

Honeywell Primary Control Cross Reference

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TABLE 1—CROSS REFERENCE				
Device To Be Replaced	Current Replacement	7800 Series Replacement ② ③	Wiring Designation and Terminal Number	Comments
R177A	① RA890F	RM7890A1015	power—1,2 limit—1-5 motor—3 ignition—4 controller—R,W,B detector—F,G	Remove Series 10 Controller and rewire. Same as RA890F except does not have “proof of flame” terminal (terminal 5 on RA890E,F). Requires Q270A Subbase with RA890F. Requires Q7800F1004 Subbase with RM7890A1015.
R180A	① RA890F	RM7890A1015	power—1,2 jumper—1-3 limit, main valve—4 controller—R,W,B detector—F,G	Continuous pilot applications only. Remove Series 10 Controller and rewire. Requires Q270A Subbase with RA 890F. Requires Q7800F1004 Subbase with RM7890A1015.
R180B	① RA890F	RM7890A1015	power —1,2 limit, main valve—5 motor, pilot valve—3 ignition—4 controller—R,W,B detector—F,G	Functionality same as RA890F. Remove Series 10 Controller and rewire. Requires Q270A Subbase with RA890F. Requires Q7800F1004 Subbase with RM7890A1015.
R187A	① RA890F	RM7890A10105	power—1,2 limit—1-5 motor—3 ignition—4 controller—R,W,B detector—F,G	Remove Series 10 Controller and rewire. Requires Q270A Subbase with RA890F. Requires Q7800F1004 Subbase with RM7890A1015
R190B, RA190B	① RA890F	RM7890A1015	See R180B	Remove Series 10 Controller and rewire. Requires Q270A Subbase with RA890F. Requires Q7800F1004 Subbase with RM7890A1015.
R190C	None	RM7838A,B RM7890B1014	See Modernization Wiring Information section	Used in W124 and ID051 panels. See Modernization Wiring Information section.
R887A	① RA890F	RM7890A1015	power—1,2 limit—1-5 motor—3 ignition—4 controller—T,T detector—F,G	Rewire. Requires Q270A Subbase with RA890F. Requires Q7800F1004 Subbase with RM7890A1015.
R890B, RA890B	① RA890F	RM7890A1015	power—1,2 limit—1 motor, pilot valve—3 ignition—4 main valve—5 controller—6 jumper—T,T detector—F,G	Requires Q7800F1004 Subbase with RM7890A1015.
R890C, RA890C	RA890F	RM7890A1015	Same as R890B, RA890B	Requires Q7800F1004 Subbase with RM7890A1015.
RA890XB	RA890F	RM7890A1015	Same as R890B	Requires Q7800F1004 Subbase with RM7890A1015.
RA890XC			RA890B	
RA890D	None	RM7840M1017	Same as R890B, RA890B except controller always on terminal 6 and LF switch to T,T	Requires Q520A Subbase and R7247A Amplifier Requires rewire with Q7800A1005 Subbase and R7847A1009 or R7847B1007 Amplifier with RM7840M1017.

FOOTNOTES:

- ① Refer to Primary Cross-Reference section to select proper voltage, frequency, and timings.
 ② Select R7847A1025, 1033 or R7847B1023, 1031 Amplifier. JR2 must be clipped when using 3 second amplifier.
 ③ See Modernization Wiring Information section.

TABLE 2—RA890E CROSS REFERENCE

Device to be Replaced RA890E	Replacement		Function of Device to be replaced				Alarm Contacts (7)	Comments
	Current RA890F	7800 Series (2) (3) (6)	Amplifier (6)	Voltage (Vac)	Frequency (Hz)	Safety Switch Timing (Secs)		
1009	RA890F1338	RM7890A1031	R7847A1025	120	60	30	0.8	
1017	None	(1) (5) EC7890A1011	R7847A1025	208	60	30	0.8	
1025	None	(5) EC7890A1011	R7847A1025	240	60	30	0.8	
1033	RA890F1338	RM7890A1031	R7847A1025	120	50	30	0.8	
1041	None	(5) EC7890A1011	R7847A1025	220	50	30	0.8	
1058	None	(5) EC7890A1011	R7847A1025	240	50	30	0.8	
1066	RA890F1346	RM7890A1031	R7847A1033	120	60	30	2-4	
1074	None	(1) (5) EC7890A1011	R7847A1033	208	60	30	2-4	
1082	None	(5) EC7890A1011	R7847A1033	240	60	30	2-4	
1090	RA890F1346	RM7890A1031	R7847A1033	120	50	30	2-4	
1108	None	(5) EC7890A1011	R7847A1033	220	50	30	2-4	
1116	None	(5) EC7890A1011	R7847A1033	240	50	30	2-4	
1124	RA890F1270	(4) RM7890A1015	R7847A1025	120	60	15	0.8	
1132	None	(1) (5) EC7890A1011	R7847A1025	208	60	15	0.8	
1140	None	(5) EC7890A1011	R7847A1025	240	60	15	0.8	
1157	RA890F1270	(4) RM7890A1015	R7847A1025	120	50	15	0.8	
1165	RA890F1304	(5) EC7890A1011	R7847A1025	220	50	15	0.8	
1173	None	(5) EC7890A1011	R7847A1025	240	50	15	0.8	
1181	RA890F1288	(4) RM7890A1015	R7847A1033	120	50/60	15	2-4	
1199	None	(1) (5) EC7890A1011	R7847A1033	208	50/60	15	2-4	
1207	None	(5) EC7890A1011	R7847A1033	240	50/60	15	2-4	
1215	RA890F1288	(4) RM7890A1015	R7847A1033	120	50	15	2-4	
1223	None	(5) EC7890A1011	R7847A1033	220	50	15	2-4	
1231	RA890F1387	(5) EC7890A1011	R7847A1033	240	50	15	2-4	
1249	RA890F1338	RM7890A1031	R7847A1025	120	50/60	30	0.8	N.O.
1256	None	(1) (5) EC7890A1011	R7847A1025	208	50/60	30	0.8	N.O.
1264	None	(5) EC7890A1011	R7847A1025	240	50/60	30	0.8	N.O.
1272	None	(5) EC7890A1011	R7847A1025	220	50	30	0.8	N.O.
1280	RA890F1346	RM7890A1031	R7847A1033	120	50/60	30	2-4	N.O.
1298	None	(1) (5) EC7890A1011	R7847A1033	208	60	30	2-4	N.O.
1306	None	(5) EC7890A1011	R7847A1033	240	60	30	2-4	N.O.
1314	RA890F1346	RM7890A1031	R7847A1033	120	50	30	2-4	N.O.
1322	None	(5) EC7890A1011	R7847A1033	220	50	30	2-4	N.O.
1330	None	(5) EC7890A1011	R7847A1033	240	50	30	2-4	N.O.
1348	RA890F1270	(4) RM7890A1015	R7847A1025	120	50/60	15	0.8	N.O.
1355	None	(1) (5) EC7890A1011	R7847A1025	208	50/60	15	0.8	N.O.
1363	None	(5) EC7890A1011	R7847A1025	240	50/60	15	0.8	N.O.

TABLE 2—RA890E CROSS REFERENCE (continued)

Device to be Replaced RA890E	Replacement		Function of Device to be replaced					Alarm Contacts ⑦	Comments
	Current RA890F	7800 Series ② ③ ④	Amplifier ⑥	Voltage (Vac)	Frequency (Hz)	Safety Switch Timing (Secs)	FFRT (sec)		
1371	None	⑤ EC7890A1011	R7847A1025	240	50	15	0.8	N.O.	
1389	RA890F1288	④ RM7890A1015	R7847A1033	120	50/60	15	2-4	N.O.	
1397	RA890F1296	① ⑤ EC7890A1011	R7847A1033	208	50/60	15	2-4	N.O.	
1405	RA890F1387	⑤ EC7890A1011	R7847A1033	240	50/60	15	2-4	N.O.	
1413	RA890F1338	RM7890A1031	R7847A1025	120	60	30	0.8	N.C.	
1421	None	① ⑤ EC7890A1011	R7847A1025	208	60	30	0.8	N.C.	
1439	None	⑤ EC7890A1011	R7847A1025	240	60	30	0.8	N.C.	
1447	RA890F1346	RM7890A1031	R7847A1033	120	60	30	2-4	N.C.	
1454	None	⑤ EC7890A1011	R7847A1033	240	60	30	2-4	N.C.	
1462	RA890F1270	④ RM7890A1015	R7847A1025	120	50/60	15	0.8	N.C.	
1470	None	① ⑤ EC7890A1011	R7847A1025	208	50/60	15	0.8	N.C.	
1488	None	⑤ EC7890A1011	R7847A1025	240	50/60	15	0.8	N.C.	
1496	RA890F1288	④ RM7890A1015	R7847A1033	120	50/60	15	2-4	N.C.	
1504	RA890F1296	① ⑤ EC7890A1011	R7847A1033	208	50/60	15	2-4	N.C.	
1512	RA890F1387	⑤ EC7890A1011	R7847A1033	240	50/60	15	2-4	N.C.	
1520	None	④ RM7890A1015	R7847A1033	120	60	45	2-4	N.O.	
1538	None	⑤ EC7890A1011	R7847A1033	240	60	45	2-4	N.O.	
1546	None	⑤ EC7890A1011	R7847A1025	240	50	30	0.8	N.O.	
1553	None	① ⑤ EC7890A1011	R7847A1025	208	50	30	0.8		
1561	RA890F1304	⑤ EC7890A1011	R7847A1025	220	50	15	0.8	N.O.	
1579	None	⑤ EC7890A1011	R7847A1025	220	50	15	0.8	N.C.	
1587	RA890F1288	④ RM7890A1015	R7847A1033	120	50	15	2-4	N.C.	
1595	RA890F1387	⑤ EC7890A1011	R7847A1033	240	50	15	2-4	N.C.	
1603	RA890F1338	RM7890A1031	R7847A1025	120	50/60	30	0.8	Spdt	
1611	None	⑤ EC7890A1011	R7847A1025	220	50	30	0.8	Spdt	
1629	RA890F1346	RM7890A1031	R7847A1033	120	50/60	30	2-4	Spdt	
1637	None	⑤ EC7890A1011	R7847A1033	240	50/60	30	2-4	Spdt	
1645	RA890F1346	RM7890A1031	R7847A1033	120	50	30	2-4	Spdt	
1652	None	⑤ EC7890A1011	R7847A1033	220	50	30	2-4	Spdt	
1660	None	⑤ EC7890A1011	R7847A1033	240	50	30	2-4	Spdt	
1678	RA890F1270	④ RM7890A1015	R7847A1025	120	50/60	15	0.8	Spdt	
1686	None	① ⑤ EC7890A1011	R7847A1025	208	50/60	15	0.8	Spdt	
1694	None	⑤ EC7890A1011	R7847A1025	240	50/60	15	0.8	Spdt	
1702	RA890F1288	④ RM7890A1015	R7847A1033	120	50/60	15	2-4	Spdt	
1710	RA890F1296	① ⑤ EC7890A1011	R7847A1033	208	50/60	15	2-4	Spdt	

TABLE 2—RA890E CROSS REFERENCE (continued)

Device to be Replaced RA890E	Replacement		Function of Device to be replaced				Alarm Contacts ⑦	Comments	
	Current RA890F	7800 Series ② ③ ④	Amplifier ⑥	Voltage (Vac)	Frequency (Hz)	Safety Switch Timing (Secs)			FFRT (sec)
1728	RA809F1387	⑤ EC7890A1011	R7847A1033	240	50/60	15	2-4	Spdt	
1736	None	① ⑤ EC7890A1011	R7847A1025	208	50/60	30	0.8	Spdt	
1744	RA890F1387	⑤ EC7890A1011	R7847A1033	240	50	15	2-4	Spdt	
1751	None	⑤ EC7890A1011	R7847A1025	240	50/60	30	0.8	Spdt	
1769	None	⑤ EC7890A1011	R7847A1033	220	50	15	2-4	Spdt	
1777	RA890F1288	④ RM7890A1015	R7847A1033	120	50	15	2-4	Spdt	
1785	None	⑤ EC7890A1011	R7847A1033	220	50	15	2-4	N.O.	
1793	RA890F1304	⑤ EC7890A1011	R7847A1025	220	50	15	0.8	N.O.	
1801	RA890F1387	⑤ EC7890A1011	R7847A1033	240	50	15	2-4		
1819	None	⑤ EC7890A1011	R7847A1033	220	50	15	2-4		
1827	RA890F1288	④ RM7890A1015	R7847A1033	120	50	15	2-4		
1835	None	⑤ EC7890A1011	R7847A1033	220	50	30	2-4		
1843	None	⑤ EC7890A1011	R7847A1033	240	50	30	2-4		
1850	None	⑤ EC7890A1011	R7847A1025	240	50/60	30	0.8	Fungus-Proof	
1868	None	① ⑤ EC7890A1011	R7847A1025	208	50/60	30	0.8	Fungus-Proof	
1876	RA890F1304	⑤ EC7890A1011	R7847A1025	220	50	15	0.8	Spdt	
1884	None	⑤ EC7890A1011	R7847A1025	240	50/60	30	0.8	Spdt	
1892	None			100	50/60	15	0.8	Special for Yamatake (Japan)	
1900	None	① ⑤ EC7890A1011	R7847A1025	200	50/60	15	0.8	Special for Yamatake (Japan)	
1918	RA890F1270	④ RM7890A1015	R7847A1025	120	50/60	15	0.8		
1926	RA890F1288	④ RM7890A1015	R7847A1033	120	50/60	15	2-4		
1934	RA890F1270	④ RM7890A1015	R7847A1025	120	50/60	15	0.8	Spdt	
1942	RA890F1288	④ RM7890A1015	R7847A1033	120	50/60	15	2-4	Spdt	
1959	None			100	50/60	15	2-4	Spdt	Special for Yamatake (Japan)
1967	None	⑤ EC7890A1011	R7847A1033	220	50	30	2-4		
1975	None	① ⑤ EC7890A1011	R7847A1033	208	60	15	2-4	Spdt	

FOOTNOTES:

- ① EC7890 operating voltage is 187 Vac to 264 Vac 50/60 Hz
- ② Suggested Replacement Device has a 10 Second Safety Switch Time
- ③ Select Wiring Subbase
 - Q7800A1005 for Panel Mounting - Wiring conversion required
 - Q7800B1003 for Burner/Wall Mounting - Wiring conversion required
 - Q7800F1004 - Mounts to existing wiring subbase
- ④ Alternate Replacement RM7890B1014. RM7890B has a shutter output terminal.
- ⑤ Alternate Replacement EC7890B1010. EC7890B has a shutter output terminal. A 240 to 120 10va minimum transformer will be needed if detector system changed to shutter type detector.
- ⑥ For Sensor Leadwire runs greater than 50feet select appropriate amplifier.
 - R7847A1075 for 0.8 Flame Failure Response
 - R7847A1082 for 3.0 Flame Failure Response
- ⑦ 7800 Series has only a line voltage output alarm.
- ⑧ RM7890A1056 or RM7890B1048 can also replace the RM7890A1015. A jumper between terminals 3 and 20 will need to be added.

TABLE 3—RA890F CROSS REFERENCE

Device to be Replaced RA890F	Replacement			Function of Device to be replaced						Comments
	Current RA890F	7800 Series (2) (3) (3)	Amplifier (6)	Voltage (Vac)	Frequency (Hz)	Safety Switch Timing (Secs)	FFRT (sec)	Alarm Contacts (7)		
1007	RA890F1338	RM7890A1031	R7847A1025	120	50/60	30	0.8			
1015	RA890F1346	RM7890A1031	R7847A1033	120	50/60	30	3			
1023	RA890F1270	(4) RM7890A1015	R7847A1025	120	50/60	15	0.8			
1031	RA890F1288	(4) RM7890A1015	R7847A1033	120	50/60	15	3			
1049	RA890F1270	(4) RM7890A1015	R7847A1025	120	50/60	15	0.8	Spdt		
1056	RA890F1288	(4) RM7890A1015	R7847A1033	120	50/60	15	3	Spdt		
1064	RA890F1270	(4) RM7890A1015	R7847A1025	120	50/60	15	0.8	Spdt		
1072	RA890F1288	(4) RM7890A1015	R7847A1033	120	50/60	15	3	Spdt		
1080	RA890F1296	(1) (5) EC7890A1011	R7847A1033	208	50/60	15	3	Spdt		
1098	RA890F1304	(5) EC7890A1011	R7847A1025	220	50/60	15	0.8	Spdt		
1106	NONE	(5) EC7890A1011	R7847A1025	240	50/60	15	0.8			
1114	RA890F1387	(5) EC7890A1011	R7847A1033	240	50/60	15	3			
1122	RA890F1338	RM7890A1031	R7847A1025	120	50/60	30	0.8	Spdt		
1130	RA890F1346	RM7890A1031	R7847A1033	120	50/60	30	3	Spdt		
1148	NONE	(5) EC7890A1011	R7847A1025	240	50/60	30	0.8	Spdt		
1155	NONE	(5) EC7890A1011	R7847A1033	240	50/60	30	3	Spdt		
1163	NONE	(5) EC7890A1011	R7847A1025	240	50/60	15	0.8	Spdt		
1171	RA890F1387	(5) EC7890A1011	R7847A1033	240	50/60	15	3	Spdt		
1189	NONE	(5) EC7890A1011	R7847A1025	240	50/60	30	0.8	Spdt		
1197	NONE	(5) EC7890A1011	R7847A1033	240	50/60	30	3	Spdt		
1205	NONE	NONE		100	50/60	15	3	Spdt	Special for Yamatake (Japan)	
1213	NONE	(5) EC7890A1011	R7847A1033	220	50/60	15	3	Spdt		
1221	RA890F1387	(5) EC7890A1011	R7847A1033	240	50/60	15	3	Spdt		
1239	RA890F1338	RM7890A1031	R7847A1025	120	50/60	30	0.8			
1247	RA890F1346	RM7890A1031	R7847A1033	120	50/60	30	3			
1254	RA890F1270	(4) RM7890A1015	R7847A1025	120	50/60	15	0.8			
1262	RA890F1288	(4) RM7890A1015	R7847A1033	120	50/60	15	3			
1270	RA890F1270	(4) RM7890A1015	R7847A1025	120	50/60	15	0.8	Spdt		
1288	RA890F1288	(4) RM7890A1015	R7847A1033	120	50/60	15	3	Spdt		
1296	RA890F1296	(1) (5) EC7890A1011	R7847A1033	208	50/60	15	3	Spdt		
1304	RA890F1304	(5) EC7890A1011	R7847A1025	220	50/60	15	0.8	Spdt		
1312	NONE	(5) EC7890A1011	R7847A1025	240	50/60	15	0.8			
1320	RA890F1387	(5) EC7890A1011	R7847A1033	240	50/60	15	3			
1338	RA890F1338	RM7890A1031	R7847A1025	120	50/60	30	0.8	Spdt		
1346	RA890F1346	RM7890A1031	R7847A1033	120	50/60	30	3	Spdt		
1353	NONE	(5) EC7890A1011	R7847A1025	240	50/60	30	0.8	Spdt		

TABLE 3—RA890F CROSS REFERENCE (continued)

Device to be Replaced RA890F	Replacement			Function of Device to be replaced					Comments
	Current RA890F	7800 Series (2) (3) (6)	Amplifier (6)	Voltage (Vac)	Frequency (Hz)	Safety Switch Timing (Secs)	FFRT (sec)	Alarm Contacts (7)	
1361	NONE	(5) EC7890A1011	R7847A1033	240	50/60	30	3	Spdt	
1379	NONE	(5) EC7890A1011	R7847A1025	240	50/60	15	0.8	Spdt	
1387	RA890F1387	(5) EC7890A1011	R7847A1033	240	50/60	15	3	Spdt	
1395	NONE	(5) EC7890A1011	R7847A1025	240	50/60	30	0.8		
1403	NONE	(5) EC7890A1011	R7847A1033	240	50/60	30	3		
1411	NONE	NONE		100	50/60	15	3	Spdt	Special for Yamatake (Japan)
1429	NONE	(5) EC7890A1011	R7847A1033	220	50/60	15	3	Spdt	
1437	RA890F1270	(4) RM7890A1015	R7847A1025	120	50/60	15	0.8	Spdt	
1445	RA890F1387	(5) EC7890A1011	R7847A1033	240	50/60	15	3	Spdt	
1452	NONE	(1) (5) EC7890A1011	R7847A1025	208	50/60	15	0.8	Spdt	
1460	NONE	NONE		100	50/60	15	0.8	Spdt	
1478	RA890F1478	(4) RM7890A1015	R7847A1025	120	50/60	15	0.8	Spdt	Fast Response Safe Start Check
1486	RA890F1338	RM7890A1031	R7847A1025	120	50/60	30	0.8		
1494	RA890F1346	RM7890A1031	R7847A1033	120	50/60	30	3		
1502	RA890F1270	(4) RM7890A1015	R7847A1025	120	50/60	15	0.8		
1510	RA890F1288	(4) RM7890A1015	R7847A1033	120	50/60	15	3		
1528	RA890F1270	(4) RM7890A1015	R7847A1025	120	50/60	15	0.8	Spdt	
1536	NONE	(5) EC7890A1011	R7847A1025	240	50/60	15	0.8		
1544	RA890F1387	(5) EC7890A1011	R7847A1033	240	50/60	15	3		
1551	RA890F1338	RM7890A1031	R7847A1025	120	50/60	30	0.8	Spdt	
1569	RA890F1346	RM7890A1031	R7847A1033	120	50/60	30	3	Spdt	
1577	NONE	(5) EC7890A1011	R7847A1025	240	50/60	30	0.8	Spdt	
1585	NONE	(5) EC7890A1011	R7847A1033	240	50/60	30	3	Spdt	
1593	NONE	(5) EC7890A1011	R7847A1025	240	50/60	15	0.8	Spdt	
1601	NONE	(5) EC7890A1011	R7847A1025	240	50/60	30	0.8		
1619	NONE	(5) EC7890A1011	R7847A1033	240	50/60	30	3		
1627	RA890F1478	(4) RM7890A1015	R7847A1025	120	50/60	15	0.8		Fast Response Safe Start Check
1635	NONE	(4) RM7890A1015	R7847A1025	120	50/60	15	0.8	Spdt	Tamper Resistant Relay Cover
1643	NONE	(4) RM7890A1015	R7847A1033	120	50/60	15	3		Tamper Resistant Relay Cover
1650	NONE	(5) EC7890A1011	R7847A1025	220	50/60	15	0.8	Spdt	15 second Delayed Pull in
1668	NONE	(5) EC7890A1011	R7847A1025	220	50/60	10	0.8	Spdt	
1676	NONE	(4) RM7890A1015	R7847A1025	120	50/60	15	0.8	Spdt	Approved -40F (-40C)
1684	NONE	(4) RM7890A1015	R7847A1025	120	50/60	10	0.8	Spdt	
1692	RA890F1692	(5) EC7890A1011	R7847A1025	220	50/60	15	0.8	Spdt	Honeywell - Mexico Only
1700	RA890F1700	RM7890A1031	R7847A1025	120	50/60	30	0.8	Spdt	Honeywell - Mexico Only
1718	RA890F1718	RM7890A1031	R7847A1033	120	50/60	30	3	Spdt	Honeywell - Mexico Only

TABLE 3—RA890F CROSS REFERENCE (continued)

Device to be Replaced RA890F	Replacement		Function of Device to be replaced					Comments	
	Current RA890F	7800 Series ② ③ ⑥	Amplifier ④	Voltage (Vac)	Frequency (Hz)	Safety Switch Timing (Secs)	FFRT (sec)		Alarm Contacts ⑦
1726	RA890F1726	⑤ EC7890A1011	R7847A1033	240	50/60	30	3	Spdt	Honeywell - Mexico Only
1734	Consult Original Equipment Manufacturer			120	50/60	15	3	Spdt	Special for North American Manufacturing

FOOTNOTES:

- ① EC7890 operating voltage is 187 Vac to 264 Vac 50/60 Hz
- ② Suggested Replacement Device has a 10 Second Safety Switch Time
- ③ Select Wiring Subbase
 - Q7800A1005 for Panel Mounting - Wiring conversion required
 - Q7800B1003 for Burner/Wall Mounting - Wiring conversion required
 - Q7800F1004 - Mounts to existing wiring subbase
- ④ Alternate Replacement RM7890B1014. RM7890B has a shutter output terminal.
- ⑤ Alternate Replacement EC7890B1010. EC7890B has a shutter output terminal. A 240 to 120 10va minimum transformer will be needed if detector system changed to shutter type detector.
- ⑥ For Sensor Leadwire runs greater than 50feet select appropriate amplifier.
 - R7847A1075 for 0.8 Flame Failure Response
 - R7847A1082 for 3.0 Flame Failure Response
- ⑦ 7800 Series has only a line voltage output alarm.
- ⑧ RM7890A1056 or RM7890B1048 can replace the RM7890A1015. Terminals 3 and 20 will need to be jumped.

TABLE 4—RA890G CROSS REFERENCE

Device to be Replaced RA890G	Replacement			Function of Device to be replaced					Comments
	Current RA890G	7800 Series ② ③ ④ ⑤ ⑦	Amplifier	Voltage (Vac)	Frequency (Hz)	Safety Switch Timing (Secs)	FFRT (sec)	Alarm Contacts ④	
1005	RA890G1229	④ RM7890A1015	R7849A1015	120	50/60	15	0.8		
1013	RA890G1229	④ RM7890A1015	R7849A1015	120	50/60	15	0.8	Spdt	
1021	None	⑤ EC7890A1011	R7849A1015	240	50/60	15	0.8		
1039	RA890G1245	⑤ EC7890A1011	R7849A1015	220	50/60	15	0.8	Spdt	
1047	RA890G1260	④ RM7890A1015	R7849A1023	120	50/60	15	3		
1054	RA890G1260	④ RM7890A1015	R7849A1023	120	50/60	15	3	Spdt	
1062	None	① ⑤ EC7890A1011	R7849A1023	208	50/60	15	3	Spdt	
1070	RA890G1229	④ RM7890A1015	R7849A1015	120	50/60	15	0.8		
1088	RA890G1229	④ RM7890A1015	R7849A1015	120	50/60	15	0.8	Spdt	
1096	None	⑤ EC7890A1011	R7849A1015	240	50/60	15	0.8		
1104	RA890G1245	⑤ EC7890A1011	R7849A1015	220	50/60	15	0.8	Spdt	
1112	RA890G1260	④ RM7890A1015	R7849A1023	120	50/60	15	3		
1120	RA890G1260	④ RM7890A1015	R7849A1023	120	50/60	15	3	Spdt	
1138	None	① ⑤ EC7890A1011	R7849A1023	208	50/60	15	3	Spdt	
1146	RA890G1286	⑤ EC7890A1011	R7849A1023	240	50/60	15	3	Spdt	
1153	RA890G1229	④ RM7890A1015	R7849A1015	120	50/60	15	0.8		
1161	RA890G1229	④ RM7890A1015	R7849A1015	120	50/60	15	0.8	Spdt	
1179	RA890G1260	④ RM7890A1015	R7849A1023	120	50/60	15	3		
1187	RA890G1260	④ RM7890A1015	R7849A1023	120	50/60	15	3	Spdt	
1195	None	⑤ EC7890A1011	R7849A1015	240	50/60	15	0.8	Spdt	
1203	RA890G1302	⑤ EC7890A1011	R7849A1023	220	50/60	15	3	Spdt	
1211	None	④ RM7890A1015	R7849A1015	120	50/60	15	0.8		
1229	RA890G1229	④ RM7890A1015	R7849A1015	120	50/60	15	0.8	Spdt	
1237	None	⑤ EC7890A1011	R7849A1015	240	50/60	15	0.8		
1245	RA890G1245	⑤ EC7890A1011	R7849A1015	220	50/60	15	0.8	Spdt	
1252	None	④ RM7890A1015	R7849A1023	120	50/60	15	3		
1260	RA890G1260	④ RM7890A1015	R7849A1023	120	50/60	15	3	Spdt	
1278	None	① ⑤ EC7890A1011	R7849A1023	208	50/60	15	3	Spdt	
1286	RA890G1286	⑤ EC7890A1011	R7849A1023	240	50/60	15	3	Spdt	
1294	None	⑤ EC7890A1011	R7849A1015	240	50/60	15	0.8	Spdt	
1302	RA890G1302	⑤ EC7890A1011	R7849A1023	220	50/60	15	3	Spdt	

TABLE 4—RA890G CROSS REFERENCE (continued)

Device to be Replaced RA890G	Replacement		Function of Device to be replaced					Comments	
	Current RA890G	7800 Series ② ③ ④ ⑤ ⑦	Amplifier	Voltage (Vac)	Frequency (Hz)	Safety Switch Timing (Secs)	FFRT (sec)		Alarm Contacts ⑥
1310	None	④ RM7890A1015	R7849A1015	120	50/60	15	0.8	Spdt	Approved for -40F (-40C)
1328	RA890G1328	④ RM7890A1015	R7849A1015	120	50/60	15	0.8	Spdt	Honeywell - Mexico Only
1336	RA890G1336	④ RM7890A1015	R7849A1023	120	50/60	15	3	Spdt	Honeywell - Mexico Only
1344	RA890G1344	Consult Original Equipment Manufacturer		120	50/60	15	3	Spdt	Special for North American Manufacturing

FOOTNOTES:

- ① EC7890 operating voltage is 187 Vac to 264 Vac 50/60 Hz
- ② Suggested Replacement Device has a 10 Second Safety Switch Time
- ③ Select Wiring Subbase
 - Q7800A1005 for Panel Mounting - Wiring conversion required
 - Q7800B1003 for Burner/Wall Mounting - Wiring conversion required
 - Q7800F1004 - Mounts to existing wiring subbase
- ④ Alternate Replacement RM7890B1014. RM7890B has a shutter output terminal.
- ⑤ Alternate Replacement EC7890B1010. EC7890B has a shutter output terminal. A 240 to 120 10va minimum transformer will be needed if detector system changed to shutter type detector.
- ⑥ 7800 Series has only a line voltage output alarm.
- ⑦ RM7890A1056 or RM7890B1048 can replace RM789A1015. A jumper between terminals 3 and 20 will need to be added.

TABLE 5—RA890H,J,K DYNAMIC SELF-CHECK CROSS REFERENCE

Device to be Replaced	Replacement		Function of Device to be replaced					Comments	
	Current RA890	7800 Series ② ③	Amplifier ⑥	Voltage (Vac)	Frequency (Hz)	Safety Switch Timing (Secs)	FFRT (sec)		Alarm Contacts ⑦
RA890H	For Intermittent Pilot Applications with Ampli-Check								
1003	None	④ RM7890A1015	R7847B1031	120	50/60	15	2.5	Spst	Tamper Reistant Relay Cover
1011	None	① ⑤ EC7890A1011	R7847B1031	208	50/60	15	2.5	Spst	Tamper Reistant Relay Cover
1029	None	⑤ EC7890A1011	R7847B1031	240	50/60	15	2.5	Spst	Tamper Reistant Relay Cover
1037	None	None		100	50/60	15	2.5	Spst	Tamper Reistant Relay Cover
1045	None	⑤ EC7890A1011	R7847B1031	220	50/60	15	2.5	Spst	Tamper Reistant Relay Cover
1052	None	④ RM7890A1015	R7847B1031	120	50/60	15	2.5	Spst	Tamper Reistant Relay Cover
RA890J	For Standing Pilot Applications with Ampli-Check								
1008	None	④ RM7890C1005	R7847B1031	120	50/60	15	2.5	Spst	Tamper Reistant Relay Cover
1016	None	④ RM7890C1005	R7847B1031	120	50/60	15	2.5	Spst	Tamper Reistant Relay Cover
1024	None	None		208	50/60	15	2.5	Spst	Tamper Reistant Relay Cover
1032	None	None		240	50/60	15	2.5	Spst	Tamper Reistant Relay Cover
RA890K	Same as RA890H but without Safe Start Check								
1006	None	None		120	50/60	15	2.5	Spst	Tamper Reistant Relay Cover
1024	None	None		208	50/60	15	2.5	Spst	Tamper Reistant Relay Cover
1032	None	None		240	50/60	15	2.5	Spst	Tamper Reistant Relay Cover

FOOTNOTES:

- ① EC7890 operating voltage is 187 Vac to 264 Vac 50/60 Hz
- ② Suggested Replacement Device has a 10 Second Safety Switch Time
- ③ Select Wiring Subbase
 - Q7800A1005 for Panel Mounting - Wiring conversion required
 - Q7800B1003 for Burner/Wall Mounting - Wiring conversion required
 - Q7800F1004 - Mounts to existing wiring subbase
- ④ Alternate Replacement RM7890B1014. RM7890B has a shutter output terminal.
- ⑤ Alternate Replacement EC7890B1010. EC7890B has a shutter output terminal. A 240 to 120 10va minimum transformer will be needed if detector system changed to shutter type detector.
- ⑥ For Sensor Leadwire runs greater than 50feet select appropriate amplifier. R7847B1072 for 3.0 Flame Failure Response
- ⑦ 7800 Series has only a line voltage output alarm.

TABLE 6—R485 PRIMARY RELAY CROSS REFERENCE

Device to be Replaced	Replacement		Function of Device to be replaced					Comments	
	7800 Series ④	Amplifier	Wiring Sub-base	Voltage (Vac)	Frequency (Hz)	Solid State	FFRT (sec)		Flame Detector Type
R485A1001	RM7885A1015	R7847A1033	② Q7800B1003	120	50/60	No	2-4	Flame Rod, Rectifying Photocell, C7012A, C ③	Mounted on Q270A Base
R485A1019	EC7885A1011	R7847A1033	② Q7800B1003	240	50/60	No	2-4	Flame Rod, Rectifying Photocell, C7012A, C ③	Mounted on Q270A Base
R485A1027	① EC7885A1011	R7847A1033	② Q7800B1003	208	50/60	No	2-4	Flame Rod, Rectifying Photocell, C7012A, C ③	Mounted on Q270A Base
R485A1035	RM7885A1015	R7847A1033	② Q7800B1003	120	50	No	2-4	Flame Rod, Rectifying Photocell, C7012A, C ③	International Model
R485A1043	RM7885A1015	R7847A1025	② Q7800B1003	120	50/60	No	0.8	Flame Rod, Rectifying Photocell ③	International Model
R485A1050	EC7885A1011	R7847A1025	② Q7800B1003	240	50	No	0.8	Flame Rod, Rectifying Photocell ③	International Model
R485A1068	RM7885A1015	R7847A1033	② Q7800B1003	120	60	No	2-4	Flame Rod, Rectifying Photocell, C7012A, C ③	Fungus Proof
R485A1076	EC7885A1011	R7847A1033	② Q7800B1003	240	50/60	No	2-4	Flame Rod, Rectifying Photocell, C7012A, C ③	Fungus Proof
R485B1000	RM7885A1015	R7847A1033	② Q7800B1003	120	50/60	Yes	3.0	Flame Rod, Rectifying Photocell, C7012A, C ③	Mounted on Q270A Base
R485B1018	EC7885A1011	R7847A1033	② Q7800B1003	240	50/60	Yes	3.0	Flame Rod, Rectifying Photocell, C7012A, C ③	Mounted on Q270A Base
R485B1026	① EC7885A1011	R7847A1033	② Q7800B1003	208	50/60	Yes	3.0	Flame Rod, Rectifying Photocell, C7012A, C ③	Mounted on Q270A Base
R485B1034	EC7885A1011	R7847A1025	② Q7800B1003	240	50/60	Yes	0.8	Flame Rod, Rectifying Photocell ③	Mounted on Q270A Base
R485B1042	RM7885A1015	R7847A1025	② Q7800B1003	120	50/60	Yes	0.8	Flame Rod, Rectifying Photocell ③	Mounted on Q270A Base
R485X1005	EC7885A1011	R7847A1033	② Q7800B1003	240	50	No	2-4	Flame Rod, Rectifying Photocell, C7012A, C ③	International Model
R485X1013	① EC7885A1011	R7847A1033	② Q7800B1003	208	50	No	2-4	Flame Rod, Rectifying Photocell, C7012A, C ③	International Model
R485X1021	EC7885A1011	R7847A1033	② Q7800B1003	220	50	No	2-4	Flame Rod, Rectifying Photocell, C7012A, C ③	International Model
R485X1039	RM7885A1015	R7847A1033	② Q7800B1003	120	50	No	2-4	Flame Rod, Rectifying Photocell, C7012A, C ③	International Model
R485X1047	EC7885A1011	R7847A1025	② Q7800B1003	220	50	No	0.8	Flame Rod, Rectifying Photocell ③	International Model
R485X1054	EC7885A1011	R7847A1033	② Q7800B1003	220	50/60	Yes	3.0	Flame Rod, Rectifying Photocell, C7012A, C ③	Mounted on Q270A Base
R485X1062	EC7885A1011	R7847A1025	② Q7800B1003	220	50/60	Yes	0.8	Flame Rod, Rectifying Photocell ③	Mounted on Q270A Base

FOOTNOTES:

- ① Replacement EC7885 operating voltage is 187 Vac to 264 Vac, 50/60Hz
- ② Use Q7800A1005 for Panel Mount Applications
- ③ If Rectifying Photocell needs replacement - see C7962 with appropriate R7851B amplifier
- ④ Suggested replacement is a semi-automatic functioning device. If R485 was operated automatically select a similar functioning RM/EC like a RM7890 for example.

TABLE 7—R4075 CROSS REFERENCE

Device to be Replaced	Replacement ④		Function of Device to be replaced							Comments		
	120 Vac 7800 Series	208/220/240 Vac ① 7800 Series	Amplifier	Wiring Sub-base	Voltage (Vac)	Frequency (Hz)	Solid State	FFRT (sec)	Terminal Monitor 2k Relay Voltage		Continuous Pilot Appl. Circuit Provided	Flame Detector Type
R4075A1009	RM7885A1015	① EC7885A1011	R7847A1033	② Q7800B1003	120/208/240	50/60	No	2-4	Yes	No	Flame Rod, Rectifying Photocell, ③ C7012A, C	With Q442A flush mount cabinet, with Q294 surface mount cabinet with Q295 Mounting Plate
R4075A1017	RM7885A1015	① EC7885A1011	R7847A1033	② Q7800B1003	120/208/240	50/60	No	2-4	Yes	No	Flame Rod, Rectifying Photocell, ③ C7012A, C	With Q442A flush mount cabinet, with Q294 surface mount cabinet with Q295 Mounting Plate
R4075A1025	RM7885A1015	① EC7885A1011	R7847A1025	② Q7800B1003	120/208/240	50/60	No	2-4	Yes	No	Flame Rod, Rectifying Photocell, ③ C7012A, C	With Q442A flush mount cabinet, with Q294 surface mount cabinet with Q295 Mounting Plate
R4075A1033	RM7885A1015	① EC7885A1011	R7847A1025	② Q7800B1003	120/208/240	50/60	No	2-4	Yes	No	Flame Rod, Rectifying Photocell, ③ C7012A, C	With Q442A flush mount cabinet, with Q294 surface mount cabinet with Q295 Mounting Plate
R4075A1041	RM7885A1015	① EC7885A1011	R7847A1033	② Q7800B1003	120/208/240	50	No	2-4	Yes	No	Flame Rod, Rectifying Photocell, ③ C7012A, C	With QirreA flush mount cabinet
R4075A1058	RM7885A1015	① EC7885A1011	R7847A1033	② Q7800B1003	120/208/240	50	No	2-4	Yes	No	Flame Rod, Rectifying Photocell, ③ C7012A, C	With QirreA flush mount cabinet
R4075B1007	RM7885A1015	① EC7885A1011	R7847A1033	② Q7800B1003	120/208/240	50/60	No	2-4	No	Yes	Flame Rod, Rectifying Photocell, ③ C7012A, C	
R4075B1015	RM7885A1015	① EC7885A1011	R7847A1033	② Q7800B1003	120/208/240	50/60	No	2-4	No	Yes	Flame Rod, Rectifying Photocell, ③ C7012A, C	
R4075B1023	RM7885A1015	① EC7885A1011	R7847A1033	② Q7800B1003	110/220	50	No	2-4	No	Yes	Flame Rod, Rectifying Photocell, ③ C7012A, C	
R4075B1031	RM7885A1015	① EC7885A1011	R7847A1025	② Q7800B1003	120/208/240	50/60	No	2-4	No	Yes	Flame Rod, Rectifying Photocell, ③ C7012A, C	
R4075B1049	RM7885A1015	① EC7885A1011	R7847A1025	② Q7800B1003	110/220	50	No	2-4	No	Yes	Flame Rod, Rectifying Photocell, ③ C7012A, C	

TABLE 7—R4075 CROSS REFERENCE (continued)

Device to be Replaced	Replacement ④		Function of Device to be replaced							Comments		
	120 Vac 7800 Series	208/220/240 Vac ① 7800 Series	Amplifier	Wiring Sub-base	Voltage (Vac)	Frequen- cy (Hz)	Solid State	FFRT (sec)	Terminal Monitor 2k Relay Voltage		Continuous Pilot Appl. Circuit Provided	Flame Detector Type
R4075B1056	RM7885A1015		R7847A1033	② Q7800B1003	120	50/60	No	2-4	No	Yes	Flame Rod, Rectifying Photocell, ③ C7012A, C	
R4075C1005	RM7885A1015		Select Proper Amplifier	② Q7800B1003	120	50/60	Yes	See Amp	No	Yes	Flame Rod, Rectifying Photocell, ③ C7012	
R4075C1013		① EC7885A1011	Select Proper Amplifier	② Q7800B1003	208	50/60	Yes	See Amp	No	Yes	Flame Rod, Rectifying Photocell, ③ C7012	
R4075C1021		① EC7885A1011	Select Proper Amplifier	② Q7800B1003	220	50	Yes	See Amp	No	Yes	Flame Rod, Rectifying Photocell, ③ C7012	
R4075C1039		① EC7885A1011	Select Proper Amplifier	② Q7800B1003	240	50/60	Yes	See Amp	No	Yes	Flame Rod, Rectifying Photocell, ③ C7012	
R4075D1003	RM7885A1015		Select Proper Amplifier	② Q7800B1003	120	50/60	Yes	See Amp	No	Yes	Flame Rod, Rectifying Photocell, ③ C7012	
R4075E1000	RM7885A1015		Select Proper Amplifier	② Q7800B1003	120	50/60	Yes	See Amp	No	Yes	Flame Rod, Rectifying Photocell, ③ C7012	Dual System device, will require 2 RM7885 systems.
R4075E1018		① EC7885A1011	Select Proper Amplifier	② Q7800B1003	220	50	Yes	See Amp	No	Yes	Flame Rod, Rectifying Photocell, ③ C7012	Dual System device, will require 2 EC7885 systems.

FOOTNOTES:

- ① Replacement EC7885 operating voltage is 198 Vac to 264 Vac, 50/60Hz
- ② Use Q7800A1005 for Panel Mount Applications
- ③ If Rectifying Photocell needs replacement - see C7962 with appropriate amplifier
- ④ Suggested replacement is a semi-automatic functioning device. If the R4075 was operated automatically select a similar functioning RM/EC like a RM7890 for example.

TABLE 8—HONEYWELL R4138 CROSS REFERENCE

Device to be Replaced	Replacement			Function of Device to be replaced					Comments
	Functional 7800 Series ① ③ ④	Purge Timer ⑤	Amplifier ⑥	Voltage (Vac)	Frequency (Hz)	Safety Switch Timing (Secs)	Purge Timing	Amplifier	
R4138A1004	② RM7838A1014	Selectable	Selectable	120/208/240	50/60	15	Selectable	Flame Rod or C7012E, F	
R4138A10012	② RM7838A1014	Selectable	Selectable	120/208/240	50/60	15	Selectable	Flame Rod or C7012E, F	
R4138A1020	RM7838A1014	Selectable	Selectable	120	50/60	15	Selectable	Flame Rod or C7012E, F	
R4138A1038	RM7838A1014	Selectable	Selectable	120	50/60	15	Selectable	Flame Rod or C7012E, F	
R4138B1002	② ⑦ RM7838A1014	Selectable	Selectable	120/208/240	50/60	15	Selectable	Flame Rod or C7012E, F	Yes
R4138B1010	② ⑦ RM7838A1014	Selectable	Selectable	120/208/240	50/60	30	Selectable	Flame Rod or C7012E, F	Yes
R4138B1028	RM7838A1014 ⑦	Selectable	Selectable	120	50/60	15	Selectable	Flame Rod or C7012E, F	Yes
R4138C1000	None	Selectable	Selectable	100	50/60	15	Selectable	Selectable	Neon Lights; Never Produced
R4138C1018	RM7838A1014 ⑥	Selectable	Selectable	120	50/60	15	Selectable	Selectable	Incandescent Lights
R4138C1026	⑥ ⑧	Selectable	Selectable	240	50/60	15	Selectable	Selectable	Incandescent Lights
R4138C1034	⑥ ⑧	Selectable	Selectable	220	50	15	Selectable	Selectable	Incandescent Lights
R4138D1008	None	Selectable	Selectable	120	50/60	15	Selectable	Selectable	Neon Lights; Never Produced
R4138D1016	RM7838A1014 ⑥ ⑦	Selectable	Selectable	120	50/60	15	Selectable	Selectable	Incandescent Lights
R4138X1001	② RM7838A1014	Selectable	Selectable	120/200/230	50	15	Selectable	Flame Rod or C7012E, F	

Footnotes for TABLE 8—HONEYWELL R4138 CROSS REFERENCE

- ① Suggested Replacement is a Semi-Automatic functioning device. If R4138 was operated automatically select a similar functioning RM like a RM7895 for example.
- ② Replacement Device for 120 Vac 50/60 Hz Applications Only - Recontrol if voltage option NOT 120 Vac
- ③ Suggested Replacement Device has a 10 Second Safety Switch Time
- ④ Select Wiring Subbase
Q7800A1005 for Panel Mounting - Wiring conversion required
Q7800B1003 for Burner/Wall Mounting - Wiring conversion required
- ⑤ Purge Timer Options - Check timing of installed S427 and select appropriate Purge Timer. NOTE: A purge timer MUST be installed in replacement Relay Module

Timing	ST7800	Timing	ST7800
2 seconds	A1005	2.5 Minute	A1070
7 seconds	A1013	4 Minute	A1088
10 seconds	A1021	6 Minute	A1096
30 seconds	A1039	9 Minute	A1104
40 seconds	A1047	12 Minute	A1112
60 seconds	A1054	15 Minute	A1120
90 seconds	A1062	22 Minute	A1138
		30 Minute	A1146

⑥ Amplifier Options

Rectification	Standard	>50 feet lead-wire run	Ampli-check	>50 feet lead-wire run
0.8 sec. FFRT	R7847A1025	R7847A1075	R7847B1023	R7847B1064
3 sec. FFRT	R7847A1033	R7847A1082	R7847B1031	R7847B1072
UV				
0.8 sec. FFRT	R7849A1015		R7849B1013	
3 sec. FFRT	R7849A1023		R7849B1021	
Dynamic Self-Check for Detector				
C7012E, F	R7847C1005			
C7061A, F	R7861A1026	3 sec. FFRT		
	R7861A1034	0.8 sec. FFRT		
C7076A, D	R7886A1001			

- ⑦ Replacement RM7838 DOES NOT have provisions for 1 second Power Failure Override
- ⑧ Recontrol system to 120Vac.

TABLE 9—HONEYWELL R4795 CROSS REFERENCE

Device to be Replaced	Current (5) (6)	Replacement			Function of Device to be replaced						Comments
		7800 Series		Amplifier (6)	Voltage (Vac)	Fre- quency (Hz)	Safety Switch Timing (Secs)	Purge Tim- ing	Amplifier	Alarm Con- tacts	
		7800 Series (2) (3) (7) (8) (9)	Purge Timer (5)								
R4795A1008	R4795A1016	RM7895A1014	Selectable	Selectable	120	50/60	15	Selectable	Selectable		
R4795A1016	R4795A1016	RM7895A1014	Selectable	Selectable	120	50/60	15	Selectable	Selectable	Spdt	
R4795A1024	R4795A1016	RM7895A1014	ST7800A1039	R7847A1033	120	50/60	15	ST71A1018	R7289A1004		
R4795A1032	R4795A1016	RM7895A1014	ST7800A1039	R7847A1033	120	50/60	15	ST71A1018	R7289A1004	Spdt	
R4795A1040	None	EC7895A1010	Selectable	Selectable	220	50/60	15	Selectable	Selectable	Spdt	
R4795A1057	None	EC7895A1010	Selectable	Selectable	240	50/60	15	Selectable	Selectable	Spdt	
R4795A1065	R4795A1016	RM7895A1014	ST7800A1054	R7847A1033	120	50/60	15	ST71A1026	R7289A1004		
R4795A1073	R4795A1016	RM7895A1014	ST7800A1054	R7847A1033	120	50/60	15	Selectable	R7289A1004	Spdt	
R4795A1081	R4795A1016	RM7895A1014	Selectable	Selectable	120	60	15	Selectable	Selectable	Spdt	-40F (-40C) rated use with R7289A1020 (Rectifi- cation or R7290A1027 (UV) Amplifiers
R4795A1099	None	None			100	50/60	15	Selectable	Selectable	Spdt	
R4795A1107	None	(1) EC7895A1010	Selectable	Selectable	200	50/60	15	Selectable	Selectable	Spdt	
R4795C1004		RM7895A1014	Selectable	Selectable	120	50/60	15	ST71A1018	Selectable		Continuous Pilot Applications. Use Q267A sub- base
R4795D1002	None	RM7895A1014	Selectable	Selectable	120	50/60	15	Selectable	Selectable	Spdt	
R4795D1010	None	RM7895A1014	Selectable	Selectable	120	50/60	15	Selectable	Selectable		
R4795D1028	None	EC7895A1010	Selectable	Selectable	220	50/60	15	Selectable	Selectable	Spdt	
R4795D1036	None	EC7895A1010	Selectable	Selectable	240	50/60	15	Selectable	Selectable	Spdt	
R4795D1044	None	None			100	50/60	15	Selectable	Selectable	Spdt	
R4795D1051	None	RM7895A1014	Selectable	Selectable	120	60	15	Selectable	Selectable	Spdt	-40F (-40C) rated use with R7289A1020 (Rectifi- cation or R7290A1027 (UV) Amplifiers
R4795D1069	None	(1) EC7895A1010	Selectable	Selectable	200	50/60	15	Selectable	Selectable	Spdt	

Footnotes for TABLE 9—HONEYWELL R4795 CROSS REFERENCE

- ① EC7895 operating voltage is 187 Vac to 264 Vac 50/60 Hz
- ② Suggested Replacement Device has a 10 Second Safety Switch Time
- ③ Select Wiring Subbase
- ④ Q7800A1005 for Panel Mounting - Wiring conversion required
- ④ Q7800B1003 for Burner/Wall Mounting - Wiring conversion required
- ④ Q7800F1012 - Mounts to existing wiring subbase

⑤ Purge Timer Options

	R4795 w/ ST71	7800 Series w/ ST7800
7	A1000	A1013
10	A1042	A1021
30	A1018	A1039
60	A1026	A1054
90	A1034	A1062

⑥ Amplifier Options

	R4795 w/	7800 Series w/
Rectification		
0.8	R7289A1012	⑦ R7847A1025
3	R7289A1004	⑦ R7847A1033
3 rated for -40	R7289A1020	⑦ R7847A1033
UV		
0.8	R7290A1019	R7849A1015
3	R7290A1001	R7849A1023
3 rated for -40	R7290A1027	R7849A1023

⑦ For Sensor Leadwire runs greater than 50feet select appropriate amplifier.

- R7847A1075 for 0.8 Flame Failure Response
- R7847A1082 for 3.0 Flame Failure Response
- ⑧ Replacement Devices have only a line voltage output alarm.
- ⑨ RM7897A1002 can be used in place of RM7895A1014. A jumper between terminals 5 and 20 will need to be added.

TABLE 10—HONEYWELL R7023 CROSS REFERENCE

Device to be Replaced	Replacement		Function of Device to be replaced					Comments		
	7800 Series	Amplifier	Wiring Subbase	Voltage (Vac)	Frequency (Hz)	Relay Switching	Solid State		FFRT (sec)	Flame Detector Type
R7023A1005	RM7823A1016	R7847A1033	② Q7800B1003	120	50/60	(2)spdt	no	2-4	Flame rod, rectifying photocell, C7012A, C	International Model
R7023A1013	① EC7823A1004	R7847A1033	② Q7800B1003	208	50/60	(2)spdt	no	2-4	Flame rod, rectifying photocell, C7012A, C	
R7023A1021	EC7823A1004	R7847A1033	② Q7800B1003	220	50	(2)spdt	no	2-4	Flame rod, rectifying photocell, C7012A, C	
R7023A1039	EC7823A1004	R7847A1033	② Q7800B1003	240	50/60	(2)spdt	no	2-4	Flame rod, rectifying photocell, C7012A, C	
R7023A1047	RM7823A1016	R7847A1025	② Q7800B1003	120	50/60	(2)spdt	no	0.8	Flame rod, rectifying photocell	
R7023A1054	① EC7823A1004	R7847A1025	② Q7800B1003	208	50/60	(2)spdt	no	0.8	Flame rod, rectifying photocell	
R7023A1062	EC7823A1004	R7847A1025	② Q7800B1003	220	50	(2)spdt	no	0.8	Flame rod, rectifying photocell	
R7023A1070	EC7823A1004	R7847A1025	② Q7800B1003	240	50/60	(2)spdt	no	0.8	Flame rod, rectifying photocell	International Model
R7023B1003	RM7823A1016	R7847A1033	② Q7800B1003	120	50/60	(2)spdt	yes	3	Flame rod, rectifying photocell, C7012A, C	
R7023B1011	EC7823A1004	R7847A1033	② Q7800B1003	240	50/60	(2)spdt	yes	3	Flame rod, rectifying photocell, C7012A, C	
R7023B1029	① EC7823A1004	R7847A1033	② Q7800B1003	208	50/60	(2)spdt	yes	3	Flame rod, rectifying photocell, C7012A, C	
R7023B1037	EC7823A1004	R7847A1025	② Q7800B1003	240	50/60	(2)spdt	yes	0.8	Flame rod, rectifying photocell	
R7023B1045	RM7823A1016	R7847A1025	② Q7800B1003	120	50/60	(2)spdt	yes	0.8	Flame rod, rectifying photocell	
R7023B1052	EC7823A1004	R7847A1033	② Q7800B1003	220	50/60	(2)spdt	yes	3	Flame rod, rectifying photocell, C7012A, C	International Model
R7023B1060	EC7823A1004	R7847A1025	② Q7800B1003	220	50/60	(2)spdt	yes	0.8	Flame rod, rectifying photocell	International Model
R7023C1001	RM7823A1016	R7849A1023	② Q7800B1003	120	50/60	(1)spdt	yes	3	UV - C7027, C7035, C7044	International Model
R7023C1019	RM7823A1016	R7849A1015	② Q7800B1003	120	50/60	(1)spdt	yes	0.8	UV - C7027, C7035, C7044	
R7023C1027	EC7823A1004	R7849A1015	② Q7800B1003	220	50/60	(1)spdt	yes	0.8	UV - C7027, C7035, C7044	International Model
R7023C1035	EC7823A1004	R7849A1023	② Q7800B1003	220	50/60	(1)spdt	yes	3	UV - C7027, C7035, C7044	International Model
R7023C1043	EC7823A1004	R7849A1023	② Q7800B1003	240	50/60	(1)spdt	yes	3	UV - C7027, C7035, C7044	
R7023C1050	EC7823A1004	R7849A1015	② Q7800B1003	240	50/60	(1)spdt	yes	0.8	UV - C7027, C7035, C7044	
R7023C1068	RM7823A1016	R7849A1023	② Q7800B1003	120	60	(1)spdt	yes	3	UV - C7027, C7035, C7044	-40F (-40C) Rated

TABLE 10—HONEYWELL R7023 CROSS REFERENCE (continued)

Device to be Replaced	Replacement		Function of Device to be replaced						Comments	
	7800 Series	Amplifier	Wiring Subbase	Voltage (Vac)	Frequency (Hz)	Relay Switching	Solid State	FFRT (sec)		Flame Detector Type ③ ④
R7023X1002	None			120	25	(2)spdt	no	2-4	Flame rod, rectifying photocell	-40F (-40C) Rated
R7023X1010	None			240	25	(2)spdt	no	2-4	Flame rod, rectifying photocell, C7012A, C	-40F (-40C) Rated
R7023X1028	EC7823A1004	R7847A1033	② Q7800B1003	220	50	(2)spdt	no	2-4	Flame rod, rectifying photocell, C7012A, C	International Model
R7023X1036	EC7823A1004	R7847A1025	② Q7800B1003	220	50	(2)spdt	no	0.8	Flame rod, rectifying photocell	International Model
R7023X1044	EC7823A1004	R7847A1033	② Q7800B1003	220	50/60	(2)spdt	yes	3	Flame rod, rectifying photocell, C7012A, C	International Model
R7023X1051	EC7823A1004	R7847A1025	② Q7800B1003	220	50/60	(2)spdt	yes	0.8	Flame rod, rectifying photocell	International Model
R7023X1069	EC7823A1004	R7847A1025	② Q7800B1003	220	50/60	(2)spdt	no	0.8	Flame rod, rectifying photocell	International Model - Fungus Proof
R7023X1077		R7847A1025	② Q7800B1003	100	50/60	(2)spdt	yes	0.8	Flame rod, rectifying photocell	International Model
R7023X1085	EC7823A1004	R7847A1025	② Q7800B1003	220	50/60	(2)spdt	yes	0.8	Flame rod, rectifying photocell	International Model - Fungus Proof
R7023X1093	EC7823A1004	R7849A1015	② Q7800B1003	220	50/60	(1)spdt	yes	0.8	UV - C7027, C7035, C7044	International Model

FOOTNOTES:

- ① EC7823 operating voltage is 187 Vac to 264 Vac 50/60 Hz
- ② Use Q7800A1005 for Panel Mount applications.
- ③ Replace rectifying Photocell with C7962B detector and appropriate R7851B Amplifier
- ④ Shutter type detectors can be used with the EC/RM7823 Flame Switches - Select appropriate amplifier.

TABLE 11—HONEYWELL R7795 CROSS-REFERENCE

Device to be Replaced	Current Replacement ^③	7800 Series Replacement ^{① ② ④ ⑥ ⑨}	FUNCTIONS OF DEVICE TO BE REPLACED											Comments			
			Prepurge Timing	Flame Detector Type ^②	FFRT	Air-Flow SW Check	Run/Test Switch	Safety Switch Timing (Sec) ^⑦	PFEP	INTM Pilot	INTR Pilot	MFEP	De-layed MV		Voltage (Vac)	Frequen- cy (Hz)	
R7795A1001	R7795A1001	RM7895A1014	selectable	UV	3				10	4, 10	X				120	50/60	
R7795A1019	Not Produced														120	50/60	
R7795A1027	Consult Original Equipment Manufacturer			UV	3				10	4, 10	X				120	50/60	Proprietary to Fulton Boiler
R7795B1009	R7795B1009	RM7895A1014	selectable	Rect	3				10	4, 10	X				120	50/60	
R7795B1017	^⑤ R7795B1009	^④ RM7895A1014	selectable	Rect	3				10	4, 10	X				120	50/60	With Remote Reset Cover
R7795B1025	Consult Original Equipment Manufacturer			Rect	3				10	4, 10	X				120	50/60	Proprietary to Fulton Boiler
R7795C1007	R7795C1007	RM7895C1012	selectable	UV	3		X		10	4, 10					120	50/60	
R7795C1015	Consult Original Equipment Manufacturer			UV	3		X		10	4, 10					120	50/60	Proprietary to Cleaver Brooks.
R7795D1005	R7795D1005	RM7895C1012	selectable	Rect	3		X		10	4, 10					120	50/60	
R7795E1002	None	RM7895B1013	selectable	UV	3	X			10	4, 10					120	50/60	
R7795F1000	None	RM7895B1013	selectable	Rect	3	X			10	4, 10					120	50/60	
R7795G1008	None	RM7895D1011	selectable	UV	3	X	X		10	4, 10					120	50/60	
R7795H1006	None	RM7895D1011	selectable	Rect	3	X	X		10	4, 10					120	50/60	

FOOTNOTES:

- ① Choose Wiring Subbase Q7800A1005 for Panel Mounting or Q7800B1003 for Burner or Wall Mounting
- ② Choose Flame Amplifier, R7847A1033 for Rectification or R7849A1023 for UV
- ③ Select proper ST795 for R7795 Replacement
- ④ Select proper ST7800 for 7800 Series Replacement
- ⑤ Order Reset Cover (part number 498365B) separately. (Cover obsolete)
- ⑥ Order S7820A1007 Reset Module separately.
- ⑦ Mechanical Lockout in 15 seconds
- ⑧ RM7897A1002 can be used in place of RM7895A1014. A jumper between terminals 5 and 20 will need to be added.
- ⑨ RM7897C1000 can be used in place of RM7895C1012. A jumper between terminals 5 and 20 will need to be added.

TABLE 12—7800 SERIES CROSS REFERENCE

Device to be Replaced	Current Replacement	Alternate Replacement	Flame Amplifier ①	Prepurge			Voltage (Vac)	Frequency (Hz)	Preignition	Run/ Test Switch	PFEP	INTR Pilot	MFEF	Delayed MV	Shutter Drive Output	Postpurge	Comments
				Prepurge Timing	Air-flow	Air-Flow Switch Check											
CR7890B1019	CR7890B1019					120	50/60			10	X						Integrated shutter SSUV detector with RM7890B1014 Function using a Brad Harrison type 3R9006A20A120 9 pin connector.
EC7823A1004	EC7823A1004		Selectable			230	50/60							X			Flame switch
EC7885A1003	EC7885A1011		Selectable			200	50/60			4, 10	X			X			Semi-Automatic combustion control - Special for Yamatake
EC7885A1011	EC7885A1011		Selectable			230	50/60			4, 10	X			X			Semi-Automatic combustion control
EC7885A1029	EC7885A1011		Selectable			230	50/60			4, 10	X			X			Semi-Automatic combustion control
EC7890A1003	None		Selectable			200	50/60			4, 10	X						Special for Yamatake
EC7890A1011	EC7890A1011	EC7890B1010	Selectable			230	50/60			4, 10	X						0.8 or 3.0 FFRT
EC7890A1029	EC7890A1029	EC7890B1028	Selectable			230	50/60			4, 10	X						1.0 or 2.0 FFRT
EC7890A1037	EC7890A1037		Selectable			230	50/60			4, 10	X			X			1.0 or 2.0 FFRT and Early Spark Termination
EC7890B1002	None		Selectable			200	50/60			4, 10	X			X			Special for Yamatake
EC7890B1010	EC7890B1010		Selectable			230	50/60			4, 10	X			X			0.8 or 3.0 FFRT
EC7890B1028	EC7890B1028		Selectable			230	50/60			4, 10	X			X			1.0 or 2.0 FFRT
EC7895A1002	None		Selectable	②	Proven	200	50/60			4, 10	X			X			Special for Yamatake
EC7895A1010	EC7895A1010		Selectable	②	Proven	230	50/60			4, 10	X			X			0.8 or 3.0 FFRT
EC7895A1028	None		Selectable	②	Proven	230	50/60			4, 10	X			X			1.0 or 2.0 FFRT
EC7895C1000	EC7895C1000		Selectable	②	Proven	230	50/60			4, 10	X			X			0.8 or 3.0 FFRT
EC7895C1018	Not Produced																
EC7895C1026	None		Selectable	②	Proven	230	50/60			4, 10	X			X			1.0 or 2.0 FFRT
RM7823A1008	RM7823A1016		Selectable			120	50							X			Flame switch
RM7823A1016	RM7823A1016		Selectable			120	50/60							X			Flame switch
RM7838A1006	RM7838A1014		Selectable	②		120	50			4, 10	X			X			Semi-automatic control, comes with S7800 Display
RM7838A1014	RM7838A1014		Selectable	②		120	50/60			4, 10	X			X			Semi-automatic control, comes with S7800 Display
RM7838B1005	RM7838B1013	RM7838B1021	Selectable	②	Proven	120	50	X		4, 10	X	X	10	X			Semi-Automatic Programmer control with S7800 Display Module, 4 wire modulation, LF/HF proving
RM7838B1013	RM7838B1013	RM7838B1021	Selectable	②	Proven	120	50/60	X		4, 10	X	X	10	X			Semi-Automatic Programmer control with S7800 Display Module, 4 wire modulation, LF/HF proving
RM7838B1021	RM7838B1021	RM7838B1021	Selectable	②	Proven	120	50/60	X		4, 10	X	X	10	X			Semi-Automatic Programmer control with Valve Proving Feature and Programmable Post Purge, comes with S7800A1142 Display Module, 4 wire modulation, LF/HF proving. With blink code fault messaging.
RM7838C1004	RM7838C1004	RM7838C1012	Selectable	③	Proven	120	50/60	X		4, 10	X	X	15	X			Semi-Automatic Programmer control with S7800 Display Module, 4 wire modulation, LF/HF proving. Alarm Sounds only on safety shutdown. Requires ST7800C Purge Timer.

TABLE 12-7800 SERIES CROSS REFERENCE (continued)

Device to be Replaced	Current Replacement	Alternate Replacement	Flame Amplifier ①	Purge		Voltage (Vac)	Preignition (Hz)	Preignition	Run/ test Switch	PFEP	INTM Pilot	INTR Pilot	MFEP	Delayed MV	Shutter Drive Output	Postpurge	Comments
				Purge Timing	Air-flow Switch Check												
RM7838C1012	RM7838C1012		Selectable	③ Selectable	Proven	120	50/60	X	X	4, 10	X	X	15		X		Semi-Automatic Programmer control with Valve Proving Feature and Programmable Post Purge, comes with S7800A1142 Display Module, 4 wire modulation, LF/HF proving, Alarm Sounds only on safety shutdown. Requires ST7800C Purge Timer. With blink code fault messaging
RM7838C1020	RM7838C1020		Selectable	③ Selectable	Proven	120	50/60	X	X	4, 10	X	X	5		X		Semi-Automatic Programmer control, comes with S7800A1001 Display Module, 4 wire modulation, LF/HF proving, Alarm Sounds only on safety shutdown. Requires ST7800C Purge Timer. With blink code fault messaging. Global Approval
RM7885A1007	RM7885A1015		Selectable			120	50			4, 10	X			X			Semi-Automatic combustion control
RM7885A1015	RM7885A1015		Selectable			120	50/60			4, 10	X			X			Semi-Automatic combustion control
RM7885A1023	None		Selectable			100	50/60			4, 10	X			X			Semi-Automatic combustion control - Special for Yamatake
RM7888A1001	RM7888A1019		Selectable			120	50			4				X			PLC Sequencing per North American Manufacturing specifications
RM7888A1019	RM7888A1019		Selectable			120	50/60			4				X			PLC Sequencing per North American Manufacturing specifications
RM7888A1027	RM7888A1027		Selectable			120	50/60			10				X			PLC Sequencing per North American Manufacturing specifications
RM7890A1007	RM7890A1015	RM7890A1056	Selectable			120	50			4, 10	X						
RM7890A1015	RM7890A1015	RM7890A1056	Selectable			120	50/60			4, 10	X						
RM7890A1031	RM7890A1031		Selectable			120	50/60			Fixed 30	X						
RM7890A1049	RM7890A1049		Selectable			100	50/60			4, 10	X						Special for Yamatake
RM7890A1056	RM7890A1056	RM7890B1048	Selectable			120	50/60	X	X	4, 10	X	X	X				With Valve Proving Feature and Pre Ignition Interlock Input. With blink code fault messaging
RM7890A1064	RM7890A1064		Selectable			120	50/60	X	X	4, 10	X	X	X				Full PFEP with Early Spark Termination
RM7890B1006	RM7890B1014	RM7890B1048	Selectable			120	50			4, 10	X			X			
RM7890B1014	RM7890B1014	RM7890B1048	Selectable			120	50/60			4, 10	X			X			
RM7890B1022	RM7890B1022		Selectable			100	50/60			4, 10	X			X			Special for Yamatake
RM7890B1030	RM7890B1030		Selectable			120	50/60			fixed 10	X			X			Alarm outputs moment reset pushed per North American Manufacturing specifications
RM7890B1048	RM7890B1048		Selectable			120	50/60	X	X	4, 10	X	X	X				With Valve Proving Feature and Pre Ignition Interlock Input. With blink code fault messaging
RM7890B1055	RM7890B1055		Selectable			120	50/60			4, 10	X			X			Global Approval
RM7890C1005	RM7890C1005		Selectable			120	50/60				X	X					for Standing Pilot Applications

TABLE 12—7800 SERIES CROSS REFERENCE (continued)

Device to be Replaced	Current Replacement	Alternate Replacement	Flame Amplifier ①	Prepurge		Voltage (Vac)	Frequency (Hz)	Preignition	Run/ Test Switch	PFEP	INTM Pilot	INTR Pilot	MFEP	Delayed MV	Shutter Drive Output	Postpurge	Comments
				Purge Timing	Air-flow Switch Check												
RM7890D1004	RM7890D1004		Selectable			120	50/60			15/30	X						for Infrared Heater Applications
RM7895A1006	RM7895A1014	RM7897A1002	Selectable	② Selectable	Proven	120	50			4, 10	X			X			
RM7895A1014	RM7895A1014	RM7897A1002	Selectable	② Selectable	Proven	120	50/60			4, 10	X			X			
RM7895A1022	Not Produced																
RM7895A1030	RM7895A1030		Selectable	② Selectable	Proven	120	50/60			Limited	X			X			Required Q7800A1013 sub-base. Special for Fulton.
RM7895A1048	RM7895A1048		Selectable	② Selectable	Proven	120	50/60			4, 10	X			X			Spark shuts off during PFEP if flame sensed
RM7895A1055	RM7895A1055		Selectable	② Selectable	Proven	100	50/60			4, 10	X			X			Special for Yamatake
RM7895A1063	RM7895A1063		Selectable	② Selectable	Proven	120	50/60			90	X			X			
RM7895B1005	RM7895B1013		Selectable	② Selectable	Proven	120	50			4, 10	X			X			
RM7895B1013	RM7895B1013		Selectable	② Selectable	Proven	120	50/60			4, 10	X			X			
RM7895C1004	RM7895C1012	RM7897C1000	Selectable	② Selectable	Proven	120	50		X	4, 10	X	X	10	X			
RM7895C1012	RM7895C1012	RM7897C1000	Selectable	② Selectable	Proven	120	50/60		X	4, 10	X	X	10	X			
RM7895C1020	RM7895C1020		Selectable	② Selectable	Proven	120	50/60		X	10	X	X	10	X			Special Early Spark Termination
RM7895C1038	Not Produced																
RM7895C1046	Not Produced																
RM7895C1053	RM7895C1053		Selectable	② Selectable	Proven	120	50/60		X	3.0 fixed		X	10	X			
RM7895D1003	RM7895D1011		Selectable	② Selectable	Proven	120	50		X	4, 10	X	X	10	X			
RM7895D1011	RM7895D1011		Selectable	② Selectable	Proven	120	50/60		X	4, 10	X	X	10	X			
RM7895E1002	RM7895E1002		Selectable	② Selectable	Proven	120	50/60			15, 30	X			X			for Infrared Heater Applications
RM7895E1010	RM7895E1010		Selectable	② Selectable	Proven	120	50/60			15, 30	X						AERCO Special
RM7895F1001	RM7895F1001		Selectable	② Selectable	Proven	120	50/60			15, 30	X						for Infrared Heater Applications
RM7896A1004	RM7896A1012	RM7897A1002	Selectable	② Selectable	Proven	120	50			4, 10	X		10	X	15		
RM7896A1012	RM7896A1012	RM7897A1002	Selectable	② Selectable	Proven	120	50/60			4, 10	X		10	X	15		
RM7896B1003	RM7896B1011		Selectable	② Selectable	Proven	120	50			4, 10	X		10	X	15		
RM7896B1011	RM7896B1011		Selectable	② Selectable	Proven	120	50/60			4, 10	X		10	X	15		
RM7896C1002	RM7896C1010	RM7897C1000	Selectable	② Selectable	Proven	120	50		X	4, 10	X	X	10	X	15		
RM7896C1010	RM7896C1010	RM7897C1000	Selectable	② Selectable	Proven	120	50/60		X	4, 10	X	X	10	X	15		
RM7896C1028	Not Produced																
RM7896C1036	RM7896C1036		Selectable	② Selectable	Proven	120	50/60		X	10	X	X	10	X	15		Special Early Spark Termination
RM7896D1001	RM7896D1019		Selectable	② Selectable	Proven	120	50		X	4, 10	X	X	10	X	15		
RM7896D1019	RM7896D1019		Selectable	② Selectable	Proven	120	50/60		X	4, 10	X	X	10	X	15		
RM7896D1027	RM7896D1027		Selectable	② Selectable	Proven	120	50/60		X	4, 10	X	X	10	X	60		With blink code Fault Messaging, Special for Burmah
RM7897A1002	RM7897A1002		Selectable	② Selectable	Proven	120	50/60	X	X	4, 10	X	X	10	X	Pro-grammed		With Pre Ignition Interlock Input and blink code Fault Messaging. Intermittent or Interrupted Pilot valve operation

TABLE 12—7800 SERIES CROSS REFERENCE (continued)

Device to be Replaced	Current Replacement	Alternate Replacement	Flame Amplifier ①	Prepurge		Voltage (Vac)	Frequency (Hz)	Preignition	Run/Test Switch	PFEP	INTM Pilot	INTR Pilot	MFEP	Delayed MV	Shutter Drive Output	Postpurge	Comments
				Prepurge Timing	Air-flow Air-flow Switch Check												
RM7897C1000	RM7897C1000		Selectable	② Selectable	Proven	120	50/60	X	X	4, 10	X	X	10	X	X	Pro-grammed	With Pre Ignition Interlock Input and blink code fault messaging. Intermit or Interrupted Pilot valve operation
RM7897C1018	RM7897C1018		Selectable	② Selectable	Proven	120	50/60		X	4, 10	X	X	4		X	Pro-grammed	With pre Ignition Interlock Input and blink code fault messaging. Intermit or Interrupted pilot valve operation
RM7897C1027	RM7897C1027		Selectable	② Selectable	Proven	120	50/60		X	4, 10	X	X	10		X	Pro-grammed	With pre Ignition Interlock Input and blink code fault messaging. Intermit or Interrupted pilot valve operation
RM7898A1002	RM7898A1002		Selectable	② Selectable	Proven	120	50/60	X	X	4, 10	X	X	10	X	X	Pro-grammed	With Valve Proving Feature, Pre Ignition Interlock Input and blink code fault messaging. Intermit or Interrupted Pilot valve operation
RM7898A1018	RM7898A1018		Selectable	② Selectable	Proven	120	50/60	X	X	4, 10	X	X	10	X	X	Pro-grammed	With Valve Proving Feature, Pre Ignition Interlock Input and blink code fault messaging. Intermit or Interrupted Pilot valve operation and Special Spark Shutoff feature.

FOOTNOTES:

① Amplifier Options

② Purge Timer Options

③ Purge Timer Options

Rectification	Standard	>50 feet leadwire run	Ampli-check	>50 feet leadwire run
0.8 sec. FFRT	R7847A1025	R7847A1075	R7847B1023	R7847B1064
3 sec. FFRT	R7847A1033	R7847A1082	R7847B1031	R7847B1072
UV				
0.8 sec. FFRT	R7849A1015		R7849B1013	
3 sec. FFRT	R7849A1023		R7849B1021	
Dynamic Self-Check for Detector				
C7012E, F	R7847C1005			
C7061A, F	R7861A1026	3 sec. FFRT		
C7076A, D	R7861A1034	0.8 sec. FFRT		
C7961E, F	R7886A1001			
	R7851C1008			
Optical C7927, C7962				
0.8 sec. FFRT	R7851B1018			
3 sec. FFRT	R7851B1000			

Timing	ST7800	Timing	ST7800
2 seconds	A1005	2.5 Minute	A1070
7 seconds	A1013	4 Minute	A1088
10 seconds	A1021	6 Minute	A1096
30 seconds	A1039	9 Minute	A1104
40 seconds	A1047	12 Minute	A1112
60 seconds	A1054	15 Minute	A1120
90 seconds	A1062	22 Minute	A1138
		30 Minute	A1146

Timing	ST7800	Timing	ST7800
2 seconds	C1003	14 Minute	C1078
20 seconds	C1011	16 Minute	C1086
4 Minute	C1029	18 Minute	C1094
6 Minute	C1037	20 Minute	C1102
8 Minute	C1045	22 Minute	C1110
10 Minute	C1052	24 Minute	C1128
12 Minute	C1060	30 Minute	C1135
		45 Minute	C1143

Note: ST7800C purge timers for use with RM7838C only.

TFM or UVM replacement

TFM and UVM series devices contained the Flame amplifier circuitry on the device. The M2, M3 and M5 models included plug in (MTXX) purge function. Note model for correct replacement.

TABLE 13—HONEYWELL CROSS-REFERENCE FOR FIREYE™ TFM AND UVM REPLACEMENT														
RM789X/R7120 Replacement														
Device to be Replaced	Voltage (Vac)	Frequency (Hz)	Flame Detector Type	FFRT (sec)	PFEF (sec)	Pilot Type (Int/tr)	Pre-purge Timing (Sec)	Comments	RM7895 Replacement ② ③	Enhanced RM789X Replacement ② ③	R7120 Replacement ③ ④	Purge Timer	Amplifier	RM789X/R7120 Comments
TFM1D discontinued in 1999	120	50/60	Rectification	0.8	10	Int		Relight	RM7895A1014	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1005	R7847A1025	
TFM1F discontinued in 1999	120	50/60	Rectification	4	10	Int		Relight	RM7895A1014	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1005	R7847A1033	
TFM-2A7	120	50/60	Rectification	2-4	12	Int	7		RM7895A1014 RM7895B1013	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1013	R7847A1033	See Footnote ⑤.
TFM-2A30	120	50/60	Rectification	2-4	12	Int	30		RM7895A1014 RM7895B1013	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1039	R7847A1033	See Footnote ⑤.
TFM-2A90	120	50/60	Rectification	2-4	12	Int	90		RM7895A1014 RM7895B1013	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1062	R7847A1033	See Footnote ⑤.
TFM3-7	120	50/60	Rectification	2-4	12	Int	7	Non-recycle	RM7895A1014 RM7895B1013	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1013	R7847A1033	See Footnote ⑤.
TFM3-9H	120	50/60	Rectification	2-4	12	Int	7	Non-recycle	RM7895A1014 RM7895B1013	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1013	R7847A1033	See Footnote ⑤.
TFM3-90	120	50/60	Rectification	2-4	12	Int	90	Non-recycle	RM7895A1014 RM7895B1013	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1062	R7847A1033	See Footnote ⑤.
TFM2	120	50/60	Rectification	2-4	4, 10	Int	Depends on MTXX		RM7895A1014 RM7895B1013	RM7897A1002 RM7898A1000	R7120M1001	See Below: Footnote ⑤	R7847A1033	See Footnote ⑤.
TFM3X3H	120	50/60	Rectification	2-4	4, 10	Int	Depends on MTXX		RM7895A1014 RM7895B1013	RM7897A1002 RM7898A1000	R7120M1001	See Below: Footnote ⑤	R7847A1033	See Footnote ⑤.
UVM1D discontinued in 1999	120	50/60	Ultraviolet	0.8	10	Int		Relight	RM7895A1014	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1005	R7849A1015	Select appropriate Honeywell Ultraviolet flame detector
UVM1F discontinued in 1999	120	50/60	Ultraviolet	4	10	Int		Relight	RM7895A1014	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1005	R7849A1023	Select appropriate Honeywell Ultraviolet flame detector
UVM-2A	120	50/60	Ultraviolet	2-4	12	Int	30		RM7895A1014 RM7895B1013	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1039	R7849A1023	See Footnote ⑤. Plus select appropriate Honeywell Ultraviolet flame detector
UVM-2A7	120	50/60	Ultraviolet	2-4	12	Int	7		RM7895A1014 RM7895B1013	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1013	R7849A1023	See Footnote ⑤.
UVM-2A30	120	50/60	Ultraviolet	2-4	12	Int	30		RM7895A1014 RM7895B1013	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1039	R7849A1023	See Footnote ⑤. Plus select appropriate Honeywell Ultraviolet flame detector
UVM-2A90	120	50/60	Ultraviolet	2-4	12	Int	90		RM7895A1014 RM7895B1013	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1062	R7849A1023	See Footnote ⑤. Plus select appropriate Honeywell Ultraviolet flame detector
UVM3-7	120	50/60	Ultraviolet	2-4	12	Int	7	Non-recycle	RM7895A1014 RM7895B1013	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1013	R7849A1023	See Footnote ⑤. Plus select appropriate Honeywell Ultraviolet flame detector
UVM3-90	120	50/60	Ultraviolet	2-4	12	Int	90	Non-recycle	RM7895A1014 RM7895B1013	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1062	R7849A1023	See Footnote ⑤. Plus select appropriate Honeywell Ultraviolet flame detector
UVM2	120	50/60	Ultraviolet	2-4	4, 10	Int	Depends on MTXX		RM7895A1014 RM7895B1013	RM7897A1002 RM7898A1000	R7120M1001	See Below: Footnote ⑤	R7849A1023	See Footnote ⑤. Plus select appropriate Honeywell Ultraviolet flame detector

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TABLE 13—HONEYWELL CROSS-REFERENCE FOR FIREYE™ TFM AND UVM REPLACEMENT (continued)

RM789X/R7120 Replacement													
Device to be Replaced													
Voltage (Vac)	Frequency (Hz)	Flame Detector Type	FFRT (sec)	PFEF (sec)	Pilot Type (Int/ltr)	Pre-purge Timing (Sec)	Comments	RM7895 Replacement	Enhanced RM789X Replacement	R7120 Replacement	Purge Timer	Amplifier	RM789X/R7120 Comments
120	50/60	Ultraviolet	2-4	4, 10	Int	Depends on MTXX	Non-recycle	RM7895A1014 RM7895B1013	RM7897A1002 RM7898A1000	R7120M1001	See Below: Footnote ⑤	R7849A1023	See Footnote ⑤. Plus select appropriate Honeywell Ultraviolet flame detector
120	50/60	Ultraviolet	2-4	4, 10	ltr	Depends on MTXX	Non-recycle	RM7895C1012 RM7895D1011	RM7897C1000	R7120M1019	See Below: Footnote ⑤	R7849A1023	See Footnote ⑤. Plus select appropriate Honeywell Ultraviolet flame detector

FOOTNOTES:

- ① Int: Intermitent, ltr: Interrupted
- ② The RM789X control is not a direct plug in replacement. See Modernization wiring information for wiring diagrams.
- ③ Replacement suggestions have fixed PFEF (4 or 10) where the Fireye control went to Run when (or shortly after) flame was sensed.
- ④ R7120 suggestion is a direct plug in replacement.
- ⑤

SUGGESTED PURGE TIMER FOR M2, 3, 5 REPLACEMENT

Device to be Replaced		RM789X/R7120 Replacement		Comments
Purge Timing	PTFI Timing	Purge Timer		
MT55	5	5	ST7800A1013	Clip JR1 Replacement has 7 sec purge, 4 sec FFRT
MT74	7	4	ST7800A1013	Clip JR1
MT304	30	4	ST7800A1039	Clip JR1
MT710	7	10	ST7800A1013	
MT904	90	4	ST7800A1062	Clip JR1
MT3010	30	10	ST7800A1039	
MT6010	60	10	ST7800A1054	
MT9010	90	10	ST7800A1062	

MII REPLACEMENT: The MII is of solid state design Modular M series. The following components need to be known for selecting the Honeywell replacement devices.

- Control Chassis
- Program Module along with dip switch settings
- Flame Amplifier Module

Table 14—Program Module for MII							
Device to be Replaced			Replacement				
① Pilot Type (Int/ltr)	Trial for Ignition (sec)	Comments	② ③ RM789X Replacement	② ③ Enhanced RM789X Replacement	③ ④ R7120 Replacement	RM789X/R7120 Purge Timer	Comments
MP100	Int	energizes main valve when flame sensed	RM7895A1014	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1013	Honeywell replacement has full PFEF before Main energized
MP101	Int	Allows flame in standby	RM7895A1014			ST7800A1013	Honeywell replacement has full PFEF before Main energized Honeywell does not allow flame in standby
MP102	Int	energizes main valve when flame sensed	RM7895A1014	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1013	Clip JR1 or (orange jumper on R7795) for 4 sec PFEF; Honeywell replacement has full PFEF before Main energized
MP230	Int	energizes main valve when flame sensed	RM7895A1014	RM7897A1002 RM7898A1000	R7120M1001	See Dip Switch 1-5	Check dip switches for purge, PTFI, recycle/non recycle for replacement features
MP230H	Int	3 second ignition cutout before main valve energized (Pilot Stabilization period).	RM7895A1014	RM7897A1002 RM7898A1000	R7120M1001	See Dip Switch 1-5	Check dip switches for purge, PTFI, recycle/non recycle for replacement features; Honeywell replacement has full PFEF before Main energized
MP560	ltr	3 second ignition cutout, 10 sec MTFI with run/test Switch	RM7895C1012	RM7897A1002 RM7898A1000	R7120M1001	See Dip Switch 1-5	Check dip switches for purge, PTFI, recycle/non recycle for replacement features; Honeywell replacement has full PFEF before Main energized
MP561	ltr	lockout on Flame Failure and running interlocks with run/test Switch	RM7895C1012	RM7897A1002 RM7898A1000	R7120M1019	See Dip Switch 1-5	Clip JR2 & 3 for RM789X/R7120 device.
MP562	ltr	8 second pilot stabilization time and lockout on loss of running interlocks with run/test Switch	RM7895C1012	RM7897A1002 RM7898A1000		See Dip Switch 1-5	Clip JR3 for RM789X/R7120 device

FOOTNOTES:

- ① Int: Intermittent, ltr: Interrupted
- ② The RM789X control is not a direct plug in replacement . See Modernization wiring information for wiring diagrams.
- ③ Replacement suggestions have fixed PFEF (4 or 10) where the Fireye control went to Run when (or shortly after) flame was sensed.
- ④ R7120 suggestion is a direct plug in replacement.

Control Chassis for MII				
Device to be Replaced	Voltage (Vac)	Frequency (Hz)	Comments for 7800 Replacement	
MC120	120	50/60		
MC120R	120	50/60	Add S7820A1007 Remote Reset Module	
MC120P	120	50/60	Select RM7896 model or program enhanced replacement (post purge)	
MC230	230	50/60	Select EC7895A or EC7895C	
MC230R	230	50/60	Select EC7895A or EC7895C and add S7820A1007 Remote Reset Module	

Dip Switch settings			
Switch	Off	On (MP561)	Replacement Comments
1		5	Add timings of 'On' switches 1-5 and select closest ST7800 purge timer, pick equal or next highest timing.
2		7	
3		30	
4		60	
5		240	
6		5 (PTFI)	
7		10 (PTFI)	
8	Recycle	Non Recycle	

Flame Amplifier Module for MII Replacement				
Device to be Replaced	Replacement Suggestion			
	FFRT (sec)	Flame Detection Type	For RM789X R7120 Replacement	Comments
MAUV1	2-4	Ultraviolet	R7849A1023	Select appropriate C7027 Ultraviolet replacement.
MAUV1T	0.8	Ultraviolet	R7849A1015	Select appropriate C7027 Ultraviolet replacement.
MART1	2-4	Rectification	R7847A1033	Use existing flame rod.
MART1T	0.8	Rectification	R7847A1025	Use existing flame rod.
				Connect C7027 Blue wire to S2 and White wire to S1
				Connect C7027 Blue wire to S2 and White wire to S1

Microm REPLACEMENT: The MicroM is of microprocessor based design Modular M series. The following components need to be known for selecting the Honeywell replacement devices.

- Control Chassis
- Program Module along with dip switch settings
- Flame Amplifier Module
- Optional Plug In Board

Table 15—Control Chassis for the Micro M (for use with MEP1XX, MEP2XX, and MEP5XX)

Device to be Replaced			
Device	Voltage (Vac)	Frequency (Hz)	Feature
MEC120	120	50/60	
MEC120C	120	50/60	Communications
MEC120D	120	50/60	Display Feature
MEC120R	120	50/60	Remote Reset
MEC120RC	120	50/60	Reset and Communications
MEC120RD	120	50/60	Reset and Display
MEC230	230	50/60	Reset, Display and Communications

Comments for RM789X/R7120 Replacement			
MEC120			
MEC120C			Add S7810M1003 or use S7800A1001 Keyboard Display (S7800A1142 for Enhanced Replacement) and program for ModBus
MEC120D			Add S7800A1001 Keyboard Display (S7800A1142 for Enhanced Replacement)
MEC120R			Add S7820A1007 Remote Reset Module
MEC120RC			Add S7810M1003 or use S7800A1001 Keyboard Display (S7800A1142 for Enhanced Replacement) and program for ModBus and connect unpowered reset button to display's terminals 3 and 5.
MEC120RD			Add S7800A1001 Keyboard Display (S7800A1142 for Enhanced Replacement) Connect unpowered reset button to display's terminals 3 and 5.
MEC230			Select EC7895A or EC7895C; use S7800 Keyboard display and program for ModBus and connect unpowered reset button to display's terminals 3 and 5

Table 16—Control Chassis for the Micro M (for use with MEP3XX, MEP4XX, and MEP6XX)

Device to be Replaced			
Device	Voltage (Vac)	Frequency (Hz)	Feature
MEC320	120	50/60	Standard plug in board
MEC320R	120	50/60	Remote Reset
MEC320D	120	50/60	Display Feature
MEC320RD	120	50/60	Remote Reset and Display
MEC320C	120	50/60	Communications
MEC320RC	120	50/60	Reset and Communications
MEC320TS	120	50/60	Display interface to ED510, Modbus interface, Aux. relay for controller MED8
MEC480	230	50/60	Chassis for MEP3XX, MEP4XX or MEP6XX
MEC480RC	230	50/60	Reset and Communications

Comments for RM789X/R7120 Replacement			
MEC320			
MEC320R			Add S7820A1007 Remote Reset Module
MEC320D			Add S7800A1001 Keyboard Display (S7800A1142 for Enhanced Replacement)
MEC320RD			Add S7800A1001 Keyboard Display (S7800A1142 for Enhanced Replacement) remote reset to terminals 3 and 5.
MEC320C			Add S7810M1003 or use S7800 Keyboard display and program for ModBus
MEC320RC			Add S7810M1003 or use S7800 Keyboard display and program for ModBus wire remote reset to terminals 3 and 5.
MEC320TS			Add S7800 Keyboard display and program for Modbus
MEC480			Select EC7895A or EC7895C;
MEC480RC			Select EC7895A or EC7895C; use S7800 Keyboard display and program for ModBus and add reset button to appropriate terminals

Table 17—Optional Plug-In Board Modules for the Micro M

Device to be Replaced		Replacement Suggestion
Model	Feature	
MED1	Standard local reset switch	Standard Honeywell device
MED2	Standard local reset switch with display output	Add S7800 display to RM789X/R7120
MED3	Standard local reset switch with remote reset	Add S7820A1007 to RM789X/R7120
MED4	Standard local reset switch	Standard Honeywell device
MED5	Standard local reset switch with display output and RS485 communications	Add S7800 display to RM789X/R7120 and configure for ModBus
MED6	Standard local reset switch with display output, remote reset and RS485 communications	Add S7800 display to RM789X/R7120 and configure for ModBus, and connect unpowered reset to display's terminals 3 and 5.
MED7	Standard local reset switch with RS485 communications	Add S7810M1003 for Modbus to RM789X/R7120 and connect unpowered reset to display's terminals 3 and 5. Or add S7800 display and configure for modbus.
MED8	Standard local reset switch with display output and RS485 Modbus interface and auxiliary relay output with normally closed dry contact for controller interface	No Match for dry contact output feature.
MED9	Standard local reset switch with display output and RS485 Modbus interface and auxiliary relay output with normally open dry contact for controller interface	No Match for dry contact output feature.

Table 18—Microm Program Module (for use with MEC120 and MEC 230 chassis)

Device to be Replaced		Replacement Suggestion							Comments
Model	Feature	RM7895 or RM7896 Replacement	Enhanced 7800 Replacement	R7120 Replacement	Prepurge Timer (required for RM789X or R7120)				
MEP100	Intermittent Pilot, Relight, 10 PTFI	RM7895A1014	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1005			Replacement suggestions has a complete PFEP, Fireeye cuts off when flame sensed.	
MEP100P	MEP100 with 15 sec. post purge	RM7896A1012	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1005			Replacement suggestions has a complete PFEP, Fireeye cuts off when flame sensed. Program RM7897 or RM7898 for 15 second post purge	
MEP101	same as MEP100 but allows flame during 'off' cycle	RM7895A1014	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1005			Replacement suggestions has a complete PFEP, Fireeye cuts off when flame sensed. Replacement RM does not allow flame during 'off' cycle	
MEP102	same as MEP100 with 10 sec. PTFI, Lockout on flame failure.	RM7895A1014	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1005			Replacement suggestions has a complete PFEP, Fireeye cuts off when flame sensed. Clip JR1 and JR2	
MEP103	Fixed 10 sec. Spark Ignitor Sensing Period followed by a 10 sec. MTFI, with 30 second post purge. Will retry once on ignitor failure	None	None	None				No Honeywell suggestion for this spark feature.	
MEP104	MEP100 with 10 sec. PTFI, Lockout on flame failure.	RM7895A1014	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1005			Replacement suggestions has a complete PFEP, Fireeye cuts off when flame sensed. Clip JR2	
MEP105	Non recycle on flame fail, lockout on limit failure, 10 sec. PTFI	RM7895A1014	RM7897A1002 RM7898A1000	R7120M1001	ST7800A1005			Replacement suggestions has a complete PFEP, Fireeye cuts off when flame sensed. Clip JR2 and JR3	
MEP230	Equiped with dip switches to select: Prepurge timing, PTFI, post purge, recycle/non recycle on main flame loss, and proven open to start air flow switch. Ignition turns off 3 seconds before main valve energized.	See Table 21.			See Table 21.			Clip JR3	
MEP230H	same as MEP230 with 8 sec. pilot stabilization period.	See Table 21.			See Table 21.			RM789X or R7120 has 10 second PFEP, but NOT pilot stabilization feature, RM7898A1018 has a early spark termination when flame is sensed.	
MEP234	Selectable: PTFI, prepurge timing, prove limits open on start, 10 sec. Pilot proving, MTFI, post purge, non recycle on flame fail.	RM7896B1011	None	None	See Table 21.			Clip JR2 and JR3	
MEP235	MEP230 with lockout on limits open 10 sec. after start, selectable recycle/non recycle on open after flame is proven, dedicated lockout on loss of flame	See Table 21.			See Table 21.			Clip JR2 and JR3	
MEP236	same as MEP230 with 6 sec. additional ignition on with main fuel (for use with intermittent pilot only).	RM7895A1014	RM7897A1002 RM7898A1000	R7120M1001	See Table 21.			RM789X or R7120 does not keep the ignition on into the main flame establishing time	
MEP237	Same as MEP230, fixed PTFI, interrupted pilot, use MEDC2 amp for 85 & 95 series scanners	None	None	None	None			No Honeywell device for this scanner series	

Table 18—MicroM Program Module (for use with MEC120 and MEC 230 chassis) (continued)

Device to be Replaced		Replacement Suggestion						Comments
Model	Feature	RM7895 or RM7896 Replacement	Enhanced 7800 Replacement	R7120 Replacement	Prepurge Timer (required for RM789X or R7120)			
MEP238	Same as MEP230, ignition shutoff 3 sec after flame sense, 8 sec pilot stabilization period	RM7895A1048	RM7898A1018	None	See Table 21.		RM7895/8 has a fixed PFEP so pilot stabilization time dependant on how soon flame is sensed.	
MEP290	same as MEP230H with 0 or 90 second post purge.	See Table 21.			See Table 21.		Program RM7897, RM7898 R7120 for 90 second post purge. RM789X or R7120 has 10 second PFEP, but NOT pilot stabilization feature, RM7898A1018 has a early spark termination when flame is sensed.	
MEP300	Relight operation, 10 sec fixed PTFI, 5 second pilot proving period, 5 second MTFI, lockout on flame fail during PTFI, pilot proving and MTFI. Recycle on air flow open, no post purge, reset on line voltage.	None	RM7897C1018	None	See Table 21.		Suggested control DOES NOT shut off ignition for 5 second pilot proving period. RM789X or R7120M requires contact closure reset when using S7820A1007 module	
MEP304	non recycle on flame failure, 5 sec purge, 10 sec fixed PTFI, 5 sec pilot proving, 10 sec MTFI, interrupted pilot, early spark termination.	RM7895C1020	RM7897C1000 RM7898A1018	R7120M1019	ST7800A1005		Suggested RM7897C or R7120M control DOES NOT shut off ignition for 5 second pilot proving period. RM789X or R7120M requires contact closure reset when using S7820A1007 module Clip JR2	
MEP335	Non recycle on flame fail, 30 sec purge, 35 sec hot surface ignition on terminal 4, 3 sec PTFI on terminal 3, 5 second pilot proving period, intermittent pilot, 15 second post purge, Manual reset only.	None	None	None			Honeywell does not offer 35 second hot surface device	
MEP397	Recycle on main flame fail, 15 second purge, 7 second fixed PTFI, 5 second pilot proving 5 sec MTFI, early spark termination and interrupted pilot. Recycle on air flow failure, no post purge, run check switch, reset on line voltage.	None	RM7897C1018	None	ST7800A1021 or ST7800A1039 (no 15 purge available)		Suggested control DOES NOT shut off ignition for 5 second pilot proving period. RM789X or R7120M requires contact closure reset when using S7820A1007 module	
MEP437	Recycle once on main flame failure, selectable 5 or 10 sec fixed PTFI, selectable interrupted or intermittent pilot, 5 sec MTFI, selectable purge time to 240 seconds, main valve proof of closure, 15 second post purge, reset on line voltage.	None	RM7897A1002 for Intermittent, RM7897C1000 for Interrupted or RM7898A1000	None	See Table 21.		Suggested control DOES NOT offer 5 sec MFEP (MTFI) requires contact closure reset when using S7820A1007 module or S7800A1142 display, use display to program 15 second post purge, POC is separate input to RM.	
MEP536	same as MEP560 without pilot stabilization period. Will not lockout on air flow open during purge period.	If switch 3 closed RM7895D1011 or If switch 3 open RM7896D1019	RM7897C1000 or RM7898A1018	R7120M1019	See Table 21.		RM789X/R7120 suggestion, does NOT offer special Airflow switch feature.	

Table 18—MicroM Program Module (for use with MEC120 and MEC 230 chassis) (continued)

Device to be Replaced		Replacement Suggestion					Comments
Model	Feature	RM7895 or RM7896 Replacement	Enhanced 7800 Replacement	R7120 Replacement	Prepurge Timer (required for RM789X or R7120)		
MEP537	same as MEP536 except provides one recycle on main flame failure.	If switch 3 closed RM7895D1011 or If switch 3 open RM7896D1019	RM7897C1000 or RM7898A1018	R7120M1019	See Table 21.	RM7897, RM7898, R7120 do NOT offer dynamic AFS Feature. RM789X or R7120M do NOT offer one recycle, Clip JR3 to lockout on main flame failure.	
MEP560	same as MEP230H with 10 sec. MTFI, Run-Check switch. 8 second pilot stabilization before main valve energized.	If switch 3 closed RM7895D1011 or If switch 3 open RM7896D1019	RM7897C1000 or RM7898A1018	R7120M1019	See Table 21.	RM789X 10 second PFEP, but NOT pilot stabilization feature, RM7898A1018 has a early spark termination when flame is sensed so some pilot stabilization time. RM7897, RM7898, R7120 do NOT offer dynamic AFS Feature.	
MEP561	same as MEP560 with 3 second pilot stabilization period before main valve energized, selectable purge timings of 7, 10, 15, or 30 seconds.	If switch 3 closed RM7895D1011 or If switch 3 open RM7896D1019	RM7897C1000 or RM7898A1018	R7120M1019	See Table 21.	RM789X 10 second PFEP, but NOT pilot stabilization feature, RM7898A1018 has a early spark termination when flame is sensed so some pilot stabilization time. RM7897, RM7898, R7120 do NOT offer dynamic AFS Feature.	
MEP562	same as MEP560 with lockout on loss of flame and limit circuit open.	If switch 3 closed RM7895D1011 or If switch 3 open RM7896D1019	RM7897C1000 or RM7898A1018	R7120M1019	See Table 21.	RM789X 10 second PFEP, but NOT pilot stabilization feature, RM7898A1018 has a early spark termination when flame is sensed so some pilot stabilization time. RM7897, RM7898, R7120 do NOT offer dynamic AFS Feature. Clip JR2 and JR3.	
MEP564	same as MEP560 with 3 second pilot stabilization period before main valve energized, selectable purge timings of 7, 30, 60, or 240 seconds.	If switch 3 closed RM7895D1011 or If switch 3 open RM7896D1019	RM7897C1000 or RM7898A1018	R7120M1019	See Table 21.	RM789X 10 second PFEP, but NOT pilot stabilization feature, RM7898A1018 has a early spark termination when flame is sensed so some pilot stabilization time. RM7897, RM7898, R7120 do NOT offer dynamic AFS Feature.	
MEP596	Provides 30 seconds of prepurge, lockout on airflow after 10 seconds, 10 sec PTFI, 5 sec pilot proving, early spark termination, 5 sec MTFI, interrupted pilot, selectable recycle/non recycle on flame failure, 60 sec. post purge, selectable baud rate for communication, output for external controller operation.		RM7897C1018		ST7800A1039	Suggested control DOES NOT shut off ignition for 5 second pilot proving period. Use S7800A1142 to program 60 second post purge and set up for Modbus Communications. RM7897 does NOT have output for external controller.	

Table 19—Available dipswitches for MEP200 and 500 series.

SWITCH						FUNCTION	COMMENTS
1	2	3	4	5	6		
C	C					^{①③} PURGE TIME SECONDS	Select ST7800A1013
O	C				^{①③} 7		Select ST7800A1039
C	O				^{①③} 30		Select ST7800A1054
O	O				^{①③} 60		Select ST7800A1062
		C			^{①③} 90		Select RM7895 or RM7897
		O			DISABLED	^② POST PURGE	^② Select RM7896 or RM7897 and program post purge
					15 SECONDS		Clip JR1 from your selection Leave JR1 intact
			C		5	PTFI TIME	Select RM7895A/C, 7896A/C or 7897
			O		10		Select RM7895B/D, 7896B/D, no 7897
				C	DISABLE	PROVE AIR FLOW OPEN AT START	Leave JR2 intact
				O	ENABLE		Clip JR2 from your selection
					RECYCLE	FLAME FAIL ACTION FROM RUN	
				C	NON-RECYCLE		

FOOTNOTES:

- ① MEP561 module has selectable purge timing of 7, 10, 15 and 30 seconds
- ② MEP290 module has selectable post purge of 90 seconds-only RM7897 is available
- ③ MEP564 modules has selectable purge timing of 7, 30, 60, and 240 seconds

Table 20—Available dipswitches for MEP437

		SWITCH						FUNCTION	COMMENTS
		1	2	3	4	5	6		
C	C	C	C	C			0	Select ST7800A1005 (2 sec minimum)	
O	C	C	C	C			5	Select ST7800A1013 (7 seconds)	
C	O	C	C	C			15	Select ST7800A1039 (30 seconds, no 15)	
O	O	C	C	C			30	Select ST7800A1039 (30 seconds, no 15)	
C	C	O	C	C			60	Select ST7800A1054	
O	C	O	C	C			90	Select ST7800A1062	
C	O	O	C	C			120	Select ST7800A1070 (2.5 minute)	
O	O	O	C	C			240	Select ST7800A1088	
			C				5	Clip JR1	
			O				10	Leave JR1 intact	
				C			INTERRUPTED	Leave JR2 intact	
				O			INTERMITTENT	Clip JR2 from your selection	
					C		RECYCLE	Leave JR2 intact	
					O		NON-RECYCLE	Clip JR2 from your selection	

TABLE 21—Flame Amplifier for the Micro M

Device to be Replaced		Replacement					
FFRT (sec)	Flame Amp Type	Flame Detector Type	Comments	R7120 comments			
MEUV1	0.8	Non self check	Ultraviolet	R7849A1015	Select C7027 flame detector	Connect C7027 Blue wire to S2 and White wire to S1	
MEUV4	3	Non self check	Ultraviolet	R7849A1023	Select C7027 flame detector	Connect C7027 Blue wire to S2 and White wire to S1	
MEUVS1	0.8	Self Check	Ultraviolet	R7849B1013	Select C7027 flame detector	Connect C7027 Blue wire to S2 and White wire to S1	
MEUVS4	3	Self Check	Ultraviolet	R7849B1021	Select C7027 flame detector	Connect C7027 Blue wire to S2 and White wire to S1	
MERT1	0.8	Non self check	Flame Rod	R7847A1025	Use existing Flame Rod		
MERT4	3	Non self check	Flame Rod	R7847A1033	Use existing Flame Rod		
MEIR1	0.8	Non self check	Infrared		No 0.8 second model		
MEIR4	3	Non self check	Infrared				
MECD1	0.8	Non self check	Cadmium Sulfide	R7852A1001	Select C7915 flame detector		
MECD4	3	Non self check	Cadmium Sulfide	R7851B1018	Select C7962 flame detector		
MEDC2		Contact Input	With MEP237, operation with 85 and 95 series scanners.	R7851B1000	Select C7962 flame detector		

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