PERMACONN PM1025

Installation Manual
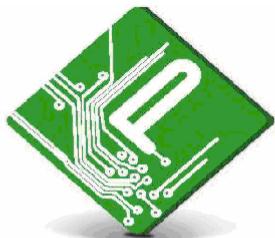
Introduction

The PERMACONN system provides two-way communication between supervised premises and the monitoring centre. The Permaconn PM1025 is a versatile state of the art microprocessor based GPRS security communicator. This unit can interface with a range of alarm panels using RS485 / RS232 and Contact ID. It also has four (4) Inputs and three (3) Outputs.

- The Permaconn PM1025 reports Contact ID events on the GPRS network.
- The Permaconn PM1025 polls according to the registered fault recognition time.
- If an event is not `Kissed Off` by the Permaconn PM1025 – the alarm panel should be programmed to report on PSTN.
- The Permaconn PM1025 requires an interface module to communicate with an alarm panel.

WARNING

- INSTALLATION MUST BE CARRIED OUT BY SERVICE PERSONNEL ONLY

- CAUTION: RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES.

- For correct operation the unit must be powered with an approved power supply and a 12V/1.2AH sealed lead acid battery.

- The unit must only be operated with the supplied antenna. Install the Permaconn PM1025 in a location that no person[s] is closer than 200 mm to the antenna at all times.

- Australian Standard AS2201 requires regular service by qualified and licensed technicians and regular testing.

- The unit must be installed in accordance with this manual and AS2201.1 for proper operation.

STANDARDS COMPLIANCE

- In this manual, 'AS2201.1' refers to AS/NZS 2201.1:2007, 'AS2201.5' refers to AS/NZS 2201.5:2008 and 'AS2201' refers to the current issues of the AS2201 range of documents.

- In order to achieve compliance with AS2201.5, the terms of the current issue of the document 'Permaconn AS/NZS 2201.5:2008 Compliance Statement' must be met.

- Note that the overall alarm transmission system configuration needs to comply with AS2201.1 and AS2201.5.

- It is stressed that the supervised premises alarm panel is be installed and maintained in order to meet Class (as relevant to the alarm transmission system classification) under AS2001. The logbook required under Clause 6.4 of that Standard is to remain current.

- The monitoring centre is to hold a copy of the documentation required at AS2201.5 Clause 2.3.

- The monitoring centre is to maintain 'fault and maintenance logs' in accordance with AS 2201.5 Clause 3.9.on.

FCC Caution:

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

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:
FCC Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits set forth for uncontrolled environment .This equipment should be installed and operated with minimum distance 20cm between the radiator& your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Customer Information

1. This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the bottom of this equipment is a label that contains, among other information, a product identifier in the format US: AAAEQ##TXXXX. If requested, this number must be provided to the telephone company.
2. A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.
3. If this equipment [US:9E7AL09BPM1025-18000-7] causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.
4. The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.
5. If trouble is experienced with this equipment [US:9E7AL09BPM1025-18000-7], for repair or warranty information, Service can be facilitated through our office at:
   U.S. Agent Company name: Protection Alarms
   Address: 21704 Devonshire Street, Chatsworth, CA 91311
   Tel: 866-359-6555
   Fax: 818-885-7726
   If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.
6. Please follow instructions for repairing if any (e.g. battery replacement section); otherwise do not alternate or repair any parts of device except specified. For repair procedures, follow the instructions outlined under the limited warranty.
7. Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.
8. If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this [PM1025-18000-7] does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.
9. If the telephone company requests information on what equipment is connected to their lines, inform them of:
   a) The ringer equivalence number [0.9B]

b) The USOC jack required [RJ11C]
c) Facility Interface Codes ("FIC") [02LS2]
d) Service Order Codes ("SOC") [9.0Y]
e) The FCC Registration Number [US: 9E7AL09BPM1025-18000-7]

10. The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. The REN for this product is part of the product identifier that has the format US: AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point. For this product the FCC Registration number is [US: 9E7AL09BPM1025-18000-7] indicates the REN would be 0.9B.

11. If this product is equipped with a corded or cordless handset, it is hearing aid compatible.

Features of the Permaconn PM1025

- Four (4) Inputs
  - Including AC input to monitor power on Alarm panel.
  - Dedicated box Tamper

- Three (3) Outputs

- Contact ID interface (requires DI300 module)

- RS485 Interface (requires IFM)

- RS232 Interface (requires IFM)

- IP reporting (requires IP62 Module)

- Monitors and reports status of alarm panel interface lead

- Monitors and reports battery status

- Monitors and reports DC power status

- Non volatile memory stores all setup information in the event of a power failure

- Dual Sim Cards

- No onsite programming required

- RF signal strength indicator

- Various LED status indicators for easy onsite diagnostics

- 13.8V battery charging circuit.

Permaconn PM1025 Outlay
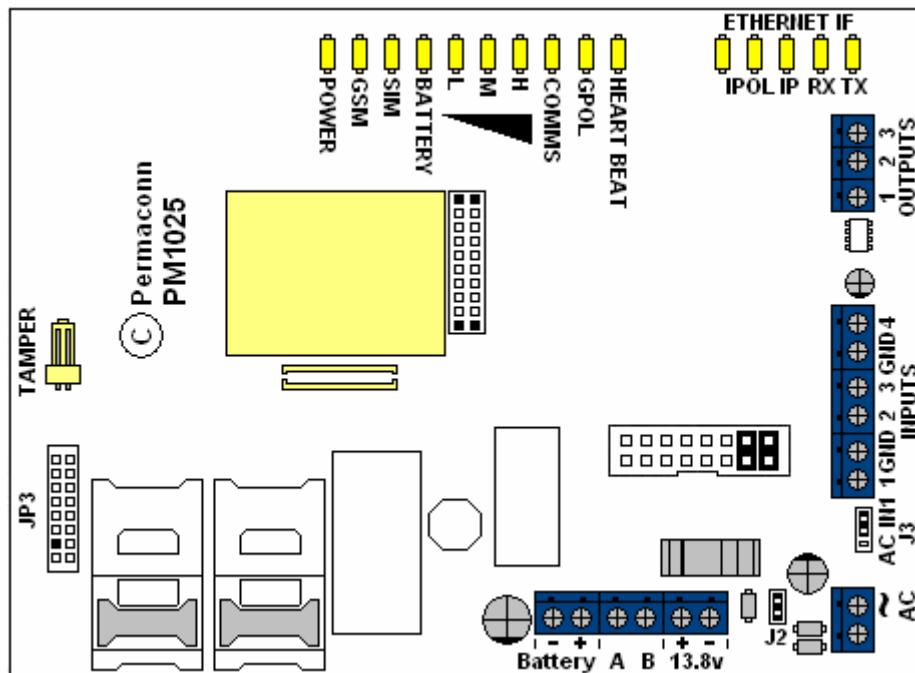
Installation Procedure

- Place the Permaconn PM1025 unit in the exact position where you intend to install it.
- Check that a Permaconn SIM or dual SIMS is installed.
- Screw antenna on to SMA connector.
- Unit is by default set up to operate with the DI300. If any other module is required remove the two (2) jumpers from (JP2) and fit applicable IFM.
- No additional module required for standalone operation.
- Insert 3K3 resistor into input 4 if no battery used.
- Connect 13.8V DC power or a battery to power up.
- The 'HEART BEAT' LED will blink.
- The signal strength of the GSM signal is displayed as 'HIGH', 'MEDIUM' or 'LOW'.
- The Permaconn PM1025 unit can take up to three (3) minutes to register with the network. The 'GPOL' LED will blink to indicate connectivity with the GPRS Network.
- Connect the interface cable - refer to IFM or DI300 instructions.
- Program alarm panel as per IFM or DI300 instructions.
- Generate an event from the alarm panel.
- The 'GPOL' LED will stay on steady.
- Test all inputs and outputs.
- Carry out all tests on 'Final Commissioning Check List'

- **Never leave site without achieving a steady 'GPOL' LED.**

Connecting the Alarm Panel

- A four (4) wire connection is required between the alarm panel or DI300 and the Permaconn PM1025. DC power and A & B Data lines.
- The 'COMMS' LED will flash to indicate status of the serial communication between the alarm panel and the Permaconn PM1025. Refer to interface instructions for specific detail.
- Interconnecting cables must be placed in conduit.
- The unit must be installed in accordance with this manual and AS2201.1 for proper operation.

LED Status Indicators

POWER **Steady on** indicates battery or 12 Volt Power

GSM **Steady on –** not activated or network is not available
Blinking continually – Searching for GPRS network
Flashing once- Connected to GSM Network
Flash twice- indicates connectivity with Permaconn network.

SIM **Steady on –** indicates unit is connected on Back up Sim

BATTERY **Steady on** -Indicates low battery voltage or no battery connected

L **Steady on –** indicates Low signal strength

M **Steady on –** indicates Medium signal strength

H **Steady on –** indicates High signal strength

COMMS **Blinking quickly –** indicates serial /RS485/RS232 connectivity with alarm panel

GPOL **Steady on -** correct normal operation
   off - no connection to network
Blinking- indicates unit is registered.
When valid message is sent from the Alarm panel the LED will stay…
   On for 2 seconds 1 flash- SIM A active
   On for 2 seconds 2 Flash- SIM B active
   Steady on - SIM A and B active

HEART BEAT Blinking - when the CPU has completed a power up test and is working properly

Defaulting the Permaconn PM1025

- Apply Battery or 12VDC power for less than two (2) seconds remove power and then apply power again.
- LEDS will all flash together for four (4) seconds to confirm successful default.

Input and Output

Three (3) outputs:

- Output is open collector 12V 50mA switching negative, for heavier loads a relay must be used.
- The outputs can be Opened, Closed or Pulsed remotely using the Permaconn CSMU 2010.
- Ensure there is a common negative between PM1025 and the device being switched.

Four (4) Inputs:

- Tamper input does not require an EOL resistor.
- All other inputs must be terminated with a 10K resistor.
- The EOL resistor must be placed inside or as close to the sensor as possible.
- Input #1 can operate as a normal supervised input or as an AC power monitor.
- To make input #1 an 'AC monitor'.
    - Insert jumper (J3) on pins 1&2 marked AC.
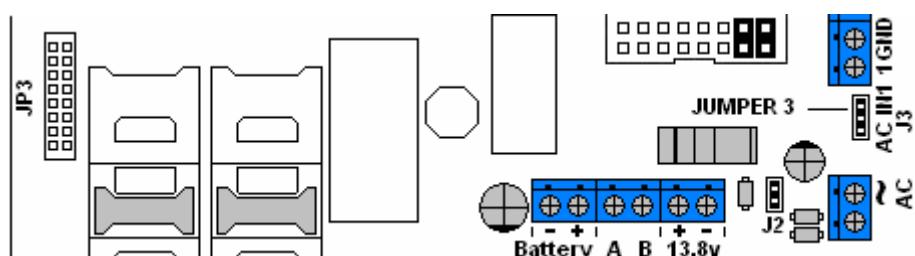
- If a single AC wire is used connect it to the right hand terminal of AC terminal block and use a common ground.
- Alternatively connect the two (2) AC wires into the AC terminal.
- Please note this does not supply power to the PM1025 it is merely an input to monitor the presence of 'AC Power' on the alarm panel.
- To make input #1 a normally supervised input
    - Insert jumper on pins 2 & 3 (J3) marked 'IN1'(default).

Battery Charging

- If no battery is installed fit 3K3 resister into input 4 to disable battery test and reporting.
- A 13.8v power supply is required if battery is fitted.
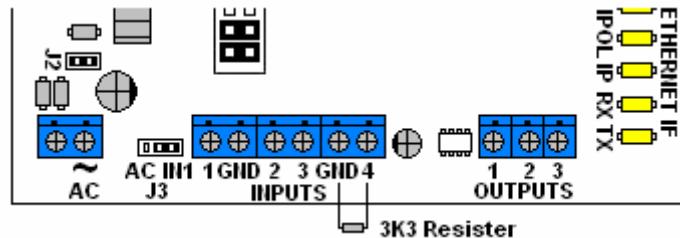
Trouble Shooting

COMMS LED not flashing

- Indicates problem with serial connection from the PM1025 to the alarm Panel or DI300.
- Check BOTH jumpers are fitted on pins 7 & 8 (JP2) in PM1025, for operation with DI300.
- Check CLK and Data (alarm panel) wires for correct connection to A & B (PM1025).
- Check Rx and TX (alarm panel) wires for correct connection to A & B (PM1025).
- Check Interface module (IFM) is correctly inserted into (JP2).

BATTERY LED steady on

- Indicates a low voltage on the battery.
- Check battery voltage and replace if necessary.

GPOL LED Off

- Check unit has been activated.
- Check the signal strength LED.
- Check GSM LED status for network availability.

Blinking:

- Indicates the Permaconn PM1025 unit has not captured a valid Contact ID message from the panel.

Steady on:

- Correct operation.

Trouble shooting continued…..

Signal Strength LED Low

- Reposition unit and power up again to recheck.
- Install High Gain Antenna
- The Permaconn PM1025 unit may not operate reliably with a low signal

Signal Strength LED's all Off.

- Check antenna and antenna connection.
- No network coverage in area.
- Reposition unit and power up again.

Final Commissioning Check List

'HEART BEAT' LED Blinking	
'GPOL' LED Steady On	
'COMMS LED' (*refer to interface instructions*)	
Signal Strength LED (L/M/H) is M or H	
'BATTERY' LED is Off	
'GSM' LED is Flashing every two (2) seconds	
'POWER' LED is On	
Tamper switch connected	
Test GPRS communication Make sure Permaconn PM1025 is connected. Generate event from alarm panel. Verify with monitoring centre that correct CID account and event received.	
Test alarm panel PSTN communication This feature will only operate on certain panels if programmed correctly. Disconnect Permaconn PM1025 from alarm panel or DI300. Generate event from alarm panel. Verify with monitoring centre that correct CID account and event received via PSTN.	
Test Permaconn PM1025 communication Trigger the tamper input on Permaconn PM1025. Trigger outputs and inputs Verify with monitoring centre that correct CID account and event received.	

Contact ID Reporting Codes

To comply with AS2201.5 these event IDs must be mapped correctly at the monitoring centre.

PERMACONN AUST CONTACT ID EVENT TEMPLATE			
Event ID	**Partition**	**Zone**	**Description**
300	0	956	Panel Faulty - No activity detected from alarm panel indicating possible problem with panel.
301	0	950	Mains Fail – No AC power available.
302	0	951	Battery Low – Battery voltage is low or absent.
313	0	953 & 954	Engineering Reset (changed encryption key) – No action required.
337	0	950	Expansion Module DC Loss – 13.8V DC voltage low or absent.
338	0	951	Expansion Module Battery Fail – Battery voltage is low or absent.
350	0	953	Fail To Communicate – Permaconn experienced trouble sending signals do not expect restore.
351	0	954 & 956	Phone Line Fail.
352	0	955 & 956	Dialer Interface Lead Fail – Issue with dialer lead between Permaconn unit and the alarm panel.
353	0	956	Serial Interface Fail – Issue with Permaconn unit serial connection to the alarm panel.
356	0	968	Permaconn Outstation - IP path poll fail.
356	0	969	Permaconn Outstation – GPRS path poll fail.
356	0	970	Permaconn Outstation – Permaconn outstation is offline.
137	0	983	Tamper – Permaconn box tamper.
140	0	981	Auxiliary 1 – Auxiliary input on Permaconn unit.
140	0	982	Auxiliary 2 – Auxiliary input on Permaconn unit.
140	0	983	Auxiliary 3 – Auxiliary input on Permaconn unit.
140	0	984	Auxiliary 4 – Auxiliary input on Permaconn unit.

Transmission Delay Times

- Tamper input status message are transmitted immediately.
- Message originating from the panel are forwarded immediately.
- Alarm panel interface fail sent if not restored within 90 seconds.

Specifications

Size:	240 x 180x55 mm
Weight:	0.25 Kg
Antenna:	Dual Band GSM, 210mm
GPRS Modem:	Siemens MC55i
Power:	13.8V DC Plug pack must have approval
Power Consumption:	Standby: 0.05A
	Transmitting: 0.60 A
Power Reporting:	No 3K3 resistor fitted
	- DC-Loss reported <11.8v
	- DC-OK reported >12.8v
	- Battery Low reported <11.6v
	- Battery OK reported >12.5v
	3K3 resistor fitted
	- DC-Loss reported <11.0v
	- DC-OK reported >11.8v
Backup Battery:	12V/2AH sealed lead acid battery (Powers unit for about 30 hours)
Auxiliary Input:	TT, tamper input, (24Hr Zones)
	State change detected every second
Serial Interface:	Consult the relevant serial interface specifications
Battery Low	
Fail	DCV<11.8 Report delay 10 minute
Restore	DCV>12.5
Communications Class:	As per compliance statement

Liability

- Subject to the Standard Terms and Conditions set out on the Activation Form for this unit.

While every effort has been taken to ensure the accuracy of this document, Radio Data Comms assumes no responsibility or liability for any errors or omissions. Radio Data Comms reserves the right to make changes to this manual due to ongoing development.

Notes

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IP-63

Installer Guide
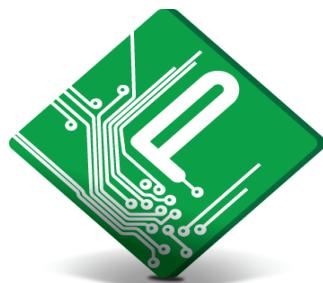
Radio Data Comms

Unit 5, 20 - 30 Stubbs Street

Silverwater NSW 2128

Telephone: 1300 55 66 43

Facsimile: 02 9352 1700

1. Introduction

The **'IP63' Module** plugs into the PM1025 and provides an IP connection to the central station. Alarm messages are sent via IP first and then GPRS second when fitted.

System Overview

The IP63 Module is a network adapter that connects to a 10BaseT or 10/100 network connection. The IP63 Module will acquire an IP address automatically using the customers DHCP service. Firewall and proxy servers can be configured to allow traffic to and from this device. Please consult with the client's IT Company for 'Fixed IP' and 'Port Forwarding' information.

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3. If this equipment [US:9E7AL09BPM1025-18000-7] causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.
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5. If trouble is experienced with this equipment [US:9E7AL09BPM1025-18000-7], for repair or warranty information, Service can be facilitated through our office at:
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   Tel: 866-359-6555
   Fax: 818-885-7726
   If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.
6. Please follow instructions for repairing if any (e.g. battery replacement section); otherwise do not alternate or repair

any parts of device except specified. For repair procedures, follow the instructions outlined under the limited warranty.

7. Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

8. If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this [PM1025-18000-7] does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

9. If the telephone company requests information on what equipment is connected to their lines, inform them of:
    a) The ringer equivalence number [0.9B]
    b) The USOC jack required [RJ11C]
    c) Facility Interface Codes ("FIC") [02LS2]
    d) Service Order Codes ("SOC") [9.0Y]
    e) The FCC Registration Number [US: 9E7AL09BPM1025-18000-7]

10. The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. The REN for this product is part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point. For this product the FCC Registration number is [US: 9E7AL09BPM1025-18000-7] indicates the REN would be 0.9B.

11. If this product is equipped with a corded or cordless handset, it is hearing aid compatible.

Setup

- Plug the IP63 PCB onto the PM1025. Ensure that PCB is correctly inserted as shown on diagram.
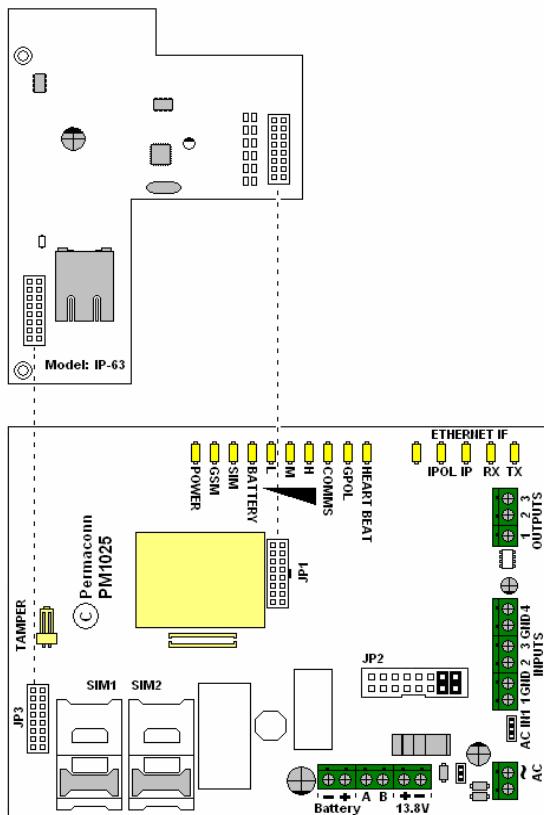
Setup .....continued

- Install unit and apply 13.8V DC.
- Connect CAT5 cable between the IP63 module and the local router or network point.
- The IP63 module will automatically obtain an IP address. If it is set to DHCP (default setting).
- Connection to the internet will be indicated by Ethernet 'IP' LED 'Flashing Twice'.
- The Ethernet 'IPOL' LED will stay 'Steady On' to indicate successful polling.

IP LED Status Indicator Descriptions

LINK
(on connector)
Is 'Steady On' when an Ethernet cable is connected, (both ends of the cable must be connected).

DATA
(on connector)
'Flashing' whenever the IP63 module sends a packet (any packet, not only Permaconn packets).

OL
'Flashing' indicates that Ethernet has been connected correctly.
'Steady On' indicates that the unit is polling successfully.

IP
'Flashing Once' every three (3) seconds indicates that the module has obtained an IP address (Fixed IP or DHCP).
'Flashing Twice' every three (3) seconds indicates that the unit can access the internet and DNS OK. (Fixed IP)
'Flashing Continuously' indicates an IP conflict. (Change IP # to a spare)

RX
This LED 'Flashes' when data is received from the Permaconn server.

TX
This LED 'Flashes' when data is sent from the Permaconn outstation to the Permaconn server.

Before you start you need the following:

- Laptop
- Network cable
- Permaconn IP setup program (available from www.permaconn.com.au).

To connect to the IP63 module:

- Connect the IP63 module to the PC (standard Ethernet cable will work).
- Run the program "IpSetup.exe"
- Enter the serial number of the unit and press connect
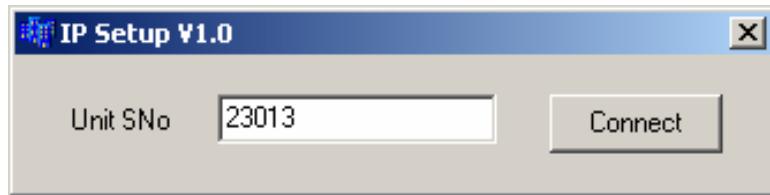
- Default the Permaconn unit and wait until the screen is populated with the current values. Important, the PM1025 will only attempt to connect to the setup program after a default and then only if the tamper switch is open (not sealed).

To change values, simply modify the fields and select 'write'. When the PM1025 first detects the IP63 module, it will initialise it with the default settings, so a large percentage of installations should work right away. You only need to modify the setup for special local requirements.

If you don't have a Laptop and you need to change the settings. Contact Radio Data Comms and this can be done remotely via GPRS for you. All settings below are also available through the management unit and therefore the Central Station are also able to assist with installation.
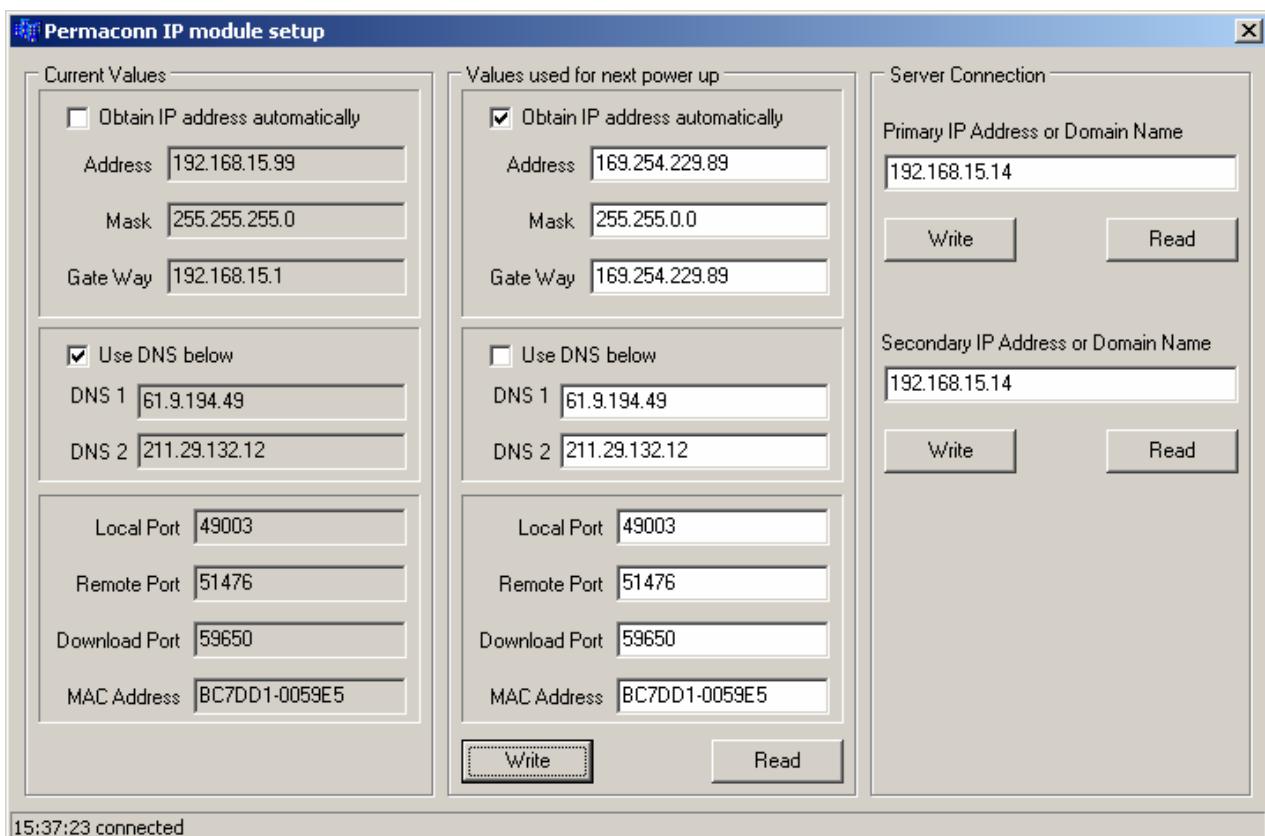
Obtain IP address automatically
If ticked, DHCP is enabled and the unit will obtain the **IP Address**, **IP Mask** and the **Gate Way** automatically. Otherwise you must enter these values yourself. Please note that these values must be correct for the clients LAN that you connect the IP63 module to.

Use DNS below
If this is ticked, you must enter valid IP addresses that point to the available domain name servers. If not ticked, it is filled in by the DHCP service of the LAN. Note that a DNS is only required if you are using a domain name for the primary and/or secondary server addresses.

Local Port
You can use any port above 10000, not critical.

Remote Port
This must match the 'listen' port of the Permaconn server, the default should be correct for your country. If in doubt, confirm with Radio Data Comms. This port is vital - if incorrect the unit will not be able to connect.

Download Port
This is set by default and you must not change this port, it is not vital for communicating with the server during normal operations.

MAC Address
This is set by default and is unique for each unit. It should only be changed if the instructed by the IT department responsible for that network.

Primary and Secondary Server Connection
This is also set by default and is correct for your location. This is also a vital setting and must be correct, otherwise the unit will not be able to connect. If in doubt, check with Radio Data Comms. This field can be either an IP address or a domain name.

Liability

ANY LIABILITY FOR CONSEQUENTIAL AND INCIDENTAL DAMAGES IS EXPRESSLY DISCLAIMED. RADIO DATA COMMS AND PERMACONN LIABILITY IN ALL EVENTS IS LIMITED TO, AND SHALL NOT EXCEED, THE PURCHASE PRICE PAID.

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Dialler Interface DI300

Installer
Guide
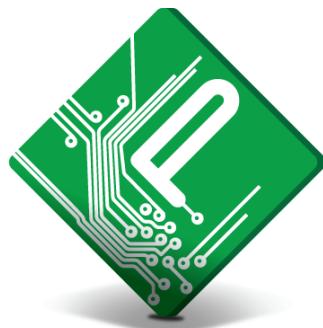
Introduction to the DI300

The dialler interface module is designed to operate with the PM1025 and provides a universal alarm panel dialler interface. This module can interface to any alarm panel that can send Contact ID format.

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4. The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.
5. If trouble is experienced with this equipment [US:9E7AL09BPM1025-18000-7], for repair or warranty information, Service can be facilitated through our office at:
    U.S. Agent Company name: Protection Alarms
    Address: 21704 Devonshire Street, Chatsworth, CA 91311
    Tel: 866-359-6555
    Fax: 818-885-7726
    If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.
6. Please follow instructions for repairing if any (e.g. battery replacement section); otherwise do not alternate or repair any parts of device except specified. For repair procedures, follow the instructions outlined under the limited warranty.
7. Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.
8. If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this [PM1025-18000-7] does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.
9. If the telephone company requests information on what equipment is connected to their lines, inform them of:
    a) The ringer equivalence number [0.9B]
    b) The USOC jack required [RJ11C]
    c) Facility Interface Codes ("FIC") [02LS2]
    d) Service Order Codes ("SOC") [9.0Y]
    e) The FCC Registration Number [US: 9E7AL09BPM1025-18000-7]
10. The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. The REN for this product is part of the

product identifier that has the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point. For this product the FCC Registration number is [US: 9E7AL09BPM1025-18000-7] indicates the REN would be 0.9B.

11. If this product is equipped with a corded or cordless handset, it is hearing aid compatible.

Features of the DI300

- Contact ID panel dialler lead interface.

- Monitors and reports PSTN failure.

- Monitors and reports status of the alarm panel dialler lead.

- Keypad clock monitor.

- Non-volatile memory stores all setup information in the event of a power failure.

- Automatic switching between PSTN and both GPRS networks.

- Various LED status indicators for easy onsite diagnostics.
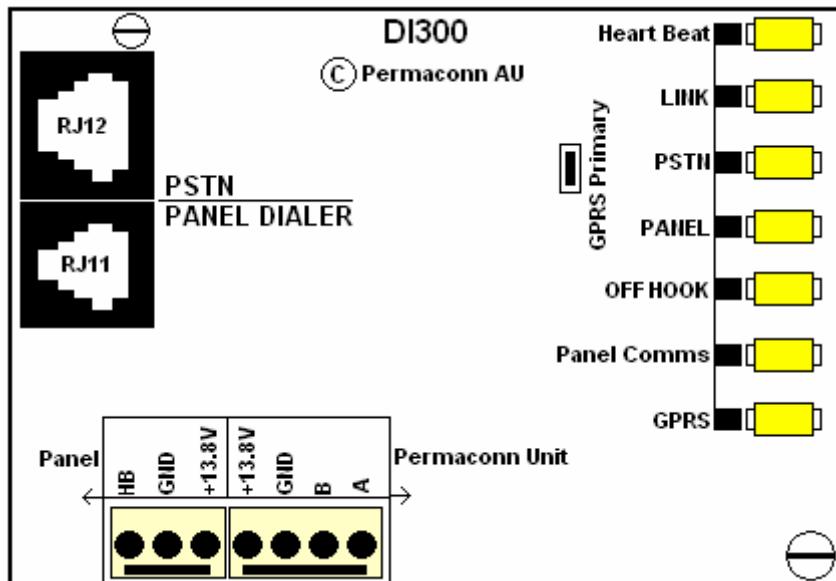
Panel Programming

- Panel must use tone dialling.
- Panel must be programmed with at least an 8 digit phone number.
- Panel must report Contact ID format.
- Panel must be programmed with a Hard ID.

Installing the DI300

- Always use the original telephone lead supplied with the alarm panel. A four wire connection is required between the alarm panel and the DI300 module. Ring & Tip as input and R1 & T1 as the return line.
- Always connect the telephone communicator in Mode 3.
- A three wire connection is required between the alarm panel and the DI300 module as shown below. The keypad clock/data monitor must be used to achieve Class 3 AS/NZ 2201.5. This feature should not be used with Tecom and Concept Panels.
- A four wire connection is required between the DI300 and the PM1025. The data on this connection is encrypted and supervised.
- To comply with AS/NZ 2201.5 any interconnecting cables must be placed in conduit and the module must be located inside the alarm panel.

DI300 and PM1025 Powered by Panel
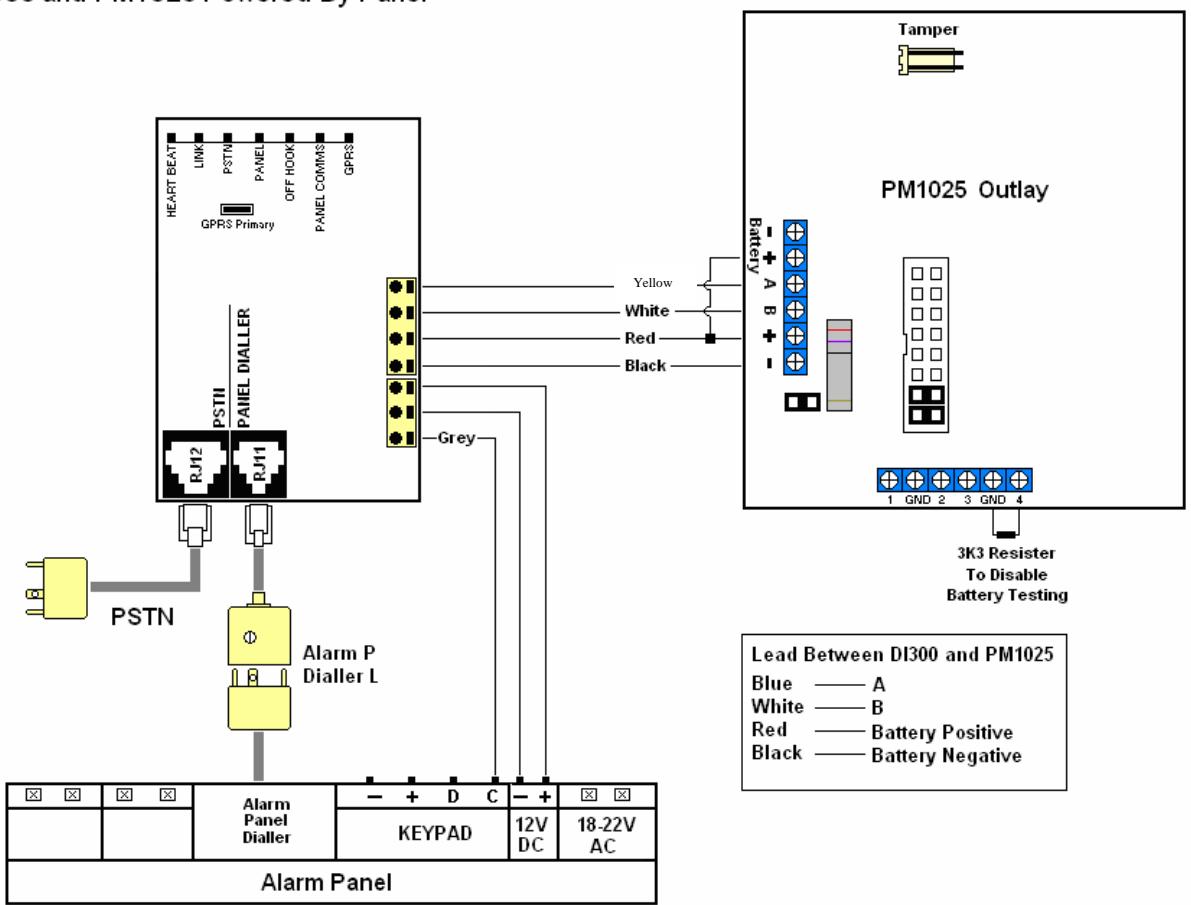
- Insert 3K3 resistor into Input 4 (unit must be powered cycled after resistor fitted)
- Link battery positive to power positive on the PM1025

Connection Diagram for DI300
Independent Power Supply

Tamper

PM1025 Outlay

Battery

HEART BEAT
LINK
PSTN
PANEL
OFF HOOK
PANEL COMMS
GPRS

GPRS Primary

PSTN
PANEL DIALLER

RJ12
RJ11

Black
Red
Yellow
White

Battery
-
+
A
B
+
-

Black
Grey

1 GND 2 3 GND 4

PSTN

Alarm Panel
Dialler Lead

13.8V
1 Amp

Lead Between DI300 and PM1025

Blue	——	A
White	——	B
Red	——	Battery Positive
Black	——	Battery Negative

☒	☒	☒	☒	Alarm Panel Dialler	—	+	D	C	—	+	☒	☒
					KEYPAD				12V DC		18-22V AC	

Alarm Panel

Connection Diagram for DI300
DI300 Powered By Panel
PM1025 Powered by Independent Power Supply
Grey Wire Not Used

If Panel Loses Power DI-300 Interface Fails

HEART BEAT
LINK
PSTN
PANEL
OFF HOOK
PANEL COMMS
GPRS

GPRS Primary

PSTN
PANEL DIALLER

RJ12
RJ11

PSTN

Alarm Panel
Dialler Lead

Battery
+ −

Black
Red
Yellow
White
Black

Tamper

PM1025 Outlay

Battery
− + A B + −

1 GND 2 3 GND 4

13.8V
1 Amp

Lead Between DI300 and PM1025
Blue ——— A
White ——— B
Red ——— Battery Positive
Black ——— Battery Negative

☒	☒	☒	☒	Alarm Panel Dialler	−	+	D	C	−	+	☒	☒
					KEYPAD				12V DC		18-22V AC	

Alarm Panel

Choosing GPRS or PSTN Primary Reporting

- Unit is supplied as GPRS primary with PSTN back up.
- To make the PSTN primary and GPRS back up the, PSTN jumper must be removed.
- The option of PSTN primary should only be selected after installation and testing with GPRS as primary.
- If PSTN is primary you must test the following:

    o Trigger the 'tamper' input on the Permaconn PM1025 unit. Verify with the monitoring centre that a tamper was received with the correct CID account number.

LED Status Indicators
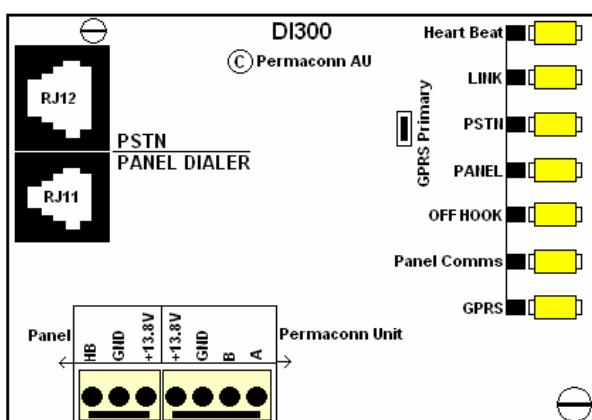
Normal operation

Heart Beat	Blinking
Link	Steady On
Phone line	Off
Panel	Off
Off Hook	Off
Panel Comms	Steady On
GPRS	Steady On

Heart Beat Blinking - when the CPU has completed a power up test and is working properly.

Link   **Steady on -** indicates connectivity between the PM1025 and the DI300
Off – indicates fault with wiring between Pm1025 and DI300. Check blue and white wire.

PSTN   **Steady on -** Indicates that there is no line voltage on the incoming telephone (from the exchange).
Off - indicates PSTN line voltage.

Off Hook   **Steady on** – Indicates that the alarm panel dialler has grabbed the line.
Off- Alarm pane is not attempting to grab the line

LED Status Indicators….continued

Panel Comms	**Steady on** - Indicates that the alarm panel sent a valid Contact ID message.
	Blinks - when panel dials or sends a message.
	Off - panel has not sent a valid contact ID message
GPRS	**Steady on** – Indicates connectivity to the PM1025.
	Off – The PM1025 or the PM1025 is off line.

6. Final Commissioning Check List

Heart Beat LED blinking	
Link LED steady on	
PSTN off if PSTN connected	
Panel LED off	
Off Hook LED is off	
Panel Comms LED is off	
GPRS LED is steady on	

7. Specifications

Size:	70 x 50 x 20 mm
Power:	13.8V DC 1.2A/H
Power Consumption:	Standby: 0.23A
Dialler Interface:	Accepts Contact ID (ADEMCO-685) Use original panel lead supplied by alarm panel manufacturer and cables supplied with unit.
Serial Interface:	Consult the relevant serial interface specifications
Telephone Lead:	
Fail	DCV< 4V for more than 18seconds
Restore	DCV > 5V for more than 8 seconds
Interface Lead (Dialler):	
Fail	DCV< 4V for more than 18seconds
Restore	DCV > 5V for more than 8 seconds
Communications Class:	As per compliance statement
Response Dialler Interface:	< 10 sec typical (seizing line to receiving ACK)
	< 50 sec absolute maximum
Serial Interface:	< 2 sec typical (dispatch to receiving ACK)
	< 50 sec absolute maximum

9. Liability

ANY LIABILITY FOR CONSEQUENTIAL AND INCIDENTAL DAMAGES IS EXPRESSLY DISCLAIMED. RADIO DATA COMMS AND PERMACONN LIABILITY IN ALL EVENTS IS LIMITED TO, AND SHALL NOT EXCEED, THE PURCHASE PRICE PAID.

While every effort has been taken to ensure the accuracy of this document, Radio Data Comms assumes no responsibility or liability for any errors or omissions. Radio Data Comms reserves the right to make changes to this manual due to ongoing development.