Interfacing RadioRA® 2 with Security and Fire Alarm Systems

Overview

RadioRA 2 is frequently interfaced with other systems within a home, such as security and fire alarm systems. Audible alarms are commonly utilized with these systems; however, the integration of lighting adds an enhanced level of security and peace of mind for the homeowner and their family. With the *RadioRA 2* Visor Control Receiver (model RR-VCRX), it is possible to turn on selected lights to a preset level, and/or have other lights locked on full, and/or have different lights flash during an alarm condition.

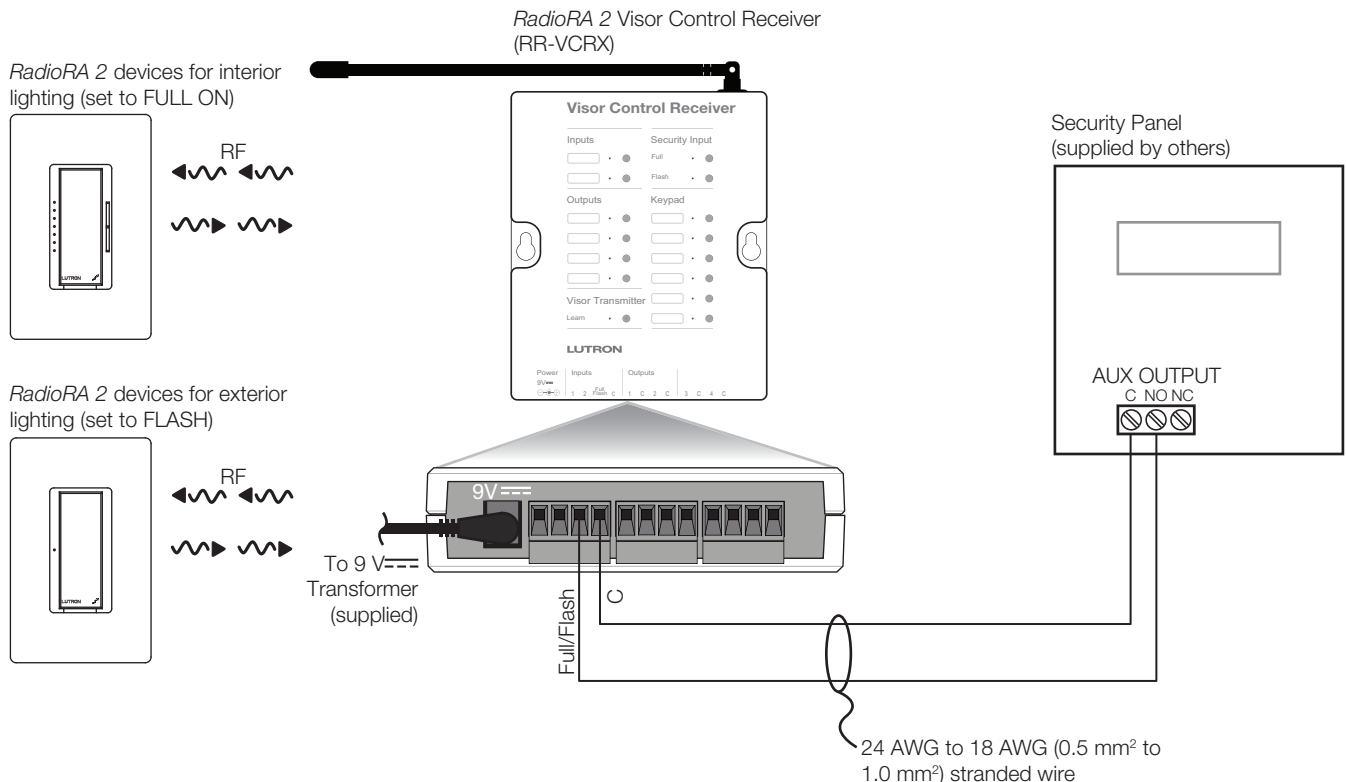### Interfacing with Security Systems

When interfacing with security systems, a common application is to make exterior lights flash, thereby alerting neighbors and making it easier for security/police personnel to locate the home. Interior lights are typically locked to FULL ON, scaring off intruders. Alarm conditions also disable *RadioRA 2* keypads, so intruders cannot control the lights. A maintained contact closure output must be provided by the security system installer. The output must be programmed to latch during an alarm condition. Most security systems have auxiliary relay outputs for this purpose.

Interfacing with Fire Alarm Systems

With the *RadioRA 2* system, it is possible to light an emergency exit pathway from all bedrooms at a low light level and flash exterior lights, making it easier for rescue personnel to locate the home. Just as car high beams do not work well in dense fog, bright lights do not work in a smoke-filled house. This feature is a must for homeowners with children living at home. Interfacing with fire alarm systems requires the same type of maintained contact closure from the system installer.
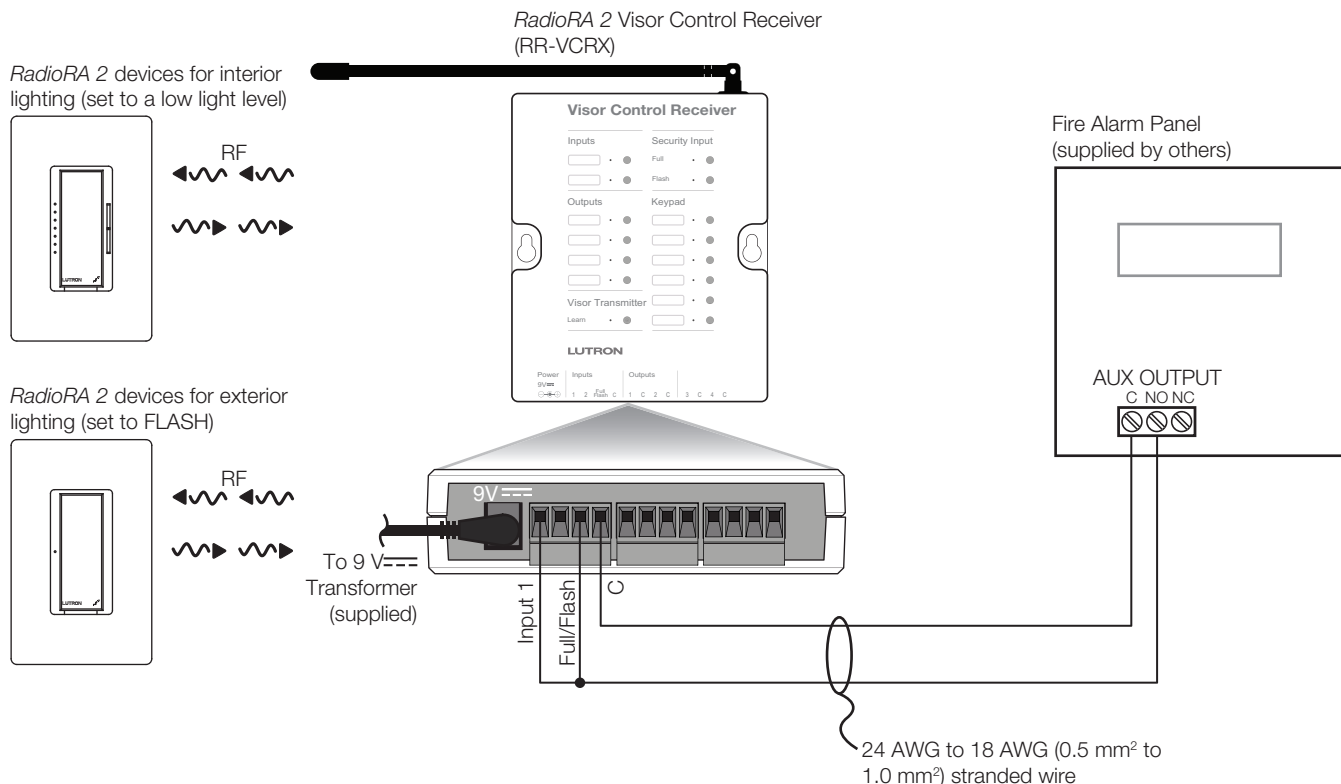
Wiring

Security Alarm Wiring for Visor Control Receiver

Technical Support 24/7 — 800.523.9466

Wiring (continued)

Fire Alarm Wiring for Visor Control Receiver

RadioRA 2 Visor Control Receiver (RR-VCRX)

RadioRA 2 devices for interior lighting (set to a low light level)

RadioRA 2 devices for exterior lighting (set to FLASH)

To 9 V⎓ Transformer (supplied)

Fire Alarm Panel (supplied by others)

AUX OUTPUT

24 AWG to 18 AWG (0.5 mm² to 1.0 mm²) stranded wire

Programming

RadioRA 2 Visor Control Receiver (RR-VCRX) should be set up as follows to achieve the above mentioned operation:

SECURITY

"FULL"- Select interior lights to be assigned. Typically at least one RadioRA 2 device from each room is assigned. This is usually enough light to alert the homeowner and scare any unwanted intruders.

"FLASH" - Assign all exterior lights controlled by the RadioRA 2 system. If none are controlled, use interior lights that are highly visible from outside the residence.

FIRE ALARM

"INPUT or CCI 1" - (Maintained Closure) Assign exit pathway and bedroom lights for a predetermined safety exit. Use level set mode to adjust lighting intensity to 50% or lower, depending on pathway.

"FLASH" - Assign exterior lights controlled by the RadioRA 2 system. If none are controlled, use interior lights that are highly visible from outside the residence.

Operation

Once the safety systems have been programmed to alert the *RadioRA 2* system, and the *RadioRA 2* system has been set-up and programmed, operation is completely automatic.

NOTES:

• Any contact closure connected to "FULL/FLASH" input of the Visor Control Receiver will lock out all control of the assigned *RadioRA 2* devices. No local changes can be made at dimmers or keypads until the Alarm Condition is reset at the security/fire panel.

• Fire and security outputs can be tied together to access the same "FLASH" scene on the Visor Control Receiver, provided the outputs are isolated relay contact closures.

• All maintained contact closures from other equipment to the Visor Control Receiver can be dry or solid-state outputs.

— Inputs can be used with ground-referenced, solid-state outputs if the outputs have an on-state saturation voltage of less than 1 V$\overline{}$ @ 2 mA, and an off-state leakage of less than 1 μA @ 9 V$\overline{}$.

— Dry contact or solid-state outputs must be capable of switching 15 V$\overline{}$ @ 10 mA.

— Outputs must stay in the open or closed state for at least 40 milliseconds to be recognized by the receiver.

— If there is any question as to whether a device is compatible with these specifications, contact the manufacturer of the device.

Lutron Contact Numbers

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