

DSU III DBU Rackmount

User Manual

| 1200043L1 | Switched 4-Wire Version |
|-----------|-------------------------|
| 1200046L1 | V.32 bis Version |
| 1200047L1 | Switched 2-Wire Version |
| 1200067L1 | ISDN Version |
| 1200172L2 | V.34 Version |



The part number for the V.34 Dial Backup Module has been changed from 1200046L3 to 1200172L2. The functionality of the V.34 Dial Backup Module remains the same.

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Trademarks:

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Notes provide additional useful information.



Cautions signify information that could prevent service interruption.



Warnings provide information that could prevent damage to the equipment or endangerment to human life.

Important Safety Instructions

When using your telephone equipment, please follow these basic safety precautions to reduce the risk of fire, electrical shock, or personal injury:

- 1. Do not use this product near water, such as near a bathtub, wash bowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool.
- 2. Avoid using a telephone (other than a cordless-type) during an electrical storm. There is a remote risk of shock from lightning.
- 3. Do not use the telephone to report a gas leak in the vicinity of the leak.
- 4. Use only the power cord, power supply, and/or batteries indicated in the manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for special disposal instructions.

Save These Important Safety Instructions

Affidavit Requirements for Connection to Digital Services

- An affidavit is required to be given to the telephone company whenever digital terminal equipment without encoded analog content and billing protection is used to transmit digital signals containing encoded analog content which are intended for eventual conversion into voice band analog signal and transmitted on the network.
- The affidavit shall affirm that either no encoded analog content or billing information is being transmitted or that the output of the device meets Part 68 encoded analog content or billing protection specification.
- End use/customer will be responsible to file an affidavit with the local exchange carrier when connecting unprotected CPE to a 1.544 Mbps or subrate digital service.
- Until such time as subrate digital terminal equipment is registered for voice applications, the affidavit requirements for subrate services are waived.

Affidavit for Connection of Customer Premises Equipment to 1.544 MBPS and/or Subrate Digital Services

| For the work to be performed in the certified territory of | _(telco |
|--|---------|
| name) | |

State of _____

County of _____

| I, . | (name), | (business address), |
|------|---------------------------------|---------------------|
| | (telephone number) being duly s | worn, state: |

I have the responsibility for the operation and maintenance of the terminal equipment to be connected to 1.544 Mbps and/or _______ subrate digital services. The terminal equipment to be connected complies with Part 68 of the FCC rules except for the encoded analog content and billing protection specification. With respect to encoded analog content and billing protection:

() I attest that all operations associated with the establishment, maintenance and adjustment of the digital CPE with respect to encoded analog content and billing protection information continuously complies with Part 68 of the FCC rules and Regulations.

() The digital CPE does not transmit digital signals containing encoded analog content or billing information which is intended to be decoded within the telecommunications network.

() The encoded analog content and billing protection is factory set and is not under the control of the customer.

I attest that the operator(s) maintainer(s) of the digital CPE responsible for the establishment, maintenance and adjustment of the encoded analog content and billing information has (have) been trained to perform these functions by successfully having completed one of the following (check appropriate blocks):

() A. A training course provided by the manufacturer/grantee of the equipment used to encode analog signals; or

() B. A training course provided by the customer or authorized representative, using training materials and instructions provided by the manufacturer/grantee of the equipment used to encode analog signals; or

() C. An independent training course (e.g., trade school or technical institution)

recognized by the manufacturer/grantee of the equipment used to encode analog signals; or

I agree to provide ______ (telco's name) with proper documentation to demonstrate compliance with the information in the preceding paragraph, if so requested.

_____Signature

_____ Title

_____Date

Subscribed and sworn to before me

This ______ day of ______, 20____

Notary Public

My commission expires: _____

FCC regulations require that the following information be provided in this manual:

- 1. This equipment complies with Part 68 of the FCC rules. On the bottom of the equipment housing is a label that shows the FCC registration number and Ringer Equivalence Number (REN) for this equipment, if applicable. If required, this information must be given to the telephone company.
- 2. The following information may be required when applying to the local telephone company for leased line facilities.

| Service Type | REN/SOC | FIC | USOC |
|-----------------------------|---------|----------|--------|
| 2.4 kbps Digital Interface | 6.0F | 04DU5-24 | RJ-48S |
| 4.8 kbps Digital Interface | 6.0F | 04DU5-48 | RJ-48S |
| 9.6 kbps Digital Interface | 6.0F | 04DU5-96 | RJ-48S |
| 19.2 kbps Digital Interface | 6.0F | 04DU5-19 | RJ-48S |
| 38.4 kbps Digital Interface | 6.0F | 04DU5-38 | RJ-48S |
| 56 kbps Digital Interface | 6.0F | 04DU5-56 | RJ-48S |
| 64 kbps Digital Interface | 6.0F | 04DU5-64 | RJ-48S |

3. The following information may be required when applying to the local telephone company for a dial-up line for the V.34 or V.32.

| Service Type | REN | FICS | USOC |
|-------------------|------|-------|--------|
| Loop Start (V.32) | 0.3B | 02LS2 | RJ-11C |
| Loop Start (V.34) | 0.8B | 02LS2 | RJ-11C |

- 4. The REN is useful to determine the quantity of devices you may connect to your telephone line and still have all of those devices ring when your number is called. In most, but not all areas, the sum of RENs of all devices should not exceed 5. To be certain of the number of devices you may connect to your line, as determined by REN, you should call your telephone company to determine the maximum REN for your calling area.
- 5. An FCC compliant telephone cord with a modular plug may be provided with this equipment. This equipment is designed to be connected to the telephone network or premises wiring using a compatible modular jack, which is FCC Part 68 compliant. See installation instructions for details.
- 6. If this equipment causes harm to the telephone network, the telephone company may temporarily discontinue service. If possible, advance notification is given; otherwise, notification is given as soon as possible. The telephone

company will advise the customer of the right to file a complaint with the FCC.

- 7. The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the proper operation of this equipment. If this happens, the telephone company will provide advance notification and the opportunity to make the necessary modifications to maintain uninterrupted service.
- 8. If experiencing difficulty with this equipment, please contact ADTRAN for repair and warranty information. If the equipment is causing harm to the network, the telephone company may request this equipment to be disconnected from the network until the problem is resolved or it is certain that the equipment is not malfunctioning.
- 9. This unit contains no user serviceable parts.
- 10. The FCC recommends that the AC outlet to which equipment requiring AC power is to be installed is provided with an AC surge arrester.

Federal Communications Commission Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio frequencies. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Shielded cables must be used with this unit to ensure compliance with Class A FCC limits.



Change or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Canadian Emissions Requirements

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of the Department of Communications.

Cet appareil nuerique respecte les limites de bruits radioelectriques applicables aux appareils numeriques de Class A prescrites dans la norme sur le materiel brouilleur: "Appareils Numeriques," NMB-003 edictee par le ministre des Communications.

Canadian Equipment Limitations

Notice: The Canadian Industry and Science Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational, and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable methods of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above limitations may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.



Users should not attempt to make such connections themselves, but should contract the appropriate electric inspection authority, or an electrician, as appropriate.

The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirement that the total of the Load Numbers of all devices does not exceed 100.

Limited Product Warranty

ADTRAN warrants that for five (5) years from the date of shipment to Customer, all products manufactured by ADTRAN will be free from defects in materials and workmanship. ADTRAN also warrants that products will conform to the applicable specifications and drawings for such products, as contained in the Product Manual or in ADTRAN's internal specifications and drawings for such products (which may or may not be reflected in the Product Manual). This warranty only applies if Customer gives ADTRAN written notice of defects during the warranty period. Upon such notice, ADTRAN will, at its option, either repair or replace the defective item. If ADTRAN is unable, in a reasonable time, to repair or replace any equipment to a condition as warranted, Customer is entitled to a full refund of the purchase price upon return of the equipment to ADTRAN. This warranty applies only to the original purchaser and is not transferable without ADTRAN's express written permission. This warranty becomes null and void if Customer modifies or alters the equipment in any way, other than as specifically authorized by ADTRAN.

EXCEPT FOR THE LIMITED WARRANTY DESCRIBED ABOVE, THE FORE-GOING CONSTITUTES THE SOLE AND EXCLUSIVE REMEDY OF THE CUS-TOMER AND THE EXCLUSIVE LIABILITY OF ADTRAN AND IS IN LIEU OF ANY AND ALL OTHER WARRANTIES (EXPRESSED OR IMPLIED). ADT-RAN SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, INCLUDING (WITHOUT LIMITATION), ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SOME STATES DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES, SO THIS EXCLU-SION MAY NOT APPLY TO CUSTOMER.

In no event will ADTRAN or its suppliers be liable to Customer for any incidental, special, punitive, exemplary or consequential damages experienced by either Customer or a third party (including, but not limited to, loss of data or information, loss of profits, or loss of use). ADTRAN is not liable for damages for any cause whatsoever (whether based in contract, tort, or otherwise) in excess of the amount paid for the item. Some states do not allow the limitation or exclusion of liability for incidental or consequential damages, so the above limitation or exclusion may not apply to Customer.

Customer Service, Product Support Information, and Training

ADTRAN will replace or repair this product within five years from the date of shipment if the product does not meet its published specification, or if it fails while in service.

A return material authorization (RMA) is required prior to returning equipment to ADTRAN. For service, RMA requests, training, or more information, see the toll-free contact numbers given below.

Presales Inquiries and Applications Support

Please contact your local distributor, ADTRAN Applications Engineering, or ADTRAN Sales:

 Applications Engineering
 (800) 615-1176

 Sales
 (800) 827-0807

Post-Sale Support

Please contact your local distributor first. If your local distributor cannot help, please contact ADTRAN Technical Support and have the unit serial number available.

Technical Support (888) 4ADTRAN

The Custom Extended Services (ACES) program offers multiple types and levels of service plans which allow you to choose the kind of assistance you need. For questions, call the ACES Help Desk.

ACES Help Desk (888) 874-2237

Repair and Return

If ADTRAN Technical Support determines that a repair is needed, Technical Support will coordinate with the Custom and Product Service (CAPS) department to issue an RMA number. For information regarding equipment currently in house or possible fees associated with repair, contact CAPS directly at the following number:

CAPS Department (256) 963-8722

Identify the RMA number clearly on the package (below address), and return to the following address:

ADTRAN Customer and Product Service 901 Explorer Blvd. Huntsville, Alabama 35806

RMA # _____

Training

The Enterprise Network (EN) Technical Training Department offers training on our most popular products. These courses include overviews on product features and functions while covering applications of ADTRAN's product lines. ADTRAN provides a variety of training options, including customized training and courses taught at our facilities or at your site. For more information about training, please contact your Territory Manager or the Enterprise Training Coordinator.

| Training - phone | (800) 615-1176, ext. 7500 |
|------------------|---------------------------|
| Training - fax | (256) 963-6700 |
| Training - email | training@adtran.com |

ISDN Service Ordering Information for the ADTRAN DSU III DBU with ISDN Dial Backup

For ADTRAN DSU III DBU ISDN applications, the following guide can be used as an aid in ordering basic ISDN service from your local telephone company. The ADTRAN DSU III DBU ISDN includes NT1 and Terminal adapter functionality and supports data rates up to 64 kbps.

Request an ISDN Basic Rate Interface (BRI) line with the following features:

U-interface reference point 2B1Q line coding 1B+D Service (supports up to 64 kbps)

The DSU III DBU ISDN supports the following switch types and software protocols:

AT&T 5ESSCustom, 5E6 and later software, National ISDN-1NT1DMS-100BCS-32 and later software (Pvc1), National ISDN-1 (Pvc2)Siemens EWSD National ISDN-1

Request that the ISDN line allocate one dynamic terminal endpoint identifier (TEI) for the number.

For service offered from an AT&T 5ESS, request a point-to-point line with the following features:

| B1 Service: | On Demand (DMD) |
|--|-----------------|
| Data Line Class: | Point-to-Point |
| Maximum B Channels: | 1B+D |
| Circuit Switched Data (CSD) Bearer Channels: | Any |
| Number of CSD Calls: | 1 (1B+D) |
| Terminal Type: | Type A |

Turn the Following Features Off:

Packet Mode Data Multi-line Hunt Multiple Call Appearances Electronic Key Telephone Sets (EKTS) Shared Dictionary Numbers Accept Special Type of Number Intercom Groups Network Resource Selector (Modem Pools) Message Waiting Hunting InterLata Competition

For service offered from a Northern Telecom DMS-100, request a point-topoint multi-point line with the following features:

| Line Type: | Basic Rate, Functional |
|---------------------------------------|---|
| Electronic Key Telephone Sets (EKTS): | No |
| Call Appearance Handling (CACH): | No |
| Non-initializing Terminal: | No |
| Circuit Switched Service: | Yes |
| Packet Switched Service: | No |
| TEI: | Dynamic |
| Bearer Service: | Circuit Switched voice and data permit- ted on any B channel (packet mode data not permitted) |