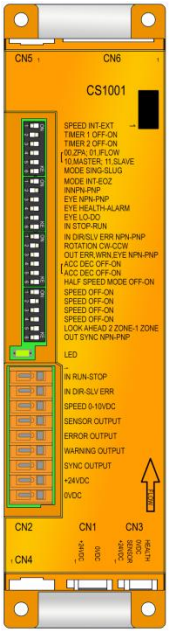
MDR Control Card Quick Reference Guide

WWL CS1001



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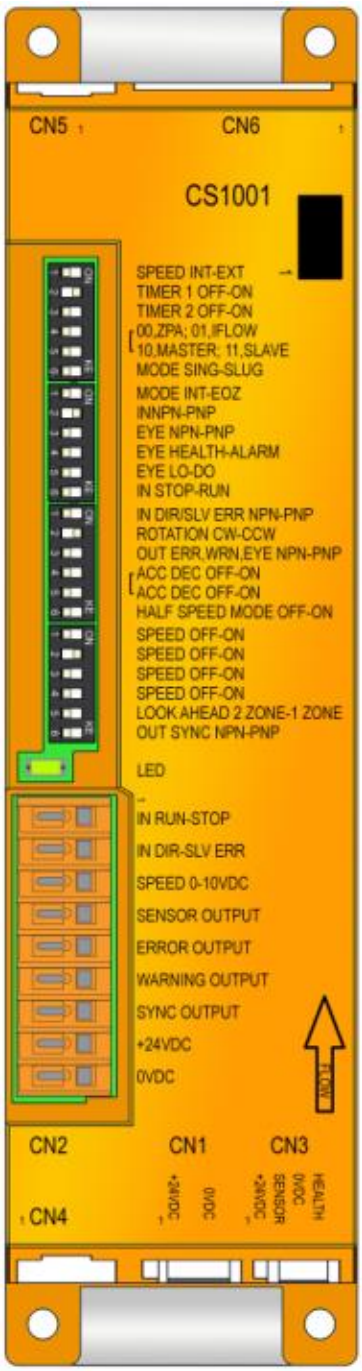


WWL CS1001 Speed Settings

Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

High Torque – High Speed (HTHS)

300 fpm

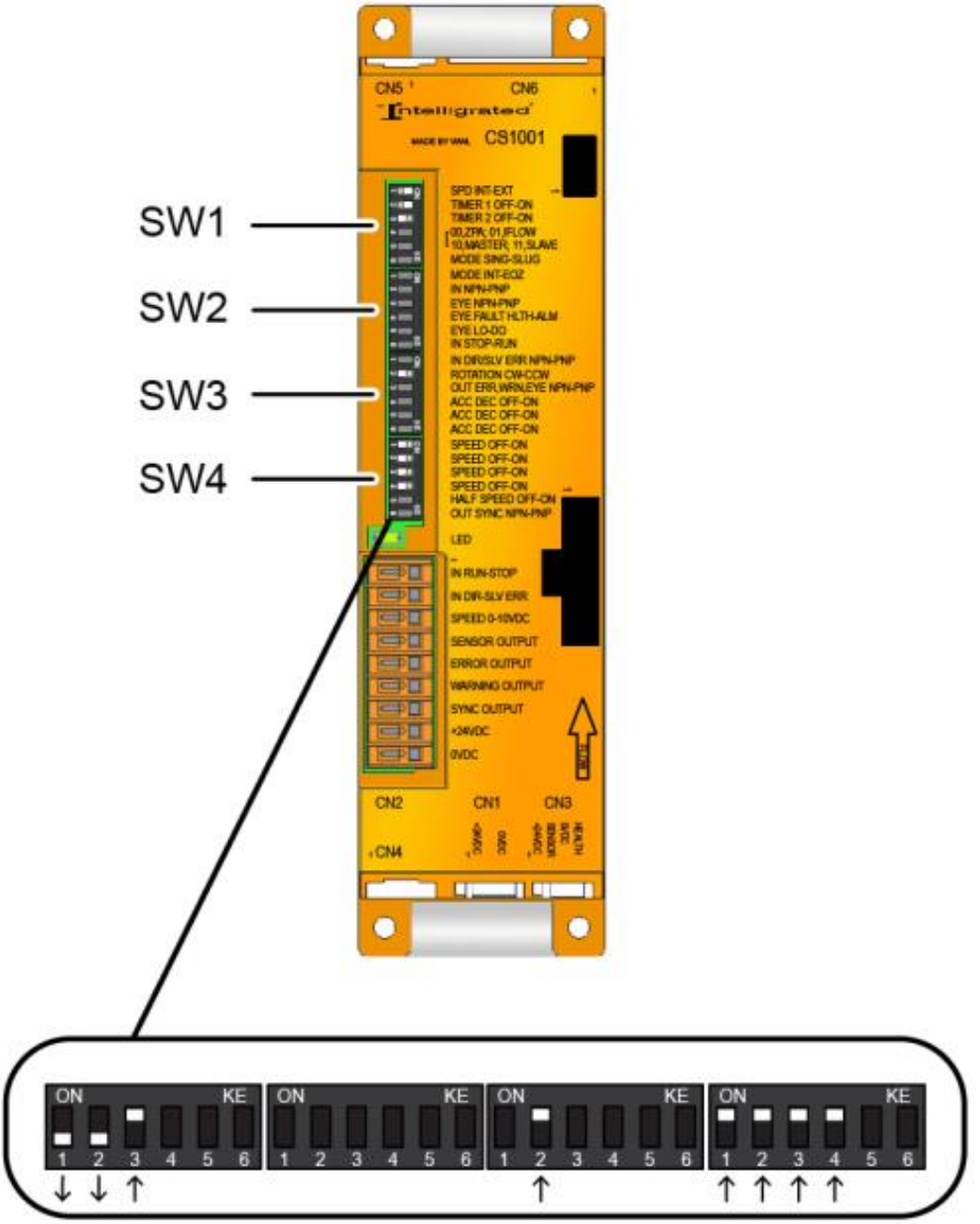
Local Control

Left Hand Mounted

Performance Data

No Load Speed	295.5 fpm
Sensor Timer	4.0 s
Jam Timer	3.0 s
Run Hold Timer	1.0 s
Vin +/- 0.2% Minimum Setting	9.55 V
Vin +/- 0.2% Maximum Setting	9.95 V

300 fpm/HTHS/Local/Left Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

Standard Torque – Standard Speed (STSS)

180 fpm

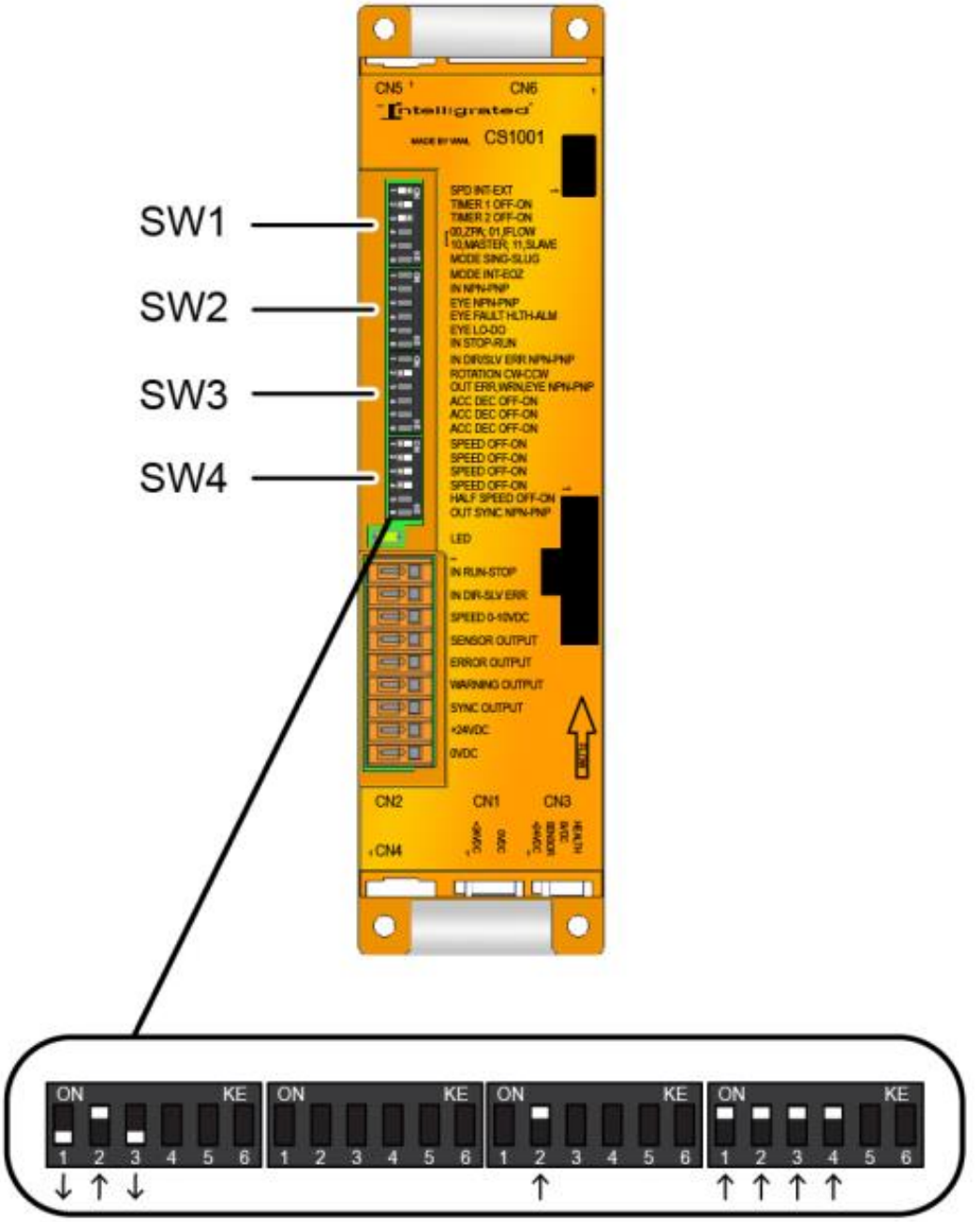
Local Control

Left Hand Mounted

Performance Data

No Load Speed	199.8 fpm
Sensor Timer	4.0 s
Jam Timer	4.0 s
Run Hold Timer	6.0 s
Vin +/- 0.2% Minimum Setting	9.55 V
Vin +/- 0.2% Maximum Setting	9.95 V

180 fpm/STSS/Local/Left Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

High Torque – Standard Speed (HTSS)

180 fpm

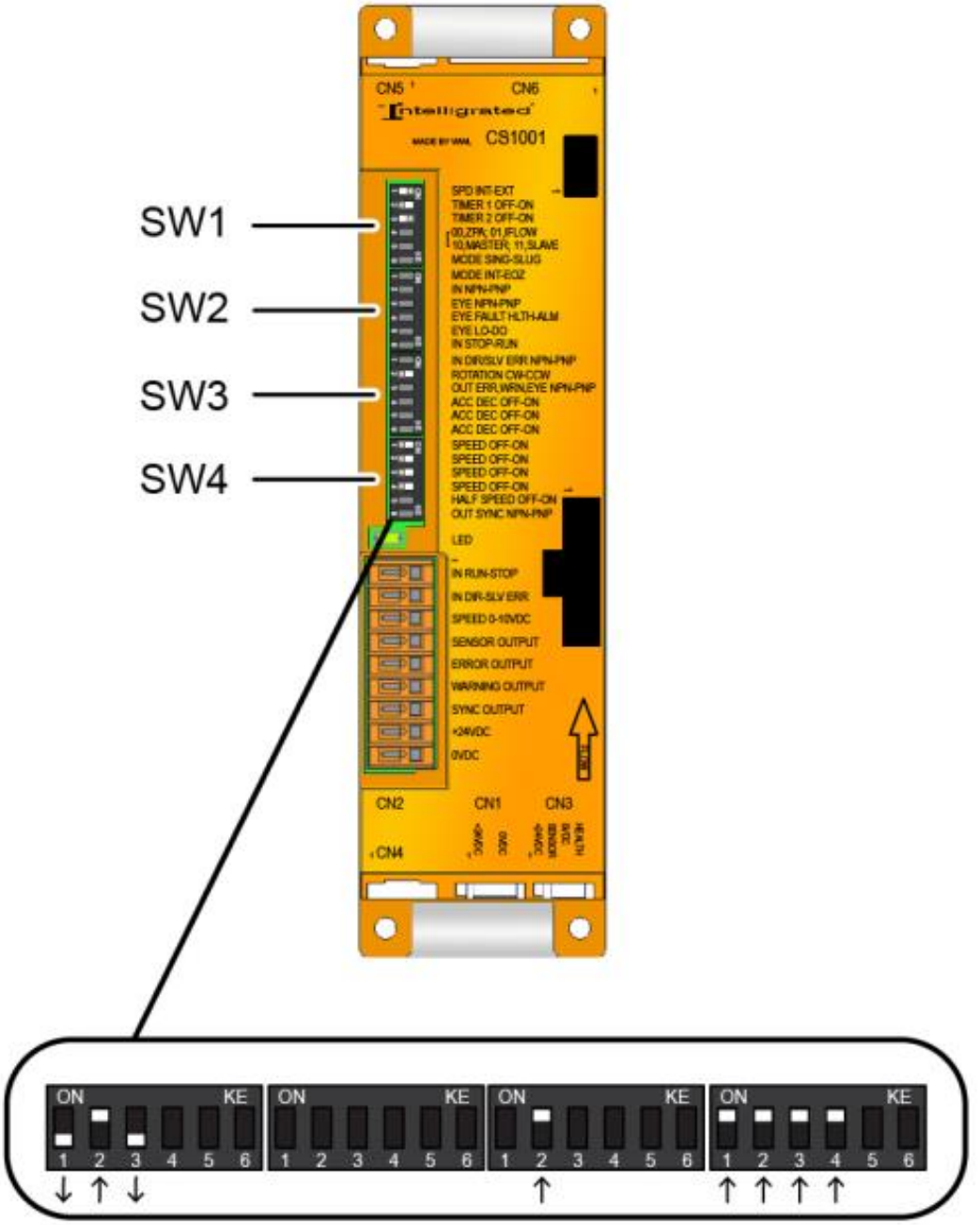
Local Control

Left Hand Mounted

Performance Data

No Load Speed	199.8 fpm
Sensor Timer	4.0 s
Jam Timer	4.0 s
Run Hold Timer	6.0 s
Vin +/- 0.2% Minimum Setting	9.55 V
Vin +/- 0.2% Maximum Setting	9.95 V

180 fpm/HTSS/Local/Left Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

High Torque – High Speed (HTHS)

180 fpm

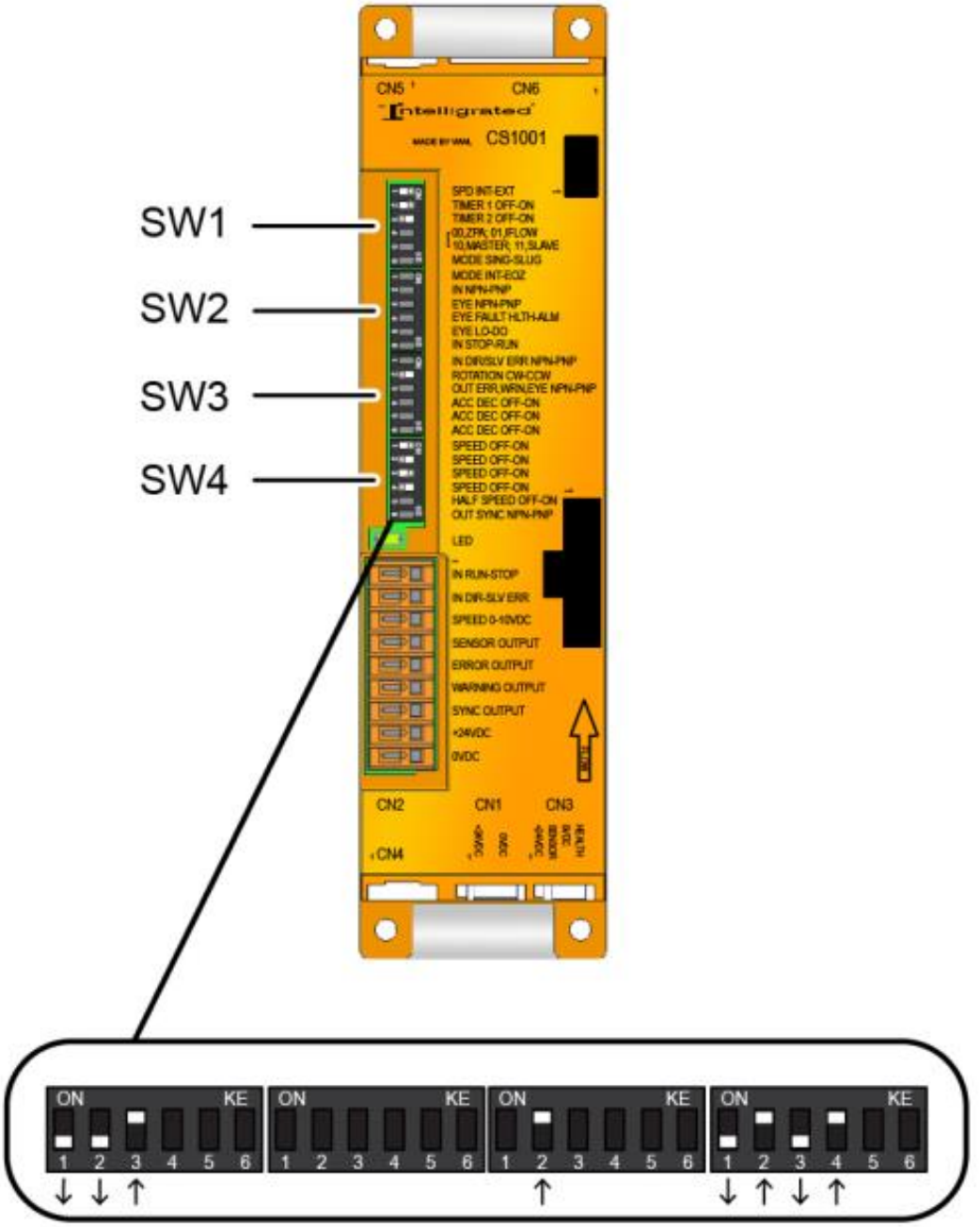
Local Control

Left Hand Mounted

Performance Data

No Load Speed	190.3 fpm
Sensor Timer	4.0 s
Jam Timer	3.0 s
Run Hold Timer	1.0 s
Vin +/- 0.2% Minimum Setting	5.55 V
Vin +/- 0.2% Maximum Setting	5.95 V

180 fpm/HTHS/Local/Left Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

Standard Torque – Standard Speed (STSS)

150 fpm

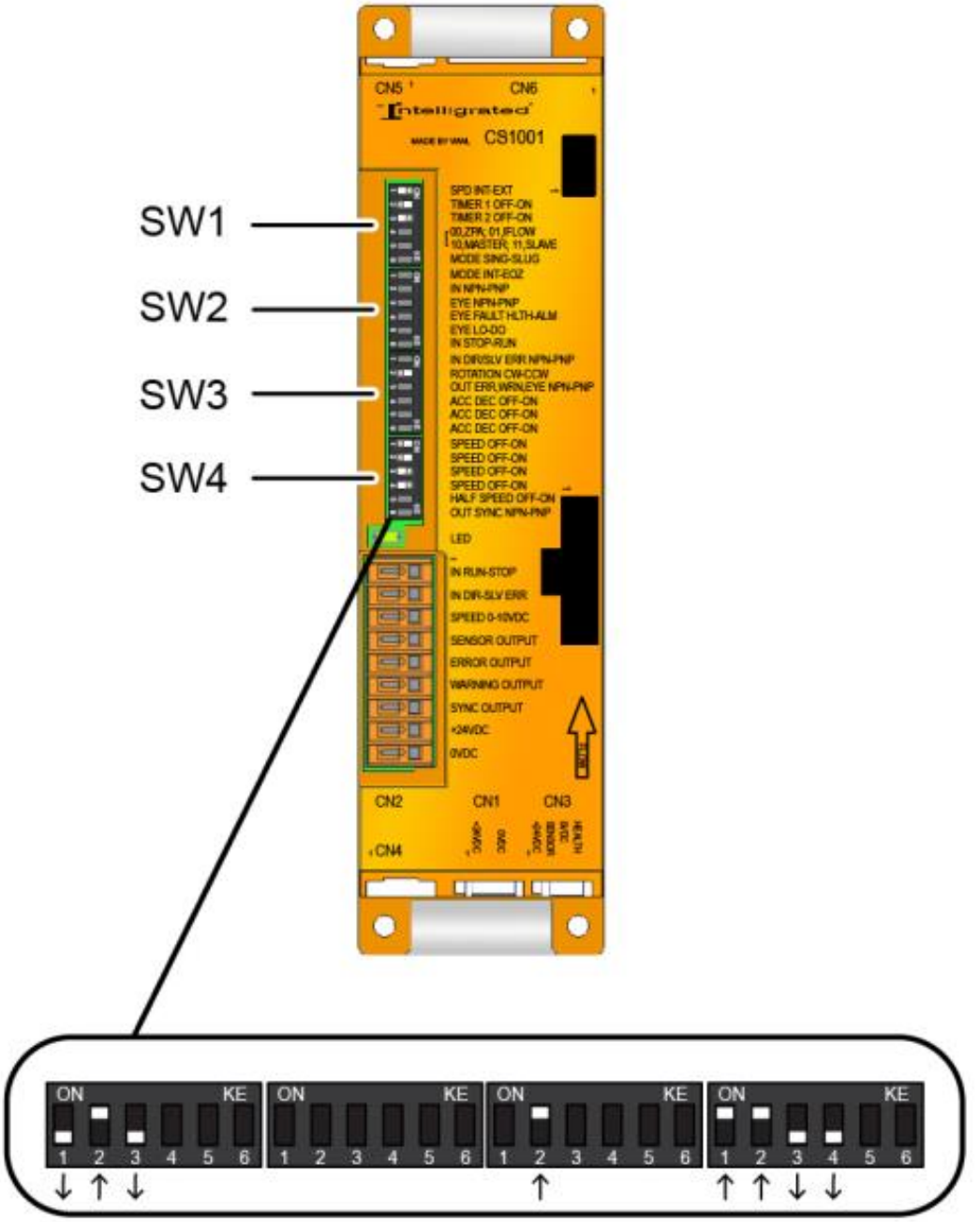
Local Control

Left Hand Mounted

Performance Data

No Load Speed	163.2 fpm
Sensor Timer	4.0 s
Jam Timer	4.0 s
Run Hold Timer	6.0 s
Vin +/- 0.2% Minimum Setting	7.55 V
Vin +/- 0.2% Maximum Setting	7.95 V

150 fpm/STSS/Local/Left Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

High Torque – Standard Speed (HTSS)

150 fpm

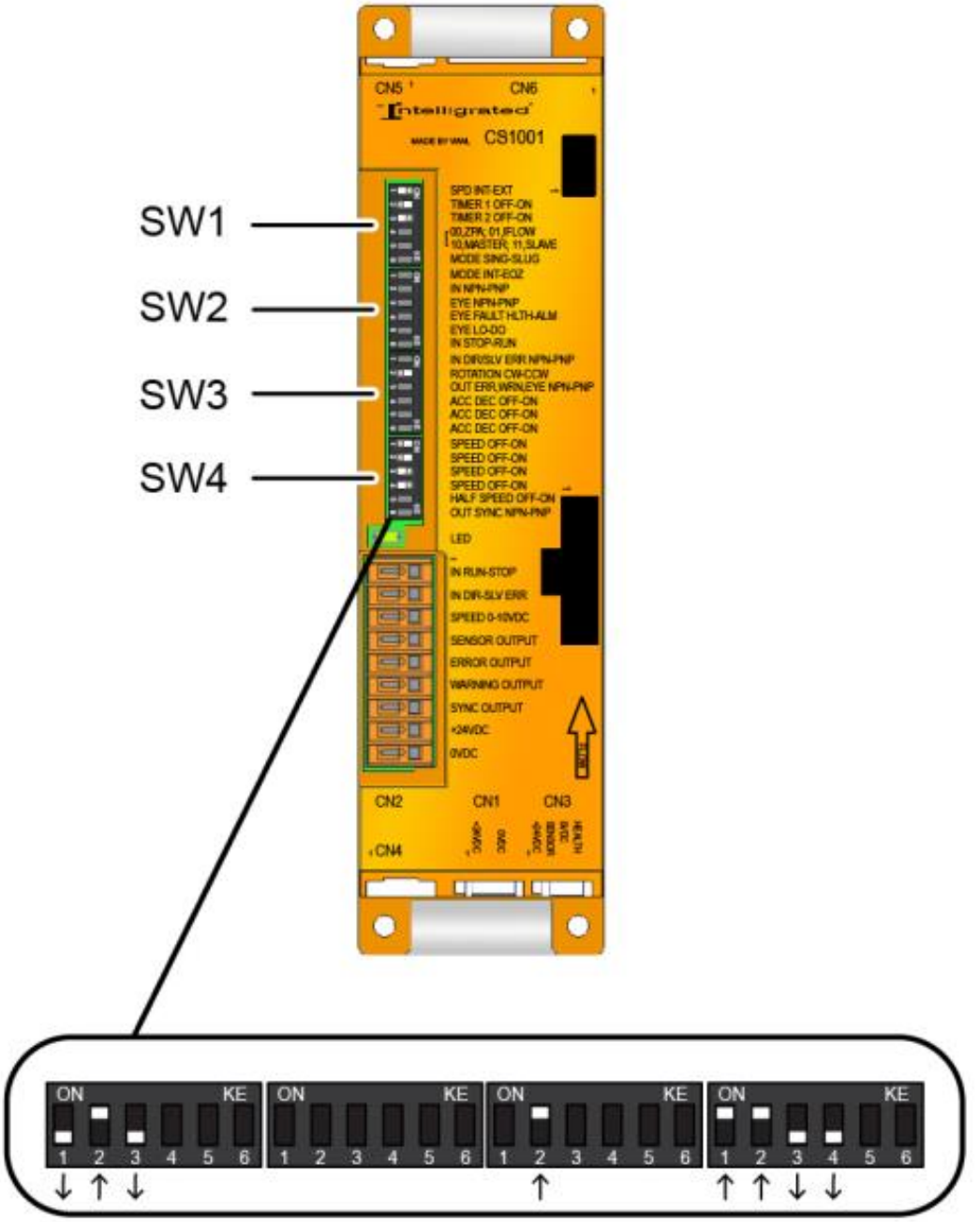
Local Control

Left Hand Mounted

Performance Data

No Load Speed	163.2 fpm
Sensor Timer	4.0 s
Jam Timer	4.0 s
Run Hold Timer	6.0 s
Vin +/- 0.2% Minimum Setting	7.55 V
Vin +/- 0.2% Maximum Setting	7.95 V

150 fpm/HTSS/Local/Left Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

High Torque – High Speed (HTHS)

150 fpm

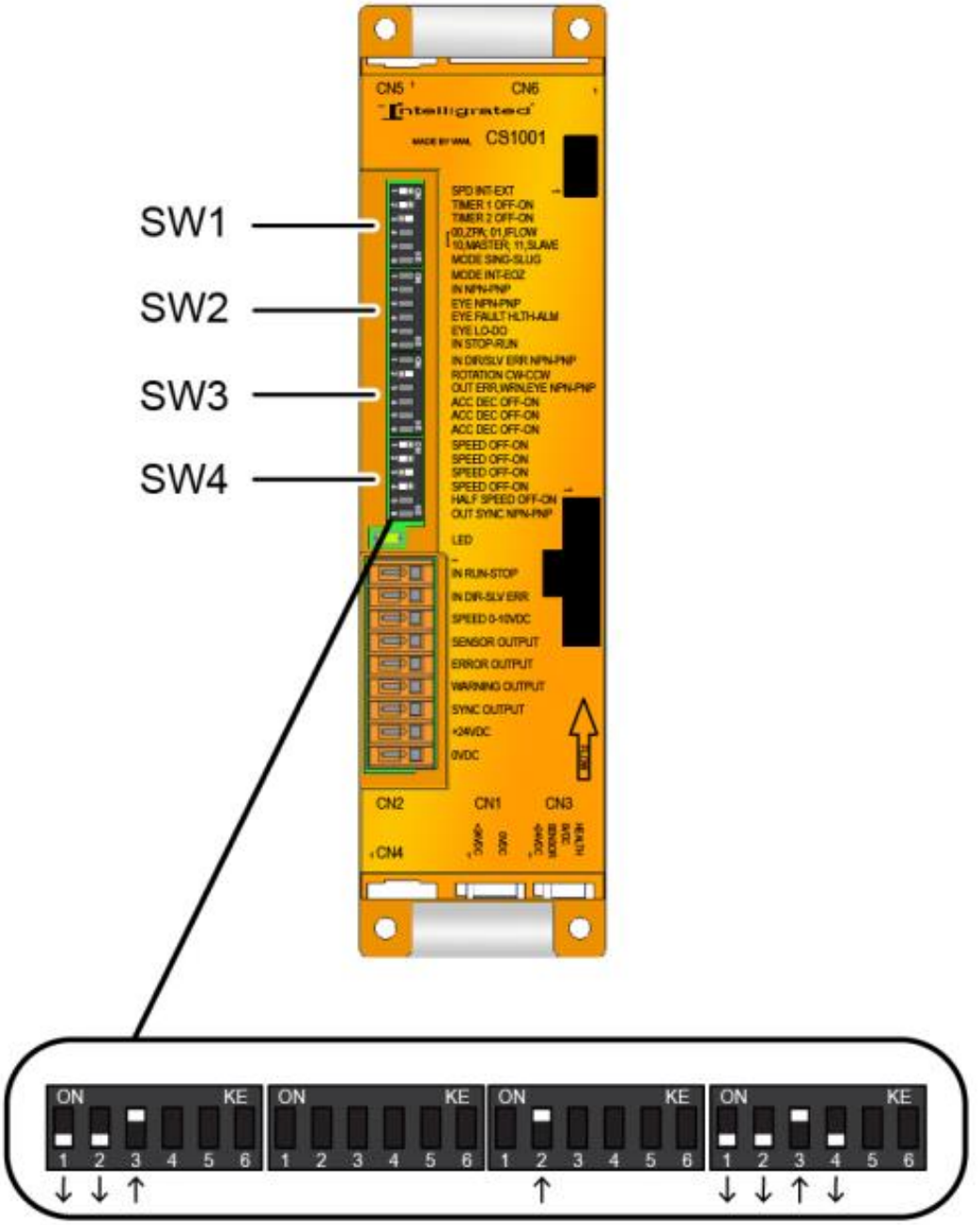
Local Control

Left Hand Mounted

Performance Data

No Load Speed	157.6 fpm
Sensor Timer	4.0 s
Jam Timer	3.0 s
Run Hold Timer	1.0 s
Vin +/- 0.2% Minimum Setting	3.55 V
Vin +/- 0.2% Maximum Setting	3.95 V

150 fpm/HTHS/Local/Left Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

Standard Torque – Standard Speed (STSS)

120 fpm

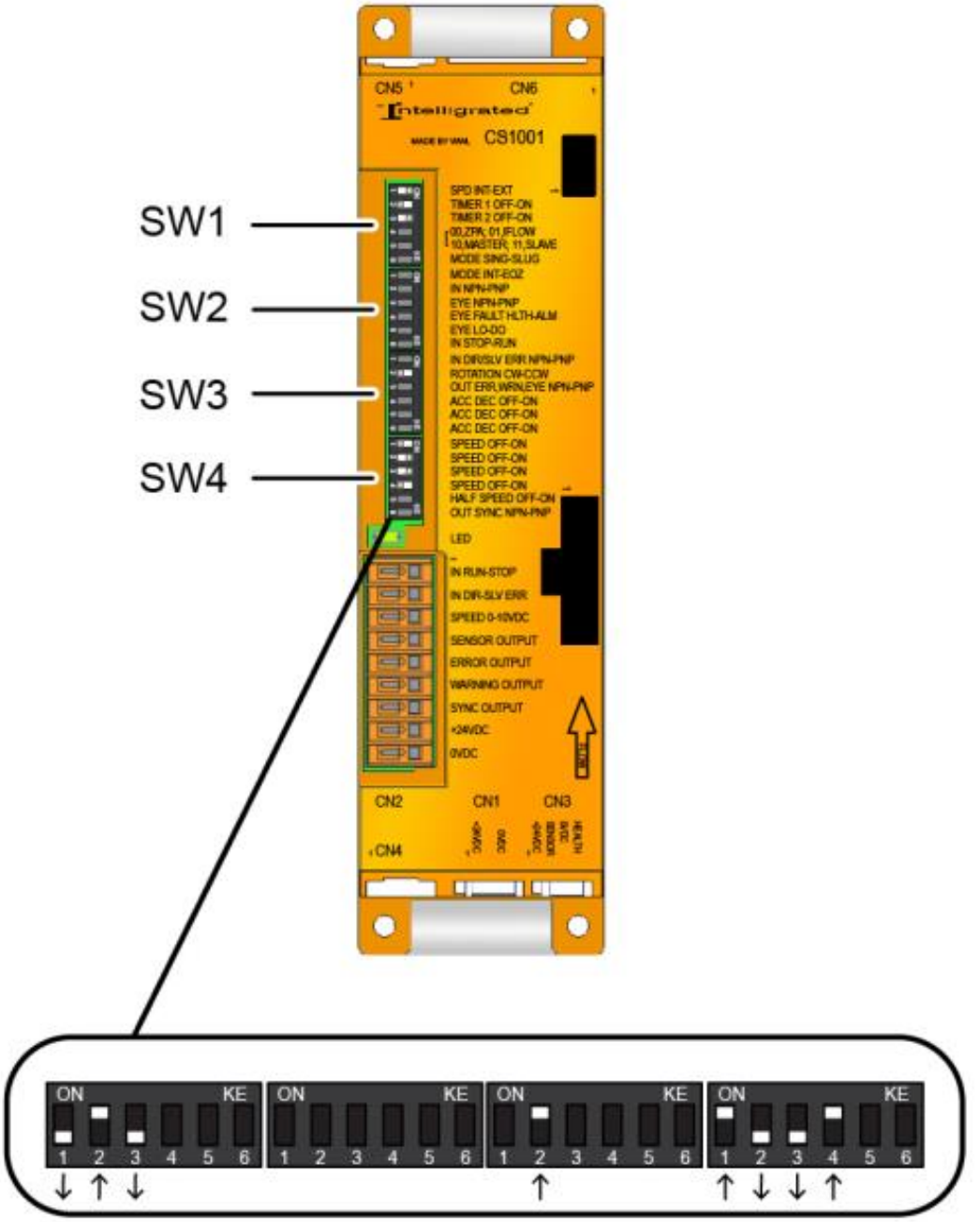
Local Control

Left Hand Mounted

Performance Data

No Load Speed	131.2 fpm
Sensor Timer	4.0 s
Jam Timer	4.0 s
Run Hold Timer	6.0 s
Vin +/- 0.2% Minimum Setting	6.05 V
Vin +/- 0.2% Maximum Setting	6.45 V

120 fpm/STSS/Local/Left Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

High Torque – Standard Speed (HTSS)

120 fpm

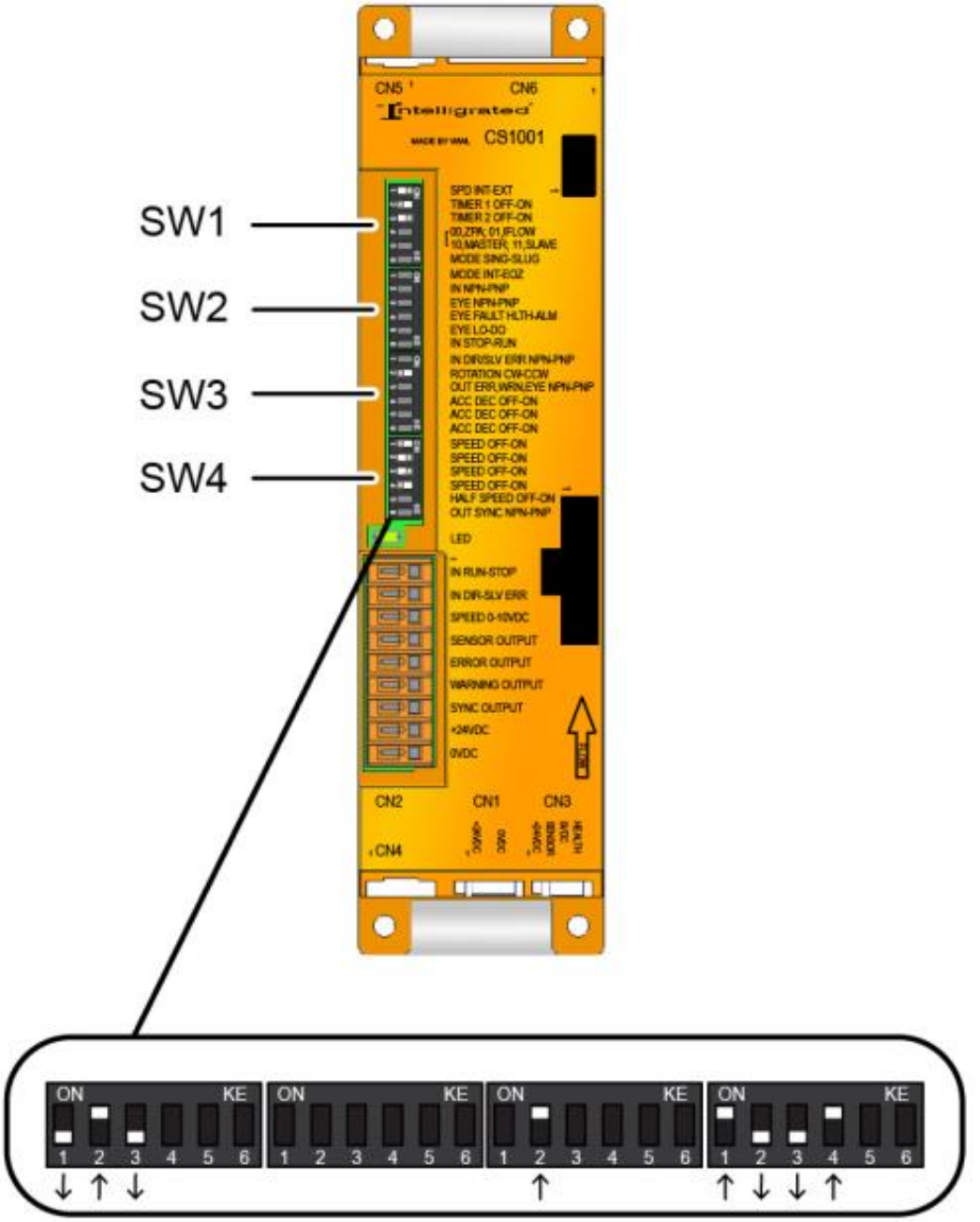
Local Control

Left Hand Mounted

Performance Data

No Load Speed	131.2 fpm
Sensor Timer	4.0 s
Jam Timer	4.0 s
Run Hold Timer	6.0 s
Vin +/- 0.2% Minimum Setting	6.05 V
Vin +/- 0.2% Maximum Setting	6.45 V

120 fpm/HTSS/Local/Left Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

Standard Torque – Standard Speed (STSS)

90 fpm

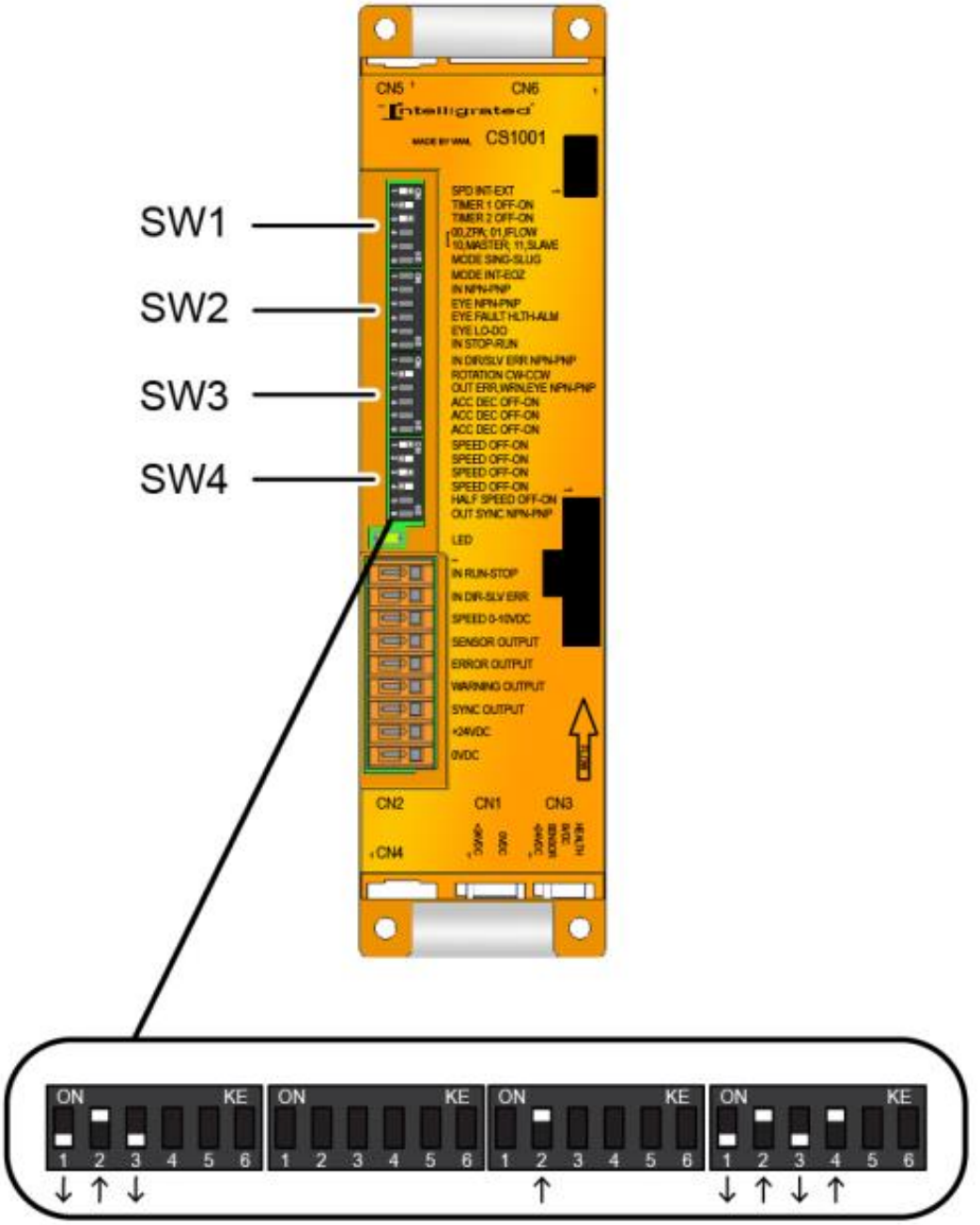
Local Control

Left Hand Mounted

Performance Data

No Load Speed	100.4 fpm
Sensor Timer	4.0 s
Jam Timer	4.0 s
Run Hold Timer	6.0 s
Vin +/- 0.2% Minimum Setting	4.55 V
Vin +/- 0.2% Maximum Setting	4.95 V

90 fpm/STSS/Local/Left Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

High Torque – Standard Speed (HTSS)

90 fpm

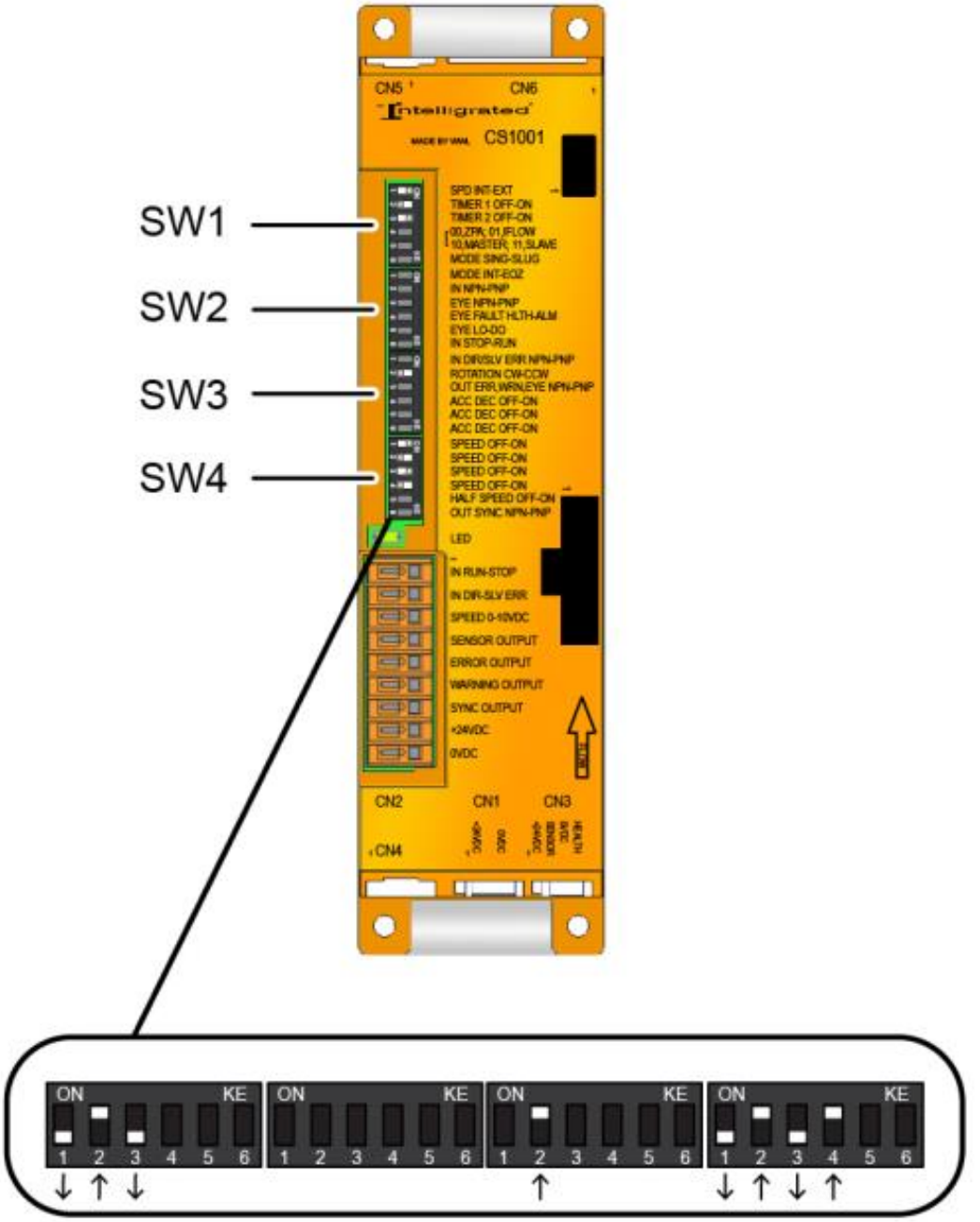
Local Control

Left Hand Mounted

Performance Data

No Load Speed	100.4 fpm
Sensor Timer	4.0 s
Jam Timer	4.0 s
Run Hold Timer	6.0 s
Vin +/- 0.2% Minimum Setting	4.55 V
Vin +/- 0.2% Maximum Setting	4.95 V

90 fpm/HTSS/Local/Left Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

Standard Torque – Standard Speed (STSS)

60 fpm

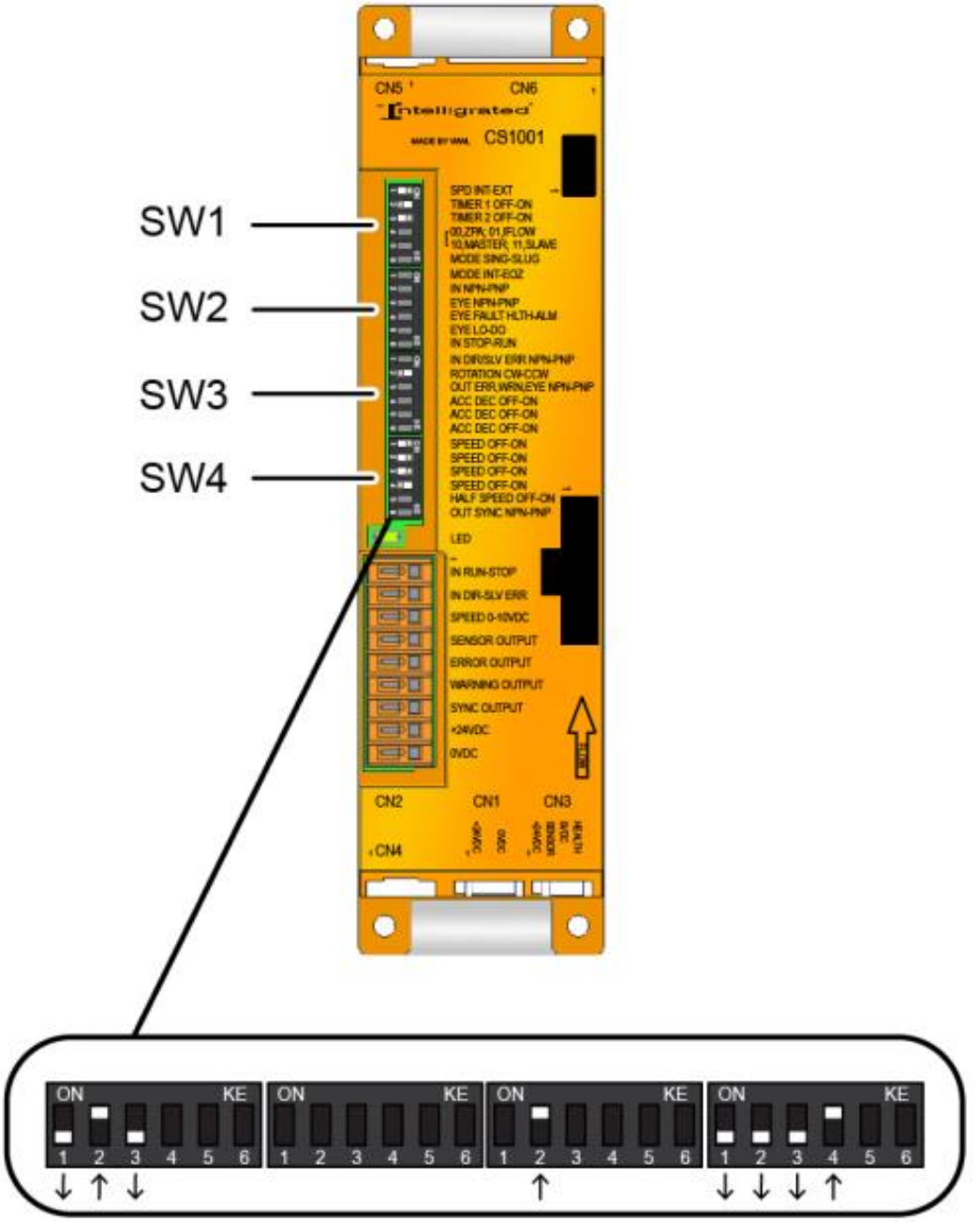
Local Control

Left Hand Mounted

Performance Data

No Load Speed	65.5 fpm
Sensor Timer	4.0 s
Jam Timer	4.0 s
Run Hold Timer	6.0 s
Vin +/- 0.2% Minimum Setting	3.05 V
Vin +/- 0.2% Maximum Setting	3.45 V

60 fpm/STSS/Local/Left Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

High Torque – Standard Speed (HTSS)

60 fpm

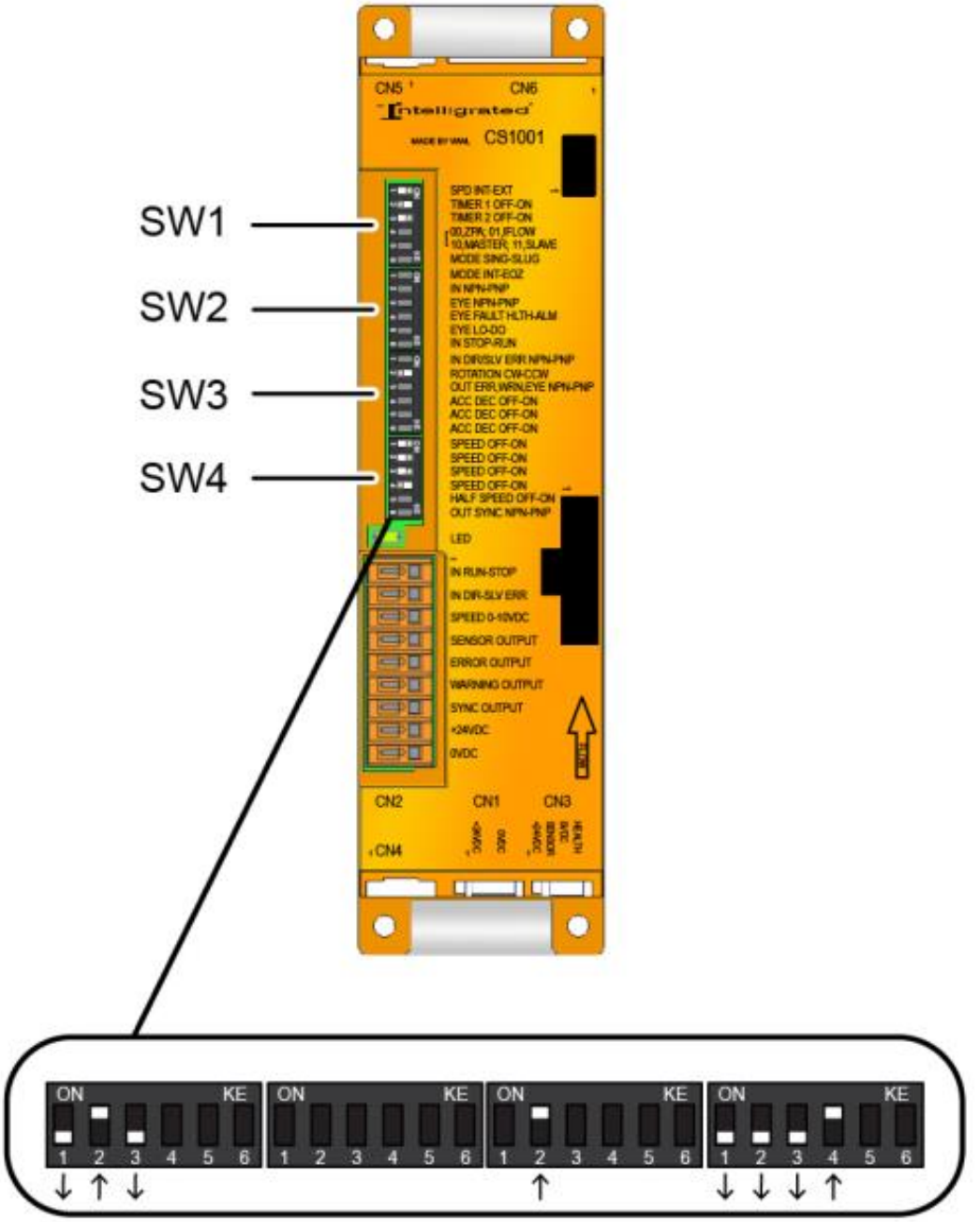
Local Control

Left Hand Mounted

Performance Data

No Load Speed	65.5 fpm
Sensor Timer	4.0 s
Jam Timer	4.0 s
Run Hold Timer	6.0 s
Vin +/- 0.2% Minimum Setting	3.05 V
Vin +/- 0.2% Maximum Setting	3.45 V

60 fpm/HTSS/Local/Left Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

Standard Torque – Low Speed (STLS)

55 fpm

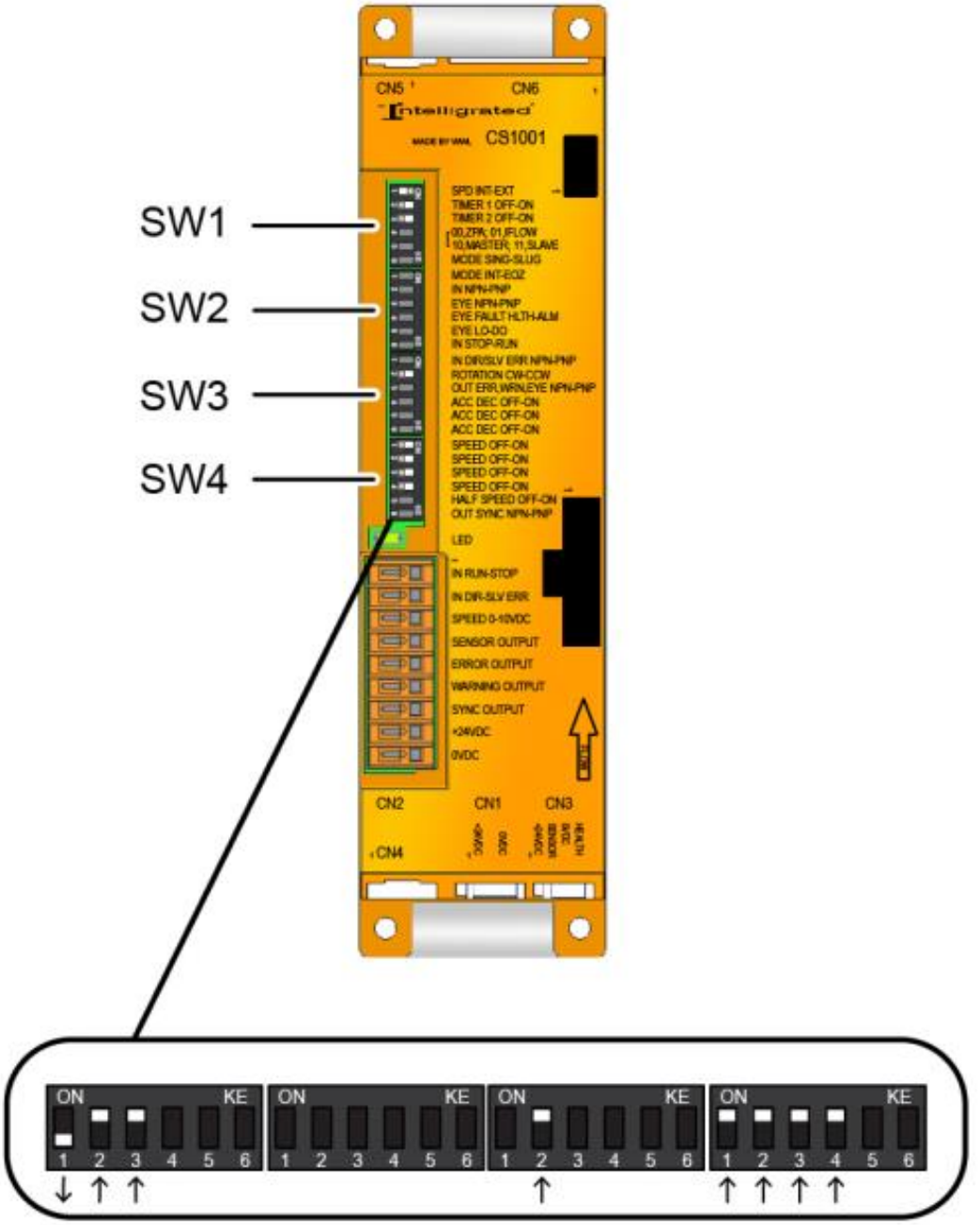
Local Control

Left Hand Mounted

Performance Data

No Load Speed	57.2 fpm
Sensor Timer	4.0 s
Jam Timer	5.0 s
Run Hold Timer	8.0 s
Vin +/- 0.2% Minimum Setting	9.55 V
Vin +/- 0.2% Maximum Setting	9.95 V

55 fpm/STLS/Local/Left Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

High Torque – High Speed (HTHS)

300 fpm

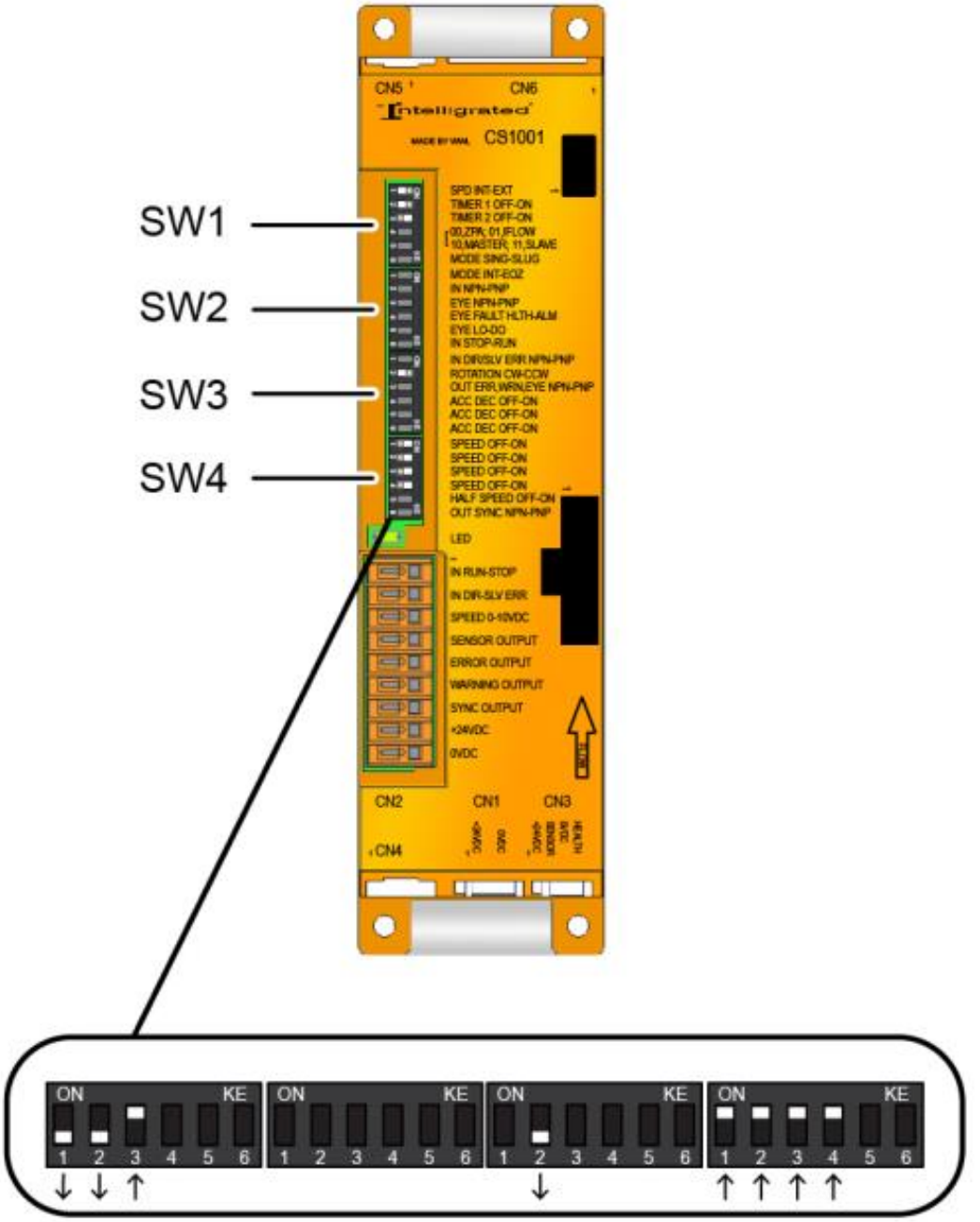
Local Control

Right Hand Mounted

Performance Data

No Load Speed	295.5 fpm
Sensor Timer	4.0 s
Jam Timer	3.0 s
Run Hold Timer	1.0 s
Vin +/- 0.2% Minimum Setting	9.55 V
Vin +/- 0.2% Maximum Setting	9.95 V

300 fpm/HTHS/Local/Right Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

Standard Torque – Standard Speed (STSS)

180 fpm

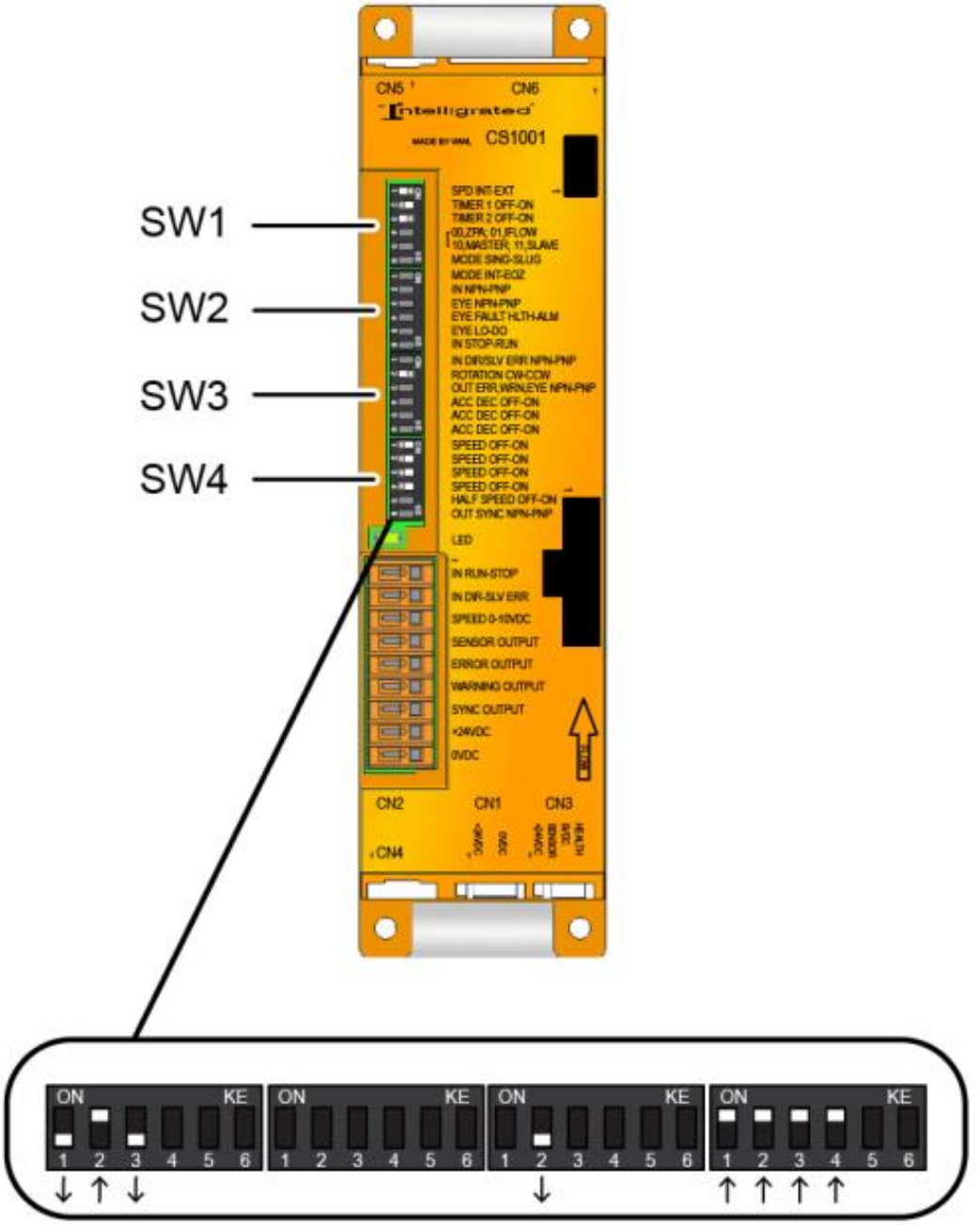
Local Control

Right Hand Mounted

Performance Data

No Load Speed	199.8 fpm
Sensor Timer	4.0 s
Jam Timer	4.0 s
Run Hold Timer	6.0 s
Vin +/- 0.2% Minimum Setting	9.55 V
Vin +/- 0.2% Maximum Setting	9.95 V

180 fpm/STSS/Local/Right Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

High Torque – Standard Speed (HTSS)

180 fpm

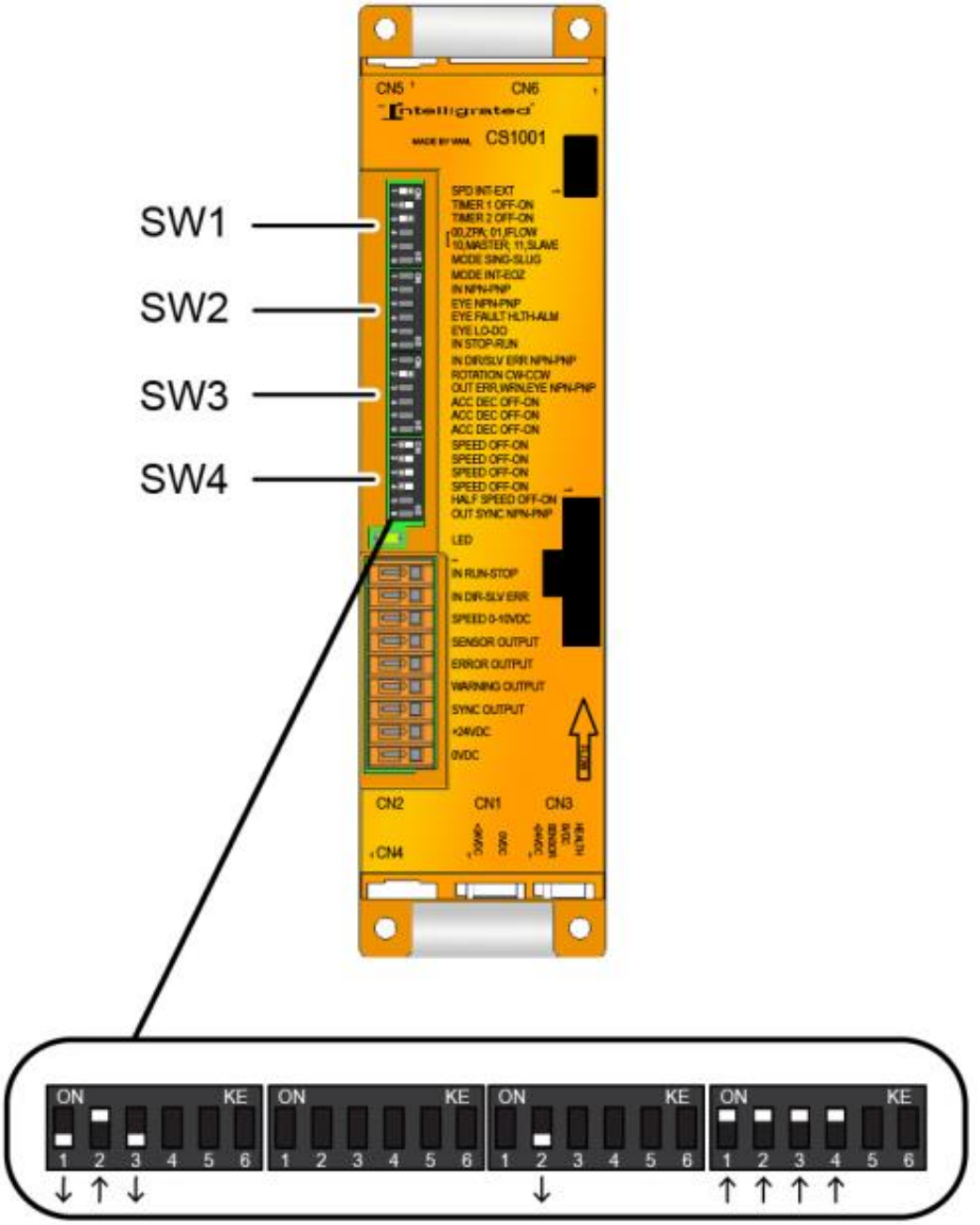
Local Control

Right Hand Mounted

Performance Data

No Load Speed	199.8 fpm
Sensor Timer	4.0 s
Jam Timer	4.0 s
Run Hold Timer	6.0 s
Vin +/- 0.2% Minimum Setting	9.55 V
Vin +/- 0.2% Maximum Setting	9.95 V

180 fpm/HTSS/Local/Right Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

High Torque – High Speed (HTHS)

180 fpm

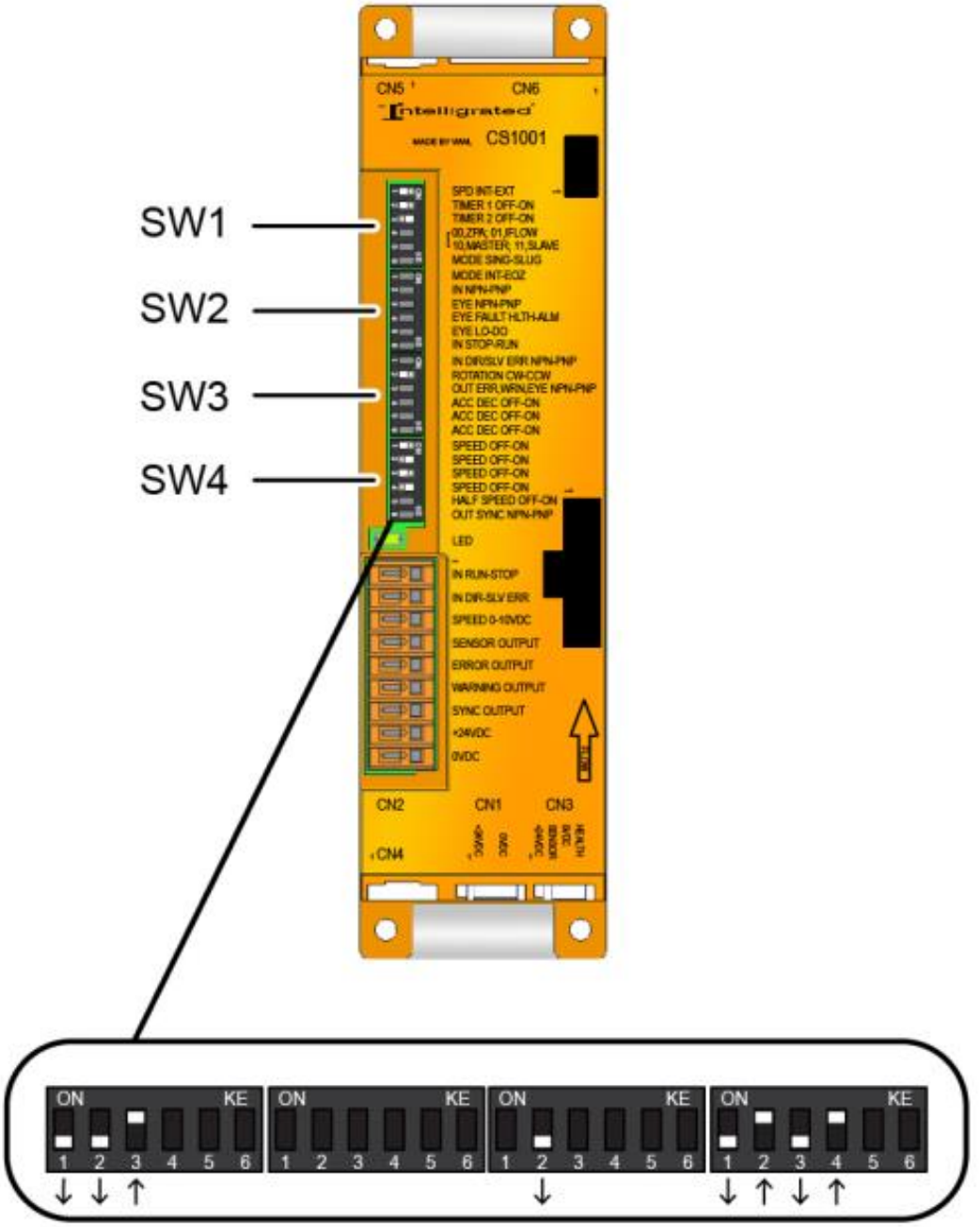
Local Control

Right Hand Mounted

Performance Data

No Load Speed	190.3 fpm
Sensor Timer	4.0 s
Jam Timer	3.0 s
Run Hold Timer	1.0 s
Vin +/- 0.2% Minimum Setting	9.55 V
Vin +/- 0.2% Maximum Setting	9.95 V

180 fpm/HTHS/Local/Right Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

Standard Torque – Standard Speed (STSS)

150 fpm

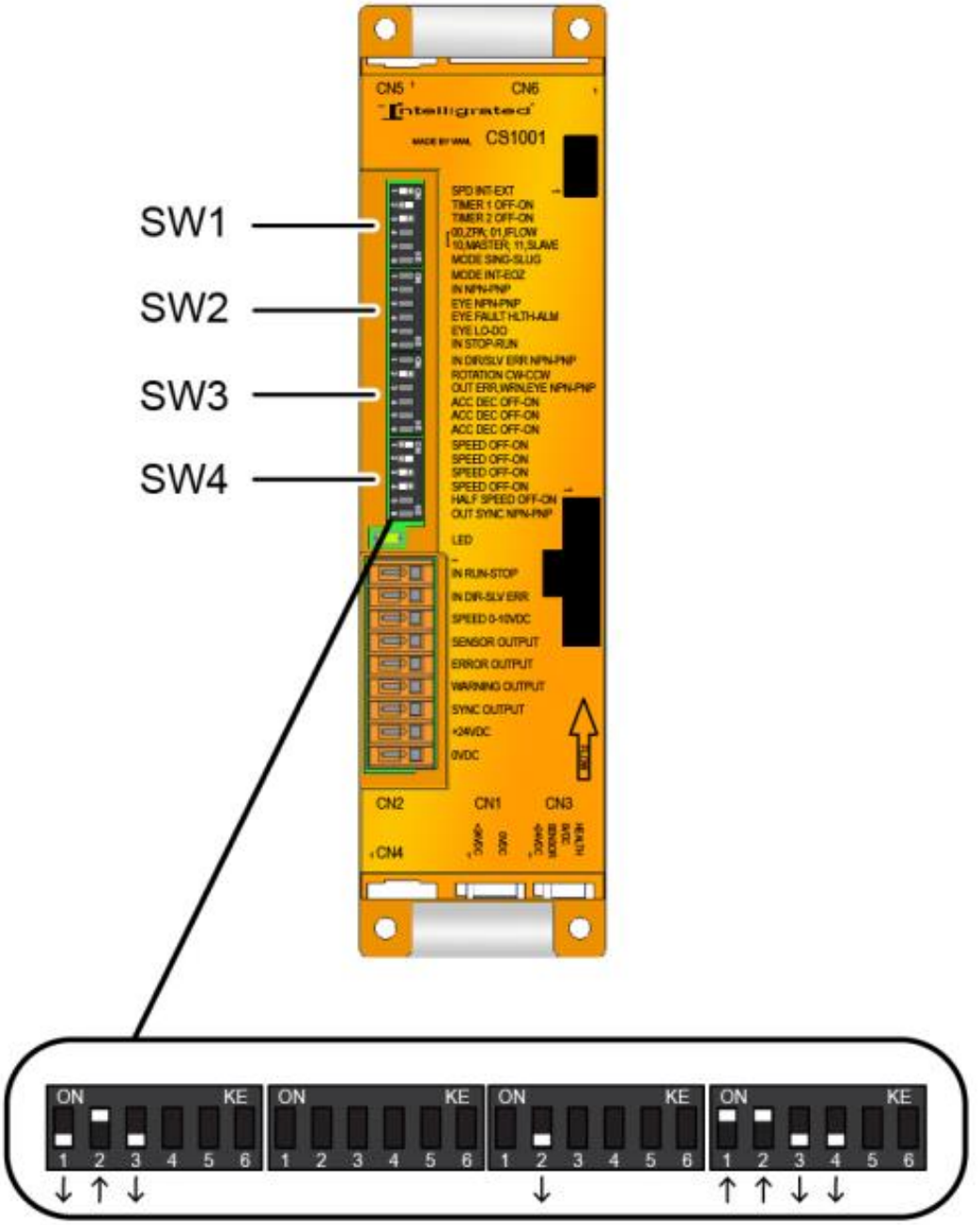
Local Control

Right Hand Mounted

Performance Data

No Load Speed	163.2 fpm
Sensor Timer	4.0 s
Jam Timer	4.0 s
Run Hold Timer	6.0 s
Vin +/- 0.2% Minimum Setting	7.55 V
Vin +/- 0.2% Maximum Setting	7.95 V

150 fpm/STSS/Local/Right Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

High Torque – Standard Speed (HTSS)

150 fpm

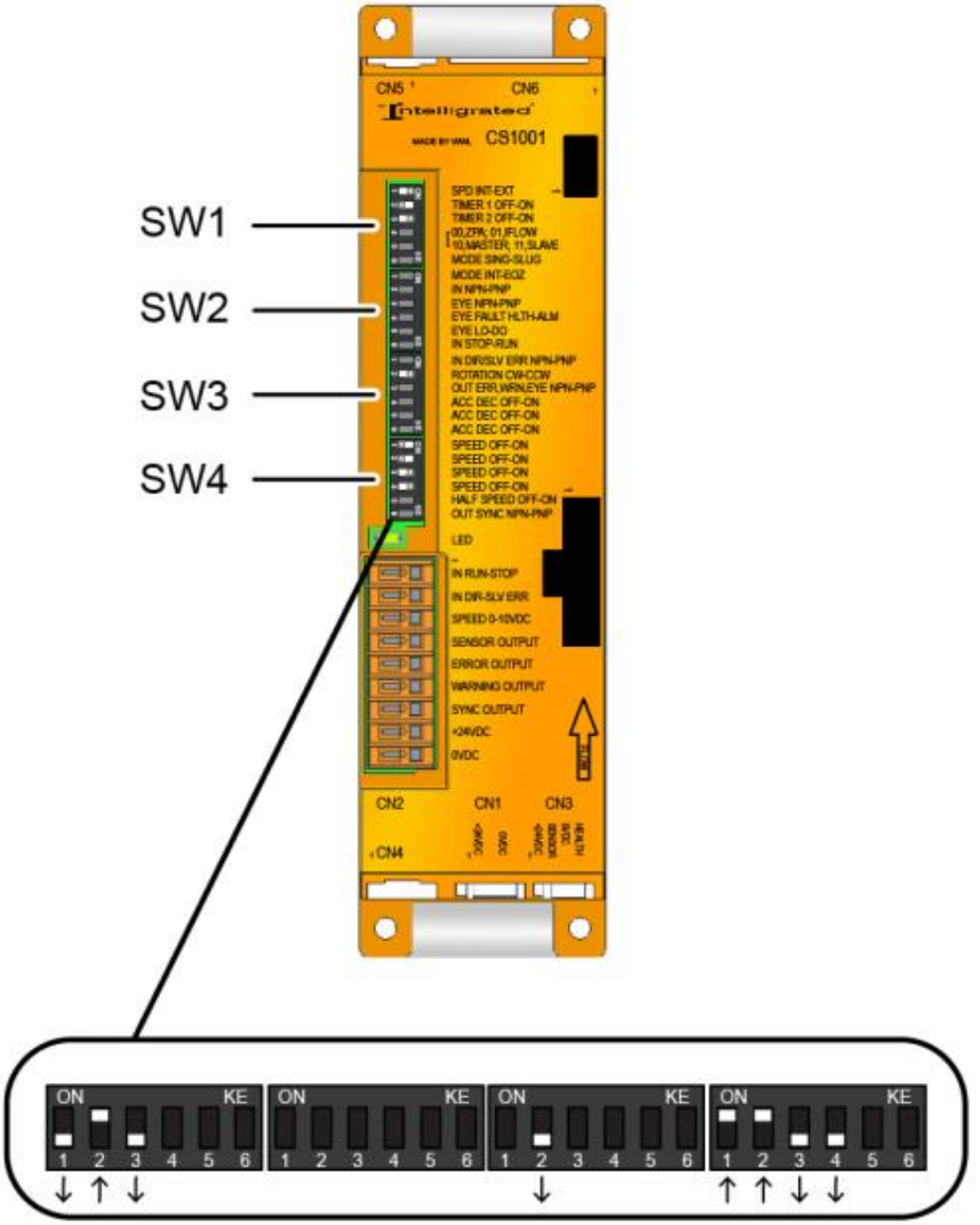
Local Control

Right Hand Mounted

Performance Data

No Load Speed	163.2 fpm
Sensor Timer	4.0 s
Jam Timer	4.0 s
Run Hold Timer	6.0 s
Vin +/- 0.2% Minimum Setting	7.55 V
Vin +/- 0.2% Maximum Setting	7.95 V

150 fpm/HTSS/Local/Right Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

High Torque – High Speed (HTHS)

150 fpm

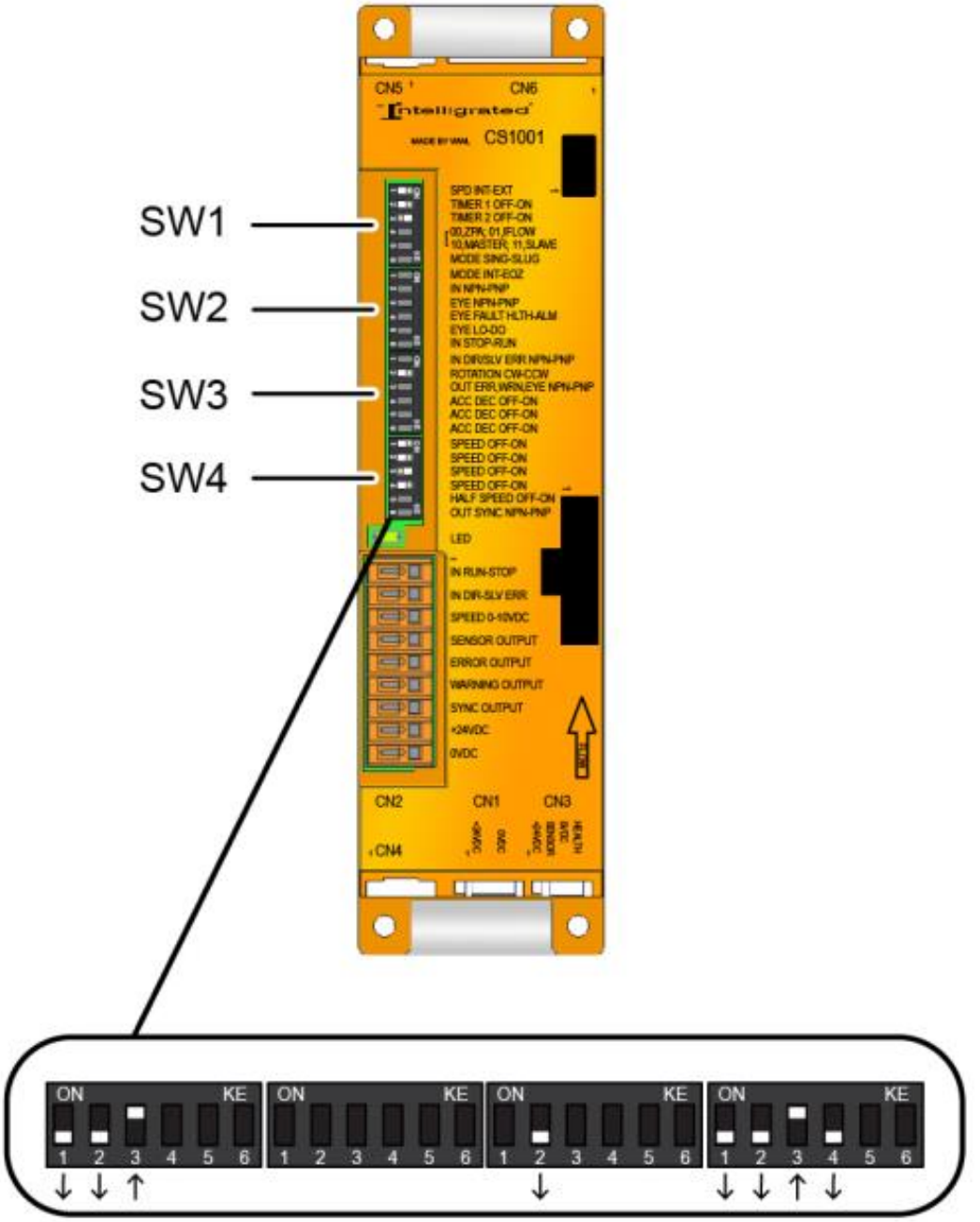
Local Control

Right Hand Mounted

Performance Data

No Load Speed	157.6 fpm
Sensor Timer	4.0 s
Jam Timer	3.0 s
Run Hold Timer	1.0 s
Vin +/- 0.2% Minimum Setting	3.55 V
Vin +/- 0.2% Maximum Setting	3.95 V

150 fpm/HTHS/Local/Right Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

Standard Torque – Standard Speed (STSS)

120 fpm

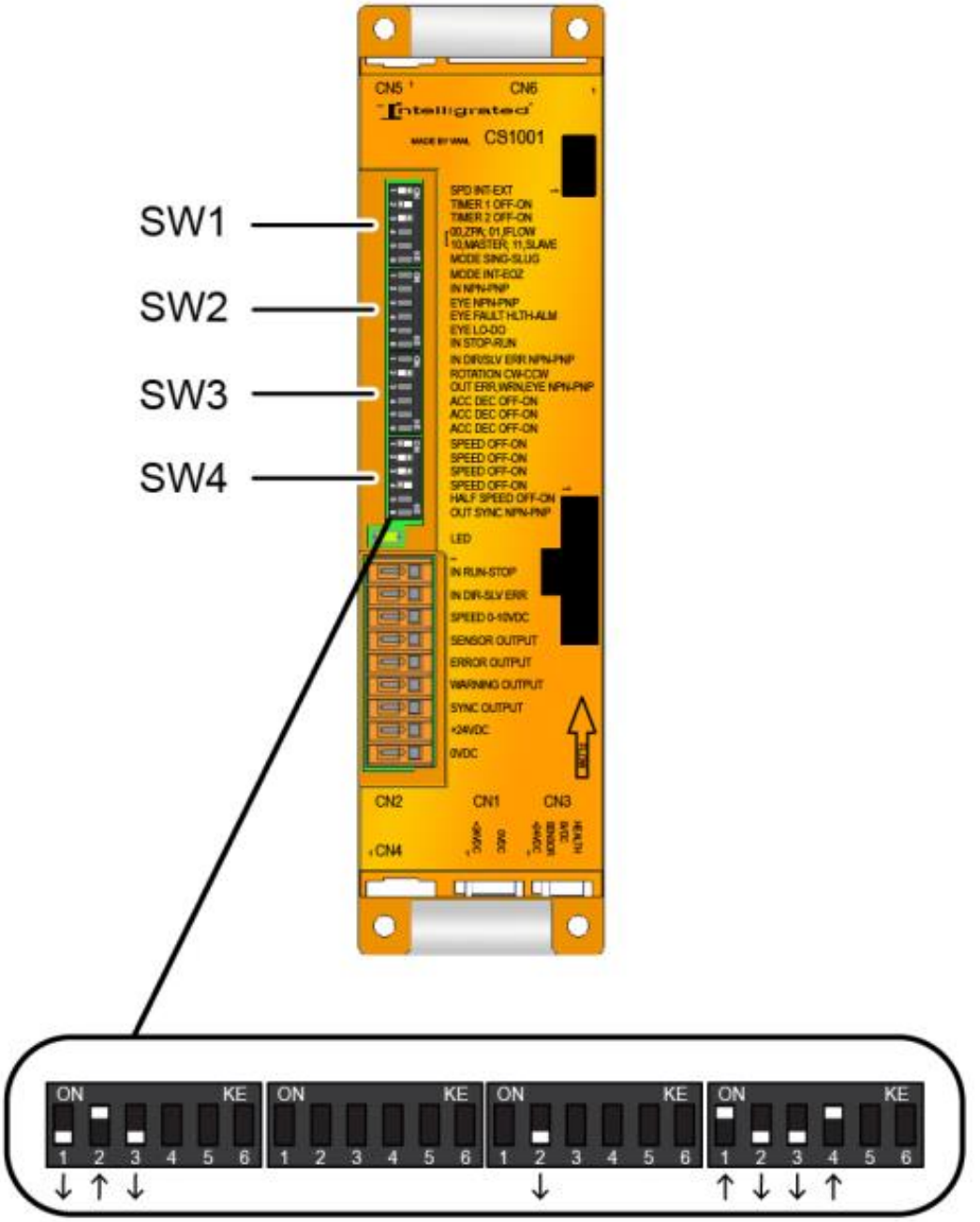
Local Control

Right Hand Mounted

Performance Data

No Load Speed	131.2 fpm
Sensor Timer	4.0 s
Jam Timer	4.0 s
Run Hold Timer	6.0 s
Vin +/- 0.2% Minimum Setting	6.05 V
Vin +/- 0.2% Maximum Setting	6.45 V

120 fpm/STSS/Local/Right Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

High Torque – Standard Speed (HTSS)

120 fpm

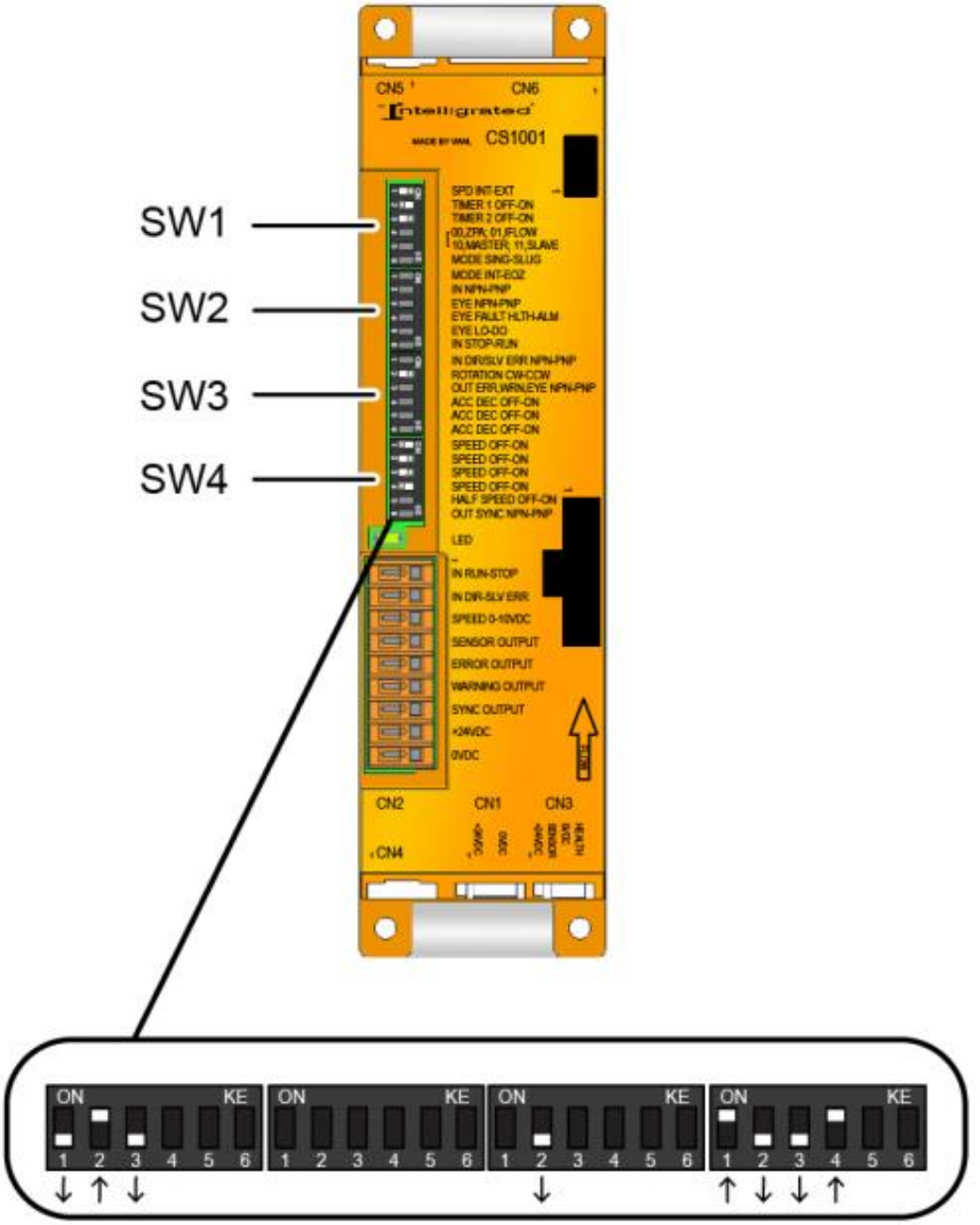
Local Control

Right Hand Mounted

Performance Data

No Load Speed	131.2 fpm
Sensor Timer	4.0 s
Jam Timer	4.0 s
Run Hold Timer	6.0 s
Vin +/- 0.2% Minimum Setting	6.05 V
Vin +/- 0.2% Maximum Setting	6.45 V

120 fpm/HTSS/Local/Right Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

Standard Torque – Standard Speed (STSS)

90 fpm

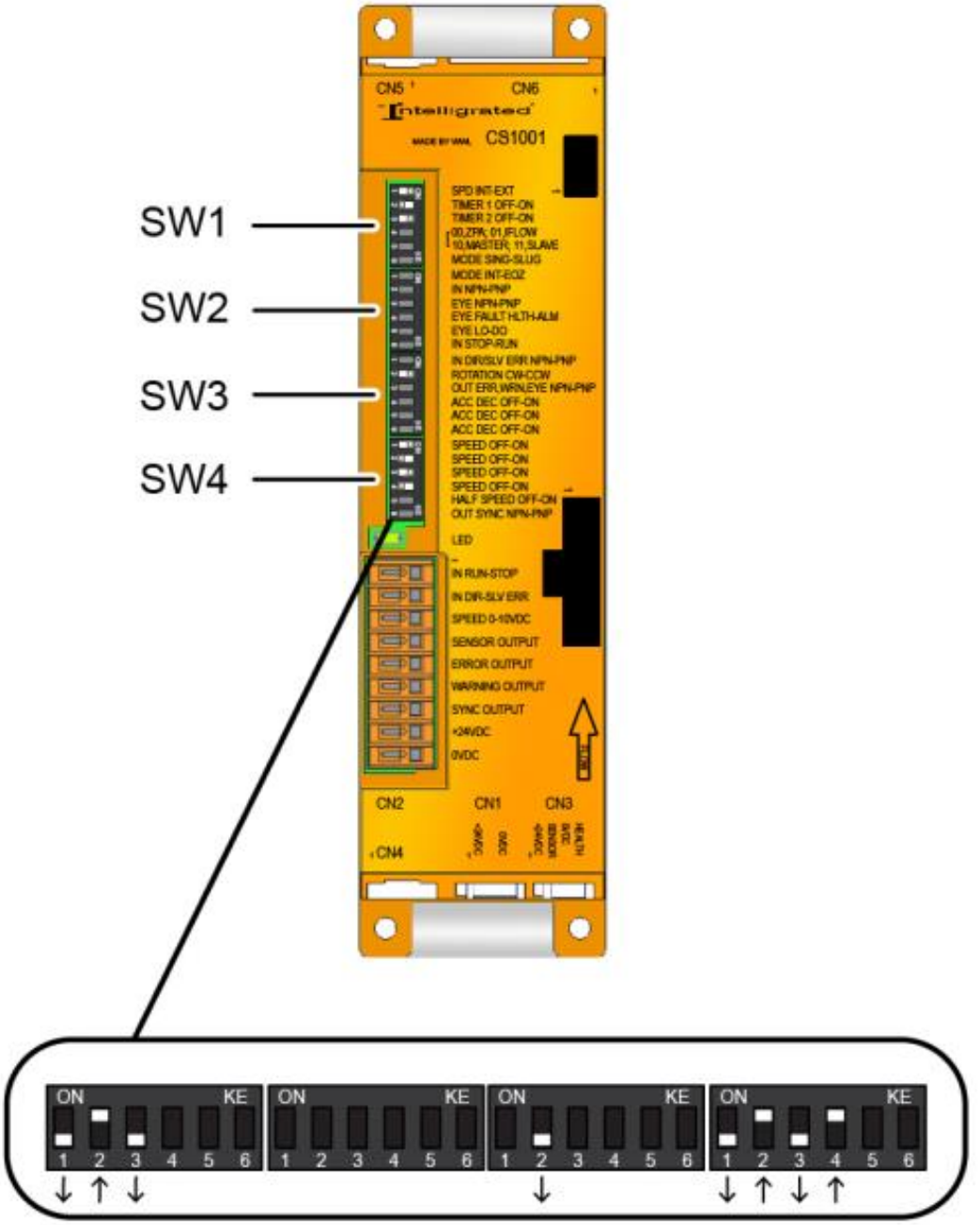
Local Control

Right Hand Mounted

Performance Data

No Load Speed	100.4 fpm
Sensor Timer	4.0 s
Jam Timer	4.0 s
Run Hold Timer	6.0 s
Vin +/- 0.2% Minimum Setting	4.55 V
Vin +/- 0.2% Maximum Setting	4.95 V

90 fpm/STSS/Local/Right Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

High Torque – Standard Speed (HTSS)

90 fpm

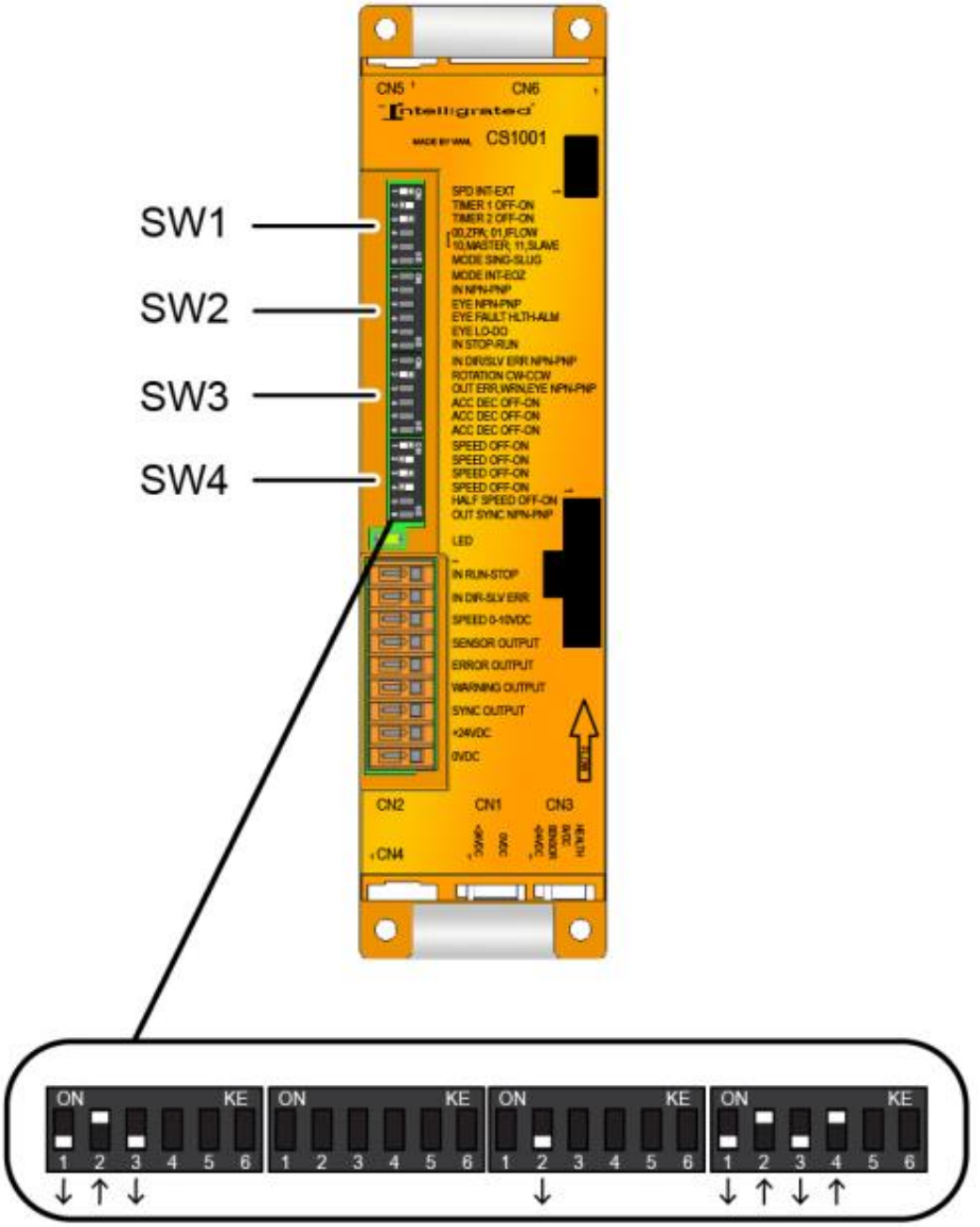
Local Control

Right Hand Mounted

Performance Data

No Load Speed	100.4 fpm
Sensor Timer	4.0 s
Jam Timer	4.0 s
Run Hold Timer	6.0 s
Vin +/- 0.2% Minimum Setting	4.55 V
Vin +/- 0.2% Maximum Setting	4.95 V

90 fpm/HTSS/Local/Right Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

Standard Torque – Standard Speed (STSS)

60 fpm

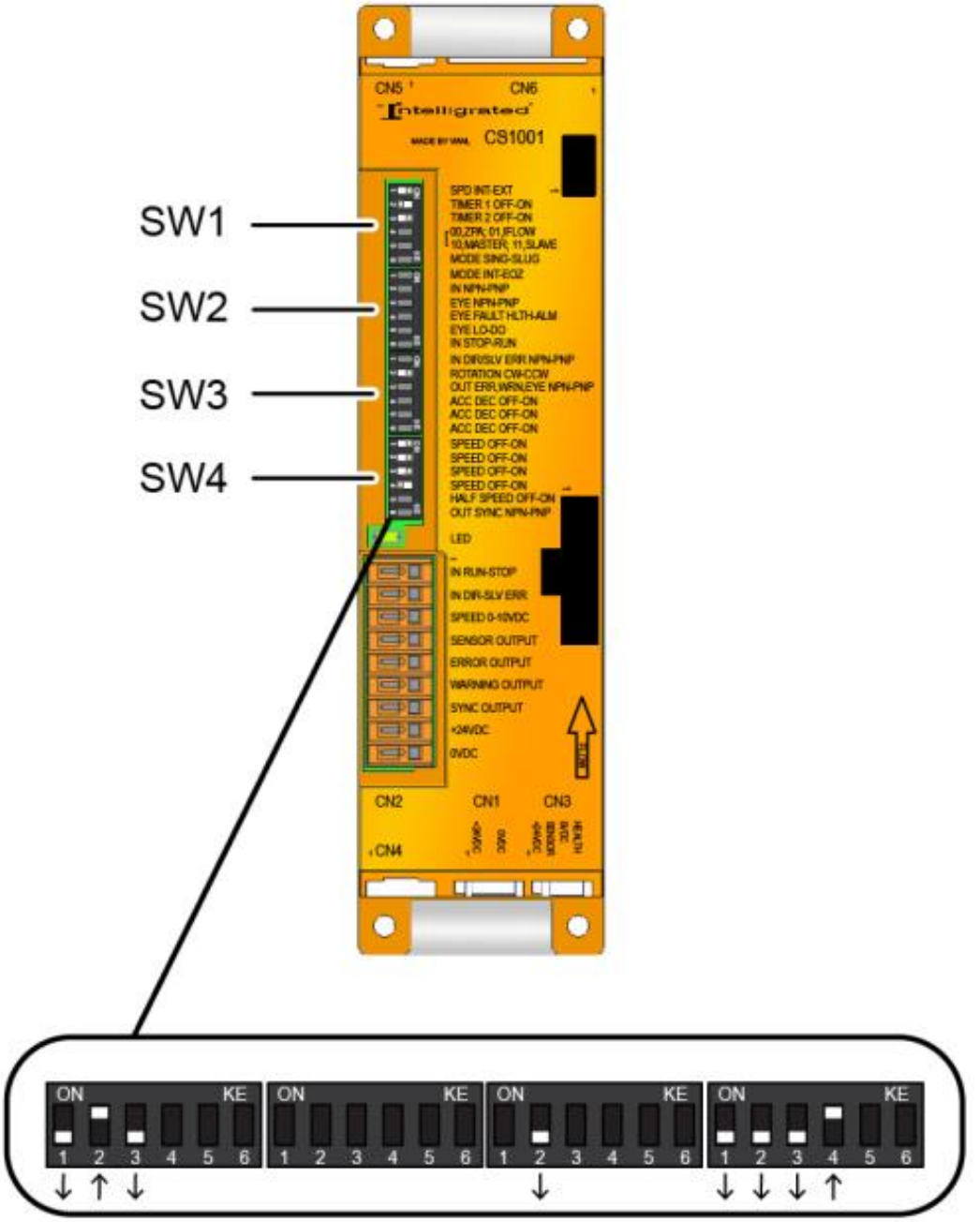
Local Control

Right Hand Mounted

Performance Data

No Load Speed	65.5 fpm
Sensor Timer	4.0 s
Jam Timer	4.0 s
Run Hold Timer	6.0 s
Vin +/- 0.2% Minimum Setting	3.05 V
Vin +/- 0.2% Maximum Setting	3.45 V

60 fpm/STSS/Local/Right Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

High Torque – Standard Speed (HTSS)

60 fpm

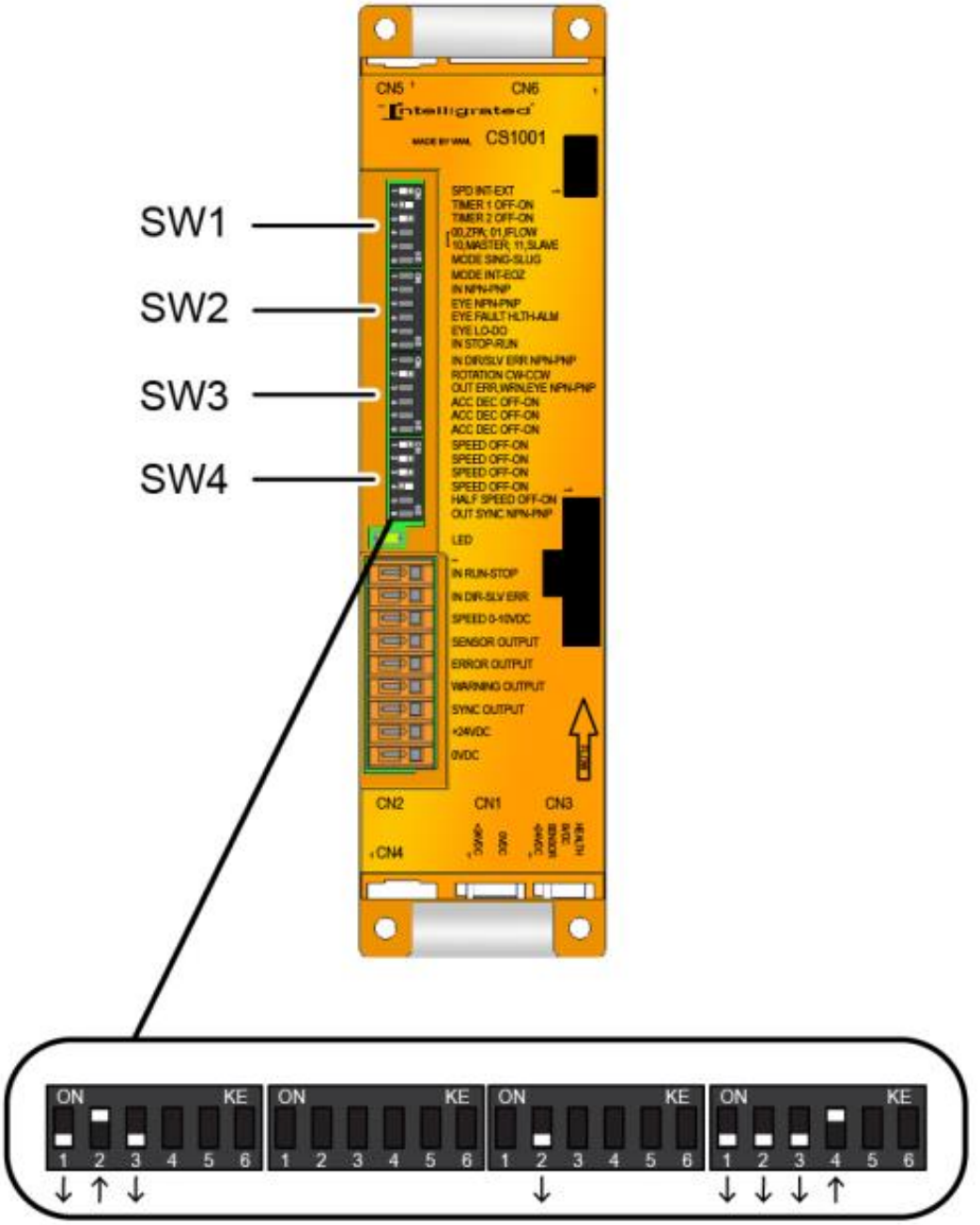
Local Control

Right Hand Mounted

Performance Data

No Load Speed	65.5 fpm
Sensor Timer	4.0 s
Jam Timer	4.0 s
Run Hold Timer	6.0 s
Vin +/- 0.2% Minimum Setting	3.05 V
Vin +/- 0.2% Maximum Setting	3.45 V

60 fpm/HTSS/Local/Right Hand



Motor-Driven Roller

WWL (CS1001)

Quick Reference Guide

Standard Torque – Low Speed (STLS)

55 fpm

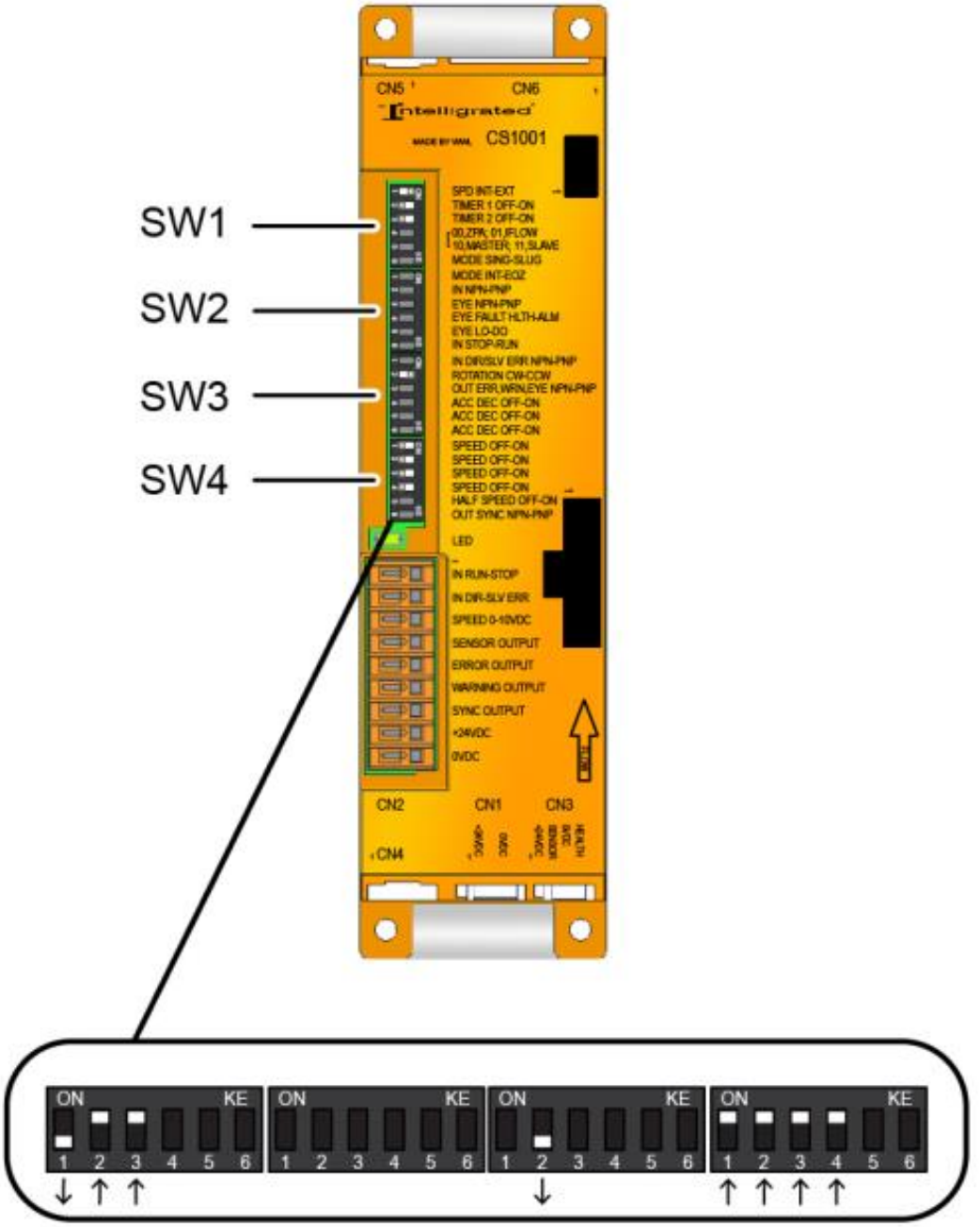
Local Control

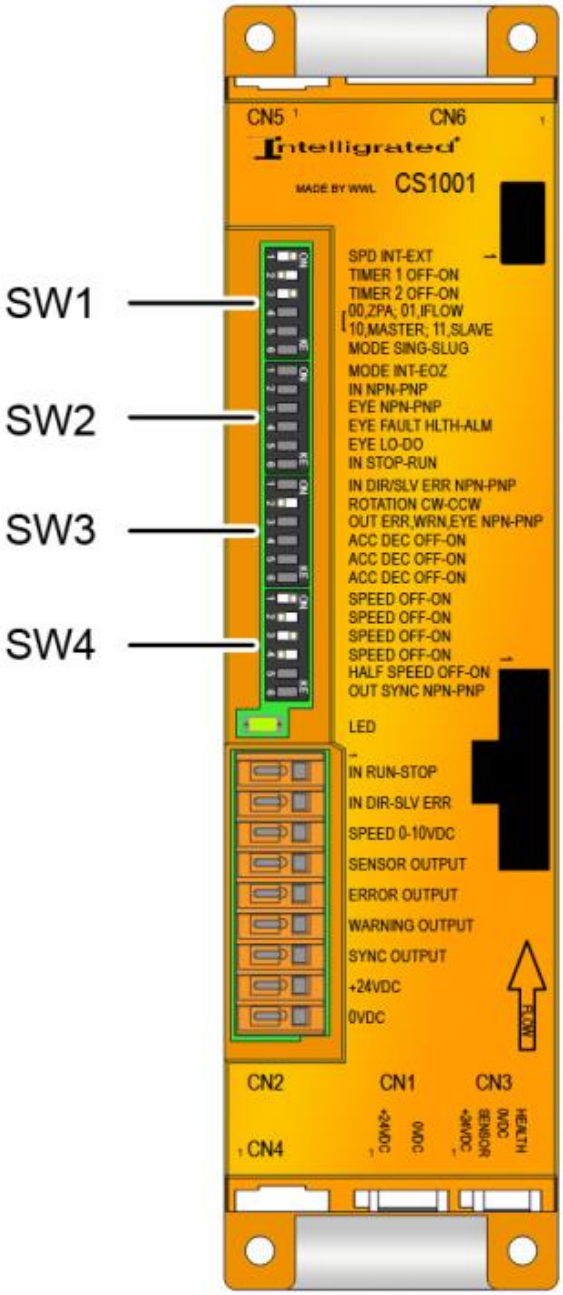
Right Hand Mounted

Performance Data

No Load Speed	57.2 fpm
Sensor Timer	4.0 s
Jam Timer	5.0 s
Run Hold Timer	8.0 s
Vin +/- 0.2% Minimum Setting	9.55 V
Vin +/- 0.2% Maximum Setting	9.95 V

55 fpm/STLS/Local/Right Hand



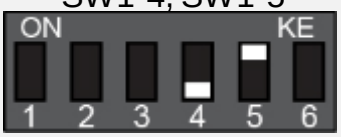
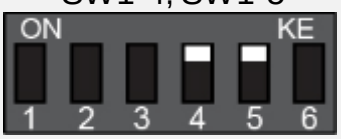


WWL CS1001 General Settings & LED

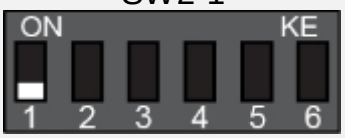
Speed Selection (SW1)

Speed controlled internally by SW4-1 - SW4-4	SW1-1
Speed controlled externally by 0-10V and CN2-3.	SW1-1

Operating Modes (SW1)

ZPA Singulation Release Mode	SW1-4, SW1-5, SW1-6
ZPA Slug Release Mode	SW1-4, SW1-5, SW1-6
IFlow	SW1-4, SW1-5 
Master (Must be same speed as Slave)	SW1-4, SW1-5
Slave (Must be same speed as Master)	SW1-4, SW1-5 

Zone Type (SW2)

Intermediate Zone	SW2-1 
End of Zone (EOZ) ZPA operating modes only.	SW2-1

Input Signal Polarity (SW2)

NPN Mode	SW2-2
PNP Mode	SW2-2

Photo-Eye Operation (SW2)

PNP Output/Dark Operate	SW2-3, SW2-5
PNP Output/Light Operate	SW2-3, SW2-5
NPN Output/Dark Operate	SW2-3, SW2-5
NPN Output/Light Operate	SW2-3, SW2-5

Forcing a Zone (SW2)

Forced ON remotely (Run Zone)	SW2-6
Forced OFF remotely (Stop Zone)	SW2-6

Remove the signal on CN2-1 to unforce the zone.

Photo-Eye Status (SW2)

Health Mode	SW2-4
Alarm Mode	SW2-4

Roller Rotation Direction (SW3)

NPN/Clockwise	SW3-1, SW3-2
NPN/Counterclockwise	SW3-1, SW3-2
PNP/Clockwise	SW3-1, SW3-2
PNP/Counterclockwise	SW3-1, SW3-2

If a ZPA operating mode is in use, setting CN2-2 to 24 volts reverses the direction of roller rotation.

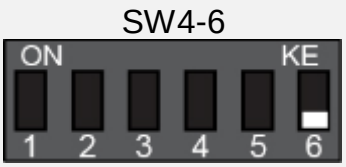
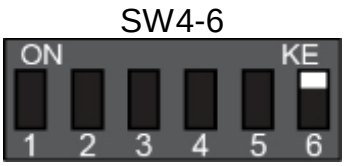
Output Signal Polarity (SW3)

NPN Mode	SW3-3
PNP Mode	SW3-3

Half Speed Mode (SW3, SW4)

Enable Half Speed Mode	SW3-6
One Zone Look Ahead	SW4-5
Two Zone Look Ahead	SW4-5

Synchronization Signal Polarity (SW4)

NPN Mode	
PNP Mode	

LED Diagnostics

The green LED to the right of the dipswitches provides alerts to status and error conditions that have occurred. The number of times the LED blinks identifies the error. If multiple errors have occurred, the LED will identify each error in the order in which it occurred. When this is the case, the LED will stay ON for 3 seconds between each error sequence. For example, if a Photo-Eye Error occurred followed by a Roller Thermal Fault, the LED would blink as follows:

1 Blink – ON (3 secs) – 4 Blinks – ON (3 secs) - Repeat

# of Blinks	Status
Steady ON	Normal Operation
1	Photo-Eye Error
2	Jam Time Error
3	Control Card Thermal Fault
4	Roller Thermal Fault
5	Roller Lock/Over-Current Fault
6	Power/Low-Voltage Error
7	Slave Card Error (Master Mode)

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