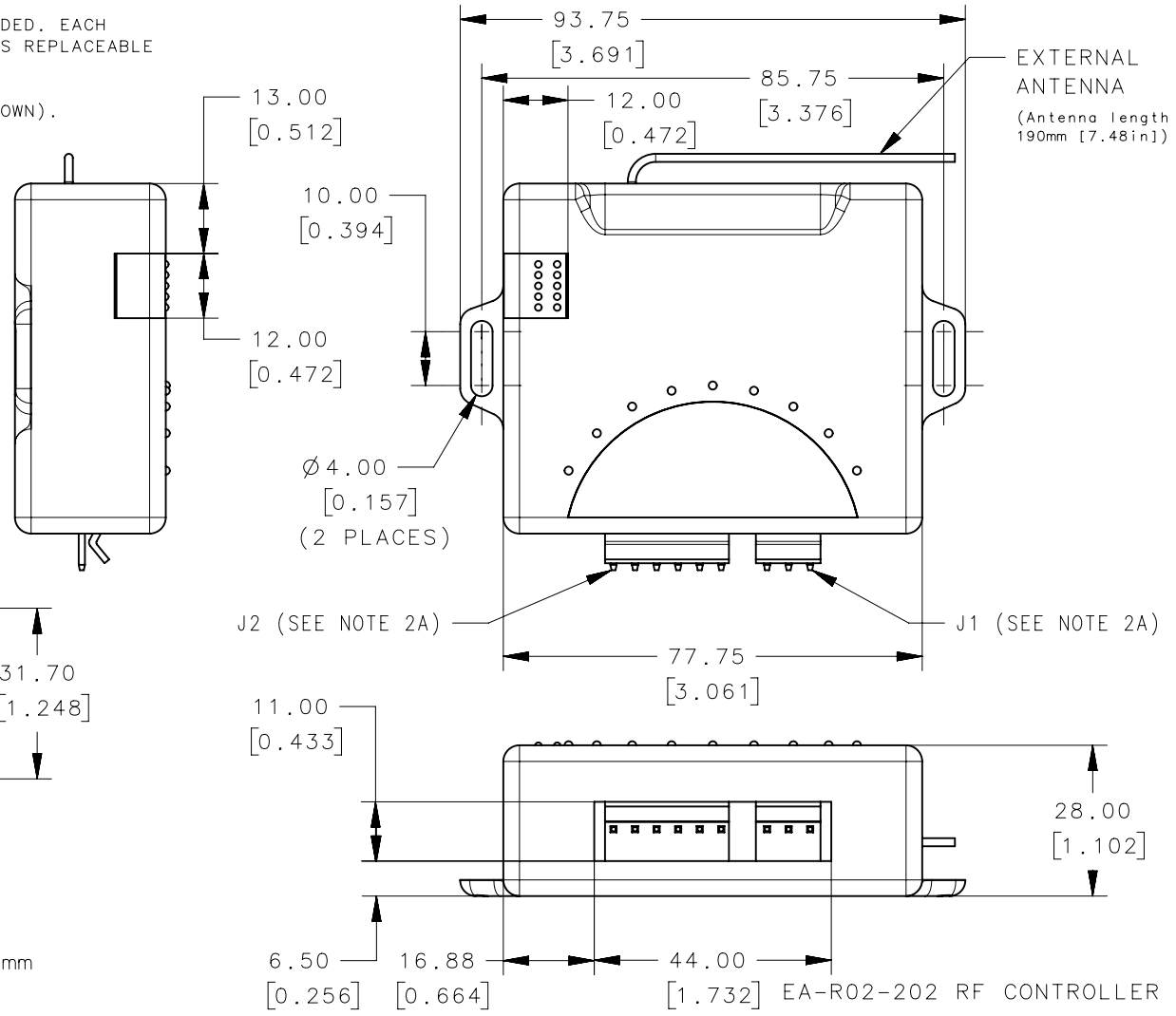
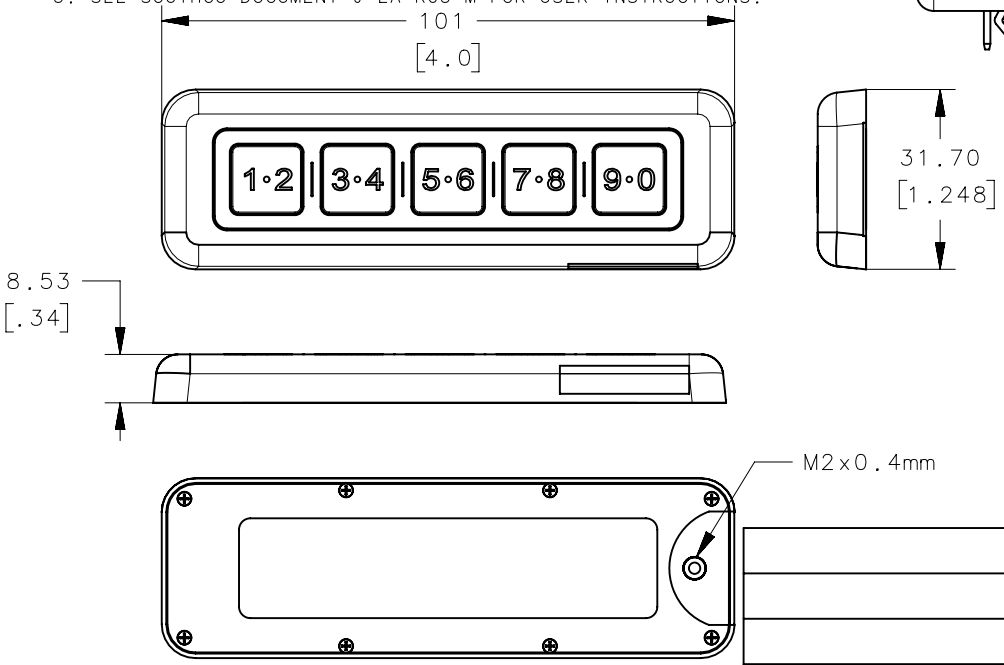
NOTES:
1. KEYPAD TRANSMITTER: ONE KEYPAD TRANSMITTER (TX) IS INCLUDED PER CONTROLLER KIT. RECEIVER (RX) SUPPORTS UP TO FOUR COMPATIBLE TRANSMITTERS. FOR ADDITIONAL KEYPAD TRANSMITTERS ORDER P/N EA-R03-103 SEPARATELY.
   THE RECEIVER (RX) IS PRE-PROGRAMMED TO WORK WITH THE KEYPAD PROVIDED. EACH KEYPAD TRANSMITTER REQUIRES ONE TYPE CR2032 3V BATTERY. BATTERY IS REPLACEABLE BY OPENING THE TRANSMITTER ENCLOSURE.
2. RECEIVER MODULE:
   a. ALL CONNECTIONS TO BE MADE USING PROVIDED WIRE HARNESS (NOT SHOWN).
      i. J1 - POWER & AUX CONNECTOR (TYCO P/N 640250-3).
      ii. J2 - LOCK & UNLOCK RELAY CONNECTOR (TYCO P/N 640250-6).
   b. POWER:
      i. SUPPLY VOLTAGE: 12VDC (±10%)
      ii. IDLE CURRENT: 10mA (MAXIMUM), NO ATTACHED DEVICES
      iii. OPERATING CURRENT: 1A (MAXIMUM), NO ATTACHED DEVICES
3. THE RECEIVER SHOULD BE MOUNTED IN A LOCATION TO MINIMIZE RF SHIELDING. THE RECEIVER SHOULD BE PROTECTED AGAINST EXPOSURE TO WATER. TWO SCREW BOSSES ARE PROVIDED FOR MOUNTING. RECEIVER MOUNTING HARDWARE NOT PROVIDED - RECOMMENDED 6-32 OR M4 SCREWS. DO NOT OVERTIGHTEN.
4. OPERATING RANGE FOR THE SYSTEM IS APPROXIMATELY 60 FEET IN UNOBSTRUCTED OPEN AIR AND STANDARD CONDITIONS. THE INSTALLED RANGE WILL BE AFFECTED BY THE AMOUNT OF SHIELDING BETWEEN THE RECEIVER AND TRANSMITTER.
5. SEE SOUTHCO DOCUMENT J-EA-R03-M FOR USER INSTRUCTIONS.

REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
B	03AUG2011	MJS/WJB	PRN: P2011-1009



EA-R02-202 RF CONTROLLER



EA-R03-103 KEYPAD

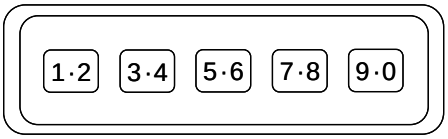
SURFACE AREA XXXXXmm²	THIRD ANGLE PROJECTION	southco® CONNECT·CREATE·INNOVATE
VOLUME XXXXXmm³	MILLIMETERS [IN]	DESCRIPTION: KEYPAD KIT
PROPRIETARY ITEM	TOLERANCES UNLESS OTHERWISE NOTED	SIZE A4 / SYSTEM NX / DWG NO. J-EA-R03
EXCEPT FOR USES EXPRESSLY GRANTED IN WRITING, INFORMATION DISCLOSED HEREON IS CONFIDENTIAL AND ALL RIGHTS, PATENT AND OTHERWISE, ARE RESERVED BY SOUTHCO, INC.	ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY.	DRAWN BY RJB/WJB / DATE 26JAN2010 / SCALE 0.75:1 / SHEET 1 OF 1
	PER ASME Y14.5M-1994	

EA-R03 Wireless Keypad Controller Kit Operating Instructions

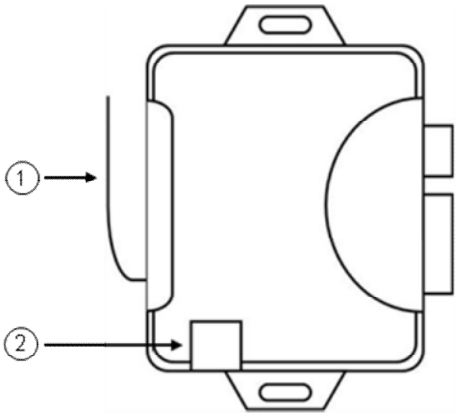
Package Contents

- EA-R02-202 Receiver
- EA-R03-103 Wireless Keypad Transmitter
- Keypad Mounting Packet
- Power/Auxiliary Connector Wire Harness
- Lock/Unlock Relay Connector Wire Harness
- User Instructions

EA-R03-103 Wireless Keypad Transmitter



EA-R02-202 Receiver



1. Antenna
2. Access Tab for Programming Switches

Features

- Receiver supports up to four transmitters (one pre-programmed wireless keypad transmitter included with kit)
- Re-programmable user code (3 to 7 digits)
- Selectable LOCK/UNLOCK pulse duration (250ms or 10sec)
- Backlit keypad keys
- Two user-configurable lock/unlock relay outputs
- One 12V auxiliary relay output.

Specifications

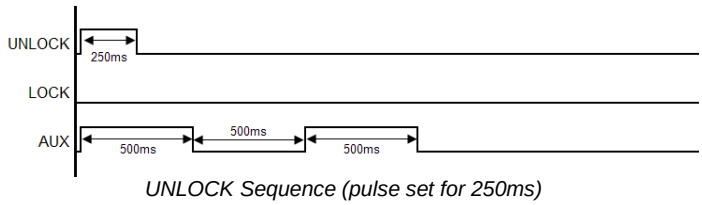
Receiver Power:	12VDC (±10%)
Receiver Idle Current:	10mA (maximum), no attached devices
Receiver Operating Current:	100mA (maximum), no attached devices
Receiver Outputs:	three Form C relays, rated 15A at 14VDC
Receiver Operating Temp:	-20 to 80°C
Operating Range:	up to 60 feet / 18 meters (open air)
Operating Frequency:	433.92MHz
Coding Type:	Fixed Code (24-Bit)
Transmitter Power:	Type CR2032 3VDC battery

Normal Use

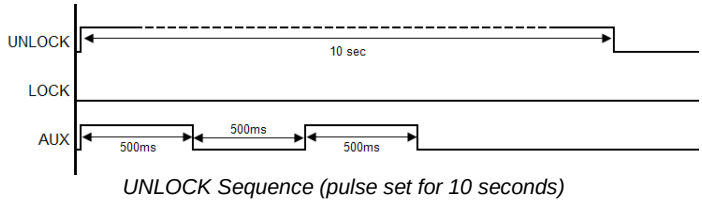
The keypad transmitter can be used to lock and unlock the system.

Unlocking the System

Enter the user code (default 1234), then press the 1·2 button. The system will unlock and the auxiliary output will pulse twice, as shown in the figure below:



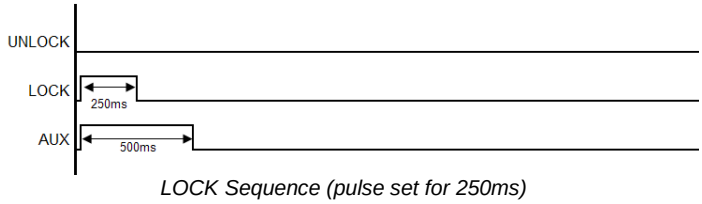
UNLOCK Sequence (pulse set for 250ms)



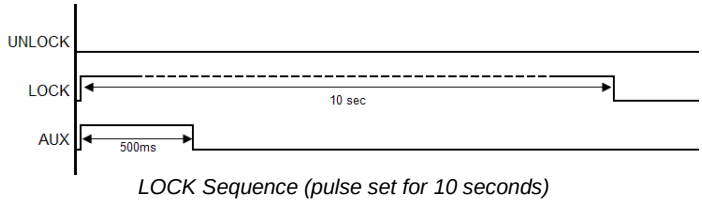
UNLOCK Sequence (pulse set for 10 seconds)

Locking the System

Enter the user code (default 1234), then press the 3·4 button. The system will lock and the auxiliary output will pulse once, as shown in the figure below:



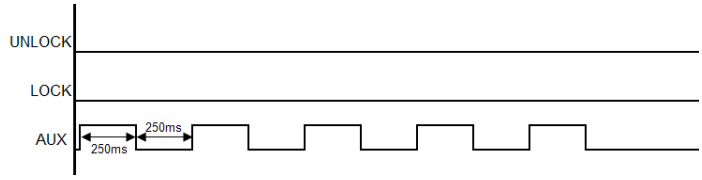
LOCK Sequence (pulse set for 250ms)



LOCK Sequence (pulse set for 10 seconds)

Pulsing Auxiliary Output

Enter the user code (default 1234), then press the 5·6 button. The auxiliary output will pulse five times, as shown in the following figure:



EA-R03 Wireless Keypad Controller Kit Operating Instructions

Changing the User Code

The unit is shipped with a default user code of 1234, but can be changed to a 3-7 digit number. To change the user code:

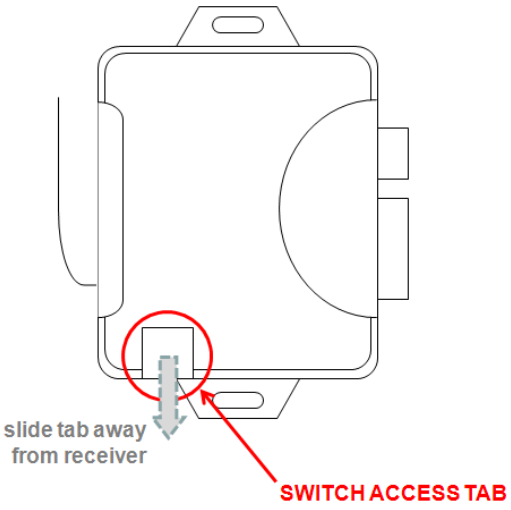
1. Press the 9·0 button for approximately 3 seconds. Keypad lights will flash twice then stay on.
2. Enter the current user code. When entering the last digit of the current user code, hold the button for approximately 2 seconds. Keypad lights will flash once then stay on.
3. Enter the new user code. When entering the last digit of the new user code, hold the button for approximately 2 seconds. Keypad lights will flash once then stay on.
4. Repeat the new user code. When entering the last digit of the new user code, hold the button for approximately 2 seconds.
5. Keypad lights will flash once then turn off. The user code has been successfully changed.

If the keypad lights turn off during Steps 1-4, then programming has been timed out and the process needs to be repeated from Step 1.

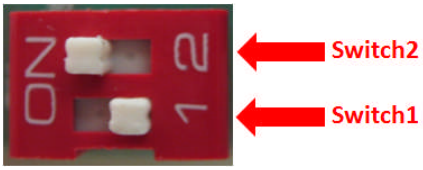
⚠ **NOTE:** Refer to "**Resetting the User Code**" section if the user code is lost or forgotten.

Enrolling Transmitters and Setting LOCK/UNLOCK Pulse Duration

Enrolling additional transmitters or setting the LOCK/UNLOCK pulse duration will require access to the programming switches on the EA-R02-202 receiver's circuit board. To access the switches, remove the switch access tab by sliding the tab away from the receiver unit as shown below.



Two switches will be visible thru the tab window (default positions shown):



- Switch1 – Used to enroll transmitters. Default setting = "OFF" position.
- Switch 2 – Used to set LOCK and UNLOCK pulse duration:

Switch2 Setting	Duration
ON (default)	250ms (default)
OFF	10sec

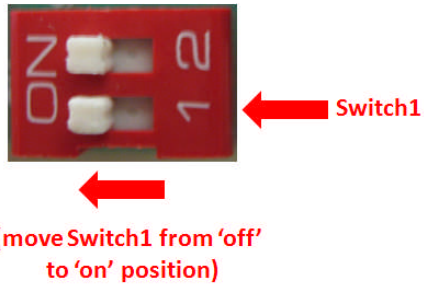
⚠ **NOTE:** The switch access tab must always be re-installed when done changing the settings.

Enrolling Transmitters

The EA-R03 kit is shipped with one EA-R02-202 receiver and one pre-enrolled EA-R03-103 keypad transmitter. This transmitter is ready to use with the receiver.

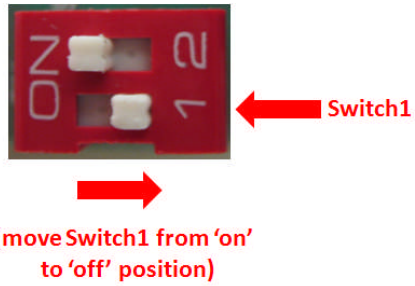
Up to four compatible transmitters can be enrolled with the receiver. To enroll a transmitter:

1. Verify receiver has 12VDC power supply.
2. Move Switch1 from OFF to ON position, as shown below. The auxiliary output will turn on.



3. Within six seconds of moving Switch1 to the ON position, enter the current user code of the new keypad (e.g. 1234), then press the 1·2 button. The auxiliary output will pulse to indicate the transmitter has been enrolled.
4. If additional keypads are to be enrolled, enter the current user code of the new keypad (e.g. 1234), then press the 1·2 button within three seconds of enrolling the previous transmitter. The auxiliary output will pulse twice to indicate transmitter #2 has been enrolled, three times to indicate transmitter #3 has been enrolled, and four times to indicate transmitter #4 has been enrolled.

5. Move Switch1 from ON to OFF position, as shown below:



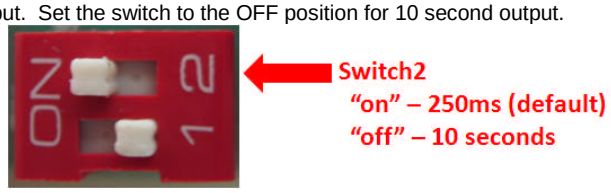
6. Issue a LOCK or UNLOCK command from the transmitter to verify successful enrollment.

⚠ **NOTE:** Enrolling any transmitters after moving Switch1 from OFF to ON will cause **all previous transmitters that were enrolled to be erased and require re-programming to that receiver**.

Setting LOCK/UNLOCK Pulse Duration

The EA-R02-202 receiver is shipped with the LOCK/UNLOCK pulse duration set to 250ms.

The pulse duration of the LOCK and UNLOCK outputs can be set by setting Switch2, shown below. Set the switch to the ON position for 250ms output. Set the switch to the OFF position for 10 second output.

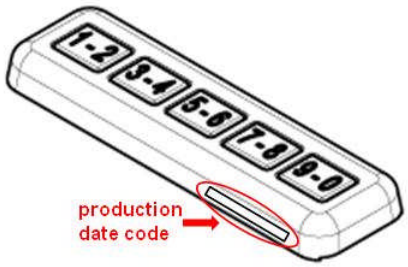


⚠ **CAUTION:** Be sure the LOCK/UNLOCK pulse duration is appropriate for the latch or actuator connected to the EA-R02-202 receiver.

Resetting the User Code

If the keypad user code is lost or forgotten, it is possible to reset to the factory default (1234). The keypad will remain enrolled with the receiver if it is reset.

The keypad is shipped with a production date code label affixed to the housing as shown in the following location:



The production date code is unique to each keypad. Each production date code corresponds to a unique supervisor code that is required to reset the user code. To obtain the supervisor code, contact Southco and provide the production date code for your keypad.

Once the supervisor code is provided, perform the following to reset the user code to 1234:

1. Press the 9·0 button for approximately 3 seconds. Keypad lights will flash twice then stay on.
2. Enter the supervisor code provided by Southco. When entering the last digit of the supervisor code, hold the button for approximately 3 seconds. Keypad lights will flash, then turn off. If the keypad is near the receiver, the receiver will issue an 'unlock' command and the auxiliary output will pulse.

⚠ **NOTE: It is important to keep the production date code. The keypad user code cannot be reset without the production date code.** It is suggested the user writes the production date code here and store these instructions in a safe location. After writing down the production date code and storing the instructions, the label should be removed from the keypad.

Production Date Code: _____

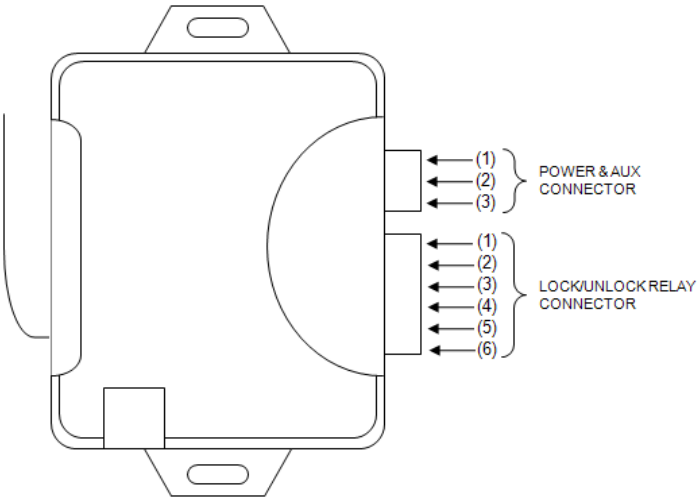
Transmitter Battery Replacement

Replace the transmitter battery with a Type CR2032 3VDC battery. The battery can be replaced by removing the screws on the back of the keypad, then opening the enclosure.

EA-R03 Wireless Keypad Controller Kit
Operating Instructions

Receiver Unit Mounting and Wiring

The receiver should be mounted in a location to minimize RF shielding. Two mounting screw bosses are provided to mount the receiver.



Power Supply and Auxiliary Output Connector

Pin #	Description
1	VCC (+12VDC Power Supply Input)
2	GND (Ground)
3	Auxiliary Output (Vout = VCC)

LOCK & UNLOCK Relay Connector

Pin #	Description
1	LOCK Relay – Normally Closed (typically connect to GND)
2	LOCK Relay – Common
3	LOCK Relay – Normally Open (typically connect to VCC)
4	UNLOCK Relay – Normally Closed (typically connect to GND)
5	UNLOCK Relay – Common
6	UNLOCK Relay – Normally Open (typically connect to VCC)

FCC Compliance Statement

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 of the device.

R&TTE Compliance Statement

This equipment complies with all the requirements of DIRECTIVE 1999/5/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL of March 9, 1999 on radio equipment and telecommunication terminal Equipment and the mutual recognition of their conformity (R&TTE).

The R&TTE Directive repeals and replaces in the directive 98/13/EEC (Telecommunications Terminal Equipment and Satellite Earth Station Equipment) as of April 8, 2000.

Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

EU Countries Intended for Use

The ETSI version of this device is intended for home and office use in Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

The ETSI version of this device is also authorized for use in EFTA ember states: Iceland, Liechtenstein, Norway, and Switzerland.

EU Countries Not Intended for Use

None.

CE

For technical support of this product contact: info@southco.com
or visit: www.southco.com.