

WESCOM DUALINE PLUS  
DIGITAL SINGLE SUBSCRIBER CARRIER SYSTEM  
DDL 210 CENTRAL OFFICE  
TERMINAL (COT) POWER UNIT

1. GENERAL

- 1.01 This section is a cover sheet for the Wescom DuaLine Plus DDL 210 Central Office Terminal (COT) Power Unit for use at the subscriber location. This section is copyrighted and reproduced with the permission of Charles Industries.
- 1.02 Whenever this section is reissued the reason(s) for reissue will be listed in this paragraph.
- 1.03 The Wescom DuaLine Plus System is a general purpose digital single subscriber carrier (DSSC) system that provides pair gain capability over a non-loaded, two wire, copper facility.

The DuaLine Plus requires installation of a central office terminal and a field module, located at or near the subscriber premise.

- 1.04 Associated practices for installation and maintenance of the system are:

<u>Section</u>	<u>Title</u>
363-400-800SW	System Overview
502-204-800SW	DDL 102 DuaLine Plus Remote Terminal
502-204-801SW	DDL 104 DuaLine Plus Remote Terminal
502-204-802SW	DDL 112 DuaLine Plus Remote Terminal
363-400-801SW	DDL 201 DuaLine Plus Central Office Terminal Shelf (23 inches)
363-400-803SW	DDL 221 DuaLine Plus Central Office Terminal (COT) Common Unit
363-400-804SW	DDL 230 DuaLine Plus Central Office Terminal (COT) Line Unit
363-400-805SW	DDL 391 DuaLine Plus Line Unit
502-204-803SW	DDL 190 DuaLine Plus Remote Terminal Simulator
502-204-804SW	Digital Signal Trak-A-Tone Model 92-5

- 1.05 If corrections are required in the attached document, use Form-3973 as described in Section 000-010-015.
- 1.06 If manufacturing and/or design problems are encountered, refer to Section SW 010-522-906 for procedures on filing an Engineering Complaint.

2. ORDERING PROCEDURES

- 2.01 Components of the DuaLine Plus System may be ordered via the Southwestern Inventory Management System (SWIMS).
- 2.02 To order additional copies of this practice, use WSCM 363-400-802SW.

PROPRIETARY  
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# Wescom® DDL210 DualLine Plus™ Central Office Terminal (COT) Power Unit

CLEI™ Code: SIPQ0191AA

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## 1. GENERAL

1.01 This practice provides a general description of the Wescom® DDL210 DualLine Plus™ Central Office Terminal (COT) Power Unit. The DDL210 COT Power Unit is depicted in Figure 1.

1.02 Issue 3 was released to change the idle voltage to +50V and -80V. These voltages are within the A2 limits. The third printing of this practice was issued to add DDL-002-100 to Paragraphs 1.03 and 9.01 and to modify Figure 3.

1.03 The DDL210 COT Power Unit converts -48Vdc to the required voltages to power the COT shelf and the RTs. The COT Power Unit automatically reduces line powering voltages during idle intervals, and increases line powering voltages for busy and ringing conditions. Refer to Section DDL-000-100 or DDL-002-100 for a general description and features of the DualLine Plus System.

## 2. CIRCUIT DESCRIPTION

2.01 The Wescom DDL210 COT Power Unit converts -48Vdc to the voltages required to power the RT (Remote Terminal) and the COT (Central Office Terminal) equipment. The COT Power Unit provides idle line voltage that is within A2 limits; +50V and -80V Tip to Ground or Ring to Ground. The COT Power Unit also provides busy and ringing line voltage that is within A3 limits; ±140V Tip to Ground or Ring to Ground. Refer to Figure 2 for the Block Diagram of the DDL210 COT Power Unit.

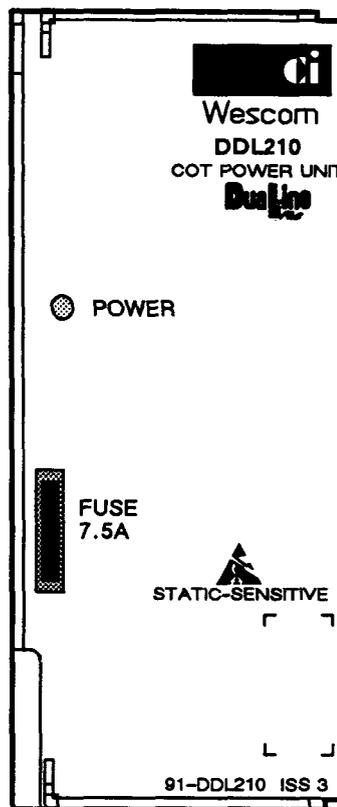


Figure 1. DDL210 COT Power Unit

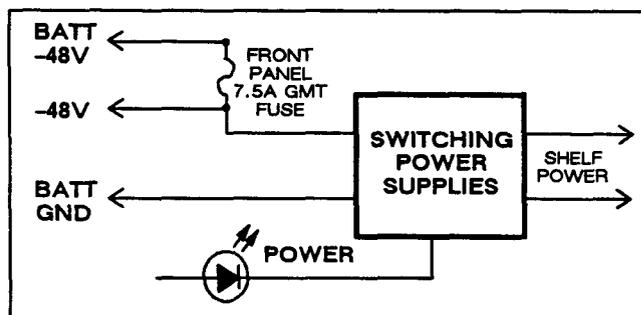


Figure 2. DDL210 COT Power Unit Block Diagram

### 3. INSPECTION

3.01 Inspect the equipment thoroughly upon delivery. If the equipment has been damaged in transit, immediately report the extent of damage to the transportation company.

3.02 Wescom equipment is identified by a model and issue number imprinted on the front panel or located elsewhere on the equipment. Each time a major engineering design change is made on the equipment, the issue number is advanced by one number on any subsequent models that are manufactured. Therefore, be sure to include both the model number and its issue number when making inquiries about the equipment.

3.03 Each module is shipped in static-protective packaging to prevent electrostatic charges from damaging static-sensitive devices. Use approved static-preventive measures, such as static-conductive wrist straps and a static-dissipative mat, when handling modules outside of their protective packaging. A module intended for future use should be tested as soon as possible and returned to its original protective packaging for storage.

**CAUTION**

Do not ship or store modules near strong electrostatic, electromagnetic, or magnetic fields. Also, make sure to use the original static-protective packaging for shipping or storage.

### 4. MOUNTING

4.01 Wescom DDL210 COT Power Unit mounts in right most position of the Wescom DDL20X DualLine

Plus Central Office Terminal shelf. Refer to Figure 3 for proper shelf position.

**CAUTION**

Installation and removal of channel units should be done with care. Use static-preventive measures when handling. Do not force a unit into place. If excessive resistance is encountered during installation, remove the unit and check the card guides and connector to verify proper alignment and the absence of foreign material.

### 5. INSTALLER CONNECTIONS

5.01 No installer connections are required for the DDL210 COT Power Unit.

### 6. OPTIONS

6.01 There are no options on the DDL210 COT Power Unit.

### 7. TESTING

7.01 Testing of the DDL210 COT Power Unit is covered in Section DDL-201-301 or Section DDL-205-301.

**Technical Assistance**

7.02 If technical assistance is required, contact the Technical Services Department of Charles Industries-Wescom, by calling:

1-708-806-8500  
FAX 1-708-806-6231

DDL210 COT Power Unit Mounting Position In a DDL201 COT Shelf

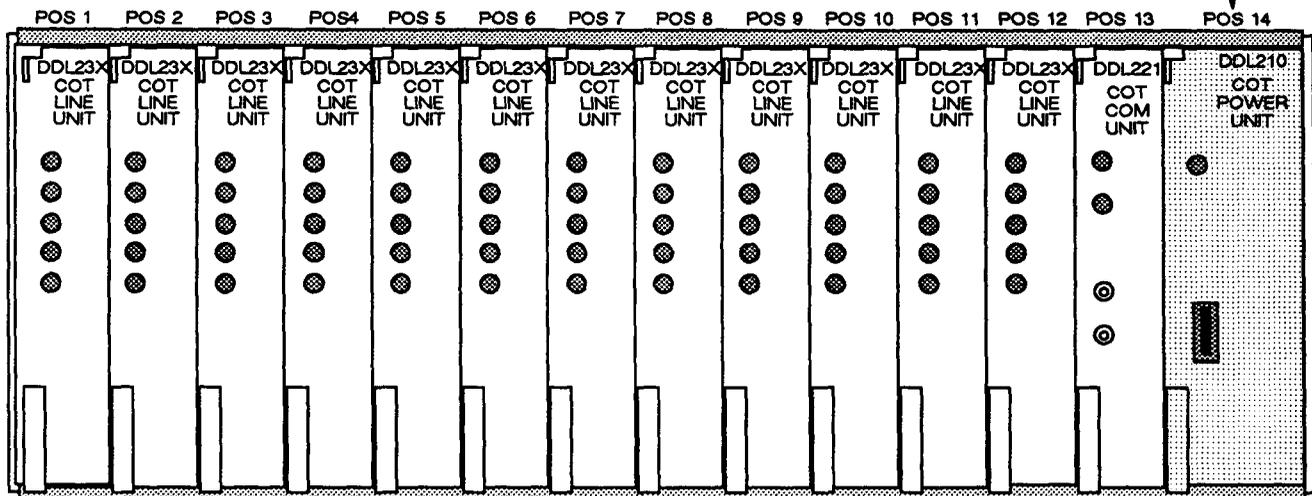


Figure 3. Typical DDL210 COT Power Unit Mounting Position (Front View)

## 8. WARRANTY AND CUSTOMER SERVICE

**8.01** Wescom offers an industry-leading, 5-year warranty on products manufactured by Wescom. Contact your local Sales Engineer for warranty details. The warranty provisions are subject to change without notice. The terms and conditions applicable to any specific sale of product shall be defined in the resulting sales contract.

**8.02** Field repairs involving the replacement of components within a unit are not recommended. If a unit is in need of repair, contact Wescom by telephone, letter, or FAX for instructions regarding replacement or repair.

**8.03** If a replacement is required, it will be shipped in the fastest manner consistent with the urgency of the situation. Upon receipt of the replacement unit, return the out-of-service unit in the carton in which the replacement was shipped, using the pre-addressed shipping label provided.

### Repair or Exchange Services

**8.04** Wescom offers a repair or exchange service for those units out of warranty. Under this arrangement, out-of-service units may be shipped to Wescom and either completely repaired and quality-tested or exchanged for a replacement unit. To obtain details of this service and a schedule of prices, contact your local Sales Engineer.

## 9. SPECIFICATIONS

**9.01** The physical characteristics of the DDL210 COT Power Unit are as follows:

### NOTE

*The electrical characteristics of the DDL210 COT Power Unit are provided in Sections DDL-000-100 and DDL-002-100 as part of the DualLine Plus System.*

- (a) OPERATING ENVIRONMENT: Temperature, 32° to 122°F (0° to 50°C).
- (b) WEIGHT: 2.3 lbs (1.04 kg), nominal.
- (c) DIMENSIONS: Height, 6.5 in. (16.5 cm); width, 2.75 in. (6.985 cm); depth, 10.54 in. (26.77 cm).
- (d) MOUNTING: Mounts in the Power Unit position of a DDL20X DualLine Plus Central Office Terminal shelf.