



SLC[®] LineReach[™] Access System

AUA118() Bank Fuse Unit— 5SPQAD6 (AUA118) 5SPQAEA (AUA118B)

Features/Functions

- Provides fusing protection to the *SLC* LineReach shelf
- Allows either 1 or 2 PCUs to power the *SLC* LineReach shelf
- Faceplate alarm (ALM) LED
- Provides current inrush protection to the RGU
- Monitors 20 Hz ringing voltage
- Provides system alarms for fault conditions.
- UL* Recognized

* Registered trademark of Underwriters Laboratories Inc.

Description

This data sheet describes the AUA118() bank fuse unit (BFU) (COMCODE 108253733, AUA118; and 108447418, AUA118B) and is intended for the end-user of the unit. The AUA118() BFU is used in the *SLC[®] LineReach[™]* Access System remote terminal (RT).

The AUA118() BFU contains 5 WP90247-type indicator fuses. Four fuses provide -48 volt DC protection and one fuse provides 20 Hz ringing protection. Refer to Table 2 for more detailed information.

For the AUA118 BFU, when any of fuses F1, F2, or F3 activates, the alarm LED will light. Fuses F4 and F5 do not light the LED.

For the AUA118B BFU, when any of fuses F1, F2, F3, F4, or F5 activates, the alarm LED will light. The alarm LED also lights when the PCU switch setting does

not match the number of PCUs that are equipped.

The AUA118 BFU and AUA118B BFU both have the following alarm capabilities:

- Activation of fuse F1 or F3 sends a major (MJ) alarm directly to the BCU. When fuse F2 activates the ADU detects the failure and displays a minor alarm.
- Loss of ringing (from any cause)* or a ringing signal which is out of limits will send a MJ alarm to the BCU.

The AUA118B BFU also sends a MJ alarm when the PCU switch-setting does not match the number of PCUs that are equipped.

The AUA118() BFU provides fusing for the shelf and distribution of the 5 volt DC power from the power converter unit (PCU). The AUA118() BFU has a switch that can be set for either one power converter unit or two power converter units. For Feature Package FP1.1 applications, one PCU is required. For FP2.0 applications, two PCUs are required.



NOTE:

Use only Lucent Technologies approved fuses in this unit. Use of non-approved fuses may void the Lucent Technologies warranty. Refer to 363-208-400, *SLC LineReach Access System Applications, Planning, and Ordering Guide*, for ordering information about recommended fuses.

This data sheet is being updated to add information on the AUA118B BFU to this specification. The AUA118B BFU offers additional features over its predecessor, the AUA118 BFU, as follows:

- LED alarm display when BFU switch setting is incompatible with power converter unit (PCU) equipage.
- Improved alarm display providing LED indication for activation of fuses F4 or F5.
- Prevention of false ringing alarm during power transients.

Figure 1 shows the faceplate diagram for the AUA118B bank fuse unit and the location of the PCU switch on the circuit board. Table 1 lists the environmental specifications for the unit. Table 2 lists the fuse functions, type and fuse value, and Table 3 lists the edge connections for the AUA118() BFU.

* Loss of ringing can be caused by activation of fuses F4 or F5, or by failure of the RGU or external ringing source.

Specifications

This unit is intended for use in *SLC* LineReach Access Systems located in controlled environments that conform to the specifications of Telcordia Technologies GR-63*. It may also be used in applicable Lucent Technologies cabinets designed for *SLC* LineReach and intended for applications in non-controlled (outside plant) environments that conform to Telcordia Technologies GR-487†. These cabinets, when properly equipped, are designed to maintain internal environmental conditions within appropriate operational limits for *SLC* LineReach equipment such that system performance meets TR-NWT-000057‡.

The applicable outside plant environment criteria for cabinet enclosures (per GR-487) are summarized in Table 1 Environmental Specifications.

Table 1. Environmental Specifications

<p>A. Temperature Range (Ambient)</p> <ol style="list-style-type: none"> 1. Operating, per TR-NWT-000057: in Lucent Technologies cabinets exposed to ambient temperatures of -40° F (-40° C) with no solar load to +115° F (46° C) with maximum solar load and maximum power dissipation. Lucent Technologies cabinets are designed to ensure that the components within do not exceed their rated temperatures for the above conditions. 2. Storage, per TR-NWT-000057: ambient temperatures of -40° to 140° F (-40° to 60° C).
<p>B. Relative Humidity</p> <ol style="list-style-type: none"> 1. Operating, per TR-NWT-000057. For outside ambient temperature 84° F (29° C) or less, relative humidity of 5% to 95%. For ambient temperatures above 84° F (29° C), the relative humidity is limited to that corresponding to a specific humidity of 0.024 pound of water per pound of dry air. 2. Storage, per TR-NWT-000057: ambient temperatures 84° F (29° C) or less, 10% to 95%. For ambient temperatures above 84° F (29° C), the relative humidity is limited to that corresponding to a specific humidity of 0.024 pound of water per pound of dry air.

* Telcordia Technologies Generic Reference GR-63, Issue 1, October 1994, and all Revisions and Supplements,
 "Network Equipment-Building System Requirements: Physical Protection (a module of LSSGR, GR-64; TSGR, FR-440, and NEBS FR, FR-2063)," Telcordia Technologies, Inc.

† Telcordia Technologies General Requirements GR-487, Issue 1, June 1996, and all Revisions and Supplements. "General Requirements for Electronic Equipment Cabinets," Telcordia Technologies, Inc.

‡ Telcordia Technologies Technical Reference TR-NWT-000057, Issue 2, January 1993, and all Revisions and Supplements, "Functional Criteria For Digital Loop Carrier Systems," Telcordia Technologies, Inc.

Installation and Testing

There is one toggle switch to set on this unit. See Figure 1. The toggle switch located on the circuit board of the AUA118() BFU must be manually set to the **PCU 1 & 2** position or the **PCU 1** position. For FP1.1 applications, set to **PCU 1** position which uses one PCU. For FP2.0 applications set to **PCU 1 & 2** position. The **PCU 1** position is the factory default setting.

More detailed technical information on the use of this circuit pack and setting the toggle switch is given in 363-208-400, *SLC LineReach Access System, Applications, Planning, and Ordering Guide*. Procedures for setting the toggle switch are in 363-208-401, *SLC LineReach Access System, User/Service Manual*.

Faceplate Features and Options

The AUA118() bank fuse unit faceplate and circuit board switch locations are shown in Figure 1. The LED indicator and fuses on the faceplate are as follows:

ALM (Red LED): For the AUA118 BFU, when any of fuses F1, F2, or F3 activates, the alarm LED will light. For the AUA118B BFU, when any of fuses F1, F2, F3, F4 or F5 activates, the alarm LED will light. For the AUA118B BFU only, the alarm also lights when the PCU switch setting does not match the number of PCUs that are equipped. All of the 5 fuses have indicators on them so the user can determine which fuse is blown. Blown fuses in the BFU should be replaced through the faceplate. Do not remove the BFU from its slot to replace fuses.

Table 2. Fuse Functions For The AUA118() Bank Fuse Unit

Fuse Number	Fuse Type	Fuse Value	Function
F1	WP90247 L58	-48 Volt, 3A	Fuses the input to the power convertor units.
F2	WP90247 L58	-48 Volt, 3A	Fuses the input to the common circuit packs.
F3	WP90247 L58	-48 Volt, 3A	Fuses the input to the channel units.
F4	WP90247 L58	-48 Volt, 3A	Fuses the -48 Volt dc input power to the RGU
F5*	WP90247 L59	20 Hz, 0.5A	Fuses the 20 Hz ringing output from the RGU

* Fuse F5 is located at the lower right hand corner of the AUA118() BFU faceplate (Fuse F5 is not labeled due to space limitations on the faceplate).



NOTE:

Fuse removal tool, WP90247 L201 should be used to remove blown fuses.

The switch option for the AUA118() BFU can be set as follows:

- **PCU 1 & 2/PCU 1** option: The toggle switch can be manually set to the **PCU 1 & 2** position or the **PCU 1** position. For FP1.1 applications, set the switch to the **PCU 1** position. The other switch position, **PCU 1 & 2**, is for FP2.0 applications. The **PCU 1** position is the factory default setting.
- The AUA118B BFU switch actuator toggles up (away from the board surface) and down (toward the board surface). The “up” position selects **PCU 1** operation, and the “down” position selects **PCU 1 & 2** operation.
- The AUA118 BFU uses a different type of toggle switch which is activated parallel to the board to select **PCU 1 ONLY** and **PCU 1 & 2** options.

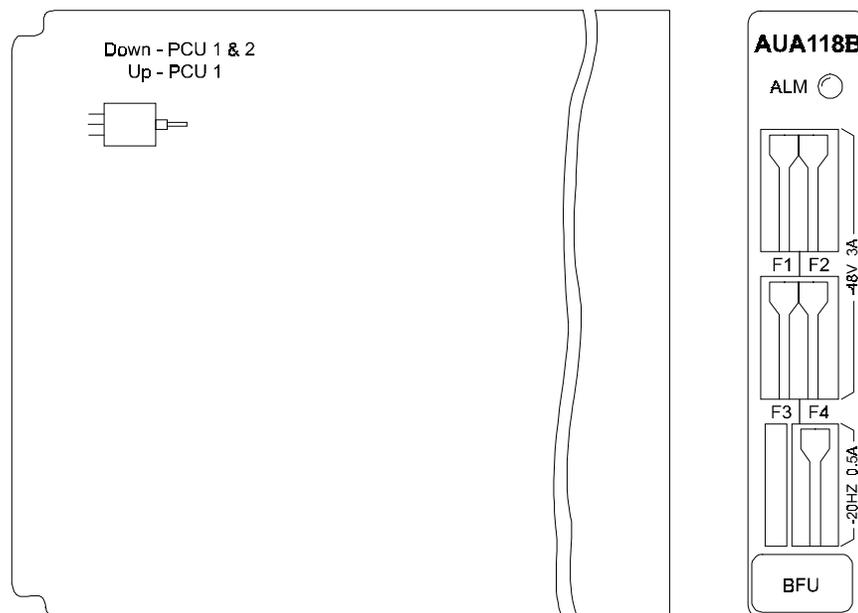


Figure 1. AUA118B Bank Fuse Unit Faceplate Diagram and circuit board Layout

Table 3. Edge Connections For AUA118() Bank Fuse Unit

Finger	Function
1	Frame Ground
2, 26	RNG (20 Hz)
6, 7, 8, 9, 10, 11,12, 27, 31, 32, 33, 34,36, 37	-48 Volts DC
4, 5, 30	Circuit Ground
13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 38, 39, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50	+5 Volts DC
19	-5 Volts DC

References

The following documents provide additional information about the use of this unit in the *SLC LineReach Access System*:

363-208-400	<i>SLC LineReach Access System Applications, Planning, and Ordering Guide</i>
363-208-401	<i>SLC LineReach Access System User/Service Manual</i>

Technical Assistance

Follow local procedures for obtaining technical assistance. Lucent Technologies also provides in-hours or emergency out-of-hours help for the *SLC LineReach Access System*. Call the Lucent Technologies Regional Technical Assistance Center at 1-800-225-RTAC.

Ordering Information

Additional copies of this document (363-005-409) are available from the Customer Information Center — call 1-888-582-3688.

Comments

Comments about this document can be directed to:

Lucent Technologies
Customer Training and Information Products (CTIP)
Documentation Services
2400 Reynolda Road
Winston-Salem, NC 27106-4606

Copyright Information

Copyright © 2000 Lucent Technologies.
All Rights Reserved.

This material is protected by the copyright laws of the United States and other countries. It may not be reproduced, distributed, or altered in any fashion by any entity including Lucent Technologies business units or divisions without the expressed written consent of the Customer Training and Information Products Organization.

For permission to reproduce or distribute, please call: 1-888-584-6366.

