



INSTALLATION GUIDE

24V INTERFACE KIT FOR ELIOS/MOOVAIR SYSTEMS PAIRED WITH A JCI (Johnson Controls) AIR HANDLER

INSTALLATION

- For Add-on installations with an indoor coil installed after the auxiliary system, the thermostat must be set in auxiliary heating mode (fossil fuel + HP) to prevent the auxiliary system from operating at the same time as the heat pump.
- Pairing of indoor and outdoor units must be the same capacity.
- Outdoor unit piping size, maximum and minimum lengths must be respected.

AIR CONDITIONERS						
SEER/Type	Model	Liquid	Suction	Rise (MAX) ft	Length (MIN) ft	Length (MAX) ft
19 SEER/AC	DE09COS19230S1	1/4	3/8	32.8	10	82
19 SEER/AC	DE12COS19230S1	1/4	1/2	32.8	10	82
19 SEER/AC	DE18COS19230S1	3/8	5/8	65.6	10	98
19 SEER/AC	DE24COS19230S1	3/8	5/8	82	10	164

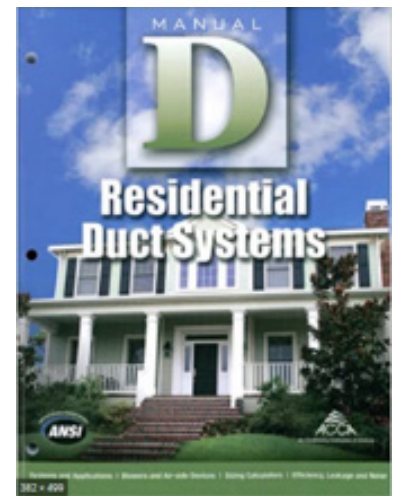
HEAT PUMPS						
SEER/Type	Model	Liquid	Suction	Rise (MAX) ft	Length (MIN) ft	Length (MAX) ft
23 SEER/HP	D(E,M)09HOS23230E2	1/4	3/8	32.8	10	82
25 SEER/HP	DM09HOS25230E3	1/4	3/8	32.8	10	82
23 SEER/HP	D(E,M)12HOS23230E2	1/4	1/2	32.8	10	82
25 SEER/HP	DM12HOS25230E3	1/4	1/2	32.8	10	82
19 SEER/HP	D(E,M)18HOS19230S1*	3/8	5/8	65.6	10	98
23 SEER/HP	D(E,M)18HOS23230E2	3/8	5/8	65.6	10	98
25 SEER/HP	DM18HOS25230E3	3/8	5/8	65.6	10	98
19 SEER/HP	D(E,M)24HOS19230S1*	3/8	5/8	82	10	164
23 SEER/HP	D(E,M)24HOS23230E2	3/8	5/8	82	10	164
25 SEER/HP	DM24HOS25230E3	3/8	5/8	82	10	164
19 SEER/HP	D(E,M)30HOS19230S1	3/8	5/8	82	10	164
18 SEER/HP	D(E,M)36HOS18230E5	3/8	5/8	82	10	213
19 SEER/HP	D(E,M)36HOS19230S1	3/8	5/8	82	10	213
18 SEER/HP	D(E,M)48HOS18230E5	3/8	5/8	98.4	10	213
18 SEER/HP	D(E,M)60HOS18230E5	3/8	3/4	98.4	10	213

*Not recommended for heat pump application

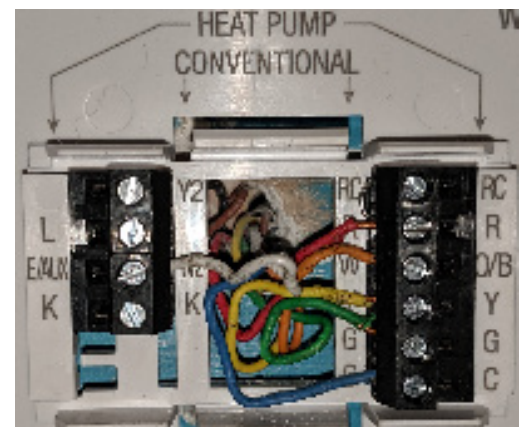
- Remove TXV/orifice from the indoor coil, as the expansion takes place in the outdoor unit.
- Both refrigeration lines must be separately insulated.
- All field wiring must be done with copper conductors and in accordance with local electricity codes.
- Connection cable between the 24V interface kit and the outdoor unit must be AWG14, dedicated ground and approved 240V minimum.
- The 24V connection cables, for the thermostat and the indoor unit, must be AWG18 LVT.
- It is very important to unplug the transformer.



- The ventilation must be designed in accordance with ACCA manual D, to provide proper air flow (CFM) and proper static pressure to the indoor air handler. Note that an air conditioning system requires between 350/400 CFM per capacity ton (MBTU).

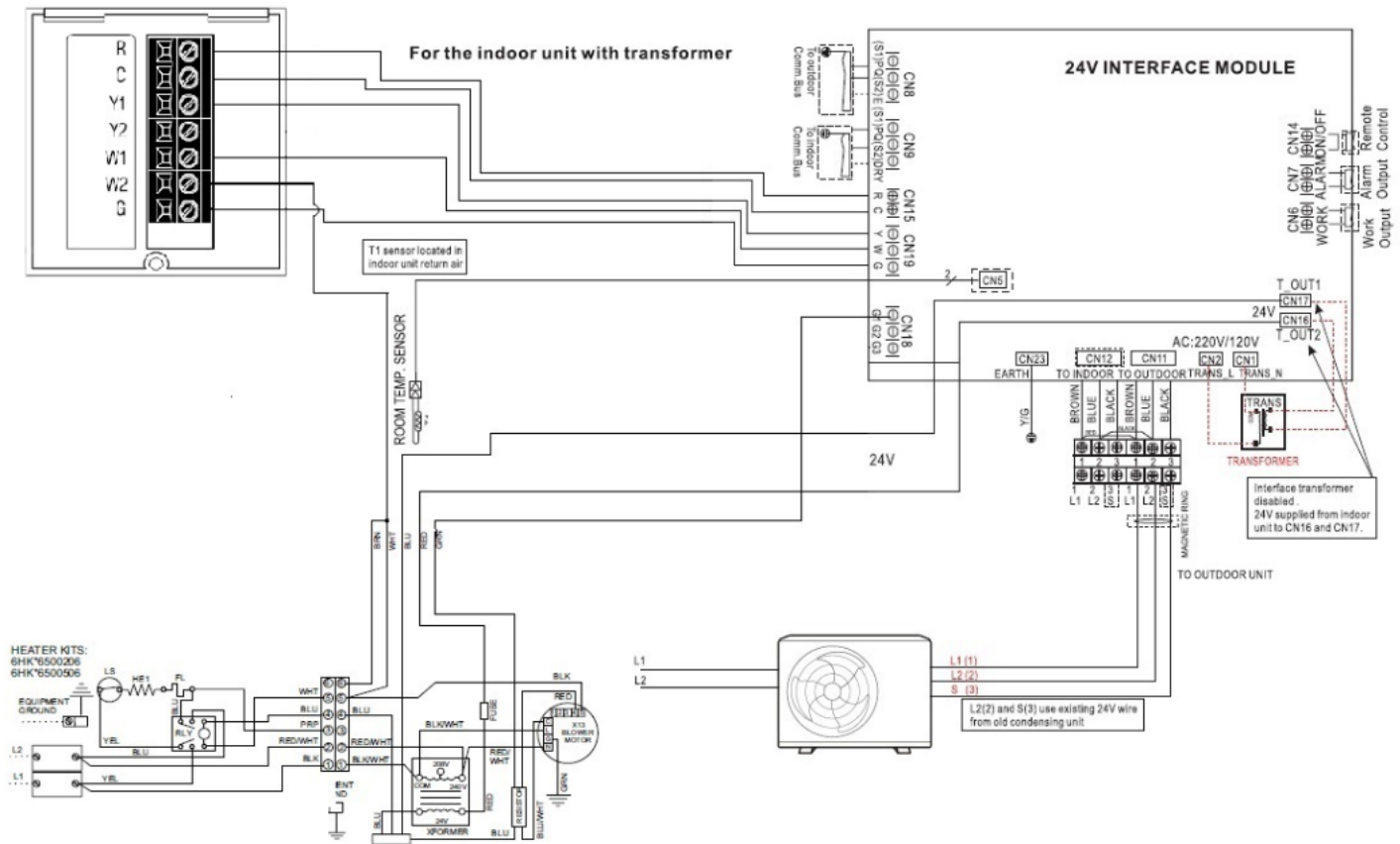


- You can either install a conventional thermostat (heating/cooling) or a thermostat in heat pump mode.



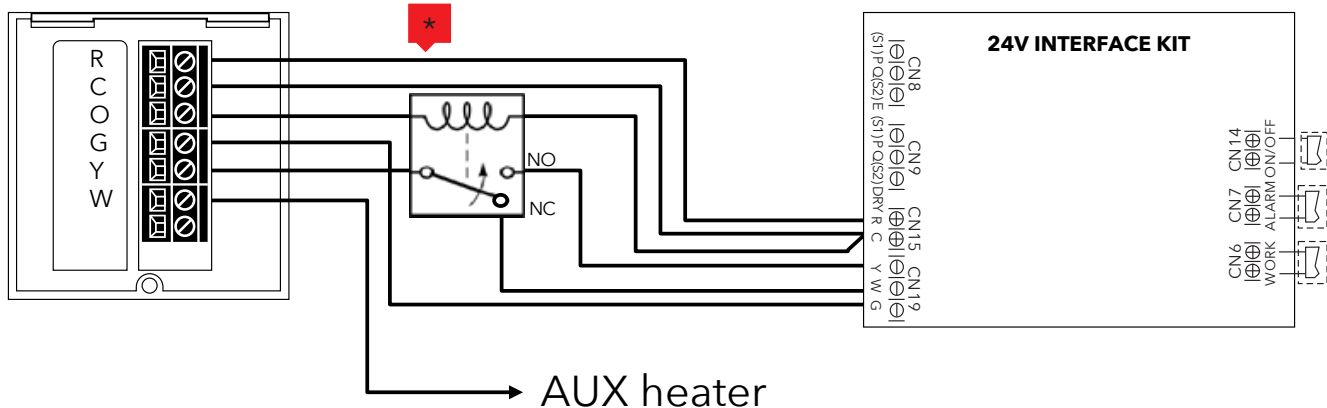
CONVENTIONAL THERMOSTAT CONNECTION

York AE air handler unit shown as an example



HEAT PUMP MODE THERMOSTAT 2H/1C CONNECTION

Thermostat (heat pump)



*Relay not supplied: p#92370

START UP

- For additional refrigerant, follow recommendations in outdoor unit installation guide according to unit pre-charge and additional charge for Elios/Moovair units paired with a York, Coleman or Luxaire indoor system. These gas charges are approximate. When using a non-JCI product, refer to the manufacturer's charges.

Capacity (MBTU)	Precharged ft	Additional refrigerant	Additional refrigerant with York indoor system
18	24,6	0,16 oz/ft	(+) 8 oz
24	24,6	0,32 oz/ft	(+) 12 oz
30	24,6	0,32 oz/ft	(+) 18 oz
36	24,6	0,32 oz/ft	(+) 18 oz
48	24,6	0,32 oz/ft	(+) 20 oz
60	24,6	0,32 oz/ft	(+) 24 oz

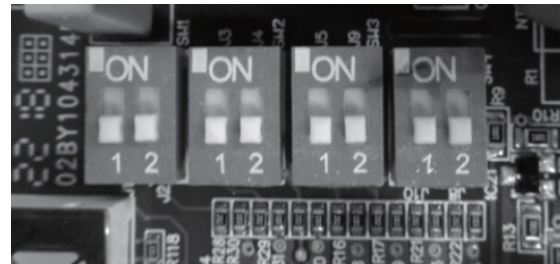


DIP SWITCHES

- To set up the 24V Interface Kit, refer to installation guide "DIP switch adjustment" section.

Recommended adjustments:

DIP # sw	Cooling	Heating
SW1-1	ON	ON
SW1-2	OFF	OFF
SW2-1	ON	OFF
SW2-2	OFF	OFF
SW3-1	OFF	OFF
SW3-2	ON	ON
SW4-1	OFF	OFF
SW4-2	OFF	OFF



Display tube	Set/outdoor only	Unit type	Anti-cold	Aux-heat/dry	Frequency Time	Set/indoor only	Indoor control
SW1-1	SW1-2	SW2-1	SW2-2	SW3-1	SW3-2	SW4-1	SW4-2
Mode	Mode	Mode	Mode	Mode	Mode	Mode	Mode
OFF	Outdoor only	Heat pump	YES	Aux-heat	3H	Set/out-door only	Fan High
ON	Set	Cooling only	NO	Dry	1H	Indoor only	Fan Middle
Factory default	Factory default	Factory default	Factory default	Factory default	Factory default	Factory default	Factory default
✓	✓	✓	✓	✓	✓	✓	✓

OPERATION

- At start-up, it will take approximately 60 minutes before the compressor reaches its maximum speed. Charts below show approximate operating pressures to guide you in obtaining adequate condensing pressures in heating mode and adequate evaporation pressures in cooling mode. To compare operating pressures and temperatures, see the appropriate chart:

24MBTU										
ID DB / ID WB (F)	ID AIRFLOW (CFM)	OUTDOOR TEMPERATURE DB (F)	COOLING SERVICE DATA							
			55	65	75	85	95	105	115	125
75/62	550	SUCTION PRESSURE (PSIG)	109	111	113	116	120	125	131	137
		SUCTION TEMPERATURE (F)	47	48	50	52	56	59	64	69
		SUCTION SUPERHEAT (F)	11	11	12	13	15	16	19	21
		INDOOR COIL TEMP DIFF (F)	28	27	27	26	25	24	22	20
	750	SUCTION PRESSURE (PSIG)	115	117	119	122	126	131	137	143
		SUCTION TEMPERATURE (F)	50	50	52	55	58	61	67	71
		SUCTION SUPERHEAT (F)	11	11	12	13	15	16	19	21
		INDOOR COIL TEMP DIFF (F)	25	24	24	23	22	21	19	17
	950	SUCTION PRESSURE (PSIG)	121	123	125	128	132	137	143	149
		SUCTION TEMPERATURE (F)	52	53	55	57	61	64	69	74
		SUCTION SUPERHEAT (F)	11	11	12	13	15	16	19	21
		INDOOR COIL TEMP DIFF (F)	22	21	21	20	19	18	16	14
80/57	550	SUCTION PRESSURE (PSIG)	97	98	101	105	111	119	128	139
		SUCTION TEMPERATURE (F)	40	43	46	50	54	59	64	69
		SUCTION SUPERHEAT (F)	10	12	14	16	17	19	20	20
		INDOOR COIL TEMP DIFF (F)	35	35	35	33	31	29	26	23
	750	SUCTION PRESSURE (PSIG)	107	108	111	115	121	129	138	149
		SUCTION TEMPERATURE (F)	44	46	50	54	57	63	67	72
		SUCTION SUPERHEAT (F)	9	11	13	15	16	18	19	19
		INDOOR COIL TEMP DIFF (F)	31	31	30	29	27	25	22	19
	950	SUCTION PRESSURE (PSIG)	117	118	121	125	131	139	148	159
		SUCTION TEMPERATURE (F)	48	51	54	58	61	67	71	75
		SUCTION SUPERHEAT (F)	9	11	13	15	16	18	19	19
		INDOOR COIL TEMP DIFF (F)	27	27	26	25	23	21	18	15
80/62	550	SUCTION PRESSURE (PSIG)	109	109	111	114	119	125	132	141
		SUCTION TEMPERATURE (F)	45	46	49	51	54	59	64	69
		SUCTION SUPERHEAT (F)	9	10	12	13	14	16	18	20
		INDOOR COIL TEMP DIFF (F)	32	32	31	30	29	27	25	23
	750	SUCTION PRESSURE (PSIG)	116	116	118	121	126	132	139	148
		SUCTION TEMPERATURE (F)	48	49	52	54	57	62	67	72
		SUCTION SUPERHEAT (F)	9	10	12	13	14	16	18	20
		INDOOR COIL TEMP DIFF (F)	29	29	28	27	26	24	22	20
	950	SUCTION PRESSURE (PSIG)	123	123	125	128	133	139	146	155
		SUCTION TEMPERATURE (F)	51	52	55	57	60	65	69	75
		SUCTION SUPERHEAT (F)	9	10	12	13	14	16	18	20
		INDOOR COIL TEMP DIFF (F)	26	26	25	24	23	21	19	17

80/67	550	SUCTION PRESSURE (PSIG)	119	121	123	126	131	137	144	152
		SUCTION TEMPERATURE (F)	51	53	54	56	59	64	68	73
		SUCTION SUPERHEAT (F)	11	12	12	13	14	16	17	19
		INDOOR COIL TEMP DIFF (F)	28	27	27	26	25	24	22	21
	750	SUCTION PRESSURE (PSIG)	124	126	128	131	136	142	149	157
		SUCTION TEMPERATURE (F)	54	55	56	58	61	66	70	74
		SUCTION SUPERHEAT (F)	11	12	12	13	14	16	17	19
		INDOOR COIL TEMP DIFF (F)	25	24	24	23	22	21	19	18
	950	SUCTION PRESSURE (PSIG)	129	131	133	136	141	147	154	162
		SUCTION TEMPERATURE (F)	57	58	59	61	64	69	72	77
		SUCTION SUPERHEAT (F)	12	13	13	14	15	17	18	20
		INDOOR COIL TEMP DIFF (F)	22	21	21	20	19	18	16	15
80/72	550	SUCTION PRESSURE (PSIG)	129	131	135	139	143	149	156	164
		SUCTION TEMPERATURE (F)	59	58	60	62	63	67	70	75
		SUCTION SUPERHEAT (F)	14	13	13	13	13	14	15	17
		INDOOR COIL TEMP DIFF (F)	23	22	22	21	20	19	18	16
	750	SUCTION PRESSURE (PSIG)	135	137	141	145	149	155	162	170
		SUCTION TEMPERATURE (F)	61	61	62	64	66	69	72	77
		SUCTION SUPERHEAT (F)	14	13	13	13	13	14	15	17
		INDOOR COIL TEMP DIFF (F)	20	19	19	18	17	16	15	13
	950	SUCTION PRESSURE (PSIG)	141	143	147	151	155	161	168	176
		SUCTION TEMPERATURE (F)	64	64	66	67	69	72	75	80
		SUCTION SUPERHEAT (F)	15	14	14	14	14	15	16	18
		INDOOR COIL TEMP DIFF (F)	17	16	16	15	14	13	12	10

ID DB (F)	ID AIRFLOW (CFM)	OUTDOOR TEMPERATURE DB (F)	HEATING SERVICE DATA					
			60	47	40	30	17	10
60	550	LIQUID PRESSURE (PSIG)	385	352	335	250	217	236
		LIQUID TEMPERATURE (F)	97	85	80	58	47	53
		LIQUID SUBCOOLING (F)	17	22	24	26	28	28
		INDOOR COIL TEMP DIFF (F)	44	38	35	18	11	15
	750	LIQUID PRESSURE (PSIG)	345	318	302	234	212	234
		LIQUID TEMPERATURE (F)	90	80	75	56	48	53
		LIQUID SUBCOOLING (F)	15	19	21	23	25	27
		INDOOR COIL TEMP DIFF (F)	36	31	28	14	9	14
	950	LIQUID PRESSURE (PSIG)	304	284	270	217	207	233
		LIQUID TEMPERATURE (F)	84	76	71	55	49	53
		LIQUID SUBCOOLING (F)	13	16	18	20	23	26
		INDOOR COIL TEMP DIFF (F)	28	24	21	10	8	13

70	550	LIQUID PRESSURE (PSIG)	427	394	368	292	266	291
		LIQUID TEMPERATURE (F)	103	92	86	66	57	62
		LIQUID SUBCOOLING (F)	19	24	24	28	31	31
		INDOOR COIL TEMP DIFF (F)	43	37	33	18	13	16
	750	LIQUID PRESSURE (PSIG)	386	359	336	282	254	280
		LIQUID TEMPERATURE (F)	97	87	82	67	55	61
		LIQUID SUBCOOLING (F)	17	21	21	25	29	30
		INDOOR COIL TEMP DIFF (F)	35	30	26	16	10	15
	950	LIQUID PRESSURE (PSIG)	345	325	305	273	242	270
		LIQUID TEMPERATURE (F)	91	83	78	67	54	61
		LIQUID SUBCOOLING (F)	14	18	18	21	27	28
		INDOOR COIL TEMP DIFF (F)	27	23	20	13	8	13
80	550	LIQUID PRESSURE (PSIG)	470	437	401	334	316	346
		LIQUID TEMPERATURE (F)	109	98	93	73	66	71
		LIQUID SUBCOOLING (F)	20	25	24	30	33	35
		INDOOR COIL TEMP DIFF (F)	41	35	30	18	15	20
	750	LIQUID PRESSURE (PSIG)	428	401	370	331	296	326
		LIQUID TEMPERATURE (F)	104	94	90	77	63	70
		LIQUID SUBCOOLING (F)	18	23	21	26	32	32
		INDOOR COIL TEMP DIFF (F)	33	29	24	17	11	16
	950	LIQUID PRESSURE (PSIG)	386	365	339	328	277	306
		LIQUID TEMPERATURE (F)	98	89	86	80	60	68
		LIQUID SUBCOOLING (F)	16	21	19	22	31	29
		INDOOR COIL TEMP DIFF (F)	26	22	18	16	7	12

36MBTU										
ID DB / ID WB (F)	ID AIRFLOW (CFM)	OUTDOOR TEMPERATURE DB (F)	COOLING SERVICE DATA							
			55	65	75	85	95	105	115	125
75/62	1000	SUCTION PRESSURE (PSIG)	116	115	116	119	125	133	143	156
		SUCTION TEMPERATURE (F)	42	42	42	43	45	48	51	55
		SUCTION SUPERHEAT (F)	3	3	3	3	2	2	1	1
		INDOOR COIL TEMP DIFF (F)	24	24	24	23	22	20	18	15
	1200	SUCTION PRESSURE (PSIG)	119	118	119	122	128	136	146	159
		SUCTION TEMPERATURE (F)	43	43	43	45	46	49	52	56
		SUCTION SUPERHEAT (F)	3	3	3	3	2	2	1	1
		INDOOR COIL TEMP DIFF (F)	22	22	22	21	20	18	16	13
	1400	SUCTION PRESSURE (PSIG)	122	121	122	125	131	139	149	162
		SUCTION TEMPERATURE (F)	45	44	45	46	47	51	54	57
		SUCTION SUPERHEAT (F)	3	3	3	3	2	2	1	1
		INDOOR COIL TEMP DIFF (F)	20	20	20	19	18	16	14	11

80/57	1000	SUCTION PRESSURE (PSIG)	108	108	110	115	121	130	141	155
		SUCTION TEMPERATURE (F)	36	36	37	40	42	46	50	56
		SUCTION SUPERHEAT (F)	1	1	1	1	1	1	1	1
		INDOOR COIL TEMP DIFF (F)	31	31	31	30	28	26	23	19
	1200	SUCTION PRESSURE (PSIG)	113	113	115	120	126	135	146	160
		SUCTION TEMPERATURE (F)	39	39	40	42	44	48	52	58
		SUCTION SUPERHEAT (F)	1	1	1	1	1	1	1	1
		INDOOR COIL TEMP DIFF (F)	28	28	28	27	25	23	20	16
	1400	SUCTION PRESSURE (PSIG)	118	118	120	125	131	140	151	165
		SUCTION TEMPERATURE (F)	41	41	42	44	46	50	54	59
		SUCTION SUPERHEAT (F)	1	1	1	1	1	1	1	1
		INDOOR COIL TEMP DIFF (F)	25	25	25	24	22	20	17	13
80/62	1000	SUCTION PRESSURE (PSIG)	116	114	115	118	125	135	148	164
		SUCTION TEMPERATURE (F)	41	40	41	41	44	48	53	59
		SUCTION SUPERHEAT (F)	2	2	2	1	1	1	1	1
		INDOOR COIL TEMP DIFF (F)	27	28	29	28	26	24	21	16
	1200	SUCTION PRESSURE (PSIG)	119	117	118	121	128	138	151	167
		SUCTION TEMPERATURE (F)	42	41	42	42	45	49	54	60
		SUCTION SUPERHEAT (F)	2	2	2	1	1	1	1	1
		INDOOR COIL TEMP DIFF (F)	25	26	27	26	24	22	19	14
	1400	SUCTION PRESSURE (PSIG)	122	120	121	124	131	141	154	170
		SUCTION TEMPERATURE (F)	44	43	43	44	46	50	55	61
		SUCTION SUPERHEAT (F)	2	2	2	1	1	1	1	1
		INDOOR COIL TEMP DIFF (F)	23	24	25	24	22	20	17	12
80/67	1000	SUCTION PRESSURE (PSIG)	127	126	127	130	134	141	150	161
		SUCTION TEMPERATURE (F)	47	47	48	49	51	53	57	60
		SUCTION SUPERHEAT (F)	3	4	4	4	4	4	4	3
		INDOOR COIL TEMP DIFF (F)	23	23	23	23	22	20	19	16
	1200	SUCTION PRESSURE (PSIG)	130	129	130	133	137	144	153	164
		SUCTION TEMPERATURE (F)	49	50	50	51	53	56	59	62
		SUCTION SUPERHEAT (F)	4	5	5	5	5	5	5	4
		INDOOR COIL TEMP DIFF (F)	21	21	21	21	20	18	17	14
	1400	SUCTION PRESSURE (PSIG)	133	132	133	136	140	147	156	167
		SUCTION TEMPERATURE (F)	51	52	52	53	55	58	61	64
		SUCTION SUPERHEAT (F)	5	6	6	6	6	6	6	5
		INDOOR COIL TEMP DIFF (F)	19	19	19	19	18	16	15	12
80/72	1000	SUCTION PRESSURE (PSIG)	139	138	139	142	147	155	165	177
		SUCTION TEMPERATURE (F)	57	55	56	57	59	61	64	68
		SUCTION SUPERHEAT (F)	8	7	7	7	7	6	6	6
		INDOOR COIL TEMP DIFF (F)	18	18	18	18	17	15	14	12
	1200	SUCTION PRESSURE (PSIG)	143	142	143	146	151	159	169	181
		SUCTION TEMPERATURE (F)	58	57	57	58	60	62	66	70
		SUCTION SUPERHEAT (F)	8	7	7	7	7	6	6	6
		INDOOR COIL TEMP DIFF (F)	16	16	16	16	15	13	12	10
	1400	SUCTION PRESSURE (PSIG)	147	146	147	150	155	163	173	185
		SUCTION TEMPERATURE (F)	60	58	59	60	62	64	67	71
		SUCTION SUPERHEAT (F)	8	7	7	7	7	6	6	6
		INDOOR COIL TEMP DIFF (F)	14	14	14	14	13	11	10	8

ID DB (F)	ID AIRFLOW (CFM)	OUTDOOR TEMPERATURE DB (F)	HEATING SERVICE DATA					
			60	47	40	30	17	10
60	1000	LIQUID PRESSURE (PSIG)	433	332	319	301	276	241
		LIQUID TEMPERATURE (F)	102	82	79	72	64	56
		LIQUID SUBCOOLING (F)	21	21	22	24	27	25
		INDOOR COIL TEMP DIFF (F)	48	31	29	25	21	15
	1200	LIQUID PRESSURE (PSIG)	401	313	302	286	265	239
		LIQUID TEMPERATURE (F)	97	79	76	69	62	56
		LIQUID SUBCOOLING (F)	20	20	21	23	26	25
		INDOOR COIL TEMP DIFF (F)	42	27	25	22	18	14
	1400	LIQUID PRESSURE (PSIG)	368	295	284	271	253	237
		LIQUID TEMPERATURE (F)	92	76	73	67	60	56
		LIQUID SUBCOOLING (F)	19	19	20	22	25	25
		INDOOR COIL TEMP DIFF (F)	36	23	21	19	15	13
70	1000	LIQUID PRESSURE (PSIG)	473	377	363	343	317	288
		LIQUID TEMPERATURE (F)	109	91	87	80	72	65
		LIQUID SUBCOOLING (F)	21	21	23	25	28	28
		INDOOR COIL TEMP DIFF (F)	46	30	28	24	20	15
	1200	LIQUID PRESSURE (PSIG)	443	357	345	327	304	283
		LIQUID TEMPERATURE (F)	104	88	84	78	70	65
		LIQUID SUBCOOLING (F)	20	21	22	24	27	27
		INDOOR COIL TEMP DIFF (F)	40	26	24	21	17	14
	1400	LIQUID PRESSURE (PSIG)	413	337	326	311	292	278
		LIQUID TEMPERATURE (F)	100	84	82	75	69	64
		LIQUID SUBCOOLING (F)	19	20	21	23	26	27
		INDOOR COIL TEMP DIFF (F)	35	22	21	18	15	12
80	1000	LIQUID PRESSURE (PSIG)	513	422	407	385	357	336
		LIQUID TEMPERATURE (F)	115	100	95	89	80	74
		LIQUID SUBCOOLING (F)	21	21	23	25	28	30
		INDOOR COIL TEMP DIFF (F)	43	30	27	24	19	16
	1200	LIQUID PRESSURE (PSIG)	485	401	387	368	344	327
		LIQUID TEMPERATURE (F)	112	96	93	87	79	73
		LIQUID SUBCOOLING (F)	20	21	22	24	27	29
		INDOOR COIL TEMP DIFF (F)	38	26	24	21	17	14
	1400	LIQUID PRESSURE (PSIG)	457	379	368	351	331	319
		LIQUID TEMPERATURE (F)	108	93	90	84	77	72
		LIQUID SUBCOOLING (F)	19	20	21	23	26	28
		INDOOR COIL TEMP DIFF (F)	34	22	20	17	14	12

48MBTU										
ID DB / ID WB (F)	ID AIRFLOW (CFM)	OUTDOOR TEMPERATURE DB (F)	COOLING SERVICE DATA							
			55	65	75	85	95	105	115	125
75/62	1200	SUCTION PRESSURE (PSIG)	106	107	108	112	117	123	131	141
		SUCTION TEMPERATURE (F)	42	44	45	48	51	56	61	68
		SUCTION SUPERHEAT (F)	8	9	10	11	12	14	16	19
		INDOOR COIL TEMP DIFF (F)	26	26	26	25	24	23	21	19
	1400	SUCTION PRESSURE (PSIG)	109	110	111	115	120	126	134	144
		SUCTION TEMPERATURE (F)	44	45	47	50	53	57	63	70
		SUCTION SUPERHEAT (F)	8	9	10	11	12	14	16	19
		INDOOR COIL TEMP DIFF (F)	24	24	24	23	22	21	19	17
	1600	SUCTION PRESSURE (PSIG)	112	113	114	118	123	129	137	147
		SUCTION TEMPERATURE (F)	45	47	48	51	54	59	64	71
		SUCTION SUPERHEAT (F)	8	9	10	11	12	14	16	19
		INDOOR COIL TEMP DIFF (F)	22	22	22	21	20	19	17	15
80/57	1200	SUCTION PRESSURE (PSIG)	102	100	101	104	110	119	130	144
		SUCTION TEMPERATURE (F)	41	41	43	46	50	56	62	69
		SUCTION SUPERHEAT (F)	8	9	11	13	14	16	17	18
		INDOOR COIL TEMP DIFF (F)	31	32	32	31	30	28	24	20
	1400	SUCTION PRESSURE (PSIG)	106	104	105	108	114	123	134	148
		SUCTION TEMPERATURE (F)	43	43	46	49	53	59	65	71
		SUCTION SUPERHEAT (F)	9	10	12	14	15	17	18	19
		INDOOR COIL TEMP DIFF (F)	29	30	30	29	28	26	22	18
	1600	SUCTION PRESSURE (PSIG)	110	108	109	112	118	127	138	152
		SUCTION TEMPERATURE (F)	46	46	49	52	56	62	67	74
		SUCTION SUPERHEAT (F)	10	11	13	15	16	18	19	20
		INDOOR COIL TEMP DIFF (F)	27	28	28	27	26	24	20	16
80/62	1200	SUCTION PRESSURE (PSIG)	105	105	107	111	116	124	133	144
		SUCTION TEMPERATURE (F)	43	43	44	48	51	57	62	70
		SUCTION SUPERHEAT (F)	9	9	9	11	12	14	16	19
		INDOOR COIL TEMP DIFF (F)	31	31	30	29	28	26	24	21
	1400	SUCTION PRESSURE (PSIG)	109	109	111	115	120	128	137	148
		SUCTION TEMPERATURE (F)	45	45	46	50	53	58	64	71
		SUCTION SUPERHEAT (F)	9	9	9	11	12	14	16	19
		INDOOR COIL TEMP DIFF (F)	29	29	28	27	26	24	22	19
	1600	SUCTION PRESSURE (PSIG)	113	113	115	119	124	132	141	152
		SUCTION TEMPERATURE (F)	48	48	49	52	56	61	66	74
		SUCTION SUPERHEAT (F)	10	10	10	12	13	15	17	20
		INDOOR COIL TEMP DIFF (F)	27	27	26	25	24	22	20	17

80/67	1200	SUCTION PRESSURE (PSIG)	116	117	119	123	128	135	143	153
		SUCTION TEMPERATURE (F)	49	49	50	52	55	60	64	71
		SUCTION SUPERHEAT (F)	10	10	10	10	11	13	14	17
		INDOOR COIL TEMP DIFF (F)	26	26	25	25	24	22	21	19
	1400	SUCTION PRESSURE (PSIG)	119	120	122	126	131	138	146	156
		SUCTION TEMPERATURE (F)	50	51	52	53	56	61	65	72
		SUCTION SUPERHEAT (F)	10	10	10	10	11	13	14	17
		INDOOR COIL TEMP DIFF (F)	24	24	23	23	22	20	19	17
	1600	SUCTION PRESSURE (PSIG)	122	123	125	129	134	141	149	159
		SUCTION TEMPERATURE (F)	52	52	53	55	58	62	67	73
		SUCTION SUPERHEAT (F)	10	10	10	10	11	13	14	17
		INDOOR COIL TEMP DIFF (F)	22	22	21	21	20	18	17	15
80/72	1200	SUCTION PRESSURE (PSIG)	122	125	128	133	139	147	155	165
		SUCTION TEMPERATURE (F)	59	56	55	55	58	62	67	73
		SUCTION SUPERHEAT (F)	17	13	11	9	9	10	12	15
		INDOOR COIL TEMP DIFF (F)	20	20	20	19	18	17	16	14
	1400	SUCTION PRESSURE (PSIG)	125	128	131	136	142	150	158	168
		SUCTION TEMPERATURE (F)	60	57	56	56	59	63	68	74
		SUCTION SUPERHEAT (F)	17	13	11	9	9	10	12	15
		INDOOR COIL TEMP DIFF (F)	19	19	19	18	17	16	15	13
	1600	SUCTION PRESSURE (PSIG)	128	131	134	139	145	153	161	171
		SUCTION TEMPERATURE (F)	62	59	59	59	61	65	70	76
		SUCTION SUPERHEAT (F)	18	14	12	10	10	11	13	16
		INDOOR COIL TEMP DIFF (F)	18	18	18	17	16	15	14	12

ID DB (F)	ID AIRFLOW (CFM)	OUTDOOR TEMPERATURE DB (F)	HEATING SERVICE DATA					
			60	47	40	30	17	10
60	1200	LIQUID PRESSURE (PSIG)	392	360	342	313	292	278
		LIQUID TEMPERATURE (F)	94	84	79	71	64	59
		LIQUID SUBCOOLING (F)	22	25	27	28	31	32
		INDOOR COIL TEMP DIFF (F)	45	39	35	30	25	22
	1400	LIQUID PRESSURE (PSIG)	366	338	323	299	281	269
		LIQUID TEMPERATURE (F)	89	80	76	69	62	57
		LIQUID SUBCOOLING (F)	21	24	25	27	30	31
		INDOOR COIL TEMP DIFF (F)	40	34	31	27	22	20
	1600	LIQUID PRESSURE (PSIG)	341	317	305	286	270	259
		LIQUID TEMPERATURE (F)	85	77	73	67	60	55
		LIQUID SUBCOOLING (F)	20	23	24	26	29	31
		INDOOR COIL TEMP DIFF (F)	38	30	27	23	19	17

70	1200	LIQUID PRESSURE (PSIG)	432	407	387	363	333	315
		LIQUID TEMPERATURE (F)	101	92	86	79	71	66
		LIQUID SUBCOOLING (F)	22	26	28	30	32	33
		INDOOR COIL TEMP DIFF (F)	43	38	35	27	24	21
	1400	LIQUID PRESSURE (PSIG)	409	384	369	347	323	307
		LIQUID TEMPERATURE (F)	97	89	84	77	70	65
		LIQUID SUBCOOLING (F)	21	25	27	29	31	32
		INDOOR COIL TEMP DIFF (F)	39	34	31	27	22	19
	1600	LIQUID PRESSURE (PSIG)	386	361	350	331	312	299
		LIQUID TEMPERATURE (F)	93	85	81	75	69	64
		LIQUID SUBCOOLING (F)	20	24	26	28	30	31
		INDOOR COIL TEMP DIFF (F)	36	30	27	23	19	17
80	1200	LIQUID PRESSURE (PSIG)	472	453	433	412	374	351
		LIQUID TEMPERATURE (F)	108	100	94	88	79	74
		LIQUID SUBCOOLING (F)	21	27	28	31	33	34
		INDOOR COIL TEMP DIFF (F)	40	37	34	23	23	19
	1400	LIQUID PRESSURE (PSIG)	452	430	414	394	365	345
		LIQUID TEMPERATURE (F)	105	97	92	85	78	74
		LIQUID SUBCOOLING (F)	21	25	28	30	32	32
		INDOOR COIL TEMP DIFF (F)	37	33	30	26	21	18
	1600	LIQUID PRESSURE (PSIG)	432	406	395	376	355	339
		LIQUID TEMPERATURE (F)	101	94	89	83	77	74
		LIQUID SUBCOOLING (F)	21	24	27	29	31	31
		INDOOR COIL TEMP DIFF (F)	33	29	26	23	19	16

60MBTU										
ID DB / ID WB (F)	ID AIRFLOW (CFM)	OUTDOOR TEMPERATURE DB (F)	COOLING SERVICE DATA							
			55	65	75	85	95	105	115	125
75/62	1600	SUCTION PRESSURE (PSIG)	114	115	116	119	123	129	135	143
		SUCTION TEMPERATURE (F)	47	49	49	51	53	56	58	61
		SUCTION SUPERHEAT (F)	9	10	10	11	11	11	11	11
		INDOOR COIL TEMP DIFF (F)	25	24	24	23	22	21	19	18
	1800	SUCTION PRESSURE (PSIG)	116	117	118	121	125	131	137	145
		SUCTION TEMPERATURE (F)	48	49	50	52	54	56	59	62
		SUCTION SUPERHEAT (F)	9	10	10	11	11	11	11	11
		INDOOR COIL TEMP DIFF (F)	24	23	23	22	21	20	18	17
	2000	SUCTION PRESSURE (PSIG)	118	119	120	123	127	133	139	147
		SUCTION TEMPERATURE (F)	49	50	51	53	55	57	60	63
		SUCTION SUPERHEAT (F)	9	10	10	11	11	11	11	11
		INDOOR COIL TEMP DIFF (F)	23	22	22	21	20	19	17	16

80/57	1600	SUCTION PRESSURE (PSIG)	106	116	125	134	143	150	158	165
		SUCTION TEMPERATURE (F)	42	50	56	62	67	71	74	76
		SUCTION SUPERHEAT (F)	8	11	13	15	17	18	18	18
		INDOOR COIL TEMP DIFF (F)	31	29	26	23	21	19	18	16
	1800	SUCTION PRESSURE (PSIG)	104	114	123	132	141	148	156	163
		SUCTION TEMPERATURE (F)	41	49	55	61	66	70	73	76
		SUCTION SUPERHEAT (F)	8	11	13	15	17	18	18	18
		INDOOR COIL TEMP DIFF (F)	31	29	26	23	21	19	18	16
	2000	SUCTION PRESSURE (PSIG)	102	112	121	130	139	146	154	161
		SUCTION TEMPERATURE (F)	41	48	54	60	66	69	72	75
		SUCTION SUPERHEAT (F)	8	11	13	15	17	18	18	18
		INDOOR COIL TEMP DIFF (F)	31	29	26	23	21	19	18	16
80/62	1600	SUCTION PRESSURE (PSIG)	115	114	116	119	124	131	139	149
		SUCTION TEMPERATURE (F)	48	48	49	51	54	56	59	63
		SUCTION SUPERHEAT (F)	9	10	10	11	11	11	10	10
		INDOOR COIL TEMP DIFF (F)	28	28	28	27	26	24	22	20
	1800	SUCTION PRESSURE (PSIG)	118	117	119	122	127	134	142	152
		SUCTION TEMPERATURE (F)	49	49	50	53	55	58	60	64
		SUCTION SUPERHEAT (F)	9	10	10	11	11	11	10	10
		INDOOR COIL TEMP DIFF (F)	27	27	27	26	25	23	21	19
	2000	SUCTION PRESSURE (PSIG)	121	120	122	125	130	137	145	155
		SUCTION TEMPERATURE (F)	50	51	52	54	56	59	61	65
		SUCTION SUPERHEAT (F)	9	10	10	11	11	11	10	10
		INDOOR COIL TEMP DIFF (F)	26	26	26	25	24	22	20	18
80/67	1600	SUCTION PRESSURE (PSIG)	125	125	127	130	134	140	147	156
		SUCTION TEMPERATURE (F)	53	53	54	56	58	60	63	66
		SUCTION SUPERHEAT (F)	10	10	10	11	11	11	11	11
		INDOOR COIL TEMP DIFF (F)	24	24	24	23	22	21	20	18
	1800	SUCTION PRESSURE (PSIG)	128	128	130	133	137	143	150	159
		SUCTION TEMPERATURE (F)	54	54	55	57	59	61	64	67
		SUCTION SUPERHEAT (F)	10	10	10	11	11	11	11	11
		INDOOR COIL TEMP DIFF (F)	23	23	23	22	21	20	19	17
	2000	SUCTION PRESSURE (PSIG)	131	131	133	136	140	146	153	162
		SUCTION TEMPERATURE (F)	55	55	56	58	60	62	65	68
		SUCTION SUPERHEAT (F)	10	10	10	11	11	11	11	11
		INDOOR COIL TEMP DIFF (F)	22	22	22	21	20	19	18	16
80/72	1600	SUCTION PRESSURE (PSIG)	131	134	138	142	148	154	161	169
		SUCTION TEMPERATURE (F)	57	58	59	60	62	64	68	71
		SUCTION SUPERHEAT (F)	12	11	11	10	10	10	11	11
		INDOOR COIL TEMP DIFF (F)	22	21	20	19	18	16	15	13
	1800	SUCTION PRESSURE (PSIG)	133	136	140	144	150	156	163	171
		SUCTION TEMPERATURE (F)	58	58	60	61	63	65	69	71
		SUCTION SUPERHEAT (F)	12	11	11	10	10	10	11	11
		INDOOR COIL TEMP DIFF (F)	21	20	19	18	17	15	14	12
	2000	SUCTION PRESSURE (PSIG)	135	138	142	146	152	158	165	173
		SUCTION TEMPERATURE (F)	59	59	61	61	64	66	69	72
		SUCTION SUPERHEAT (F)	12	11	11	10	10	10	11	11
		INDOOR COIL TEMP DIFF (F)	20	19	18	17	16	14	13	11

ID DB (F)	ID AIRFLOW (CFM)	OUTDOOR TEMPERATURE DB (F)	HEATING SERVICE DATA					
			60	47	40	30	17	10
60	1600	LIQUID PRESSURE (PSIG)	345	320	301	289	264	247
		LIQUID TEMPERATURE (F)	85	72	74	68	63	60
		LIQUID SUBCOOLING (F)	21	22	23	25	25	24
		INDOOR COIL TEMP DIFF (F)	38	33	29	25	20	17
	1800	LIQUID PRESSURE (PSIG)	329	306	286	276	256	241
		LIQUID TEMPERATURE (F)	82	72	72	67	62	59
		LIQUID SUBCOOLING (F)	21	22	21	23	24	23
		INDOOR COIL TEMP DIFF (F)	35	30	26	23	18	15
	2000	LIQUID PRESSURE (PSIG)	313	292	270	264	249	235
		LIQUID TEMPERATURE (F)	79	72	71	66	61	58
		LIQUID SUBCOOLING (F)	20	22	19	21	22	21
		INDOOR COIL TEMP DIFF (F)	31	26	23	20	16	14
70	1600	LIQUID PRESSURE (PSIG)	390	362	349	330	304	290
		LIQUID TEMPERATURE (F)	93	84	82	77	72	69
		LIQUID SUBCOOLING (F)	21	21	24	25	25	24
		INDOOR COIL TEMP DIFF (F)	37	31	29	25	20	17
	1800	LIQUID PRESSURE (PSIG)	374	349	334	318	295	282
		LIQUID TEMPERATURE (F)	91	83	81	76	71	68
		LIQUID SUBCOOLING (F)	21	22	23	24	24	23
		INDOOR COIL TEMP DIFF (F)	34	29	26	23	18	15
	2000	LIQUID PRESSURE (PSIG)	357	336	319	307	287	275
		LIQUID TEMPERATURE (F)	88	81	79	75	70	68
		LIQUID SUBCOOLING (F)	20	22	21	22	23	22
		INDOOR COIL TEMP DIFF (F)	30	26	23	20	16	14
80	1600	LIQUID PRESSURE (PSIG)	435	404	396	371	344	332
		LIQUID TEMPERATURE (F)	102	97	91	87	81	79
		LIQUID SUBCOOLING (F)	21	21	25	25	25	25
		INDOOR COIL TEMP DIFF (F)	36	29	28	24	19	17
	1800	LIQUID PRESSURE (PSIG)	418	392	382	360	334	324
		LIQUID TEMPERATURE (F)	100	94	89	85	80	78
		LIQUID SUBCOOLING (F)	30	25	24	20	13	19
		INDOOR COIL TEMP DIFF (F)	33	27	25	22	17	15
	2000	LIQUID PRESSURE (PSIG)	401	380	368	350	325	315
		LIQUID TEMPERATURE (F)	97	91	87	84	79	77
		LIQUID SUBCOOLING (F)	20	22	23	23	23	22
		INDOOR COIL TEMP DIFF (F)	29	25	23	19	15	14

- Operation stages steps are displayed:

00: System is Off

01: Cooling mode

02: Heating mode

03: Fan or Dry mode

04 and 05: Auxiliary Heater mode



ERROR CODES

Display	Malfunction & protection indication
E0	Indoor EEPROM error
E2	Cross-zero detection error
E3	Indoor fan speed malfunction
E4	Indoor room temperature sensor error
E5	Evaporator coil temperature sensor error
EC	Refrigerant leak detection system malfunction
F0	Current overload protection
F1	Outdoor ambient temperature sensor (T4) malfunction
F2	Condenser coil temperature sensor (T3) malfunction
F3	Condenser coil temperature sensor (T5) malfunction
F4	Outdoor unit EEPROM parameter error
F5	Outdoor fan speed has been out of control
F6	T2b sensor error
P0	Inverter module (IPM) malfunction
P1	Over-voltage or under-voltage protection
P2	Compressor top high temperature protection (OLP)
P3	Low ambient temperature cut off in heating
P4	Compressor drive malfunction
P6	Compressor low-pressure protection
00	Module boot mode and indoor running for power off
IN	Module and indoor unit communication malfunction
OU	Module and outdoor unit communication malfunction