

# 12-Position Rotary Switch

## Introduction

The Ecumaster 12-Position Rotary Switch is an analog rotary switch with adjustable position limiting pins, offering users the flexibility to customize it for various applications. The set includes a bushing for easy mounting of the knob.

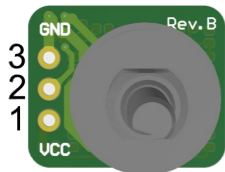


The switch enables quick mode changes and can control various functions. Its universal compatibility makes it suitable for a wide range of applications, and it seamlessly connects to any unused analog input on Ecumaster's products.

The rotary switch unit, produced by the world-leading Grayhill Inc, is assembled and enhanced by Ecumaster, guaranteeing top-end quality.

## Installation

Rotary Switch produced by Grayhill comes soldered to a board designed by Ecumaster, which makes installation very simple and only requires connecting three pins.



Pin	Description
1	+5V
2	Analog output signal
3	Ground

After soldering, it is recommended to cover the connections with epoxy resin or glue to improve the longevity of the device.

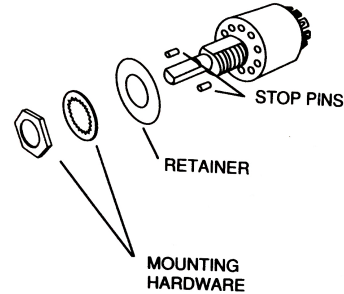
## Assembly with Rotation Adjustment

The user can adjust the rotation of the rotary switch by using limiting pins. It has three possible operating modes:

- Continuous rotation (without using limiting pins)
- 12-position rotary switch (with one limiting pin installed)
- Limited rotation (using two limiting pins)

The following installation manual is an excerpt from the assembly instructions of the rotary switch manufacturer, Grayhill, Inc. For more information, please visit: <https://grayhill.com/datasheets/>.

## Preparation



"...There are 3 types of parts.

1. Stop pins
2. Retainer - adhesive sticker
3. Mounting Hardware: hex nut & internal toothed lockwasher

**Stop Holes** - these are located in the front plate, halfway between switch positions.

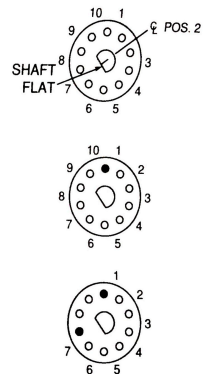
**Switch Positions** - these are equivalent to the location of the terminals. See numbers on the side of switch or the end plate.

## Continuous rotation

1. Discard stop pins and unnecessary retainers.
2. Mount the switch, using lockwasher and hex nut.

## Limiting rotation

1. Orient shaft with the flat opposite position #2.
2. Place first pin in the hole which is half a position counterclockwise (shaft end view) of position #1. This creates a stop between the last and first positions of rotation.
3. For switches using maximum positions, only 1 pin is required; discard second pin.
4. For limited rotation, place second pin in the hole which is clockwise of desired last position.
5. Add appropriate retainer.
6. Mount switch with lockwasher and nut. ..."



## Knob installation

Ecumaster has designed a special bushing included in the set for easy installation of the rotary switch knob. The knob must be purchased separately.

After installing the limit pins and mounting the rotary switch to the target location using a hexagonal washer, you can proceed to mount the knob with the following steps:

1. Place the bushing on the rotary switch. Make sure it's aligned correctly by matching the flat part of the rotary rod with the oval hole in the bushing.
2. Position the knob onto the bushing, ensuring that its hole aligns with the elliptical cutout.
3. Secure the knob in place using the headless bolt attached to it. A 1.3 mm hex key is the recommended tool for this task, although a similar size torx key can also be used effectively.

## Specification

<b>Manufacturer number</b>	56DP30-01-1-AJN
<b>Index Stops</b>	Adjustable
<b>Number of Positions</b>	2 - 12
<b>Number of Decks</b>	1
<b>Number of Poles per Deck</b>	1
<b>Index Angle [°]</b>	30
<b>Maximum Current Rating [mA]</b>	200
<b>Voltage Rating DC [V]</b>	30
<b>Dimensions [mm]</b>	15.5 x 19 x 29

## Document history

Version	Date	Changes
1.0	2024.04.03	Initial release
1.1	2024.06.27	Product name changed Link to Grayhill website changed