

EHK

ELECTRIC HEAT KITS

INSTALLATION INSTRUCTIONS

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P/N: IOD-7014 Date: July 2013

Attention Installing Personnel

As a professional installer, you have an obligation to know the product better than the customer. This includes all safety precautions and related items.

Prior to actual installation, thoroughly familiarize yourself with this Instruction Manual. Pay special attention to all safety warnings. Often during installation or repair, it is possible to place yourself in a position which is more hazardous than when the unit is in operation.

Remember, it is **your** responsibility to install the product safely and to know it well enough to be able to instruct a customer in its safe use.

Safety is a matter of common sense...a matter of thinking before acting. Most dealers have a list of specific good safety practices...follow them.

The precautions listed in this Installation Manual are intended as supplemental to existing practices. However, if there is a direct conflict between existing practices and the content of this manual, the precautions listed here take precedence.

Description

The following installation instructions supplement is for the EHK heater kits for installation in the following models:

**C036, **C048, **C060, **C072
**H036, **H048, **H060, **H072

These instructions should be used only as a supplement to the installation instructions provided with the above units.

WARNING

HIGH VOLTAGE!

DISCONNECT **ALL** POWER BEFORE SERVICING OR INSTALLING THIS UNIT. **MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.**



CAUTION

TO AVOID POSSIBLE PERSONAL INJURY, USE EXTREME CAUTION IF USING POWER TOOLS TO REMOVE THE SMALL BREAKER MOUNTING BRACKETS. THE BRACKETS MAY QUICKLY ROTATE AND CAUSE INJURY.

INSTRUCTIONS

1. Disconnect all power to the unit, both indoor and outdoor.
2. Remove control box door.
3. Remove blower door.
4. Remove heat access door.
5. Locate heater box. Remove screws holding the heater box cover in place (Figure 1).

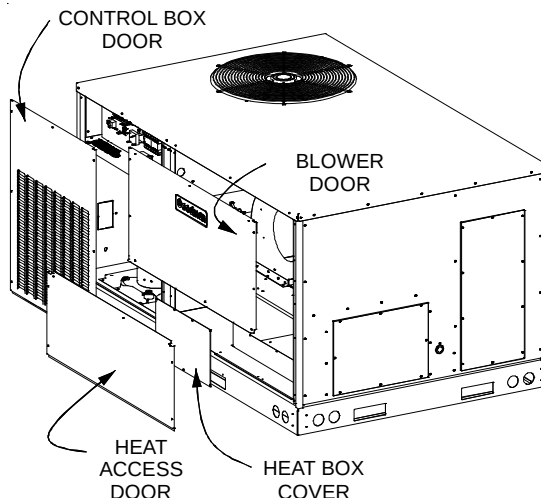


Figure 1



6. Remove EHK Heater Kit from box.
7. Install Heater Kit in opening using screws from heater box cover. Ensure the elements are positioned in the retaining bracket as shown in Figure 2. It may be necessary to remove the horizontal supply cover to observe the bracket. The heater box cover can be discarded.

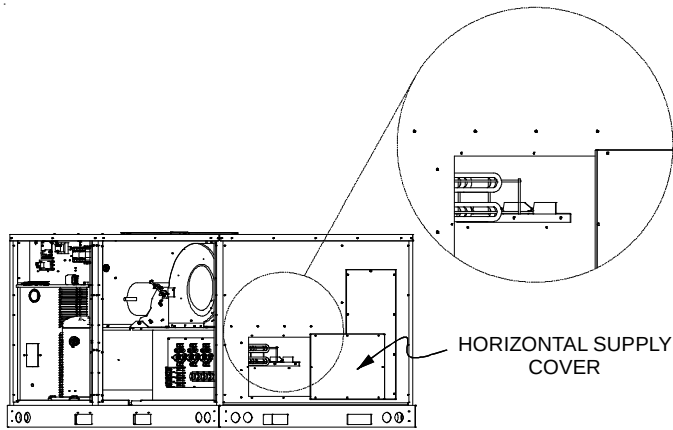


Figure 2

8. Connect power to kit.

- Install Single Point Kit SPKT01 or SPKT02 per instructions shipped with the kit.
- Remove leads from EHK box.
- Connect leads to breakers with one lead for each power leg.
- Route all leads through the blower deck and into the control box as shown in Figure 3.
- Connect the leads to the single point block with the far left lug (L1), the middle lug (L2), and the far right lug (L3). **NOTE:** Single phase kits will only have 2 lugs (L1 and L2).

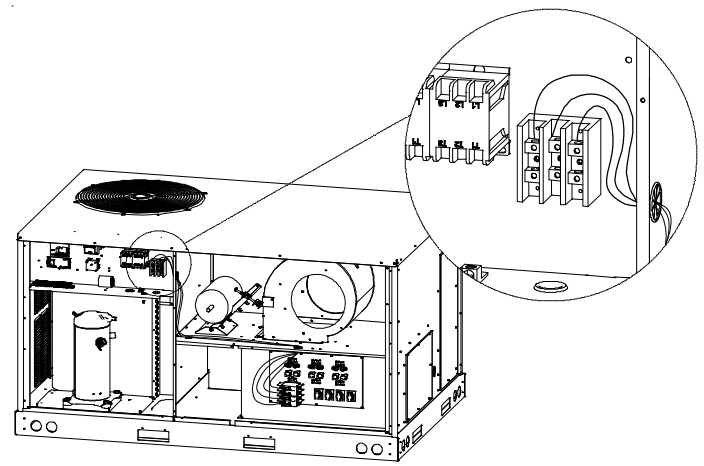


Figure 3

9. Locate 9-pin plug in unit.
10. Connect the plug to the mating 9-pin plug attached to heater kit. See Figure 4.

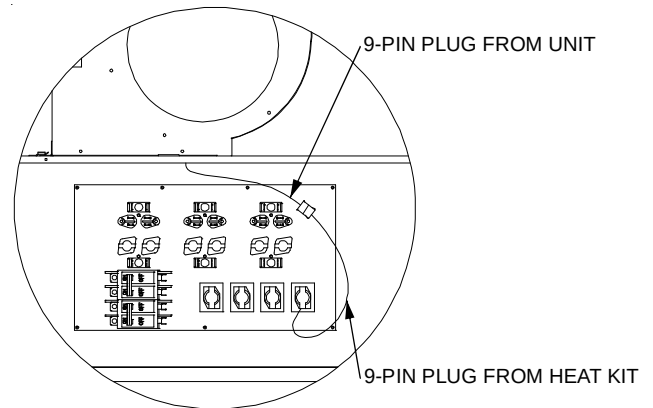


Figure 4

11. Install control box door, blower door, and heat access door.
12. Reconnect power.
13. Use airflow tables in Appendix A to set minimum CFM for unit. Refer to Appendix B for appropriate minimum CFM for your heater kit. See unit literature for instructions on how to change fan CFM.
14. Test unit to ensure it is functioning properly.

APPENDIX A BLOWER PERFORMANCE TABLES

DIRECT DRIVE - 3 & 4 TONS

****C/H036 DIRECT DRIVE DOWN SHOT**

SPEED TAP	EXTERNAL STATIC PRESSURE (ESP) in w.c.	STANDARD CFM	AMPS	WATTS	RPM
LOW	0.10	1287	1.66	350	770
	0.20	1233	1.63	342	815
	0.30	1176	1.59	332	858
	0.40	1107	1.55	320	891
	0.50	1044	1.51	312	924
	0.60	965	1.45	296	957
MED	0.10	1476	2.08	446	866
	0.20	1421	2.03	432	885
	0.30	1334	1.96	414	918
	0.40	1255	1.90	396	945
	0.50	1180	1.84	386	971
	0.60	1085	1.78	368	990
	0.70	964	1.70	344	1023
HIGH	0.30	1455	2.31	490	962
	0.40	1367	2.25	476	984
	0.50	1277	2.16	454	1006
	0.60	1180	2.09	438	1025
	0.70	1080	2.02	418	1039
	0.80	922	1.90	386	1067

****C/H048 DIRECT DRIVE DOWN SHOT**

SPEED TAP	EXTERNAL STATIC PRESSURE (ESP) in w.c.	STANDARD CFM	AMPS	WATTS	RPM
LOW	0.10	1602	2.48	528	835
	0.20	1538	2.37	506	878
	0.30	1474	2.26	484	921
	0.40	1390	2.15	460	950
	0.50	1306	2.04	436	979
	0.60	1205	1.93	412	1008
MED	0.10	1805	2.84	620	935
	0.20	1704	2.71	590	967
	0.30	1625	2.59	558	990
	0.40	1549	2.47	540	1012
	0.50	1437	2.38	516	1030
	0.60	1301	2.23	480	1050
	0.70	1158	2.09	444	1072
HIGH	0.10	1971	3.22	706	968
	0.20	1828	3.03	664	998
	0.30	1744	2.94	632	1017
	0.40	1628	2.80	606	1034
	0.50	1510	2.69	582	1050
	0.60	1402	2.57	552	1067

****C/H036 DIRECT DRIVE HORIZONTAL**

SPEED TAP	EXTERNAL STATIC PRESSURE (ESP) in w.c.	STANDARD CFM	AMPS	WATTS	RPM
LOW	0.10	1296	1.67	356	764
	0.20	1245	1.60	334	830
	0.30	1174	1.56	325	861
	0.40	1103	1.52	316	891
	0.50	1013	1.46	300	935
MED	0.10	1502	2.10	456	836
	0.20	1449	2.06	444	864
	0.30	1396	2.02	432	891
	0.40	1335	1.97	418	916
	0.50	1273	1.91	404	940
	0.60	1153	1.83	380	973
	0.70	996	1.71	346	1017
HIGH	0.20	1516	2.36	506	940
	0.30	1454	2.31	496	960
	0.40	1392	2.26	486	979
	0.50	1273	2.17	458	1006
	0.60	1183	2.09	441	1023
	0.70	1092	2.02	424	1039
	0.80	920	1.90	390	1067

****C/H048 DIRECT DRIVE HORIZONTAL**

SPEED TAP	EXTERNAL STATIC PRESSURE (ESP) in w.c.	STANDARD CFM	AMPS	WATTS	RPM
LOW	0.10	1622	2.54	539	809
	0.20	1558	2.43	517	852
	0.30	1494	2.32	495	895
	0.40	1410	2.21	471	924
	0.50	1326	2.10	447	953
	0.60	1225	1.99	423	982
MED	0.10	1861	3.11	670	886
	0.20	1733	2.78	606	918
	0.30	1639	2.64	568	960
	0.40	1564	2.51	542	984
	0.50	1434	2.35	508	1017
	0.60	1320	2.25	482	1039
	0.70	1156	2.08	446	1067
HIGH	0.10	1984	3.34	734	949
	0.20	1883	3.18	694	977
	0.30	1770	3.03	654	1001
	0.40	1656	2.87	620	1027
	0.50	1540	2.76	590	1044
	0.60	1415	2.62	558	1061

NOTES:

Tables represent dry coil without filter, to compensate for filter add 0.08" to measured E.S.P. SCFM correction for wet coil = 4 %
3 Ton models are shipped from the factory with speed tap set on LOW.

NOTES:

Tables represent dry coil without filter, to compensate for filter add 0.08" to measured E.S.P. SCFM correction for wet coil = 4 %
4 Ton models are shipped from the factory with speed tap set on MED.

APPENDIX A BLOWER PERFORMANCE TABLES

DIRECT DRIVE - 5 TON

****C/H060 DIRECT DRIVE DOWN SHOT**

SPEED TAP	EXTERNAL STATIC PRESSURE (ESP) in w.c.	STANDARD CFM	AMPS	WATTS	RPM
T1	0.10	1334	1.65	180	627
	0.20	1286	1.75	192	665
	0.30	1212	1.83	202	715
	0.40	1144	1.94	216	759
	0.50	1077	1.99	222	792
	0.60	1039	2.10	238	830
	0.70	953	2.17	248	874
	0.80	904	2.27	258	913
	0.90	825	2.30	266	940
T2	0.10	1512	2.12	240	682
	0.20	1469	2.24	254	720
	0.30	1397	2.31	264	759
	0.40	1333	2.44	282	803
	0.50	1285	2.54	296	836
	0.60	1221	2.59	304	874
	0.70	1173	2.72	322	913
	0.80	1118	2.77	328	946
	0.90	1049	2.90	344	984
T3	0.10	2053	4.27	540	869
	0.20	2014	4.39	558	896
	0.30	1999	4.60	576	929
	0.40	1947	4.68	588	957
	0.50	1897	4.79	608	989
	0.60	1857	4.87	620	1012
	0.70	1763	4.99	640	1050
	0.80	1741	5.06	650	1072
	0.90	1669	5.19	668	1105
T4	0.10	2137	4.95	634	913
	0.20	2093	5.07	652	940
	0.30	2095	5.19	670	962
	0.40	2026	5.28	682	990
	0.50	1980	5.40	698	1018
	0.60	1961	5.49	720	1039
	0.70	1914	5.58	732	1072
	0.80	1845	5.70	742	1100
	0.90	1766	5.69	740	1127
T5	0.10	2299	5.70	742	942
	0.20	2233	5.80	748	969
	0.30	2217	5.90	768	990
	0.40	2157	6.07	786	1018
	0.50	2131	6.12	804	1045
	0.60	2060	6.21	816	1073
	0.70	2015	6.30	820	1095
	0.80	1940	6.27	816	1111
	0.90	1862	6.13	790	1128

NOTES:

Tables represent dry coil without filter, to compensate for filter add 0.08" to measured E.S.P.
SCFM correction for wet coil = 4 %. 5 Ton models are shipped from the factory with speed tap set on T4.

APPENDIX A BLOWER PERFORMANCE TABLES

DIRECT DRIVE - 5 TON

****C/H060 DIRECT DRIVE HORIZONTAL**

SPEED TAP	EXTERNAL STATIC PRESSURE (ESP) in w.c.	STANDARD CFM	AMPS	WATTS	RPM
T1	0.10	1355	1.57	174	599
	0.20	1281	1.66	182	651
	0.30	1235	1.76	196	693
	0.40	1168	1.81	202	726
	0.50	1118	1.94	218	775
	0.60	1049	2.03	232	819
	0.70	982	2.10	240	858
	0.80	922	2.14	246	885
	0.90	871	2.25	260	927
T2	0.10	1544	2.04	234	660
	0.20	1490	2.17	250	704
	0.30	1427	2.25	260	742
	0.40	1370	2.35	276	781
	0.50	1319	2.42	282	809
	0.60	1274	2.52	296	849
	0.70	1210	2.62	316	891
	0.80	1137	2.73	326	935
	0.90	1106	2.77	336	957
T3	0.10	2099	4.13	516	825
	0.20	2068	4.25	536	852
	0.30	2029	4.37	552	885
	0.40	1971	4.48	568	913
	0.50	1911	4.61	586	950
	0.60	1876	4.73	604	973
	0.70	1821	4.86	622	1012
	0.80	1792	4.91	630	1028
	0.90	1740	5.03	648	1067
T4	0.10	2233	4.76	608	863
	0.20	2168	4.91	628	896
	0.30	2125	5.02	640	924
	0.40	2070	5.14	660	951
	0.50	2050	5.27	678	979
	0.60	1980	5.41	696	1012
	0.70	1954	5.47	704	1034
	0.80	1893	5.60	724	1067
	0.90	1852	5.70	736	1089
T5	0.10	2322	5.44	710	904
	0.20	2294	5.55	726	934
	0.30	2254	5.68	742	958
	0.40	2201	5.80	766	990
	0.50	2147	5.93	782	1017
	0.60	2117	6.01	788	1039
	0.70	2081	6.12	808	1060
	0.80	2017	6.22	822	1094
	0.90	1932	6.10	804	1111

NOTES:

Tables represent dry coil without filter, to compensate for filter add 0.08" to measured E.S.P. SCFM correction for wet coil = 4 %.

5 Ton models are shipped from the factory with speed tap set on T4.

APPENDIX A BLOWER PERFORMANCE TABLES

BELT DRIVE - HORIZONTAL

****C/H036 STANDARD BELT DRIVE HORIZONTAL**

ESP, In H ₂ O	TURNS OPEN											
	0		1		2		3		4		5	
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
0.2									1658	0.35	1489	0.28
0.4							1560	0.36	1339	0.28	1129	0.21
0.6			1682	0.47	1436	0.36	1196	0.27	949	0.19		
0.8	1581	0.50	1354	0.38	1096	0.28	828	0.18				
1.0	1266	0.39	994	0.28	756	0.19						
1.2	923	0.28										

****C/H048 STANDARD BELT DRIVE HORIZONTAL**

ESP, In H ₂ O	TURNS OPEN											
	0		1		2		3		4		5	
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
0.2									1943	0.52	1714	0.40
0.4					2187	0.72	1876	0.55	1566	0.40	1270	0.26
0.6			2044	0.72	1761	0.56	1444	0.40	1136	0.26		
0.8	1947	0.74	1704	0.59	1335	0.40						
1.0	1598	0.60	1275	0.36								
1.1	1208	0.45										

****C/H060 STANDARD BELT DRIVE HORIZONTAL**

ESP, In H ₂ O	TURNS OPEN											
	0		1		2		3		4		5	
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
0.2									2420	0.79	2198	0.64
0.4					2605	1.02	2358	0.84	2133	0.67	1874	0.52
0.6			2526	1.06	2300	0.88	2026	0.70	1806	0.55		
0.8	2529	1.15	2252	0.93	1975	0.73	1670	0.54				
1.0	2233	0.99	1943	0.78	1628	0.57						
1.2	1907	0.83	1582	0.61								

****C/H072 STANDARD BELT DRIVE HORIZONTAL**

ESP, In H ₂ O	TURNS OPEN											
	0		1		2		3		4		5	
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
0.2							2784	1.30	2582	0.83	2411	0.79
0.4					2814	1.34	2620	1.19	2342	0.72	2105	0.66
0.6			2665	1.34	2583	1.19	2398	1.06	2103	0.62	1902	0.57
0.8	2689	1.38	2492	1.22	2370	1.07	2142	0.91	1816	0.51		
1.0	2438	1.22	2275	1.09	2098	0.92	1883	0.78				
1.2	2250	1.10	1996	0.92								

NOTES:

Tables represent dry coil without filter, to compensate for filter add 0.08" to measured E.S.P.

APPENDIX A BLOWER PERFORMANCE TABLES

BELT DRIVE - DOWN SHOT

****C/H036 STANDARD BELT DRIVE DOWN SHOT**

ESP, In H ₂ O	TURNS OPEN											
	0		1		2		3		4		5	
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
0.2									1424	0.30	1239	0.23
0.4					1520	0.39	1292	0.29	1073	0.22	779	0.14
0.6			1439	0.40	1192	0.30	944	0.21	619	0.12		
0.8	1350	0.42	1101	0.31	864	0.22						
1.0	1028	0.31	729	0.21								
1.2	675	0.20										

****C/H048 STANDARD BELT DRIVE DOWN SHOT**

ESP, In H ₂ O	TURNS OPEN											
	0		1		2		3		4		5	
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
0.2							2129	0.64	1795	0.47	1550	0.35
0.4					1994	0.65	1701	0.49	1433	0.36	1163	0.22
0.6			1905	0.67	1606	0.50	1326	0.36	1025	0.22		
0.8	1808	0.69	1565	0.54	1216	0.36						
1.0	1473	0.55	1137	0.32								
1.2	1103	0.41										

****C/H060 STANDARD BELT DRIVE DOWN SHOT**

ESP, In H ₂ O	TURNS OPEN											
	0		1		2		3		4		5	
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
0.2					2579	1.01	2368	0.85	2175	0.69	1961	0.55
0.4			2513	1.05	2318	0.89	2089	0.73	1906	0.59	1666	0.44
0.6	2514	1.14	2276	0.94	2045	0.77	1797	0.60	1604	0.47		
0.8	2261	1.01	2017	0.82	1760	0.63						
1.0	1989	0.87	1730	0.68								
1.2	1695	0.72										

****C/H072 STANDARD BELT DRIVE DOWN SHOT**

ESP, In H ₂ O	TURNS OPEN											
	0		1		2		3		4		5	
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
0.2					2771	1.27	2567	1.05	2421	0.88	2220	0.71
0.4			2753	1.38	2573	1.15	2382	0.95	2186	0.77	1980	0.61
0.6	2655	1.42	2548	1.24	2360	1.02	2119	0.81	1934	0.65		
0.8	2470	1.30	2331	1.11	2111	0.89	1868	0.69				
1.0	2296	1.18	2078	0.96	1840	0.75						
1.2	2040	1.02										

NOTES:

Tables represent dry coil without filter, to compensate for filter add 0.08" to measured E.S.P.

APPENDIX B

MINIMUM AIRFLOW FOR ELECTRIC HEAT

MINIMUM AIR FLOW FOR ELECTRIC HEAT

UNIT	HEATER KIT MODEL NUMBER	MINIMUM CFM (HORIZONTAL)
3 TON	EHK*-10	1250
	EHK*-15	1250
4 TON	EHK*-10	1300
	EHK*-15	1400
	EHK*-18	1400
5 TON	EHK*-10	1700
	EHK*-15	1700
	EHK*-20	1800
6 TON	EHK*-10	2100
	EHK*-15	2100
	EHK*-20	2100
	EHK*-25	2100



ATTENTION INSTALLING PERSONNEL

Use only the heater kit specified for each model as dictated by the table above.

NOTE: SPECIFICATIONS AND PERFORMANCE DATA LISTED HEREIN ARE SUBJECT TO CHANGE WITHOUT NOTICE

Quality Makes the Difference!

All of our systems are designed and manufactured with the same high quality standards regardless of size or efficiency. We have designed these units to significantly reduce the most frequent causes of product failure. They are simple to service and forgiving to operate. We use quality materials and components. Finally, every unit is run tested before it leaves the factory. That's why we know. . . **There's No Better Quality.**

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