

# AlphaGrip AG5T(SKR-4300UT) Keyboard with Track-ball

## 1.General Specification

### 1.1 USB Standard

The USB keyboard is a bus powered compound device that has an external USB downstream HUB port and an embedded USB composite function device. It is complied with USB standard version 1.1 and HID standard version 1.1. The USB transmission speed for the embedded USB HID keyboard and HID Mouse are 1.5Mbps, which is low speed USB. The USB related spec is available on the web page <http://www.usb.org/>

### 1.2 System requirements

The followings are the requirements for using the USB HUB and embedded Keyboard and Mouse.

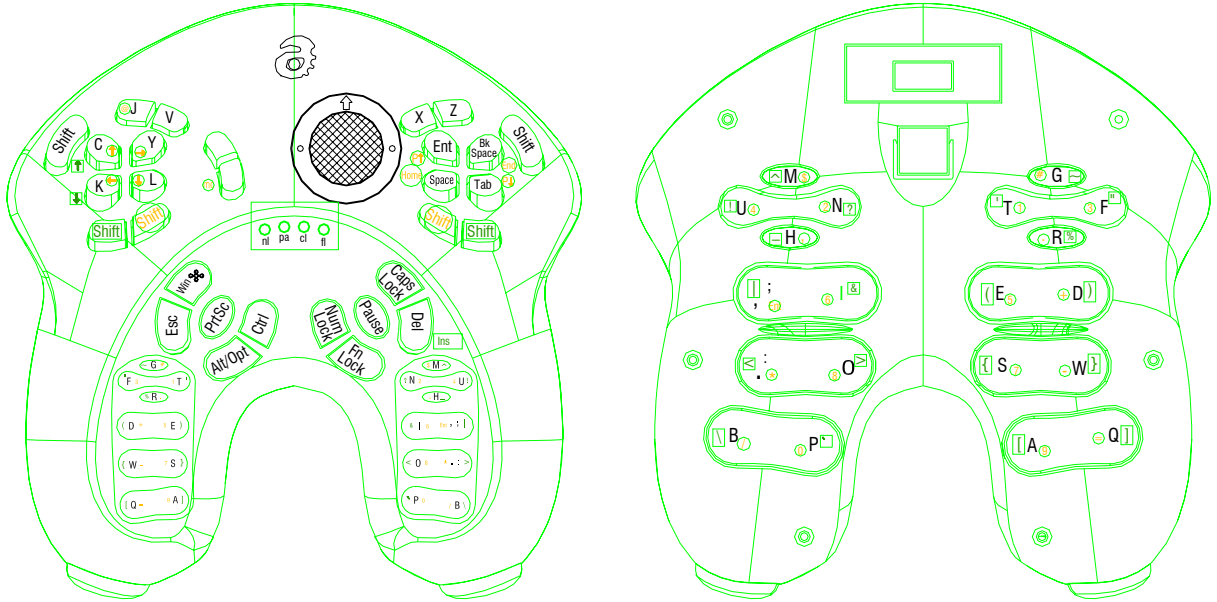
1. An USB Downstream port with “A” type connector. The USB Downstream port must have capable to supply 500mA of VCC current.
2. Operating system with USB compliant device driver and HID device support. (Windows 98 Second Edition /ME/2000/XP or lather version is recommended). Note: The Windows 98 Second Edition /ME/2000 and Windows XP are registered trademark of Microsoft Corporation.

### 1.3 Electrical Specification

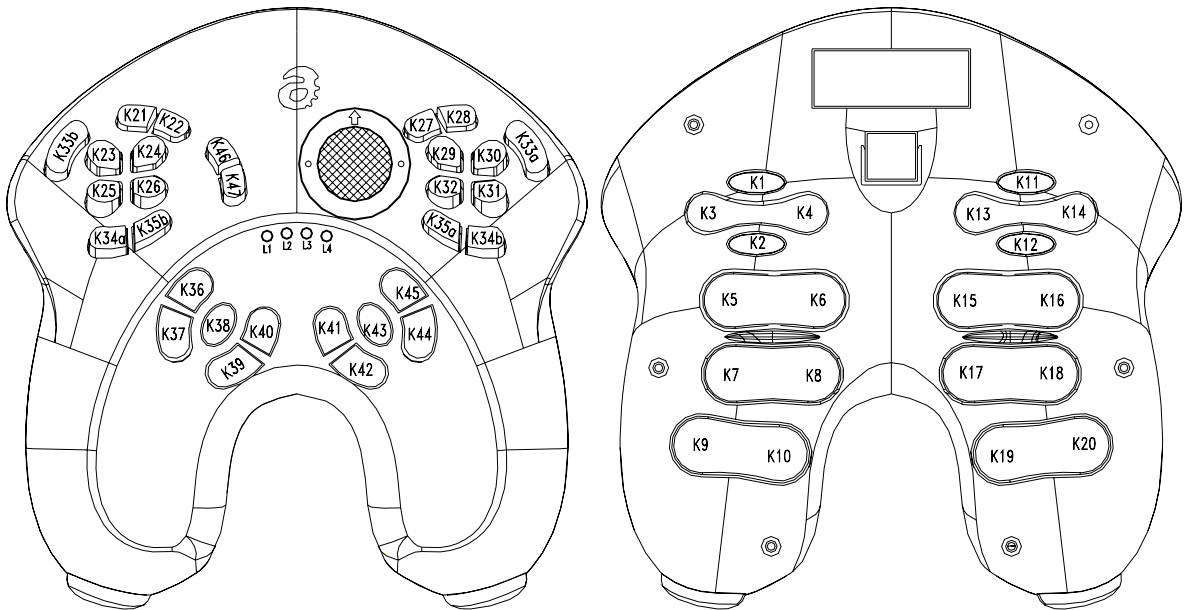
|                         |  |
|-------------------------|--|
| Connector               | a “B” type connector for USB up stream port and a “A” type connector for USB down stream port. |
| USB speed               | Low speed (1.5MBPS) for embedded Function,<br>Full speed (12MBPS) for integrated USB HUB       |
| Operating voltage range | 4.5~5.25V  |
| Operating current       | Max 500mA  |
| Operating temperature   | 0 ~ 40 °C  |
| Storage temperature     | -40 ~ 60 °C  |
| Operating humidity      | 0~90% RH non-condensing  |
| Storage humidity        | 0~95% RH non-condensing  |

## 2.Key Position number & Layout

### 1-1 Key position number



### 2-2 Key Layout



### 3.Key Operation

1-1 AG-5 Button/Character Chart

| Key No. | Single Key | Capital Letter<br>shift (note 1) | Punctuation Shift |       | Number Shift |       | Caps Lock |       | Number Lock |       | Function Lock |       |
|---------|------------|----------------------------------|-------------------|-------|--------------|-------|-----------|-------|-------------|-------|---------------|-------|
|         |            |                                  | note 2            | Shift | note 3       | Shift | note 2    | Shift | note 2      | Shift | note 2        | Shift |
| K1      | m          | M                                | ^                 |       | \$           |       | M         | m     | \$          |       |               |       |
| K2      | h          | H                                | _                 |       | ,            |       | H         | h     | ,           |       | F12           | F12   |
| K3      | u          | U                                | !                 |       | 4            |       | U         | u     | 4           |       | F4            | F4    |
| K4      | n          | N                                | ?                 |       | 2            |       | N         | n     | 2           |       | F2            | F2    |
| K5      | ,          | ;                                |                   |       | Ent          | Ent   | ;         | ,     | Ent         | Ent   |               |       |
| K6      | i          | I                                | &                 |       | 6            |       | I         | i     | 6           |       | F6            | F6    |
| K7      | .          | :                                | >                 |       | *            |       | :         | .     | *           |       |               |       |
| K8      | o          | O                                | <                 |       | 8            |       | O         | o     | 8           |       | F8            | F8    |
| K9      | b          | B                                | \                 |       | /            |       | B         | b     | /           |       |               |       |
| K10     | p          | P                                | `                 |       | 0            |       | P         | p     | 0           |       | F10           | F10   |
| K11     | g          | G                                | ~                 |       | #            |       | G         | g     | #           |       |               |       |
| K12     | r          | R                                | %                 |       | .            |       | R         | r     | .           |       | F11           | F11   |
| K13     | t          | T                                | '                 |       | 1            |       | T         | t     | 1           |       | F1            | F1    |
| K14     | f          | F                                | "                 |       | 3            |       | F         | f     | 3           |       | F3            | F3    |
| K15     | e          | E                                | )                 |       | 5            |       | E         | e     | 5           |       | F5            | F5    |
| K16     | d          | D                                | (                 |       | +            |       | D         | d     | +           |       |               |       |
| K17     | s          | S                                | }                 |       | 7            |       | S         | s     | 7           |       | F7            | F7    |
| K18     | w          | W                                | {                 |       | -            |       | W         | w     | -           |       |               |       |
| K19     | a          | A                                | ]                 |       | 9            |       | A         | a     | 9           |       | F9            | F9    |
| K20     | q          | Q                                | [                 |       | =            |       | Q         | q     | =           |       |               |       |
| K21     | j          | J                                |                   |       | @            |       | J         | j     | @           |       |               |       |
| K22     | v          | V                                |                   |       |              |       | V         | v     |             |       |               |       |
| K23     | c          | C                                | Scroll-Up         |       | ↑            | ↑     | C         | c     | ↑           | ↑     |               |       |
| K24     | y          | Y                                |                   |       | →            | →     | Y         | y     | →           | →     |               |       |
| K25     | k          | K                                |                   |       | ←            | ←     | K         | k     | ←           | ←     |               |       |
| K26     | l          | L                                | Scroll-Down       |       | ↓            | ↓     | L         | l     | ↓           | ↓     |               |       |
| K27     | x          | X                                |                   |       |              |       | X         | x     |             |       |               |       |
| K28     | z          | Z                                |                   |       |              |       | Z         | z     |             |       |               |       |

| Key No. | Single Key                                  | Capital Letter shift (note 1) | Punctuation Shift |            | Number Shift |         | Caps Lock  |            | Number Lock |         | Function Lock |       |
|---------|---|-------------------------------|-------------------|------------|--------------|---------|------------|------------|-------------|---------|---------------|-------|
|         |   |                               | note 2            | Shift      | note 3       | Shift   | note 2     | Shift      | note 2      | Shift   | note 2        | Shift |
| K29     | Enter                                       | Enter                         | Enter             | Enter      | Page Up      | Page Up | Enter      | Enter      | Page Up     | Page Up |               |       |
| K30     | Back space                                  | Back space                    | Back space        | Back space | End          | End     | Back space | Back space | End         | End     |               |       |
| K31     | Tab   | Tab                           | Tab               | Tab        | Page Dn      | Page Dn | Tab        | Tab        | Page Dn     | Page Dn |               |       |
| K32     | Space                                       | Space                         | Space             | Space      | Home         | Home    | Space      | Space      | Home        | Home    |               |       |
| K33a    | Capital Shift                               |                               |                   |            |              |         |            |            |             |         |               |       |
| K33b    | Capital Shift                               |                               |                   |            |              |         |            |            |             |         |               |       |
| K34a    | Punctuation Shift                           |                               |                   |            |              |         |            |            |             |         |               |       |
| K34b    | Punctuation Shift                           |                               |                   |            |              |         |            |            |             |         |               |       |
| K35a    | Number Shift                                |                               |                   |            |              |         |            |            |             |         |               |       |
| K35b    | Number Shift                                |                               |                   |            |              |         |            |            |             |         |               |       |
| K36     | Windows (Command)                           |                               |                   |            |              |         |            |            |             |         |               |       |
| K37     | Escape / <b>Escape</b> (note 2)             |                               |                   |            |              |         |            |            |             |         |               |       |
| K38     | Print Screen / <b>Print Screen</b> (note 2) |                               |                   |            |              |         |            |            |             |         |               |       |
| K39     | Alt (Option)                                |                               |                   |            |              |         |            |            |             |         |               |       |
| K40     | Ctrl  |                               |                   |            |              |         |            |            |             |         |               |       |
| K41     | Number Lock                                 |                               |                   |            |              |         |            |            |             |         |               |       |
| K42     | Function Lock                               |                               |                   |            |              |         |            |            |             |         |               |       |
| K43     | Pause                                       |                               |                   |            |              |         |            |            |             |         |               |       |
| K44     | Delete                                      | Delete                        | Insert            | Insert     | Delete       | Delete  | Delete     | Delete     | Delete      | Delete  |               |       |
| K45     | Cap Lock                                    |                               |                   |            |              |         |            |            |             |         |               |       |
| K46     | Left Click                                  |                               |                   |            | Mid Click    |         | Left Click |            |             |         |               |       |
| K47     | Right Click for Mouse                       |                               |                   |            |              |         |            |            |             |         |               |       |

Note:

1. The capital shift key changes the characters in single key group to the characters in capital shift group. In the case of caps lock indication ON, the capital shift key changes the characters in opposite direction. This will minimize the necessity of the caps lock key operation.
2. In case of the Capital shift key down, the key codes in red colored letters are generated with shift key depression flag set.
3. The number shift key changes the characters in single key group to the characters in number shift group. In the case of number lock indication ON, the number shift key changes the characters in opposite direction. This will minimize the necessity of the number lock key operation.

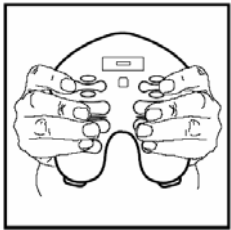
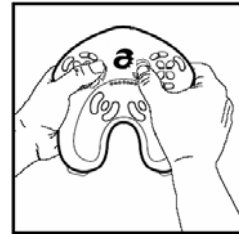
## 4. User Manual

# AlphaGrip

## Quick Start User's Guide, Safety Guide & Disclaimer

### Model AG-5 Handheld Keyboard and Trackball

Thank you for purchasing the AlphaGrip, model AG-5, our 5<sup>th</sup> generation (first time to market) handheld, touch typing keyboard and mouse. AlphaGrip technology enables comfortable, high speed, desk-free typing and gaming on your PC.



The key to the AlphaGrip is the placement of rocker buttons and button clusters on the back of the device. When you grasp the AG-5 your fingers naturally fall on all the buttons you need (including button clusters on the front of the device where your thumbs naturally fall) to generate all the letters of the alphabet with a single keystroke per character. Green and red shift keys let you generate numbers, punctuations and other functions as well.

By trying an AlphaGrip you are pioneering a new technology that has the potential to become the solution of choice for desk-free data input. Just as the first mechanical typewriter is the ancestor of today's wireless keyboards, word processors, and printers, the AG-5 may well turn out to be the first in a long line of high speed, handheld computing and communication devices.



Our long term goal is to enable people to type as fast as they can think anywhere they do their best thinking. By trying an AlphaGrip you are helping us take an important step toward that goal.

To view and/or print out the AG-5 User Manual, please visit our website, [www.alphagrip.com](http://www.alphagrip.com). Suggestion: Figuring out how the AG-5 works without looking at the manual can be fun.

## Important Safety Information

Using the AG-5 on a regular basis involves repetitive finger motion. Studies indicate that activities involving repetitive arm, hand, and finger motion may lead to certain types of physical discomfort or injury (Repetitive Strain Injuries, "RSI"), including, but not limited to, Carpal Tunnel Syndrome and tendonitis.

AlphaGrip, Inc., **has not** conducted extensive studies to analyze the AG-5's ergonomic characteristics and, therefore, **does not claim** that using the AG-5 is more ergonomic than typing on a standard keyboard or using a game controller or joystick or that use of the AG-5 is ergonomic at all.

When using your AG-5 for extended periods of time you should take frequent breaks, change the position of your arms and body at regular intervals, and/or put your AG-5 down to massage your hands and fingers and to move or stretch other parts of your body especially your shoulders, neck and arms. If you feel pain, numbness, or discomfort in any part of your body while using the AG-5, including, but not limited to, your back, neck, shoulders, arms, wrists, hands, or fingers, discontinue use immediately and consult a healthcare professional.

Use of the AG-5 is at your own risk. AlphaGrip, Inc., its employees, shareholders, consultants, affiliates, marketers, resellers, and manufacturing partners, hereby disclaim any liability whatsoever for any injuries or damages that may arise as a result of your use of the AG-5.

Additional safety guidelines:

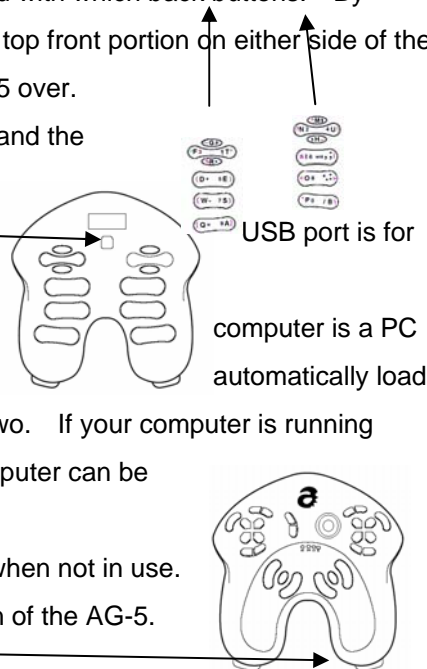
1. Keep your elbows near your body in a relaxed posture. Do not move them out for support on your chair's arm rests.
2. Keep your thumbs and fingers in a relaxed, natural position and press the buttons lightly with your finger tips.
3. Try to keep your wrists at a comfortable angle.
4. Rest the AG-5 in your lap while typing whenever possible.

## QUICK START GUIDE

1. The contents of the package in which you received your AG-5 should contain the following:
  - a. One AG-5
  - b. One 10' USB cable
  - c. One desk stand
  - d. One pair of decals



2. The decals show you which characters, functions or commands are associated with which back buttons. By affixing the decals on the lower front portions of the AG-5's handles (or on the top front portion on either side of the AlphaGrip logo), you can find what you are looking for without turning the AG-5 over.
3. Connect the wider plug at the end of the cable into your computer's USB port and the smaller plug at the other end of the cable into the smaller USB port located on the back of the AG-5 below the larger rectangular USB port (the larger USB port is for future AG-5 adapters).
4. At its core the AG-5 is a standard USB keyboard and trackball. If your computer is a PC running Windows98 or greater, or a Mac running OS X, it should automatically load the correct drivers and you should be able to begin typing within a minute or two. If your computer is running Linux or any other operating system, you must determine if and how your computer can be configured to recognize a standard USB keyboard and trackball.
5. To avoid accidental activation of buttons, place the AG-5 into the desk stand when not in use. You may also press the "Pause" button, located on the lower right front portion of the AG-5. Press the Pause button a second time to re-activate the AG-5.
6. Adjust the speed of the trackball with the pointing device settings of your computer's operating system.



## LIMITATION OF LIABILITY, EXCLUSION OF INCIDENTAL, CONSEQUENTIAL AND CERTAIN OTHER DAMAGES

AlphaGrip, Inc. warrants that for a period of 90 days immediately following the purchase of your AG-5, under normal use, it will be free from defects in material and workmanship. THIS LIMITED WARRANTY APPLIES ONLY TO THE ORIGINAL PURCHASER AND LASTS ONLY FOR AS LONG AS SUCH PURCHASER CONTINUES TO OWN THE PRODUCT. ALPHAGRIP, INC.'S LIABILITY, IMPLIED OR EXPRESS, IS LIMITED TO REPAIR, REPLACEMENT OR REFUND. THESE REMEDIES ARE SOLE AND EXCLUSIVE REMEDIES FOR ANY BREACH OF WARRANTY. ALPHAGRIP, INC. IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR UNDER ANY OTHER LEGAL THEORY INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, DOWNTIME, PERSONAL INJURY, FAILURE TO MEET ANY DUTY INCLUDING OF GOOD FAITH OR OF REASONABLE CARE, NEGLIGENCE, GOODWILL, DAMAGE TO OR REPLACEMENT OF EQUIPMENT AND PROPERTY, AND ANY COSTS OF RECOVERING, REPROGRAMMING, OR REPRODUCING ANY PROGRAM OR DATA STORED IN OR USED WITH A SYSTEM TO WHICH THE PRODUCT IS CONNECTED, OR ANY OTHER PECUNIARY OR OTHER LOSS WHATSOEVER, EVEN IF ALPHAGRIP, INC. HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

## **FCC NOTICE**

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES.  
OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITION:  
(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND  
(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED,  
INCLUDING INTERFERENCE THAT MAY CAUSE UNDERSIRED  
OPERATION.

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 and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. 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 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 of an experienced radio/TV technician for help.

NOTE : The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.