

# Instructions for Using Switches

1. Carefully assess all voluntary movements
2. Select the right switch to suit the user's abilities
3. Ensure switch is accessible, mount if necessary

## Assessment of Voluntary Movements

When considering a switch to operate a communication aid, or some other device such as a page turner, the most important thing is to determine over which body movement(s) the user has good voluntary control.

The assessment needs to take into account a number of factors:

- the number of voluntary movements (e.g. if 2 switch scanning seems appropriate, whether they have sufficient movements)
- amount of movement
- muscle strength
- muscle fatigue
- reflex speed
- timing skills
- repeatability
- reliability
- spasticity
- spasm
- relaxation or release speed
- likelihood of this voluntary movement deteriorating in future
- possibility of other voluntary movement(s) improving in future
- possible need to reserve a particular strong/reliable voluntary movement for other control requirements (e.g. electric wheelchair)

## Assessment Technique

It is generally found to be helpful to assess these voluntary movements initially with the switch not connected to the communication aid or other device since inadvertent operation may be distracting and frustrating to the user, but just to connect the switch to a switch tester with auditory feedback to give a simple audible beep on each switch operation to give very clear feedback of the switch's operation.

Ask them to 'beep' when you snap your fingers - this will show how quickly and how reliably the switch can be operated. If their timing skills are poor or reactions are slow, step scanning may be preferable to automatic scanning. Ask some "Yes/No" questions to which both you and the client know the answer, requesting 1 beep for "Yes", and 2 beeps for "No". Assess also their ability to make a quick 'double click' - this is used on the scanning Lightwriter to 'cancel'.

Having established which body movement is most suitable for the particular user and having given both the user and the assessor confidence while using the switch tester that they can regularly and reliably operate the switch, only then it is recommended to connect up to the aid.

## Mounting

This is particularly important for some users and unnecessary for others. It is essential that the switch is in the correct position at all times to make it accessible, and that it does not move away while being operated.

For some users it may be necessary to consider a mechanical mounting system attached to their wheelchair, table, chair, or bed. This may constrain the switch being moved easily with user.

For head movement operation it is recommended to mount the switch with velcro on a block or wedge of thick foam so it will not be a solid obstacle if they go into spasm, thus avoiding injury.

Some users will benefit from the switch being attached to a plate for stabilisation, so they can hold the switch steady with one hand and operate it with the other.

Most switches may be mounted most easily using double-sided velcro or double-sided adhesive tape. Our Click Switch has two holes in the base for No 4 self-tapping screws.

