

Instructions for Use

Eleksen iPod + Bluetooth Controller with Autolock

This document covers the operation of the ElekTex® Wearable iPod + Bluetooth Controller product. The system is designed to be built into any garment or bag product to provide controls for an Apple iPod along with an ability to handle phone calls when used with a Bluetooth mobile phone. The system connects to the iPod via the Apple 30-pin dock connector to give a “simple remote” interface.

1. Components

Eleksen supplies a Sales Sample package comprising of the following;

- 1 x ElekTex Sensor
- 1 x Electronics Interface Box
- 1 x microphone
- 1 x mains charger

The iPod controller system is laid out as follows:

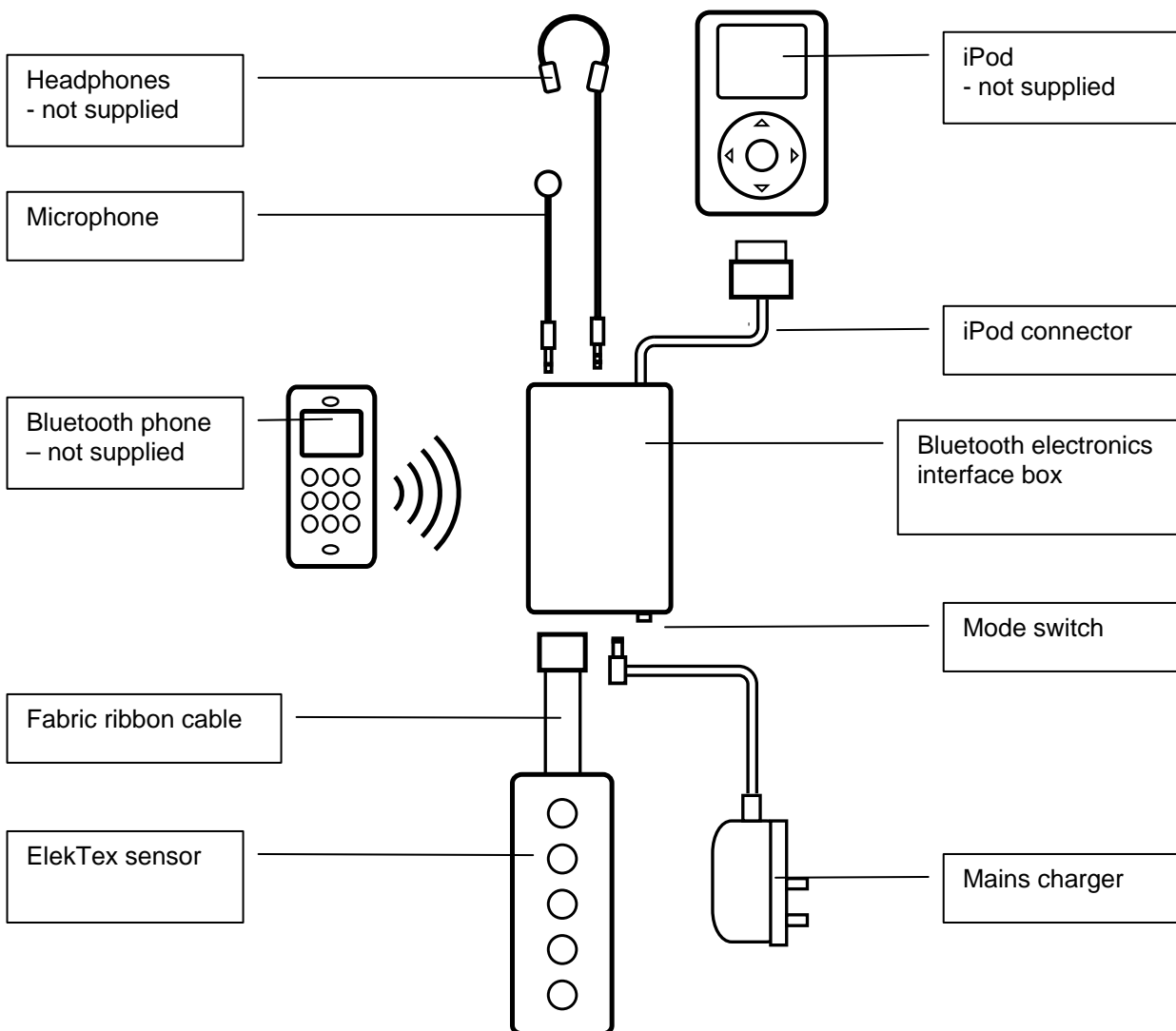


Figure 1 controller schematic

2. Operation

2.1. Connection

Plug the iPod to the ElekTex interface box using the bottom dock connector.

Headphones, microphone and sensor ribbon cable connect into the interface box. The box is labelled to show positions. These connections can be made in any sequence.

Switch on the iPod and set the volume level at a mid setting, then put on the hold switch. Follow the instructions below to unlock the keypad and use the buttons.

2.2. Unlocking

The system features an automatic keylock to protect against accidental operation. To unlock, press the Forward button, see **Error! Reference source not found.**, for around 3 seconds, release, and the system is then unlocked. You can then operate the iPod as shown below

The keypad will automatically re-lock 30 seconds after the last press and so will require unlocking again to resume use.

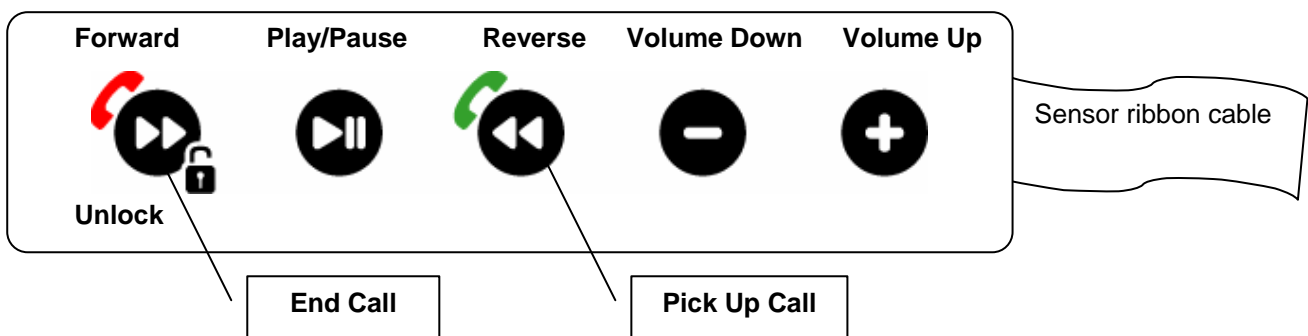


Figure 2 Sensor button layout

NB. The autolock feature is disabled when a phone call is incoming or underway.

2.3. Bluetooth Pairing

The instructions to pair the Bluetooth of the ElekTex interface box with the phone are as follows;

- Slide the switch on the interface box towards the middle of the box. This puts the system into “iPod +Bluetooth” mode.
- The Blue LED on the interface box will come on continuously.
- Then press on the sensor buttons (one at a time) in the following sequence; Volume Up, Reverse, Forward.
- When correctly in pairing mode the LED will flash rapidly.
- Switch “on” the Bluetooth of your phone and “search” for devices.
- When device named “ElekTex2_0” is seen, select and connect to it.
- Enter passcode “0000”
- Press any button on the sensor to complete the operation.
- The ElekTex interface box is now paired to the phone.
- The LED will flash slowly.

2.4. Use

The position of the controls corresponds with the layout in **Error! Reference source not found.** Eleksen do not supply production sensors with the key graphics on the sensor itself as the graphics are always part of the external details of the finished garment or bag. Figure 3 gives the buttons and actions that enable the controls of the iPod and phone once the keypad is unlocked.

Music controls

| Button | Action | Controls for iPod |
|-------------|--|--------------------------------|
| Forward | Press and release | Skip to next track |
| | Press and Hold | Search forward through track |
| Play/Pause | Press and release | Toggles between play and pause |
| | Press and Hold for 3 seconds | Shuts down iPod |
| Reverse | Press and release | Skip to previous track |
| | Press and Hold | Search backward through track |
| Volume Down | Press and release or Press and Hold | Music volume decreases |
| Volume Up | Press and release or Press and Hold | Music volume increases |

Phone controls when in “iPod+Bluetooth” mode

| Button | Action | Controls for phone |
|--|--|--|
| End Call | Press during phone call or when phone is ringing | Ends phone call |
| Pick Up Call | Press when phone is ringing | Answers phone call |
| Volume Down | Press and release or Press and Hold | Decrease volume of ring tone or phone call |
| Volume Up | Press and release or Press and Hold | Increase volume of ring tone or phone call |
| Play/Pause <i>then</i> Pick Up Call | Press and Hold Play/Pause for over 3 seconds then Press Call Pick Up | Voice dialling is activated (if supported) |

Figure 3 Button control when un-locked

2.4.1.Receiving a Call

When a call comes in, a tone will be heard in the headphones replacing the sound of the music. Press the Pick Up Call button, if you wish to answer the call. The music will cut out and you can hear the caller in the headphones and speak back via the microphone.

Once you have finished, press the End Call button to revert back to the music

2.4.2.Voice dialling

Voice dialling is activated by first shutting down the iPod by pressing and holding the Play/Pause button for over 3 seconds. Then press Call Pick Up and the user can then use the voice dialling (if supported by their phone) as usual.

3. Important Notes

- 1) If the battery is low or signal poor (through being obstructed) then the range of the Bluetooth will be reduced.
- 2) The flashing red LED indicates low battery.
- 3) In certain circumstances it may be necessary to re-pair and reconnect, this depends on the type of phone being used and whether another device has paired with the electronics.
- 4) There are restrictions on the functions with the profiles used – eg a headset profile will not allow you to use 'call reject'.
- 5) There is a hidden function that must be possible in order to comply with Bluetooth requirements. This function allows you to transfer a call between the ElekTex interface box and the phone. In order to do this, shut down the iPod by press and hold on Play/Pause button, then perform a roll-over between the Forward and Play/Pause buttons as follows-
press Forward button, hold this and press Play/Pause button,
release Forward button and then release Play/Pause button.

4. Approvals

Bluetooth

This product is compliant to Bluetooth Specifications v2.0 and supports headset and hands-free profile.

RoHS Directive

It has been design and built to meet this EU directive that governs the restriction of the use of certain hazardous substances in electrical and electronic equipment.

CE Marking

This product has been through CE testing and the following statement must be included.

“Electro Magnetic Compatibility

The normal function of the product may be disrupted by Strong Electro Magnetic Interference. If so, simply reset the product to resume normal operation by turning the iPod off and disconnecting and then re-connecting it and switching it back on. In the event that normal function does not resume, please use the product in a different location.”

FCC

This device complies with part 15 of the FCC rules. The user is cautioned that changes and modification made to the equipment without the approval of the manufacturer could void the user's authority to operate this equipment.

5. Other Information

Worldwide mains charger (5.5V nominal regulated) is supplied with 4 interchangeable adaptor heads for worldwide use.

- US plug adaptor
- UK plug adaptor
- European plug as adaptor
- Australian plug adaptor

Rechargeable battery typically gives after full charge

- 10 hours talk time
- 24 hours music playback
- 5 days standby in iPod mode with no music playing

6. Reference Documents

The information in this document is taken from ESP-581-B iPod+Bluetooth controller PDS.

It is based on products described in Bill of Materials

ESP-938-B

ESP-869-C

7. Revision History

| Revision Number | Revision details | Date | Reasons for revision |
|-----------------|--------------------|------|---|
| ESP-00889-A | original | | |
| ESP-00889-B | ECR-498 ECR-541 | | Worldwide charger 30seconds to autolock New pairing name FCC statement added |
| | | | |

8. Document Authorisation

| Prepared by | Reviewed by | Approved By |
|---|------------------------|------------------------|
| Name G Kilburn Signed Date 01/02/07 | Name Signed Date | Name Signed Date |

Caution: The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the use's authority to operate this equipment.

Notes :This equipment has been tested and found to comply with the limits for a Class B digital device ,pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation This equipment generates ,uses can radiate radio frequency energy and ,if not installed and used in accordance with the instructions ,may cause harmful interference to radio communications .However ,there is no guarantee that interference will not occur a particular installation .If this equipment does cause harmful interference to radio or television reception ,which can be determined by turning the equipment off and on ,the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- consult the dealer or an experienced radio/TV technician for help.

FCC Warning:

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.

EXPOSURE TO RADIO FREQUENCY ENERGY

This device and its antenna must not be co-located or operated in conjunction with any other antenna or transmitter. To comply with FCC RF exposure requirements, only use supplied antenna.