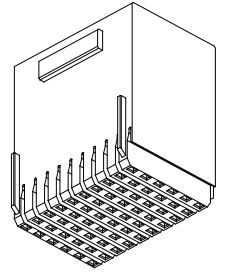




**\*VHDM® and VHDM-H® Backplane Signal Insertion Module  
Application Tooling Specification  
Press-In Tool  
Order No. 62202-0207**



**FEATURES**

- Polarized tool prevents product damage.
- Tool provides uniform distribution of press force across entire pin array.
- May be used as a stand-alone tool or mounted in an optional tooling holder with other Molex press-in tools.

**SCOPE**

Products: \*VHDM® Standard Shield Signal Module Assembly, (60 Circuits), 74057, 74058, 74059, 74073, and 74074 Series 6 Rows by 10 Columns Assemblies.  
2.00mm (.079") Pitch VHDM® Lite Signal Module Assembly, (60 Circuits), 75194, 75195, and 75196 Series, 6 Rows by 10 Columns Assemblies.  
VHDM-H® Signal Module Assembly (60 Circuits). Series 76761, 76762, and 76763, 6 Rows by 10 Columns Assemblies. See Product List below for specific part numbers

**Product List**

The following is a partial list of the product order numbers and their specifications this tool is designed to run. Updates to this list are available on [www.molex.com](http://www.molex.com).

Series No.	Guide Style	Columns	Assembly Order Number					
74057	Open End	6	74057-1001	74057-1002	74057-1003	74057-1004	74057-1006	74057-1007
			74057-1008	74057-1009	74057-1101	74057-1102	74057-1103	74057-1104
			74057-1106	74057-1107	74057-1108	74057-1109	74057-9001	74057-9002
			74057-9003	74057-9004	74057-9006	74057-9007	74057-9008	74057-9009
			74057-9101	74057-9102	74057-9103	74057-9104	74057-9106	74057-9107
			74057-9108	74057-9109				
74058	Signal End	6	74058-1001	74058-1002	74058-1003	74058-1004	74058-1006	74058-1007
			74058-1008	74058-1009	74058-1011	74058-1012	74058-1013	74058-1014
			74058-1016	74058-1017	74058-1018	74058-1019	74058-1021	74058-1022
			74058-1023	74058-1024	74058-1026	74058-1027	74058-1028	74058-1029
			74058-1031	74058-1032	74058-1033	74058-1034	74058-1036	74058-1037
			74058-1038	74058-1039	74058-1041	74058-1042	74058-1043	74058-1044
			74058-1046	74058-1047	74058-1048	74058-1049	74058-1051	74058-1052
			74058-1053	74058-1054	74058-1056	74058-1057	74058-1058	74058-1059
			74058-1061	74058-1062	74058-1063	74058-1064	74058-1066	74058-1067
			74058-1068	74058-1069	74058-1071	74058-1072	74058-1073	74058-1074
			74058-1076	74058-1077	74058-1078	74058-1079	74058-1081	74058-1082
			74058-1083	74058-1084	74058-1086	74058-1087	74058-1088	74058-1089
			74058-1101	74058-1102	74058-1103	74058-1104	74058-1106	74058-1107
			74058-1108	74058-1109	74058-1111	74058-1112	74058-1113	74058-1114
			74058-1116	74058-1117	74058-1118	74058-1119	74058-1121	74058-1122
			74058-1123	74058-1124	74058-1126	74058-1127	74058-1128	74058-1129
			74058-1131	74058-1132	74058-1133	74058-1134	74058-1136	74058-1137
			74058-1138	74058-1139	74058-1141	74058-1142	74058-1143	74058-1144
74058-1146	74058-1147	74058-1148	74058-1149	74058-1151	74058-1152			

Series No.	Guide Style	Columns	Assembly Order Number					
			74058	Signal End	6	74058-1153	74058-1154	74058-1156
			74058-1161	74058-1162	74058-1163	74058-1164	74058-1166	74058-1167
			74058-1168	74058-1169	74058-1171	74058-1172	74058-1173	74058-1174
			74058-1176	74058-1177	74058-1178	74058-1179	74058-1181	74058-1182
			74058-1183	74058-1184	74058-1186	74058-1187	74058-1188	74058-1189
			74058-9001	74058-9002	74058-9003	74058-9004	74058-9006	74058-9007
			74058-9008	74058-9009	74058-9011	74058-9012	74058-9013	74058-9014
			74058-9016	74058-9017	74058-9018	74058-9019	74058-9021	74058-9022
			74058-9023	74058-9024	74058-9026	74058-9027	74058-9028	74058-9029
			74058-9031	74058-9032	74058-9033	74058-9034	74058-9036	74058-9037
			74058-9038	74058-9039	74058-9041	74058-9042	74058-9043	74058-9044
			74058-9046	74058-9047	74058-9048	74058-9049	74058-9051	74058-9052
			74058-9053	74058-9054	74058-9056	74058-9057	74058-9058	74058-9059
			74058-9061	74058-9062	74058-9063	74058-9064	74058-9066	74058-9067
			74058-9068	74058-9069	74058-9071	74058-9072	74058-9073	74058-9074
			74058-9076	74058-9077	74058-9078	74058-9079	74058-9081	74058-9082
			74058-9083	74058-9084	74058-9086	74058-9087	74058-9088	74058-9089
			74058-9101	74058-9102	74058-9103	74058-9104	74058-9106	74058-9107
			74058-9108	74058-9109	74058-9111	74058-9112	74058-9113	74058-9114
			74058-9116	74058-9117	74058-9118	74058-9119	74058-9121	74058-9122
			74058-9123	74058-9124	74058-9126	74058-9127	74058-9128	74058-9129
			74058-9131	74058-9132	74058-9133	74058-9134	74058-9136	74058-9137
			74058-9138	74058-9139	74058-9141	74058-9142	74058-9143	74058-9144
			74058-9146	74058-9147	74058-9148	74058-9149	74058-9151	74058-9152
			74058-9153	74058-9154	74058-9156	74058-9157	74058-9158	74058-9159
			74058-9161	74058-9162	74058-9163	74058-9164	74058-9166	74058-9167
			74058-9168	74058-9169	74058-9171	74058-9172	74058-9173	74058-9174
			74058-9176	74058-9177	74058-9178	74058-9179	74058-9181	74058-9182
			74058-9183	74058-9184	74058-9186	74058-9187	74058-9188	74058-9189
74059	Shield End	6	74059-1001	74059-1002	74059-1003	74059-1004	74059-1006	74059-1007
			74059-1008	74059-1009	74059-1011	74059-1012	74059-1013	74059-1014
			74059-1016	74059-1017	74059-1018	74059-1019	74059-1021	74059-1022
			74059-1023	74059-1024	74059-1026	74059-1027	74059-1028	74059-1029
			74059-1031	74059-1032	74059-1033	74059-1034	74059-1036	74059-1037
			74059-1038	74059-1039	74059-1041	74059-1042	74059-1043	74059-1044
			74059-1046	74059-1047	74059-1048	74059-1049	74059-1051	74059-1052
			74059-1053	74059-1054	74059-1056	74059-1057	74059-1058	74059-1059
			74059-1061	74059-1062	74059-1063	74059-1064	74059-1066	74059-1067
			74059-1068	74059-1069	74059-1071	74059-1072	74059-1073	74059-1074
			74059-1076	74059-1077	74059-1078	74059-1079	74059-1081	74059-1082
			74059-1083	74059-1084	74059-1086	74059-1087	74059-1088	74059-1089
			74059-1101	74059-1102	74059-1103	74059-1104	74059-1106	74059-1107
			74059-1108	74059-1109	74059-1111	74059-1112	74059-1113	74059-1114
			74059-1116	74059-1117	74059-1118	74059-1119	74059-1121	74059-1122
			74059-1123	74059-1124	74059-1126	74059-1127	74059-1128	74059-1129
			74059-1131	74059-1132	74059-1133	74059-1134	74059-1136	74059-1137
			74059-1138	74059-1139	74059-1141	74059-1142	74059-1143	74059-1144
			74059-1146	74059-1147	74059-1148	74059-1149	74059-1151	74059-1152
			74059-1153	74059-1154	74059-1156	74059-1157	74059-1158	74059-1159
			74059-1161	74059-1162	74059-1163	74059-1164	74059-1166	74059-1167
			74059-1168	74059-1169	74059-1171	74059-1172	74059-1173	74059-1174
			74059-1176	74059-1177	74059-1178	74059-1179	74059-1181	74059-1182
			74059-1183	74059-1184	74059-1186	74059-1187	74059-1188	74059-1189
			74059-9001	74059-9002	74059-9003	74059-9004	74059-9006	74059-9007

Series No.	Guide Style	Columns	Assembly Order Number					
			74059	Shield End	6	74059-9008	74059-9009	74059-9011
74059-9016	74059-9017	74059-9018				74059-9019	74059-9021	74059-9022
74059-9023	74059-9024	74059-9026				74059-9027	74059-9028	74059-9029
74059-9031	74059-9032	74059-9033				74059-9034	74059-9036	74059-9037
74059-9038	74059-9039	74059-9041				74059-9042	74059-9043	74059-9044
74059-9046	74059-9047	74059-9048				74059-9049	74059-9051	74059-9052
74059-9053	74059-9054	74059-9056				74059-9057	74059-9058	74059-9059
74059-9061	74059-9062	74059-9063				74059-9064	74059-9066	74059-9067
74059-9068	74059-9069	74059-9071				74059-9072	74059-9073	74059-9074
74059-9076	74059-9077	74059-9078				74059-9079	74059-9081	74059-9082
74059-9083	74059-9084	74059-9086				74059-9087	74059-9088	74059-9089
74059-9101	74059-9102	74059-9103				74059-9104	74059-9106	74059-9107
74059-9108	74059-9109	74059-9111				74059-9112	74059-9113	74059-9114
74059-9116	74059-9117	74059-9118				74059-9119	74059-9121	74059-9122
74059-9123	74059-9124	74059-9126				74059-9127	74059-9128	74059-9129
74059-9131	74059-9132	74059-9133				74059-9134	74059-9136	74059-9137
74059-9138	74059-9139	74059-9141				74059-9142	74059-9143	74059-9144
74059-9146	74059-9147	74059-9148				74059-9149	74059-9151	74059-9152
74059-9153	74059-9154	74059-9156				74059-9157	74059-9158	74059-9159
74059-9161	74059-9162	74059-9163				74059-9164	74059-9166	74059-9167
74059-9168	74059-9169	74059-9171				74059-9172	74059-9173	74059-9174
74059-9176	74059-9177	74059-9178	74059-9179	74059-9181	74059-9182			
74059-9183	74059-9184	74059-9186	74059-9187	74059-9188	74059-9189			
74073	Dual End	6	74073-0001	74073-0002	74073-0003	74073-0005	74073-0010	74073-0020
			74073-0030	74073-9999				
74074	Custom	6	74074-0001	74074-0002	74074-0007	74074-0009	74074-0010	74074-0013
			74074-0014	74074-0015	74074-0019	74074-0020	74074-0022	74074-0023
			74074-0034	74074-0035	74074-0036	74074-0037	74074-0038	74074-0041
			74074-0042	74074-0043	74074-0044	74074-0045	74074-0046	74074-0047
			74074-0048	74074-0049	74074-0050	74074-0055	74074-0056	74074-0057
			74074-0058	74074-0059	74074-0060	74074-0061	74074-0062	74074-0063
			74074-0064	74074-0066	74074-0068	74074-0069	74074-0070	74074-0078
			74074-0079	74074-0080	74074-0081	74074-0086	74074-0087	74074-0088
			74074-0089	74074-0092	74074-0094	74074-0095	74074-0096	74074-0097
			74074-0100	74074-0103	74074-0105	74074-0106	74074-0107	74074-0108
			74074-0109	74074-0111	74074-0113	74074-0115	74074-0117	74074-0118
			74074-0119	74074-0120	74074-0121	74074-0122	74074-0123	74074-0124
			74074-0125	74074-0127	74074-0128	74074-0129	74074-0131	74074-0132
			74074-0134	74074-0135	74074-0137	74074-0138	74074-0139	74074-0141
			74074-0143	74074-0144	74074-0145	74074-0148	74074-0151	74074-0152
			74074-0153	74074-0154	74074-0155	74074-0156	74074-0158	74074-0159
			74074-0161	74074-0162	74074-0163	74074-0164	74074-0169	74074-0171
			74074-0172	74074-0173	74074-0174	74074-0175	74074-0179	74074-0181
			74074-0182	74074-0183	74074-0184	74074-0186	74074-0188	74074-0191
			74074-0192	74074-0193	74074-0194	74074-0195	74074-0197	74074-0200
			74074-0201	74074-0207	74074-0208	74074-0209	74074-0211	74074-0212
			74074-0213	74074-0216	74074-0217	74074-0222	74074-0223	74074-0224
			74074-0225	74074-0230	74074-0235	74074-0236	74074-0239	74074-0244
			74074-0245					
			74074-9817	74074-9861	74074-9864	74074-9865	74074-9866	74074-9868
			74074-9869	74074-9873	74074-9874	74074-9875	74074-9876	74074-9877
			74074-9878	74074-9883	74074-9885	74074-9886	74074-9892	74074-9893
74074-9895	74074-9947	74074-9950	74074-9966	74074-9971	74074-9972			
74074-9974	74074-9975	74074-9976	74074-9987	74074-9993	74074-9996			

Series No.	Guide Style	Columns	Assembly Order Number					
75194	Open End	6	75194-1001	75194-1002	75194-1003	75194-1004	75194-9001	75194-9002
75194	Open End	6	75194-9003	75194-9004				
75195	Left	6	75195-1001	75195-1002	75195-1003	75195-1004	75195-1011	75195-1012
			75195-1013	75195-1014	75195-1021	75195-1022	75195-1023	75195-1024
			75195-1031	75195-1032	75195-1033	75195-1034	75195-1041	75195-1042
			75195-1043	75195-1044	75195-1051	75195-1052	75195-1053	75195-1054
			75195-1061	75195-1062	75195-1063	75195-1064	75195-1071	75195-1072
			75195-1073	75195-1074	75195-1081	75195-1082	75195-1083	75195-1084
			75195-9001	75195-9002	75195-9003	75195-9004	75195-9011	75195-9012
			75195-9013	75195-9014	75195-9021	75195-9022	75195-9023	75195-9024
			75195-9031	75195-9032	75195-9033	75195-9034	75195-9041	75195-9042
			75195-9043	75195-9044	75195-9051	75195-9052	75195-9053	75195-9054
			75195-9061	75195-9062	75195-9063	75195-9064	75195-9071	75195-9072
			75195-9073	75195-9074	75195-9081	75195-9082	75195-9083	75195-9084
75196	Right	6	75196-1001	75196-1002	75196-1003	75196-1004	75196-1011	75196-1012
			75196-1013	75196-1014	75196-1021	75196-1022	75196-1023	75196-1024
			75196-1031	75196-1032	75196-1033	75196-1034	75196-1041	75196-1042
			75196-1043	75196-1044	75196-1051	75196-1052	75196-1053	75196-1054
			75196-1061	75196-1062	75196-1063	75196-1064	75196-1071	75196-1072
			75196-1073	75196-1074	75196-1081	75196-1082	75196-1083	75196-1084
			75196-9001	75196-9002	75196-9003	75196-9004	75196-9011	75196-9012
			75196-9013	75196-9014	75196-9021	75196-9022	75196-9023	75196-9024
			75196-9031	75196-9032	75196-9033	75196-9034	75196-9041	75196-9042
			75196-9043	75196-9044	75196-9051	75196-9052	75196-9053	75196-9054
			75196-9061	75196-9062	75196-9063	75196-9064	75196-9071	75196-9072
			75196-9073	75196-9074	75196-9081	75196-9082	75196-9083	75196-9084
76761	End	10	76761-1001	76761-1002	76761-1003	76761-1004	76761-1006	76761-1007
			76761-1008	76761-1009	76761-1011	76761-1012	76761-1013	76761-1014
			76761-1016	76761-1017	76761-1018	76761-1019	76761-1021	76761-1022
			76761-1023	76761-1024	76761-1026	76761-1027	76761-1028	76761-1029
			76761-1031	76761-1032	76761-1033	76761-1034	76761-1036	76761-1037
			76761-1038	76761-1039	76761-1041	76761-1042	76761-1043	76761-1044
			76761-1046	76761-1047	76761-1048	76761-1049	76761-1051	76761-1052
			76761-1053	76761-1054	76761-1056	76761-1057	76761-1058	76761-1059
			76761-1061	76761-1062	76761-1063	76761-1064	76761-1066	76761-1067
			76761-1068	76761-1069	76761-1071	76761-1072	76761-1073	76761-1074
			76761-1076	76761-1077	76761-1078	76761-1079	76761-1081	76761-1082
			76761-1083	76761-1084	76761-1086	76761-1087	76761-1088	76761-1089
			76761-9001	76761-9002	76761-9003	76761-9004	76761-9006	76761-9007
			76761-9008	76761-9009	76761-9011	76761-9012	76761-9013	76761-9014
			76761-9016	76761-9017	76761-9018	76761-9019	76761-9021	76761-9022
			76761-9023	76761-9024	76761-9026	76761-9027	76761-9028	76761-9029
			76761-9031	76761-9032	76761-9033	76761-9034	76761-9036	76761-9037
			76761-9038	76761-9039	76761-9041	76761-9042	76761-9043	76761-9044
			76761-9046	76761-9047	76761-9048	76761-9049	76761-9051	76761-9052
			76761-9053	76761-9054	76761-9056	76761-9057	76761-9058	76761-9059
76761-9061	76761-9062	76761-9063	76761-9064	76761-9066	76761-9067			
76761-9068	76761-9069	76761-9071	76761-9072	76761-9073	76761-9074			
76761-9076	76761-9077	76761-9078	76761-9079	76761-9081	76761-9082			
76761-9083	76761-9084	76761-9086	76761-9087	76761-9088	76761-9089			
76762	End	10	76762-1001	76762-1002	76762-1003	76762-1004	76762-1006	76762-1007
			76762-1008	76762-1009	76762-1011	76762-1012	76762-1013	76762-1014
			76762-1016	76762-1017	76762-1018	76762-1019	76762-1021	76762-1022
			76762-1023	76762-1024	76762-1026	76762-1027	76762-1028	76762-1029

Series No.	Guide Style	Columns	Assembly Order Number					
			76762-1031	76762-1032	76762-1033	76762-1034	76762-1036	76762-1037
76762	End	10	76762-1038	76762-1039	76762-1041	76762-1042	76762-1043	76762-1044
			76762-1046	76762-1047	76762-1048	76762-1049	76762-1051	76762-1052
			76762-1053	76762-1054	76762-1056	76762-1057	76762-1058	76762-1059
			76762-1061	76762-1062	76762-1063	76762-1064	76762-1066	76762-1067
			76762-1068	76762-1069	76762-1071	76762-1072	76762-1073	76762-1074
			76762-1076	76762-1077	76762-1078	76762-1079	76762-1081	76762-1082
			76762-1083	76762-1084	76762-1086	76762-1087	76762-1088	76762-1089
			76762-9001	76762-9002	76762-9003	76762-9004	76762-9006	76762-9007
			76762-9008	76762-9009	76762-9011	76762-9012	76762-9013	76762-9014
			76762-9016	76762-9017	76762-9018	76762-9019	76762-9021	76762-9022
			76762-9023	76762-9024	76762-9026	76762-9027	76762-9028	76762-9029
			76762-9031	76762-9032	76762-9033	76762-9034	76762-9036	76762-9037
			76762-9038	76762-9039	76762-9041	76762-9042	76762-9043	76762-9044
			76762-9046	76762-9047	76762-9048	76762-9049	76762-9051	76762-9052
			76762-9053	76762-9054	76762-9056	76762-9057	76762-9058	76762-9059
			76762-9061	76762-9062	76762-9063	76762-9064	76762-9066	76762-9067
			76762-9068	76762-9069	76762-9071	76762-9072	76762-9073	76762-9074
			76762-9076	76762-9077	76762-9078	76762-9079	76762-9081	76762-9082
			76762-9083	76762-9084	76762-9086	76762-9087	76762-9088	76762-9089
			76763	Open	10	76763-1001	76763-1002	76763-1003
76763-1008	76763-1009	76763-9001				76763-9002	76763-9003	76763-9004
76763-9006	76763-9007	76763-9008				76763-9009		

\*VHDM® is a registered trademark of Teradyne, Inc.

### Tool Setup

Depending on the number of connectors to be installed and/or the press used, this tool can be used alone or with a group of press-in tools, mounted in a 62201-95XX tooling holder (ordered separately). See Figure 1.

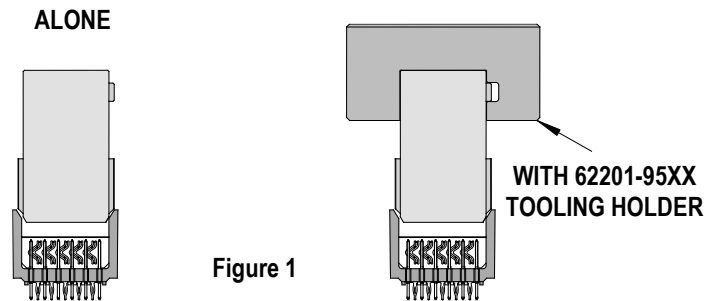


Figure 1

### Tool Installation

The 62201-95XX tooling holder is available in a variety of lengths to accommodate multiple press-in tools.

Tooling Holder Part Number	Rail Overall Length
62201-9501	24mm (0.94 in)
62201-9502	72mm (2.83 in)
62201-9503	156mm (6.14 in)
62201-9504	216mm (8.50 in)
62201-9509	254mm (10.0 in)
62201-9511	305mm (12.0 in)

Reference: This Press-In Tool is 19.9mm (.785 in.) long by 25.0mm (.984 in.) high.

## Printed Circuit Board (PCB) Support

The \*VHDM® connectors requires a large amount of force per pin to press into the PCB. To prevent excessive PCB flexure and/or damage to the PCB, a support plate is strongly recommended directly beneath the connector hole pattern.

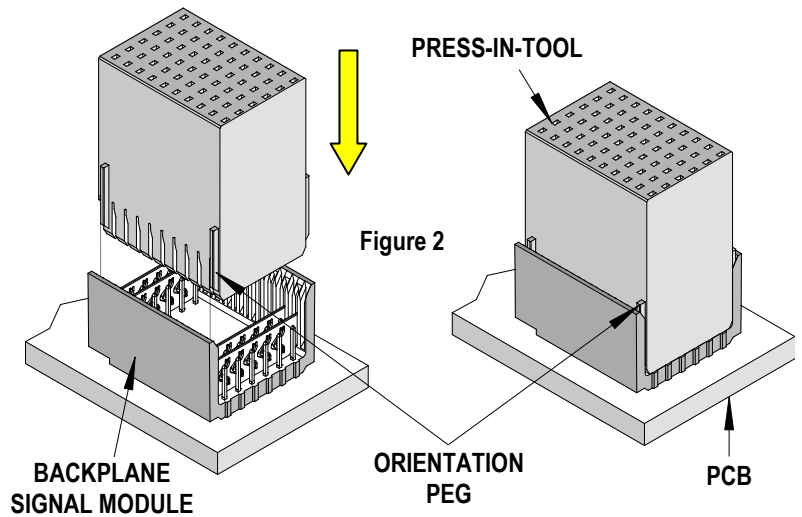
Due to the custom nature of every application, Molex does not offer any PCB support plate. The customer must furnish their own support plate.

When creating the PCB support plate, remember to allow clearance for the connector pins as they pass through the PCB thickness.

## Press Equipment Recommendations

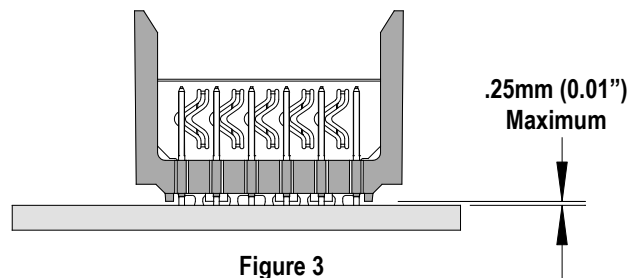
Many types of presses can be used to install \*VHDM® connectors, but to assure consistent connector installation Molex recommends the following press criteria:

1. The capability to detect force variations as low as 4.5kg (10 lb) during the press-in cycle; excessive force measurements should stop the press-in cycle.
2. The rate of pressing can be regulated as low as 0.13mm (0.005 in) per second.
3. Press stroke control to within 0.25mm (0.010 in).
4. Total press stroke must be at least 19mm (0.75 in).
5. For statistical purposes, automatic collection of force and distance data.



## Tool Operation

1. Carefully insert, by hand, the backplane signal module(s) into the PCB hole pattern. Make sure the connector(s) are oriented properly.
2. Insert the press-in-tool into the backplane signal module assembly with the orientation peg on the tool entering the groove in the connector housing. Make sure all the pins and shields fit into the proper slots. See Figure 2.
3. Using the application tool and an appropriate press, seat the header assembly until there is less than 0.25mm (0.01 in) clearance between the bottom of the plastic housing and the surface of the PCB. See Figure 3.



**CAUTION:** To prevent injury, never operate any press without the guards in place. Refer to the press manufacturer's instruction manual.

**CAUTION:** Molex application tooling specifications are valid only when used with Molex connectors and tooling.

### Contact Information

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