

Operator Manual Multi-hook Carousel Control Unit.

This manual describes the installation and operation of an 8-hook Carousel Control Unit (part number CCU 2020-8). Control units are manufactured with a minimum control function of 4 hooks and are expandable by multiples of 4. Units have been manufactured with a capacity of up to 16 hooks.

It is a fully solid-state electronic control unit, without any moving parts, and has been tested in a chamber at -45 Celsius. For operation, it requires a 3-way momentary toggle switch (on-off-on). The wiring from the aircraft needs to be at least 3-conductor (2 **positive** and 1 **negative or ground**).

Construction:

The housing is made of ABS and the top cap is installed, using lubricated o-rings, making it completely weather proof. As such, the unit requires a “vent” screw (located in the center) to allow air to come in when there is a need to take the ABS body apart. It is impossible to separate the cap from the tube without opening the “vent” screw. The bottom cap is glued in place and the top cap is held in place with 4 set screws.

Dimension OD =5”, height is 5.25” including terminals. The height varies with the quantity of hooks selected at time of manufacture.

Installation:

The top cap shows 2 sets of terminals, located as the outer circle and the inner circle.



The outer circle is self-explanatory. They are numbered 1 through 8, representing the individual wire terminals for the **+** wire of each individual hook.

The inner circle consists of 3 **ground** terminals, 1 step, 1 lamp and 1 reset terminal. The **ground** terminals are interconnected internally so can be used as needed (aircraft, lamp and hooks).

Connect the “up” toggle switch **+** wire to the “reset” terminal.

Connect the lamp **+** wire to the “lamp” terminal.

Connect the “down” toggle switch **+** wire to the “step” terminal.

Operation:

The unit starts the cycle at position "zero". Position "zero" can be achieved at all times by pressing the "up" toggle to activate "reset". The lamp on the carousel will light up to indicate reset to "zero".

Toggle "down" momentarily will move the control unit to #1. Each short toggle "down" will move the controller to the next hook. Holding down the toggle switch for a longer period (about 2 seconds) will release the hook.

For example: After reset, holding down the switch long will release hook 1, repeat and hook 2 will be released and so on, releasing the hooks in sequence.

If you need to release a specific hook, let's say hook #4: starting from zero, click down short 3 times and hold down long on 4.

This control unit does not have the ability to release all hooks at the same time. Sequencing through all is your only option.