



# *Product Information and Technical Guide*

2004 Room Air Conditioners  
MS2 and Compact 2 Models

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## ATTENTION SERVICERS!

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## SAFE SERVICING PRACTICES - ALL APPLIANCES

To avoid personal injury or property damage, it is important that **Safe Servicing Practices** be observed. The following are some limited examples of safe practices.

1. **DO NOT** attempt a product repair if you doubt your ability to complete it in a safe and satisfactory manner.
2. Before servicing or moving an appliance
  - Remove power cord from electrical outlet, trip circuit breaker to **OFF** position, or remove fuse
  - Turn off gas supply
  - Turn off water supply
3. Never interfere with the proper operation of any safety device.
4. **Use only OEM replacement parts cataloged for this appliance. Substitutions may defeat compliance with safety standards set for home appliances.**
5. **GROUNDING:** The standard color coding for safety ground wires is **GREEN**, or **GREEN** with **YELLOW STRIPES**. **DO NOT** use ground leads as current carrying conductors. It is **EXTREMELY** important that the service technician reestablish all safety grounds prior to completing service. Failure to do so will create an electrical hazard.
6. Prior to returning the product to service, ensure that
  - All electrical connections are correct and secure
  - All electrical leads are properly dressed and secured away from sharp edges, high-temperature components, and moving parts
  - All non-insulated electrical terminals, connectors, heaters, etc. are adequately spaced away from all metal parts and panels
  - All safety grounds (both internal and external) are correctly and securely connected
  - All panels are properly and securely reassembled

### WARNING

This service manual is intended for use by persons having electrical and mechanical training and a level of knowledge of these subjects generally considered acceptable in the appliance repair trade. Electrolux Home Products, Inc. cannot be responsible, nor assume any liability, for injury or damage of any kind arising from the use of this manual.

## FRIGIDAIRE MODEL SPECIFICATIONS

Model	FAA051N7A	FAA051N7A1	FAA051N7A2	FAA051N7A3	FAA052N7A
<b>Chassis type</b>	MS 2	MS 2	MS 2	MS 2	MS 2
<b>Capacity features</b>					
BTU - Cooling	5000	5000	5000	5000	5000
BTU - Heating	-	-	-	-	-
Moisture Removal	1.45	1.45	1.45	1.45	1.45
EER	9.7	9.7	9.7	9.7	9.7
<b>Electrical Information</b>					
Voltage	115	115	115	115	115
Amps - Cooling	4.6	4.6	4.6	4.6	4.6
Amps - Heating	-	-	-	-	-
Watts - Cooling	515	515	515	515	515
Watts - Heating	-	-	-	-	-
Fuse/Breaker (Amps)	10	10	10	10	10
Receptacle Code	A	A	A	A	A
Wiring Diagram	2202019169	2202019169	2202019169	2202019169	2202019075
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<b>Air Flow System</b>					
Capacitor- $\mu$ farads	6/250	6/250	6/250	6/250	6/250
Fan Motor Mfg.	Welling	Dayang	Welling	Dayang	Welling
Fan Motor Number	2240040611	2240040611	2240040611	2240040611	2240040612
RPM/CMP (EVAP)					
High	1120/240	1120/240	1120/240	1120/240	1120/240
Medium	-	-	-	-	920/180
Low	-	-	-	-	-
Heat Only	-	-	-	-	-
<b>Refrigeration System</b>					
Compressor Mfg.	Shenlin, Shanghai	Shenlin, Shanghai	Matsushita	Matsushita	Shenlin, Shanghai
Compressor Number	SD074SW-P3BG	SD074SW-P3BG	2R7S3R126A6A	2R7S3R126A6A	SD074SW-P3BG
Compressor Type	Rotary	Rotary	Rotary	Rotary	Rotary
Overload Protector	2140131210	2140131210	2140011600	2140011600	2140131210
Capacitor- $\mu$ farads	35/250	35/250	35/250	35/250	35/250
Refrigerant Charge	9.9	9.9	9.9	9.9	9.9
Restrictor Tube	2162019061	2162019061	2162019017	2162019017	2162019061
Thermostat Type	Capillary	Capillary	Capillary	Capillary	Capillary
<b>Installation Instructions</b>					
Kit Type					
Part Number	2282019010	2282019010	2282019010	2282019010	2282019010
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<b>Condenser Fan and Evaporator Blower Location Diagram</b>	Page 15	Page 15	Page 15	Page 15	Page 15

## FRIGIDAIRE MODEL SPECIFICATIONS

Model	FAA052N7A1	FAA052N7A2	FAA052N7A3	FAA055N7A	FAA055N7A1
<b>Chassis type</b>	MS 2	MS 2	MS 2	MS 2	MS 2
<b>Capacity features</b>					
BTU - Cooling	5000	5000	5000	5200	5200
BTU - Heating	-	-	-	-	-
Moisture Removal	1.45	1.45	1.45	1.5	1.5
EER	9.7	9.7	9.7	11	11
<b>Electrical Information</b>					
Voltage	115	115	115	115	115
Amps - Cooling	4.6	4.6	4.6	4.2	4.2
Amps - Heating	-	-	-	-	-
Watts - Cooling	515	515	515	472	472
Watts - Heating	-	-	-	-	-
Fuse/Breaker (Amps)	10	10	10	10	10
Receptacle Code	A	A	A	A	A
Wiring Diagram	2202019075	2202019075	2202019075	2202039277	2202039277
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<b>Air Flow System</b>					
Capacitor- $\mu$ farads	6/250	6/250	6/250	6/250	6/250
Fan Motor Mfg.	Dayang	Welling	Dayang	Welling	Dayang
Fan Motor Number	2240040612	2240040612	2240040612	2240040611	2240040611
RPM/CMP (EVAP)					
High	1120/240	1120/240	1120/240	1120/240	1120/240
Medium	920/180	920/180	920/180	920/180	920/180
Low	-	-	-	-	-
Heat Only	-	-	-	-	-
<b>Refrigeration System</b>					
Compressor Mfg.	Shenlin, Shanghai	Matsushita	Matsushita	Shenlin, Shanghai	Shenlin, Shanghai
Compressor Number	SD074SW-P3BG	2R7S3R126A6A	2R7S3R126A6A	SD074SW-P3BG	SD074SW-P3BG
Compressor Type	Rotary	Rotary	Rotary	Rotary	Rotary
Overload Protector	2140131210	2140011600	2140011600	2140131210	2140131210
Capacitor- $\mu$ farads	35/250	35/250	35/250	35/250	35/250
Refrigerant Charge	9.9	9.9	9.9	12.3	12.3
Restrictor Tube	2162019061	2162019017	2162019017	2162019015	2162019015
Thermostat Type	Capillary	Capillary	Capillary	Electronic	Electronic
<b>Installation Instructions</b>					
Kit Type					
Part Number	2282019010	2282019010	2282019010	2282019010	2282019010
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## FRIGIDAIRE MODEL SPECIFICATIONS

Model	FAA055N7A2	FAA055N7A3	FAA064N7A	FAA064N7A1	FAA064N7A2
<b>Chassis type</b>	MS 2	MS 2	MS 2	MS 2	MS 2
<b>Capacity features</b>					
BTU - Cooling	5200	5200	6000	6000	6000
BTU - Heating	-	-	-	-	-
Moisture Removal	1.5	1.5	1.85	1.85	1.85
EER	11	11	9.7	9.7	9.7
<b>Electrical Information</b>					
Voltage	115	115	115	115	115
Amps - Cooling	4.2	4.2	5.5	5.5	5.5
Amps - Heating	-	-	-	-	-
Watts - Cooling	472	472	620	620	620
Watts - Heating	-	-	-	-	-
Fuse/Breaker (Amps)	10	10	10	10	10
Receptacle Code	A	A	A	A	A
Wiring Diagram	2202039277	2202039277	2202039242	2202039242	2202039242
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<b>Air Flow System</b>					
Capacitor- $\mu$ farads	6/250	6/250	6/250	6/250	6/250
Fan Motor Mfg.	Welling	Dayang	Welling	Dayang	Welling
Fan Motor Number	2240040611	2240040611	2240040611	2240040611	2240040611
RPM/CMP (EVAP)					
High	1120/240	1120/240	1120/220	1120/220	1120/220
Medium	920/180	920/180	-	-	-
Low	-	-	920/170	920/170	920/170
Heat Only	-	-	-	-	-
<b>Refrigeration System</b>					
Compressor Mfg.	Matsushita	Matsushita	LG	LG	Shenlin, Shanghai
Compressor Number	2R7S3R126A6A	2R7S3R126A6A	QA084CAA	QA084CAA	SD086UW-P3BG
Compressor Type	Rotary	Rotary	Rotary	Rotary	Rotary
Overload Protector	2140011600	2140011600	2140160370	2140160370	2140131220
Capacitor- $\mu$ farads	35/250	35/250	35/250	35/250	40/250
Refrigerant Charge	12.3	12.3	13.4	13.4	13.4
Restrictor Tube	2162019015	2162019015	2162029029	2162029029	2162029029
Thermostat Type	Electronic	Electronic	Electronic	Electronic	Electronic
<b>Installation Instructions</b>					
Kit Type					
Part Number	2282019010	2282019010	2282019010	2282019010	2282019010
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## FRIGIDAIRE MODEL SPECIFICATIONS

Model	FAA064N7A3	FAA065N7A	FAA065N7A1	FAA065N7A2	FAA065N7A3
<b>Chassis type</b>	MS 2	MS 2	MS 2	MS 2	MS 2
<b>Capacity features</b>					
BTU - Cooling	6000	6000	6000	6000	6000
BTU - Heating	-	-	-	-	-
Moisture Removal	1.85	1.9	1.9	1.9	1.9
EER	9.7	10.7	10.7	10.7	10.7
<b>Electrical Information</b>					
Voltage	115	115	115	115	115
Amps - Cooling	5.5	4.9	4.9	4.9	4.9
Amps - Heating	-	-	-	-	-
Watts - Cooling	620	560	560	560	560
Watts - Heating	-	-	-	-	-
Fuse/Breaker (Amps)	10	10	10	10	10
Receptacle Code	A	A	A	A	A
Wiring Diagram	2202039242	2202039277	2202039277	2202039277	2202039277
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<b>Air Flow System</b>					
Capacitor- $\mu$ farads	6/250	6/250	6/250	6/250	6/250
Fan Motor Mfg.	Dayang	Welling	Dayang	Welling	Dayang
Fan Motor Number	2240040611	2240040611	2240040611	2240040611	2240040611
RPM/CMP (EVAP)					
High	1120/220	1120/220	1120/220	1120/220	1120/220
Medium	-	-	-	-	-
Low	920/170	920/170	920/170	920/170	920/170
Heat Only	-	-	-	-	-
<b>Refrigeration System</b>					
Compressor Mfg.	Shenlin, Shanghai	LG	LG	Shenlin, Shanghai	Shenlin, Shanghai
Compressor Number	SD086UW-P3BG	QA084CAA	QA084CAA	SD086UW-P3BG	SD086UW-P3BG
Compressor Type	Rotary	Rotary	Rotary	Rotary	Rotary
Overload Protector	2140131220	2140160370	2140160370	2140131220	2140131220
Capacitor- $\mu$ farads	40/250	35/250	35/250	40/250	40/250
Refrigerant Charge	13.4	17.3	17.3	17.3	17.3
Restrictor Tube	2162029029	2162029029	2162029029	2162029029	2162029029
Thermostat Type	Electronic	Electronic	Electronic	Electronic	Electronic
<b>Installation Instructions</b>					
Kit Type					
Part Number	2282019010	2282019010	2282019010	2282019010	2282019010
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## FRIGIDAIRE MODEL SPECIFICATIONS

Model	FAC084N7A	FAC084N7A1	FAC084N7A2	FAC085N7A	FAC085N7A1
<b>Chassis type</b>	Compact 2	Compact 2	Compact 2	Compact 2	Compact 2
<b>Capacity features</b>					
BTU - Cooling	8000	8000	8000	8000	8000
BTU - Heating	-	-	-	-	-
Moisture Removal	1.7	1.7	1.7	1.7	1.7
EER	9.8	9.8	9.8	10.8	10.8
<b>Electrical Information</b>					
Voltage	115	115	115	115	115
Amps - Cooling	7.4	7.4	7.4	6.4	6.4
Amps - Heating	-	-	-	-	-
Watts - Cooling	820	820	820	740	740
Watts - Heating	-	-	-	-	-
Fuse/Breaker (Amps)	15	15	15	15	15
Receptacle Code	A	A	A	A	A
Wiring Diagram	2202039242	2202039242	2202039242	2202039277	2202039277
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<b>Air Flow System</b>					
Capacitor- $\mu$ farads	15/250	15/250	15/250	15/250	15/250
Fan Motor Mfg.	Heshan	Dayang	Welling	Heshan	Dayang
Fan Motor Number	2240042425	2240042425	2240042425	2240042425	2240042425
RPM/CMP (EVAP)					
High	1250/265	1250/265	1250/265	1250/265	1250/265
Medium	-	-	-	-	-
Low	1050/210	1050/210	1050/210	1050/210	1050/210
Heat Only	-	-	-	-	-
<b>Refrigeration System</b>					
Compressor Mfg.	Matsushita	Matsushita	Matsushita	Matsushita	Matsushita
Compressor Number	2R11S3R126A6B	2R11S3R126A6B	2R11S3R126A6B	2R11S3R126A6B	2R11S3R126A6B
Compressor Type	Rotary	Rotary	Rotary	Rotary	Rotary
Overload Protector	2140021580	2140021580	2140021580	2140021580	2140021580
Capacitor- $\mu$ farads	35/250	35/250	35/250	35/250	35/250
Refrigerant Charge	16.9	16.9	16.9	20.1	20.1
Restrictor Tube	2162039034	2162039034	2162039034	2162039027	2162039027
Thermostat Type	Electronic	Electronic	Electronic	Electronic	Electronic
<b>Installation Instructions</b>					
Kit Type					
Part Number	2282049504	2282049504	2282049504	2282049504	2282049504
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## FRIGIDAIRE MODEL SPECIFICATIONS

Model	FAC085N7A2	FAC086N7A	FAC086N7A1	FAC086N7A2	FAC104N1A
<b>Chassis type</b>	Compact 2	Compact 2	Compact 2	Compact 2	Compact 2
<b>Capacity features</b>					
BTU - Cooling	8000	8000	8000	8000	10000
BTU - Heating	-	-	-	-	-
Moisture Removal	1.7	1.7	1.7	1.7	1.7
EER	10.8	10.8	10.8	10.8	9.7
<b>Electrical Information</b>					
Voltage	115	115	115	115	115
Amps - Cooling	6.4	6.4	6.4	6.4	9.3
Amps - Heating	-	-	-	-	-
Watts - Cooling	740	740	740	740	1020
Watts - Heating	-	-	-	-	-
Fuse/Breaker (Amps)	15	15	15	15	15
Receptacle Code	A	A	A	A	A
Wiring Diagram	2202039277	2202039277	2202039277	2202039277	2202049160
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<b>Air Flow System</b>					
Capacitor- $\mu$ farads	15/250	15/250	15/250	15/250	15/250
Fan Motor Mfg.	Welling	Heshan	Dayang	Welling	Welling
Fan Motor Number	2240042425	2240042425	2240042425	2240042425	2240049106
RPM/CMP (EVAP)					
High	1250/265	1250/265	1250/265	1250/265	1460/295
Medium	-	-	-	-	-
Low	1050/210	1050/210	1050/210	1050/210	1260/240
Heat Only	-	-	-	-	-
<b>Refrigeration System</b>					
Compressor Mfg.	Matsushita	Matsushita	Matsushita	Matsushita	Gold Star
Compressor Number	2R11S3R126A6B	2R11S3R126A6B	2R11S3R126A6B	2R11S3R126A6B	QK141CBC
Compressor Type	Rotary	Rotary	Rotary	Rotary	Rotary
Overload Protector	2140021580	2140021580	2140021580	2140021580	2140160360
Capacitor- $\mu$ farads	35/250	35/250	35/250	35/250	45/250
Refrigerant Charge	20.1	20.1	20.1	20.1	20.5
Restrictor Tube	2162039027	2162039027	2162039027	2162039027	2162049155
Thermostat Type	Electronic	Electronic	Electronic	Electronic	Electronic
<b>Installation Instructions</b>					
Kit Type					
Part Number	2282049504	2282049504	2282049504	2282049504	2282049504
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## FRIGIDAIRE MODEL SPECIFICATIONS

Model	FAC104N1A1	FAC106N1A	FAC106N1A1	FAC124N1A	FAC124N1A1
<b>Chassis type</b>	Compact 2	Compact 2	Compact 2	Compact 2	Compact 2
<b>Capacity features</b>					
BTU - Cooling	10000	10000	10000	12000	12000
BTU - Heating	-	-	-	-	-
Moisture Removal	1.7	2.7	2.7	3.6	3.6
EER	9.7	10.7	10.7	9.8	9.8
<b>Electrical Information</b>					
Voltage	115	115	115	115	115
Amps - Cooling	9.3	8.4	8.4	11.1	11.1
Amps - Heating	-	-	-	-	-
Watts - Cooling	1020	925	925	1230	1230
Watts - Heating	-	-	-	-	-
Fuse/Breaker (Amps)	15	15	15	15	15
Receptacle Code	A	A	A	A	A
Wiring Diagram	2202049160	2202049158	2202049158	2202049160	2202049160
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<b>Air Flow System</b>					
Capacitor- $\mu$ farads	15/250	15/250	15/250	15/250	15/250
Fan Motor Mfg.	Dayang	Welling	Dayang	Welling	Dayang
Fan Motor Number	2240049106	2240049106	2240049106	2240049106	2240049106
RPM/CMP (EVAP)					
High	1460/295	1460/295	1460/295	1460/295	1460/295
Medium	-	-	-	1260/240	1260/240
Low	1260/240	1260/240	1260/240	-	-
Heat Only	-	-	-	-	-
<b>Refrigeration System</b>					
Compressor Mfg.	Gold Star	Gold Star	Gold Star	Gold Star	Gold Star
Compressor Number	QK141CBC	QK134CCB	QK134CCB	QK164CBB	QK164CBB
Compressor Type	Rotary	Rotary	Rotary	Rotary	Rotary
Overload Protector	2140160360	2140160350	2140160350	2140160340	2140160340
Capacitor- $\mu$ farads	45/250	50/250	50/250	50/250	50/250
Refrigerant Charge	20.5	22.9	22.9	23.6	23.6
Restrictor Tube	2162049155	2162049149	2162049149	2162049145	2162049145
Thermostat Type	Electronic	Electronic	Electronic	Electronic	Electronic
<b>Installation Instructions</b>					
Kit Type					
Part Number	2282049504	2282049504	2282049504	2282049504	2282049504
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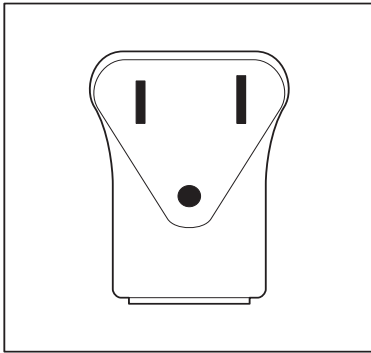
## FRIGIDAIRE MODEL SPECIFICATIONS

Model	FAC126N1A	FAC126N1A1			
<b>Chassis type</b>	Compact 2	Compact 2			
<b>Capacity features</b>					
BTU - Cooling	12000	12000			
BTU - Heating	-	-			
Moisture Removal	3.6	3.6			
EER	10.8	10.8			
<b>Electrical Information</b>					
Voltage	115	115			
Amps - Cooling	10.1	10.1			
Amps - Heating	-	-			
Watts - Cooling	1110	1110			
Watts - Heating	-	-			
Fuse/Breaker (Amps)	15	15			
Receptacle Code	A	A			
Wiring Diagram	2202049158	2202049158			
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<b>Air Flow System</b>					
Capacitor- $\mu$ farads	15/250	15/250			
Fan Motor Mfg.	Welling	Dayang			
Fan Motor Number	2240049106	2240049106			
RPM/CMP (EVAP)					
High	1460/295	1460/295			
Medium	1260/240	1260/240			
Low	-	-			
Heat Only	-	-			
<b>Refrigeration System</b>					
Compressor Mfg.	Gold Star	Gold Star			
Compressor Number	QK164CDB	QK164CDB			
Compressor Type	Rotary	Rotary			
Overload Protector	2140160330	2140160330			
Capacitor- $\mu$ farads	60/250	60/250			
Refrigerant Charge	27.2	27.2			
Restrictor Tube	2162049137	2162049137			
Thermostat Type	Electronic	Electronic			
<b>Installation Instructions</b>					
Kit Type					
Part Number	2282049504	2282049504			
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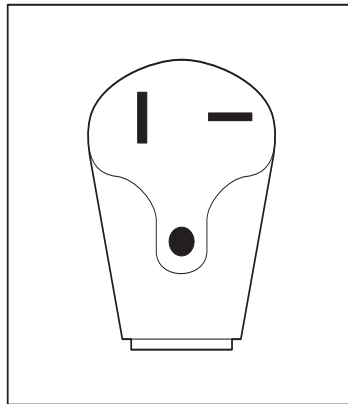
COMPRESSOR OVERLOAD DATA						
Part#	Used with compressor	Supplier part #	Opening Temp °C ± 5°C	Closing Temp °C ± 5°C	Short Time Trip	
					Test Amp	Opening Time - Sec
2140131210	SD074SW-P3BG	LOGN21A/LYGN56A	160±10	70±10	18A/12A	5~15Sec
2140011600	2R7S3R126A6A	MRA99087	135±5	75±9	19.5A	6~11Sec
2140131220	SD086UW-P3BG	LOGN21A/LYGN56A	160±10	70±10	18A/12A	5~15Sec
2140160370	QA084CAA	MRA98703-12026	140±5	78±10	21A	5~11Sec
2140021580	2R11S3R126A6B	MRA98705	155±5	74±9	25.5A	6~16Sec
2140160360	QK141CBC	MRA12061-12026	150±5	61±11	40.5A	5~11Sec
2140160350	QK134CCB	MRA12061-12026	150±5	61±11	50.5A	5~11Sec
2140160340	QK164CBB	MRA12053-12027	150±5	61±9	41.5A	5~11Sec
2140160330	QK164CDB	MRA12061-12026	150±5	61±11	50.5A	5~11Sec

RESTRICTED TUBE DATA							
Style #	Internal Diameter Color Code	Length	O.D.	I.D.	PSIG	CFM Dry Air	
						Min.	Max.
2162019017		27.6	0.098	0.043	20	0.865	0.936
2162019061		25.6	0.098	0.043	20	0.900	0.971
2162019015		42.5	0.098	0.051	15	1.119	1.190
2162029029		37.4	0.098	0.051	15	1.148	1.218
2162039027		27.6+29.5	0.098	0.043	20	0.883+0.847	0.953+0.918
2162039034		31.5+33.5	0.098	0.043	20	0.812+0.795	0.883+0.865
2162049149		35.4+39.4+41.3	0.098	0.043	20	0.812+0.716+0.706	0.883+0.787+0.776
2142049155		41.3+43.3	0.098	0.051	15	1.130+1.095	1.201+1.165
2162049137		26.8+33.9+33.9	0.098	0.043	20	0.890+0.763+0.777	0.960+0.833+0.847
2162049145		31.5+39.4+37.4	0.098	0.043	20	0.847+0.713+0.787	0.918+0.784+0.858

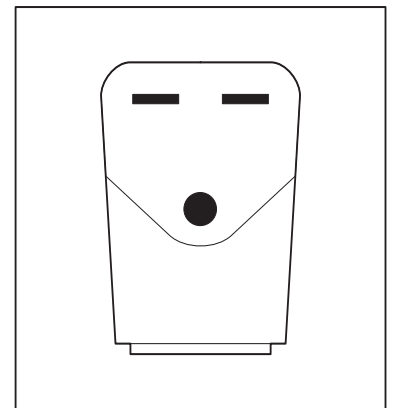
# Receptacle Outlet Codes



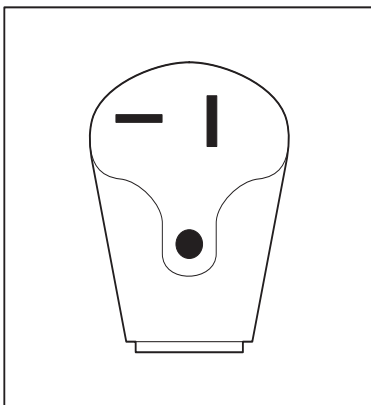
**Code A**  
115 Volts - 15 Amps  
NEMA 5 - 15 TYPE



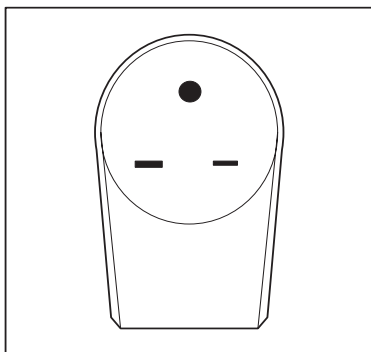
**Code B**  
115 Volts - 20 Amps  
NEMA 5 - 20 TYPE



**Code C**  
230 Volts - 15 Amps  
NEMA 6 - 20 TYPE

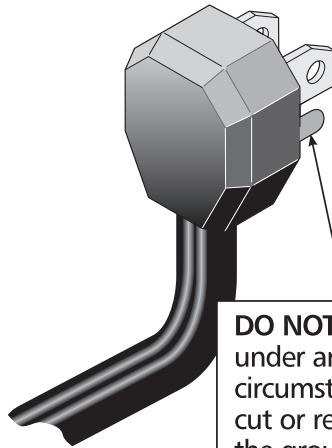


**Code D**  
230 Volts - 20 Amps  
NEMA 6 - 20 TYPE

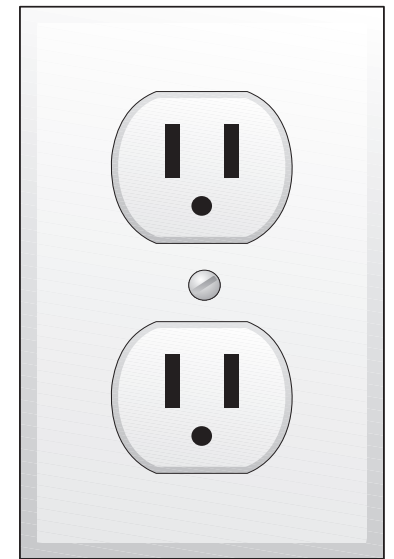


**Code E**  
230 Volts - 30 Amps  
NEMA 6 - 30 TYPE

Power Supply Cord with  
3-prong Grounding Plug



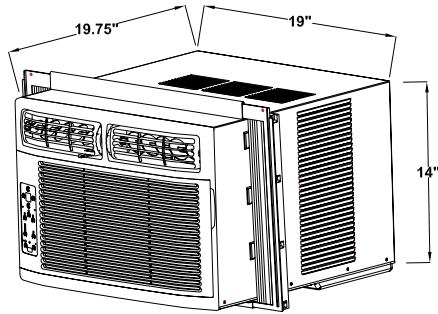
**DO NOT**  
under any  
circumstances  
cut or remove  
the grounding  
prong from  
this plug.



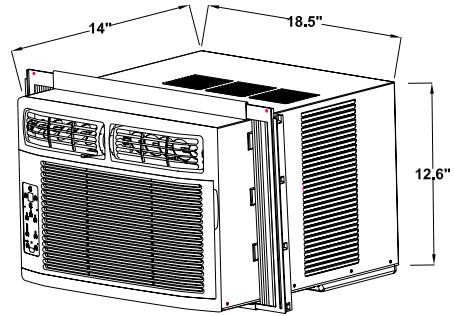
Grounding Type  
Wall Receptacle

# Product Dimensions

## COMPACT II

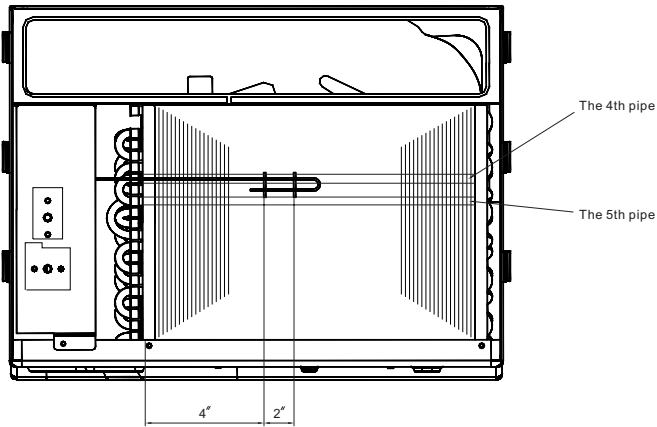


## MS II

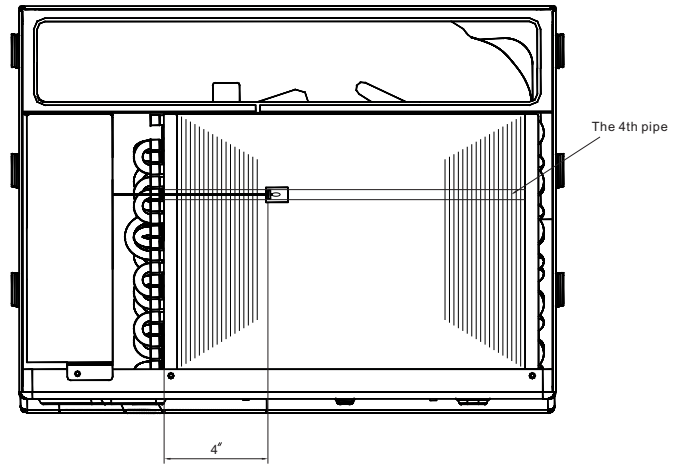


# Control Thermostat Location Diagrams

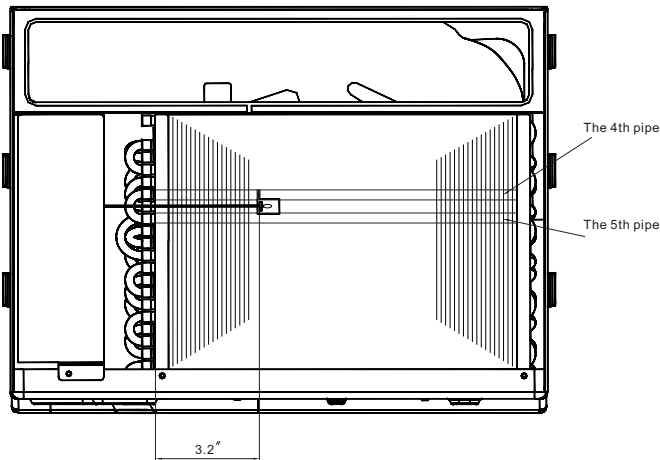
## MS2 Rotary Controls



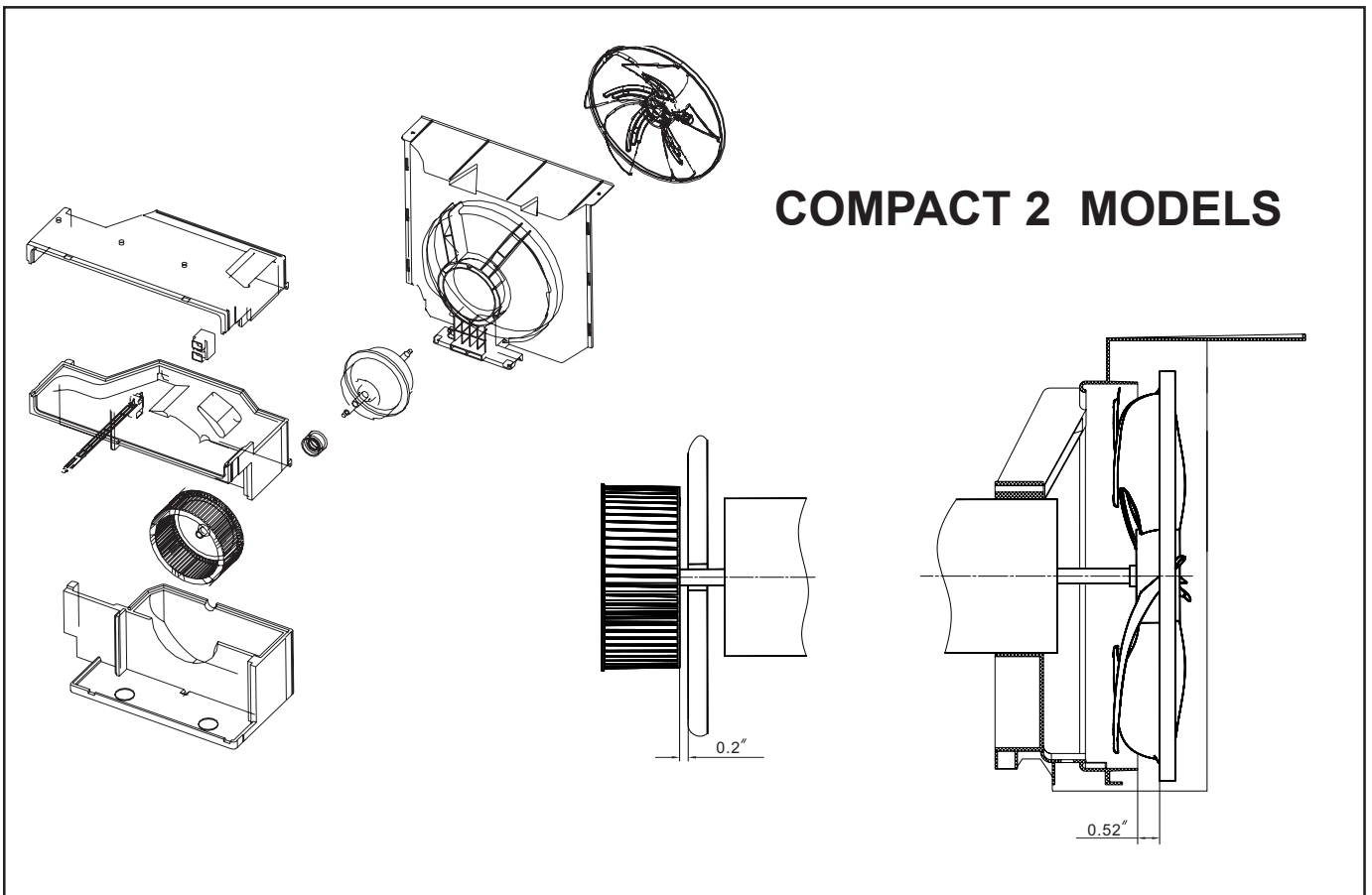
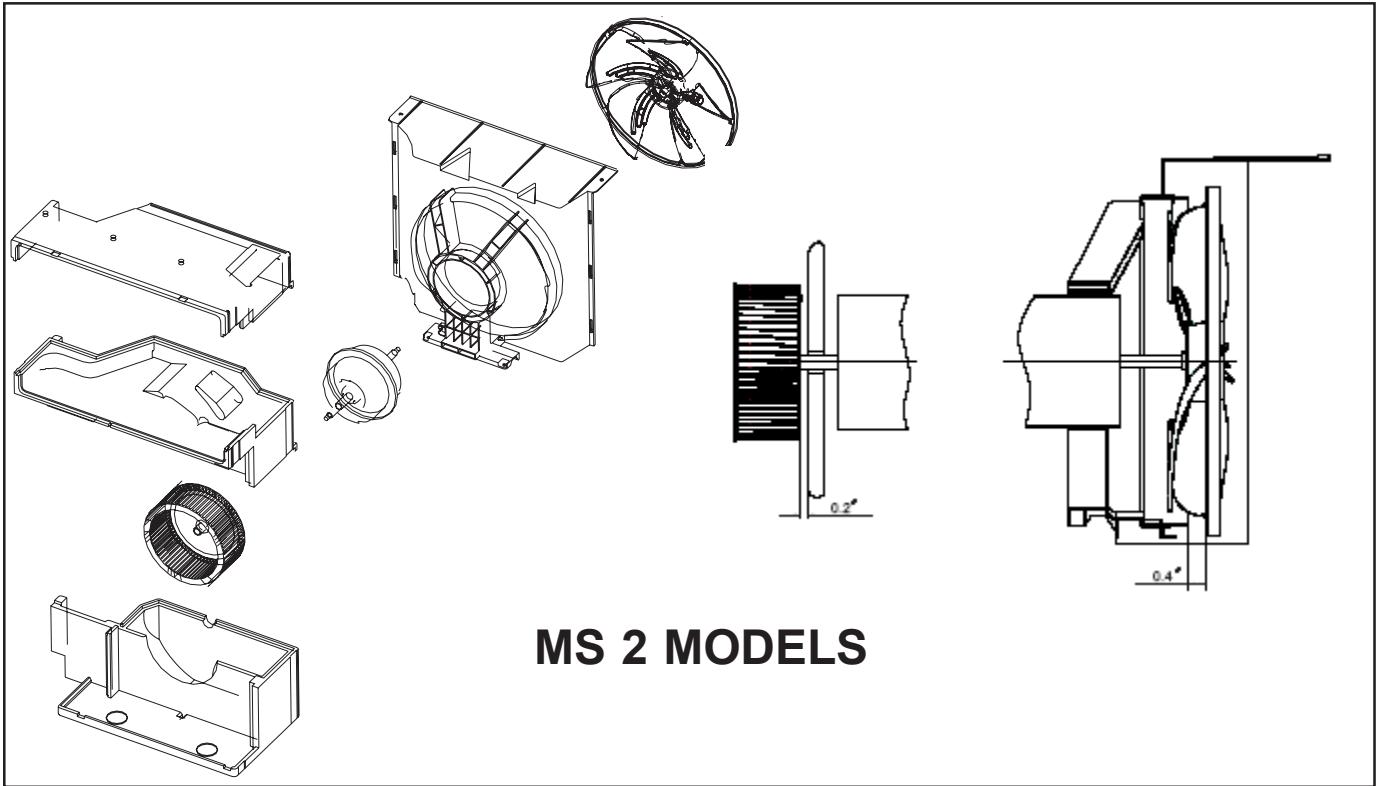
## MS2 Electronic Controls



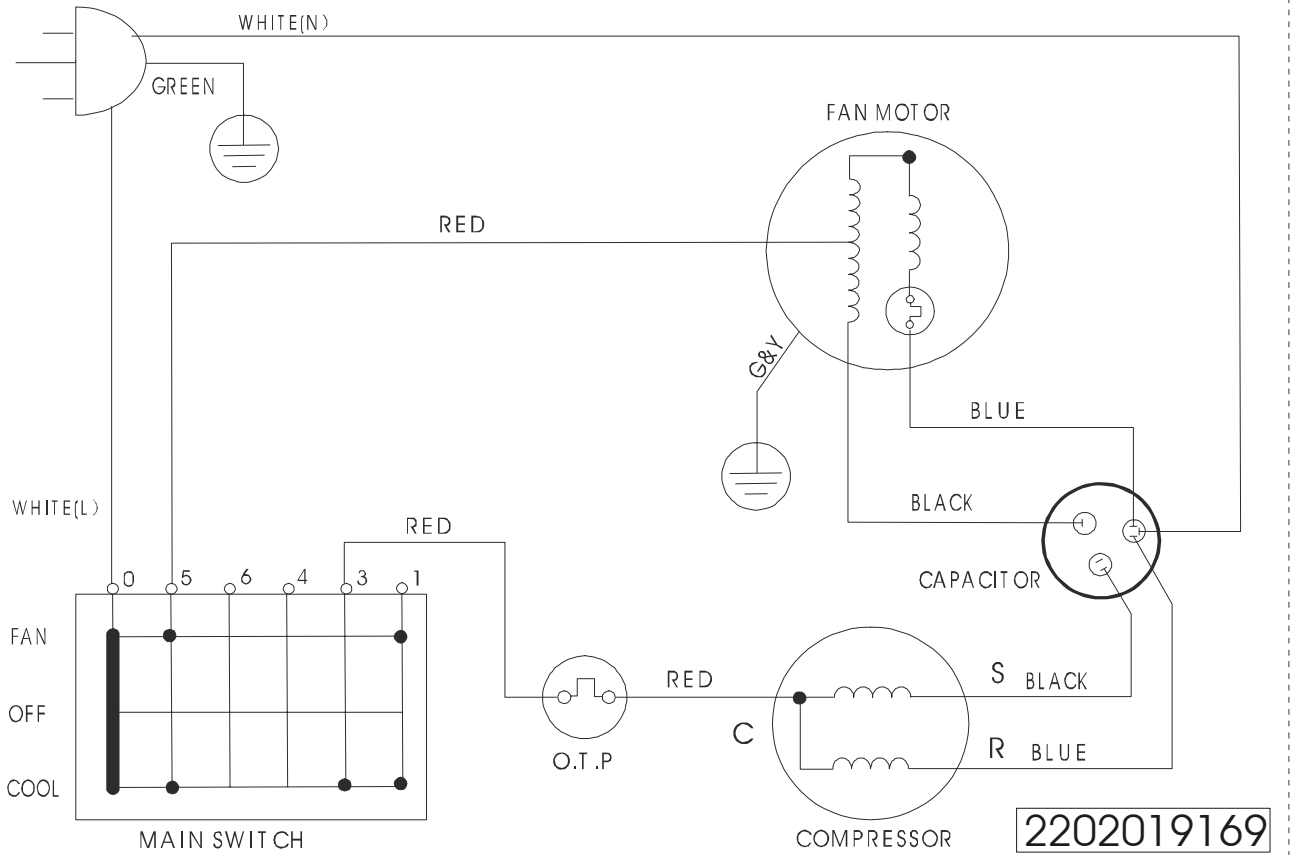
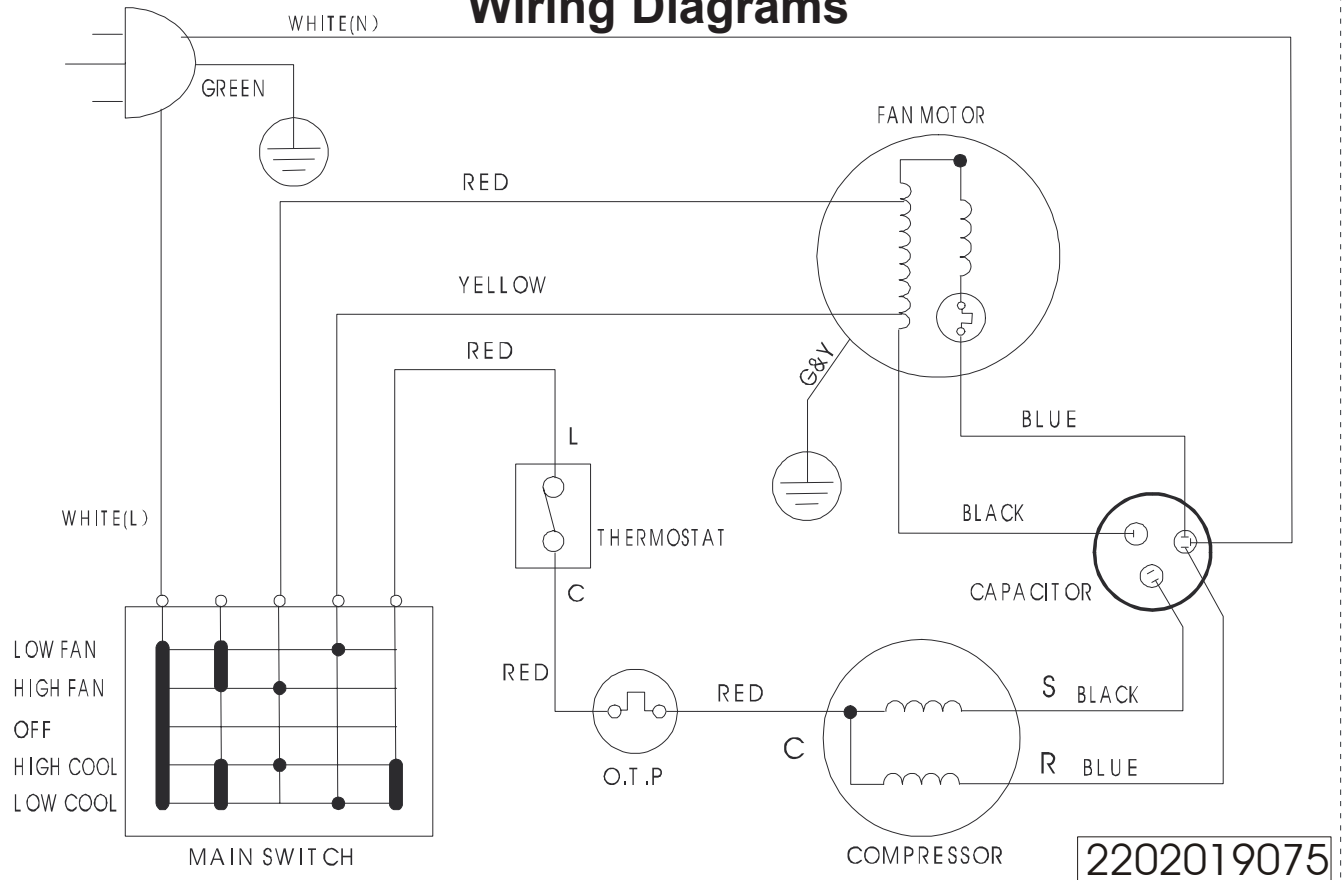
## Compact 2



# Fan and Blower Location Diagrams

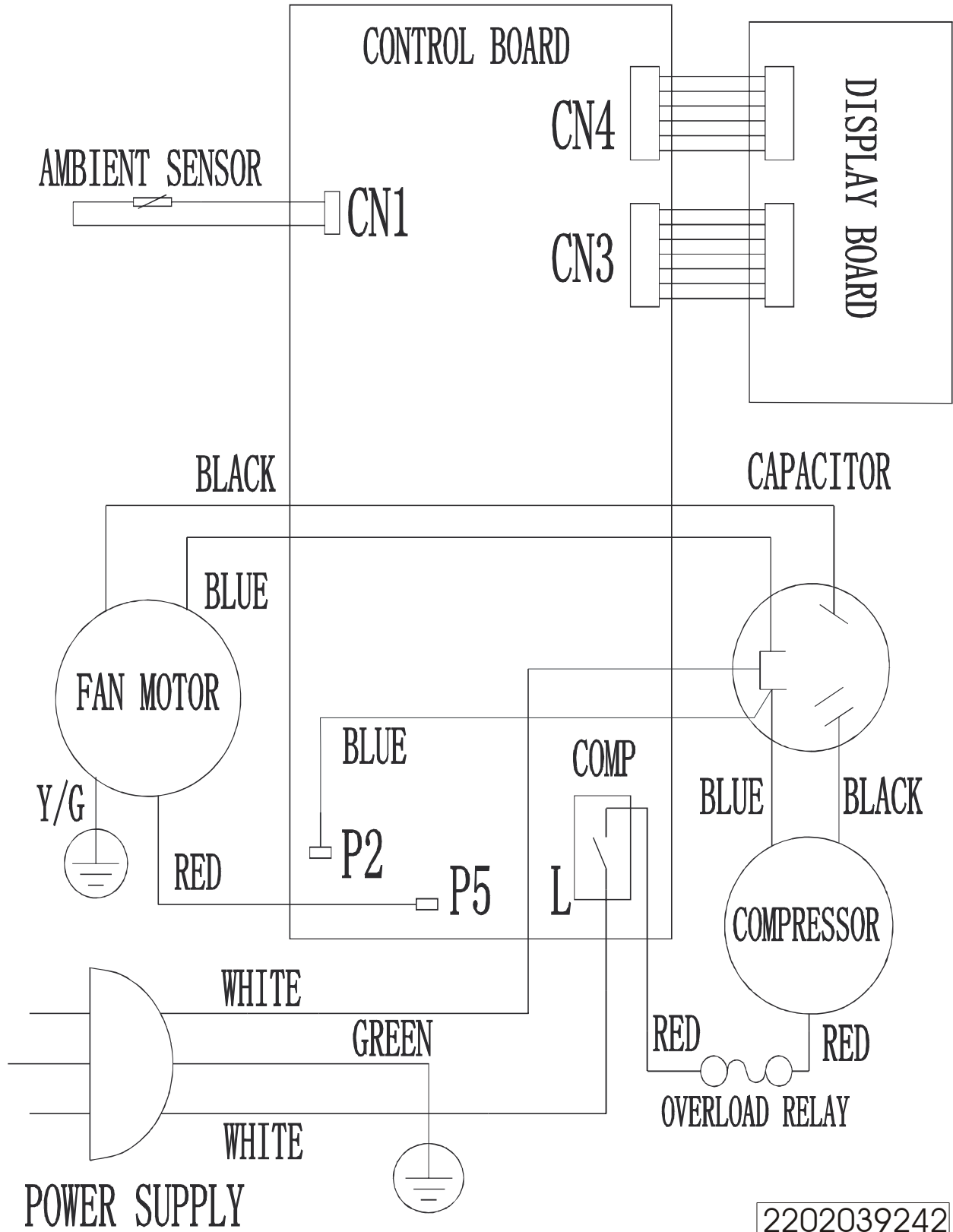


# Wiring Diagrams



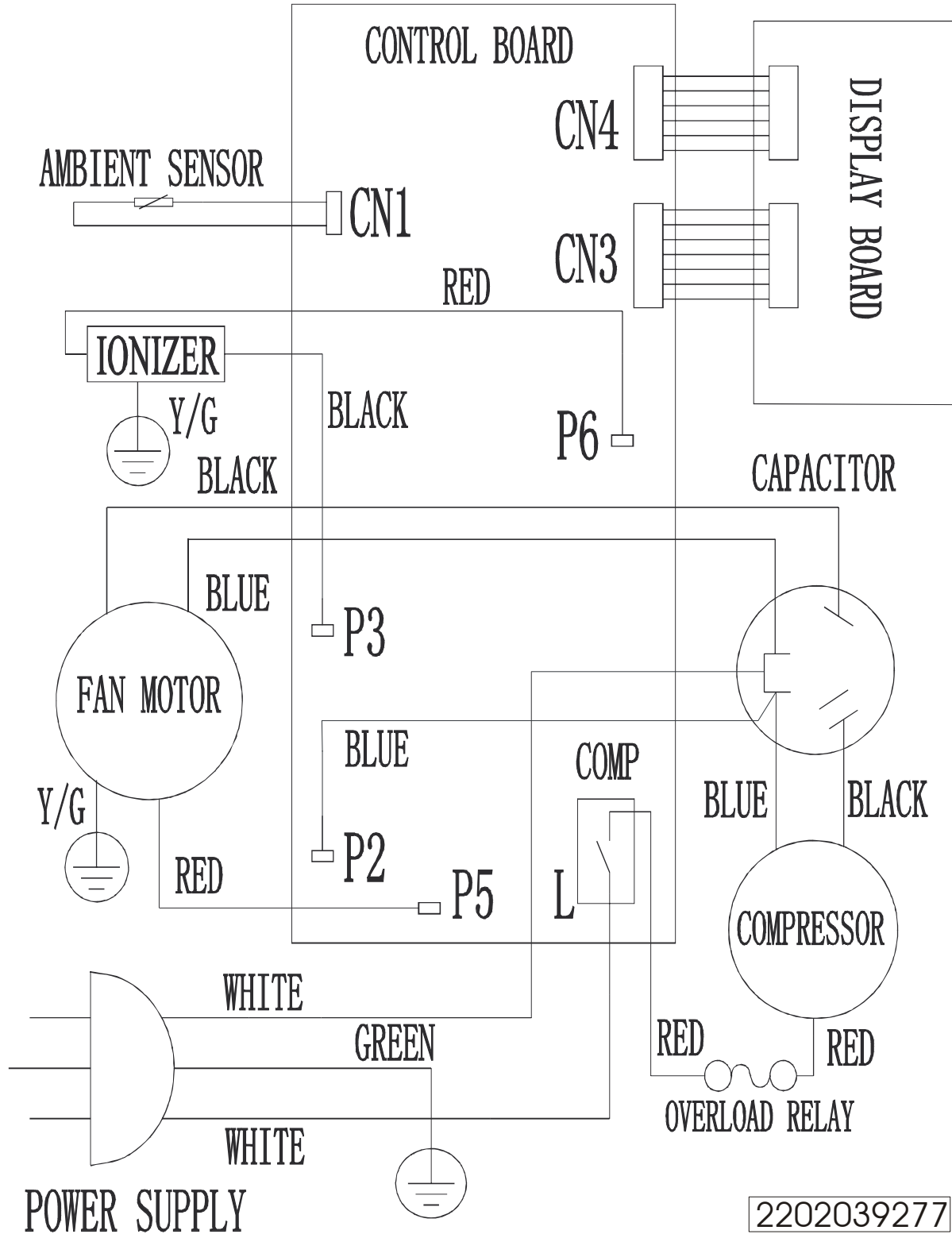


# Wiring Diagrams

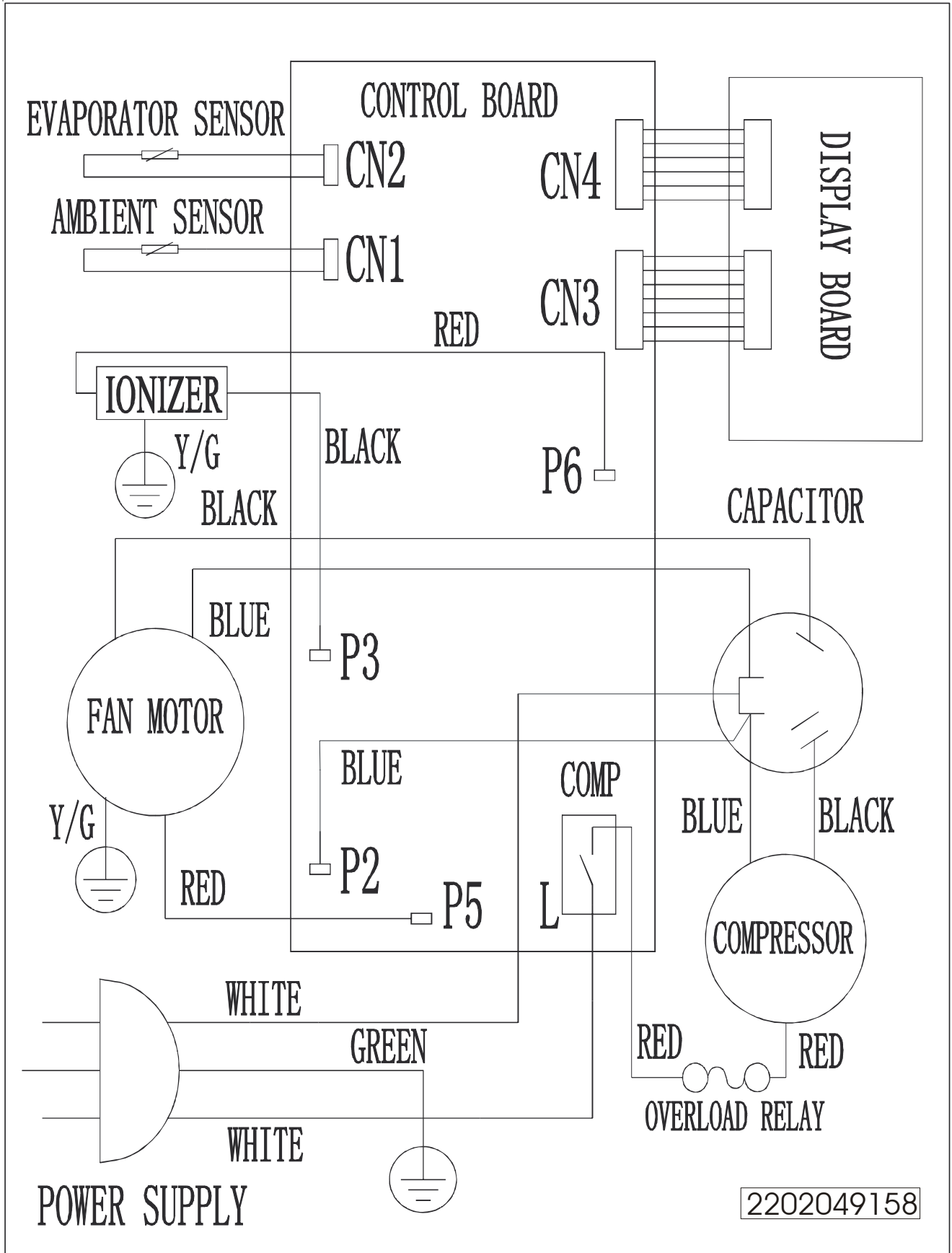


2202039242

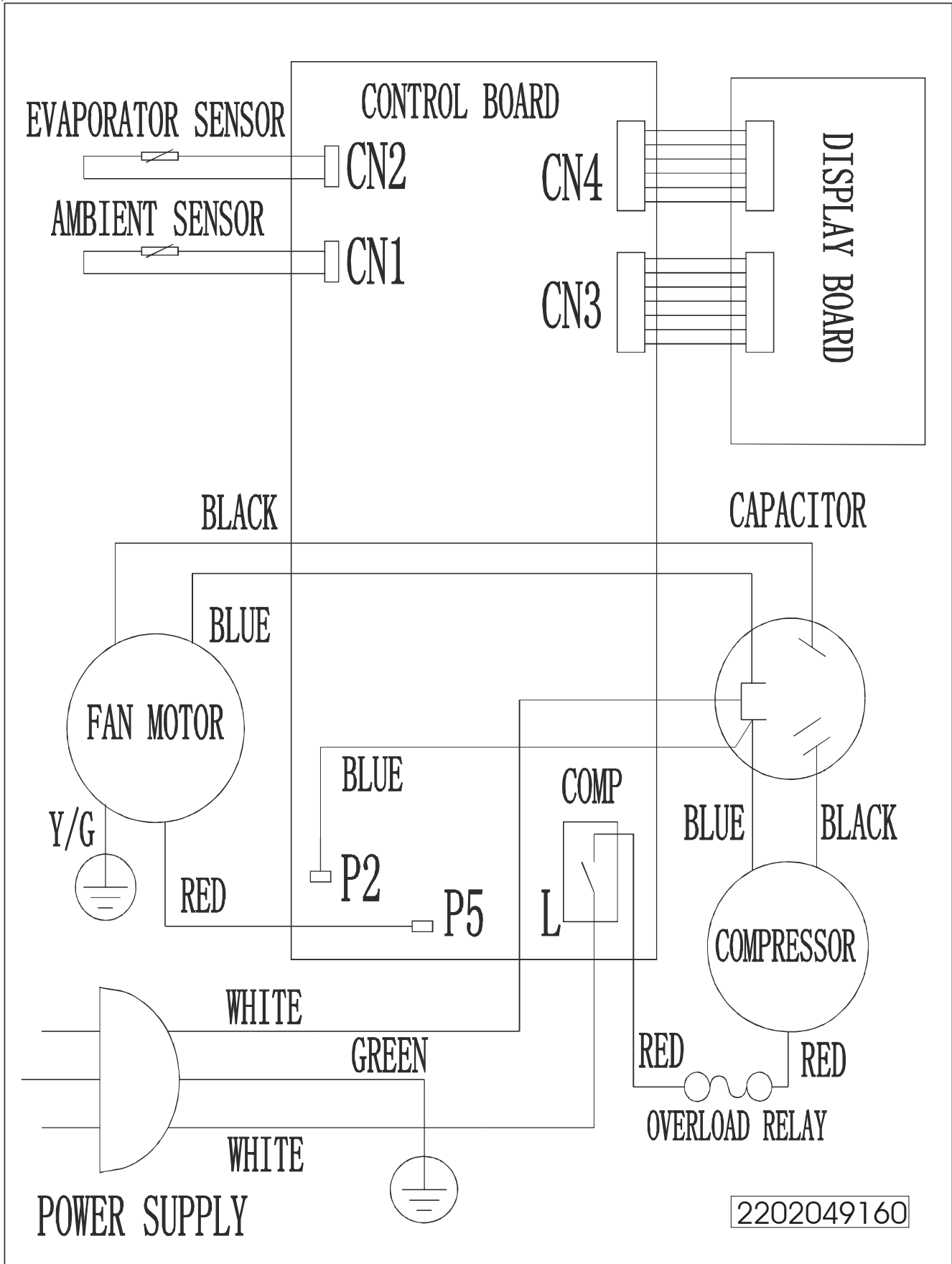
# Wiring Diagrams



# Wiring Diagrams



# Wiring Diagrams



# ROOM AIR CONDITIONERS TROUBLESHOOTING

**CAUTION:** Review Safe Servicing Practices in the front of this manual before attempting diagnostic procedures and repairs.

## AIR CONDITIONER VOLTAGE LIMITS

NAMEPLATE RATING	MINIMUM	MAXIMUM
115 VAC	103.5 VAC	126.5 VAC
230 VAC	207 VAC	253 VAC
208/230	197.5 VAC	253 VAC

## AIR CONDITIONER VOLTAGE LIMITS

Low voltage is a common cause of trouble in the operation of any room air conditioner.

Improper voltage may cause one or more of the following problems:

1. Unit will not start.
2. Compressor motor cycling on motor protector.
3. Premature failure of motor protector.
4. Blown fuses.
5. Premature failure of compressor or fan motor.
6. Noticeable dimming of lights when air conditioner is running.
7. Evaporator icing. Low voltage may reduce fan speed resulting in inadequate air flow over evaporator, thereby allowing it to ice up.

Low voltage can also be the direct result of inadequately wired circuits, extension cords, or loose fuses and connections to the power supply. Voltage may also be a general condition in the area (a responsibility of the power company).

All units will start and run on the minimum voltage stated in the chart to the left, and will perform satisfactorily if the voltage remains constant. Low voltage caused by defective wiring will not remain constant under load.

To test for low voltage, use a reliable meter with sufficient capacity to measure the required voltage. Take measurements at the electric power entry point and at the electric outlet serving the air conditioner. Take readings with the unit off, while the unit is starting, and again while the unit is running. The lowest reading should not drop below the lowest value listed in the chart.

## HIGH VOLTAGE

High voltage can be equally troublesome, causing motors to overheat, cycle on their protectors, or break down electrically. This problem can only be solved by the power company.

## ELECTRONIC CONTROL

This control is not repairable. If any component in the control is defective, the entire control must be replaced.

**IMPORTANT NOTICE:** Repair or replace any malfunctioning line voltage component before testing or replacing the electronic control. **DO NOT** assume a service problem is directly caused by the electronic control system. A line voltage component (including power cord and wiring) that has opened, shorted, grounded or otherwise malfunctioned, may have created a service problem.

## SYMPTON

Fan motor will not run.

## POSSIBLE CAUSE

1. No power.
2. Power supply cord.
3. Selector switch.
4. Energy saving switch (if applicable).
5. Electronic control (if applicable).
6. Wire disconnected or connection loose.
7. Capacitor. (Discharge capacitor before testing.)
8. Defective fan motor windings.
9. Will not rotate. Fan blade hitting shroud or blower wheel hitting scroll. (Motor cycles on overload.)

Fan motor runs intermittently.

1. Cycle on motor protector.

## SYMPTON

## POSSIBLE CAUSE

Fan motor noisy.

1. Condenser fan blade or evaporator blower wheel.
2. Loose power clamp or set screw.
3. Worn bearings.
4. Grommets (if applicable).

Compressor will not run, but fan motor runs.

1. Voltage.
2. Wiring.
3. Selector switch.
4. Temperature control.
5. Capacitor. (Discharge capacitor before testing.)
6. Compressor.
7. Motor protector (external).
8. Motor protector (internal).
9. Electronic control (if applicable).
10. Hard starting.

Compressor cycles on motor protector.

1. Voltage.
2. Motor protector (external).
3. Motor protector (internal).
4. Fan motor.
5. Condenser air flow restriction.
6. Condenser fins damaged.
7. Capacitor.
8. Wiring.
9. Refrigerant system.

Insufficient cooling.

1. Low capacity.
2. Air filter.
3. Exhaust door open.
4. Unit undersized.

Excessive noise.

1. Evaporator blower wheel.
2. Condenser wheel.
3. Copper tubing.
4. Compressor internal noise.
5. Fan motor.

Excessive water or condensation.

1. Unit operating under extremely high humidity conditions.

No cooling.

1. Refrigerant leak.

Unit is cooling but room is not cool.

1. Amps and watts.
2. Sealed refrigeration system.

Wattage decreases slowly until abnormally low.

1. Undercharged, restricted strainer or plugged restrictor tube.

Wattage decreases immediately.

1. No refrigerant.
2. Compressor defective.

Wattage continuously high.

1. Refrigerant overcharge.

## SYMPTON

## POSSIBLE CAUSE

Evaporator coil partially frosted.

1. System low on refrigerant.

Evaporator completely iced.

1. Low outside temperature.

No heat.

1. No power.
2. Selector switch position.
3. Temperature control position.
4. Fan motor.
5. Heating element.
6. Selector switch.
7. Temperature control.
8. Terminals and connectors.

Fan motor will not rotate during heat cycle.  
(Heat/Cool models only.)

1. Thermostatic drain valve. (Water level control, if applicable.)