

Environmental Control Units (ECU)

Environmental Control Units (ECU) are purpose-designed devices that assist people with limited physical abilities. These devices enable people to control their immediate environment using alternative means e.g. using an ECU to turn lights on and off, air conditioning on or up or using telephone.

Dependent on the type of ECU selected there are different means of accessing each device. These include: Direct access (finger press), indirect access (touching a switch), voice recognition or a combination of these methods. If using voice recognition, a backup means of operation is also recommended.



ECU'S THAT CAN TURN ONE (1) ELECTRICAL APPLIANCE ON AND OFF

These are:

1. A range of plug in appliance timer units are available, however these do not allow for independent control as they are restricted to pre-set times.
2. Switch adapted toys and equipment to enable access to play, leisure and learning experiences eg. CD player.
3. Basic level ECU's that are designed to enable alternative "on and off" control of one appliance – this can be useful for any electrical appliance eg. Lamps, radios, blenders. An infrared remote or a plug in switch is used to turn an appliance on/off.



ECU'S THAT CAN TURN MORE THAN ONE (1) APPLIANCE ON AND OFF

There are ECU's that enable remote on/off control of electrical appliances and lamps that run off mains power. These ECU's consist of modules, and/or receiver units and a remote control. In general the module/receiver plugs directly into the existing power point and an electrical appliance/lamp is plugged into it. One remote control is used to operate a number of appliances and lamps. It must be noted that the remote controls on these ECU's often have small buttons and so are mainly used in combination with other ECU's that allow for switch access or direct access.



ECU'S THAT REPLACE STANDARD INFRARED REMOTE CONTROLS

These are:

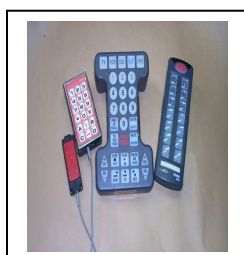
Generic alternative remote controls – These can be used in place of the supplied remote and can also be used to combine a number of remote controls into the one unit (remote). They may offer a better design for some users such as simpler buttons or larger buttons.

Specialised ECU's which can learn the infrared signals generated by standard remote controls. There are two types of specialised ECU's available:

- **ECU Devices** that contain preset signals that you need to match with your appliance - **ECU Devices** that can learn the signal from the existing remote control. These ECU's can be used to replace the existing remote controls for a range of appliances. They offer features such as larger buttons, switch access and even speech recognition. ECU devices will vary on the number/type of functions and appliances that it can control.

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HOW TO COMBINE “ON/OFF” AND INFRARED ECU’S

To enable the user to have as much control as possible of their environment some of the on/off infrared ECU's can be incorporated with the specialised ECU's.

This setup allows the user to operate a variety of appliances using one remote control unit.

LOW TECHNOLOGY OPTIONS

It may be possible to use different techniques to make it easier to control remote controls e.g.

- using the blunt end of a pencil to push small buttons or gluing a small lever extension to a light switch.
- Re-arranging the environment may also assist e.g. install light switches at wheelchair height or position a standard remote control on a fixed surface where it can be accessed.

FACTORS TO CONSIDER WHEN INVESTING IN ECU OPTIONS

- What appliance/s require an alternative control device?
- What environment/s will the ECU be used in?
- What movement/s does the individual have to control the ECU within these environments?
- What backup systems are in place for them if unwell/emergencies?
- Ability to the user to learn new tasks and remember the steps.
- Set-up and training needs.
- Ongoing support and troubleshooting needs.
- Properties of infrared remotes – Line of sight.
- Funding available for ECU's
- Need for appointment to fully explore all options with an Occupational Therapist.

ECU's can be a powerful tool for increasing independence and improving quality of life.

“It allows me so much more freedom because I do not have to call for assistance if I wish to do something as simple as changing a radio channel. Just under 2 years ago I was staring at the ceiling and the clock from around 3am in the morning. Now I am enjoying listening to “Lord of the Rings” on CD”

- Vicky an ECU user

NEED TO KNOW MORE?

Telephone, fax or email your enquiry to obtain further information from one of the therapists about products. Alternatively, you can make an appointment to trial the equipment at our display centres or through our outreach service. Please phone LifeTec Queensland for further details.

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