Thermostat eTRON M

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In the event of a fault, first restore the factory settings. The procedure is as follows: connect the controller to a power supply to display the temperature.

Press buttons and simultaneously for 5 seconds until the display flashes and the reset is complete.

Operating the eTRON M

Display target value

Press button **“P”** briefly. **“SP”** appears with the target value. The current temperature is displayed again after 20 seconds.

If a break of longer than 20 seconds occurs during the programming, the thermostat returns to the display mode.

Change target value

Press button **“P”** briefly, **“SP”** appears with the target value. Set the target temperature with the **up and down** buttons. Press button **"P"** to confirm the setting.

Switch from Celsius to Fahrenheit

Continue pressing button **“P”** briefly until **“Uni”** appears and toggle between °C / °F with the up and down buttons. Press button **"P"** to confirm the setting.

Adjust temperature OFF-SET

Press button **“P”** several times briefly until **“OF.t”** appears. Adjust the temperature with the up and down buttons. Press button **"P"** to confirm the setting.

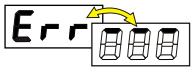
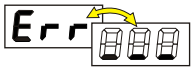
Setup parameters

The target value and the setup parameters can both B20be adjusted. These adjustments should only be made if the equipment is operating in unfavourable conditions. These setup parameters may only be changed with the express consent of FRANKE FOODSERVICE SYSTEMS GMBH.

Continue pressing button **“P”** until CODE appears, enter code 072 with the up and down buttons and confirm with button **"P"**.

Choose the parameter with the up and down buttons, select with button **“P”**, now the value can be changed with the **up and down** buttons. Press **"P"** to confirm the setting.

Thermostat eTRON M

Error code and Messages		Solutions
	Sensor interrupt Wrong sensor selected	Replace sensor Perform reset
	Sensor short-circuit Wrong sensor selected	Replace sensor Perform reset
	Temperature alarm high	Call service
	Temperature alarm low	Call service
	Startup delay	Visual message
	Service required	Call service

Parmeterliste eTRONM		Item no.	725,109,323	725,109,324	725,109,325	725.109.933
Description	**Range**	**Parameter**	Minus cooling	Plus cooling	Kontrolle	Product shute
Target value		SP	-20,0	2,0	63,0	71,0
Hysteresis	0.2 ...99.9	HYS	1,0	1,0	2,0	1,0
Target value min.	-999 .. +999	SP.L	-22	-2,0	20,0	20,0
Target value max.	-999 .. +999	SP.H	-5,0	10,0	70,0	80,0
Controller type	Hot, Col	tyP	Col	Col	Hot	Hot
Startup delay after power on	0 ...60min	dLY	0,0	0,0	0,0	0,0
Startup duration min.	0...999 s	t.On	60,0	60,0	60,0	60,0
Startup duration min.	0...999s	t.OF	60,0	60,0	0,0	0,0
Defrosting duration / heating duration	... ... , 1 ... 999 min	ti.O	... ...	12,0	... ...	... ...
Defrosting cycle	1...999h	t.CY	24,0	4,0	1,0	1,0
Time remaining	999h... 2h 120min... 2min 120s... 0s	t. i	0,0	0,0	0,0	0,0
Default servicing interval	0...9,9t h	t.Si	0,0	0,0	0,0	0,0
Hour meter since last service	0...9,9t h	t. S	0,0	0,0	0,0	0,0
Hour meter total	0...9,9t h	t. h	0,0	0,0	0,0	0,0
Temperature display during defrosting 0= Display "dEF" 1= Refresh	0, 1	dis	0,0	0,0	0,0	0,0
Characteristics after power up o=off, 1=on	0, 1	P.On	1,0	1,0	1,0	1,0
Release the Start Stop button 0: Disabled, 1: Enabled 2: Acknowledgement for Relay 3: Start/Stop / Quit	0,0	btn	0,0	0,0	0,0	0,0
Alarm min.	-999...999	AL.L	-25	-5,0	0,0	0,0
Alarm max.	-999...999	AL.H	-5,0	10,0	80,0	90,0
Alarm hysteresis	0,2...99,9	A.HY	1,0	1,0	1,0	1,0
Delay	0...60min	AL.d	60,0	60,0	10,0	10,0
Behaviour of relay during measurable overstepping or shortfall 0: K1 off, K2 off , 1: K1 on, K2 off 2: K1 off, K2 on, 3: K1on, K2 on	0...3	S.Er	0,0	0,0	0,0	0,0
Sensor type	P.ih : Pt100 P.it : Pt1000 Ptc: KTY2x	S.En	P.it	P.it	P.it	P.it
Offset current value	-99,9...99,9	OF.t	0,0	0,0	0,0	-2,0
Line balance	0,0...99,9 Ohm	OF.r	0,0	0,0	0,0	0,0
Unit	C/F	Uni	C	C	C	C
Filter time constant	0,1...99,9 s	dF	0,8	0,8	0,8	0,8

CAUTION: red fields can not be changed in any cases.

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Resistance table

Pt 1000

°C	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
-200	185.201	189.522	193.840	198.154	202.465	206.772	211.076	215.376	219.672	223.965
-190	228.255	232.541	236.824	241.103	245.379	249.651	253.920	258.186	262.449	266.708
-180	270.964	275.217	279.467	283.713	287.956	292.197	296.434	300.667	304.898	309.126
-170	313.350	317.572	321.791	326.006	330.219	334.429	338.635	342.839	347.040	351.238
-160	355.433	359.626	363.815	368.002	372.186	376.367	380.545	384.721	388.894	393.064
-150	397.232	401.397	405.559	409.719	413.876	418.030	422.182	426.331	430.478	434.622
-140	438.764	442.904	447.040	451.175	455.307	459.436	463.563	467.688	471.810	475.930
-130	480.048	484.163	488.276	492.386	496.495	500.601	504.705	508.806	512.906	517.003
-120	521.098	525.191	529.281	533.370	537.456	541.540	545.622	549.702	553.780	557.856
-110	561.930	566.002	570.072	574.139	578.205	582.269	586.331	590.391	594.448	598.504
-100	602.558	606.611	610.661	614.709	618.756	622.800	626.843	630.884	634.923	638.960
-90	642.996	647.030	651.062	655.092	659.120	663.147	667.172	671.195	675.217	679.236
-80	683.254	687.271	691.286	695.299	699.310	703.320	707.328	711.335	715.340	719.344
-70	723.345	727.346	731.344	735.341	739.337	743.331	747.324	751.315	755.304	759.292
-60	763.278	767.263	771.247	775.229	779.210	783.189	787.166	791.143	795.117	799.091
-50	803.063	807.033	811.003	914.970	818.937	822.902	826.865	830.828	834.789	838.748
-40	842.707	846.663	850.619	854.573	858.526	862.478	866.428	870.377	874.325	878.271
-30	882.217	886.160	890.103	894.044	897.985	901.923	905.861	909.797	913.732	917.666
-20	921.599	925.530	929.461	933.390	937.317	941.244	945.169	949.093	953.016	956.938
-10	960.859	964.778	968.696	972.613	976.529	980.444	984.358	988.270	992.181	996.091
0	1000.000	1003.908	1007.814	1001.720	1015.624	1019.527	1023.429	1027.330	1031.229	1035.128
10	1039.025	1042.921	1046.816	1050.710	1054.603	1058.495	1062.385	1066.274	1070.162	1074.049
20	1077.935	1081.820	1085.703	1089.585	1093.467	1097.347	1101.225	1105.103	1108.980	1112.855
30	1116.729	1120.602	1124.474	1128.345	1132.215	1136.083	1139.950	1143.817	1147.681	1151.545
40	1155.408	1159.270	1163.130	1166.989	1170.847	1174.704	1178.560	1182.414	1186.286	1190120
50	1193.971	1197.821	1201.670	1205.518	1209.364	1213.210	1217.054	1220.897	1224.739	1228.579
60	1232.419	1236.257	1240.095	1243.931	1247.766	1251.600	1255.432	1259.264	1263.094	1266.923
70	1270.751	1274.578	1278.404	1282.228	1286.052	1289.874	1293.695	1297.515	1301.334	1305.152
80	1308.968	1312.783	1316.597	1320.411	1324.222	1326.033	1331.843	1335.651	1339.458	1343.264
90	1347.069	1350.873	1354.676	1358.477	1362.277	1366.077	1369.875	1373.671	1377.467	1381.262
100	1385.055	1388.847	1392.638	1396.428	1400.217	1404.005	1407.791	1411.576	1415.360	1419.143
110	1422.925	1426.706	1430.485	1434.264	1438.041	1441.817	1445.592	1449.366	1453.138	1456.910
120	160.880	1464.449	1468.217	1471.984	1475.750	1479.514	1483.277	1487.040	1490.801	1494.561
130	1498.319	1502.077	1505.833	1509.589	1513.343	1517.096	1520.847	1524.598	1490.801	1494.561
140	1535.843	1539.589	1543.334	1547.078	1550.820	1554.562	1558.302	1562.041	1565.779	1569.516
150	1573.251	1576.986	1580.719	1584.451	1588.182	1591.912	1595.641	1599.368	1603.095	1606.820
160	1610.544	1614.267	1617.989	1621.709	1625.429	1629.147	1632.864	1636.580	1640.295	1644.009
170	1647.721	1651.433	1655.143	1658.852	1662.560	1666.267	1669.972	1673.677	1677.380	1681.082
180	1684.783	1688.483	1692.483	1695.879	1699.575	1703.271	1706.965	1710.658	1714.349	1718.040
190	1721.729	1725.418	1729.105	1732.791	1736.475	1740.159	1743.842	1747.523	1751.203	1754.882
200	1758.560	1762.237	1765.912	1769.587	1773.260	1776.932	1780.603	1784.273	1787.941	1791.609
210	1795.275	1798.940	1802.604	1806.267	1809.929	1813.590	1817.249	1820.907	1824.564	1828.220
220	1831.875	1835.529	1839.181	1842.832	1846.483	1850.132	1853.779	1857.426	1861.072	1864.716
230	1866.350	1872.001	1875.642	1879.282	1882.921	1886.558	1890.194	1893.830	1897.463	1901.096
240	1904.728	1908.359	1911.988	1915.616	1919.243	1922.869	1926.494	1930.117	1933.740	1937.361
250	1940.981	1944.600	1948.218	1951.835	1955.450	1959.065	1962.678	1966.290	1969.901	1973.510
260	1977.119	1980.726	1984.333	1987.938	1991.542	1995.145	1998.746	2002.347	2005.946	2009.544
270	2013.141	2016.737	2020.332	2023.925	2027.518	2031.109	2034.699	2038.288	2041.876	2045.463

Sensor PT 1000 -200.0 ....850.0°C
Unit: resistance values in Ohm