K in respect of the equipment being returned. You may request an RA number by calling B&K at the numbers below. We ask that you provide the following information at that time.

1. Your name, address, and phone number.
2. The model and serial number of the equipment being returned.
3. A description of the problem being experienced.

Your call will be referred to a Technical Service Representative who will work with you to resolve the problem. If it is determined that the unit must be returned for repair, an RA number will be issued.

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1-800-543-5252 or 1-716-656-0023

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LIST YOUR UNIT INFORMATION HERE

MODEL # _____

SERIAL # _____

DEALER NAME _____

DEALER PHONE # _____

SALES PERSON _____

DATE PURCHASED _____