PRE-WIRE FOR 24 V DC MOTORS

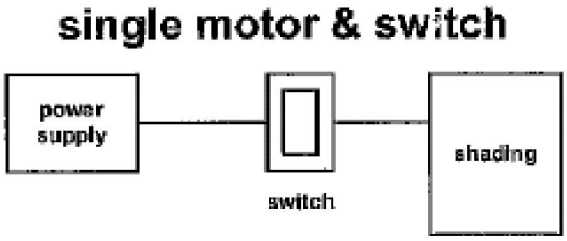
16/2 AWG Home Run To Home Automation/Lighting Controls
(1 of 2)

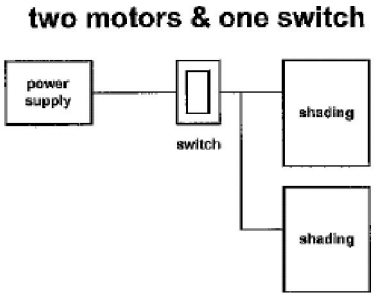
Important Motor Information:

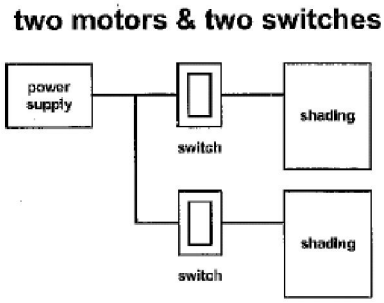
The 24 VDC motors used in Insolroll Window Shading Systems are unique in some aspects and have wiring requirements that differ from many household devices.

1. Insolroll 24 VDC motors are directional to run shades up and down and have two electrical wires : positive and negative

2. **24 VDC motors can be either wired in parallel** and/or home run to a given DC wall switch. See diagrams .







3. Type of wire run is vital. See chart for minimum wire gauge for each length of run.

Wire Parameters	
Wire Run	Minimum Wire
0 - 40'	16 gauge
41 - 100'	14 gauge
101 - 150'	12 gauge

4. Insolroll 24 VDC (STD-DC) motors pull 1.25 amps.
5. Insolroll 24 VDC motors require a double throw switch - (up - off -down).
6. 24 VDC Motors require a 24 volt power supply to convert 110 VDC to low voltage.
7. Insolroll 24 VDC motors have built-in limit switches to stop accurately when shades reach desired up and down positions.
8. Insolroll 24 VDC motors can be operated by wall switches, remote controls, automatic controls or interfaced with home automation systems.

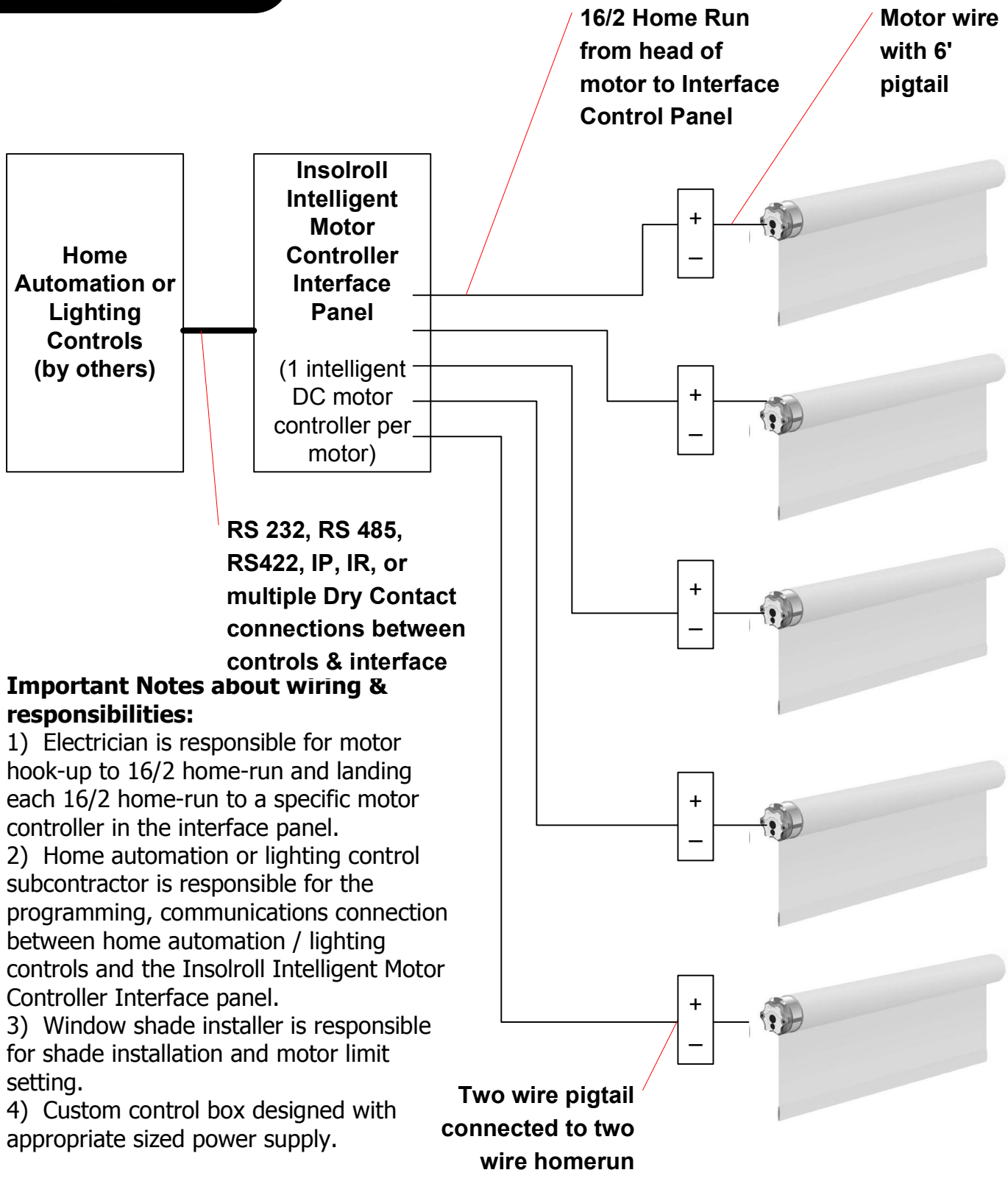
Additional Project Considerations:

9. The typical wiring layout for an Insolroll 24 VDC Window Shading System does not require that a single gang junction box is within the six foot pigtail. Typically, small wire nuts or small DC connectors supplied by others are used to make connections.
10. Variations in motor speeds may occur depending upon wire gauge used and length of wire run to power supply.

Typical hard-wired switch scenarios are attached. For additional wiring information, please call customer service.

PRE-WIRE FOR 24 V DC MOTORS

16/2 AWG Home Run to Home Automation/Lighting Controls
(2 of 2)



Important Notes about wiring & responsibilities:

1) Electrician is responsible for motor hook-up to 16/2 home-run and landing each 16/2 home-run to a specific motor controller in the interface panel.
2) Home automation or lighting control subcontractor is responsible for the programming, communications connection between home automation / lighting controls and the Insolroll Intelligent Motor Controller Interface panel.
3) Window shade installer is responsible for shade installation and motor limit setting.
4) Custom control box designed with appropriate sized power supply.