Electrical Specifications

Power Supply Input: 11V to 14V DC

Current Consumption: 15mA standby.
25mA max. with lock relay active.
(NOT including Reader current or Auxiliary OUT current.)

NOTE: Allow 50 to 120mA for small Prox Reader (~10cm range)
Allow 120 to 180mA for standard Prox Reader (~15cm range)
These values are general approximations.
See information supplied with Reader for actual current consumption.

Lock Relay Contacts:
Voltage: 30V DC maximum.
Current: 750mA maximum.

Fuse Protection: 500mA Reader Power Fuse.
Reader current must not exceed 400mA.
ALWAYS REPLACE WITH SAME FUSE TYPE AND VALUE!

Single Door Access Module Fault LEDs

RX	TX	EXPLANATION/REMEDY
ON	ON	Module is un-addressed.
OFF	ON	Module type unknown. Firmware upgrade required to Control Module.
Flash	ON	Duplicate Module.
		This module number is already in use by a module of the same type.
Flash	Flash	Module number selected is too big for Control Module RAM size.
		Select a lower Module number.
ON	OFF	Too many modules on Network for Control Module RAM size.
Alternating Flash		EEPROM fault. Return for service.

Due to on-going product development this manual is subject to change without notice.

Model 3OOO / Access 4OOO

Single Door Access Module.
P/N: 995011 & 995011ENH

INSTALLATION MANUAL

Overview

The Single Door Access Module is designed to provide an interface for a single Reader head along with the required inputs and outputs for the control and monitoring of a Single Door.

Magnetic Swipe or Wiegand Reader formats are supported and an on-board relay provides lock switching. An Auxiliary output is provided to control Reader LEDs and/or Buzzers and can be configured as a general purpose output, or to indicate "Door Open Too Long" (DOTL) OR "Valid", "Invalid" and "DOTL" (*V3 or later Control Module firmware required)

Programming options allow for Door Access to be integrated with Area On/Off Control where required. Access Control processing utilizes the Door Contacts and/or Tongue Sense inputs to provide "Door Forced" and "Door Open Too Long" alarms.
If Tongue sensing is not utilized a spare Zone Input is available for another detection device.

Versions: **995011.** Standard version supporting up to 31 Backup Cards.
995011ENH. Enhanced version supporting up to 127 Backup Cards.

Note: Control Module firmware must be V3.56 or later to support more than 15 Backup Cards.

IMPORTANT NOTES:
1) The Single Door Access Module is enrolled on the LAN and programmed as a Reader Module. (MENU, 7, 2, 4) When programming; options relating to "2nd Door / 2nd Lift", "2 Door Mode" and "Reader 2..." should not be programmed.
2) A single Input is provided for an Exit/Entry button. Regardless of whether this input is used for an Exit or Entry button, it must be programmed for Exit button operation. i.e. Select the "B"utton option in the "Exit Options" of the Access Group assigned to the Door. Note that Review will therefore always record the direction for the button operation as "Exit".
3) Zones Rnn:Z03 to Z05 and Z07 and Auxiliaries Rnn:X03 to X08 do not exist on the Single Door Access Module and therefore must not be programmed.

Installing the Reader Module.

Reader Module Parts List

- Reader Module PCB assembly.
- Installation Kit in Plastic bag containing:
    - 4 x 12mm Self adhesive PCB support posts.
    - 1 x 8 Way Plug on Screw Terminals.
    - 1 x 3 Way Plug on Screw Terminal.
    - 4 x 2 Way Plug on Screw Terminals.
    - 1 x 500mA Amp Fuse.
    - 5 x 2k2 End-of-line resistors. (red-red-black-brown-brown)
    - 5 x 6k8 End-of-line resistors. (blue-grey-black-brown-brown)
    - 1 x 1N4004 protection diodes. (For connecting across lock strike)
- Installation Manual. (This document)

Mounting the Unit

Installation environment should be maintained at a temperature of 0º to 40º Celsius and 15% to 85% Relative humidity (non-condensing)

PCB physical dimensions: Length: 96mm
     Width: 96mm

1. The Single Door Access Module is supplied as a PCB assembly which can be mounted in a suitable enclosure using the 4 self adhesive PCB standoffs provided, or other suitable PCB standoffs.
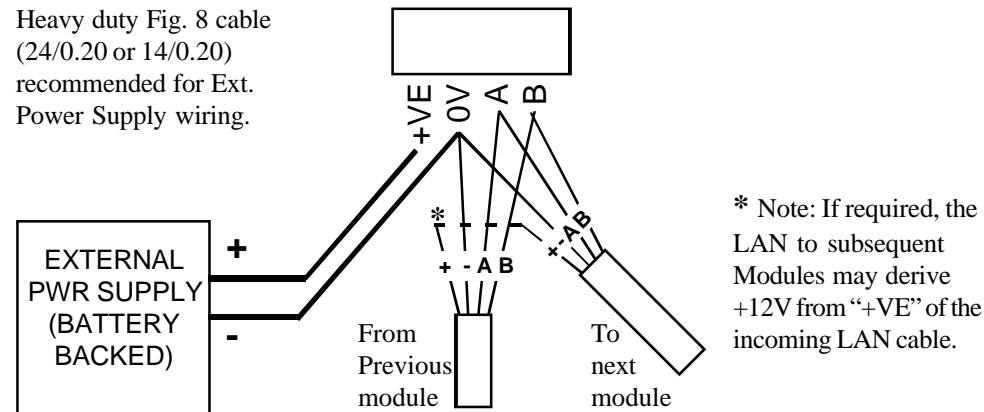
    The Module has also been designed to be mounted on the standoffs provided in the Plastic mounting box. P/N: 990045.

2. One or two "Normally Closed" Tamper switches may be fitted to the enclosure before it is mounted, and wired in parallel between the "TAMP" and "0V" terminals on T4. (Switch is Open cct when plunger depressed)

3. The Module Number is set using DIPswitches 1 to 7 as required. *See table on page 3.*

4. Door Reed and Tongue Sense Inputs are wired using the End-of-Line (EOL) Resistors. The "REX/REN" button Input and "Arm" Input are wired to the Normally Open contact of the respective button, while the COMMON contact is connected to 0V. EOL reistors are not required. *See wiring diagram on page 7.*

LAN and Power Supply Wiring

MODULE POWERED FROM EXTERNAL SUPPLY (Recommended)

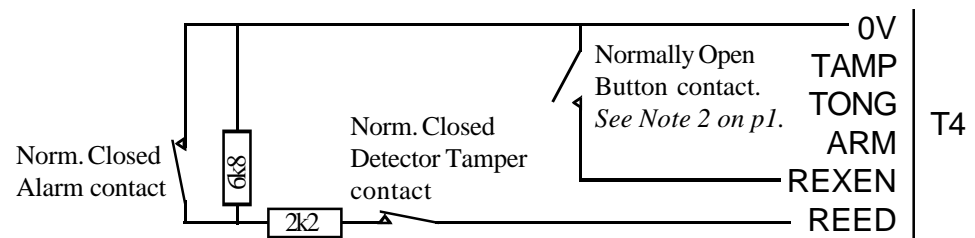Heavy duty Fig. 8 cable (24/0.20 or 14/0.20) recommended for Ext. Power Supply wiring.

* Note: If required, the LAN to subsequent Modules may derive +12V from "+VE" of the incoming LAN cable.

MODULE POWERED FROM THE LAN

* Note: If both "LAN +VE" wires provide a Power supply source, the one that is not required to power the Access Module MUST NOT be connected to the Module.
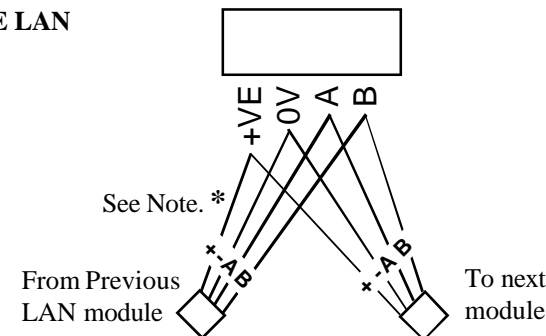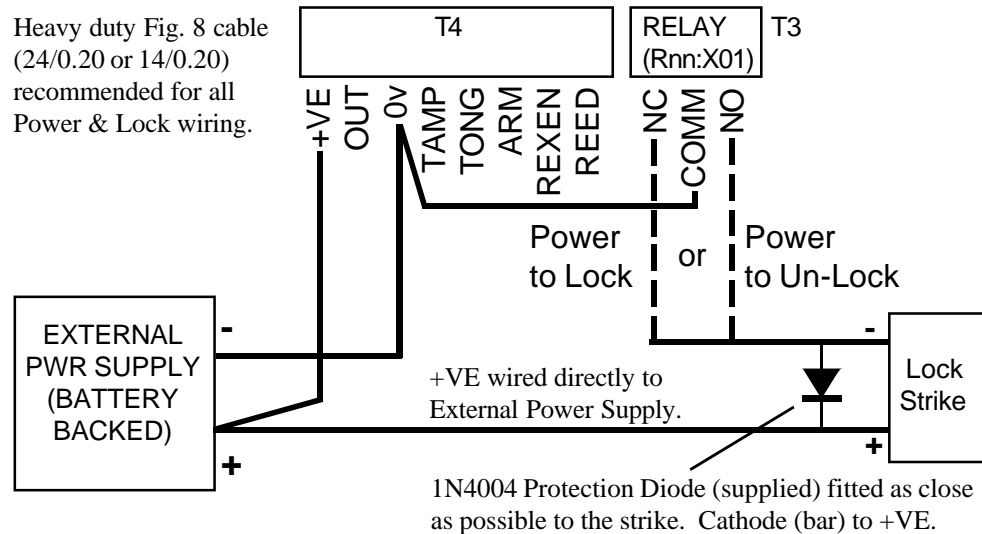

ZONE INPUT AND EXIT/ENTRY BUTTON WIRING.

Note: Tongue Sense ("TONG") wired as per "REED".
     Arm button ("ARM") wired as per "REX/REN".

Lock Wiring

Heavy duty Fig. 8 cable (24/0.20 or 14/0.20) recommended for all Power & Lock wiring.

Power to Lock   or   Power to Un-Lock

+VE wired directly to External Power Supply.

1N4004 Protection Diode (supplied) fitted as close as possible to the strike. Cathode (bar) to +VE.

Reader Wiring

READER	D0 (Data)	D1 (Clk)	+VE	0V
Omron Swipe	brown	red	yellow	green
Hughes MiniProx/ThinLine/ProxPro	green	white	red	black/shield
HID Sensorkey	green	white	red	black/shield
HID Classic Swipe/Insertion/ Epic Wiegand Card Reader (Units may have flying leads OR screw terminals)	green Data 0	white Data 1	red +VE	black/shield GND
Motorola Indala	green	white	red	black/shield

NOTE: An LED and/or beeper control wire provided on Proximity and Wiegand readers can be wired directly to the T4 "OUT" terminal on the Module. (No dropping resistor required) *See information supplied with Reader for LED control details.*

Module Numbering

The Single Door Access Module is enrolled on the LAN as a Reader Module (R).
The Module number is set using DIPswitches 1 to 7.
The Module number equals $n + 1$, where n is the binary number set on DIPswitches 1 to 7.

Module No: DIPswitch:	1	2	3	4	5	6	7
Binary value:	1	2	4	8	16	32	64
1	off	off	off	off	off	off	off
2	ON	off	off	off	off	off	off
3	off	ON	off	off	off	off	off
4	ON	ON	off	off	off	off	off
5	off	off	ON	off	off	off	off
6	ON	off	ON	off	off	off	off
7	off	ON	ON	off	off	off	off
8	ON	ON	ON	off	off	off	off
9	off	off	off	ON	off	off	off
through to							
99	off	ON	off	off	off	ON	ON

Link Settings

READER	JP2 Supply
Omron Swipe	5V
Hughes MiniProx / ThinLine	5V
Hughes ProxPro	12V
HID Sensorkey	5V
HID Swipe/Insertion/Turnstile Wiegand Card Readers	5V
Motorola Indala. SlimLine/ WallSwitch/PinProx/ValueProx-/SecureProx/MasterProx	5V
Motorola Indala. Standard/ Medium Range/MasterProx (for 30cm read range)	12V

NOTE: It is recommended that Readers with wide supply voltage ranges (e.g. 4V to 14V, 5V to 16V, etc.) are powered using the 5V option.

THE SINGLE DOOR ACCESS MODULE PCB

F1. 500mA FUSE M205.
MUST BE 500mA.
Do not substitute higher values.

T3. Reader connections.
D0(Data)   Reader Data input.
D1(CLK)   Reader Data or Clock input.
+VE   Reader Power.
GND   Reader Ground.
NOTE: Use shielded Data cable.
Tycab DMC6702, Garland MC7-6S, etc.
DO NOT use twisted pairs!
See connection details on page 6.

T4. Input & Auxiliary Output connections.
+VE   Ext. Pwr supply +ve Input and/or
             +12V for Detector or Auxiliary power.
OUT   Warn DOTL / Valid / Invalid LED output. *3 & 4.*
             OR Auxiliary 2 Output. (Rnn:X02)
0V   0V return for I/P & O/P connections.
             and/or Ext. Pwr supply -ve Input.
TAMPER   Tamper Switch input.
TONGUE   Tongue Sense. (Zone 6). *1 & 6.*
ARM   Optional button I/P for Area ON control. *2 &5.*
             OR Zone 8 I/P *2.*
REXEN   Exit/Entry Button Input. (Zone 2). *2.*
REED   Door Reed Switch Input. (Zone 1). *1.*

*NOTES:
1. End-of-line (EOL) Resistors required.
2. EOL's NOT required. *See Note 2 on page 1.*
3. Warn DOTL requires V3 Control Module firmware or later.
4. Connect 1.2kOhm dropping resistor between +VE & LED Anode if not already supplied
in Reader.
5. Area ON control selected in Reader Module options. EOL resistors NOT required.
6. "Tongue Sense" selected in Reader Module options.

SW1. DIPswitches:
Switch 1-7.   Module number
                  (See table on page 3)

T1. LAN Connections.
LAN +VE   Connect LAN +ve <u>IF</u> Module powered from the LAN.*
LAN 0V   Connect LAN Ground (-VE)
LAN A   LAN Data A connection.
LAN B   LAN Data B connection.

*NOTE: **+VE** connections from two different power supply sources
<u>must never</u> be connected together.
See "LAN & Power Supply Wiring" on page 7.
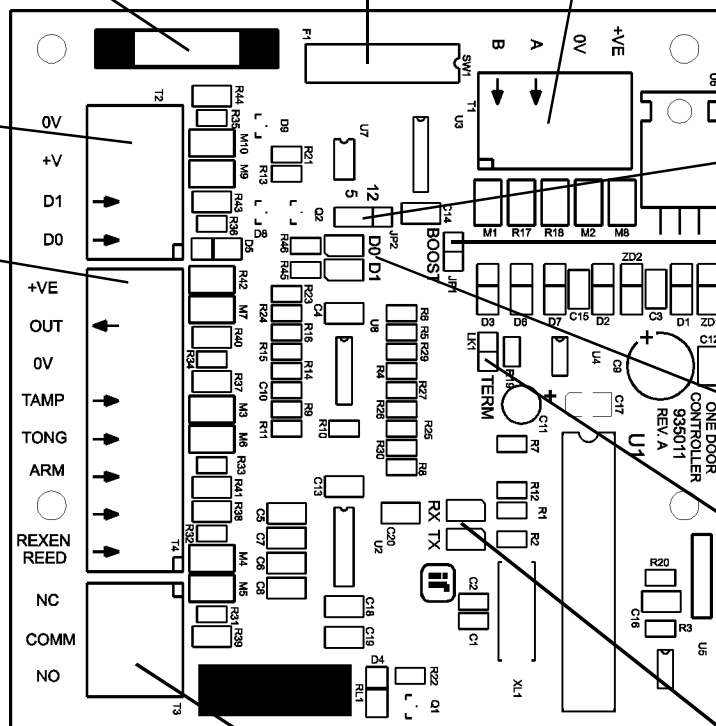
JP2. RDR SUPPLY. Reader Pwr Supply voltage.
5V / 12V. *See table on page 3 for common settings.*

JP1. BOOST.   For 12V Readers.
Fit if DC Volts at Reader head is <11.5V

D0. Data 0's from Reader.
D1. Data 1's from Reader.

LK1. LAN Termination.
Off: Unterminated.
On: Terminated. Only fitted if unit is one of the
two furthest modules from the Control Module.

RX. LAN Data Receive & FAULT DIAGNOSIS
TX. LAN Data Transmit & FAULT DIAGNOSIS
(See table on page 8)

T5. Lock Relay Connections.
(Rnn:X01)
See "Lock Wiring" on page 6.