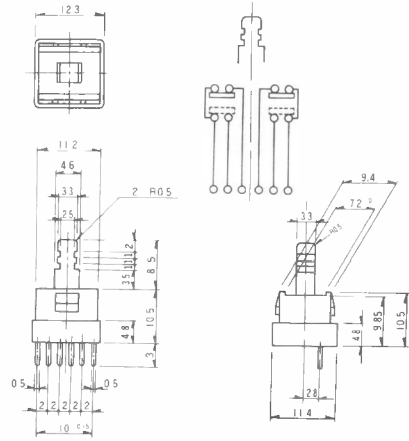
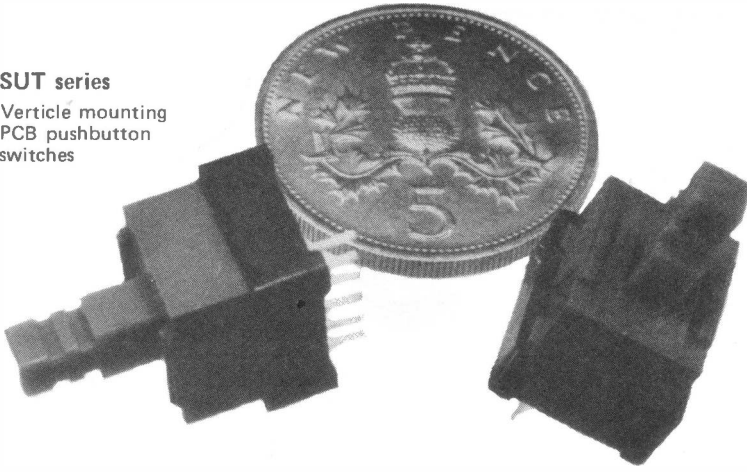


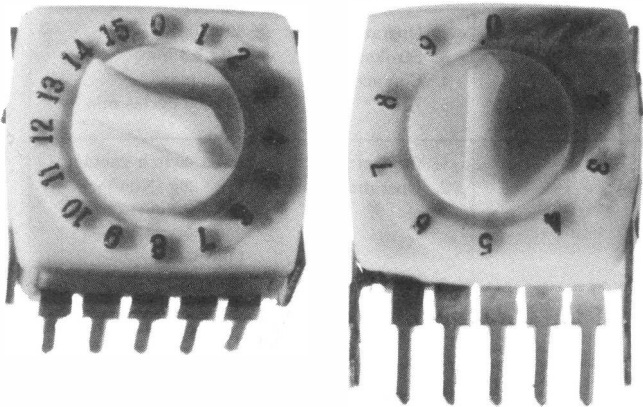
SUT series
Verticle mounting
PCB pushbutton
switches



Low cost 2p c/o PC switch

The SUT series switches are 2pole c/o units available in either a self-lock or momentary action. The stock range comprises the individual blocks - although the SUT is essentially a 'bracket' switch available

in combinations of self lock/momentary/interlocking blocks up to 10 ways. The major advantage of this switch system over the more stark forms of data entry switch is the fact that will accept the standard range of pushbutton caps from the SUB6SUE etc range.



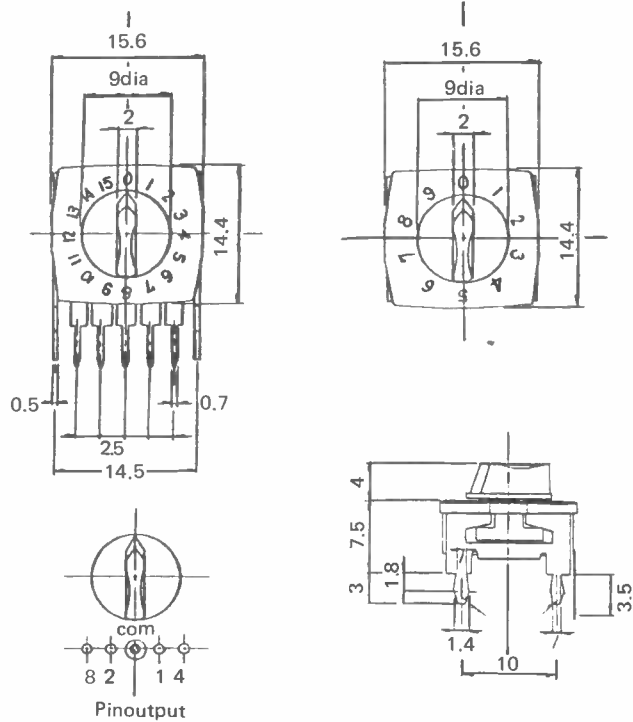
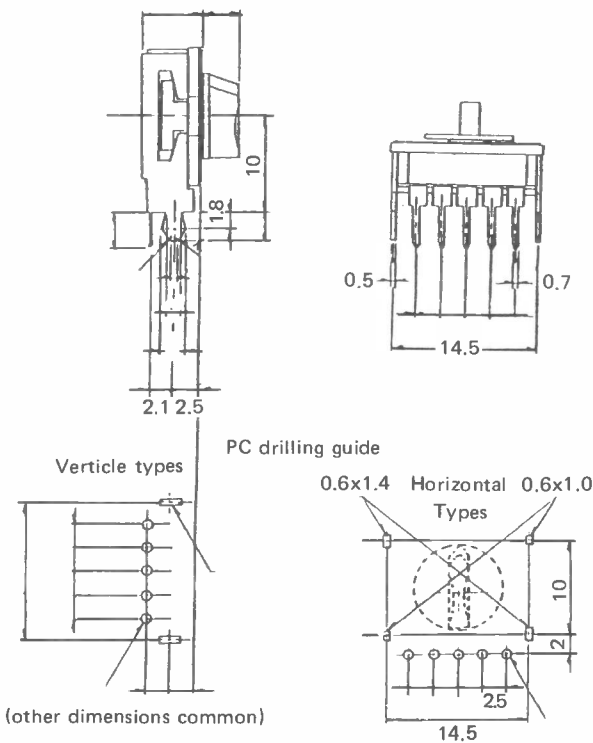
SRQ series BCD and HEX programme switches for PCBs

The rapid expansion of 'on-board' programming of functions that range from timing to synthesiser settings has at last produced an excellent and low cost alternative to the ubiquitous 'diode' matrix panel. SRQ series switches are available in either 10 or 16 way format - with both verticle and horizontal mounting options. The illustrations here show the HEX horizontal mounting and BCD verticle mounting types at approx. 2x life size.





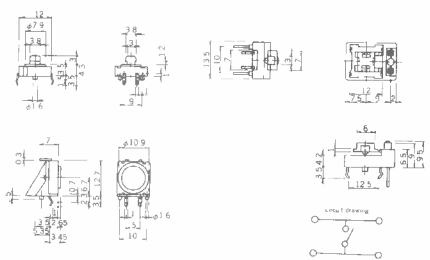
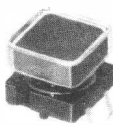


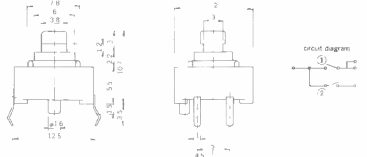
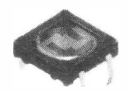




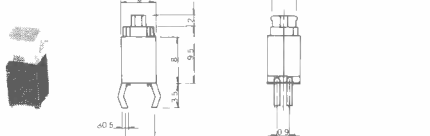

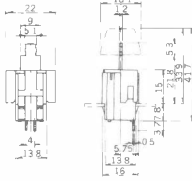


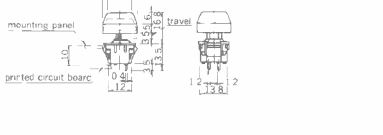


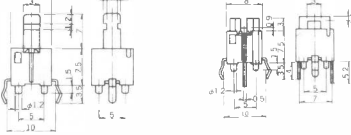
Panel mounting versions of programme code switches are available from our OEM division - and will be finding their way into the 'stock' range in the course of time.

Specifications or SRQ

- Contacts 6v at 100mA continous, resistance less than 1 ohm
- Lifetime Resistance of contacts less than 1 ohm after 10,000 operations
- Operational temp -30° to +70°C
- Coding Standard 4-bit, interchangeable pinout for all types



From the biggest keyswitch range in the world - for all types of momentary programming uses.....

<p>KHC series KHC10902</p>  <p>KHC10901</p>  <p>KHC15901</p>  <p>KHC11001</p>  <p>inc red or green LED</p>		<ol style="list-style-type: none"> Contact: Mechanical contact Operating force: $130 \pm 50g$ Stroke: $0.3 \pm 0.2mm$ Contact resistance: 100 mΩ max. Life: 500,000 cycles min.  <p>KHC10901 inc cap KT5</p>
<p>KHF series KHF10901</p>  		<ol style="list-style-type: none"> Contact: Mechanical double action contact Operating force: First action 90g, second action 280g Stroke: First action 0.7mm, second action 0.3mm Contact resistance: 100 mΩ max. Life: 20,000 cycles min.
<p>KHG series KHG10901</p>  		<ol style="list-style-type: none"> Contact: Mechanical contact Operating force: $170 \pm 60g$ Stroke: $0.3 \pm 0.1 mm$ Contact resistance: 100 mΩ max. Life: 500 000 cycles min.
<p>KEF series KEF11901</p>  		<ol style="list-style-type: none"> Contact: Conductive-rubber contact Operating force: $80 \pm 40g$ Stroke: $1.0 \pm 0.3 mm$ Contact resistance: 1 kΩ max. Life: 100,000 cycles min.
<p>KGF series</p> 		<ol style="list-style-type: none"> Contact: Reed switch contact Operating force: $110 \pm 20g$ (Non-lock release key) $200 \pm 60g$ (Self-lock key) Stroke: $4.3 \pm 0.5 mm$ Contact resistance: 200 mΩ max. Life: 20 million
<p>KCC Series KCC10902</p>  		<ol style="list-style-type: none"> KCB10 Operating force: $90 \pm 25g$ Stroke: $3.5 \pm 0.5 mm$ Operating life: 5 million cycles min Contact resistance: Less than 5 Ω
<p>KEC series KEC11901+KT9</p>   <p>inc red LED</p>		<ol style="list-style-type: none"> Contact: Conductive-rubber contact Operating force: $80 \pm 40g$ Stroke: $0.8 \pm 0.3mm$ Contact resistance: 1 kΩ max. Life: 100,000 cycles min.

From the world's largest range of low cost keyswitches and keyboard switches....

The above represents the stock range of keyboard switches - although other types exist for specific functions, these are only available through our OEM sales division subject to minimum order conditions.

Caps

Two part caps (coloured base - clear overcap) are available for all the above switches. The data entry versions are also available with 2 shot moulded numeric legends (see price list).

Complete alpha numeric keyboards with encoders are available with either the KCC or KGF switches - as well as capacitive effect types available only to OEM users.

Sealed membrane contact panels to custom designs are also supplied via OEM sales - in fact, since alps make the world's largest ranges of all types of keyboard switch - virtually any requirement can be met subject to minimum order conditions.

Guide to selection

A complete keyboard switch catalogue is available (32 pages) free to OEMs - although we regret have to make a charge for non-industrial or educational customers. (See PL). The prime type of data entry

switch is the KCC, which is a mechanical contact type of exceptional durability and smoothness for applications such as calculators, process control etc. The KGF is a very low cost gold contact reed switch, and may be used in any application requiring extreme durability and immunity to hostile environments. The KT2 series keytops fit both the KCC and KGF series.

The wide range of 'tact' switches provide low cost with excellent tactile feedback for applications such as time setting, instrument function selection, intercom switching etc. The KHC is well suited to applications using a flexible 'over panel' to provide customized sealed switching for low volume applications.

Two part keytops

KHC, KHF...use KT5

KEB...use KT7

KCC, KGF...use KT2/1, or KT2/2 for double unit width

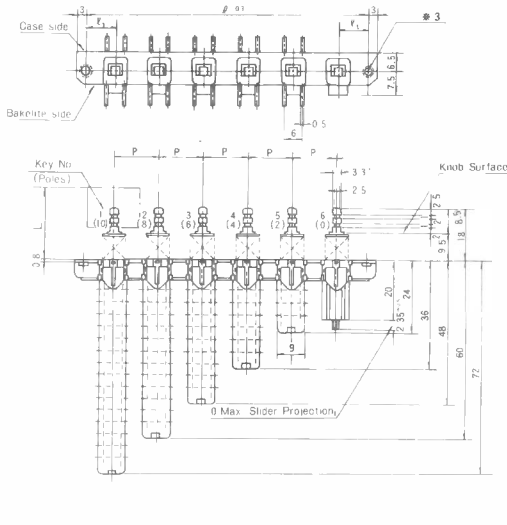
Legended keytops for KCC/KGF...see current PL for availability.

LABPACK SELECTIONS

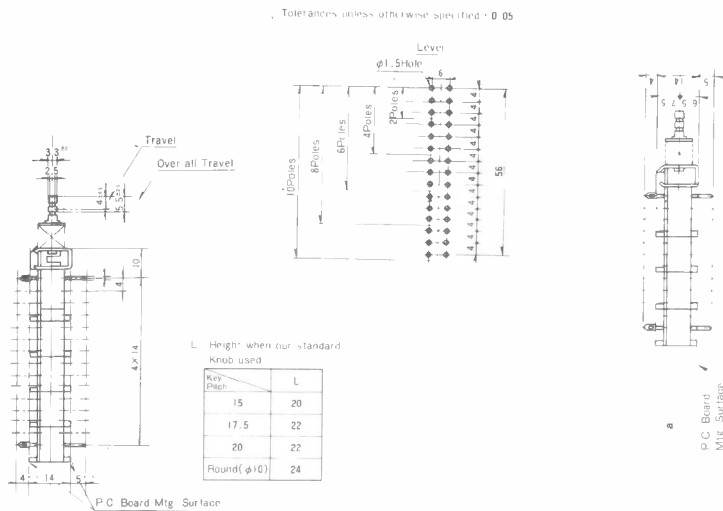
5 each of the standard range of keyswitches are available as a general purpose 'sample' pack for design and development purposes. Also keytops in both legended and 2-part styles - see the current PL for further details.

High quality light-action push button switch system : SUE/SUF

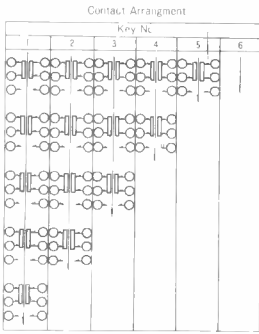
Outline Drawing



Printed Circuit Board Hole Diagram (reference)



Circuit Diagram



These are the same switches as used on the Mark III series of HiFi equipment - and those of you who have occasionally asked if the switch system was available separately will be pleased to learn that we have now acquired a stock range of these switches on the following basis:

10mm, 15mm and 20mm module spacing with brackets and latchbars for up to 10 way operation
Brackets with M+ x0.5 fixing holes - PCB terminals with eyelets on top side for direct wiring.

Two types of mains switch are available that fit into the system with 15/20mm spacing - the SDU type being an extremely high quality unit with DC LT 2p changeover facility in addition to the 2 pole mains contacts. Maximum current is dependant on voltage to a certain extent - although the SDU will handle approx. 7A, and the SDW 5Amps.

The basic signal switch contacts are rated for 45v at 300mA - although specific details are given in the 9 pages of SUE data available. The SUF is essentially the same as SUE in terms of dimensions - but is only available as a very light action 2 pole unit.

The switch blocks are supplied with sealed bases to prevent flux seepage - and are simple to assemble into any configuration with a little practise.

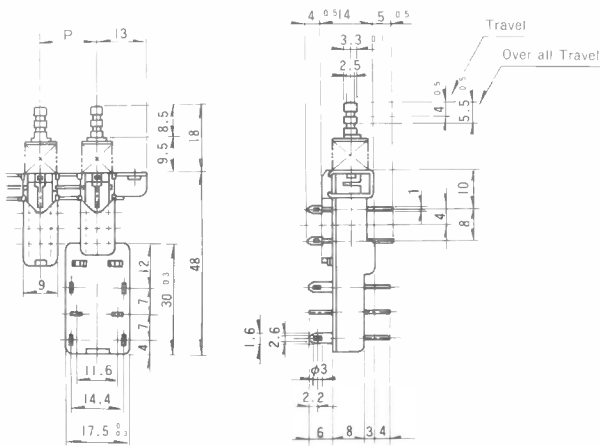
Knobs/caps etc

A range of standard caps is available for this series - which uses the same basic spigot sizes as the SUB and Lipa & Isostat switch types. (as well as most other types of push button switch system)

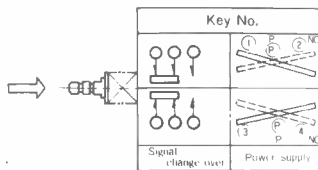
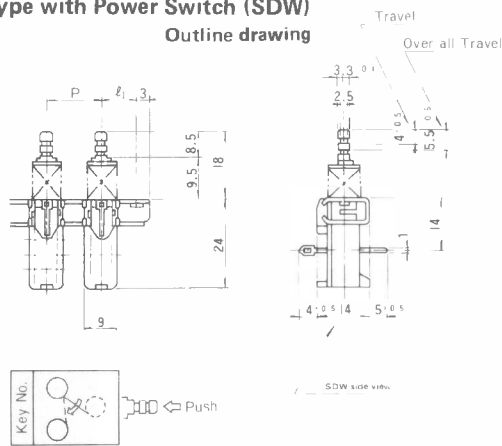
Compatibility

The SUE/F series use the same switching configuration and PC pin spacing as the SUB, Lipa, Schadow etc. The mounting bracket positions are essentially the same, although certain types of switch bracket may have marginally different fitting centres. The height of the centre of the spigot above the PCB should be compatible with alternative switch systems - though check in critical applications.

Type with Power Switch (SDU)
Outline drawing



Type with Power Switch (SDW)
Outline drawing



- Notes:
1. SDW can be combined with any key regardless of its position.
 2. Circuit of SDW is SPST only.
 3. Operation mode is available in linked (lock release) and independent (self-lock).

- Notes:
1. SDU can be combined with any key regardless of its position if the key pitch is 15mm or more.
 2. Two parallel use of SDUs requires at least 17.5mm key pitch.
 3. When SDU is combined with a key with 12.5mm pitch, the adjacent key position must be set in blank.
 4. SDU is provided with two signal switching circuits.
 5. Circuit of SDU is available in SPST, SPDT, DPST and DPDT. The circuit shown in the drawing is DPDT.
 6. Operation mode is available in linked (lock release) and independent (self-lock).
 7. Approved by international safety standards (UL, SEMKO, etc.).