ADAPTIVE®
Adaptive Micro Systems LLC

TechMemo #04-0001

PRIORITY:	High
DATE:	January 16, 2004
TITLE:	RS485 Wire Changes
ECO REFERENCE:	8478
PRODUCT(S) AFFECTED:	All Alpha® signs
SUMMARY:	The wiring used for RS485 networks is changing.

Overview

Effective on or before February 1, 2004, Adaptive Micro Systems is offering new wire for use with RS485 networks. This change is necessary to optimize communications with Alpha signs.

This wire is used for long distances between a modular network adaptor and a converter box. (See page two for a sample wiring diagram.)
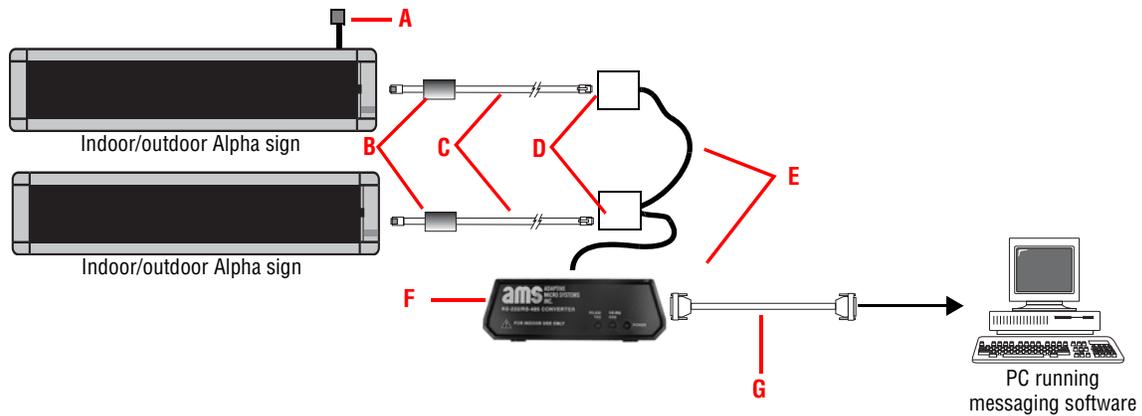
Wire changes

Per foot, the new wire has a resistance of 120 Ohms and an 11-12pF conductor-to-conductor capacitance.

Replace Old PN	Description	With New PN	Description
1088-8002	1000-ft. RS485 shielded non-plenum wire	**7122-0203**	1000-ft. RS485 indoor shielded non-plenum wire 22 AWG 2 conductor
7122-0283	100-ft. RS485 shielded non-plenum wire	**7122-0204**	100-ft. RS485 indoor shielded non-plenum wire 22 AWG 2 conductor Lengths available in multiples of 100 feet.
7122-0284	100-ft. RS485 outdoor-rated shielded plenum wire	**7124-0203**	100-ft. RS485 indoor/outdoor shielded plenum wire 24 AWG 2 conductor Lengths available in multiples of 100 feet.

Wire orders

Call Adaptive Customer Support at 1-414-357-2020 or 1-800-719-2838 to order the new RS485 wire.

Typical use

Indoor/outdoor Alpha sign

Indoor/outdoor Alpha sign

PC running
messaging software

Item	Part #	Description
A	1088-9107	End-of-line (EOL) terminator
B	—	Ferrite (ferrite end toward sign)
C	1088-8624	8-foot RS485 cable
	1086-8636	1-foot RS485 cable
D	4331-0602	Modular Network Adapter
E	7122-0203	1000-ft. RS485 indoor shielded non-plenum wire
	7122-0204	100-ft. RS485 indoor shielded non-plenum wire
	7124-0203	100-ft. RS485 indoor/outdoor shielded plenum wire
F	1088-1111	Converter Box III with a Converter Box III AC Adapter: pn 4011-1201 (120 volt) pn 4011-4201 (230 volt)
G	1088-8634	Type A9 RS232 cable (connects Converter Box III to PC RS232 port)