User
Manual
0150-0241
Phillips ProBridge

GE Security

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

You are cautioned that any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

For the latest product specifications, visit GE Security online at www. GE-Security.com or contact your sales representative.

For technical support before and after installation, call 800-469-1676.

Technical support is available 24 hours a day, 7 days a week.

Call:	**Tech Support**	800-469-1676 (6 A.M. – 5 P.M. PST Monday through Friday)
	Tech Support	541-740-3589 (all other times)
	Main	800-343-3358 or 541-754-9133
Fax:	**Tech Support**	541-752-9096 (available 24 hours a day)
	Main	541-754-7162
Web:	www.GE-Security.com	

0150-0241B / May 2004

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1 Philips ProBridge

1.1 Philips ProBridge Description

The Kalatel CBR-PB2-PHILIPS is a specific ProBridge unit for interfacing the DVMRe family of digital video multiplex/recorders and providing local keyboard control via a CBR-KB3 or KTD-405 keypad to a Philips AutoDome.

Kalatel Components:

(1) CBR-PB2-PHILIPS ProBridge. This product includes:

- (1) CBR-PB2-PHILIPS ProBridge unit.
- (2) P/N 4310-0034: RJ45 to RJ45 cable. Connects the ProBridge and a CBR-KB3 or KTD-405 to the RS-485 Network. These cables are 6' in length.
- (1) P/N 4310-0047B: Cable from PB2 to Philips Data Converter Unit (LTC 8780).
- (1) P/N 4010-0007: 12VDC 120VAC Power Supply or
  (1) P/N 4010-0008: 12VDC 220VAC Power Supply.
- (1) P/N 0150-0241A: Product Overview and Installation Manual.

Philips Components:

- (1) Philips Data Converter Unit (LTC 8780).
- (1) Philips AutoDome.

1.2 Compatibility

The CBR-PB2-PHILIPS is compatible with all Kalatel DVMRe digital video multiplex/recorders equipped with RS-485 network capabilities except installations with a CBR-KB1 Keypad.

Compatible units include the Kalatel DVMRe digital video units and various Kalatel Multiplexer models (Simplex, Triplex, Matrix). Please check the specifications of the particular Kalatel product for RS-485 network support.

1.3 Installation Environment

Power: Ensure that the installation site's AC power is stable and within the rated voltage of the external power supply. If the site's AC power is likely to have spikes or dips, use power line conditioning or an Uninterruptible Power Supply.

Temperature: Observe the unit's ambient temperature specifications when choosing a location for the unit. Extremes of heat or cold beyond the specified operating temperature limits may cause the unit to fail. Do not install this unit on top of other hot equipment.

Moisture: Do not expose the unit to rain or moisture. Moisture can damage internal components. Do not install this unit near sources of water.

RS485 Limitations: Total length of the RS-485 network is limited to 3000'.

1.4 Power

The ProBridge is furnished with a power supply (110 or 240 VAC). Do not use any other power supply with this product. The manufacturer accepts no responsibility for damage caused by the use of any other power supply.

Make sure installation is complete and all connections are made before applying power to the unit.

4310-0007 120VAC Power Supply

Power Supply Input
Voltage: 120 Volt AC **Tolerance:** ±10% **Frequency:** 60 Hz
Power Supply Output
Voltage: 12 Volt DC **Current:** 110mA **Power:** 1.3 Watts **Connector:** 2.1mm female barrel. Center Positive

4310-0008 220VAC Power Supply

Power Supply Input
Voltage: 220 Volt AC **Tolerance:** ±10% **Frequency:** 50 Hz
Power Supply Output
Voltage: 12 Volt DC **Current:** 110mA **Power:** 1.3 Watts **Connector:** 2.1mm female barrel. Center Positive

1.5 Installation Steps Summary

Carefully and completely read the manuals for each piece of equipment before attempting to install and connect this equipment.

Before you start connecting other optional accessory equipment to your system, make sure that all, power, video, VCR, and monitor connections are completed, and everything is working correctly.

Wire the telemetry equipment according to that unit's installation instruction. Use the internal diagnostic testing capabilities of the telemetry receiver to verify that the power and connections to the lens and motors are correct, and function properly.

Using the Diagram on the following page, connect the equipment in the following order:

1. Connect the CBR-PB2-PHILIPS to the Kalatel unit (DVMRe Simplex, DVMRe Triplex, DVMRe Matrix) via RS-485 port using the RJ45 to RJ45 cable. The maximum total distance allowed on the RS-485 data line (without signal amplification or modems) is 3,000 feet (1,000 meters). A 100-ohm terminator is required at each end of the RS-485 line.

2. Connect the CBR-KB3 or KTD-405 keypad to the Kalatel unit (DVMRe Simplex, DVMRe Triplex, DVMRe Matrix) via RS-485 port using the RJ45 to RJ45 cable.

3. Supply power to the Kalatel unit first and the CBR-PB2-PHILIPS second using the supplied AC to 12 VDC adapter. Via the Setup Menus for the Kalatel unit set the RS-485 network address to the appropriate number (see the Appendix for RS-485 addressing).

4. Using the provided cable, connect from the ProBridge RCVR/DRVR port to the Philips Data Converter Unit (LTC 8780). See the Philips Data Converter Unit's (LTC 8780) installation manual for information on connecting the LTC 8780 to the AutoDome.

5. Set the ID addresses for the Philips Dome according to the table later in this manual.

6. Via a networked connected PC with WaveReader software, connect to the DVMRe unit and confirm proper control and operation of the PTZ unit.

NOTE Please note, that whenever the ProBridge is used with a KTD-405 the **KB3 PTZ Protocol** option in the KTD-405 menu must be set to **YES**. See **Supervisor Programming** in the KTD-405 manual.

1.6 Connection Diagrams

This drawing depicts one Philips AutoDome connected via an RS485/422 network to a Kalatel DVMReTriplex unit, that provides remote PTZ control over Ethernet via WaveReader software, and a CBR-KB3 or KTD-405 keypad.
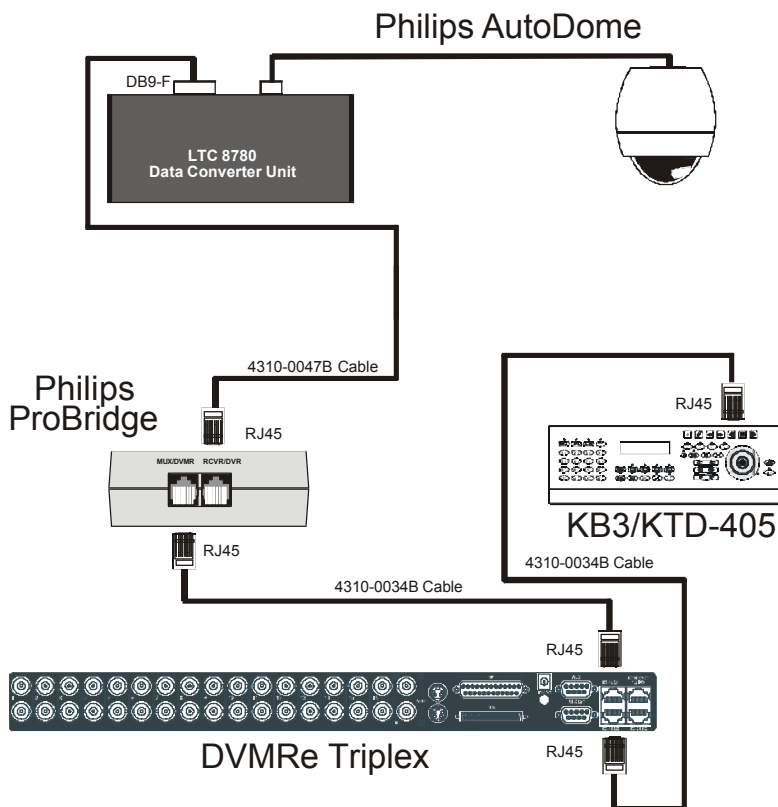
2 Cable Specifications
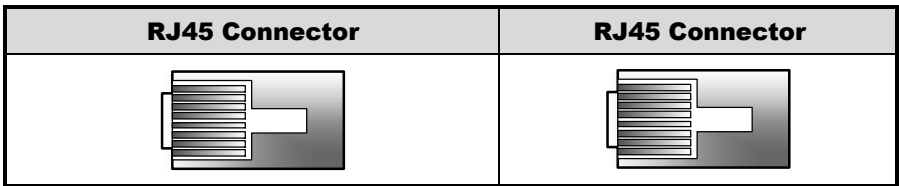
ProBridge to Kalatel Unit Cable (RS-485)

Part Number : 4310-0034B

Communication Type: RS-485

Connector Type: RJ45 ,RJ45

Cable Required: 5 Foot RJ45 to RJ45 Triplex RS485 Cable (Supplied). Connects ProBridge to Triplex and CBR-KB3 or KTD-405 keypad.

Pin 8: Brown	Pin 8: Brown
Pin 7: Brown/White	Pin 7: Brown/White
Pin 6: Green	Pin 6: Green
Pin 5: Blue/White	Pin 5: Blue/White
Pin 4: Blue	Pin 4: Blue
Pin 3: Green/White	Pin 3: Green/White
Pin 2: Orange	Pin 2: Orange
Pin 1: Orange/White	Pin 1: Orange/White

Do Not Connect (Pin 8 — Pin 8)
Do Not Connect (Pin 2 — Pin 2)

RJ45 Connector — **RJ45 Connector**

RJ45 Connector	RJ45 Connector
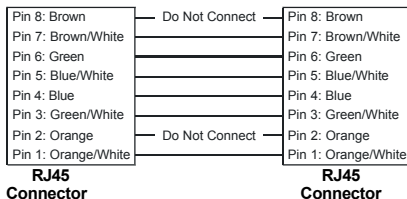
ProBridge to Philips Data Converter Unit

Part Number : 4310-0047B

Communication Type: RS232

Connector Type: RJ-45 ,DB9F

Cable Required: 6 Foot RJ-45 to DB9F RS232 Cable (Supplied). Connects ProBridge to Philips Data Converter Unit.

RJ-45 Connector	DB-9F Connector
Pin 8	Pin 9
Pin 7	Pin 8
Pin 6	Pin 7
Pin 5	Pin 6
Pin 4	Pin 5
Pin 3	Pin 4
Pin 2	Pin 3
Pin 1	Pin 2
	Pin 1

RJ-45 Connector	DB9F Connector
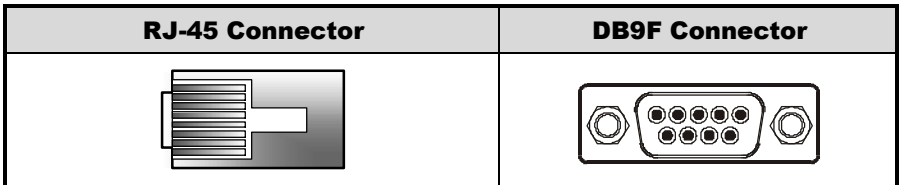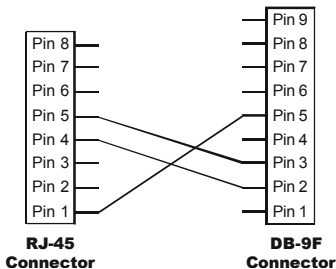
3 Troubleshooting

If you are unable to verify control of the PTZ camera, please do the following:

1. Check that each device is properly powered.

2. Check that all cables and cable connections are correct.

3. Verify that the Dome addresses and Unit ID are correct.

4. If the interface still does not work correctly contact Technical Support.

4 Unit Settings

4.1 Configuring ProBridge Jumpers

The unit ships from the factory with the correct settings for most applications and should not require the installer to open the unit and change the jumper settings. However, for trouble shooting purposes we have included the default jumper settings.
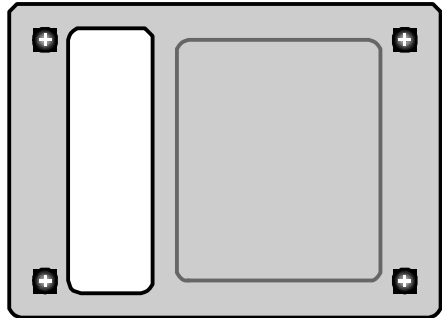
Opening The ProBridge

Place the ProBridge unit face down. Using a small Phillips screwdriver, carefully remove the screws located near each corner of the unit. Once the screws have been removed, lift the cover to detach.

Identifying The Jumpers

With the cover removed, orient the unit as shown here. There are two sets of configurable jumpers. One set, located on the left side of the board, controls how the unit communicates (JP2, JP3, JP4 and JP5). The other set, located at the bottom of the board (P6, twelve pin header) determines specific configuration elements for equipment interfacing.
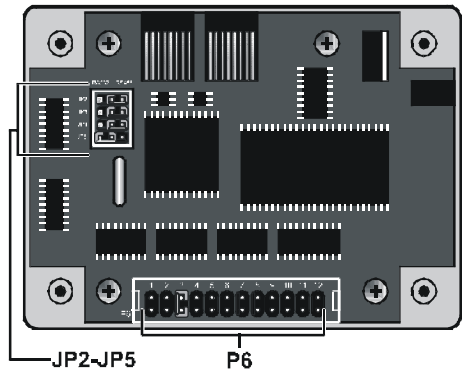
ProBridge Circuit Board

Default Jumper Settings

The default jumper settings are listed below:

PIN #	DEFAULT STATUS
JP2	RS485 Position
JP3	RS485 Position
JP4	RS485 Position
JP5	RS232 Position
P6 Pin 1	Not Installed
P6 Pin 2	Not Installed
P6 Pin 3	Installed
P6 Pin 4	Not Installed
P6 Pin 5	Not Installed
P6 Pin 6	Not Installed
P6 Pin 7	Not Installed
P6 Pin 8	Not Installed
P6 Pin 9	Not Installed
P6 Pin 10	Not Installed
P6 Pin 11	Not Installed
P6 Pin 12	Not Installed

5 Specifications

Physical	
Housing	Plastic enclosure.
Dimensions (W x L x H)	1.5 **x** 4.4 **x** 3.3 in. (38 **x** 112 **x** 84 mm)
Nominal Weight	4.8 oz (136 g)
Shipping Weight	1 lb (453 g) packaged, including the external AC power supply and manual.
Color	Light gray.

Environmental	
Temperature	0 to 40 °C, operating.
Relative Humidity	90%, non-condensing.

Electrical	
AC Power	External AC power supply included.
Voltage Range:	110 to 240 VAC $\pm$ 10%
Current:	200 mA
DC Power	DC jack, positive center.
Power Supply Voltage:	12 VDC
Current:	110 mA
Power:	1.3 W

NOTE

All specifications are subject to change without notice. Kalatel believes that all specifications are correct, however no liability is assumed for omissions or errors.

6 Appendix

6.1 RS-485 Addressing and Connections

NOTE

The Philips ProBridge (CBR-PB2-PHILIPS) is not an addressable device and requires no user settings. The device simply acts as an interpreter, translating the remote telemetry commands into a format useable by the P/T/Z controller.

Each camera input, whether a fixed camera or a Pan/Tilt/Zoom (P/T/Z) unit, is connected to a Kalatel unit input. The Kalatel unit has an RS-485 network address, and so does the P/T/Z camera receiver. This address determines when the telemetry receiver responds to commands sent over the RS-485 data line. Consult the PTZ installation manual for specific instructions on setting these addresses.

NOTE

The CBR-PB2-PHILIPS can be used in conjunction with multiple Kalatel units, and/or keypads controlling the domes and the Kalatel units. Since the ProBridge unit is a terminated device, care should be used when using this unit in a mixed application.

The RS-485 network is a multi-drop wiring configuration of maximum length 3,000 feet (1000 meters). RJ45 cable and RJ45 connectors are used for most hookups (see the installation/connection diagram). Some equipment manufactured by Kalatel may use flying leads, terminal blocks, or other types of connections.

Most units have looping RS-485 network connectors. Either socket can be used. Do not use third-party RS-485 equipment without first consulting Kalatel Technical Support for information on compatibility with other Kalatel equipment.

RS-485 Wire Specification
#24 AWG, twisted pair with shield (2-wire).
Less than 16 pF per foot, nominal.
Less than 25 ohms per 100 foot, nominal.
2-wire: Belden 9842
4-wire: Belden 9844

6.2 Philip AutoDome Addressing

The Philips AutoDome can be addressed from 1 to 9998. The CBR-PB2-PHILIPS ProBridge can control camera addresses from 1 to 9998, however the CBR-KB3 keyboard can control cameras from 1 to 1024. WaveReader software can only control cameras from 1 to 8160.

Camera Mapping

RS485 Network Address	Camera Address	AutoDome Address
001	1 - 32	0001 – 0032
002	1 – 32	0033 – 0064
003	1 – 32	0065 – 0096
004	1 – 32	0097 – 0128
005	1 – 32	0129 – 0160
006	1 – 32	0161 – 0192
007	1 – 32	0193 – 0224
008	1 – 32	0225 – 0256
009	1 – 32	0257 – 0288
010	1 – 32	0289 – 0320
011	1 – 32	0321 – 0352
012	1 – 32	0253 – 0384
013	1 – 32	0385 – 0416
014	1 – 32	0417 – 0448
015	1 – 32	0449 – 0480
016	1 – 32	0481 – 0512
017	1 – 32	0513 – 0544
018	1 – 32	0545 – 0576
019	1 – 32	0577 – 0608
020	1 – 32	0609 – 0640
021	1 – 32	0641 – 0672
022	1 – 32	0673 – 0704
023	1 – 32	0705 – 0736
024	1 – 32	0737 – 0768

RS485 Network Address	Camera Address	AutoDome Address
025	1 – 32	0769 – 0800
026	1 – 32	0801 – 0832
027	1 – 32	0833 – 0864
028	1 – 32	0865 – 0896
029	1 – 32	0897 – 0928
030	1 – 32	0929 – 0960
031	1 – 32	0961 – 0992
032	1 – 32	0993 – 1024
--	--	--
255	1 – 32	8129 – 8160

> **NOTE**
>
> Philips AutoDome Addresses are calculated as follows:
>
> Philips AutoDome Address = Camera Address + 32 X (Network Address – 1)

Philips Data Converter Unit Switch Setting

Set the switches on the LTC8780 as follows:

S101: Switches 1, 3, and 4 set to **OFF**. Switch 2 set to **ON**.

**S102:** Switches 1 –3 set on **ON**, switch 4 set to **OFF**.

See Philips LTC8780 manual for details.

6.3 Using Kalatel Keypads

Keyboards (CBR-KB3/J and KTD-405) are typically used to provide initial configuration of the Philips AutoDome for setting addresses and presets.

> **NOTE**
>
> In some specific cases keyboards may be used in conjunction with the CBR-PB2-PHILIPS units where multiple Kalatel units are being controlled via one or more local Keyboard. Available keyboards are only involved when an RS-485 is configured with CBR-KB2/J, CBR-KB3/J and KTD-405 Keyboards. Please contact Technical Support for additional instructions concerning these special installations.

ALT Key   Shift Key   Aux Keys

Preset Key
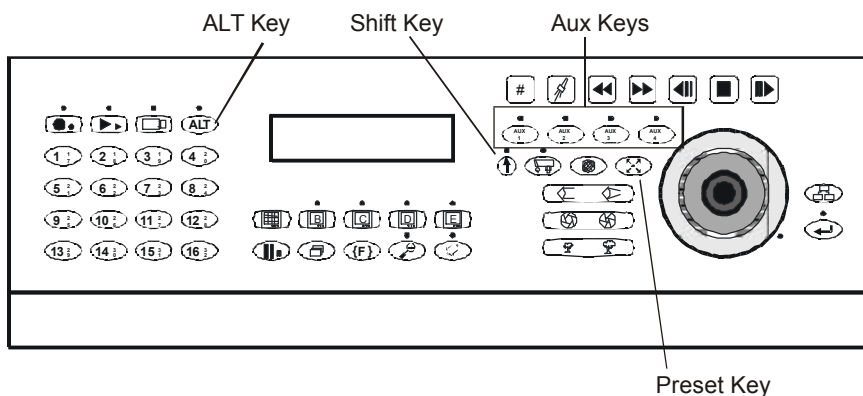
Keyboard Layout

6.4 AUX Operations

The remote keyboard has 8 AUX function keys that can be assigned to do some Philips AutoDome features as follows:

Remote Keypad	Fuction
Aux1 On/Off	Scan
Aux2 On/Off	Auto Pan
Aux3 On/Off	Continuous Playback A Start/Stop
Aux4 On/Off	Continuous Playback B Start/Stop
Aux5 On/Off	Record Sequence A
Aux6 On/Off	Record Sequence B
Aux7 Momentary	Preset Tour Start. Move Joystick to stop.
Aux8 Momentary	Start Advanced Menu Mode.

6.5 Preset Operations

The Philips AutoDome can store up to 99 preset operations (1-99). With the remote keyboard, the number of presets that can be set up is 32 (1-32). With WaveReader, the number of presets that can be set up is 16 (1-16).

Preset Setup for CBR-KB Keyboard

To set a new Preset position:

1. Move the camera to the desired position by using the joystick or arrow keys.

2. Press Preset key twice. The LCD will display: "Set Preshot Number?" Select camera key number 1 to 16 (17 to 32 with Shift key turned on) to set the preset number from 1 to 32.

3. Verify by calling up that preset number: Move to another position then press Preset key once. The Keyboard LCD will display: "Go to Preshot Number?" Select the preset number to go to that preset position.

To clear an existing Preset position:

1. Press the Preset key twice. The Keyboard LCD will display: "Set Preshot Number?" Select the camera key to the desired preset number. The Dome will go to that existed Preset position and clear this preset.

2. Move the Dome to the new position by using the joystick or arrow keys.

3. Repeat step 1: Press Preset key twice. The KB3 LCD will display: "Set Preshot Number?" Select the camera key to the preset number. Now, the new preset position is stored.

4. Verify by calling up that preset number: Move to another position then press Preset key once. The KB3 LCD will display: "Go to Preshot Number?" Select the preset number to go to that preset position.

Preset Setup WaveReader

To set a new Preset position:

1. Navigate the camera to the desired location, select the desired preset from the drop down list box, then click **Set**.

2. To send the camera to the desired preset, select the preset from the drop down list box, then click **Go To**.

7 Warranty Information

7.1 Factory Service

If the unit requires factory service, contact the dealer who supplied the unit to you for the correct procedures on returning the unit to the factory or the nearest factory service center.

If the dealer is not available, contact the manufacturer of the unit as detailed below and request a Return Material Authorization number (RMA). The unit's serial number must be provided before an RMA number can be issued. Units returned to the factory for service must have freight and insurance prepaid, and must show the RMA number clearly on all shipping documents. The failure symptoms must be clearly described by the operator and enclosed with the unit together with a copy of the original supplier's invoice. Failure to comply with these instructions will delay service of the unit, and may result in the unit not being accepted by the Repair Center.

7.2 Factory Address

GE Security

Attention: Repair Center

3050 Red Hill Ave.

Costa Mesa, CA 92626

United States of America

Telephone: 800-343-3358 (7:00 AM to 4:30 PM, Pacific Time)

In Oregon: 541-754-9133

Fax: 541-754-7162 (24 hours a day)

For warranty information, see the following page.

7.3 Warranty

GE Security warrants all of its equipment for three years from the date of purchase. This warranty covers any defects in materials and workmanship. Equipment failures that are due to improper installation, modification, abuse, or acts of nature will not be covered by this warranty. The repair department will evaluate all equipment returned for repair to determine warranty coverage. The Tech Support Manager will resolve any questions that may arise during evaluation to make a final determination.

The warranty specifically covers any defects in material and workmanship and does not cover equipment that has been abused, damaged, or modified.

For all warranty repairs, GE Security will cover all costs, including parts, labor, and shipping. Repaired equipment will be returned via the same method of shipment in which it was received. If a customer requests a faster return shipment, the difference will be charged.

For all non-warranty repairs, the customer will be billed for parts, labor, and shipping. Labor will be billed in half-hour increments.

Note: Customers requesting an estimate prior to repair will be notified by phone. If they cannot be reached, they will be notified by fax. If we are unable to reach the contact person for repair authorization after one phone attempt and two fax attempts, the equipment will be returned without being repaired. We will hold equipment no longer than two weeks.

Advance Replacement Policy

When an advance replacement is required, we will send the customer replacement equipment from our stock and receive the returned product in exchange. The received equipment will be evaluated and the repair department will determine whether it is a warranty replacement. If it is non-warranty, see our repair policy above for details. The following guidelines will be used for all advance replacements:

- Fewer than 45 days from purchase, GE Security will replace the product with new equipment.

- From 45 days to 1 year from purchase, GE Security will replace the product with refurbished equipment.

- From 1 year to 3 years from purchase, the product must be sent in for repair. Advance replacements will be sent for a fee of $100.

If you have questions about this policy, please contact GE Security's RMA Department at 800-469-1676.