



The Leader in Architectural Audio™

GETTING STARTED GUIDE

NAVIGATOR K1 KEYPAD

PROGRAMMING:

- The Navigator Manager software is required for programming the Navigator K1 keypad.
- You can download the latest versions of the Navigator Manager software and of this Installation Manual at no charge from our website: www.sonance.com.
- If you need to learn additional IR codes into the Navigator Manager software, you can purchase the OptiLinQ IR Learner (p/n 92071, sold separately), or you can use a DAB1 Controller.

If your computer does not have a serial port, you can use an IO Gear USB-to-serial port adapter (sold separately) to connect the K1 serial cable to the computer's USB port. For more information on this part and its installation, visit the K1 area of the Sonance website.

WWW.SONANCE.COM

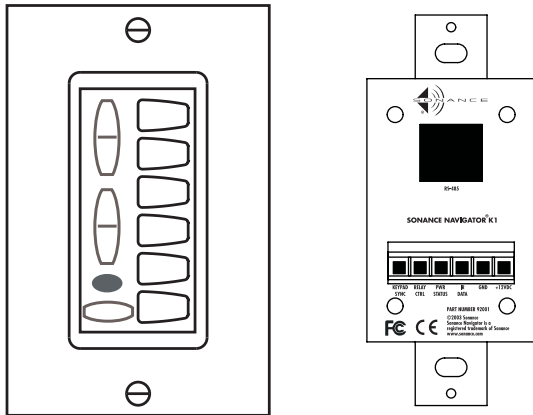
Note: The IR receiver pass-through is disabled as a factory default to avoid inadvertent IR system interference. It can be enabled via the Navigator Program Manager Software at the time of installation.

IN THIS PACKAGE:

- Navigator K1 Keypad with white wall plate and mounting hardware
- Getting Started card
- Extra button membranes
- Programming cable

Before going any further, please record the serial number of your Navigator K1 here for future reference. Serial # _____

FIGURE 1



WIRING:

The 6 wire screw connector to be used with a Navigator Harbor or other IR only control system:

A minimum of 3-conductor wire is required for basic operation (+12 VDC, GND, and IR DATA). Consult the Navigator Program Manager manual for a more detailed description of the function of the additional pins. If CAT5 cable is utilized and all 6 positions are connected, we suggest adopting the following code.

K1 WIRING

- +12VDC - Brown
- GND - Brown/White
- IR DATA - Blue
- PWR STATUS - Blue/White
- RELAY CTRL - Orange
- KEYPAD SYNC - Green/White

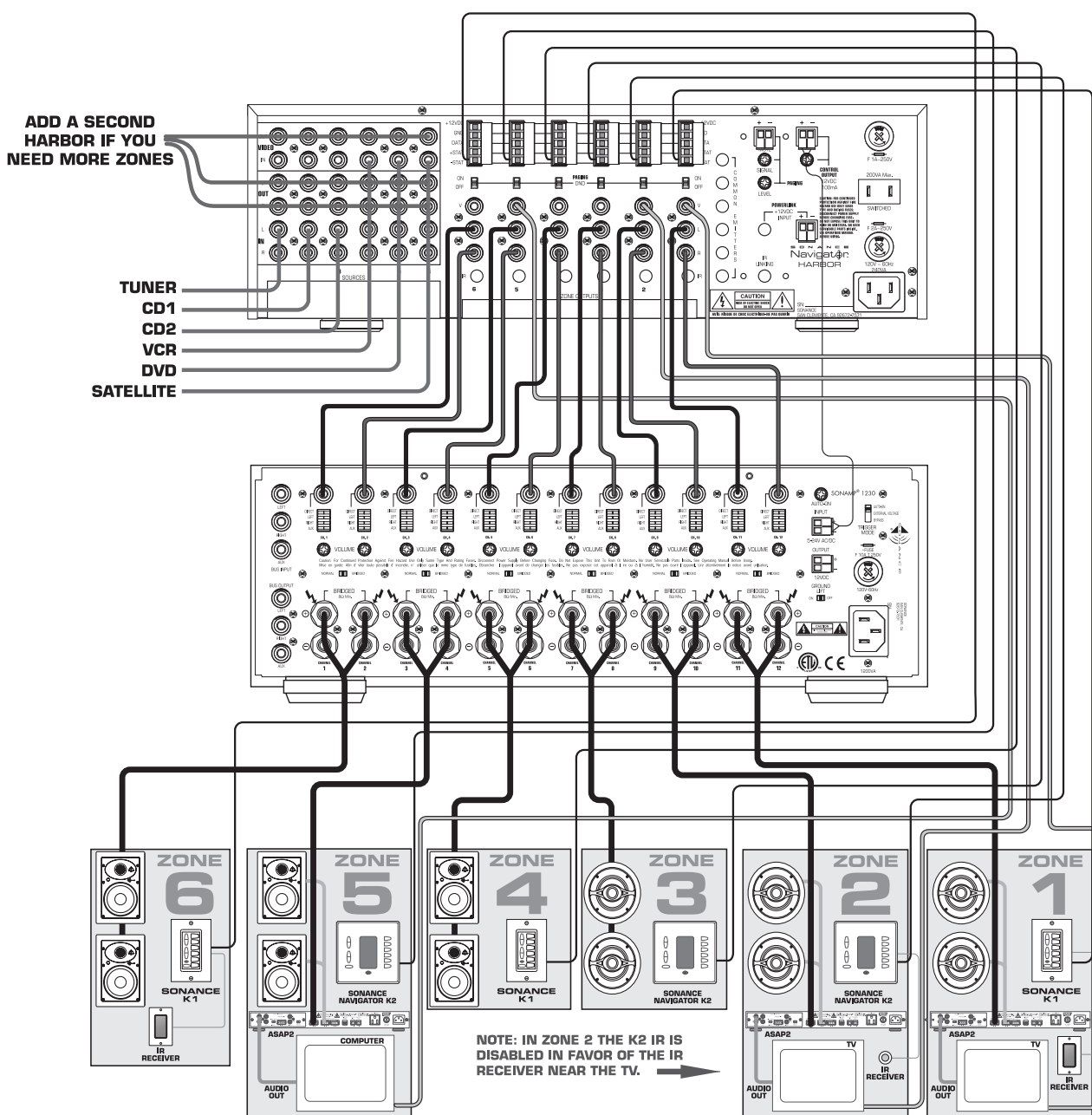
NOTE: If you install the Navigator K1 into a pre-existing IR-based system, confirm the wiring / color coding to ensure that you are connecting the correct signals to the proper connection point.

- We recommend a maximum length of cable per gauge as follows: CAT5 (24 AWG) cable maximum of 250 feet, 20 AWG cable maximum of 500 feet, and 18 AWG cable maximum of 1000 feet. Note: Shielded wire is not necessary and may actually cause intermittent IR control problems.
- If you are using CAT5 cable, we recommend using any unused conductors as additional +12VDC and GND wires for increased current handling capability.
- For zones with multiple keypads, you can run individual cables for each keypad or daisy chain from one keypad to the next.
- If multiple keypads are connected in a daisy chain configuration, the maximum length allowed per wire gauge should be divided by the number of keypads that the wire segment is powering. Conversely, if multiple wires are tied in parallel for +12VDC and GND connections (i.e. doubling of CAT5 cable conductors), the length allowed per wire gauge can be multiplied by the number of conductors in parallel.
- Current Requirements: The K1 draws approximately 137 mA of current when all LEDs are lit and approximately 127 when the LEDs are off.
- The Navigator K1 Keypad can also be powered by a local power supply, such as the Sonance PS1 or PS2, in combination with an OptiLinQ connector block, such as a Sonance CB1 or Navigator Dock. In this configuration, the IR DATA can travel up to 1000 feet on CAT5 (24AWG) cable.
- The Navigator Speaker Relay, when used in conjunction with the Navigator K1, adds 15mA to its current draw from the power supply. If a relay other than the Sonance Navigator Speaker Relay is utilized for external relay control, the current draw could greatly increase depending upon the coil resistance of the relay (the K1 relay CNTL output provides a 200mA maximum @12V). This will increase the total current draw of the Navigator K1 and could reduce the maximum length of cable allowed per wire gauge accordingly. Add the total current draw of all keypads and speaker relays to ensure you do not exceed the current capability of the power supply. Use a separate Sonance PS2 for additional keypads when necessary. The Sonance Navigator Harbor can supply a maximum of 1000mA to all of the zone keypad connectors.
- When utilizing the Sync connection between two keypads, the total wire length from keypad to keypad must not exceed 1000 feet.

The RS-485 port is for future use. It is inactive at this time.

FIGURE 2

SYSTEM CONFIGURATION EXAMPLE: MULTI-ZONE SYSTEM (WITH A NAVIGATOR HARBOR)



MULTI-ZONE SYSTEMS (SEE FIG. 2)

Zones 1, 2, and 5: The Navigator K1 and K2 can be used in a Harbor system together with other Sonance IR receivers (such as the PFMR1, WMR1, MR1, SMR1, or the CR1). Depending upon what combination of keypads is used, you may need to provide additional local power to supplement the Navigator Harbor power supply. The ASAP2 is used to provide automatic audio switching to local sound sources (such as a computer or television). An ASAP1 or SAT275 could be used as well. If your zone has multiple local sources, such as a television and a computer, an ASAP2 with an AL1 module installed would provide automatic switching between the house system and the 2 local sources.

Note for Zones 1 and 2: Some televisions do not allow you to disengage the television speakers to enable use of the volume controls to drive variable audio line outputs. In that case, additional equipment may be needed to provide variable line level inputs to the ASAP2.

Zones 3, 4, and 6: The Navigator K1 or K2 provides the sole means of audio control for these zones.

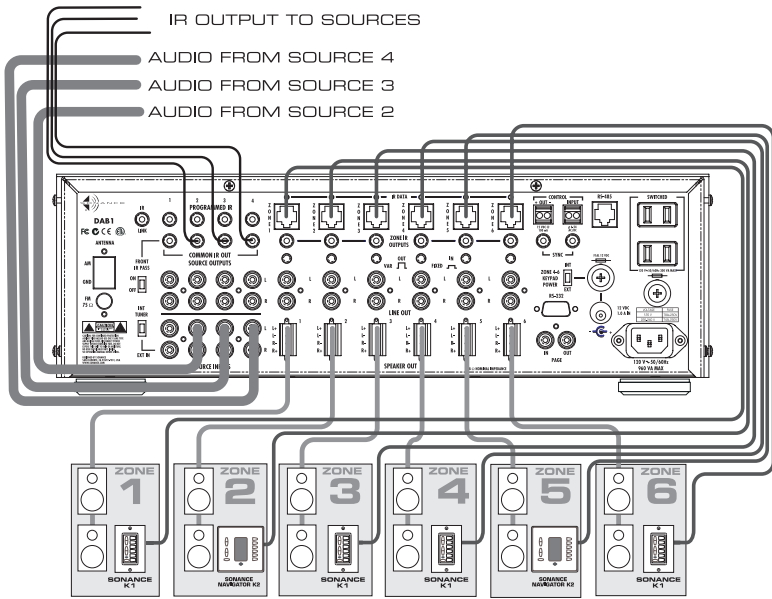
Note: In zones where a separate IR receiver is used in conjunction with a Navigator keypad (such as an MR1 near the local television source), the IR passthrough circuit on any Navigator keypad should be disabled (default) to prevent interference from IR multi-path signals.

MOUNTING:

- The Navigator K1 Keypad can be retro-fit into an existing construction by utilizing a retrofit box or P-ring.
- The Navigator K1 Keypad can also be mounted in a single-gang new construction J-box or P-ring.

NOTE: When mounting the K1 outdoors, you must mount in a waterproof box. You should also consider either disabling the IR receiver or placing the K1 so that no sunlight hits the receiver. Sunlight will cause noise on the IR line which may impact operations of IR devices throughout the system.

FIGURE 3 SYSTEM CONFIGURATION EXAMPLE: MULTI-ZONE SYSTEM (WITH A DAB1)



• Ensure that the K1 is plugged into the selected COM port. You can use the auto detect feature in the Navigator Manager software as well. Select Options then Set COM Port from the menu list at the top. Press the Auto Detect button. Your computer should detect and select the proper COM port. Press OK when done.

For all questions related to the Navigator Manager software, please refer to the software manual. This manual is downloadable from the Sonance website (www.sonance.com).

Operations:

Your Navigator K1 does not respond or appears to not be powered:

- Ensure that the unit is not in the powered-down state (press any button and you should see the keypad light up).
- Ensure that the wiring is connected properly at both ends (including pin-out).
- Ensure that the device providing power (such as a Navigator Harbor) is on.

Your Navigator K1 is not controlling your components:

- Ensure that the K1 is properly connected and powered (see above).
- Ensure that the K1 IR receiver is not being saturated with IR noise (sunlight, plasma, compact fluorescent lights, ...).

The Off button illumination changes from red to orange in the presence of IR signals (default). If the Off button is continually orange it could indicate the presence of IR noise. In this case, consider moving the keypad to another location or disabling its IR receiver and using a separate IR receiver located somewhere else in the room that isn't subject to IR interference.

- Ensure that signal is coming out of your Navigator K1 keypad (some devices, such as the Navigator Harbor, have a talk-back LED that blinks when IR signals are present on the line).

If no signal is coming out, the problem is potentially improper wiring or no loaded program. See notes above.

If signals are present, verify that the IR codes loaded into the remote control are the proper codes and that they were learned correctly.

- Ensure that the IR emitter(s) is connected properly and that it is placed properly on your equipment.

TROUBLESHOOTING:

Programming:

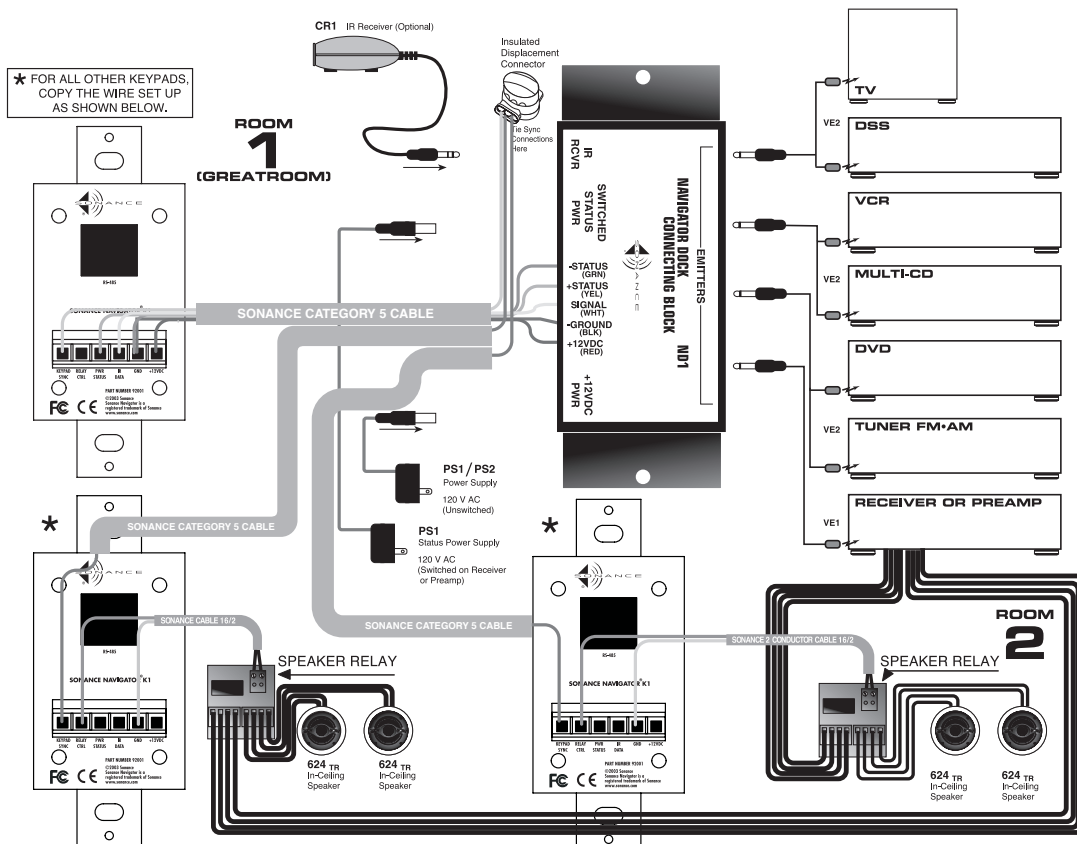
Your computer does not have a serial port but you do have a USB port:

- Purchase an IO Gear USB to serial port adapter.
- For installation procedures, please visit the Navigator K1 area of our website.

Your Navigator K1 does not communicate with your computer:

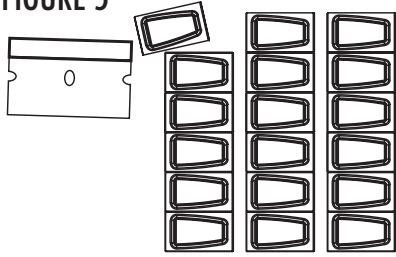
- Ensure the programming cable is connected at both ends.

FIGURE 4 SYSTEM CONFIGURATION EXAMPLE: 2-ZONE IR CONFIGURATION (WITH A CONNECTING BLOCK)



ACCESSORY MEMBRANES

FIGURE 5



The Navigator K1 extra membranes deliver additional labeled source buttons for the Sonance Navigator K1 keypad. The buttons allow the installer to retile the source buttons for virtually any application. For example: source name, home controls, etc.

SPECIFICATIONS

IR Output:	200 mA
Power Sensing Input:	1
Monitored Relay Output:	1
Power Requirement:	12VDC 137mA or 127mA depending upon state
Overall Dimensions (WxHxD):	2.75" x 4.5" x 1.5" (70mm x 114mm x 38mm)
In-wall Dimensions (WxHxD):	1.825" x 2.75" x 1.25" (46.5mm x 70mm x 32mm)
I/O Port:	One keypad sync I/O port for keeping multiple keypads synced to the same page/source
Special Features:	Fully programmable/configurable using Navigator Program Manager software Full duplex RS-485 port (RJ-45 connection) for use with future Sonance RS-485 compatible products (future upgrade)
Accessories:	1 White faceplate, extra button membranes and programming cable

TECHNICAL ASSISTANCE:

If you have any questions about the operation or installation of your Navigator K1 keypad, please call our Technical Assistance Department on any business day at: (800) 582-0772 from 7 a.m. to 5 p.m. PST (Mon - Fri). You can also send an e-mail to tech@sonance.com 24 hours, 7 days a week.

OBTAINING SERVICE:

Should your product require repair or service, contact your authorized Sonance retailer for help or use the following procedure:

1. Prior to calling, note the product model number, serial number, purchase date, and original retailer's name and address.
2. Contact our Technical Assistant Department at the number above and describe the problem. If required, a Return Merchandise Authorization (RMA) number will be issued. **IMPORTANT: Do not return the unit to Sonance without first obtaining an RMA number.**
3. If you are directed to return the unit to Sonance for repair, pack the unit in its original shipping cartons (inner & outer). Replacement packaging can be obtained from Sonance for a small charge. **Note, it is best if you place it into an additional outer "overcarton" before shipment to minimize a chance of theft in shipment.**
4. Contact United Parcel Service, Federal Express, or RPS to arrange prepaid (not collect) shipping. Do not use the United States Postal Service. **IMPORTANT: Freight collect shipments will be refused.**
5. Write the Return Merchandise Authorization number on the outside of the shipping carton.
6. For warranty work, please include a copy of the original bill of sale inside the package.

Ship the packaged unit to:

Returns Department
Sonance
212 Avenida Fabricante
San Clemente, CA 92672-7531

WARRANTY COVERAGE (USA ONLY):

If, within five (5) years from the date shown on the bill of sale, the unit fails due to a defect in workmanship or materials, Sonance will, at its option and at no charge to the purchaser, repair, or replace the components of such unit which prove to be defective.

For this warranty to be effective, the bill of sale must show that the unit was purchased from an authorized Sonance retailer. This warranty shall apply exclusively to the original purchaser and shall not apply to units purchased for industrial or commercial use.

Furthermore, this warranty shall not apply if:

1. Damage to the unit was caused by accident, abuse, or misuse;
2. The unit was modified or repaired by unauthorized personnel; or
3. The unit was not used as outlined in the operating instructions.

EXCLUSIONS AND LIMITATIONS:

The warranty set forth above is in lieu of all other warranties, express or implied, of merchantability, fitness for a particular purpose, or otherwise. The warranty is limited to Sonance products registered herein and specifically excludes any damage to any associated equipment, which may result for any reason from use with this product.

Sonance shall, in no event, be liable for incidental or consequential damages arising from any breach of this warranty or otherwise. This warranty gives you specific legal rights, and you may have other rights, which vary from state to state.

