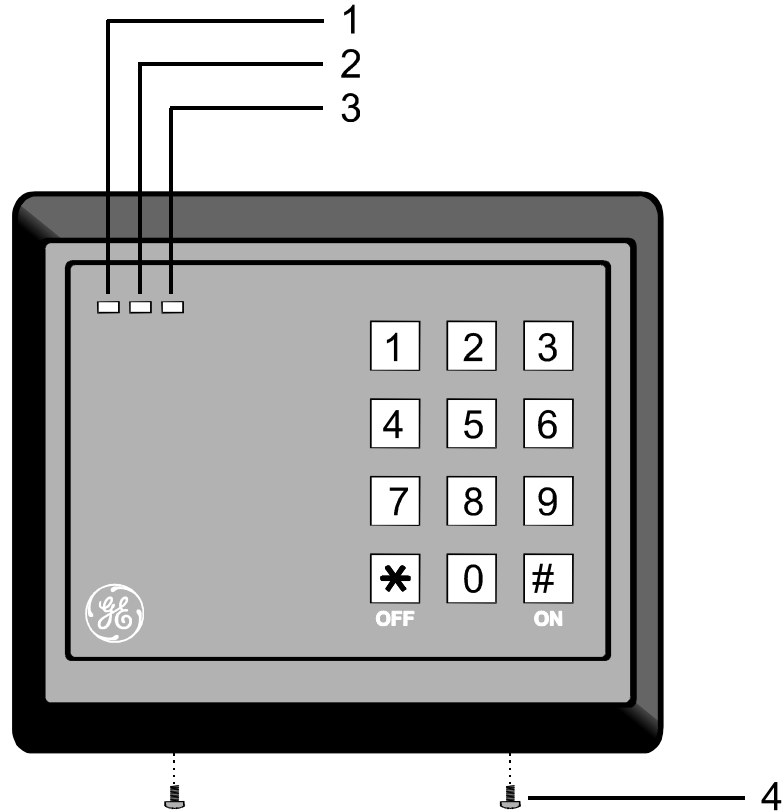


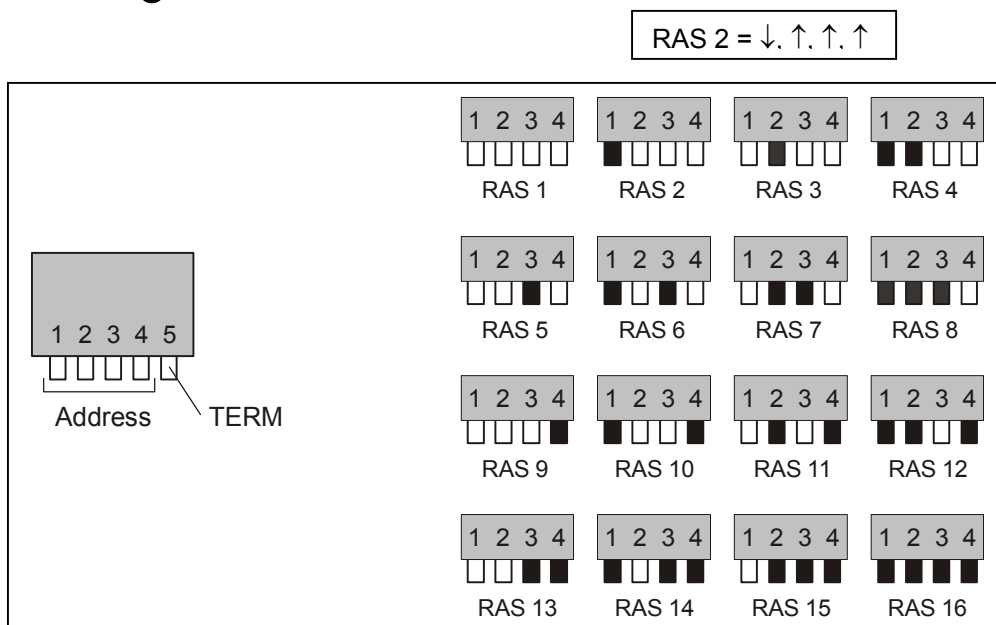


ATS1197 Smart Card Reader with Keypad

①



②



Smart Card Reader with Keypad

MOUNTING THE UNIT

1. Remove power to the control panel, or 4-door controller, as applicable.
2. Remove the two front panel screws at the bottom of the RAS (see figure ❶), and then remove the RAS back plate. Retain the screws to secure the RAS later.
3. Position the RAS back plate (with the tamper spring at the top) against the mounting surface to determine the locations of mounting holes and for cabling access. (A reduced card reading range may occur if mounted on a metal surface.)
4. Mount the back plate on a flat surface using four screws (the hole nearest the tamper spring must have a screw in order for the tamper switch to work correctly).
5. Terminate the cable, as required (see Wiring details below).
6. For on-line mode, set the **BUS** address (DIP switches 1 through 4). For on-line mode, set the TERM switch (DIP switch 5) as required. For off-line mode, the TERM switch must be off (up). See DIP switch settings for details.
7. Mount the RAS on the back plate by engaging the top, and then lowering the RAS to be flat against the back plate. The rear tamper switch must be sealed for the system to work correctly. Ensure that the back plate tamper spring rests on the tamper switch actuator (protruding from the resin in the back of the RAS) when the RAS is in position.
8. Fix the RAS to the back plate using the two screws removed earlier from the bottom of the RAS.
9. Apply power to the control panel, or the 4-door controller.
10. For on-line mode, use an LCD RAS on the **BUS** (or the system's management software) to program polling and set up the required items for the new RAS. In particular, the ATS1197 RAS must be programmed as a non-LCD RAS.
11. Check that the ATS1197 is communicating correctly and verify that the tamper switch is working properly (i.e. "RAS Tamper" is not showing on the LCD RAS).



IMPORTANT:

All power should be turned off to the control panel before wiring the RAS.

LOCATION OF FEATURES (FIGURE ❶)

- | | |
|------------------------------|-------------------|
| 1. Red/Green dual colour LED | 3. Red LED |
| 2. Yellow LED | 4. Locking screws |

CONNECTING CONTROL PANEL TO KEYPAD RAS

Refer to the ATS control panel installation guide for instructions.

TAMPER SWITCH

The ATS1197 tamper switch is closed when the unit is fitted on the mounting plate. In operation, the LCD display will show "RAS Tamper" when not closed.

RAS DIP SWITCH SETTINGS (FIGURE ❷)

A row of DIP switches is located on the rear of the RAS (figure ❷) and is used for setting the RAS address and the bus termination (TERM) condition. These settings are described in the following sections.

1. **RAS Address** Set the RAS address using switches 1 to 4. Switch in "UP" position is off, and switch in "DOWN" position is on.
2. **TERM Switch** Use switch 5 to set TERM to 'ON', if needed. There must be no more than two TERM switches or links set to 'ON' for any bus. Refer to the control panel installation guide for details about the use of TERM switches or links.

Note:

'ON' is indicated as black (down)
Example: RAS 2 = On, Off, Off, Off,

CONNECTIONS

Colour	Application
Red	+12 V nominal (8.5 to 14 VDC supply) The RAS can be powered using the bus + and – power from the control panel if the distance between the RAS and the control panel does not exceed 100 m (328 feet). Otherwise the RAS can be powered by AUX PWR from a DGP, or by an auxiliary power supply.
Black Green	0V (DC supply ground) D0/D– /Clock, may be used for D0 (Wiegand data), D– (RS485 data), Magnetic stripe clock. Normal operating voltage 0 to +5 V (absolute maximum, +12 V).
White	D1/D+ /Data, may be used for D1 (Wiegand data), D+ (RS485 data), magnetic stripe data. Normal operating voltage 0 to +5 V (absolute maximum, +12 V). The RAS is connected to the ATS panel via the RS485 data bus, up to 1.5 km from the control panel or the four-door controller DGP. Use the 2-pair twisted, shielded data cable (WCAT52/54)(recommended). The shield of any bus cable must be connected to system ground at one end only. The ATS111x RAS is not provided with an Earth connection for this purpose. If the bus is 'daisy-chained' to the RAS, ensure that the shield of the cable is joined to provide continuity of data cable shield.
Blue	Buzzer/Beeper, may be used for offline buzzer control. <ul style="list-style-type: none"> • Wire open or +5 V to +12 V: buzzer off (Absolute maximum, +14 V). • Wire grounded (0V): buzzer on.
Brown	Application depends on selection of RAS menu option 2—Off-line LED control. See Programming.
Yellow	Application depends on selection of RAS menu option 2—Off-line LED control (see programming). When not used for two wire LED control, yellow wire may be used for <ul style="list-style-type: none"> • RTE input when online to ATS • connection to a simple push button for operation in RTE Only mode • connection to a button for use in RTE + Arm/Disarm mode.
Violet	Button should be connected to GND. See 10—RTE (Egress) Control. Open collector output, configurable as Door output, Tamper output, or magnetic stripe data present. This is a low current output and must not be used to directly energize high current door openers. (Absolute maximum, 14 V @ 50 mA) Note: When using a door control relay, always place a suppression diode (e.g. a 1N4001) across the relay coil

STATUS LED INDICATIONS (FIGURE ❸)

Connected to ATS control panel or access control panel

Green/Red (disarm/arm)	Green when all areas assigned to the RAS's alarm group are disarmed or when screen-saver is active. Flashing green when running on battery (mains power off) or during unlock time when area disarmed. Red if all areas assigned to the RAS's alarm group are armed. Flashing red during unlock time when area armed.
Yellow (ready)	LED off if at least one and less than all areas assigned to the RAS's alarm group are armed Active when all zones in areas assigned to the RAS are normal (or active if RAS configured as ATS1156)
Red (alarm)	Flashing when any areas assigned to the RAS is in alarm state.

Connected to a Wiegand or Magnetic Stripe interface

Green/Red	Green On when yellow wire is at 0V
	Red On when brown wire is at 0V
	Yellow On when yellow AND brown wire at 0V
	LED off When yellow and brown wire are

between 5 – 14V

Yellow Not used
Red Not used

NOTE: In off-line mode, the TERM switch (DIP switch 5) must be 'off' (up). DIP switches 1 to 4 are not used in off-line mode.

OPERATING FEATURES

Night Light

The reader will be dimly lit when enabled.

Beeper tone

Press and hold the * key while pressing the 1 key to raise the tone frequency or the 2 key to lower the tone frequency.

POWER UP

Upon initial power up, the buzzer will sound two beeps indicating that the internal non-volatile memory is OK. All of the area LEDs may illuminate indicating that the system is armed. All areas must be disarmed in order to enable access to the installer programming menu options.

TROUBLESHOOTING

General Faults

No LED display or keypad backlight:

- Verify the +13.8 and 0V wire connections on both the RAS and the power supply.
- Verify power output on the control panel, 4-door controller, or external power supply.

All three status LEDs are flashing:

- Verify the D+ and D- wire connections (may be reversed or open circuit).
- Verify the address DIP switches of the RAS are set to the proper address.
- Verify that the control panel or 4-door controller is polling the RAS address.

The RAS does not respond to a Smart Card:

- The RAS may not be programmed correctly or card beep and LED flash may be disabled. Refer Programming for details.
- The Smart Card may not be programmed for use with the particular system.

RX and TX LED Indications

RX and TX LEDs are provided on the circuit board to assist in fault diagnosis and are visible when the rear plastic cover is removed.

Rx The yellow Rx LED flashes to indicate polling data is being received on the system bus from the panel. If the LED does not flash, the control panel is not operational or the bus is faulty (usually cabling).

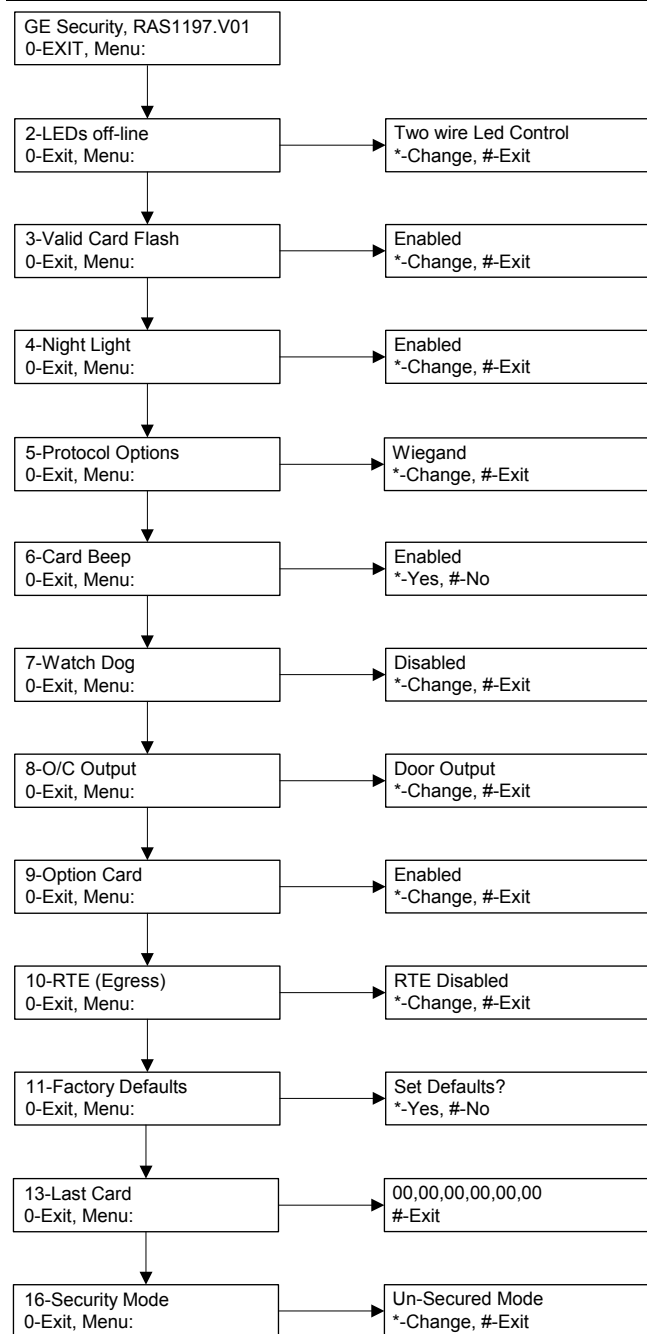
Tx The red Tx LED flashes to indicate the RAS is replying to polling from the control panel. If the Rx LED flashes but the Tx LED does not, the RAS is not programmed to be polled in the control panel or is addressed incorrectly.

CONFIGURING THE ATS 1197 RAS

To Configure the RAS:

- Press 19 [ENTER] followed by * 3 [ENTER].
- Type the required RAS address (2 – 16). followed by [ENTER].
- Select the RAS.
- Disable the option 'LCD Arming Station'.
- Enable the option '3 LED RAS'.

PROGRAMMING MAP



Note: Reserved menus are not shown

PROGRAMMING OPTIONS

The ATS1197 provides for a menu through which a number of options can be set.

To enter the programming menu for the ATS1197:

- Enter menu 28 of the Control Panel installer menu.
- Press 2[ENTER] followed by the RAS address selected and [ENTER] to enter the RAS menu. The display now shows "GE Security, RAS1197" followed by the version number.
- Press [ENTER] to proceed to the menu or press the menu number followed by [ENTER] to go to a menu item directly.

Menu 1, 12, 14 and 15 are reserved menu's.

Menu 2, LEDs off-line

Select either two-wire (default) or one-wire LED control.

For two-wire LED control:

- The brown wire controls LED 1 red (Arm). Wire grounded: LED 1 red on, wire open or at +5 V to +14 V: LED 1 off.

- The yellow wire controls the LED 1 green (Disarm). Wire grounded (0V): LED 1 green on, wire open or at +5 V to +14 V: LED 1 off.
- Both yellow and brown wires grounded (0V), LED 1 is on yellow. Not valid when used on GE Security products.

For one-wire LED control, the brown wire controls LED 1 green-red dual colour.

- Grounded or 0V, LED 1 green on.
- +5 to 15V: LED 1 red is on.
- Open or high Z, or +2.5V: LED 1 off.

Menu 3, Valid Card Flash

If enabled (default), the green LED will give one short flash when the card is badged. The panel controls subsequent flashes.

Menu 4, Night Light

A dimly lit keypad backlight provides the night-light to easily locate the keypad in dark locations (enabled by default).

Menu 5, Protocol options

This option selects the method by which the reader sends data to the panel. The options are Wiegand (default) or Magnetic stripe. See option 16 for more data on transmitted data details.

Menu 6, Card Beep

If enabled (default), the beeper will give a short beep when a card is badged. The panel controls subsequent beeper activity.

Menu 7, Watch Dog

Offline mode only. If enabled, one byte of data is sent to the host every minute to indicate that the RAS is connected and operating normally. If the ATS1197 tamper is active, the data byte will not be sent (disabled by default).

Menu 8, O/C output

Select one of the following options:

- **Door relay** (on-line mode only) — The open collector output activates (active low) when the door open signal is sent to the ATS1197 (default setting).
- **Tamper output** (on-line or off-line modes) — The open collector output activates (active low) when the ATS1197 Tamper is active.
- **Card data present** (off-line mode only) — The open collector output activates (active low) when the card data is being sent to the host.

Menu 9, Option Card

This option enables (default setting) and disables the use of reader configuration (option) cards at the reader. If an installer wishes to prevent the modification of the reader setup by configuration card, this option should be disabled.

Menu 10, RTE (Egress)

The RAS is fitted with Request To Exit (RTE) control (yellow wire). The Open Collector output (violet wire) may be used to control a door relay. RTE is only available in on-line mode.

There are three options to choose from:

- **RTE Disabled.** When RTE is not used, it is recommended that it is disabled.
- **RTE Only.** This option requires a simple push button to be connected to the yellow wire. A press of the button will release the door lock relay. Used for a quick exit from an Area (enabled by default).
- **RTE Arm/Disarm.** Do not use

Menu 11, Factory Defaults

This option returns all RAS settings to the factory default condition.

Menu 13, Last Card

This option displays the number of the last card badged on the reader, in the format: Facility Code/System Code, ID Number or as raw card data (depends on setting of security mode).

Menu 16, Security Mode

This option selects the type of user card the reader will recognise. The reader will recognise configuration and default cards in both modes. The possible modes are as follows:

- **Unsecured Mode** (default setting) — The reader will recognise blank or un-programmed cards only, by using the card's unique serial number. The 4-byte security password is not used. Unsecured mode requires the use of an expanded memory system.

- **Secured Mode** — Only cards programmed on the ATS1620/1621/1622 programmer will be recognised in this mode. The 4-byte security password is used.

DATA TRANSMISSION

The following tables list the formats by which the card reader transmits data, as determined by:

- Whether the reader is used on-line or off-line, and by
- Menu option 5—Protocol Options (Wiegand or Magnetic stripe), and by
- Menu option 16—Security Mode (Secured or Unsecured).

Note: In on-line mode, select 'Wiegand' in menu 5 to use 26 or 27 bit data, or select 'Magnetic stripe' to use 32 bit data.

On-line		
Card Format	Reader protocol	
	Wiegand	Magnetic Stripe
Secured	When badged on a reader, 26 or 27 bit data is transmitted, depending on whether the card is programmed as Wiegand 26 bit or Aritech Wiegand ASC.	When badged on a reader, 32 bit data is transmitted.
Unsecured	When an unsecured card is badged on a reader using the magnetic stripe format, 32 bit data is transmitted.	

Off-line		
Card Format	Reader protocol	
	Wiegand	Magnetic Stripe
Secured	When badged on a reader, 26 or 27 bit data is transmitted, depending on whether the card is programmed as Wiegand 26 bit or Aritech Wiegand ASC.	When badged on a reader, Magnetic stripe format data is transmitted. A "card present" signal is available on the relay output (violet wire), if selected in menu option 8—Open Collector Output.
Unsecured	When badged on a reader using the Wiegand protocol, Aritech Wiegand ASC data is transmitted.	When badged on a reader using the magnetic stripe protocol, Magnetic stripe data is transmitted.

Technical Data	Données techniques	Technische gegevens	
Supply voltage	Tension d'alimentation	Aansluitspanning	8.5 - 14 VDC Max
Maximum operating current	Consommation maximale en fonctionnement	Maximale bedrijfsstroom	110mA @ 13.8 VDC
Normal operating current (all areas armed)	Consommation normale en fonctionnement (tous les groupes armés)	Normale bedrijfsstroom (alle gebieden ingeschakeld)	40mA @ 13.8 VDC
Open Collector Output (OUT terminal)	Sortie à collecteur ouvert (borne OUT)	Open collectoruitgang (OUT-uitgang)	14Vdc Max @ 50mA Max
Dimensions with cover (W x H x D)	Dimensions, couvercle compris (L x H x P)	Afmetingen inclusief klepje (B x H x D)	140mm (5.5") x 121mm (4.8") x 22mm (0.9")
Operating temperature	Température en fonctionnement	Werkingstemperatuur	-40° to 50°C (32° to 122°F)
Humidity	Humidité	Luchtvochtigheid	95% non condensing
Dati tecnici	Dados técnicos	Tekniske data	
Voltaggio di alimentazione	Tensão de alimentação	Spenningsforsyning	8.5 - 14 VDC Max
Corrente massima di funzionamento	Corrente máxima de operação	Maksimalt strømforbruk ved drift	110mA @ 13.8 VDC
Corrente normale di funzionamento (tutte le aree inserite)	Corrente de operação normal (todas as áreas armadas)	Vanlig strømforbruk ved drift (alle områder tilkoblet)	40mA @ 13.8 VDC
Uscita open collector (terminale OUT)	Output de colector abierto (Terminal OUT)	Åpen kollektor-utgang (OUT-terminal)	14Vdc Max @ 50mA Max
Dimensioni con coperchio (L x A x P)	Dimensões com cobertura (L x A x P)	Dimensjoner med lokk (B x H x D)	140mm (5.5") x 121mm (4.8") x 22mm (0.9")
Temperatura di funzionamento	Temperatura de operação	Driftstemperatur	-40° to 50°C (-40° to 122°F)
Umidità	Humidade	Fuktighet	95% non condensing
Datos técnicos	Tekniska data	Technische Daten	
Tensión de alimentación	Matningsspänning	Versorgungsspannung	8.5 - 14 VDC Max
Corriente máxima de funcionamiento	Maximal driftsström	Maximale Stromaufnahme	110mA @ 13.8 VDC
Corriente normal de funcionamiento (todas las áreas armadas)	Normal driftsström (alla områden tillkopplade)	Typische Stromaufnahme (alle Bereiche scharfgeschaltet)	40mA @ 13.8 VDC
Salida de colector abierto (terminal OUT)	Open collector-utgång (OUT-plinten)	Open-Collector-Ausgang (OUT-Anschluss)	14Vdc Max @ 50mA Max
Dimensiones con tapa (ancho x alto x profundidad)	Mått med kåpa (B x H x D)	Abmessungen mit Abdeckung (L x H x T)	140mm (5.5") x 121mm (4.8") x 22mm (0.9")
Temperatura de funcionamiento	Drifttemperatur	Betriebstemperatur	-40° to 50°C (-40° to 122°F)
Humedad	Luftfuktighet	Luftfeuchtigkeit	95% non condensing
Tekniset tiedot	Tekniske data	Dane techniczne	
Käyttöjännite	Forsyningsspænding	Napięcie zasilania	8.5 - 14 VDC Max
Maksimivirrankulutus	Maksimalt strømforbrug	Maksymalny natężenie prądu	110mA @ 13.8 VDC
Normaali virrankulutus (kaikki alueet yötillä)	Normalt strømforbrug (alle områder tilkoblet)	Normalne natężenie prądu (wszystkie obszary zazbrojone)	40mA @ 13.8 VDC
Avokollektorilähtö (OUT-liitäntä)	OC-udgang (OUT-terminal)	Obciążalność wyjścia OC (zacisk OUT)	14Vdc Max @ 50mA Max
Mitat kannen kanssa (leveys x korkeus x syvyys)	Dimensioner med låge (B x H x D)	Wymiary z pokrywą klawiatury (Sz x W x G)	140mm (5.5") x 121mm (4.8") x 22mm (0.9")
Käyttölämpötila	Driftstemperatur	Zakres temperatury eksploatacji	-40° to 50°C (-40° to 122°F)
Kosteus	Fugtighed	Wilgotność	95% non condensing



MANUFACTURERS DECLARATION OF CONFORMITY

For

PRODUCT IDENTIFICATION:


Model/type : ATS1197 BOM revision level : E
 Category (description) : Non LCD, Remote Arming Station, with Card Reader and keypad
 Brand : GE Security

Manufacturer: GE Security
 646 Whitehorse Road
 Mitcham, 3132
 Australia

EU Representative: GE Interlogix B.V.
 Kelvinstraat 7
 6003 DH Weert
 The Netherlands

Concerning	RTTE		
	EMC	Safety	Radio
A sample of the product has been tested by:	EMC Technologies Pty Ltd 57 Assembly Drive Tullamarine, 3043 Victoria Australia	GE Security 646 Whitehorse Road Mitcham, 3132 Australia	EMC Technologies Pty Ltd 57 Assembly Drive Tullamarine, 3043 Victoria Australia
Test report reference	M040929-1	IEC 60950 Test Report For ATS1197	M040929-2
APPLIED STANDARDS	EN50130-4 :1995 +A1 :1995	EN60950(2000)	EN300330-2 v1.1.1 (06-2001)

Equipment class identifier (RF products falling under the scope of R&TTE)

Not Applicable None (class 1 product)  (class 2 product)

Means of conformity

We declare under our sole responsibility that this product is in conformity with Directive 93/68/EEC (Marking) and/or complies to the essential requirements and all other relevant provisions of the 1999/5/EC (R&TTE) based on test results using harmonized standards in accordance with the Directives mentioned.