
Ideas for Using a Mains Control Unit in School

Quick Guide

Created 08/09
Updated
SM

Battery operated toys are attractive but they can be limited and limiting – and they are expensive. A mains control unit creates a more flexible ‘toolkit’ of equipment and can open up new and productive opportunities for the development of switch use and independent control.

Mains Control Unit

PowerLink or Click-On

Whether you get the older **PowerLink** or the newer **Click-On**, a mains control unit is a versatile and useful tool for extending and developing the experiences of a switch user, and for facilitating inclusion. A mains control unit allows safe switch operation of any mains operated electrical device or appliances. For example, a child can take part in a cookery session by using a switch to turn on and off a food mixer. By using 'real' equipment rather than just toys, and by achieving real 'control' in everyday functional settings, children feel that switch operation is more important.



At the earliest level, a mains control unit is ideal for exploring sensory experiences and for teaching, practising and establishing 'cause and effect' understanding.

A pupil that already has the concepts of 'cause and effect' and of intentionality well and truly established will be working on initiation and more independent control. He/she would use a switch and mains control unit to participate actively and to be included in educational and social and fun activities. It can also

support communication.

What will a Mains Control Unit operate?

Basically – though with some exceptions – a mains control unit will operate any mains appliance that has a simple on/off switch and no other switches or settings.

On some kitchen appliances that have a button that you hold down to activate the device, you may be able to use firm masking tape to tape it into a permanently ON position.)

However, sadly, some of the more modern appliances and the latest digital appliances are problematical as they have not just an ON/OFF switch but also some fancy electronics in between

the mains plug and the operation of the device itself. Unfortunately, these cannot be operated by a mains control unit (e.g. CD or DVD player, microwave oven).

Participation, Curriculum and Inclusion

Switch equipment needs to be easily integrated into everyday activities on a curricular or on a fun / functional basis (not isolated in a special room as a separate activity).

Bobby (below) is an example:

The milk shake boy

One little boy, Bobbie, has a programme whereby, one or two mornings a week, he goes around each young person in his small group.

- Using a single voice message BIGmack (operated by a head switch) he asks, “*what kind of milk shake do you want?*” He then offers the child a coloured, laminated photo chart showing strawberry and chocolate (and an associated pink or brown milkshake), so they can point to the one they want.
- His assistant then helps him mark the ‘order’ on an order sheet in the form of a bar chart - one level coloured-in per order (Maths - more/less, basic adding on one, and graph making, etc.) and to calculate how many of each he has to make.
- He then makes the milk shakes one by one, using his head with a switch adapted toy mixer.

Toy Mixer



switch

- With his assistant, he checks which pupil ordered that flavour (basic reading, matching class names to small photos on order sheet) and delivers the milk shake to be drunk at snack time.

This is a great programme, because the technology is integrated as one element only within a wider activity that emphasises social interaction and communication. It takes a long time in the morning but that’s OK – the task IS his curriculum, incorporating communication, maths, and ICT targets in one meaningful activity. The boy likes the task as it has a clear purpose and gives him some authority. And everyone likes the milkshakes!

Variants of this have also been tried:

- Taking orders and making popcorn for ‘customers’ with a hot air popcorn maker (popular)
- Activating a switch adapted electric carving knife to prepare bananas and apples for snack time (less manageable/popular)



popcorn maker

Sensory Experiences

- Any/ all mains operated devices in a Multisensory or White/Black Room, such as bubble tube, fibre-optics, projector etc. that are not ‘hard-wired’ into the room system but that work off a plug
- Massager
- Electric aromatherapy diffuser. Available from e.g. <http://www.auravita.com/products/aura/ABAR20655.asp?RefId=220&adid=ABAR20655>



Personal / Social Activities

Incorporate one or more of these everyday appliances into classroom routines or games, or into 'jobs' to be done for the teacher

- *Lamp (coloured bulbs);*
- Fan (e.g. rotating table fan or free standing), fan heater
- Cassette tape recorder
- Radio
- Old style TV (non-digital)
- Paper shredder
- Electric pencil sharpener, electric stapler

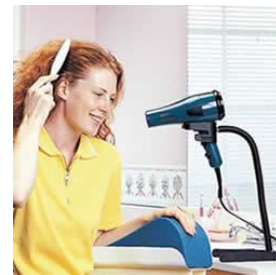
Switch music on and off for an adapted age-appropriate version of 'pass the parcel' or 'musical chairs' or 'statues' etc.

For the Girls

Buy, or get a local woodworker or Remap group to make, a stand for hairdryer.

Operate hairdryer with switch to –

- dry friends' hair after swimming session
- in pretend play as hairdresser



a

Running a Spa / 'Beauty Salon' once a week

Maureen is the manager of a beauty parlour where 'clients' come (and choose, and 'pay' for) treatments, which she switches on and operates for them. E.g.

- foot spa - preferably the sort with bubbles and vibration as well as heat can be used for hands as well as feet (add oils or perfume to intensify effect)
- heat massage pad
- gently vibrating electric toothbrush or massager used on hands or different areas of body
- Choose favourite smells, set up an aromatherapy oil diffuser thingy and get Maureen to switch on a cheap table top rotating a fan to waft the aroma around the Spa, for relaxing atmosphere
- Operating a fan or hairdryer to dry nail varnish in a small group 'pamper' session
- Offering a choice of different coloured bulbs or coloured silk scarves to drape over lap to create 'mood' and Maureen switches on lamp
- Offering a choice of 'mood music' and switching it on (cassette tape player)

Drama

For dramatic effect in performances: operate bubbles, fog/smoke, spotlight, Disco lights; Christmas lights; music

Technical

Operating electric drill (locked on a stand!) or other power tools in Technical sessions. Consult with Tech teacher for other ideas. Bearing in mind H& S and risk assessment procedures....

English, Maths or other subjects - Carrying out a Surveys

Child operates a BIGMack to ask his/her question, then with Mains control unit + RECORD on cassette recorder, he/she records people's spoken answers (and can play back later to teacher with switch.)

Home Economics

(some with help or with a partner)

- Mixer / food processor
- Blender / smoothie maker
- Coffee Grinder Popcorn maker
- Electric can opener
- Electric scissors, electric carving knife
- *Washing machine Tumble drier*
- Electric or Halogen cooker*
- Sewing machine

For some appliances, it may depend on the model you have. For example, some toasters will work with a bit of fiddling around, taping bits down etc. but some models may not – you'll just have to experiment.

Electric kettles are allegedly OK, but I blew the fuse in the plug of an older PowerLink, so I now tell people to avoid kettles, as these can have a very high power surge.



on the
other
once
avoid

Operate an Electric Spray gun with water (to spray / water plants, rinse dishes, etc.) or with aromatherapy oils to perfume the environment, or newly washed/ironed clothes etc. Available from e.g. <http://www.iosss.com/shopping/review.asp?prod=14753> or (dearer) <http://www.diytools.co.uk/diy/Main/sp-53-3847-53860-bosch-fine-spray-electric-spray-gun-pfs-55.asp>



Music

Turning music on and off is probably the most popular of all activities. Radio and cassette players are fine for use with a mains control unit.

NB. Do not throw out your old cassette tape players and favourite cassettes! Try to collect old ones from friends and colleagues – switch users need them!!

The Digital Age

Electrical equipment rapidly becomes ever more sophisticated, and it is hard for equipment for switch users to keep up! Most places now use CDs or MP3 players and DVDs rather than cassette tapes and video. Sadly, mains control units do not give access to electronic devices like these, with a 'standby' mode.

QED do sell (£210) a switch adapted CD player. Inclusive have recently brought out a switch accessible MP3 player (£89) – it is very big and heavy though. You plug in a USB stick or SD card containing MP3 files and music is played through the built-in speakers.

These may appear to solve the problem but there is a snag. Switch users can switch devices ON, and often also expect a 'timed' / repeat function whereby they press their switch again when the music stops, to set it playing again. That is what staff would require, in order to teach cause and effect. However these new players operate differently - a single switch controls both play and pause; press the switch to start the music and press again to stop it. This might be confusing for some users.

Users who are able to understand multiple functions operate two or more switches can operate the MP3 player with three switches: 1 to play/pause; 2 to step forward through the tune tracks; 3 to step back a track. many switch users couldn't do this.



Inclusive MP3 player

Infra-red Environment Control

In order for a switch user to operate some of the most modern gadgets and music players with a switch, we now need programmable infrared controllers that are unfortunately more expensive and more complicated to set up. You don't just plug the appliance in, you have to 'teach' the I-R controller the code for a specific function, e.g. play CD, next track, etc. (but once it's learnt, it holds the code and works like a remote control).



The new **Micro Jack** from Inclusive (£213) allows control of 2 functions. The **Big Jack** (£310) allows control of up to 6 functions.



Computer

It can be simpler to play CDs and DVDs through the computer. Software can be cheaper and simpler to set up than some of the I-R equipment, and gives flexibility in controlling and adjusting the different variables involved in tailoring a task to the switch user's level.

Communication Aids

Many of the most modern voice output communication aids and software are equipped to also operate infra-red devices (such as TV etc.)

Useful Websites

Most of these write about using the **PowerLink** but the ideas apply equally to the **Click-on**

<http://www.northcottcats.com.au/tutorials/index.html> (scroll down to 'Switch Skills' section / How to use a Click-on 2)

'Ideas on how to use a PowerLink at home and school' (.PDF download)

Google 'northcott ideas PowerLink')

<http://www.spectronicsinoz.com/product/22190/popup>

http://store.ablenetinc.com/videos/how_to/powerlink_howto.mov (video)

<http://www.pisp.ca/strategies/strategies94.pdf>

<http://www.pisp.ca/video/index.htm> (video)

Suppliers

Some key suppliers of 'switchy stuff' are listed below. They supply similar equipment but each also offers unique products so it is worth combing through them all.

Inclusive Technology Ltd.

www.inclusive.co.uk

Switchy stuff and a very wide range of excellent switch software. Micro Jack controller, switch access MP3 player. The only supplier of the Click-On mains control unit

Inclusive Technology Ltd, Riverside Court

Huddersfield Road

Delph. Oldham OL3 5FZ

Tel: 01457 819790

Email: inclusive@inclusive.co.uk

QED Ltd.

www.gedonline.co.uk

Switchy stuff and switch operated music technology, infrared controllers, e.g. the Big Jack

Quality Enabling Devices Ltd

Unit D16, Heritage Business Park, Heritage Way

Gosport, Hampshire PO12 4BG

Tel: 023 9258 0600

Email: sales@gedonline.co.uk

Possum Controls:

www.possum.co.uk

Switches and switch controlled infra red and radio operated environment control equipment

Possum Controls Ltd

8 Farmbrough Close, Stocklake Park Industrial Estate

Aylesbury, Buckinghamshire HP20 1DQ

Tel: 01296 461000

Email: unit8@possum.co.uk