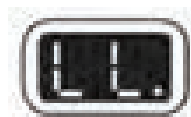


Fault Codes



Art_5533

The LED readout screen displays fault codes that provide information about the machine operating status and about malfunctions. The fault codes listed in the following charts describe malfunctions and can aid in troubleshooting the machine by pinpointing the area or component affected.

List of Fault Codes		
Display	Description	Lift Reaction
01	System Initialization Fault	Disables All Motion
02	System Communication Fault	Disables All Motion
03	Invalid Option Setting Fault	Disables All Motion
04	Calibration Fault	Warning Only
08	Key Switch Error	Disables All Motion
09	GPS Communication Fault	Warning Only
10	MC Communication Fault	Warning Only
11	BMS Communication Fault	Warning Only
12	Chassis Up or Down Switch ON	Disable Chassis Control
18	Pothole Guard Fault	Disable Lifting and Driving
31	31 Pressure Sensor Fault	Disables All Motion
32	32 Angle Sensor Fault	Disables All Motion
35	35 Pressure Sensor 2 Fault	Disables All Motion
36	36 Battery Drain Alarm	Drive speed limit
42	42 Platform Left Button ON	Warning Only
43	43 Platform Right Button ON	Warning Only
46	46 Platform Enable Button ON	Disable Platform Control
47	47 Joystick Not In Neutral	Drive speed limit
52	52 Drive Forward Coil Fault	Disable Lifting and Driving
53	53 Drive Reverse Coil Fault	Disable Lifting and Driving
54	54 Lift Up Coil Fault	Disable Lifting and Driving
55	55 Lift Down Coil Fault	Disable Lifting and Driving
56	56 Steer Right Coil Fault	Disable Lifting and Driving
57	57 Steer Left Coil Fault	Disable Lifting and Driving
59	59 Parallel Coil Fault	Disable Lifting and Driving
68	Battery Low Voltage	Disables All Motion
80	Platform Load is over 80%	Warning Only
90	Platform Load is over 90%	Warning Only
99	Platform Load is over 99%	Warning Only
OL	Platform Overloaded	Disable All Motion
LL	Machine Tilted	Disable Lifting and Driving
UP	Platform up limit position	Warning Only
102	Restore Parameters to Default	Warning Only
103	Battery is draining	Warning Only
104	Motor Controller Fault	Warning Only
105	BMS Alarm	Drive speed limit

List of Fault Codes		
Display	Description	Lift Reaction
106	BMS Fault	Disable All Motion
PCU: n1, ECU: 1XXX code	Left Drive Motor Controller Fault	Controller Dependent
PCU:n2, ECU: 2XXX code	Right Drive Motor Controller Fault	Controller Dependent
PCU: n3, ECU: 3XXX code	Pump Motor Controller Fault	Controller Dependent
PCU: n4, ECU:4XXX code	BMS Fault	BMS Dependent

List of Fault Codes (Motor Controller)		
Display	Description	Lift Reaction
1008, 2008, 3008	WATCHDOG	Controller Dependent
1017, 2017, 3017	LOGIC FAILURE #3	Controller Dependent
1018, 2018, 3018	LOGIC FAILURE #2	Controller Dependent
1019, 2019, 3019	LOGIC FAILURE #1	Controller Dependent
1028, 2028, 3028	PUMP VMN LOW	Controller Dependent
1029, 2029, 3029	PUMP VMN HIGH	Controller Dependent
1030, 2030, 3030	VMN LOW	Controller Dependent
1031, 2031, 3031	VMN HIGH	Controller Dependent
1037, 2037, 3037	CONTACTOR CLOSED	Controller Dependent
1038, 2038, 3038	CONTACTOR OPEN	Controller Dependent
1052, 2052, 3052	PUMP I=0 EVER	Controller Dependent
1053, 2053, 3053	STBY I HIGH	Controller Dependent
1060, 2060, 3060	CAPACITOR CHARGE	Controller Dependent
1062, 2062, 3062	TH. PROTECTION	Controller Dependent
1065, 2065, 3065	MOTOR TEMPERAT.	Controller Dependent
1066, 2066, 3066	BATTERY LOW	Controller Dependent
1074, 2074, 3074	DRIVER SHORTED	Controller Dependent
1075, 2075, 3075	CONTACTOR DRIVER	Controller Dependent
1078, 2078, 3078	VACC NOT OK	Controller Dependent
1079, 2079, 3079	INCORRECT START	Controller Dependent
1080, 2080, 3080	FORW + BACK	Controller Dependent
1086, 2086, 3086	PEDAL WIRE KO	Controller Dependent
1152, 2152, 3152	IIC BUS ERROR	Controller Dependent
1153, 2153, 3153	ENCODER ERROR XX	Controller Dependent
1154, 2154, 3154	OUT MISMATCHXX	Controller Dependent
1155, 2155, 3155	SP MISMATCHXX	Controller Dependent
1157, 2157, 3157	INPUT MISMATCHXX	Controller Dependent
1158, 2158, 3158	NOT RDY DRV.POW.	Controller Dependent
1159, 2159, 3159	HVIL FAIL	Controller Dependent
1160, 2160, 3160	SENS BAT TEMP KO	Controller Dependent
1161, 2161, 3161	RPM HIGH	Controller Dependent
1162, 2162, 3162	BUMPER STOP	Controller Dependent

List of Fault Codes (Motor Controller)		
Display	Description	Lift Reaction
1163, 2163, 3163	ED SLIP MISMATCH	Controller Dependent
1164, 2164, 3164	PWM ACQ. ERROR	Controller Dependent
1168, 2168, 3168	SIN/COS D.ERR XX	Controller Dependent
1169, 2169, 3169	ENCODER D.ERR XX	Controller Dependent
1170, 2170, 3170	WRONG KEY VOLT.	Controller Dependent
1171, 2171, 3171	ACQUIRING A.S.	Controller Dependent
1172, 2172, 3172	ACQUIRE ABORT	Controller Dependent
1173, 2173, 3173	ACQUIRE END	Controller Dependent
1174, 2174, 3174	OFFSET SPD.SENS.	Controller Dependent
1175, 2175, 3175	SPEED FB. ERROR	Controller Dependent
1176, 2176, 3176	HOME SENS.ERR XX	Controller Dependent
1177, 2177, 3177	COIL SHOR. EB.	Controller Dependent
1178, 2178, 3178	MOTOR TEMP. STOP	Controller Dependent
1179, 2179, 3179	STEER SENSOR KO	Controller Dependent
1180, 2180, 3180	OVERLOAD	Controller Dependent
1181, 2181, 3181	WRONG ENC SET	Controller Dependent
1185, 2185, 3185	TILLER ERROR	Controller Dependent
1186, 2186, 3186	WAIT MOT.P STILL	Controller Dependent
1187, 2187, 3187	LIFT+LOWER	Controller Dependent
1188, 2188, 3188	INT. CANBUSKO	Controller Dependent
1189, 2189, 3189	PUMP INC START	Controller Dependent
1190, 2190, 3190	PUMP VMN NOT OK	Controller Dependent
1191, 2191, 3191	PUMP VACC NOT OK	Controller Dependent
1192, 2192, 3192	PUMP VACC RANGE	Controller Dependent
1193, 2193, 3193	SMARTDRIVER KO	Controller Dependent
1194, 2194, 3194	AUX BATT. SHORT.	Controller Dependent
1195, 2195, 3195	POS. EB. SHORTED	Controller Dependent
1196, 2196, 3196	MOT.PHASE SH.	Controller Dependent
1197, 2197, 3197	WRONG SLAVE VER.	Controller Dependent
1198, 2198, 3198	M/S PAR CHK MISM	Controller Dependent
1199, 2199, 3199	PARAM TRANSFER	Controller Dependent
1200, 2200, 3200	VDC OFF SHORTED	Controller Dependent
1201, 2201, 3201	TORQUE PROFILE	Controller Dependent
1202, 2202, 3202	VDC LINK OVERV.	Controller Dependent
1204, 2204, 3204	BRAKE RUN OUT	Controller Dependent
1205, 2205, 3205	EPS RELAY OPEN	Controller Dependent
1206, 2206, 3206	INIT VMN HIGH	Controller Dependent
1207, 2207, 3207	INIT VMN LOW	Controller Dependent
1208, 2208, 3208	EEPROM KO	Controller Dependent
1209, 2209, 3209	PARAM RESTORE	Controller Dependent
1210, 2210, 3210	WRONG RAM MEM.	Controller Dependent
1211, 2211, 3211	STALL ROTOR	Controller Dependent
1212, 2212, 3212	POWER MISMATCH	Controller Dependent
1213, 2213, 3213	POSITIVE LC OPEN	Controller Dependent

List of Fault Codes (Motor Controller)		
Display	Description	Lift Reaction
1214, 2214, 3214	EVP COIL OPEN	Controller Dependent
1215, 2215, 3215	EVP DRIV. SHORT.	Controller Dependent
1216, 2216, 3216	EB. COIL OPEN	Controller Dependent
1217, 2217, 3217	PEB NOT OK	Controller Dependent
1218, 2218, 3218	SENS MOT TEMP KO	Controller Dependent
1220, 2220, 3220	VKEY OFF SHORTED	Controller Dependent
1221, 2221, 3221	HANDBRAKE	Controller Dependent
1223, 2223, 3223	COIL SHOR.MC	Controller Dependent
1224, 2224, 3224	WAITING FOR NODE	Controller Dependent
1224, 2224, 3224	WAITING FOR NODE	Controller Dependent
1224, 2224, 3224	WAITING FOR NODE	Controller Dependent
1226, 2226, 3226	VACC OUT RANGE	Controller Dependent
1227, 2227, 3227	HW FAULT	Controller Dependent
1228, 2228, 3228	TILLER OPEN	Controller Dependent
1229, 2229, 3229	HW FAULT EB.	Controller Dependent
1230, 2230, 3230	LC COIL OPEN	Controller Dependent
1231, 2231, 3231	PUMP I NO ZERO	Controller Dependent
1232, 2232, 3232	CONT. DRV. EV	Controller Dependent
1233, 2233, 3233	POWERMOS SHORTED	Controller Dependent
1234, 2234, 3234	DRV. SHOR. EV	Controller Dependent
1235, 2235, 3235	CTRAP THRESHOLD	Controller Dependent
1236, 2236, 3236	CURRENT GAIN	Controller Dependent
1237, 2237, 3237	ANALOG INPUT	Controller Dependent
1238, 2238, 3238	HW FAULT EV.	Controller Dependent
1239, 2239, 3239	CONTROLLER MISM.	Controller Dependent
1240, 2240, 3240	EVP DRIVER OPEN	Controller Dependent
1241, 2241, 3241	COIL SHOR. EVAUX	Controller Dependent
1242, 2242, 3242	OPEN COIL EV.	Controller Dependent
1243, 2243, 3243	THROTTLE PROG.	Controller Dependent
1244, 2244, 3244	WARNING SLAVE	Controller Dependent
1245, 2245, 3245	IQMISMATCHED	Controller Dependent
1246, 2246, 3246	EB. DRIV.OPEN	Controller Dependent
1247, 2247, 3247	DATA ACQUISITION	Controller Dependent
1248, 2248, 3248	NO CAN MSG.	Controller Dependent
1249, 2249, 3249	CHECK UP NEEDED	Controller Dependent
1250, 2250, 3250	THERMIC SENS. KO	Controller Dependent
1251, 2251, 3251	WRONG SET BAT.	Controller Dependent
1253, 2253, 3253	FIELD ORIENT. KO	Controller Dependent
1254, 2254, 3254	EB. DRIV.SHRT.	Controller Dependent

List of Fault Codes (Battery BMS)		
Display	Description	Lift Reaction
4001	Low charging temperature 2	Lift and Drive speed limit
4002	Low charging temperature 3	Disables All Motion

List of Fault Codes (Battery BMS)		
Display	Description	Lift Reaction
4003	High charging temperature 2	Lift and Drive speed limit
4004	High charging temperature 3	Disables All Motion
4005	Low discharging temperature 2	Lift and Drive speed limit
4006	High discharging temperature 3	Disables All Motion
4007	Low discharging temperature 2	Lift and Drive speed limit
4008	High discharging temperature 3	Disables All Motion
4009	Temperature imbalance 2	Lift and Drive speed limit
4010	Temperature imbalance 3	Disables All Motion
4011	Pad Temperature high 2	Lift and Drive speed limit
4012	Pad Temperature high 3	Disables All Motion
4013	Low SOC 2	Lift and Drive speed limit
4014	Low SOC 3	Disables All Motion
4015	High SOC 2	Lift and Drive speed limit
4016	High SOC 3	Disables All Motion
4017	Discharge total voltage high 2	Lift and Drive speed limit
4018	Discharge total voltage high 3	Disables All Motion
4019	Discharge total voltage low 2	Lift and Drive speed limit
4020	Discharge total voltage low 3	Disables All Motion
4021	Charge total voltage high 2	Lift and Drive speed limit
4022	Charge total voltage high 3	Disables All Motion
4023	High charge current 2	Lift and Drive speed limit
4024	High charge current 3	Disables All Motion
4025	High discharge current 2	Lift and Drive speed limit
4026	High discharge current 3	Disables All Motion
4027	Discharge cell voltage high 2	Lift and Drive speed limit
4028	Discharge cell voltage high 3	Disables All Motion
4029	Discharge cell voltage low 2	Lift and Drive speed limit
4030	Discharge cell voltage low 3	Disables All Motion
4031	Charge cell voltage low 2	Lift and Drive speed limit
4032	Charge cell voltage low 3	Disables All Motion
4033	Cell voltage imbalance 2	Lift and Drive speed limit
4034	Cell voltage imbalance 3	Disables All Motion
4035	Main relay adhesion 2	Lift and Drive speed limit
4036	Main relay adhesion 3	Disables All Motion
4037	Heating relay adhesion 2	Lift and Drive speed limit
4038	Heating relay adhesion 3	Disables All Motion
4039	High monomer 2	Lift and Drive speed limit
4040	High monomer 3	Disables All Motion
4041	Low monomer 2	Lift and Drive speed limit
4042	Low monomer 3	Disables All Motion
4043	High temperature 2	Lift and Drive speed limit
4044	High temperature 3	Disables All Motion

Hydraulic Schematic - 1930SE

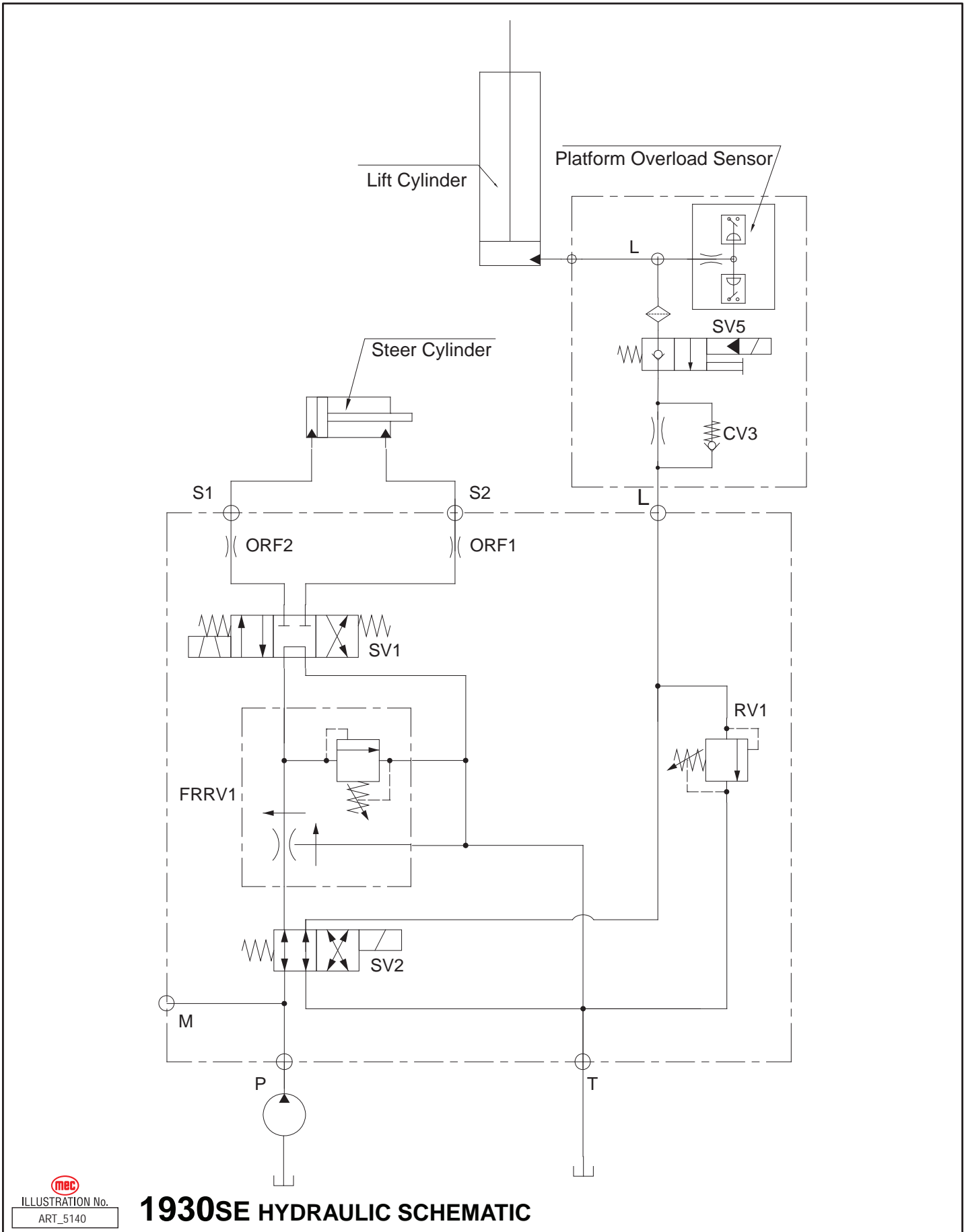



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1930SE HYDRAULIC SCHEMATIC

Hydraulic Components - 1930SE

Functions Manifold

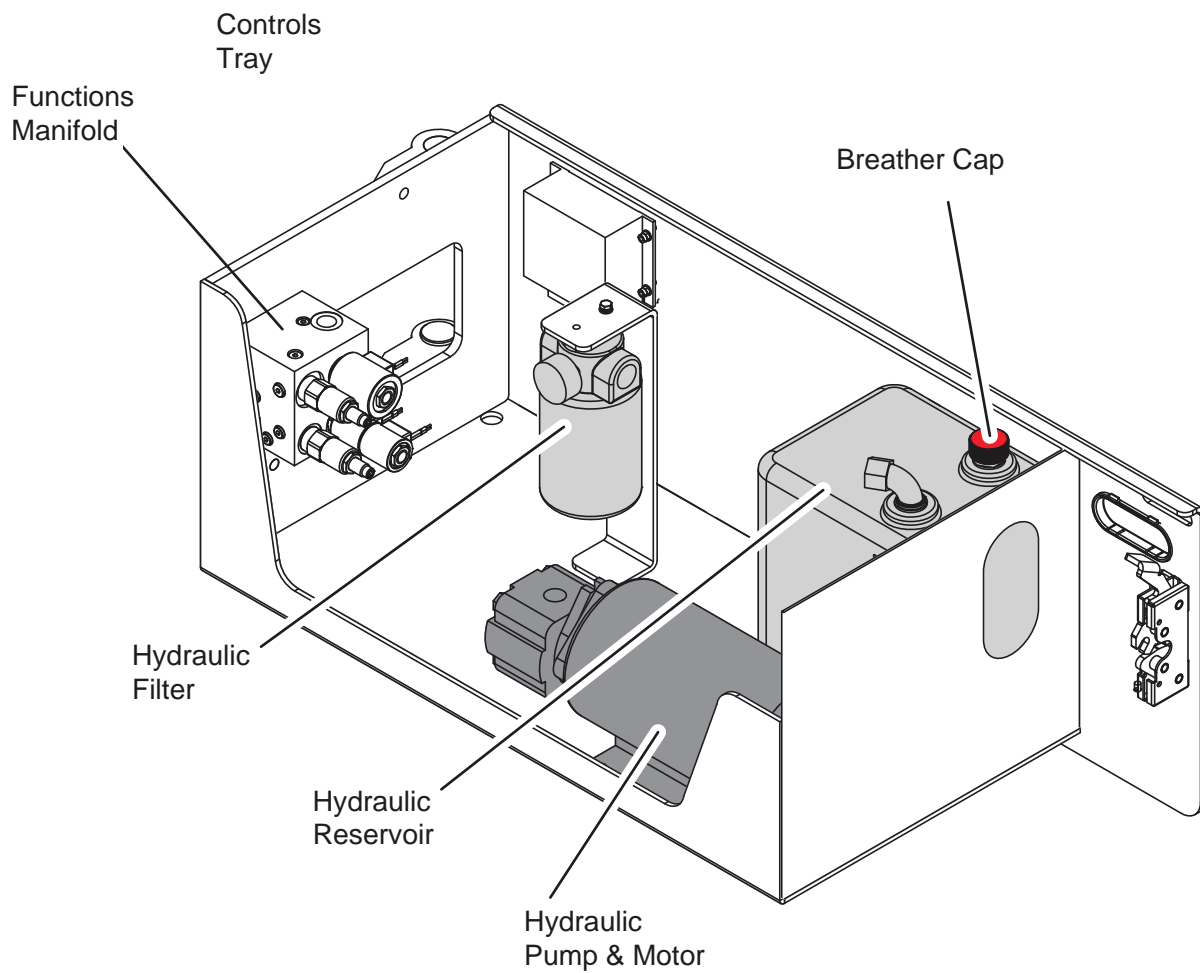
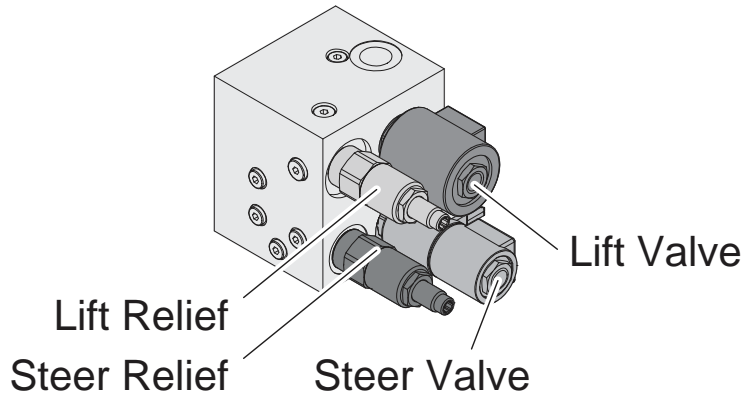


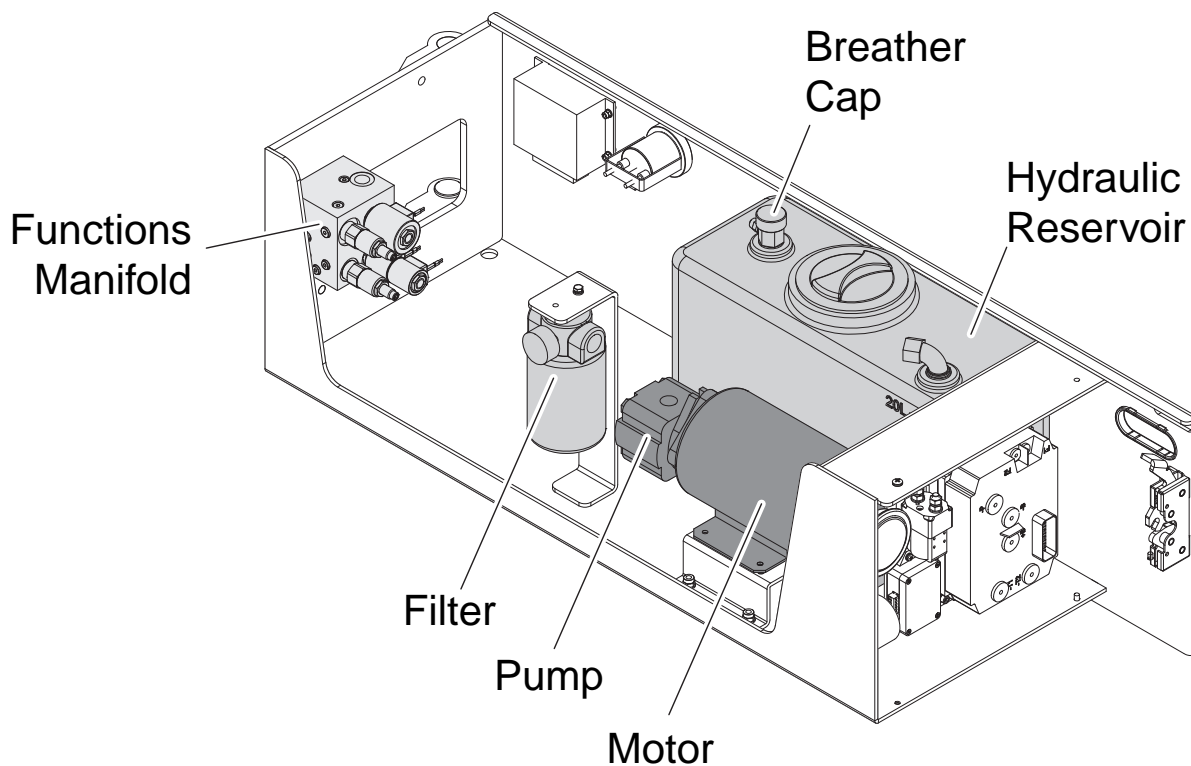
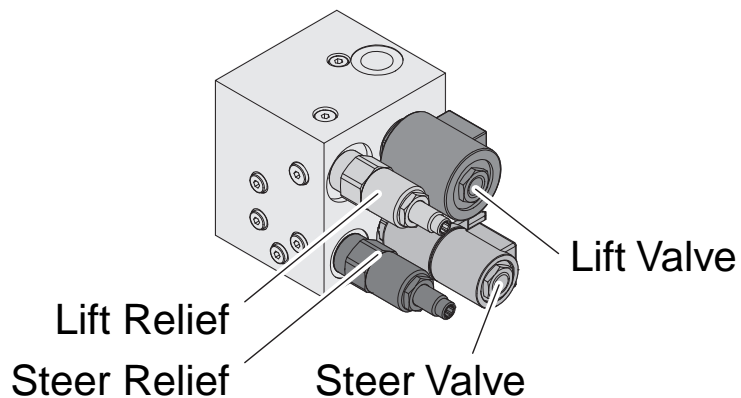
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1930SE HYDRAULIC COMPONENTS



Hydraulic Components - 2632SE, 3346SE, 4046SE, 4555SE

Functions Manifold



Function Valves

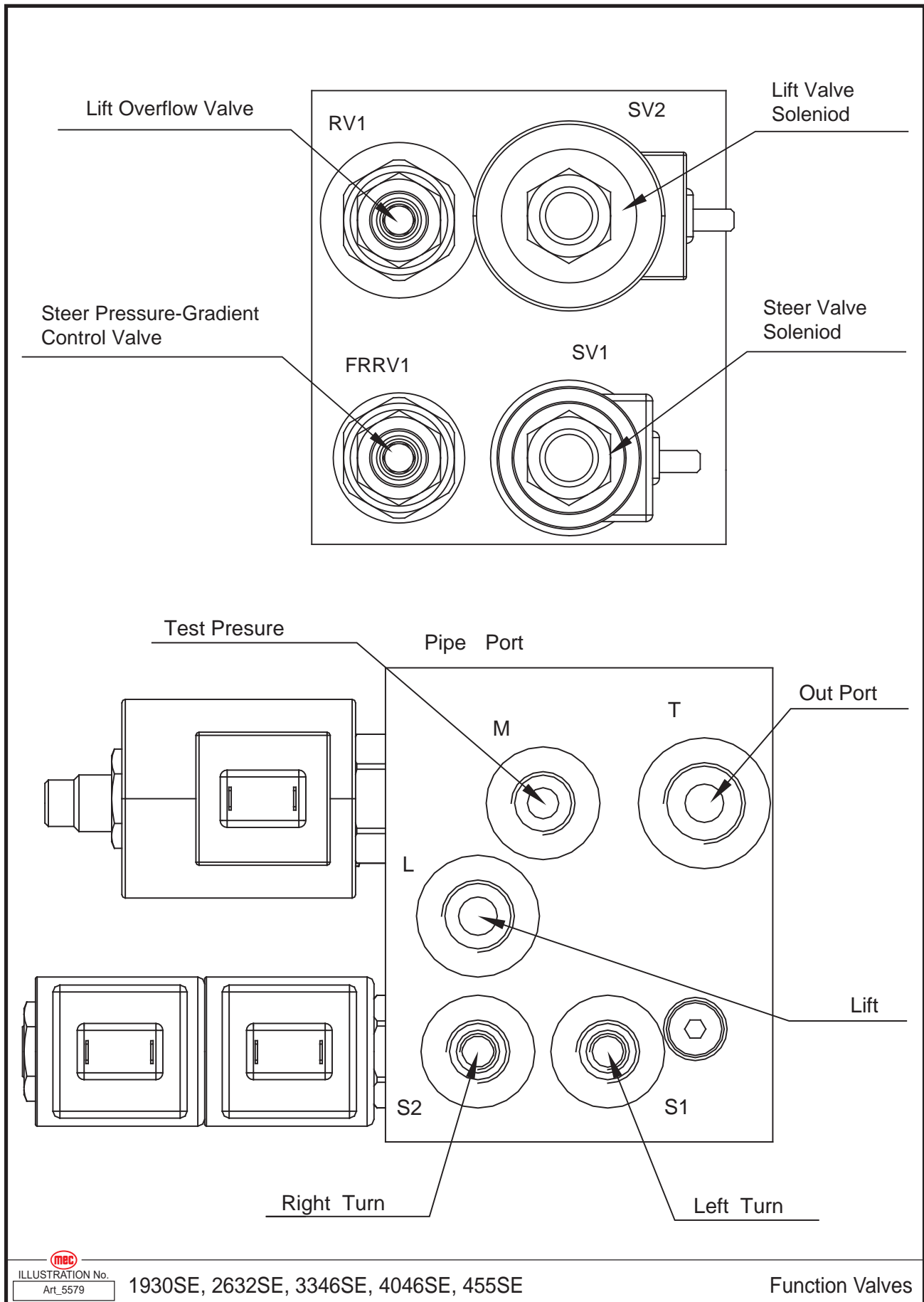



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Art_5579

1930SE, 2632SE, 3346SE, 4046SE, 455SE

Function Valves

Electrical Schematic - 1930SE

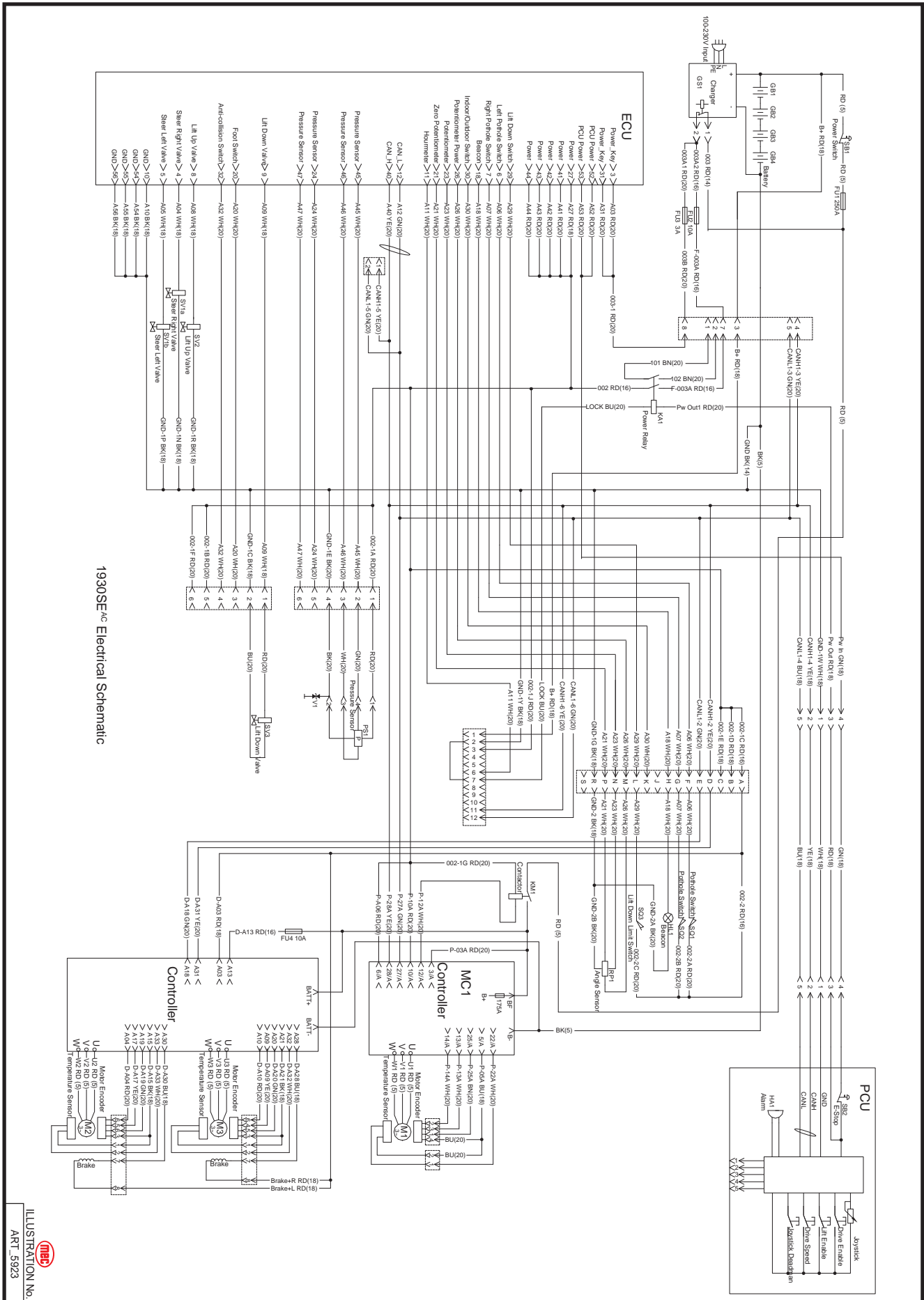
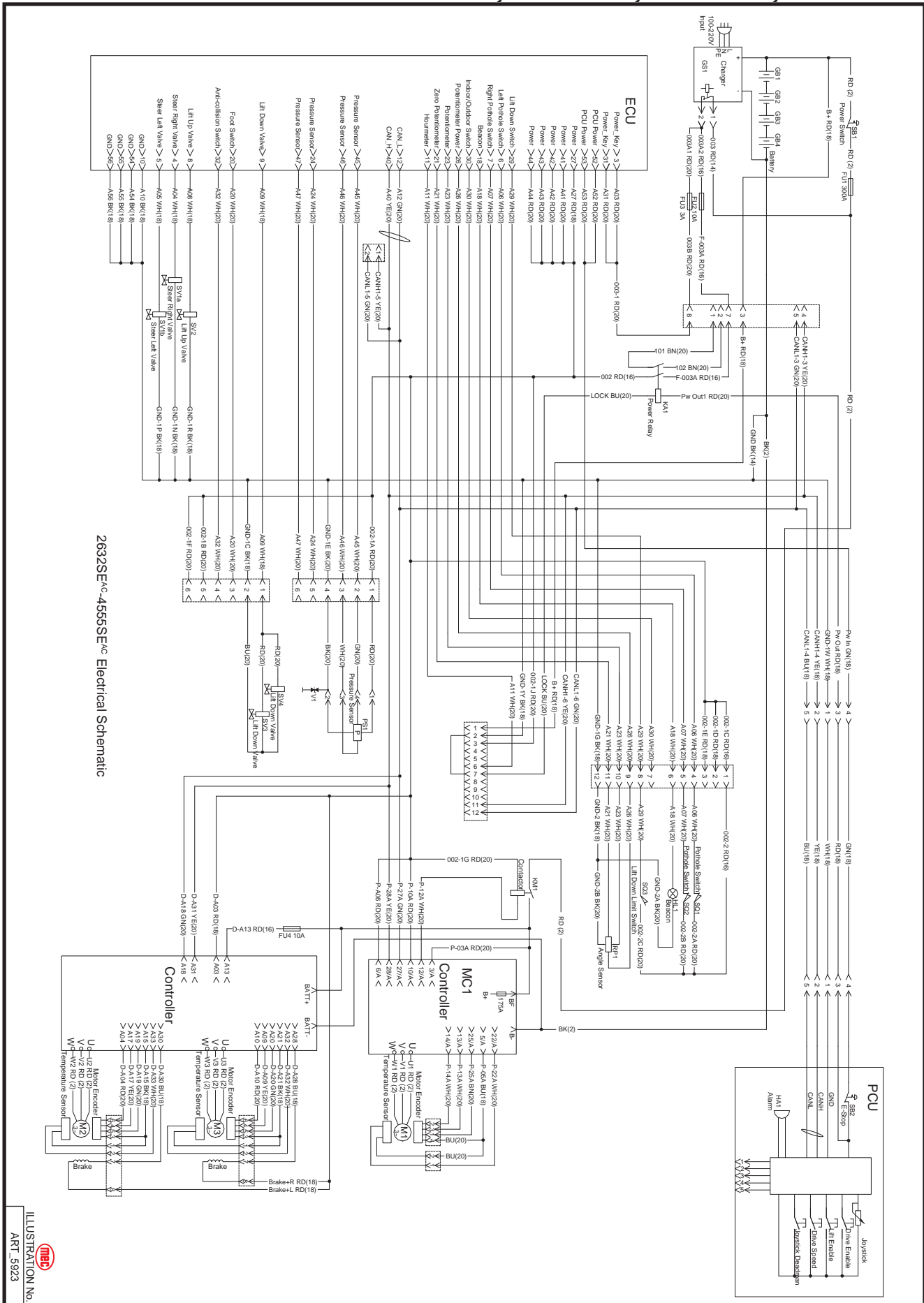


ILLUSTRATION NO.
ART 5923



Electrical Schematic - 2632SE, 3346SE, 4046SE, 4555SE



2632SE^{AC}, 4555SE^{AC} Electrical Schematic

ILLUSTRATION NO.
ART 5923

