Multiple Motors to 3rd Party Integrated Control
Wired Technology Motor

Operate multiple automated shades through a single master control, and room control for individual or groups of motors through a 3rd party integration system. Automated shade control using CAT5 wired to IGC4n1 motor control unit through dry contacts. These 4-wire motors have 2 directional hot lines that wire directly to a 4 motor control box that can be mounted into any plenum space. The control offers stopping positions at the upper limit, 3 intermediate positions and lower limit. Intermediate positions align shades at 25%, 50% and 75% intermediate positions, or 3 custom set intermediate stops to align with window mullion systems.

Wired Technology Motor Features

- Control option through IGC4N1 motor control to low voltage wired switches
- Strong, quiet and consistent motor operation
- Wired control option offering consistent control of automated shades
- Full 5 year motor warranty
- UL rated full shade

Control Options Overview

Technical Description

- Line Voltage Input: 115 AC +\- 10%, 50-60Hz
- Low Voltage Output to Switches: 12V DC 185 mA maximum consumption
- Output to Motor: 115V AC (5A per motor) ¼ HP
- Fuses: 5x5A (1 for each motor, 1 for the control board)
- Dimensions: H12"xW10"xD4"
- Push button control of automated shades through direct wired switches to motor control
- Programmed 25%, 50% and 75% intermediate positions or custom intermediate positions per motor
- Four keypad ports and two Master ports
- CSA/UL Certified
- Plenum rated
- RJ-45 TIA-568B termination standard

Control Options

IGC 4N1 MOTOR CONTROLLER

Plenum Rated Box Mounted – 1811416

DECOFLEX DRY CONTACT KEYPAD WITH SWITCH PLATE COVER

White – 1811402

Motor Specifications

Sonesse® 50 Motor Series - Standard & Heavy Duty Automated Shades

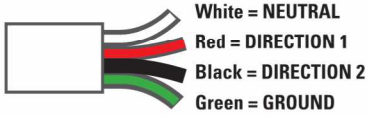
Standard Motor	Torque	Nominal Voltage	Rated Current	Speed	Thermal Protection	Sound Level
Ultra Sonesse® 506	Nm	120V/60Hz	.95A	24 rpm	4 min	< = 38 dBA
Sonesse® 506	Nm	120V/60Hz	1.2A	32 rpm	4 min	< = 45 dBA
Sonesse® 510	Nm	120V/60Hz	1.67A	32 rpm	4 min	< = 47 dBA
LT50 515	Nm	120V/60Hz	1.8A	38 rpm	5 min	< = 56 dBA
LT50 525	Nm	120V/60Hz	1.6A	20 rpm	5 min	N/A

Sonesse® 40 Motor Series - Standard Automated Shades

Standard Motor	Torque	Nominal Voltage	Rated Current	Speed	Thermal Protection	Sound Level
Sonesse® 404S2	4 Nm	120V/60Hz	.95A	36 rpm	4 min	42 dBA
Sonesse® 406A2	6 Nm	120V/60Hz	1.2A	24 rpm	4 min	44 dBA
Sonesse® 409RS	9 Nm	120V/60Hz	.98A	14 rpm	4 min	40 dBA

Motor Cable Specifications

Motor Cable
120V / 60Hz
4 Conductor



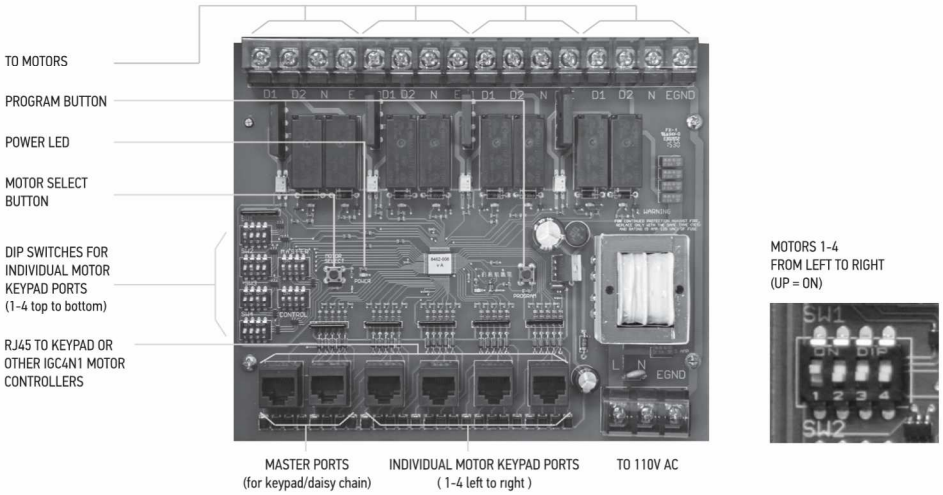
Maximum Power Cable Length			
Gauge	14 AWG	16 AWG	18 AWG
Max Length	240 ft.	150 ft.	100 ft.

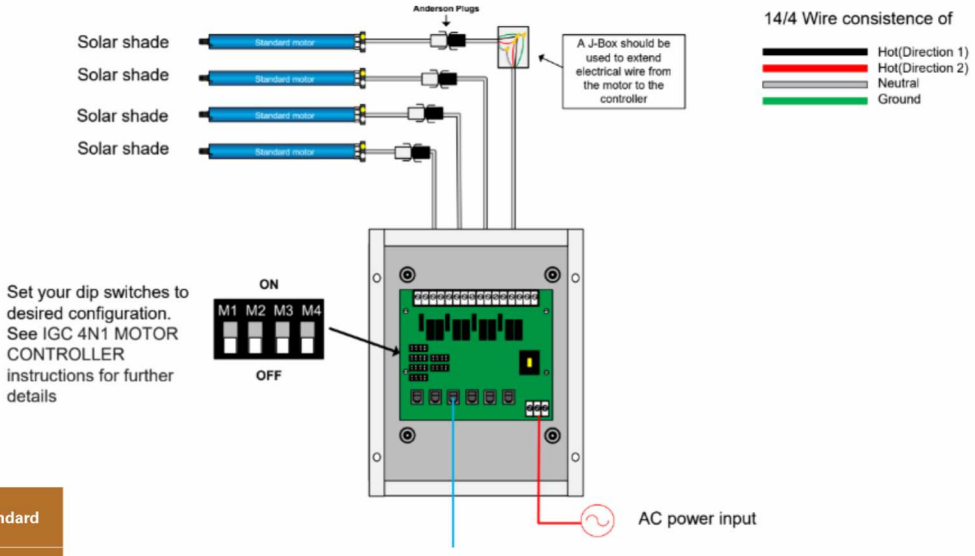
Wiring Diagrams

IGC 4N1 Motor Controller

IGC4N1 Motor Controller (4 motors)
Part No. 1811416

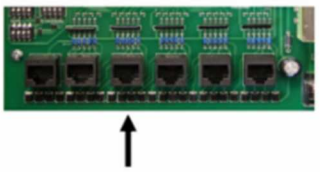
Connections and Indicators



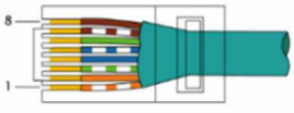


IGC 4N1

Utilizing RJ-45 TIA-568B termination standard		
Pin #	**Color**	**Function**
1	Orange White	IP 1
2	Orange	IP 2
3	Green White	IP 3
4	Blue	N/A
5	Blue White	12V +
6	Green	Down
7	Brown White	Up
8	Brown	Ground



Dry contact input using the keypad ports



To Third Party Controlled Relays

- One relay is required for each button to be triggered.
- Buttons are triggered by a momentary closing of a relay with the wire for the desired function and Ground (brown) attached.

Fast Connector

The Fast Connector is incorporated into the motor wiring, eliminating the need for an electrician on the shade installation portion of the project.

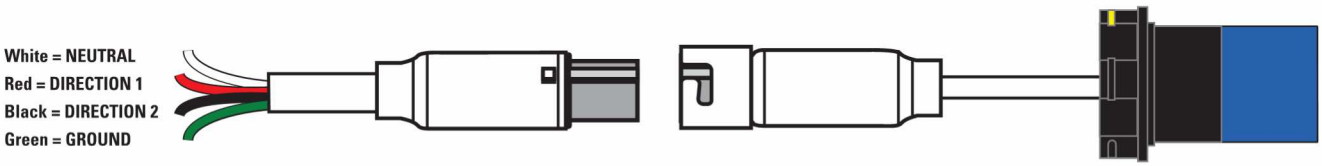
Fast Connector Features

- Interior - Sonesse® 50 AC Motor Series
- For Radio Frequency and Wired motors
- Safe easy to use connection (UL recognized)
- Plug & Play extensions (no electrician needed at shade installation)
- Connector available in white

Sonesse® 40 Motor and Sonesse® 50 Motor Series Parts

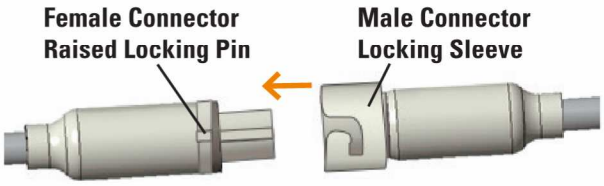
- Motor includes 1.6 ft pigtail with Fast Connector (Male)
- Unless otherwise specified, the default length for the female connector is 8.4 ft for all motors

WT Motors – Extension Cable with 4 Wire Open Leads



Fast Connector Assembly

1. Align the male connector with the female grooved connector and push together.



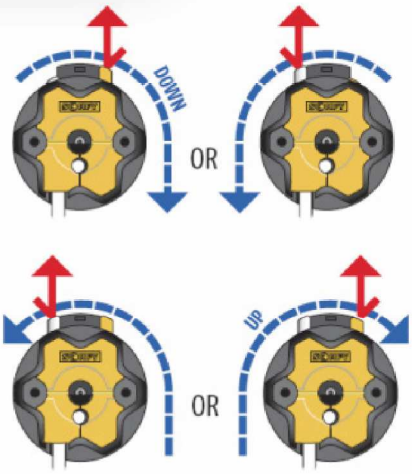
2. Align the locking sleeve with the raised locking pin and slide over the female connector.

3. Rotate the locking sleeve to secure the connectors together.

Locked Connectors

Motor Limit Settings

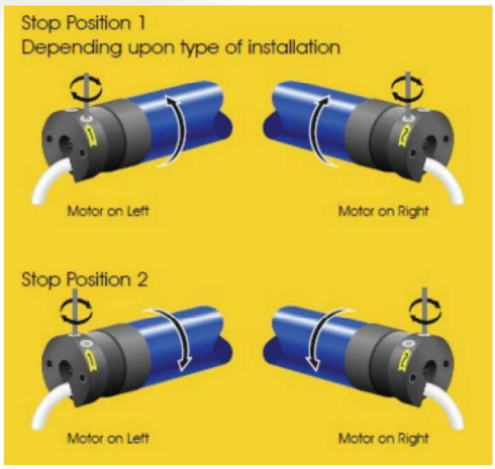
Sonesse® 50 Motor Series Limit Settings



- Gently remove the yellow cap from side of motor
- Beneath the cap you will find two push buttons
- Yellow sets the clockwise rotation, white sets the counterclockwise rotation
- Make sure that both buttons are in the depressed position
  - If the motor is mounted on the right end of the shade the yellow button will set the lower limit. The white button will set the upper limit. The opposite will be true for the left end motors.
- With both the yellow and white buttons in the depressed position, the shade will move up and down. Use the motor tester cable to check your rotational direction. If the motor direction is reversed turn the power off and simply reverse the black and red motor leads.
- Push the up button on the motor test cable to position the shade in the desired upper position and press the white button, to set the upper limit.
- Push the down button on the motor test cable to position the shade in the desired lower position and press the yellow button to set the lower limit.

For reversed roll application, the opposite is true for motor right or left.

Sonesse® 40 Motor Series Limit Settings



- Connect the motor with a tester cable to the motor cable, match the wire colors and connect to power.
- Identify the up recessed limit screw by finding the arrow on the motor head which points in the direction that retracts (rolls up) the system.
- Turn the power on to ensure that the switch is operating properly (up-raise, down-lower). If not, turn the power off and simply reverse the black and red motor leads.
- Use the motor tester cable to check your rotational direction. If the motor stops before its up limit, press the switch in the up position. Turn the up screw to "+" until necessary. If the motor goes beyond its up limit flip the tester cable switch off and turn the up screw to "-".
- Repeat this until correct setting is achieved.
- Press the switch in the down position. If the motor stops before its down limit, turn the down limit screw to "+" until necessary. If the motor goes beyond its down limit flip the tester cable of and turn the down screw to "-".
- Repeat this until correct setting is achieved.

Motor Control Programming

Initial Setup

NOTE: Before installing the IGC 4n1, all motors must be operating properly with their limits set. Please note that maximum direction run time is 3 minutes.

Wiring Instructions

1. Connect power and motors to the board (following wiring diagram at right). Only 1 motor per terminal.
2. When motors are properly wired and power is applied to the board, the POWER LED will illuminate solid green and the motors will move to their upper limit.
   a. NOTE: if motors move to the lower limit, the wires are reversed. Disconnect power from the board and reverse the wires from the motor(s) moving in the wrong direction.

Set Keypad Group Control

NOTE: motors must be stopped before setting keypad groups.

1. Set the DIP switches to the corresponding keypad inputs by moving them up to the "ON" position.
   a. NOTE: There is a single dip switch that configures both Master Ports.
2. Once settings have been chosen, press and hold the MOTOR SELECT button until the POWER LED turns off, then release. The POWER LED will illuminate solid green.

Setting Default Motor Intermediate Positions

NOTE: motors must be stopped before setting intermediate positions.

1. Press and hold the PROGRAM button until the PROGRAM LED illuminates solid green, then release.
2. Connected motors will move first to the upper limit, then to the lower limit and back to the upper limit. Once programming is complete the PROGRAM LED will turn off. Default intermediate positions (25%, 50%, 75%) are now set.
3. Connect keypad(s) to inputs using appropriate Cat5e cable (not included).
4. Confirm operation by pressing each preset button on the keypad(s).
   a. NOTE: The STOP button on the keypad activates when the button is released. If the STOP button is pressed and released when the motor is stopped, the shade will move to intermediate position 2.
   b. NOTE: If power is lost or turned off, all shades will move to their upper limit when power is reapplied.

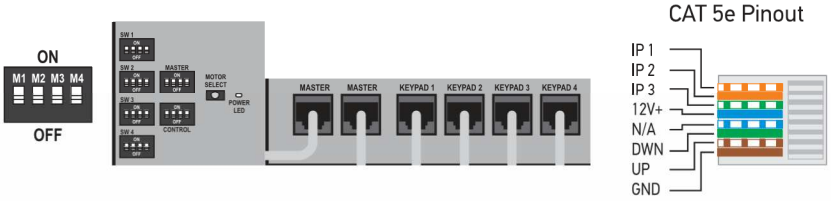
Setting Custom Intermediate Positions

1. Complete "Setting Default Motor Intermediate Positions" steps.
2. Using the keypad connected to the motor(s) you wish to control, using the UP and DOWN buttons, adjust the window covering to the desired new intermediate position.
3. Press and hold the preset button you wish to reprogram with the new intermediate position until the motor(s) jogs.
   a. NOTE: If a motor with custom intermediate position needs to be replaced, all motor(s) custom intermediate positions will be reset.

Daisy-Chaining Multiple Controllers

1. All controllers must have their limits fully set.
2. Configure the Master DIP switches to control desired motor(s).
3. Connect open Master Port to an empty Master Port on next IGC 4n1.

Turn on keypad and master switch locations through switching dipswitches on the control panel:



UL Rated System Program Overview

UL Certified RB 500+ Automated Roller Shades

What is UL Certification?

UL helps companies demonstrate safety, confirm compliance, enhance sustainability, manage transparency, deliver quality and performance, strengthen security, protect brand reputation, build workplace excellence, and advance societal wellbeing (UL.com).

Why is UL Certification important?

UL helps advance the building products industry's drive to achieve both safety and innovation with flexible, customized service options for reliable, cost-effective product testing and certification. Architects, regulatory authorities, manufacturers, insurers, building owners, and other partners in the building materials community rely on UL for the services and knowledge that they need to enhance public safety, meet regulatory demands, protect brand value and successfully access the global market. UL product safety certifications, the code evaluation service and the UL Mark also assist code authorities, architects, designers, specifiers and contractors with accurately determining code compliance for products that must be tested and/or certified in accordance with specific standards (UL.com).

What does this mean for you as a Dealer?

UL certification at the plant level can greatly reduce the potential for snags or delays in the final sign off of the project by your local AHJ (Authority Having Jurisdiction). This often includes the electrical inspector, or similar. Additionally, certification at the plant level eliminates the need for costly on-site certification, post shade installation, by a UL inspector.