SD17063-2 Option

The SD17063-2 option to the standard SD17063 replaces the function of the Disable Input with the functionality of an Enable Input. That is, the motor will receive power and motion will occur only if power is applied to the driver's Enable Input terminals.

Please note that even though the functionality of the input has been changed, the input terminals on the SD17063-2 are still labeled Disable + and Disable -.

Enable Input Specifications

Input Type: Opto-isolated 5 Vdc Differential
Input Isolation: 1500 Vdc
Turn ON voltage and Current: 5 Vdc @ 4 mA
Maximum Input Current: 30 mAdc

The SD17063-2 will require 275ms between the time when the Enable Input becomes active until the driver is ready to accept input pulses.
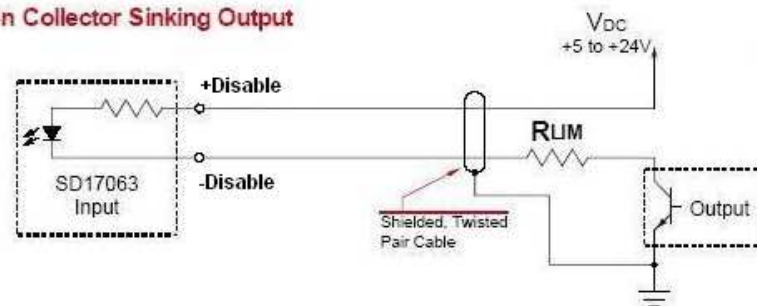
Enable Input Wiring

The following two diagrams show how to connect the Enable Input to both Sourcing and Sinking outputs. Please note that current limiting resistors, Rlim, must be installed if your output device is operating at a voltage level other than 5Vdc.
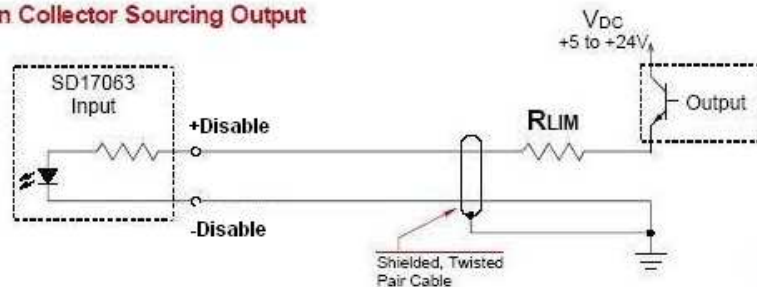
V_DC	R_LIMIT
5 Volts	None
12 Volts	2.0 KΩ
15 Volts	2.0 KΩ
24 Volts	3.9 KΩ

Enable Input Information

When active, the ±Enable Input on the SD17063-2 will cause the driver to apply current to the motor. It is recommended that you do not deactivate the Enable Input while the motor is running. When the Enable Input is inactive, the current to the motor is removed and it will be free to rotate. That is, the motor will not have any holding torque.

The SD17063-2 will not accept step pulses while the Enable Input is inactive. Therefore, when the Enable Input is turned on, the drive restores current to the motor in the same phase relationship that existed before the Enable Input was turned off. If the motor rotated while the Enable Input was inactive, (which is possible, because there is no holding torque), the motor may not start up correctly.

The SD17063-2 immediately drops the motor current to zero when the Enable Input becomes inactive, but "ramps up" the current when power is restored to the Input. This ramp up time lasts for a maximum of 275 milliseconds. Step Pulses are not accepted until the current ramp up is complete. If you send step pulses to the SD17063-2 before the 275 milliseconds have expired, the drive will indicate a *Window Step Violation* fault by blinking the Motor Fault LED. The driver will still accept step pulses and operate with a *Window Step Violation* fault.

The Fault Output is active, (it will not conduct current), when the Enable Input is inactive and the fault output remains active during the current ramp up time. Therefore, you can use the Fault Output to signal when the drive is ready to accept pulses instead of timing out the 275 milliseconds. (The active state of the Fault Output is *off*. Therefore, a loss of power will appear as a fault condition.)