Analog Technologies

Figure 1. Physical Photo of ASFC401

Figure 2. Physical Photo of AC/DC Adapter

FEATURES

- ● Speaker independent voice recognition
- ● Full voice control
- ● Automatic position locking

APPLICATIONS

Control lift chair by voice.

DESCRIPTION

This controller, ASFC401, as shown in Figure 1, is designed to control lift chair's position by using voice only. The controller features: high audio sensitivity, humanized control commands, and automatic chair position locking. The controller is powered by an AC/DC adapter as shown in Figure 2. There are 7 voice commands that the controller can recognize: Lift chair's stand-up position, sit-down position, and lay-down position can be controlled with voice; audible indication; simple dialogue; automatic locking function and so on.

The controller consists of CPU, sound system, microphone, loudspeaker, drive, and 5V power supply. See Figure 3.

Warning: When entering operable status, please try to place the controller in a low noise environment.
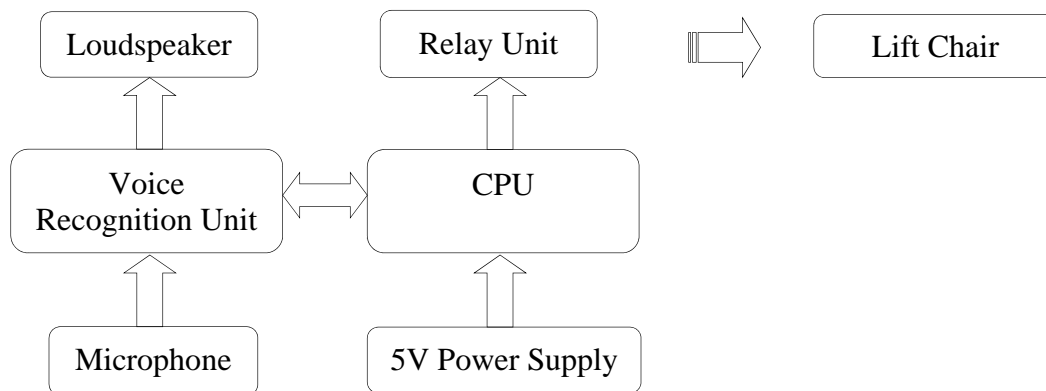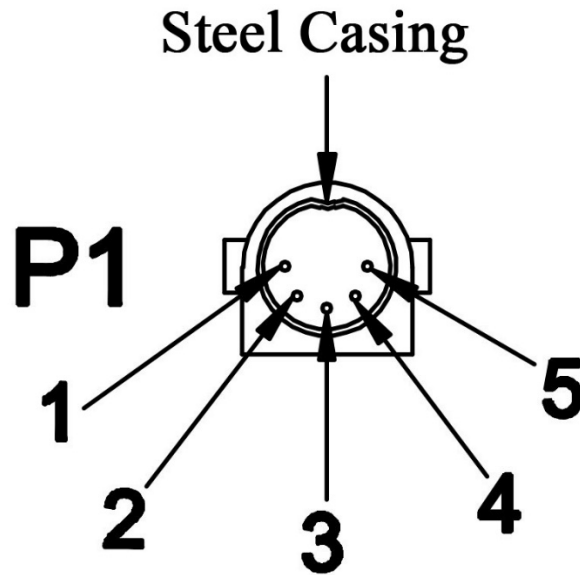

Figure 3. ASFC401 Block Diagram

Analog Technologies

SPECIFICATION

Maximum Load Current: 10A@240VAC

Operating Temperature Range: −10°C ~ 80°C

The pin connections are shown in Figure 5.

1—VCC; 2—BLACK-down; 3—YELLOW-up; Steel Casing—GND;

Figure 4. The pin Connections on the Connector

CAMMAND TABLE

Voice Command	Function	Description
Hey	Command prefix	This command is the prefix word for all the commands. Upon receiving this command, controller gives an 8 second time window to receive the next command for chair positions.
Yeah	"Yes", commands confirmation	The user confirms that the command given to the controller is correct.
Up	Order chair to *Stand-up* position	This command allows the chair to change to the *Standup* position.
Down	Order chair to *Sit-Down* position	This command allows the chair to change to the *Sit-Down* position.
Lie	Order chair to *Lay-Down* position	This command allows the chair to change to the *Lay-Down* position.
To lock	Order the chair to lock on the current position	Disable the controller from receiving any more command.
Open	Unlock control	Enable the controller to receive new command.

For example:

Start:

> Say: "Hey.".
>
> The controller: "Hi, I need to stand up in order to reset my position. Can I do it now? "
>
> Say: "Yeah."
>
> The controller will reply: "To reset."
>
> The Lift chair will be in operable status after 35 seconds initialization.

Note:

> Within 35 seconds, the Lift chair will complete initialization process, the following orders can end initialization, enter operable status.
>
> Say: "Hey."
>
> The controller will reply: "Hi, has Lift chair reached the stand position?"
>
> Say: "Yeah."
>
> The controller will reply: "Welcome."

Sit Down:

> Say: "Hey.",
>
> The controller: "Hi."
>
> Say: "Down."
>
> The controller: "sitting down now."
>
> Say: "Hey."
>
> The controller: "Hi."
>
> Say: "To lock."
>
> The controller: "Have been locked."

To Open:

> Say: "Hey."
>
> The controller will sound a beep.
>
> Say: "Open.",
>
> The controller: "Unlock."

Note:

1. To stop the Lift Chair when it is moving, say: "Hey."
2. When getting a "beep" sound after saying: "Hey.", it means the controller has been locked.
3. To open the controller, say: "Open."

Figure 5. Physical Photo of Supply Socket or Microphone

NOTICE

1. ATI warrants performance of its products for one year to the specifications applicable at the time of sale, except for those being damaged by excessive abuse. Products found not meeting the specifications within one year from the date of sale can be exchanged free of charge.

2. ATI reserves the right to make changes to its products or to discontinue any product or service without notice, and advise customers to obtain the latest version of relevant information to verify, before placing orders, that information being relied on is current and complete.

3. All products are sold subject to the terms and conditions of sale supplied at the time of order acknowledgment, including those pertaining to warranty, patent infringement, and limitation of liability. Testing and other quality control techniques are utilized to the extent ATI deems necessary to support this warranty. Specific testing of all parameters of each device is not necessarily performed, except those mandated by government requirements.

4. Customers are responsible for their applications using ATI components. In order to minimize risks associated with the customers' applications, adequate design and operating safeguards must be provided by the customers to minimize inherent or procedural hazards. ATI assumes no liability for applications assistance or customer product design.

5. ATI does not warrant or represent that any license, either expressed or implied, is granted under any patent right, copyright, mask work right, or other intellectual property right of ATI covering or relating to any combination, machine, or process in which such products or services might be or are used. ATI's publication of information regarding any third party's products or services does not constitute ATI's approval, warranty or endorsement thereof.

6. IP (Intellectual Property) Ownership: ATI retains the ownership of full rights for special technologies and/or techniques embedded in its products, the designs for mechanics, optics, plus all modifications, improvements, and inventions made by ATI for its products and/or projects.

1161 Ringwood Ct, #110, San Jose, CA 95131, U. S. A. Tel.: (408) 748-9100, Fax: (408) 770-9187   www.analogtechnologies.com

©Copyrights 2000-2019, Analog Technologies, Inc. All Rights Reserved. Updated on 10/31/2019   www.analogti.com   4