



No. 4297 Polling Loop Extender Module

For Use With Control/Communicators Supporting Polling Loop Devices

INSTALLATION INSTRUCTIONS

GENERAL INFORMATION

The 4297 polling loop extender module is an accessory for use with Ademco control panels supporting polling loop devices. The 4297 module receives signals from the control panel via its "input" polling loop, and then re-transmits boosted copies of these signals via its "extension" polling loop.

- The 4297 draws power for its internal circuitry and its extension polling loop from a supplementary power supply such as the control panel's auxiliary power output or, optionally, from an Ademco 1321 16.5VAC, 25VA transformer and an external 12v lead-acid battery (no power is drawn from the control panel's polling loop).

Also, the 4297 can isolate open and short circuit faults occurring on its extension polling loop from its input polling loop. These characteristics allow the 4297 module to be used to extend the control panel's polling loop, to provide additional polling loop current, or to provide electrically isolated polling loops.

- The 4297 module is fully supervised and causes the control panel to trigger supervision fault indications for devices wired to the extension polling loop when operating power to the module fails, or when an open or short circuit occurs on the extension polling loop. Refer to the control panel's installation instructions for the type of supervision fault indication provided.
- The 4297 module has a cut jumper option for selecting whether or not extension polling loop shorts are to be isolated from the input polling loop.

With the jumper intact, extension polling loop shorts are isolated from the input polling loop. Leave the jumper intact if you do not want to disrupt the control panel's ability to communicate with devices wired to the input polling loop because of a short on the extension polling loop.

With the jumper cut, extension polling loop shorts are not isolated from the input loop and will disrupt communications with devices on the input polling loop. Cut this jumper only when it is desired to have the control panel provide a polling loop short indication as well as supervision fault indications for devices wired to the extension polling loop when the extension polling loop is shorted.

Note that some control panels may not have the ability to provide polling loop short indications. Refer to the control panel's installation instructions.

Important Notes:

- * The 4297 cannot be used to increase the number of polling loop zones supported by the control panel.
- * The 4297 is not designed to be used in a Class A polling loop wiring configuration.
- * The 4297 may not be powered from the No. 1321 transformer and an external lead-acid battery for UL burglary and all fire installations.

MOUNTING

For UL burglary and all fire installations:

Mount the 4297 module inside a UL Listed enclosure such as the control panel's enclosure. Note that the enclosure must be UL Listed for the desired application; i.e., use an attack-resistant enclosure with a tamper switch for commercial burglary applications.

For non-UL certified installations:

When powered from the 1321 transformer and external battery, mount the 4297 and battery in an enclosure. When powered from a supplementary power supply, a separate enclosure is not required.

Mount the 4297 module directly on a surface using the slotted holes located on the back of its housing (mounting screws provided). Feed the wires through the slot on the side or through the breakout located on the back of the housing.

Affix the connections label provided to the inside of the 4297 module's cover.

JUMPER SETTING & WIRING CONNECTIONS

The 4297 module provides a 9-position terminal block for making power, earth ground and polling loop connections. The screw terminal assignments on this terminal block are described in Figure 1.

Blue Jumper Option

Cut the blue option jumper, shown in Figure 1, ONLY when it is NOT desired to isolate extension polling loop shorts from the input polling loop.

Refer to the GENERAL INFORMATION section for more information about this jumper.

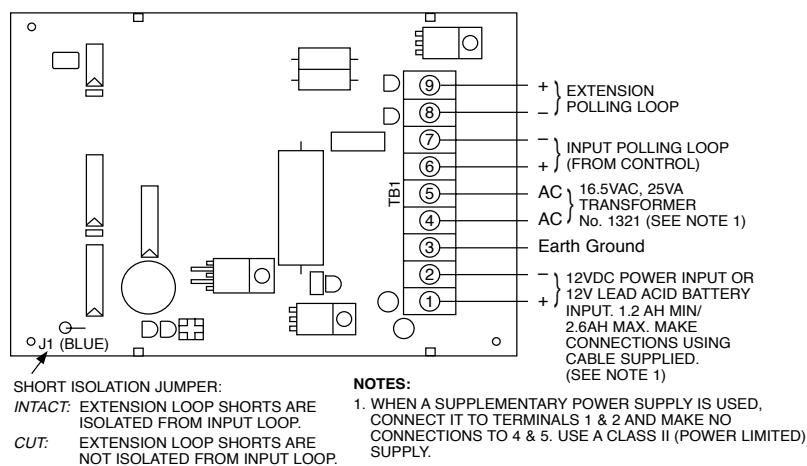


Figure 1. 4297 Wiring Connections

Power Supply Connections

The 4297 module can draw power for its internal circuitry and its extension polling loop from a supplementary power supply such as the control panel's auxiliary power output. See Figure 2.

Optionally, power can be provided from an Ademco No. 1321 16.5VAC, 25VA transformer and an external 12V lead-acid battery. See Figure 3.

Polling Loop Connections When Using One 4297

Use one 4297 to extend the polling loop, to provide additional polling loop current, or to provide an extension loop which is electrically isolated from the input loop.

Make the connections shown in Figure 4 when only one 4297 module is used. Make sure that the wire run length limits indicated in Figure 4 are not exceeded.

Polling Loop Connections When Using Two 4297s

Use two 4297s to provide two extension loops which are electrically isolated from each other, or to provide more current than one 4297 can supply.

Make the connections shown in Figure 5 when two 4297 modules are used. Do not wire 4297 modules in series (i.e., do not wire one module's extension loop to another module's input loop). Do not use more than two 4297 modules in parallel unless otherwise stated in the control panel's installation instructions. Make sure that the wire run length limits indicated in Figure 5 are not exceeded.

Important Notes:

- * Twisted pair is recommended for all polling loop wire runs.
- * If an intercom system is being used, keep the polling loop wiring as far from the intercom wiring as possible (minimum 6 inches). If this spacing cannot be achieved, use shielded wire. Note that use of shielded wire reduces the maximum permissible polling loop wire run length, as indicated in Figures 4 and 5.

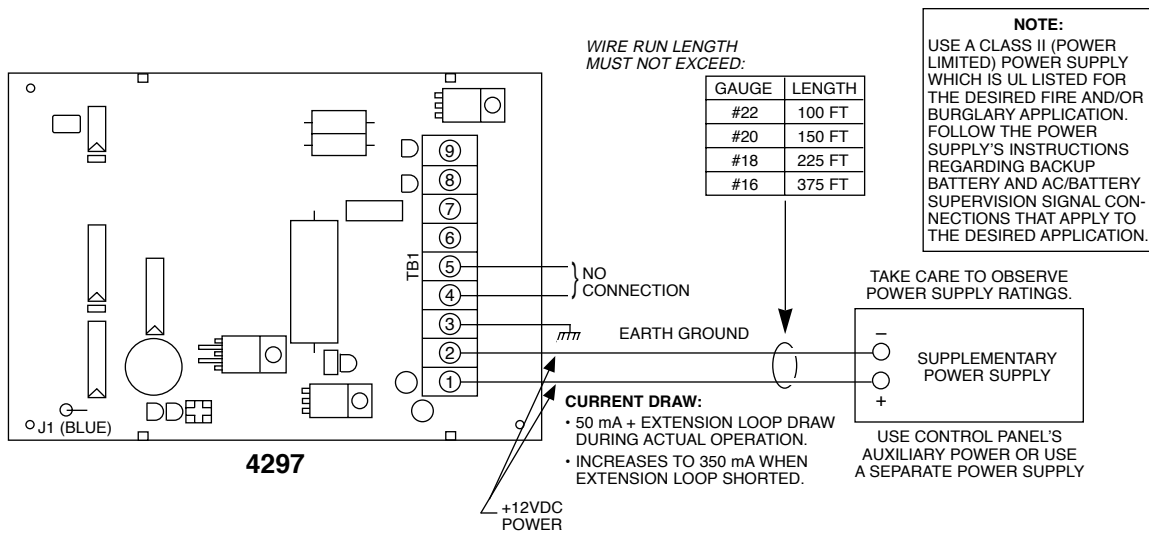


Figure 2. Supplementary Power Supply Connections (For UL Burglary and All Fire Applications)

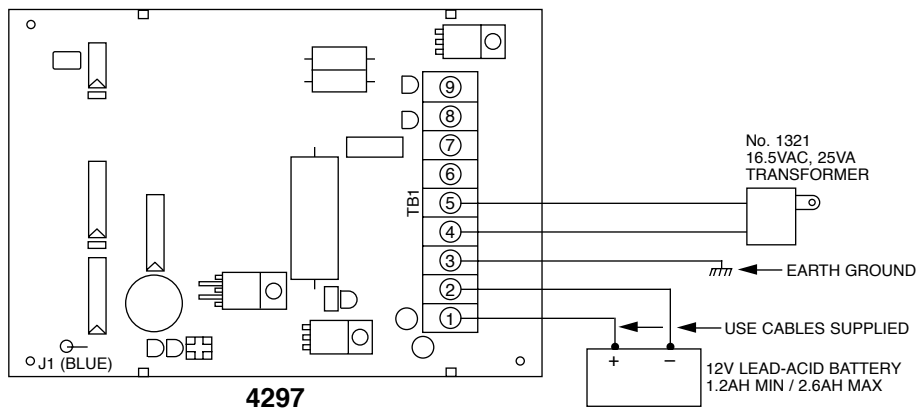


Figure 3. Transformer and Battery Connections (Not For UL Burglary and All Fire Applications)

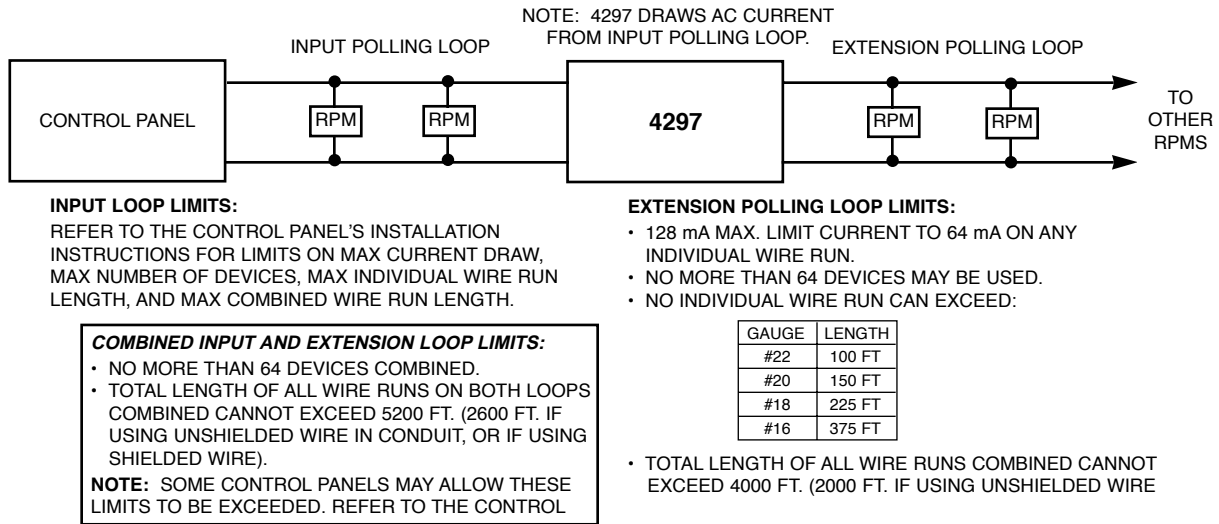


Figure 4. Polling Loop Connections Using One 4297 Module

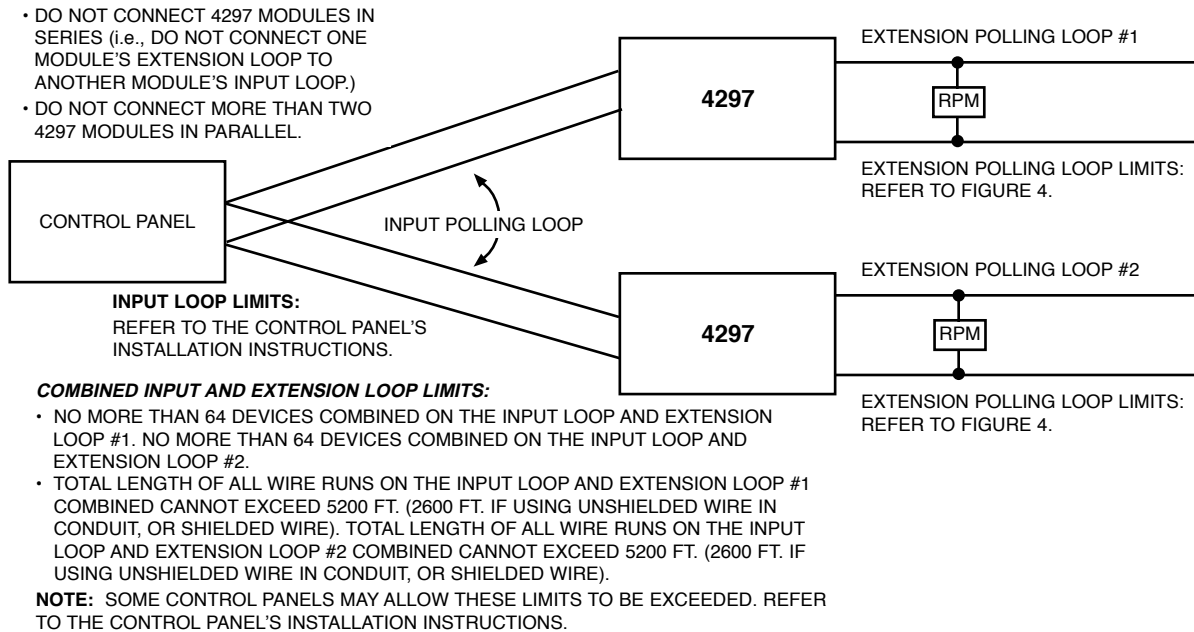


Figure 5. Polling Loop Connections Using Two 4297 Modules

SPECIFICATIONS

Physical:

6-7/16"W x 4-1/4"H x 1-1/4"D (163mm x 108mm x 32mm)

Electrical:

12V Input Rating:

Input Voltage: 12VDC (10VDC - 14VDC)

Input Current: 50MA + extension loop drain (128MA max) during normal operation. Increases to 350MA when extension loop shorted.

12V Battery Rating:

Battery Type: 12V, 1.2AH min/2.6AH max lead-acid battery. Use gel type lead-acid battery

Float Voltage: 13.65VDC

Standby Time: Exceeds 4 hrs with 1.2AH or larger battery

Recharge Time: Up to 48 hours

Miscellaneous: PTC thermistor provides reverse battery connection protection

Extension Polling Loop Rating:

Output Current: 128MA max. Do not draw more than 64MA on any individual extension loop wire run.

Miscellaneous: Refer to Figures 4, 5 for limits on polling loop wire run length. The extension loop is power limited.

Regulatory Agency Listing

UL 609 commercial burglary, UL864 commercial fire, UL985 household fire and UL1023 household burglary.

ADEMCO LIMITED WARRANTY

Alarm Device Manufacturing Company, a Division of Pittway Corporation, and its divisions, subsidiaries and affiliates ("Seller"), 165 Eileen Way, Syosset, New York 11791, warrants its products to be in conformance with its own plans and specifications and to be free from defects in materials and workmanship under normal use and service for 18 months from the date stamp control on the product or, for products not having an Ademco date stamp, for 12 months from date of original purchase unless the installation instructions or catalog sets forth a shorter period, in which case the shorter period shall apply. Seller's obligation shall be limited to repairing or replacing, at its option, free of charge for materials or labor, any product which is proved not in compliance with Seller's specifications or proves defective in materials or workmanship under normal use and service. Seller shall have no obligation under this Limited Warranty or otherwise if the product is altered or improperly repaired or serviced by anyone other than Ademco factory service. For warranty service, return product transportation prepaid, to Ademco Factory Service, 165 Eileen Way, Syosset, New York 11791.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. IN NO CASE SHALL SELLER BE LIABLE TO ANYONE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, OR UPON ANY OTHER BASIS OF LIABILITY WHATSOEVER, EVEN IF THE LOSS OR DAMAGE IS CAUSED BY THE SELLER'S OWN NEGLIGENCE OR FAULT.

Seller does not represent that the products it sells may not be compromised or circumvented; that the products will prevent any personal injury or property loss by burglary, robbery, fire or otherwise; or that the products will in all cases provide adequate warning or protection. Customer understands that a properly installed and maintained alarm may only reduce the risk of a burglary, robbery, fire or other events occurring without providing an alarm, but it is not insurance or a guarantee that such will not occur or that there will be no personal injury or property loss as a result. CONSEQUENTLY, SELLER SHALL HAVE NO LIABILITY FOR ANY PERSONAL INJURY, PROPERTY DAMAGE OR OTHER LOSS BASED ON A CLAIM THE PRODUCT FAILED TO GIVE WARNING. HOWEVER, IF SELLER IS HELD LIABLE, WHETHER DIRECTLY OR INDIRECTLY, FOR ANY LOSS OR DAMAGE ARISING UNDER THIS LIMITED WARRANTY OR OTHERWISE, REGARDLESS OF CAUSE OR ORIGIN, SELLER'S MAXIMUM LIABILITY SHALL NOT IN ANY CASE EXCEED THE PURCHASE PRICE OF THE PRODUCT, WHICH SHALL BE THE COMPLETE AND EXCLUSIVE REMEDY AGAINST SELLER. This warranty replaces any previous warranties and is the only warranty made by Seller on this product. No increase or alteration, written or verbal, of the obligations of this Limited Warranty is authorized.

SEE THE CONTROL PANEL'S INSTALLATION INSTRUCTIONS FOR COMPLETE INFORMATION REGARDING THE LIMITATIONS OF THE ENTIRE SECURITY SYSTEM.



ALARM DEVICE MANUFACTURING CO.

A DIVISION OF PITTPWAY CORPORATION

165 Eileen Way, Syosset, New York 11791

Copyright © 1995 PITTPWAY CORPORATION