

EXHIBIT 5

User's Manual

User's Manual

1. FCC GUIDELINES

This equipment has been tested and found to comply with FCC 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 and 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 in 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 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 Caution: To assure continued compliance, (example - use only shielded interface cables when connecting to computer or peripheral devices). Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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.

Note:

1. Silitek is a registered trademark of SILITEK CORPORATION
2. IBM PC/AT, PS/2 is a registered trademark of International Business Machine Corporation

2. GENERAL

Thank you for choosing this innovative product. The keyboard is one of the SK-1689 series products. SK-1689 model is Multimedia keyboard, which has 21 hot keys and it is configurable 104/105/106/107/109 keys languages layout according to customer's requirement. It includes L-WIN, R-WIN and APP allowing this model of keyboard to be used with **IBM PC AT/PS/2** or its compatibles and support PC98 ACPI power key. It is not limited to special software and interfaces. It can run in Win95, Win98, WinNT and Win2000 operation system.

The Windows Logo is a registered trademark of Microsoft Corporation.

3. OPERATION

3.1 AT & PS/2:

The keyboard is designed to two modes of AT & PS/2. The mode is selected by auto-switchable.

3.2 Mode:

There are three LEDs on the keyboard to indicate 'Caps Lock', 'Num Lock', 'Scroll Lock' and 'hot key'. The LEDs are toggled. The first depression of the key turns on the LED. The second depression turns the LEDs off and so on. LEDs are off on power-up or software reset, But will flash during power-up initialization. When the 'hot key' is pressed, the forth LED is lighted.

3.3 Key presses buffer:

The keyboard has 16 keys FIFO buffer to stores the scan codes until the host is ready to receive. Buffer overrun occurs when more than 16 keys depressed and stored without being sent, then an overrun code replace the 17th key press to be stored in buffer. Further keys pressed after the 16th data, it will be lost if host keep in busy and disable keyboard to send out contents in buffer.

3.4 Typematic delay and repeat rate:

In set 2, except the "PAUSE" key, all keys are typematic. When a key is pressed and hold down, keyboard will delay 500 msec han send the first repeat make code. If key keep being held down, it will send repeatedly at the rate of 10.9 characters per second.

If two or more keys are depressed, only the last key will be repeated at the repeat rate. When the last released typematic operation stops, even if other keys are still held down. If a key is pressed and held down while keyboard transmission is disable only the first key's make code is stored in the type ahead buffer. This prevent a type ahead buffer overflow when the typematic operation actions.

The default data:

Typematic Delay = 500msec

Repeat Rate = 10.9 characters per sec.

Volume Up and Volume Down is not same as key scan code default rating.

Typematic delay is 500ms and repeat rate for up and down is 2 per second

And can not be changed.

3.5 Pseudo N-Key Rollover Capability:

“N” key roll is the number of keys that may be held depressed simultaneously and gave the keyboard generate the appropriate code for each pressed and released key without keyboard interruption.

3.6 Self Test:

The keyboard microprocessor will perform a self test after power-up or after the host system signal the keyboard to perform a software Reset.

The microprocessor will check its data memory locations, do a sum check internal ROM check and any depressed keys.

If the self test is correct, the keyboard will transmit an ‘AA’ code, this will be the first transmission following a Power-up condition.

If the self test is unsuccessful, then the keyboard will transmit a ‘FD/FC’ code. In either case, after the self test check the keyboard will begin normal operation.

3.7 Hot Key Definitions:

SK-1689 multimedia keyboard has 21 hot keys and an extra LED. When the “HOT KEY” key is pressed, that is to say, the “hot Key” LED is lighted, the key pad is transformed to hot key.

They are layouted as above figure and classified into:

- **Power management:** it includes **Sleep** and **Power keys**.

They can be made the system in and out of sleep mode. When the sleep key is pressed, the system and keyboard will be sleep mode and turn off the Num, scroll, caps lock. Then press the “power”, “sleep” and “ space bar” these keys can be wake up the system. It comply with ACPI power management.

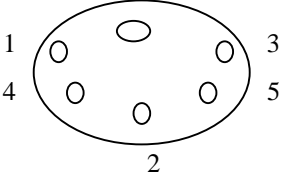
- **WWW launch keys** include: WWW (home, search, favorite, back, forward, refresh, stop) and Mail keys.
- **Eight multimedia keys** includes play/pause, stop, media select, previous track, next track, volume up, volume down and mute key. They can be used with 3 of the applications listed above music CD and VCD and voicemail message.
- **The extra “hot key and LED:** When “hot key” key is pressed and released, the “hot key” LED is lighted and went out. It make the keypad hot key enable and disable.

4. Connector and cable

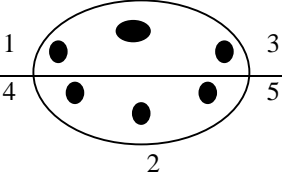
There is a exits on lower casework for cable routing purpose. Cable is 4.5 feet in length, Shield and straight with 6 pin mini-DIN connector. The keyboard is connected to HOST UNIT through a 6 pin DIN connector.

The connector and their signals is showed the following .

5-PIN connector

Description	Signal	Pins	Connector
Clock	+5V DC signal	1	
Data	+5V DC signal	2	
		3	
GND	0	4	
VCC	+5V DC	5	

6-PIN connector

Description	Signal	Pins	Connector
Data	+5V DC signal	1	
		2	
GND	0	3	
VCC	+5V DC	4	
Clock	+5V DC signal	5	
		6	

5. Technical Data

5.1 Electrical:

Input Power: +5V dc, 60 mA Max.

Characteristics Power Consumption: 0.3 Watts Max..

5.2 Mechanical:

Length:	460mm
Depth:	171.5mm
Height:	29mm
Peak Force:	55+/-10 grams

Total Travel:	3.5mm
Switch Life:	5 million life cycles

5.3 Environmental Specifications:

Operating Temperature:	-10 ~ 50
Storage Temperature:	-40 ~ 60
Relative Humidity:	