

SELF-PROPELLED SCISSOR LIFTS

TRAINING MANUAL **E-TECH ACE** SERIES

(Hydraulic Motor Drive / Electric Motor Drive)



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1. Parameters

1.1 HA Specification

S06HA

Items	Parameters	Items	Parameters
Maximum Working Height	25.59 ft 7.80 m	Maximum hydraulic pressure (functions)	180bar
Maximum Platform Height	19.03 ft 5.80 m	Tire size	Φ323×100mm
Height, stowed Rails up	7.05 ft 2.15 m	Airborne noise emissions	<70dB
Height, stowed Rails folded	6.00 ft 1.83 m	Maximum sound level at normal operating workstations (A-weighted)	
Width	2.49 ft 0.76 m	Vibration value does not exceed 2.5m/s ²	
Length, platform retracted	6.10 ft 1.86 m	Maximum slope rating, Stowed position	25%
Length, platform extended	9.06 ft 2.76 m	Maximum side slope rating, Stowed position	25%
Platform dimensions	5.48 ft×2.43 ft 1.67 m×0.74 m	Note: Slope rating is subject to ground conditions and adequate traction.	
Platform extension length	2.95 ft 0.90 m	Maximum working slope	X-1.5°, Y-3°
Maximum load capacity	507 lbs 230 kg	Drive speeds	
Maximum wind speed	28 mile/h 12.5 m/s	Stowed, maximum	4.0km/h
Wheelbase	4.46 ft 1.36 m	Platform raised, maximum	0.6km/h
Turning radius (outside)	5.38 ft 1.64 m	Floor loading information	
Turning radius (inside)	0	Tire load, maximum	1565 lbs 710 kg
Ground clearance	3.54 in 9 cm	Tire contact pressure	10.4 kg/cm ² 1019 kPa
Ground clearance (Pothole guards deployed)	0.63 in 1.6 cm	Occupied floor pressure	1373 kg/m ² 13.5 kPa
Weight	See serial label	Note: Floor loading information is approximate and does not incorporate different option configurations. It should be used only with adequate safety factors.	
Machine weights vary with option configurations.			
Controls	Proportional		
AC outlet in platform	Standard	Continuous improvement of our products is a DINGLI policy. Product specifications are subject to change without notice or obligation.	
System voltage	24V		

S0608HA

Items	Parameters	Items	Parameters
Maximum Working Height	26.25 ft 8.00 m	Maximum hydraulic pressure (functions)	240bar
Maximum Platform Height	19.69 ft 6.00 m	Tire size	Φ381×127mm
Height, stowed Rails up	7.32 ft 2.23 m	Airborne noise emissions	<70dB
Height, stowed Rails folded	6.14 ft 1.87 m	Maximum sound level at normal operating workstations (A-weighted)	
Width	2.72 ft 0.83 m	Vibration value does not exceed 2.5m/s ²	
Length, platform retracted	8.14 ft 2.48 m	Maximum slope rating, Stowed position	25%
Length, platform extended	11.09 ft 3.38 m	Maximum side slope rating, Stowed position	25%
Platform dimensions	7.45 ft×2.66 ft 2.27 m×0.81 m	Note: Slope rating is subject to ground conditions and adequate traction.	
Platform extension length	2.95 ft 0.90 m	Maximum working slope	X-1.5°, Y-3°
Maximum load capacity	838 lbs 380 kg	Drive speeds	
Maximum wind speed	28 mile/h 12.5 m/s	Stowed, maximum	3.5km/h
Wheelbase	6.14 ft 1.87 m	Platform raised, maximum	0.8km/h
Turning radius (outside)	6.89 ft 2.10 m	Floor loading information	
Turning radius (inside)	0	Tire load, maximum	2205 lbs 1000 kg
Ground clearance	3.94 in 10 cm	Tire contact pressure	11.1 kg/cm ² 1086.9 kPa
Ground clearance (Pothole guards deployed)	0.75 in 1.9 cm	Occupied floor pressure	1339 kg/m ² 13.1 kPa
Weight	See serial label	Note: Floor loading information is approximate and does not incorporate different option configurations. It should be used only with adequate safety factors.	
Machine weights vary with option configurations.			
Controls	Proportional		
AC outlet in platform	Standard	Continuous improvement of our products is a DINGLI policy. Product specifications are subject to change without notice or obligation.	
System voltage	24V		

S0808HA

Items	Parameters	Items	Parameters
Maximum Working Height	32.81ft 10.00m	Maximum hydraulic pressure (functions)	240bar
Maximum Platform Height	26.25 ft 8.00m	Tire size	Φ381×127mm
Height, stowed Rails up	7.74ft 2.36m	Airborne noise emissions	<70dB
Height, stowed Rails folded	6.56ft 2.00m	Maximum sound level at normal operating workstations (A-weighted)	
Width	2.72ft 0.83m	Vibration value does not exceed 2.5m/s ²	
Length, platform retracted	8.14ft 2.48m	Maximum slope rating, Stowed position	25%
Length, platform extended	11.09ft 3.38m	Maximum side slope rating, Stowed position	25%
Platform dimensions	7.45ft × 2.66ft 2.27m × 0.81m	Note: Slope rating is subject to ground conditions and adequate traction.	
Platform extension length	2.95ft 0.90m	Maximum working slope	X-1.5°, Y-3°
Maximum load capacity	507lbs 230kg	Drive speeds	
Maximum wind speed	0	Stowed, maximum	3.5km/h
Wheelbase	6.14ft 1.87m	Platform raised, maximum	0.8km/h
Turning radius (outside)	6.89ft 2.10m	Floor loading information	
Turning radius (inside)	0	Tire load, maximum	2116lbs 960kg
Ground clearance	3.94in 10cm	Tire contact pressure	10.7kg/cm ² 1045kPa
Ground clearance (Pothole guards deployed)	0.75in 1.9cm	Occupied floor pressure	1287.4kg/m ² 12.6kPa
Weight	See serial label	Note: Floor loading information is approximate and does not incorporate different option configurations. It should be used only with adequate safety factors.	
Machine weights vary with option configurations.			
Controls	Proportional		
AC outlet in platform	Standard	Continuous improvement of our products is a DINGLI policy. Product specifications are subject to change without notice or obligation.	
System voltage	24V		

S0812HA

Items	Parameters	Items	Parameters
Maximum Working Height	32.81ft 10.00m	Maximum hydraulic pressure (functions)	240bar
Maximum Platform Height	26.25 ft 8.00m	Tire size	Φ381×127mm
Height, stowed Rails up	7.74ft 2.36m	Airborne noise emissions	<70dB
Height, stowed Rails folded	6.00ft 1.83m	Maximum sound level at normal operating workstations (A-weighted)	
Width	3.77ft 1.15m	Vibration value does not exceed 2.5m/s ²	
Length, platform retracted	8.14ft 2.48m	Maximum slope rating, Stowed position	25%
Length, platform extended	11.09ft 3.38m	Maximum side slope rating, Stowed position	25%
Platform dimensions	7.45ft × 3.67ft 2.27m × 1.12m	Note: Slope rating is subject to ground conditions and adequate traction.	
Platform extension length	2.95ft 0.90m	Maximum working slope	X-1.5°, Y-3°
Maximum load capacity	992lbs 450kg	Drive speeds	
Maximum wind speed	28mile/h 12.5m/s	Stowed, maximum	3.5km/h
Wheelbase	6.14ft 1.87m	Platform raised, maximum	0.8km/h
Turning radius (outside)	7.22ft 2.20m	Floor loading information	
Turning radius (inside)	0	Tire load, maximum	2734lbs 1240kg
Ground clearance	3.94in 10cm	Tire contact pressure	12.1kg/cm ² 1182.6kPa
Ground clearance (Pothole guards deployed)	0.75in 1.9cm	Occupied floor pressure	1174.1kg/m ² 11.5kPa
Weight	See serial label	Note: Floor loading information is approximate and does not incorporate different option configurations. It should be used only with adequate safety factors.	
Machine weights vary with option configurations.			
Controls	Proportional		
AC outlet in platform	Standard	Continuous improvement of our products is a DINGLI policy. Product specifications are subject to change without notice or obligation.	
System voltage	24V		

S1012HA

Items	Parameters	Items	Parameters
Maximum Working Height	39.37 ft 12.00 m	Maximum hydraulic pressure (functions)	240bar
Maximum Platform Height	32.81 ft 10.00 m	Tire size	Φ381×127mm
Height, stowed Rails up	8.17 ft 2.49 m	Airborne noise emissions	<70dB
Height, stowed Rails folded	6.43 ft 1.96 m	Maximum sound level at normal operating workstations (A-weighted)	
Width	3.77 ft 1.15 m	Vibration value does not exceed 2.5m/s ²	
Length, platform retracted	8.14 ft 2.48 m	Maximum slope rating, Stowed position	25%
Length, platform extended	11.09 ft 3.38 m	Maximum side slope rating, Stowed position	25%
Platform dimensions	7.45 ft×3.67 ft 2.27 m×1.12 m	Note: Slope rating is subject to ground conditions and adequate traction.	
Platform extension length	2.95 ft 0.90 m	Maximum working slope	X-1.5°, Y-3°
Maximum load capacity	705 lbs 320 kg	Drive speeds	
Maximum wind speed	28 mile/h 12.5 m/s	Stowed, maximum	3.5 km/h
Wheelbase	6.14 ft 1.87 m	Platform raised, maximum	0.8 km/h
Turning radius (outside)	7.22 ft 2.20 m	Floor loading information	
Turning radius (inside)	0	Tire load, maximum	2888 lbs 1310 kg
Ground clearance	3.94 in 10 cm	Tire contact pressure	11.8 kg/cm ² 1159.7 kPa
Ground clearance (Pothole guards deployed)	0.75 in 1.9 cm	Occupied floor pressure	1250.7 kg/m ² 12.3 kPa
Weight	See serial label	Note: Floor loading information is approximate and does not incorporate different option configurations. It should be used only with adequate safety factors.	
Machine weights vary with option configurations.			
Controls	Proportional		
AC outlet in platform	Standard	Continuous improvement of our products is a DINGLI policy. Product specifications are subject to change without notice or obligation.	
System voltage	24V		

S1212HA

Items	Parameters	Items	Parameters
Maximum Working Height	45.28 ft 13.80 m	Maximum hydraulic pressure (functions)	240bar
Maximum Platform Height	38.71 ft 11.80 m	Tire size	Φ381×127mm
Height, stowed Rails up	8.60 ft 2.62 m	Airborne noise emissions	<70dB
Height, stowed Rails folded	6.86 ft 2.09 m	Maximum sound level at normal operating workstations (A-weighted)	
Width	3.90 ft 1.19 m	Vibration value does not exceed 2.5m/s ²	
Length, platform retracted	8.14 ft 2.48 m	Maximum slope rating, Stowed position	25%
Length, platform extended	11.09 ft 3.38 m	Maximum side slope rating, Stowed position	25%
Platform dimensions	7.45 ft×3.67 ft 2.27 m×1.12 m	Note: Slope rating is subject to ground conditions and adequate traction.	
Platform extension length	2.95 ft 0.90 m	Maximum working slope	X-1.5°, Y-3°
Maximum load capacity	705 lbs 320 kg	Drive speeds	
Maximum wind speed	0	Stowed, maximum	3.5 km/h
Wheelbase	6.14 ft 1.87 m	Platform raised, maximum	0.8 km/h
Turning radius (outside)	7.22 ft 2.20 m	Floor loading information	
Turning radius (inside)	0	Tire load, maximum	2822 lbs 1280 kg
Ground clearance	3.94 in 10 cm	Tire contact pressure	11.1 kg/cm ² 1083.7 kPa
Ground clearance (Pothole guards deployed)	0.75 in 1.9 cm	Occupied floor pressure	1169.8 kg/m ² 11.5 kPa
Weight	See serial label	Note: Floor loading information is approximate and does not incorporate different option configurations. It should be used only with adequate safety factors.	
Machine weights vary with option configurations.			
Controls	Proportional		
AC outlet in platform	Standard	Continuous improvement of our products is a DINGLI policy. Product specifications are subject to change without notice or obligation.	
System voltage	24V		

S1412HA

Items	Parameters	Items	Parameters
Maximum Working Height	51.51 ft 15.70 m	Maximum hydraulic pressure (functions)	240bar
Maximum Platform Height	44.95 ft 13.70 m	Tire size	Φ381×127mm
Height, stowed Rails up	8.60 ft 2.62 m	Airborne noise emissions	<70dB
Height, stowed Rails folded	6.86 ft 2.09 m	Maximum sound level at normal operating workstations (A-weighted)	
Width	4.10 ft 1.25 m	Vibration value does not exceed 2.5m/s ²	
Length, platform retracted	9.32 ft 2.84 m	Maximum slope rating, Stowed position	25%
Length, platform extended	12.27 ft 3.74 m	Maximum side slope rating, Stowed position	25%
Platform dimensions	8.66 ft×3.67 ft 2.64 m×1.12 m	Note: Slope rating is subject to ground conditions and adequate traction.	
Platform extension length	2.95 ft 0.90 m	Maximum working slope	X-1.5°, Y-3°
Maximum load capacity	551 lbs 250 kg	Drive speeds	
Maximum wind speed	0	Stowed, maximum	3.5 km/h
Wheelbase	7.28 ft 2.22 m	Platform raised, maximum	0.8 km/h
Turning radius (outside)	8.69 ft 2.65 m	Floor loading information	
Turning radius (inside)	0	Tire load, maximum	2976 lbs 1350 kg
Ground clearance	3.94 in 10 cm	Tire contact pressure	11.7 kg/cm ² 1142 kPa
Ground clearance (Pothole guards deployed)	0.75 in 1.9 cm	Occupied floor pressure	1013.1 kg/m ² 9.9 kPa
Weight	See serial label	Note: Floor loading information is approximate and does not incorporate different option configurations. It should be used only with adequate safety factors.	
Machine weights vary with option configurations.			
Controls	Proportional		
AC outlet in platform	Standard	Continuous improvement of our products is a DINGLI policy. Product specifications are subject to change without notice or obligation.	
System voltage	24V		

1.2 AC Specification

S06 ACE

Items	Parameters	Items	Parameters
Maximum Working Height	25.59 ft 7.80 m	Maximum hydraulic pressure (functions)	180bar
Maximum Platform Height	19.03 ft 5.80 m	Tire size	Φ323×100mm
Height, stowed Rails up	7.05 ft 2.15 m	Airborne noise emissions	<70dB
Height, stowed Rails folded	6.00 ft 1.83 m	Maximum sound level at normal operating workstations (A-weighted)	
Width	2.49 ft 0.76 m	Vibration value does not exceed 2.5m/s ²	
Length, platform retracted	6.10 ft 1.86 m	Maximum slope rating, Stowed position	25%
Length, platform extended	9.06 ft 2.76 m	Maximum side slope rating, Stowed position	25%
Platform dimensions	5.48 ft×2.43 ft 1.67 m×0.74 m	Note: Slope rating is subject to ground conditions and adequate traction.	
Platform extension length	2.95 ft 0.90 m	Maximum working slope	X-1.5°, Y-3°
Maximum load capacity	507 lbs 230 kg	Drive speeds	
Maximum wind speed	28 mile/h 12.5 m/s	Stowed, maximum	4.5km/h
Wheelbase	4.46 ft 1.36 m	Platform raised, maximum	0.6km/h
Turning radius (outside)	5.38 ft 1.64 m	Floor loading information	
Turning radius (inside)	0	Tire load, maximum	1565 lbs 710 kg
Ground clearance	3.54 in 9 cm	Tire contact pressure	10.4 kg/cm ² 1019 kPa
Ground clearance (Pothole guards deployed)	0.63 in 1.6 cm	Occupied floor pressure	1373 kg/m ² 13.5 kPa
Weight	See serial label	Note: Floor loading information is approximate and does not incorporate different option configurations. It should be used only with adequate safety factors.	
Machine weights vary with option configurations.			
Controls	Proportional		
AC outlet in platform	Standard	Continuous improvement of our products is a DINGLI policy. Product specifications are subject to change without notice or obligation.	
System voltage	24V		

S0608ACE

Items	Parameters	Items	Parameters
Maximum Working Height	26.25 ft 8.00 m	Maximum hydraulic pressure (functions)	240bar
Maximum Platform Height	19.69 ft 6.00 m	Tire size	Φ381×127mm
Height, stowed Rails up	7.32 ft 2.23 m	Airborne noise emissions	<70dB
Height, stowed Rails folded	6.14 ft 1.87 m	Maximum sound level at normal operating workstations (A-weighted)	
Width	2.72 ft 0.83 m	Vibration value does not exceed 2.5m/s ²	
Length, platform retracted	8.14 ft 2.48 m	Maximum slope rating, Stowed position	25%
Length, platform extended	11.09 ft 3.38 m	Maximum side slope rating, Stowed position	25%
Platform dimensions	7.45 ft×2.66 ft 2.27 m×0.81 m	Note: Slope rating is subject to ground conditions and adequate traction.	
Platform extension length	2.95 ft 0.90 m	Maximum working slope	X-1.5°, Y-3°
Maximum load capacity	838 lbs 380 kg	Drive speeds	
Maximum wind speed	28 mile/h 12.5 m/s	Stowed, maximum	4.0km/h
Wheelbase	6.14 ft 1.87 m	Platform raised, maximum	0.8km/h
Turning radius (outside)	6.89 ft 2.10 m	Floor loading information	
Turning radius (inside)	0	Tire load, maximum	2205 lbs 1000 kg
Ground clearance	3.94 in 10 cm	Tire contact pressure	11.3 kg/cm ² 1104.6 kPa
Ground clearance (Pothole guards deployed)	0.75 in 1.9 cm	Occupied floor pressure	1360.7 kg/m ² 13.3 kPa
Weight	See serial label	Note: Floor loading information is approximate and does not incorporate different option configurations. It should be used only with adequate safety factors.	
Machine weights vary with option configurations.			
Controls	Proportional		
AC outlet in platform	Standard	Continuous improvement of our products is a DINGLI policy. Product specifications are subject to change without notice or obligation.	
System voltage	24V		

S0808ACE

Items	Parameters	Items	Parameters
Maximum Working Height	32.81ft 10.00m	Maximum hydraulic pressure (functions)	240bar
Maximum Platform Height	26.25 ft 8.00m	Tire size	Φ381×127mm
Height, stowed Rails up	7.74ft 2.36m	Airborne noise emissions	<70dB
Height, stowed Rails folded	6.56ft 2.00m	Maximum sound level at normal operating workstations (A-weighted)	
Width	2.72ft 0.83m	Vibration value does not exceed 2.5m/s ²	
Length, platform retracted	8.14ft 2.48m	Maximum slope rating, Stowed position	25%
Length, platform extended	11.09ft 3.38m	Maximum side slope rating, Stowed position	25%
Platform dimensions	7.45ft × 2.66ft 2.27m × 0.81m	Note: Slope rating is subject to ground conditions and adequate traction.	
Platform extension length	2.95ft 0.90m	Maximum working slope	X-1.5°, Y-3°
Maximum load capacity	507lbs 230kg	Drive speeds	
Maximum wind speed	0	Stowed, maximum	4.0km/h
Wheelbase	6.14ft 1.87m	Platform raised, maximum	0.8km/h
Turning radius (outside)	6.89ft 2.10m	Floor loading information	
Turning radius (inside)	0	Tire load, maximum	2116lbs 960kg
Ground clearance	3.94in 10cm	Tire contact pressure	10.8kg/cm ² 1062.7kPa
Ground clearance (Pothole guards deployed)	0.75in 1.9cm	Occupied floor pressure	1309.1kg/m ² 12.8kPa
Weight	See serial label	Note: Floor loading information is approximate and does not incorporate different option configurations. It should be used only with adequate safety factors.	
Machine weights vary with option configurations.			
Controls	Proportional		
AC outlet in platform	Standard	Continuous improvement of our products is a DINGLI policy. Product specifications are subject to change without notice or obligation.	
System voltage	24V		

S0812ACE

Items	Parameters	Items	Parameters
Maximum Working Height	32.81ft 10.00m	Maximum hydraulic pressure (functions)	240bar
Maximum Platform Height	26.25 ft 8.00m	Tire size	Φ381×127mm
Height, stowed Rails up	7.74ft 2.36m	Airborne noise emissions	<70dB
Height, stowed Rails folded	6.00ft 1.83m	Maximum sound level at normal operating workstations (A-weighted)	
Width	3.77ft 1.15m	Vibration value does not exceed 2.5m/s ²	
Length, platform retracted	8.14ft 2.48m	Maximum slope rating, Stowed position	25%
Length, platform extended	11.09ft 3.38m	Maximum side slope rating, Stowed position	25%
Platform dimensions	7.45ft × 3.67ft 2.27m × 1.12m	Note: Slope rating is subject to ground conditions and adequate traction.	
Platform extension length	2.95ft 0.90m	Maximum working slope	X-1.5°, Y-3°
Maximum load capacity	992lbs 450kg	Drive speeds	
Maximum wind speed	28mile/h 12.5m/s	Stowed, maximum	4.0km/h
Wheelbase	6.14ft 1.87m	Platform raised, maximum	0.8km/h
Turning radius (outside)	7.22ft 2.20m	Floor loading information	
Turning radius (inside)	0	Tire load, maximum	2734lbs 1240kg
Ground clearance	3.94in 10cm	Tire contact pressure	12.2kg/cm ² 1198kPa
Ground clearance (Pothole guards deployed)	0.75in 1.9cm	Occupied floor pressure	1189.4kg/m ² 11.7kPa
Weight	See serial label	Note: Floor loading information is approximate and does not incorporate different option configurations. It should be used only with adequate safety factors.	
Machine weights vary with option configurations.			
Controls	Proportional		
AC outlet in platform	Standard	Continuous improvement of our products is a DINGLI policy. Product specifications are subject to change without notice or obligation.	
System voltage	24V		

S1012ACE

Items	Parameters	Items	Parameters
Maximum Working Height	39.37 ft 12.00 m	Maximum hydraulic pressure (functions)	240bar
Maximum Platform Height	32.81 ft 10.00 m	Tire size	Φ381×127mm
Height, stowed Rails up	8.17 ft 2.49 m	Airborne noise emissions	<70dB
Height, stowed Rails folded	6.43 ft 1.96 m	Maximum sound level at normal operating workstations (A-weighted)	
Width	3.77 ft 1.15 m	Vibration value does not exceed 2.5m/s ²	
Length, platform retracted	8.14 ft 2.48 m	Maximum slope rating, Stowed position	25%
Length, platform extended	11.09 ft 3.38 m	Maximum side slope rating, Stowed position	25%
Platform dimensions	7.45 ft×3.67 ft 2.27 m×1.12 m	Note: Slope rating is subject to ground conditions and adequate traction.	
Platform extension length	2.95 ft 0.90 m	Maximum working slope	X-1.5°, Y-3°
Maximum load capacity	705 lbs 320 kg	Drive speeds	
Maximum wind speed	28 mile/h 12.5 m/s	Stowed, maximum	4.0 km/h
Wheelbase	6.14 ft 1.87 m	Platform raised, maximum	0.8 km/h
Turning radius (outside)	7.22 ft 2.20 m	Floor loading information	
Turning radius (inside)	0	Tire load, maximum	2888 lbs 1310 kg
Ground clearance	3.94 in 10 cm	Tire contact pressure	12.9 kg/cm ² 1267.4 kPa
Ground clearance (Pothole guards deployed)	0.75 in 1.9 cm	Occupied floor pressure	1258.4 kg/m ² 12.3 kPa
Weight	See serial label	Note: Floor loading information is approximate and does not incorporate different option configurations. It should be used only with adequate safety factors.	
Machine weights vary with option configurations.			
Controls	Proportional		
AC outlet in platform	Standard	Continuous improvement of our products is a DINGLI policy. Product specifications are subject to change without notice or obligation.	
System voltage	24V		

S1212ACE

Items	Parameters	Items	Parameters
Maximum Working Height	45.28 ft 13.80 m	Maximum hydraulic pressure (functions)	240bar
Maximum Platform Height	38.71 ft 11.80 m	Tire size	Φ381×127mm
Height, stowed Rails up	8.60 ft 2.62 m	Airborne noise emissions	<70dB
Height, stowed Rails folded	6.86 ft 2.09 m	Maximum sound level at normal operating workstations (A-weighted)	
Width	3.90 ft 1.19 m	Vibration value does not exceed 2.5m/s ²	
Length, platform retracted	8.14 ft 2.48 m	Maximum slope rating, Stowed position	25%
Length, platform extended	11.09 ft 3.38 m	Maximum side slope rating, Stowed position	25%
Platform dimensions	7.45 ft×3.67 ft 2.27 m×1.12 m	Note: Slope rating is subject to ground conditions and adequate traction.	
Platform extension length	2.95 ft 0.90 m	Maximum working slope	X-1.5°, Y-3°
Maximum load capacity	705 lbs 320 kg	Drive speeds	
Maximum wind speed	0	Stowed, maximum	4.0 km/h
Wheelbase	6.14 ft 1.87 m	Platform raised, maximum	0.8 km/h
Turning radius (outside)	7.22 ft 2.20 m	Floor loading information	
Turning radius (inside)	0	Tire load, maximum	2822 lbs 1280 kg
Ground clearance	3.94 in 10 cm	Tire contact pressure	11.2 kg/cm ² 1097.5 kPa
Ground clearance (Pothole guards deployed)	0.75 in 1.9 cm	Occupied floor pressure	1184.6 kg/m ² 11.6 kPa
Weight	See serial label	Note: Floor loading information is approximate and does not incorporate different option configurations. It should be used only with adequate safety factors.	
Machine weights vary with option configurations.			
Controls	Proportional		
AC outlet in platform	Standard	Continuous improvement of our products is a DINGLI policy. Product specifications are subject to change without notice or obligation.	
System voltage	24V		

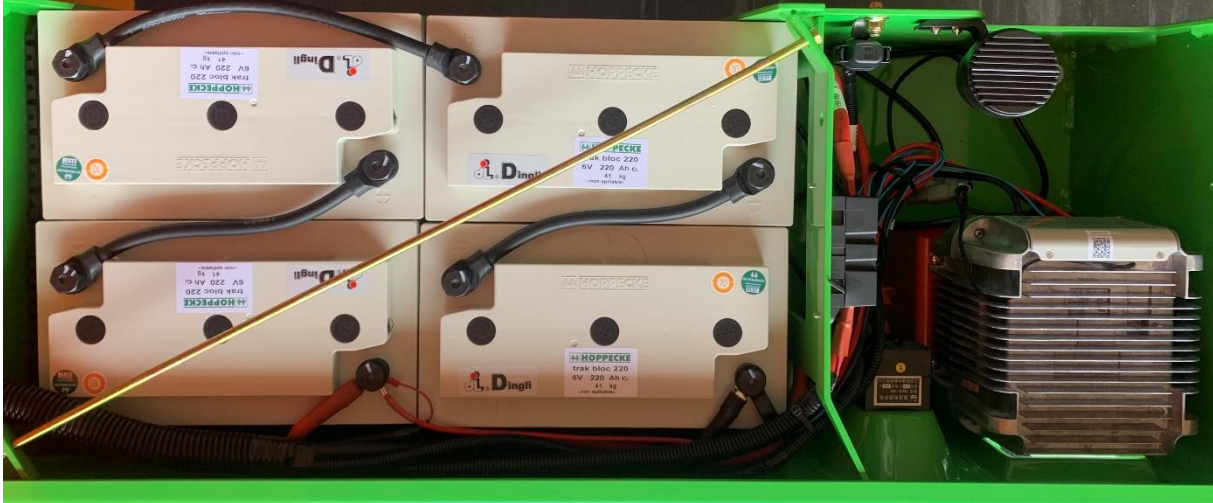
S1412ACE

Items	Parameters	Items	Parameters
Maximum Working Height	51.51 ft 15.70 m	Maximum hydraulic pressure (functions)	240bar
Maximum Platform Height	44.95 ft 13.70 m	Tire size	Φ381×127mm
Height, stowed Rails up	8.60 ft 2.62 m	Airborne noise emissions	<70dB
Height, stowed Rails folded	6.86 ft 2.09 m	Maximum sound level at normal operating workstations (A-weighted)	
Width	4.10 ft 1.25 m	Vibration value does not exceed 2.5m/s ²	
Length, platform retracted	9.32 ft 2.84 m	Maximum slope rating, Stowed position	25%
Length, platform extended	12.27 ft 3.74 m	Maximum side slope rating, Stowed position	25%
Platform dimensions	8.66 ft×3.67 ft 2.64 m×1.12 m	Note: Slope rating is subject to ground conditions and adequate traction.	
Platform extension length	2.95 ft 0.90 m	Maximum working slope	X-1.5°, Y-3°
Maximum load capacity	551 lbs 250 kg	Drive speeds	
Maximum wind speed	0	Stowed, maximum	4.0 km/h
Wheelbase	7.28 ft 2.22 m	Platform raised, maximum	0.8 km/h
Turning radius (outside)	8.69 ft 2.65 m	Floor loading information	
Turning radius (inside)	0	Tire load, maximum	2976 lbs 1350 kg
Ground clearance	3.94 in 10 cm	Tire contact pressure	11.8 kg/cm ² 1159.2 kPa
Ground clearance (Pothole guards deployed)	0.75 in 1.9 cm	Occupied floor pressure	1028.4 kg/m ² 10.1 kPa
Weight	See serial label	Note: Floor loading information is approximate and does not incorporate different option configurations. It should be used only with adequate safety factors.	
Machine weights vary with option configurations.			
Controls	Proportional		
AC outlet in platform	Standard	Continuous improvement of our products is a DINGLI policy. Product specifications are subject to change without notice or obligation.	
System voltage	24V		

2. Parts Introduction

2.1 Charger & Battery

2.1.1 Specification



Lead-acid type

Charger:

Model: GPSC3024

AC Input: 100-135 V~, 50-60 Hz, 10.5 A Max

180-240 V~, 50-60 Hz, 4.8 A Max

DC Output: 24 V, 30 A

Battery:

Items	Parameters	Items	Parameters
S06ACE- - S0812ACE	Standard	S1012ACE--S1412ACE	Standard
Voltage	6VDC	Voltage	6VDC
Type	6TB170 (Hoppecke)	Type	6TB220 (Hoppecke)
Quantity	4	Quantity	4
Battery capacity, max.	170Ah	Battery capacity, max.	220Ah
Maintenance-free	Yes	Maintenance-free	Yes

2.1.2 Charger Curve

Curve selection:

Model	Battery Model	Charger Curve
S06 - S0812	HOPPECKE 6TB-170	b22
S1012 - S1412	HOPPECKE 6TB-220	
JCPT0807	Trojan T-605	b01
JCPT0808-1012	Trojan T-105 Plus	
JCPT1212	Trojan T-125 Plus	
JCPT1412-1612	Trojan T-1275 Plus	

Steps to change the battery curve:

1. Turn on the mains, press and hold the **Select button** for 5 seconds to release, the digital tube displays the current charging curve code;
2. Lightly press the **Select button** for 1 second and release to switch the charging curve code. If the charging curve code is selected, press and hold the **Select button** for 5 seconds, the charging curve code flashes quickly, release the **button**, and the battery curve setting is completed.

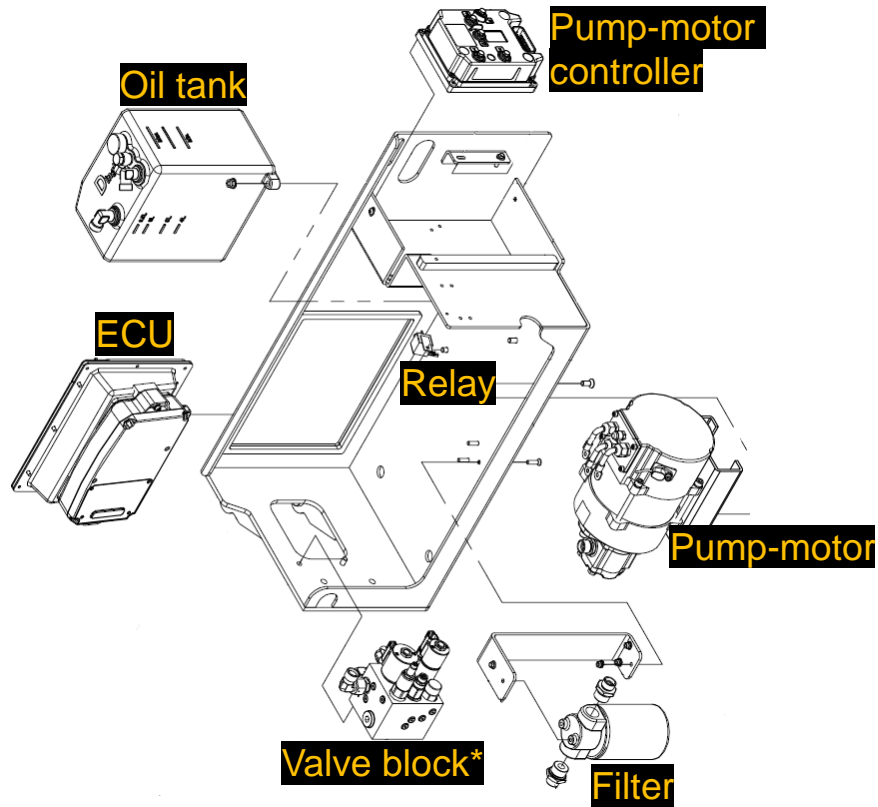


(In case the charger does not have the required charging curve built in, it can also be flashed in through the USB interface.)

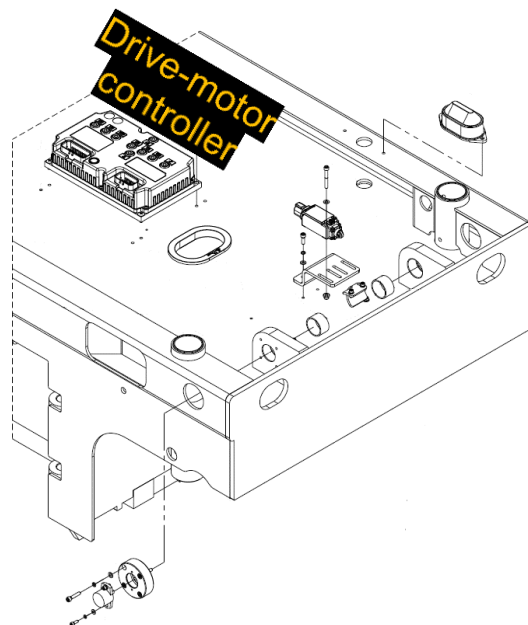
2.2 Power Unit Module

2.2.1 General Overview

S06 ACE & HA

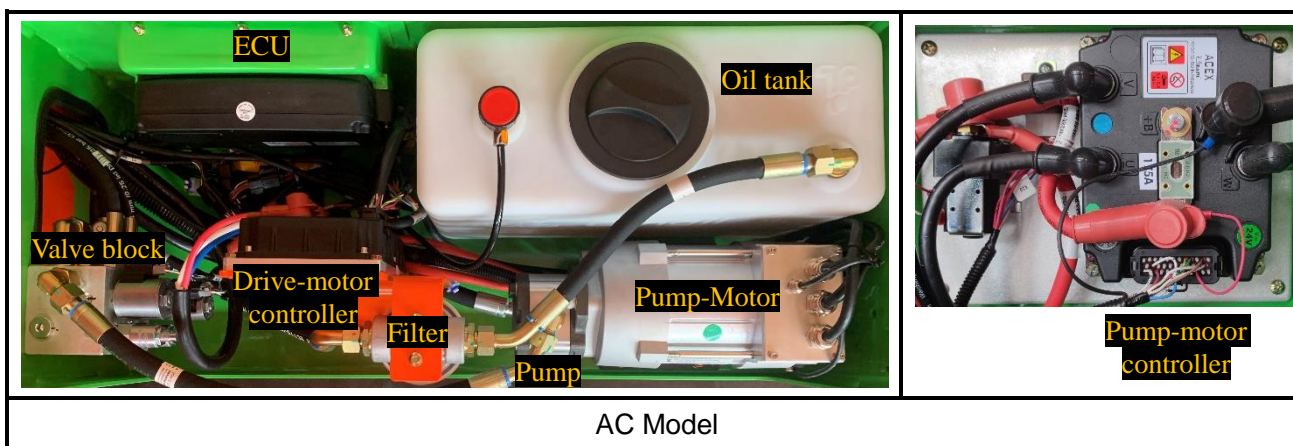
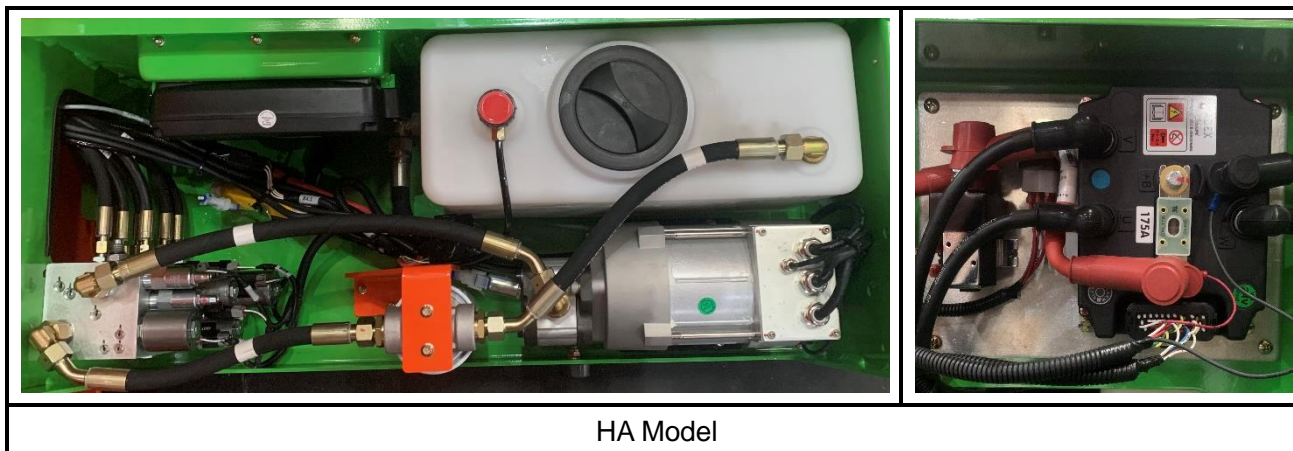


Regarding the hydraulic and electric drive models of 0807, their function valve blocks are different. **S06ACE**



For JCPT 0807 AC, its drive-motor controller is installed on the surface of the chassis.

S0808-S1412



2.2.2 ECU Overview



- 1 Menu escape button
- 2 LED readout screen
- 3 Menu up button
- 4 Menu down button
- 5 Menu enter button
- 6 Overload indicator light
- 7 Function enable button
- 8 Platform down button

- 9 Platform up button
- 10 Red Emergency Stop button
Push in the red Emergency Stop button to the off position to stop all functions. Pull out the red Emergency Stop button to the on position to operate the machine.
- 11 Key switch
Turn the key switch to the platform position and the platform controls will operate. Turn the key switch to the off position and the machine will be off. Turn the key switch to the base position and the ground controls will operate.



AC New version
(Highly integrated)

=



DC Old version

+



Pin definition

PIN	INPUT/OUTPUT	FUNCTION	Remark
1	OUTPUT	Forward valve	Only HA
2	OUTPUT	Reverse valve	Only HA
3	POWER	24V	
4	OUTPUT	Steering right	
5	OUTPUT	Steering left	
6	INPUT	Pothole switch (left)	
7	INPUT	Pothole switch (right)	
8	OUTPUT	Lifting valve	
9	OUTPUT	Lowering valve	
10	POWER	GND	
11	OUTPUT	Hour meter	
12	COMMUNICATION	CAN L	
13	OUTPUT		
14	POWER	24V	
15	POWER	24V	
16	OUTPUT	Horn	
17	OUTPUT	Speed valve	
18	OUTPUT	Beacon	
19	INPUT		
20	INPUT		
21	OUTPUT	Angle sensor reset	
22	SAFETY OUTPUT		
23	INPUT	Angle sensor	
24	INPUT	Pressure sensor (voltage) 1	
25	OUTPUT		
26	OUTPUT	Angle sensor power	
27	POWER	24V	
28	SIMULATION OUTPUT		
29	INPUT	Down limit switch	
30	INPUT		
31	POWER	24V	
32	INPUT		
33	INPUT	Pressure switch	
34	INPUT	Footswitch	GND
35	INPUT		
36	INPUT		

PIN	INPUT/OUTPUT	FUNCTION	Remark
37	INPUT		
38	COMMUNICATION		
39	COMMUNICATION		
40	COMMUNICATION	CAN H	
41	POWER	24V	
42	POWER	24V	
43	POWER	24V	
44	POWER	24V	
45	INPUT	Pressure sensor (Current) 1	
46	INPUT	Pressure sensor (Current) 2	
47	INPUT	Pressure sensor (voltage) 2	
48	INPUT		
49	INPUT		
50	INPUT		
51	INPUT		
52	POWER	24V	
53	POWER	24V	
54	POWER	GND	
55	POWER	GND	
56	POWER	GND	

ECU information is detailed in Chapter [“5. ECU”](#).

2.2.3 ZAPI controller

2.2.3.1 Pump-motor controller

Technical specifications

Control mode	speed or torque control
Operating frequency of the AC inverter	8 kHz
Ambient operating temperature range	-40 °C ~ 40 °C
Ambient storage temperature range	-40 °C ~ 85 °C
Maximum inverter temperature (at full power)	85 °C
Connector	35-pins Ampseal
Package environmental rating	IP65



Pin definition

Pump Motor controller	Pin	Function description
Pump motor	A14	Encoder power +
	A5	Encoder power -
	A13	Encoder signal 1
	A25	Encoder signal 2
	A22	Temperature switch
	A6	Power 24V+
	A10	Power 24V+
	A12	Main contactor -
	A3	Power 24V+
Communication	A28	CAN H
	A27	CAN L

ZAPI output current table

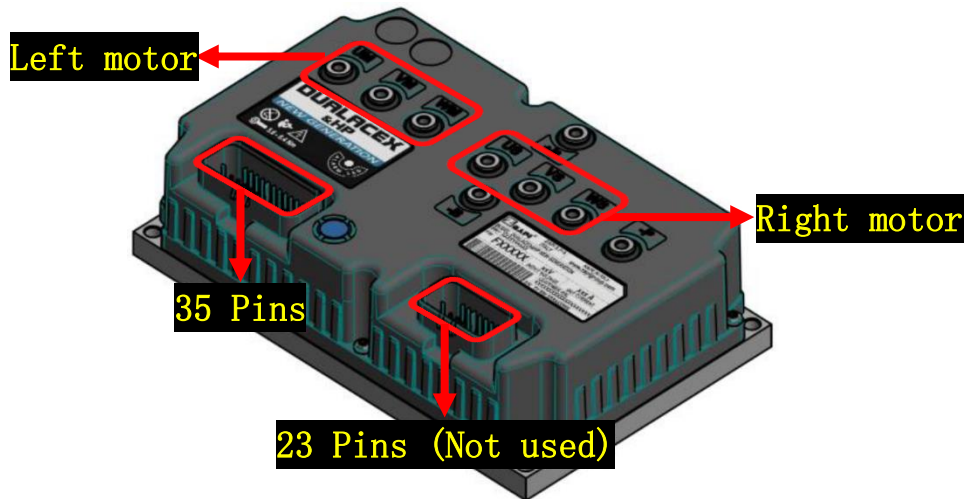
Model	Lifting current (A)		Steering current (A)	Driving current (A)		
	No load	Full load		Low speed 0.2m/s	Fast speed	
S06HA	60~85	90~130	70	24	180~190	1 m/s
S0608HA						
S0808HA	110~140	150~190	85	35	140~160	
S0812HA	100~140	160~210	75	30	110~130	
S1012HA	100~150	140~190	85	40	140~170	0.8 m/s
S1212HA	130~190	175~225	80	40	130~160	
S1412HA	120~160	150~200	80	40	110~140	
S06ACE	65~90	95~140	42~47			
S0608ACE	100~120	145~180	60			
S0808ACE	115~150	150~195	60			
S0812ACE	120~170	185~235	60			
S1012ACE	120~170	150~200	60			
S1212ACE	140~200	180~220	60			
S1412ACE	140~200	180~220	60			

Note: The values in the table are for reference only, and the actual values may slightly exceed them. If you have any questions, please consult Dingli after-sales department (market@cndingli.com).

2.2.3.2 Drive-motor controller

Technical specifications

Ambient operating temperature range	-40 °C ~ 40 °C
Ambient storage temperature range	-40 °C ~ 85 °C
Connector	23-pins or 35-pins Ampseal
Package environmental rating	IP65



Pin definition

Drive Motor controller	Pin	Function description
Left motor	A4	Encoder power 12V+
	A15	Encoder power -
	A17	Encoder signal 1
	A19	Encoder signal 2
	A30	Brake -
	A33	Temperature switch
Right motor	A10	Encoder power +
	A21	Encoder power -
	A9	Encoder signal 1
	A20	Encoder signal 2
	A32	Temperature switch
	A28	Brake -
	A13	Power 24V+
	A03	Emergency brake release output
Communication	A31	CAN H
	A18	CAN L

ZAPI output current table

	Driving current (A)
Low speed	10
Fast speed	50~100

Note: The values in the table are for reference only, and the actual values may slightly exceed them. If you have any questions, please consult Dingli after-sales department (market@cndingli.com).

2.2.4 Motors

① Pump-motor

	S06ACE	S0608- S0812ACE ①	S1012-S1412ACE ②
Model	XYQD-3-2H	ACX-3633-2	XYQD-3.5-3H
Voltage	17V (AC)	14.5V (AC)	17V (AC)
Ampere	146A	190A	167A
Frequency	0-136Hz	90.8Hz	0-136Hz
Power	3kW	3.42kW	3.5kW
Rotation speed	2890rpm	2613rpm	2880rpm
Protection level	IP67	/	IP67

② Drive-motor



HA oil-motor



S06ACE



S0608-S0812ACE ①



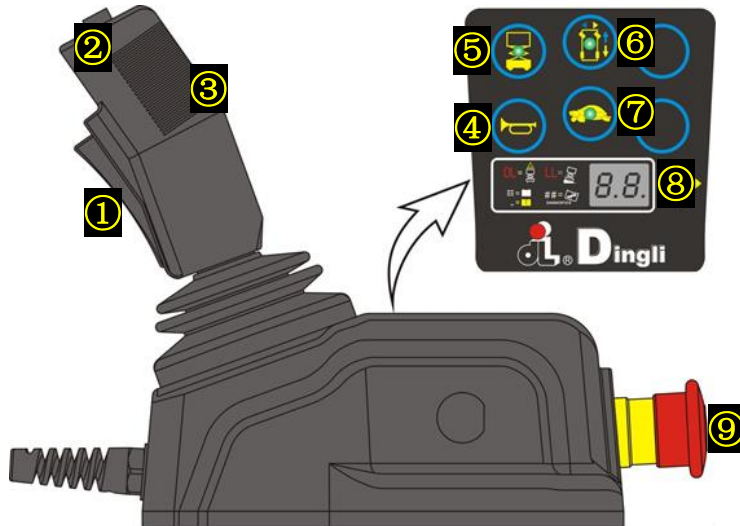
S1012-S1412ACE ②

For AC Drive-motor:

	S06ACE	S0608-S0812ACE ①	S1012-S1412ACE ②
Model	MJ137-500	YDQ0.87-4-0390	XYQ-0.9-3HW
Voltage	15V (AC)	15V (AC)	15V (AC)
Ampere	35A	65A	51A
Frequency	155Hz	127Hz	/
Power	0.5kW	0.87kW	0.9kW
Rotation speed	2900rpm	3532rpm	3543rpm
Protection level	IP67	/	IP67

2.3 Platform Controller

2.3.1 Introduction of PCU



1 Function enable switch

Press and hold the function enable switch to enable the drive/lift function.

2 Thumb rocker switch

Press the thumb rocker switch in either direction to activate steer function.

3 Proportional control handle

Lift function: Press and hold the function enable switch to enable the lift function on the platform control handle. Move the control handle in the direction indicated by the blue arrow and the platform will raise. Move the control handle in the direction indicated by the yellow arrow and the platform will lower. The descent alarm should sound while the platform is lowering.

Drive function: Press and hold the function enable switch to enable the drive function on the platform control handle. Move the control handle in the direction indicated by the blue arrow on the control panel and the machine will move in the direction that the blue arrow points. Move the control handle in the direction indicated by the yellow arrow on the control panel and the machine will move in the direction that the yellow arrow points.

4 Horn Button

Push the horn button and the horn will sound. Release the horn button and the horn will stop.

5 Lift function select button

Press this button to activate the lift function.

6 Drive function select button

Press this button to activate the drive function.

7 Drive speed button

Press this button to activate the slow or fast drive function.

8 LED readout screen

Diagnostic readout and battery charge indicator.

9 Red Emergency Stop button

Push in the red Emergency Stop button to the off position to stop all functions. Pull out the red Emergency Stop button to the on position to operate the machine.



USB port



Input port

USB port

The USB port can provide power supply for some peripheral electronic devices, which is convenient for operators to use.

Output: 5V 500mA

Input port

The input port can receive signals from certain equipment (such as foot switch, ultrasonic detection, etc.), expand the functions of the whole machine, and improve safety.

2.3.2 PCU Setting

NOTE: There are two ways to modify parameters, one is to set in PCU, and the other is to set in ECU.

2.3.2.1 Speed Setting

Press & Hold the buttons of “Lift” & “Horn”, when you see the flashed “PS” & “EL/Hd”, it means that the machine has entered the speed setting mode.



① Fast driving speed



Press & Hold the “Drive” button, then you can use the left/right buttons on the handle to decrease/increase the fast driving speed value (0-100). Release the button to save the adjustment.

② Slow driving speed



Press & Hold the “Slow” button, then you can use the left/right buttons on the handle to decrease/increase the slow driving speed value (0-100). Release the button to save the adjustment.

③ Lift speed



Press & Hold the “Lift” button, then you can use the left/right buttons on the handle to decrease/increase the lift speed value (0-100). Release the button to save the adjustment.

④ Driving speed of raised state



Press & Hold the “Horn” button, then you can use the left/right buttons on the handle to decrease/increase the raised driving speed value (0-100). Release the button to save the adjustment.

⑤ Steer boost



Press & Hold the “Horn” & “Slow” button, then you can use the left/right buttons on the handle to decrease/increase the steer boost value (0-50). Release the buttons to save the adjustment.

2.3.2.2 Option Setting

Press & Hold the buttons of "Lift" & "Horn", when you see the flashed "PS" & "EL/Hd", it means that the machine has entered the speed setting mode.



Press & Hold the buttons of "Lift" & "Slow", when the digital tube displays the "SC", it means that the machine has entered the option setting mode.



Press the "Lift" button, the left digital tube number flashes, press the "left turn" / "right turn" button to decrease / increase the left digital tube value.

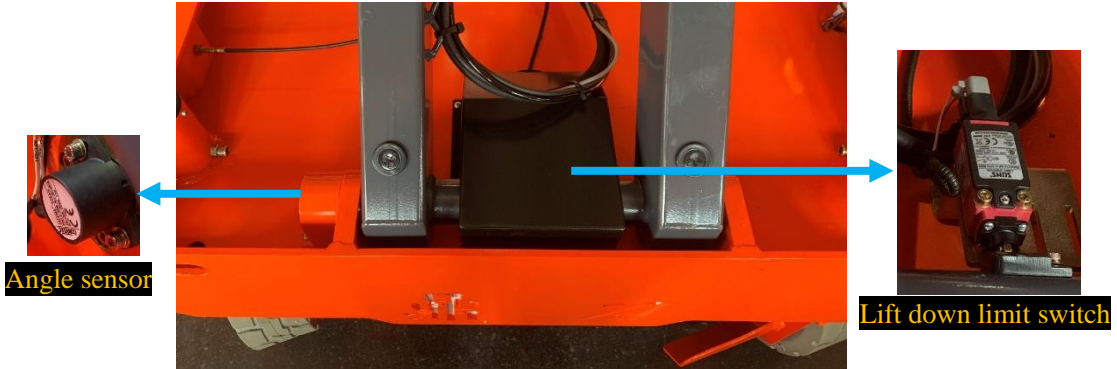
Press the "Drive" button, the right digital tube number flashes, press the "left turn" / "right turn" button to decrease / increase the right digital tube value.

Release the "Lift" and "Drive" buttons to save the adjustment.

Option Code	Type	Load Sensing	Descent Delay	Outdoor Model
00	HA			
01	HA	Enable		
02	HA		Enable	
03	HA	Enable	Enable	
04	AC			
05	AC	Enable		
06	AC		Enable	
07	AC	Enable	Enable	
08	HA			Enable
09	HA	Enable		Enable
10	HA		Enable	Enable
11	HA	Enable	Enable	Enable
12	AC			Enable
13	AC	Enable		Enable
14	AC		Enable	Enable
15	AC	Enable	Enable	Enable

2.4 Sensors & Switches

2.4.1 Angle sensor & Lift down limit switch



Angle sensor can detect the height of the machine platform in real time, so that the ECU can control the upper and lower limit of the machine.

Lift down limit switch can accurately detect the anti-pinch height of the machine, so that the ECU can accurately stop the machine from descending at this height.

Angle sensor

Position	signal voltage
Stowed	4.3V
Raised	Varies according to the machine height

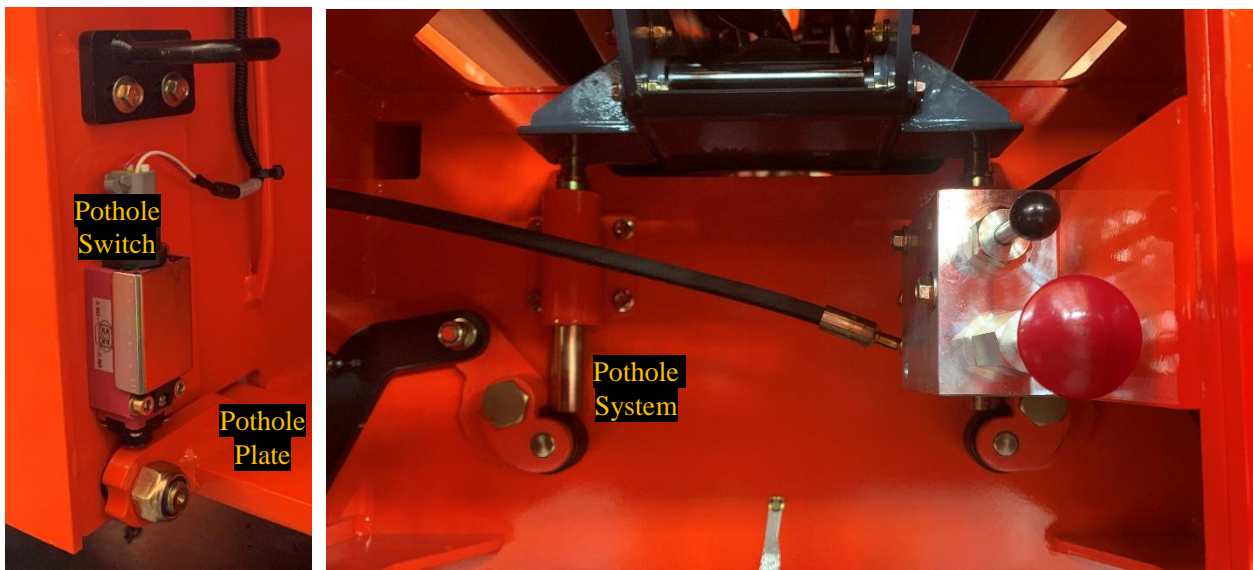
For detailed data information of the angle sensor, please refer to chapter [5.1 Data detection](#).

Lift down limit switch

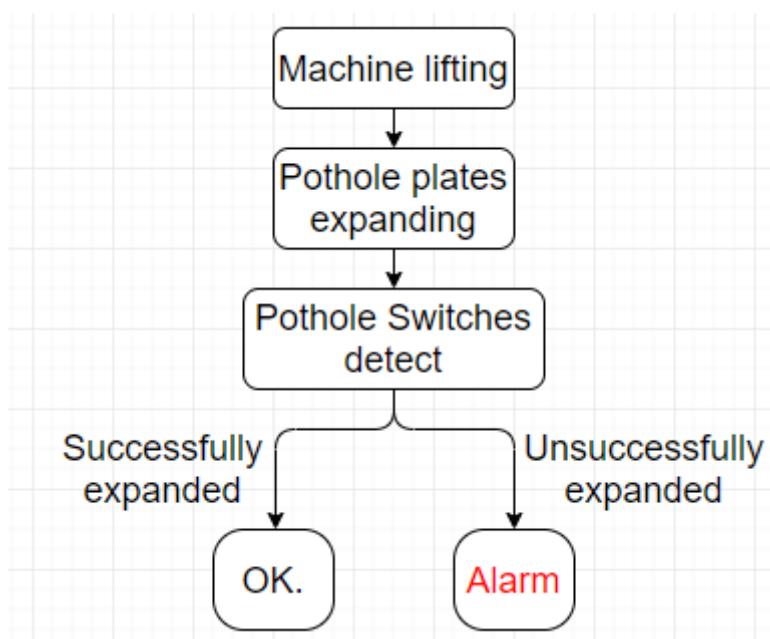
Position	signal voltage
Stowed	0 V
Raised	24 V



2.4.2 Pothole switches



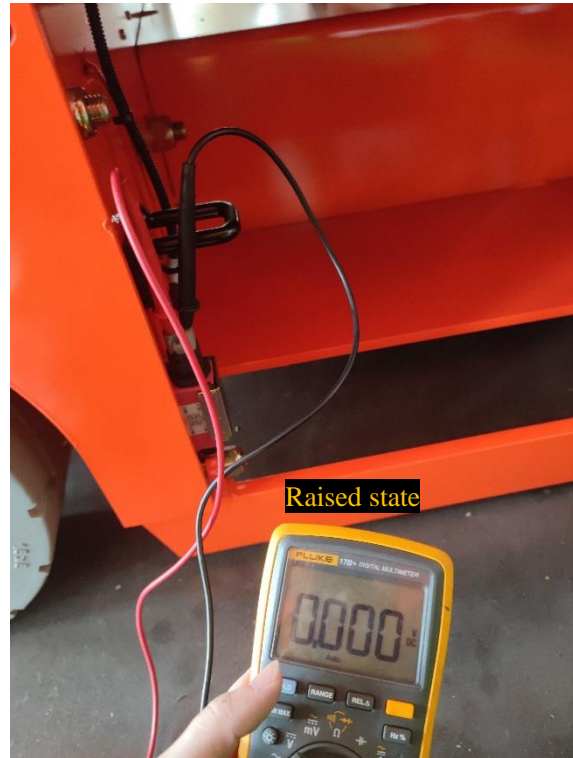
Pothole system process map:



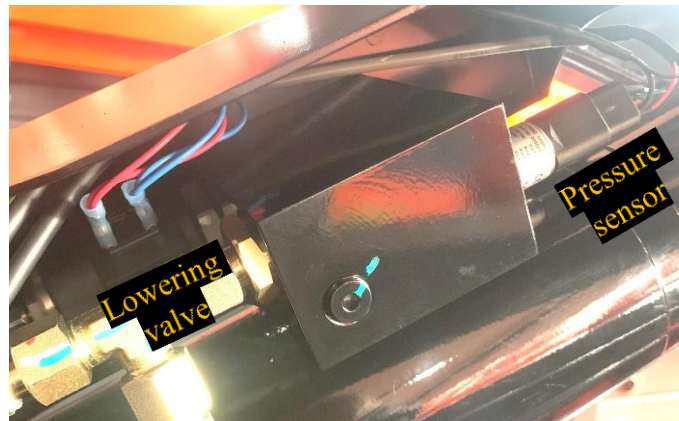
When pothole switches detect that the machine has raised, the machine will automatically switch to the slow driving state.

The table of pothole switch

Position	signal voltage
Stowed	24 V
Raised	0 V



2.4.3 Pressure sensor & Lowering valve



Lowering valve

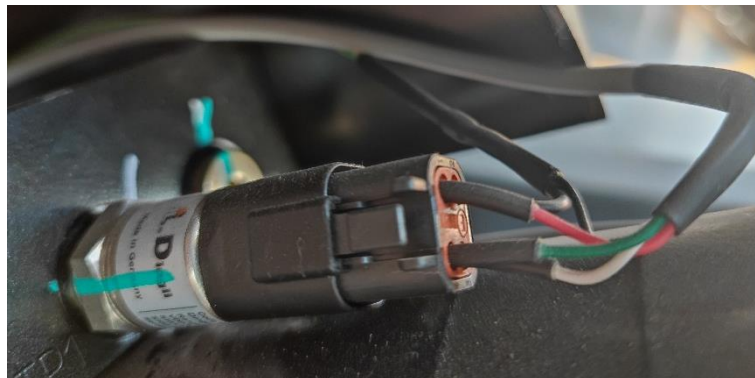
It is used to control the opening and closing of the oil return circuit.

It can also be used to open the oil return circuit by emergency lowering knob.

Pressure sensor:

It is used to detect whether the machine is overloaded to ensure the personal safety of users.

For detailed data information of the pressure sensor, please refer to [Chapter 5.1 Data detection](#).



Current type (4 wires)



Voltage type (3 wires)

3. Operation

3.1 Function Test

- 1 Select a test area that is firm, level and free of obstruction.
- 2 Be sure the battery pack is connected.
- 3 Pull out the main power switch to “on” position.

At the Ground Controls

- 4 Pull out the platform and ground red Emergency Stop button to the on position.
- 5 Turn the key switch to ground control.
- 6 Observe the LED readout screen on the platform controls.
 - ⊙ Result: The LED should look like the picture at right.
- 7 Observe the LED readout screen on the ECU window.
 - ⊙ Result: The LED should look like the picture at right.



Test Emergency Stop

- 8 Push in the ground red Emergency Stop button to the off position.
 - ⊙ Result: No functions should operate.
- 9 Pull out the red Emergency Stop button to the on position.

Test Up/Down Functions

A buzzer with different sound frequency is controlled in central system. The descent alarm sounds at 60 beeps per minute. The descent delay alarm sounds at 120 beeps per minute. The alarm that goes off when the pothole guards have not deployed sounds at 180 beeps per minute. The alarm that goes off when the machine is not level sounds at 180 beeps per minute. An optional automotive-style horn is also available.

- 10 Do not press the function enable button.
- 11 Press the platform up or platform down button.
 - ⊙ Result: No function should operate.
- 12 Do not press the platform up or platform down buttons.
- 13 Press the function enable button.
 - ⊙ Result: No function should operate.
- 14 Press and hold the function enable button, and press the platform up button.
 - ⊙ Result: The platform should raise.
- 15 Press and hold the function enable button, and press the platform down button.
 - ⊙ Result: The platform should lower. The descent alarm should sound while the platform is lowering. The platform stop at the height is approximately 2m from the ground. The descent delay alarm will sound.

Note: Be sure the area below the platform is clear of personnel and obstructions before continuing.

16 Press and hold the function enable button, and press the platform down button.

⊙ Result: The platform should lower to end. The descent delay alarm should sound while the platform is lowering.

Test the Emergency Lowering

17 Activate the up function and raise the platform approximately 60 cm.

18 Pull the emergency lowering knob located on the ground controls side of the machine.

⊙ Result: The platform should lower. The descent alarm will not sound.

19 Turn the key switch to platform control.

At the Platform Controls

Test Emergency Stop

20 Push in the platform red Emergency Stop button to the off position.

⊙ Result: No functions should operate.

21 Pull out the red Emergency Stop button to the on position.

⊙ Result: The LED indicator light should come on.

Test the Horn

22 Push the horn button.

⊙ Result: The horn should sound.

Test Function Enable and Up/Down Functions

23 Do not hold the function enable switch on the control handle.

24 Slowly move the control handle in the direction indicated by the blue up arrow, then in the direction indicated by the yellow down arrow.

⊙ Result: No functions should operate.

25 Press the lift function select button.

26 Press and hold the function enable switch on the control handle.

27 Slowly move the control handle in the direction indicated by the blue up arrow.

⊙ Result: The platform should raise. The pothole guards should deploy.

28 Release the control handle.

⊙ Result: The platform should stop raising.

29 Press and hold the function enable switch. Slowly move the control handle in the direction indicated by the yellow down arrow.

⊙ Result: The platform should lower. The descent alarm should sound while the platform is lowering.

Test the Steering

Note: When performing the steer and drive function tests, stand in the platform facing the steer end of the machine.

30 Press the drive function select button. The indicator light should turn on.

- 31 Press and hold the function enable switch on the control handle.
- 32 Depress the thumb rocker switch on top of the control handle in the direction identified by the blue left arrow on the control panel.
 - ⊙ Result: The steer wheels should turn in the direction that the blue left arrow points on the control panel.
- 33 Depress the thumb rocker switch in the direction identified by the white right arrow on the control panel.
 - ⊙ Result: The steer wheels should turn in the direction that the white right arrow points on the control panel.

Test Drive and Braking

- 34 Press the drive function select button. The indicator light should turn on.
- 35 Press and hold the function enable switch on the control handle.
- 36 Slowly move the control handle in the direction indicated by the blue up arrow on the control panel until the machine begins to move, then return the handle to the center position.
 - ⊙ Result: The machine should move in the direction that the blue up arrow points on the control panel, then come to an abrupt stop.
- 37 Press and hold the function enable switch on the control handle.
- 38 Slowly move the control handle in the direction indicated by the yellow down arrow on the control panel until the machine begins to move, then return the handle to the center position.
 - ⊙ Result: The machine should move in the direction that the yellow down arrow points on the control panel, then come to an abrupt stop.

Note: The brakes must be able to hold the machine on any slope it is able to climb.

Test Limited Drive Speed

- 39 Press and hold the function enable switch. Raise the platform approximately 2m from the ground.
 - ⊙ Result: The pothole guards should deploy.
- 40 Press and hold the function enable switch on the control handle.
- 41 Slowly move the control handle to the full drive position.
 - ⊙ Result: The maximum achievable drive speed with the platform raised should not exceed 22 cm/s.
 - ⊠ Result: If the drive speed with the platform raised exceeds 22 cm/s, immediately tag and remove the machine from service.

Test the Tilt Sensor Operation

Note: Perform this test from the ground with the platform controller. Do not stand in the platform.

- 42 Fully lower the platform.
- 43 Place a 3.5×20cm or similar piece of wood under both wheels on one side and drive the machine up onto them.
- 44 Raise the platform approximately 2m from the ground.

⊙ Result: The platform should stop and the tilt alarm will sound at 180 beeps per minute. The platform controls LED readout should display LL.

45 Press the drive function select button.

46 Press and hold the function enable switch on the control handle.

47 Move the control handle in the direction indicated by the blue up arrow, then move the control handle in the direction indicated by the yellow down arrow.

⊙ Result: The drive function should not work in either direction.

48 Lower the platform and drive the machine off the block.

Test the Pothole Guards

Note: The pothole guards should automatically deploy when the platform is raised. The pothole guards activate another limit switch which allows the machine to continue to function. If the pothole guards do not deploy, an alarm sounds and the machine will not drive and lift.

49 Raise the platform.

⊙ Result: When the platform is raised approximately 2m from the ground, the pothole guards should deploy.

50 Press on the pothole guards on one side, and then the other.

⊙ Result: The pothole guards should not move.

51 Lower the platform.

⊙ Result: The pothole guards should return to the stowed position.

52 Place a 3.5×20cm or similar piece of wood under a pothole guard. Raise the platform.

⊙ Result: When the platform is raised approximately 2m from the ground, the pothole alarm will sound at 180 beeps per minute, and the platform controls LED screen readout should display 18.

53 Press the drive function select button.

54 Press and hold the function enable switch on the control handle.

55 Move the control handle in the direction indicated by the blue up arrow, and then move the control handle in the direction indicated by the yellow down arrow.

⊙ Result: The drive function should not work in either direction.

56 Press and hold the function enable switch on the control handle.

57 Depress the thumb rocker switch on top of the control handle in the direction identified by the blue and white arrow on the control panel.

⊙ Result: The steer function should not work in either direction.

58 Lower the platform and remove the 3.5×20cm wood block.

3.2 Operating Instructions

Emergency Stop

Push in the red Emergency Stop button to the off position at the ground controls or the platform controls to stop all machine functions.

Repair any function that operates when either red Emergency Stop button is pushed in.

Emergency Lowering

- 1 Pull the emergency lowering knob.

Operation from Ground

- 1 Be sure the battery pack is connected before operating the machine.
- 2 Turn the key switch to ground control.
- 3 Pull out the platform and ground red Emergency Stop button to the on position.

To Position Platform

- 1 At the control panel, press and hold the lift function enable button.
- 2 Press the platform up or down button.
Drive and steer functions are not available from the ground controls.

Operation from Platform

- 1 Be sure the battery pack is connected before operating the machine.
- 2 Turn the key switch to platform control.
- 3 Pull out the platform and ground red Emergency Stop button to the on position.

To Position Platform

- 1 Press the lift function select button.
- 2 Press and hold the function enable switch on the control handle.
- 3 Move the control handle according to the markings on the control panel.

To Steer

- 1 Press the drive function select button.
- 2 Press and hold the function enable switch on the control handle.
- 3 Turn the steer wheels with the thumb rocker switch located on the top of the control handle.

To Drive

- 1 Press the drive function select button.
- 2 Press and hold the function enable switch on the control handle.
- 3 Increase speed: Slowly move the control handle off center.

Decrease speed: Slowly move the control handle toward center.

Stop: Return the control handle to center or release the function enable switch.

Use the color-coded direction arrows on the platform controls to identify the direction the machine will travel.

Machine travel speed is restricted when the platform is raised.

Battery condition will affect machine performance. Machine drive speed and function speed will drop when the battery level indicator is flashing.

To reduce drive speed

The drive controls can operate in two different drive speed modes. When the drive speed button light is on, slow drive speed mode is active. When the button light is off, fast drive speed mode is active.

Press the drive speed button to select the desired drive speed.

▲ Driving on a slope

Determine the slope and side slope ratings for the machine and determine the slope grade.

JCPT0808, JCPT1012, JCPT1008, JCPT1212, JCPT1412, JCPT1612, maximum slope rating, stowed position 25%, maximum side slope rating, stowed position 25%.

Note: Slope rating is subject to ground conditions and adequate traction.

Press the drive speed button to the fast drive speed mode.

To determine the slope grade

Measure the slope with a digital inclinometer OR use the following procedure.

You will need:

① Carpenter's level

② Straight piece of wood, at least 1 m long

③ Tape measure

Lay the piece of wood on the slope.

At the downhill end, lay the level on the top edge of the piece of wood and lift the end until the piece of wood is level.

While holding the piece of wood level, measure the distance from the bottom of the piece of wood to the ground.

Divide the tape measure distance (rise) by the length of the piece of wood (run) and multiply by 100.

Example:

Run = 3.6 m

Rise = 0.3 m

$0.3 \text{ m} \div 3.6 \text{ m} = 0.083 \times 100\% = 8.3\%$



If the slope exceeds the maximum slope or side slope rating, the machine must be winched or transported up or down the slope. See Transport and Lifting section.

Operation from Ground with Controller

Maintain safe distances between operator, machine and fixed objects.

Be aware of the direction the machine will travel when using the controller.

Battery Level Indicator



Full

Low

Use the LED readout screen to determine the battery level.

How to use the Safety Arm

- 1 Raise the platform until the distance of the two sets of scissor at least 0.5m.
- 2 Lift the safety arm, move it to the center of the scissor arm and rotate up to a vertical position.
- 3 Lift the upper safety arm, move it to the center of the scissor arm and rotate down to a vertical position. (for JCPT1412, JCPT1612,)
- 4 Lower the platform until the safety arm rests securely on the link. Keep clear of the safety arm when lowering the platform.

⚠ DANGER Engage all safety arms before performing maintenance or repair.

⚠ DANGER Don't engage the safety arm unless unload the platform.

How to Fold Down the Guardrails

The platform railing system consists of three fold down rail section for the extension deck and three sections for the main deck. All sections are held in place by four wire lock pins.

- 1 Fully lower the platform and retract the platform extension.
- 2 Remove the platform controls.
- 3 From inside the platform, remove the two front extension deck wire lock pins.
- 4 Fold down the front rail assembly. Keep hands clear of pinch points.
- 5 Replace the two removed pins back into each side rail bracket.
- 6 Fold down the extension platform left rail assembly. Keep hands clear of pinch points.
- 7 Fold down the extension platform right rail assembly. Keep hands clear of pinch points.
- 8 Carefully open the gate and move to the rear step or the ground.
- 9 From the rear step or from the ground, remove the left rear main deck wire lock pins.
- 10 Fold down the left rail assembly. Keep hands clear of pinch points.
- 11 Replace the removed pin back into rear rail bracket.
- 12 Remove the right rear main deck wire lock pins.
- 13 Fold down the right rail assembly. Keep hands clear of pinch points.
- 14 Replace the removed pin back into rear rail bracket.
- 15 Fold down the rear rail assembly. Keep hands free of pinch points.

How to Raise the Guardrails

Follow the fold down instructions but in reverse order.

To Extend and Retract Platform

- 1 Press the platform lock pin pedal on the extension deck by foot.
- 2 Push the platform extension guardrail to extend the platform to the desired position.
Do not stand on the platform extension while trying to extend it.

4. Diagnose

Error indicator readout



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
12	Chassis Up or Down Switch ON	Disable Chassis Control
18	Pothole Guard Fault	Disable Lifting and Driving
31	Pressure Sensor Fault	Disables All Motion
32	Angle Sensor Fault	Disables All Motion
35	Pressure Sensor 2 Fault	Disables All Motion
36	Battery Drain Alarm	Drive speed limit
37	Battery Drain Shutdown	Disables All Motion
42	Platform Left Button ON	Warning Only
43	Platform Right Button ON	Warning Only
46	Platform Enable Button ON	Disable Platform Control
47	Joystick Not In Neutral	Drive speed limit
52	Drive Forward Coil Fault	Disable Lifting and Driving
53	Drive Reverse Coil Fault	Disable Lifting and Driving
54	Lift Up Coil Fault	Disable Lifting and Driving
55	Lift Down Coil Fault	Disable Lifting and Driving
56	Steer Right Coil Fault	Disable Lifting and Driving
57	Steer Left Coil Fault	Disable Lifting and Driving
59	Parallel Coil Fault	Disable Lifting and Driving

Display	Description	Lift Reaction
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 Tiled	Disable Lifting and Driving
UP	Platform up limit position	Warning Only
PCU: n1, ECU: 5 digit code	Left Drive Motor Controller Fault	Controller Dependent
PCU: n2, ECU: 5 digit code	Right Drive Motor Controller Fault	Controller Dependent
PCU: n3, ECU: 5 digit code	Pump Motor Controller Fault	Controller Dependent

For more information, please consult the appropriate Dingli Service Dept.

5. ECU

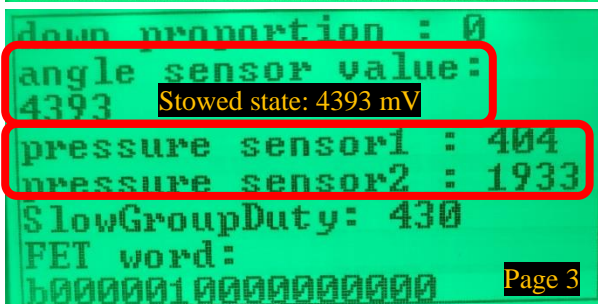
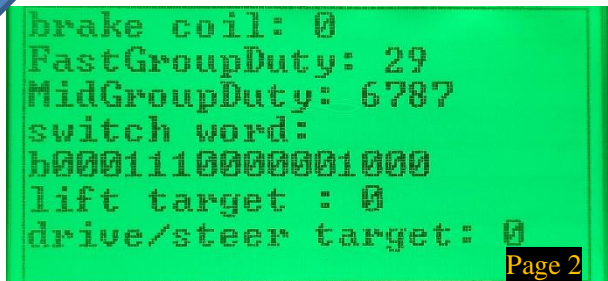
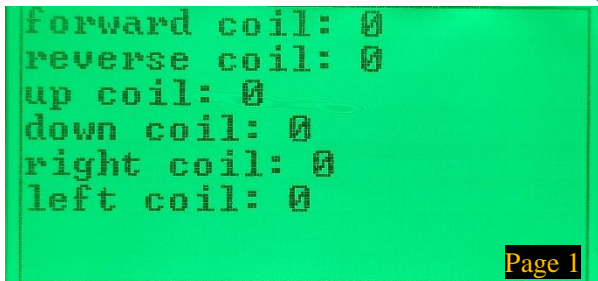
5.1 Data detection

Method to view sensors' information in real time:

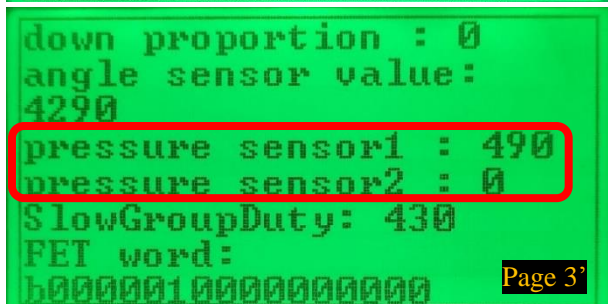
Turn on the power, then press and hold the "enter" button, you can enter the interface of sensors value.



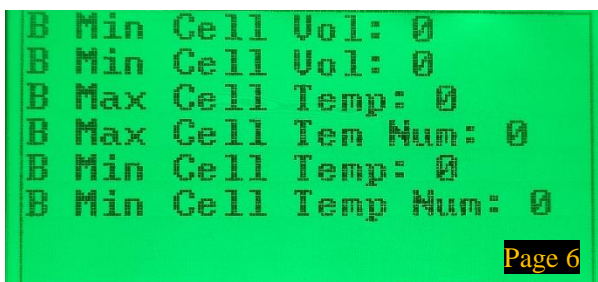
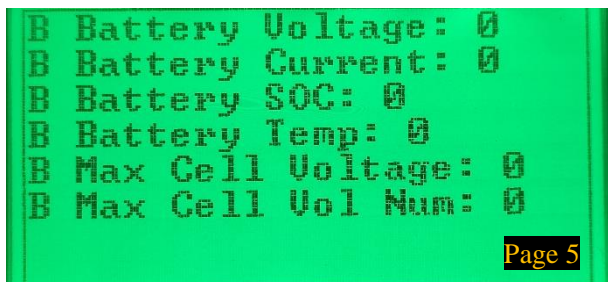
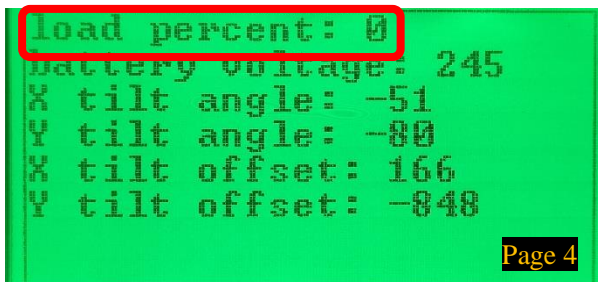
Long press "Enter" button



Current Type pressure-sensor



Voltage Type pressure-sensor



The reference value of sensors at different heights

	Angle Value (mV)	Current Type (mA) (Take 1612HA as an example)		Voltage Type (mV) (Take 1012AC as an example)
		Signal 1	Signal 2	Signal
No-load	4300 (A little lift)	11.41	11.94	2077
	3900	10.53	12.82	1838
	3500	10	13.41	1703
	3100	9.72	13.57	1638
	2700	9.67	13.7	1619
	2300	9.83	13.57	1632
	1900	10.05	13.3	1690
	1300 (top of 1012)	10.9	12.44	1858
	1150 (top of 1612)	11.5	11.87	
Full-load	4300 (A little lift)	12.58	10.82	3180
	3900	12.55	10.82	2709
	3500	11.45	11.94	2529
	3100	11.08	12.29	2458
	2700	11.08	12.29	2445
	2300	11.19	12.2	2490
	1900	11.56	11.83	2567
	1300 (top of 1012)	12.88	10.49	2858
	1150 (top of 1612)	13.74	9.61	

It should be noted that although the load percentage can be viewed in real time in this interface, when the lifting height is lower than the descent-delay height, even if the machine is overloaded, the machine will not trigger an overload alarm.

5.2 ECU Setting

5.2.1 Settings Overview

You can enter the ECU setting interface, after pull out the emergency stop buttons on ECU & PCU, press & hold the “①Enter” button and turn the key switch to ②ground control.



The password is “0000”.



ECU setting form

Main Menu	Items	Value
1. Set Speed	1. Max Fast Speed	Current value is: 100 Edit value is: ____
	2. Max Raised Speed	Current value is: 50 (13 to 0807AC, same below) Edit value is: ____
	3. Max Liftup Speed	Current value is: 75 (50) Edit value is: ____
	4. Max Slow Speed	Current value is: 100 (50) Edit value is: ____
	5. Steer Boost (Driving state)	Current value is: 15 (30) Edit value is: ____
	6. Neutral Steer (Turn-in-place)	Current value is: 45 (30) Edit value is: ____
	7. Deceleration	Current value is: 8 (5) Edit value is: ____
	8. Raised Steer Boost	Current value is: 3 (20) Edit value is: ____

2. Set Option	1. Machine Type	Hydraulic drive
		Electrical drive
		Small Electrical drive (0807)
	2. Load Sensor Mode	Pressure Sensor (Choose any one)
		Pressure Sensor
	3. Pres Sensor Mode	Voltage Output
		Current Output
	4. Pothole Guard	Disable/ Enable
	5. Descent Delay	Disable/ Enable
	6. Motion Alarm	Disable/ Enable
	7. Load Sensing	Disable/ Enable
	8. Joystick Direction	Push to Up
		Pull to Up
	9. Outdoor Mode	Indoor Mode
		Outdoor Mode
	10. Lowering Cylinder	Dual Cylinder
		Single Cylinder
	11. Test Mode	
	12. Drain Alarm Time (After 15 minutes of no operation, an alarm prompt is performed.)	Current value is: 015 Edit value is: ____
	13. Drain Shut Time (After 30 minutes of no operation, the hibernation state is performed.)	Current value is: 030 Edit value is: ____
	14. Battery Low Level	Current value is: 016 Edit value is: ____
	15. Enable Priority	Disable/ Enable

3. Calibration	1. No load Sensing	
	2. Full Load Sensing	
	3. Tilt Sensor	
	4. Angle Sensor	
	5. OL Descent High	
	6. Up Limit	
	7. Down Limit	
	8. Outdoor Limit Height	
4. Special Mode	1. Brake Release	<i>This feature is only available for AC models.</i>
5. Fault History	NO. 1 ErrID: xxx Time: *** Info: ***	
	NO. 2 ErrID: xxx Time: *** Info: ***	
	...	
6. Other	1. Date & Time	
	2. Language	1. English
		2. Chinese
		3. Japanese
		4. French
	3. Revision	ECU: 31 SW-E700-DL-1_M HMI: 27 SW-E700-DL-1_O
	4. Hour Meter Reset	
	5. Fault History Reset	
	6. PC Link	

5.2.2 Calibration

Calibration steps that need to be redone after replacing parts

Replaced Part Calibration	ECU	PCU	ZAPI (Pump)	ZAPI (Drive)	Angle Sensor	Pressure Sensor
Model selection	√					
Load Sensing	√					√
Tilt Sensor	√					
Angle Sensor reset	√				√	
Up Limit	√					

5.2.2.1 Load Sensing

① No-load calibration

No load is placed on the vehicle platform.

Turn the chassis key switch to the ground control, press and hold the "Enter" button on the ECU panel for 5 seconds to enter ECU setting menu. Press the "Up" or "Down" button to switch to the "3.Calibration".

Press the "Enter" button, press the "Up" or "Down" button to switch to the no-load calibration option ("1. No Load Sensing"). Long press the "Enter" button for 5 seconds to start automatic no-load calibration; press the "Exit" button to return to the up-level menu.

After the no-load calibration is completed, the execution result is displayed ("Calibration complete!", or "Pressure sensor failure!", or "Angle sensor failure!"). Press the "Exit" button to return to the up-level menu.

During the calibration process, the overload indicator will light up.

② Full-load calibration

Place the rated load on the vehicle platform.

Turn the chassis key switch to the ground control, press and hold the "Enter" button on the ECU panel for 5 seconds to enter ECU setting menu. Press the "Up" or "Down" button to switch to the "3.Calibration".

Press the "Enter" button, press the "Up" or "Down" button to switch to the full-load calibration option ("2. Full Load Sensing"). Long press the "Enter" button for 5 seconds to start automatic full-load calibration; press the "Exit" button to return to the up-level menu.

After the full-load calibration is completed, the execution result is displayed ("Calibration complete!", or "Pressure sensor failure!", or "Angle sensor failure!"). Press the "Exit" button to return to the up-level menu.

During the calibration process, the overload indicator will light up.

5.2.2.2 Tilt Sensing

The vehicle is parked on a horizontal plane.

Turn the chassis key switch to the ground control, press and hold the "Enter" button on the ECU panel for 5 seconds to enter the ECU setting menu. Press the "Up" or "Down" button to switch to the "3.Calibration".

Press the "Enter" button, press the "Up" or "Down" button to switch to the tilt angle calibration option ("3. Tilt sensor"). Long press the "Enter" button for 5 seconds to start automatic tilt calibration; press the "Exit" button to return to the up-level menu.

After the inclination calibration is completed, the execution result will be displayed ("Calibration complete!" or "Tilt sensor failure!"). Press the "Exit" button to return to the up-level menu.

During the calibration process, the overload indicator will light up.

5.2.2.3 Angle Sensing

The vehicle platform is lowered to the fully retracted position.

Turn the chassis key switch to the ground control, press and hold the "Enter" button on the ECU panel for 5 seconds to enter the ECU setting menu. Press the "Up" or "Down" button to switch to the "3.Calibration".

Press the "Enter" button, press the "Up" or "Down" button to switch to the tilt calibration option ("4. Angle Sensor"). Long press the "Enter" button for 5 seconds to start automatic angle calibration; press the "Exit" button to return to the stator menu.

After the angle calibration is completed, the execution result is displayed ("Calibration complete!" or "Angle sensor failure!"). Press the "Exit" button to return to the sub-standard menu.

During the calibration process, the overload indicator will light up.

For example, when you replace a new angle sensor, you only need to zero the angle sensor once and do not have to calibrate the up limit and the height of descent delay several times.

5.2.2.4 OL Descent High

Turn the chassis key switch to the ground control, press and hold the "Enter" button on the ECU panel for 5 seconds to enter the ECU setting menu. Press the "Up" or "Down" button to switch to the "3.Calibration".

Press the "enter" button, press the "up" or "down" button to switch to the overload drop height calibration option ("5. OL Descent High"). Press the "Enter" button to display the current angle sensor reading. Press the "enable" and "up" buttons to lift the platform to the overload descent height, and then press the "enter" button to save the current angle sensor reading as the overload descent height. Press the "Exit" button, to abandon the modification and return to the previous menu.

5.2.2.5 Height Limit

① Up Limit:

Turn the chassis key switch to the ground control, press and hold the "Enter" button on the ECU panel for 5 seconds to enter the ECU setting menu. Press the "Up" or "Down" button to switch to the "3.Calibration".

Press the "Enter" button, press the "Up" or "Down" button to switch to the maximum height calibration option ("6. Up limit"). Press the "Enter" button to display the current angle sensor reading. Press the "enable" and "up" buttons to lift the platform to the highest height (After the platform rises to the top, it needs to be lowered slightly to reduce the wear of the cylinder), and then press the "enter" button to save the current angle sensor reading as the highest height. Press the "Exit" button to abandon the modification and return to the previous menu.

② Decent Delay Height:

Turn the chassis key switch to the ground control, press and hold the "Enter" button on the ECU panel for 5 seconds to enter the ECU setting menu. Press the "Up" or "Down" button to switch to the "3.Calibration".

Press the "Enter" button, press the "Up" or "Down" button to switch to the highest height calibration option ("7. Down Limit"). Press the "Enter" button to display the current angle sensor reading. Press the "enable" and "up" / "down" buttons to lower the platform to the decent delay height, and then press the "enter" button to save the current angle sensor reading as the decent delay height. Press the "Exit" button, press the "Exit" button to abandon the modification and return to the previous menu.

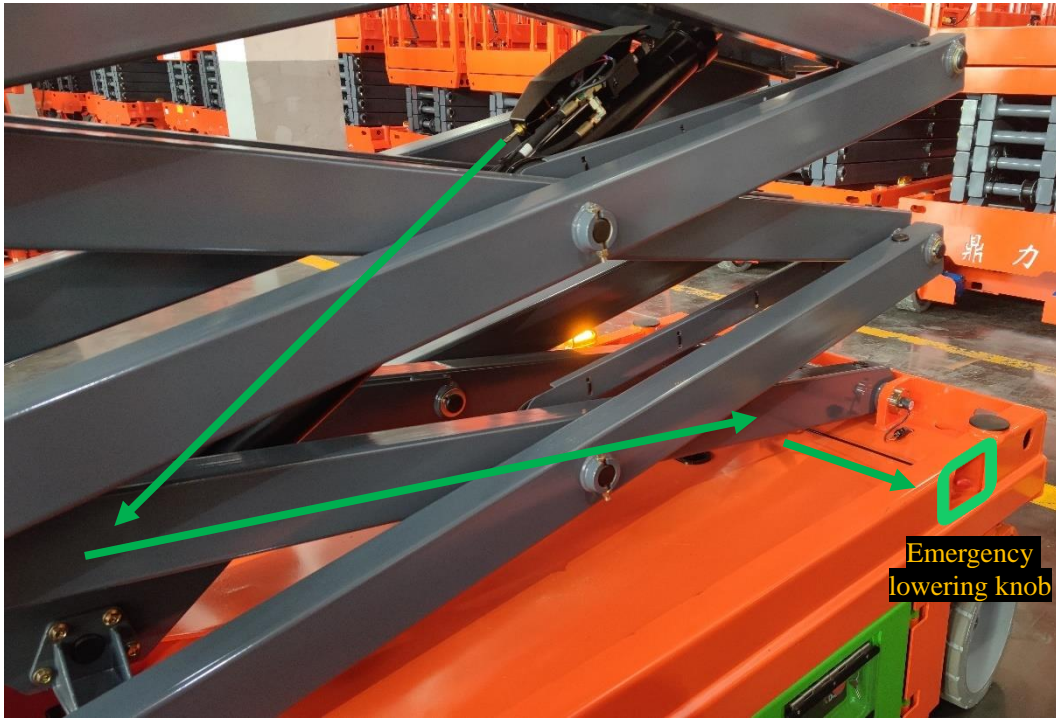
③ Outdoor Limit Height

Turn the chassis key switch to the ground control, press and hold the "Enter" button on the ECU panel for 5 seconds to enter the ECU setting menu. Press the "Up" or "Down" button to switch to the "3.Calibration".

Press the "Enter" button, press the "Up" or "Down" button to switch to the maximum height calibration option ("8. Outdoor Limit Height"). Press the "Enter" button to display the current angle sensor reading. Press the "enable" and "up" buttons to lift the platform to the maximum outdoor height, and then press the "enter" button to save the current angle sensor reading as the outdoor limit height. Press the "Exit" button, press the "Exit" button to abandon the modification and return to the previous menu.

6. Emergency system

6.1 Emergency Lowering



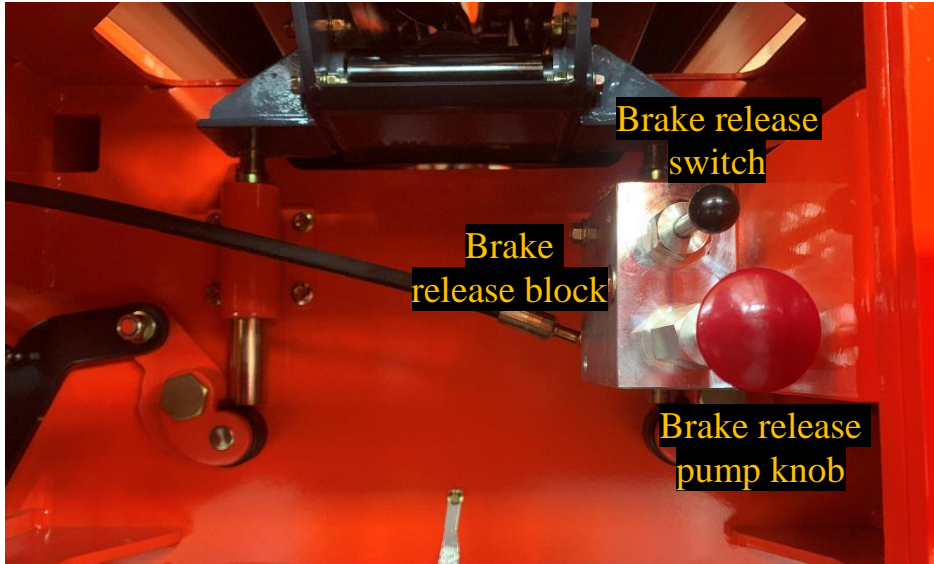
Emergency lowering:

By pulling the emergency lowering knob, the descending oil circuit of the lower oil cylinder will be opened; if the machine is a dual-cylinder model, the hydraulic oil in the upper oil cylinder will also flow out of the upper oil cylinder through the relief valve, thus realizing the emergency lowering of the platform.

Note: When performing emergency descent in this way, the decent delay function will be invalid.

6.2 Brake Release

HA Type

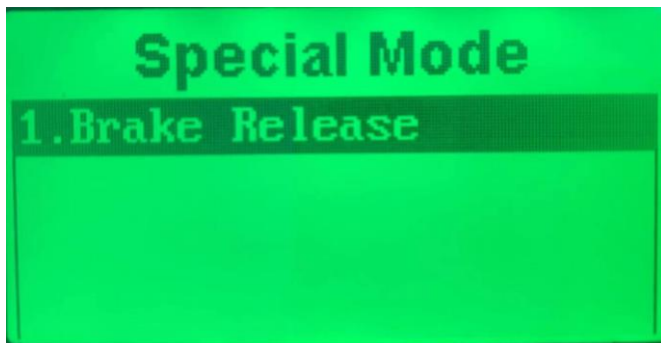


Brake release block:

- 1) Chock the wheels to prevent the machine from rolling.
 - 2) Be sure the winch line is properly secured to the drive chassis tie points and the path is clear of all obstructions.
 - 3) Push in the black brake release knob to open the brake valve.
 - 4) Pump the red brake release pump knob until brake released.
- Towing the HA Model is not recommended. If the machine must be towed, do not exceed 3.5 km/h.

AC Type

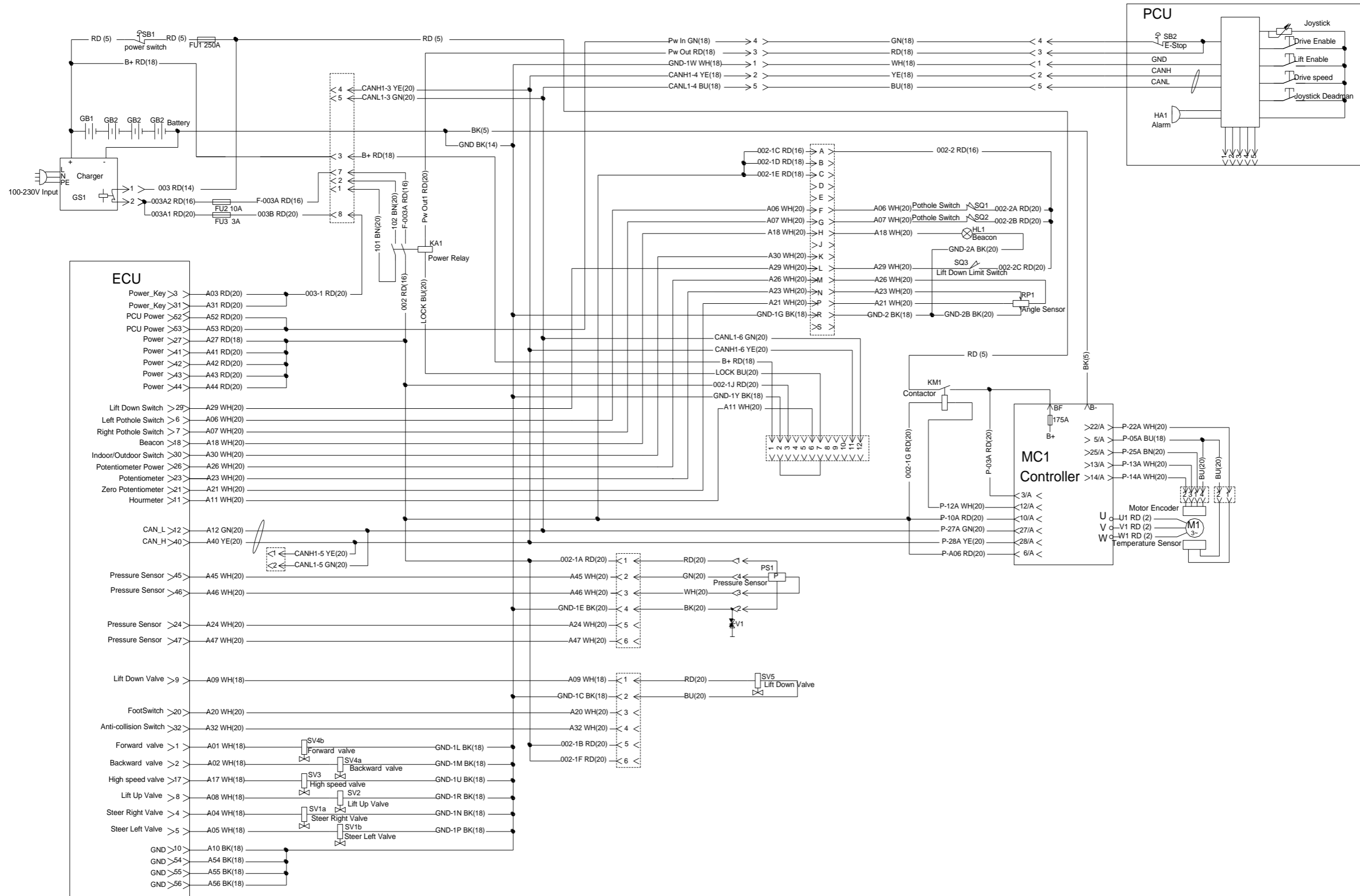
- 1) Chock the wheels to prevent the machine from rolling.
- 2) Pull out the red Emergency Stop button on both the ground and platform controls to the on position.
- 3) Enter ECU setting interface: Press & hold the “Enter” button and turn the key switch to ground control, then enter password of “0000”.
- 4) Select “4. Special Mode” → “1. Brake Release”.



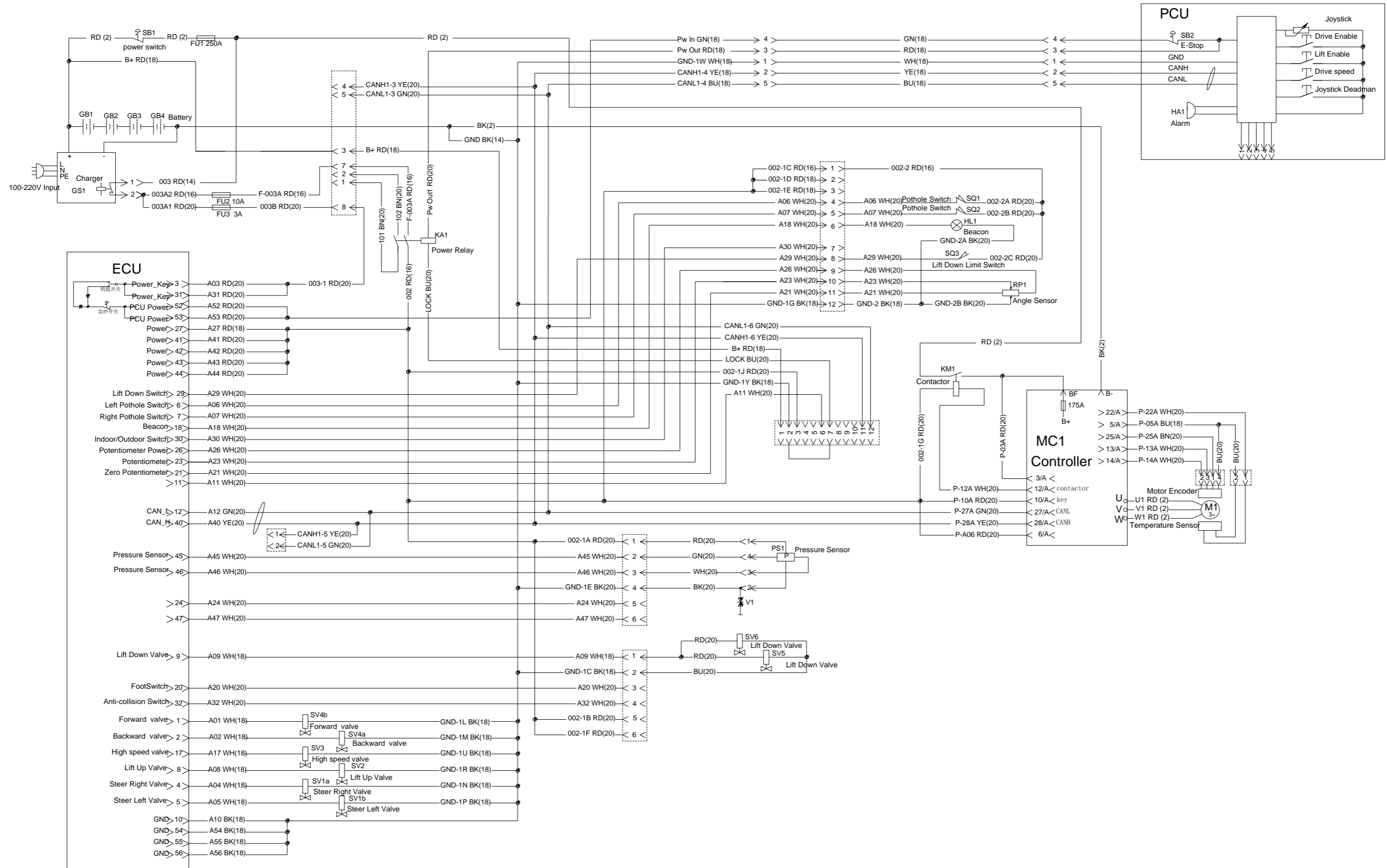
Towing the AC Model is not recommended. If the machine must be towed, do not exceed 4.0 km/h.

7. Electrical Schematic

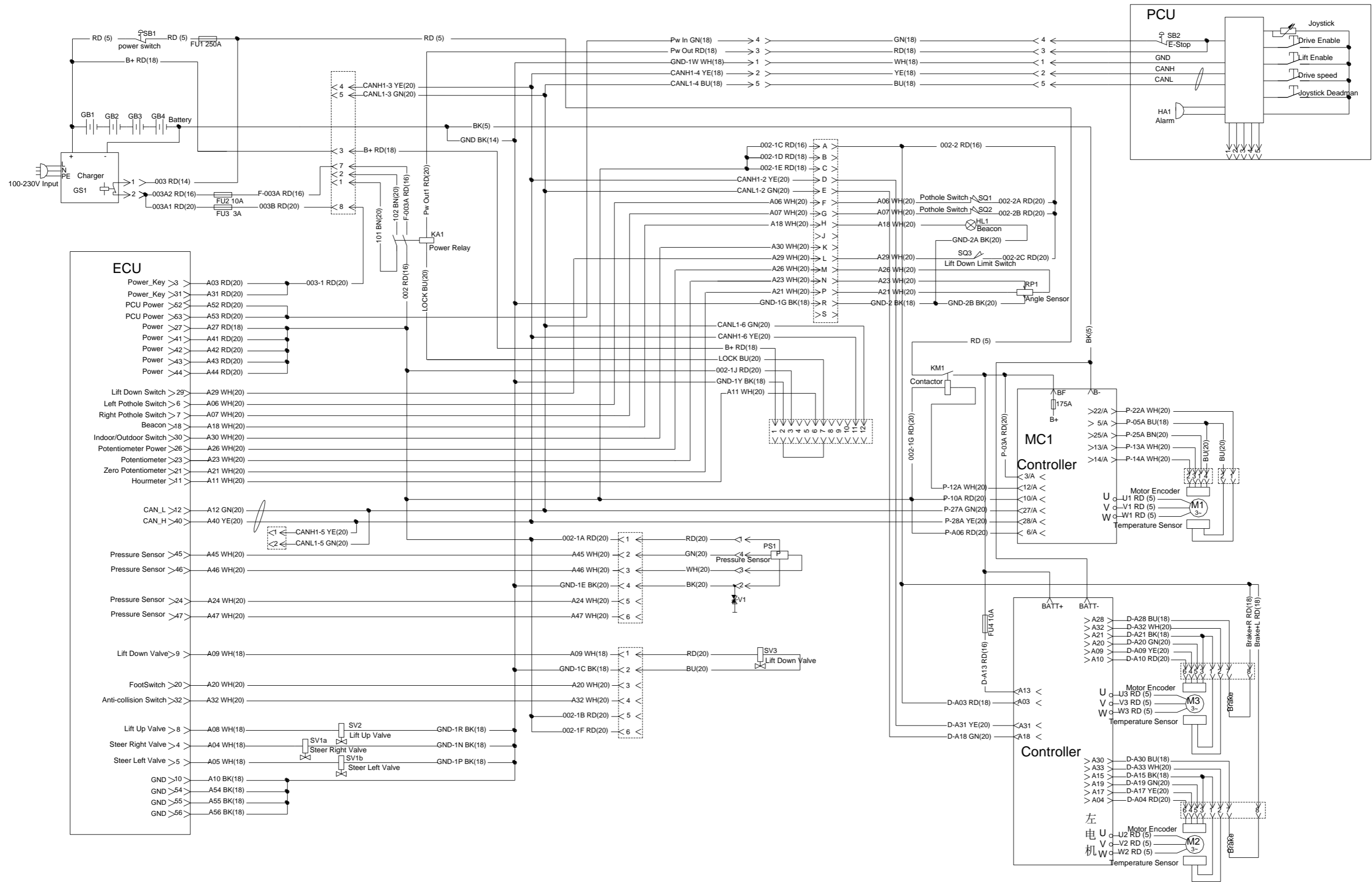
7.1 HA Type S06 HA



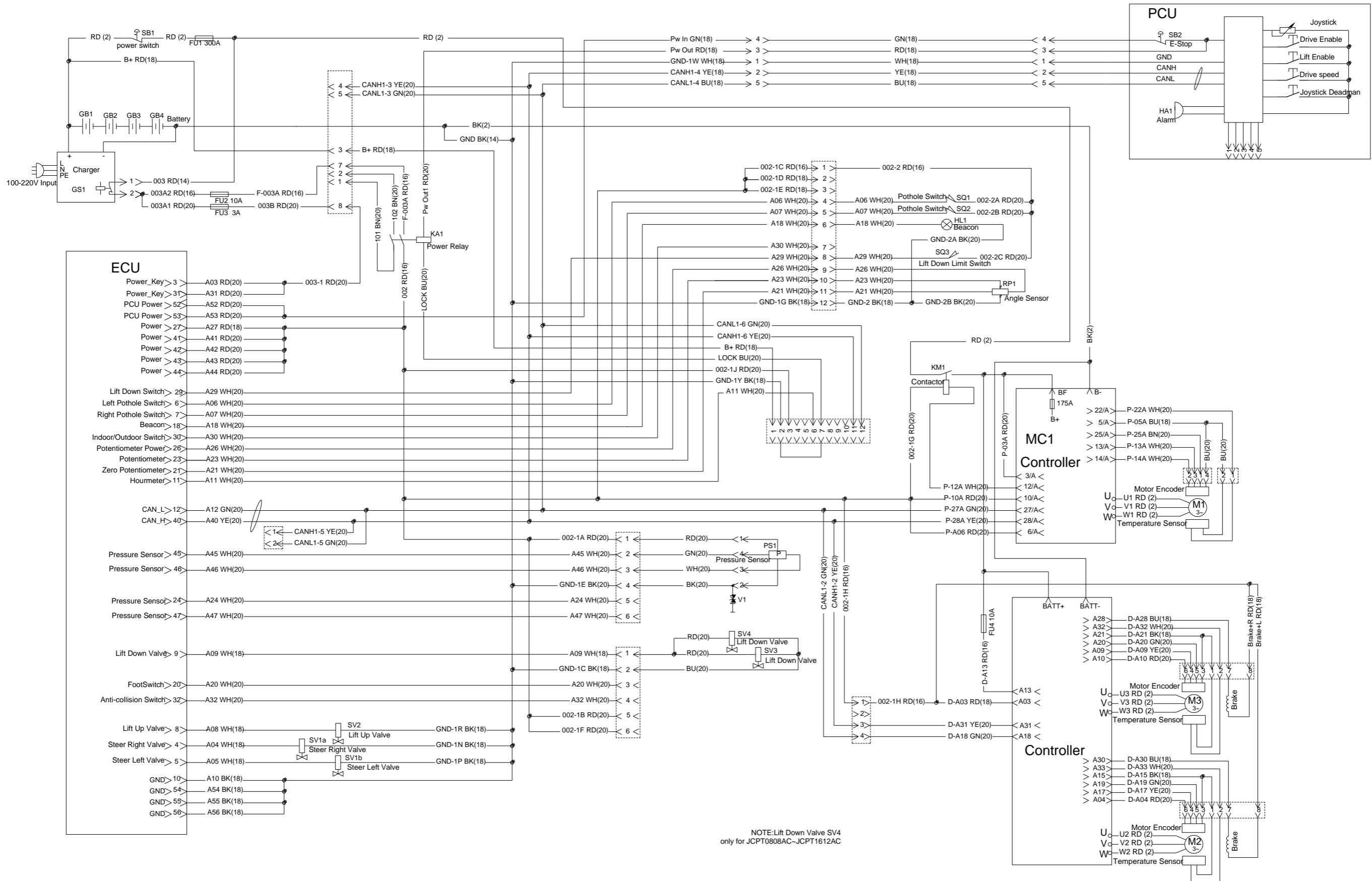
S0608-S1412HA



7.2 AC Type S06ACE



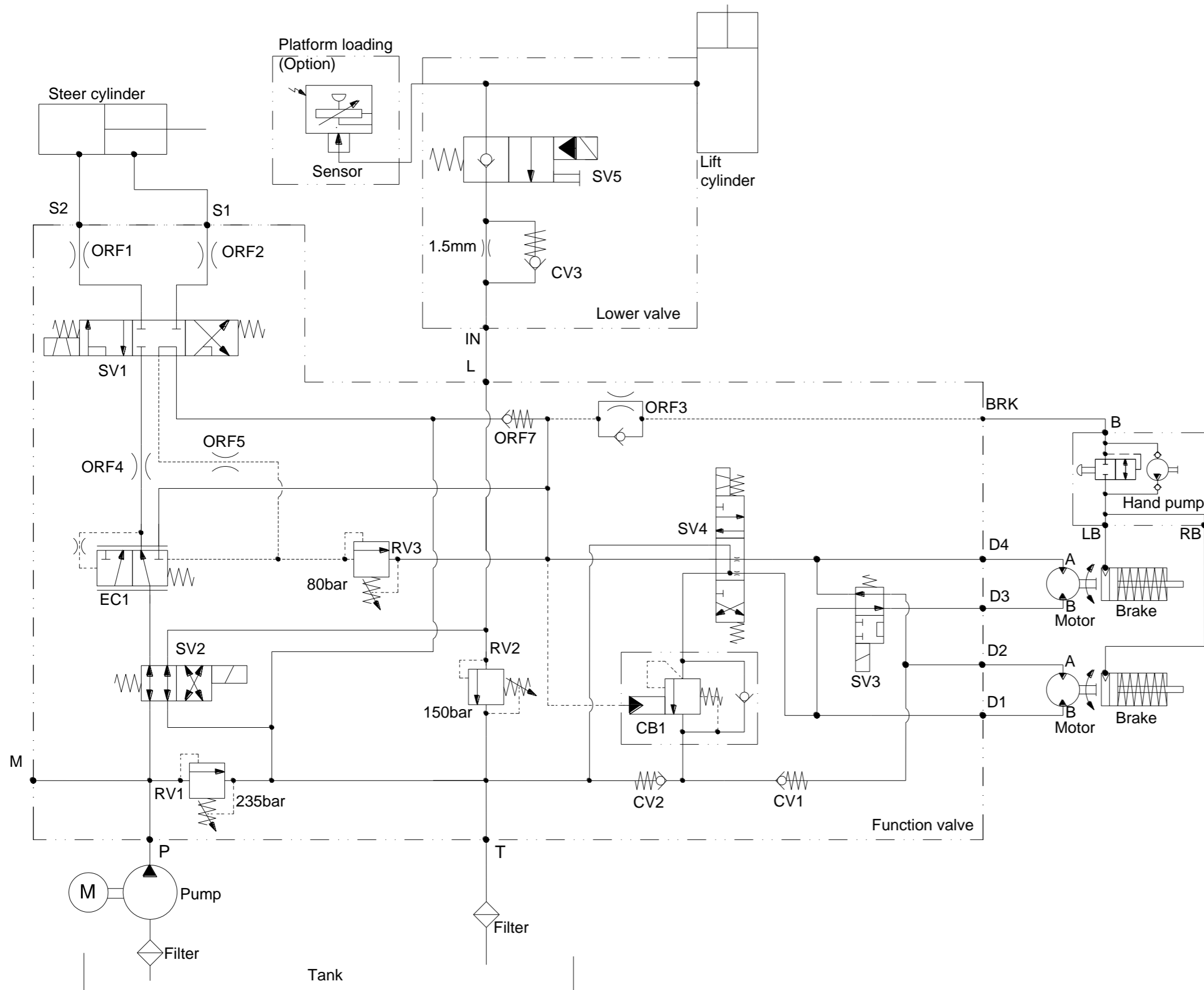
S0608-S1412 ACE



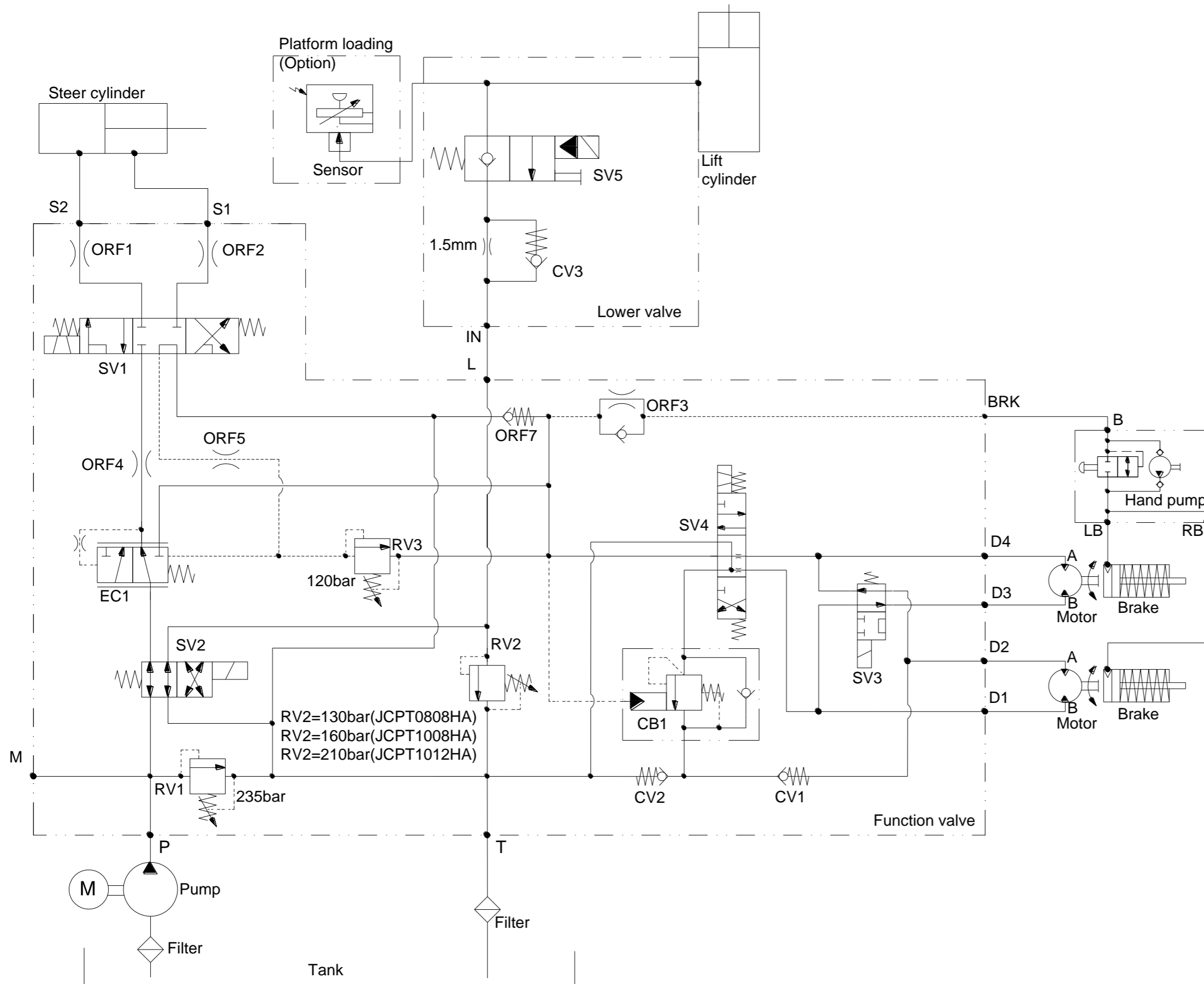
8. Hydraulic Schematic

8.1 Schematics

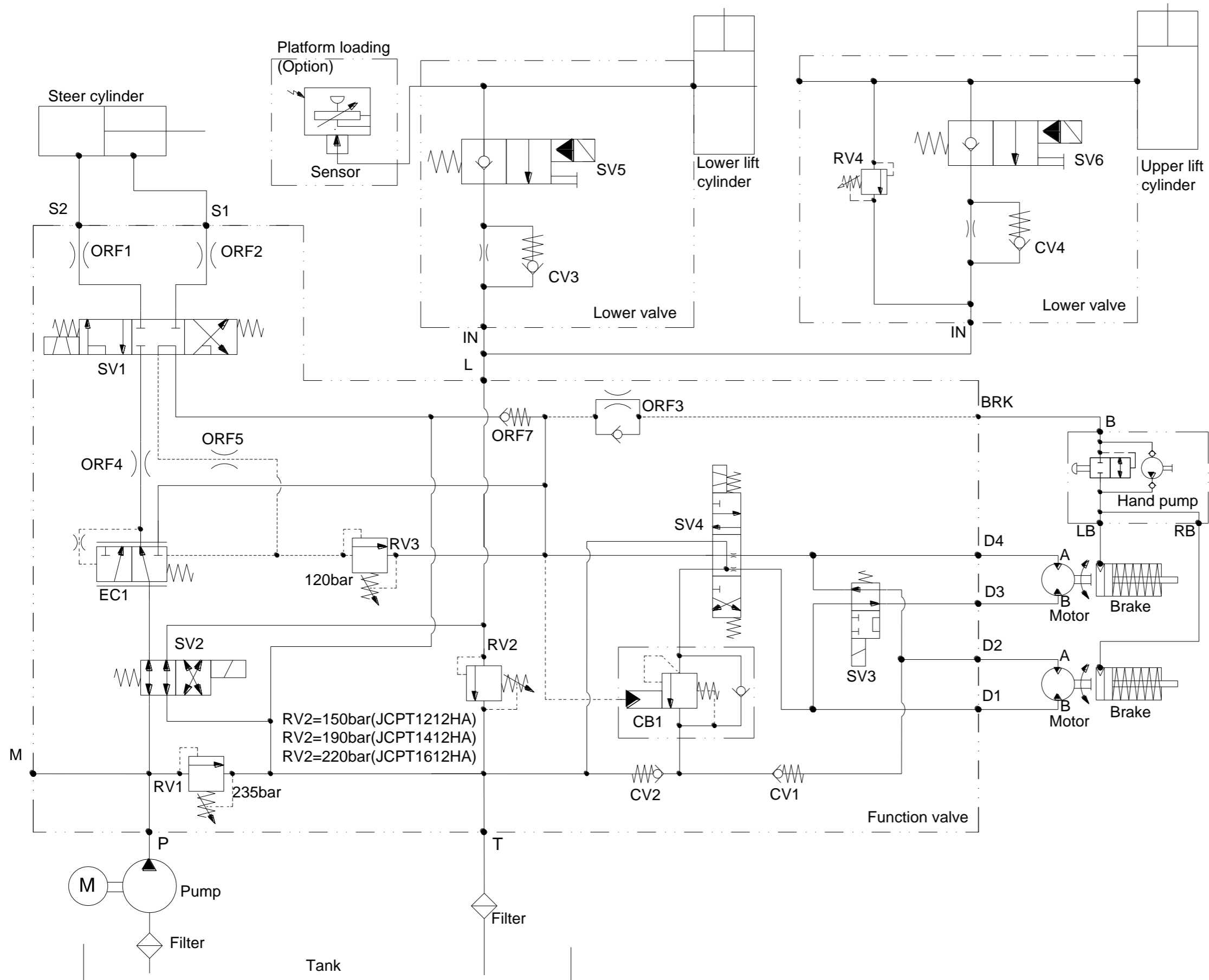
HA (S06)



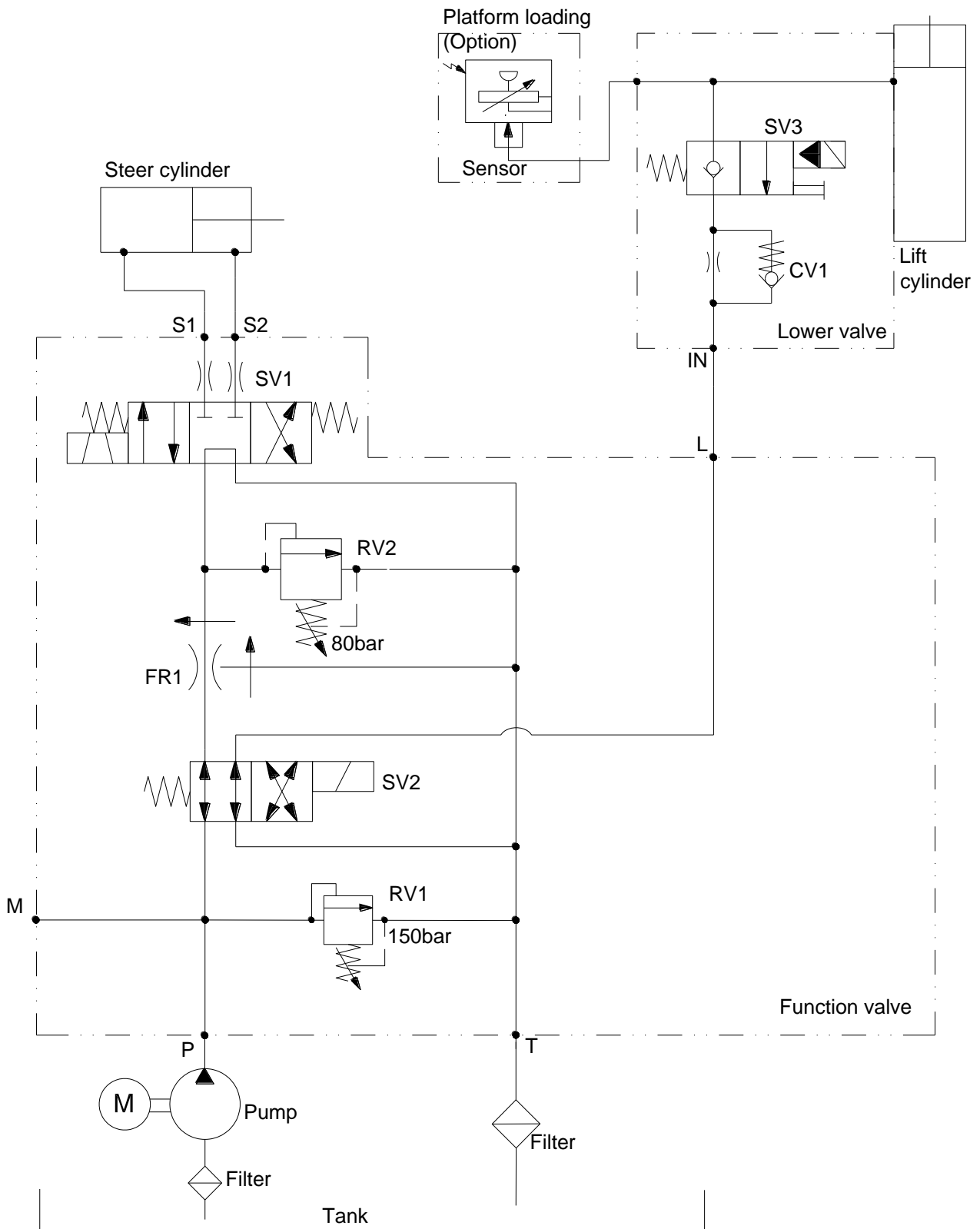
HA (S0608-S0812)



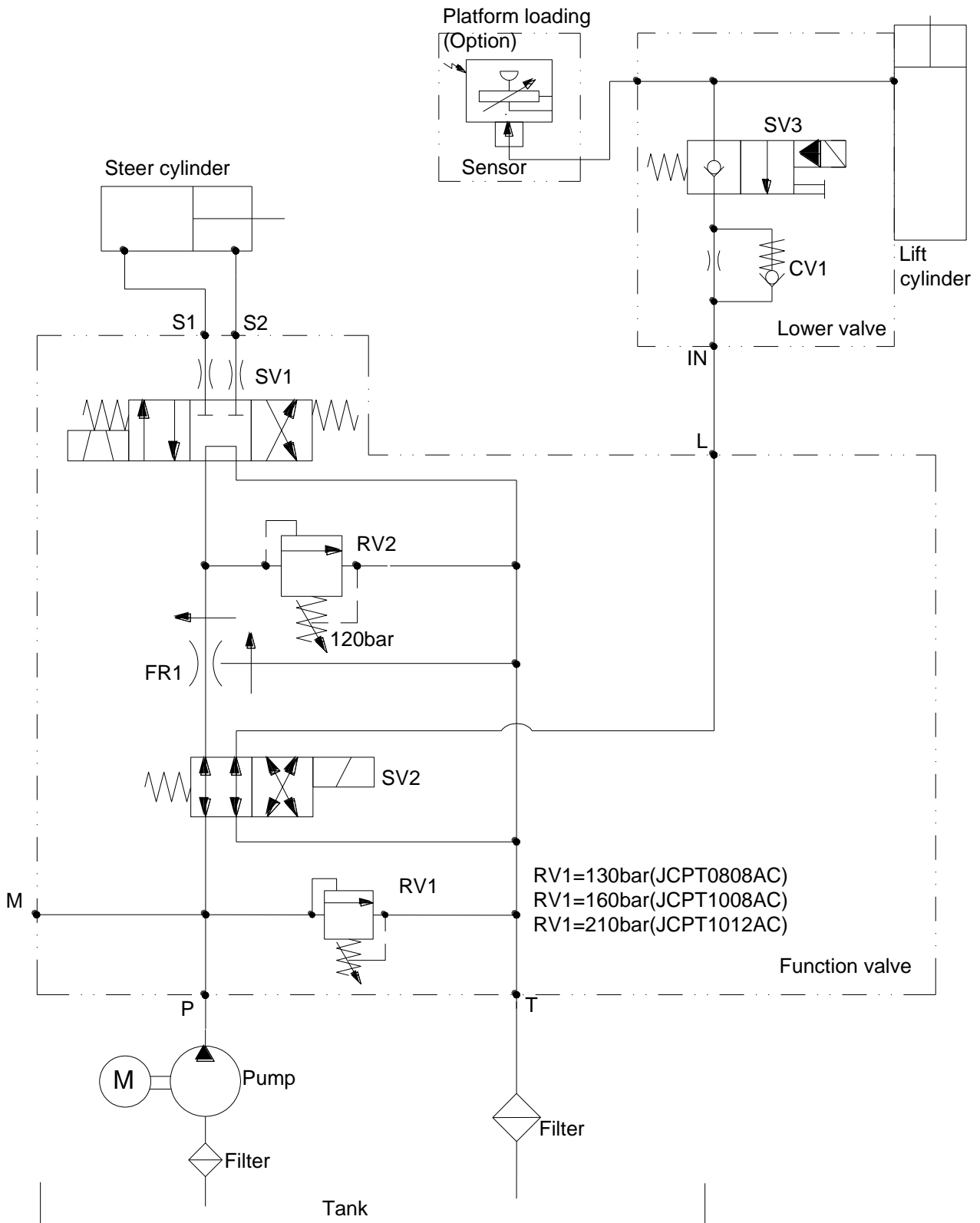
HA (S1012-S1412)



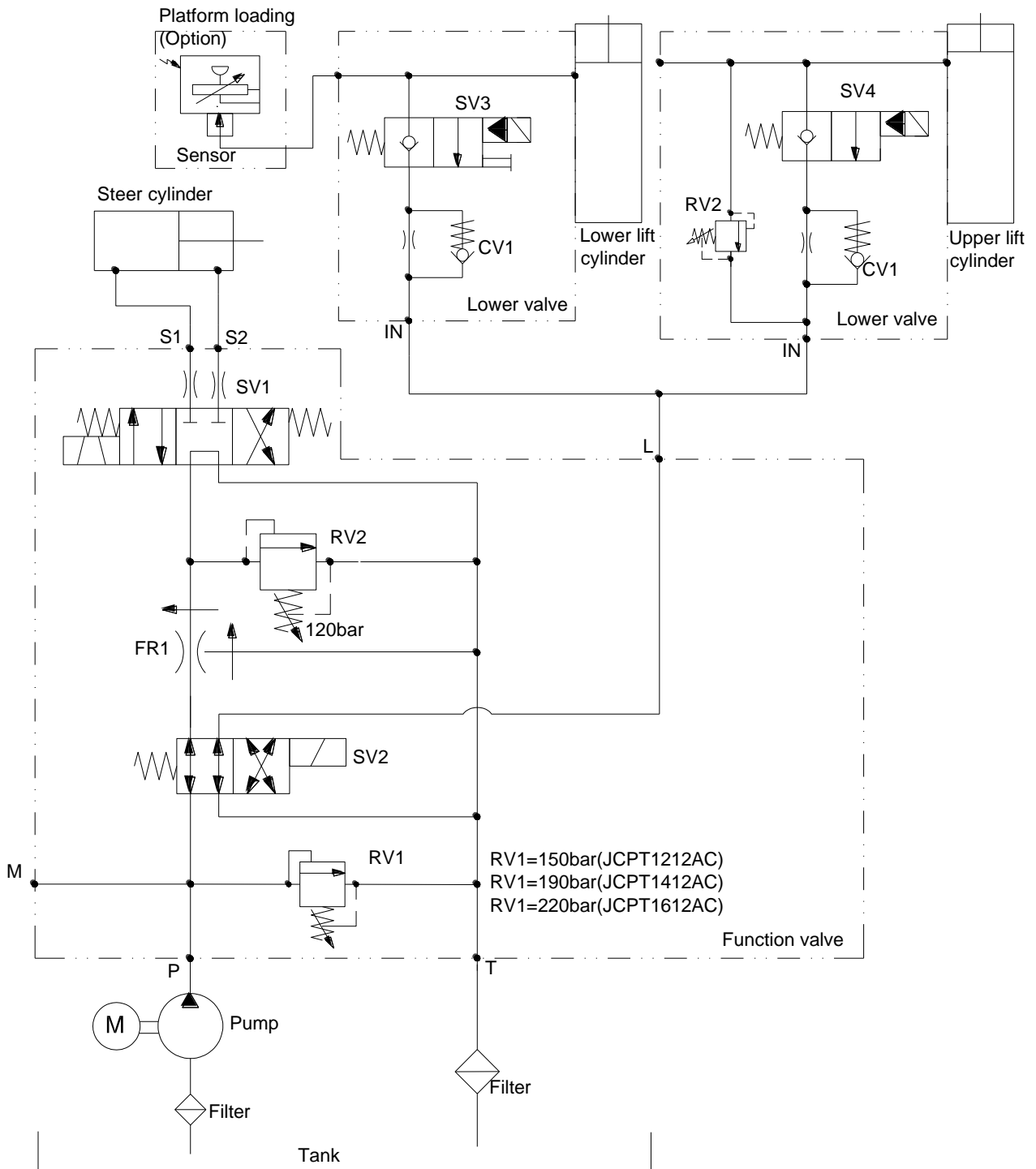
S06 ACE



S0608 - S0812ACE

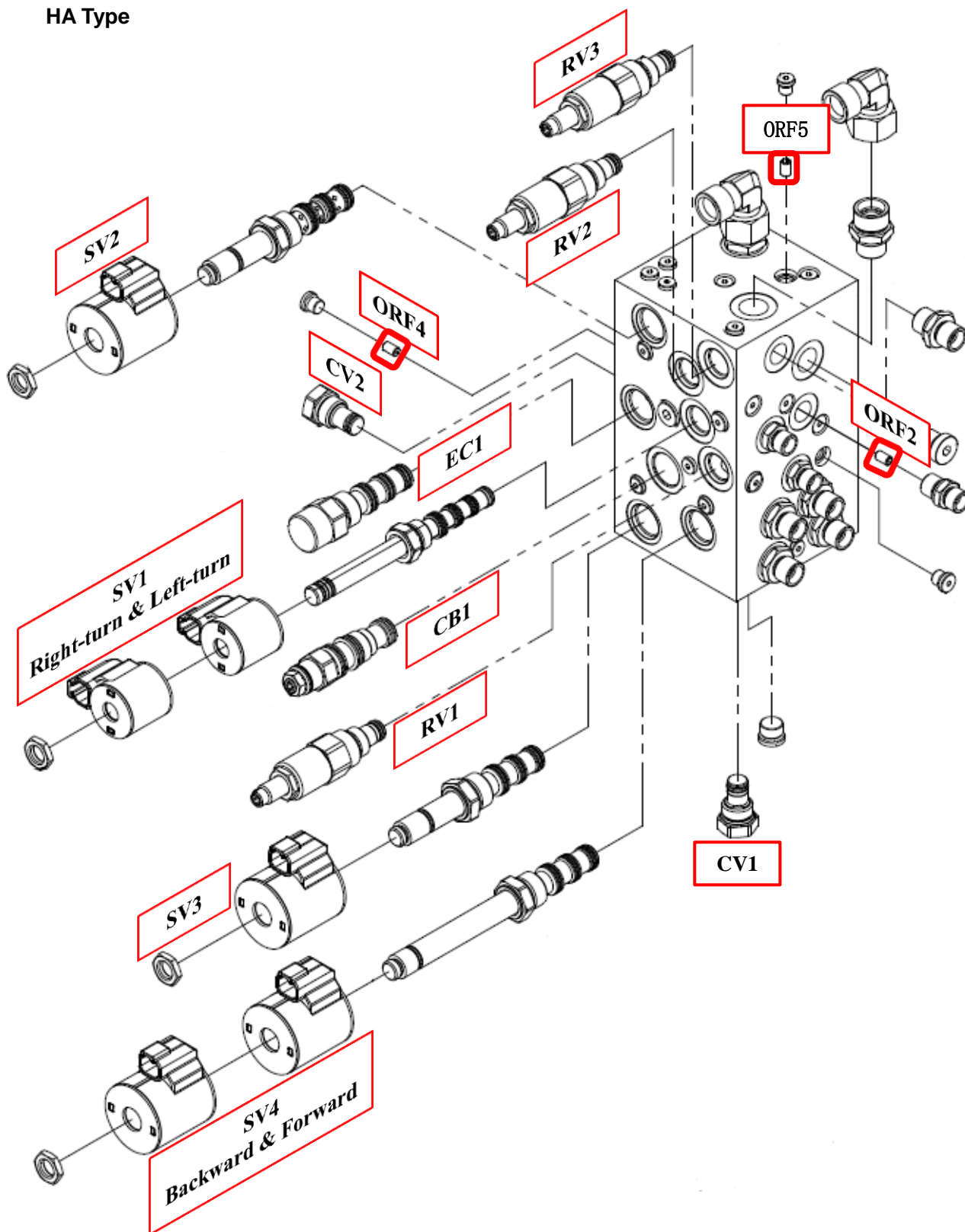


S1012-S1412ACE



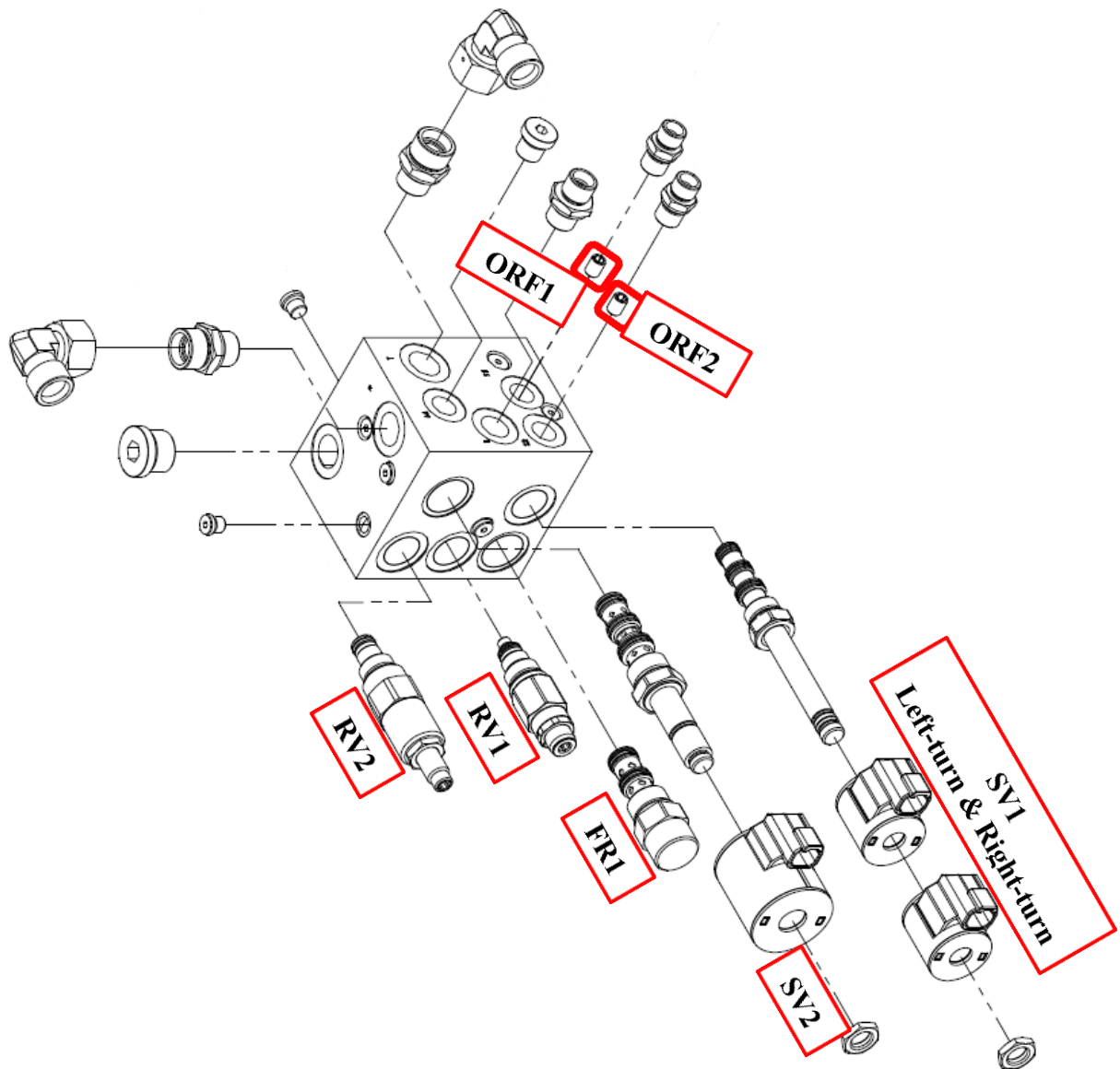
8.2 Valve block

HA Type



Code	Valve	Description
SV1	Steering	Control the left/right turn of the vehicle.
SV2	Lift up	Control the lifting action of the lifting cylinder.
SV3	Speed switching	Control the vehicle to drive at <u>high/low speed</u> .
SV4	Forward/Backward	Control the vehicle to move <u>forward/backward</u> .
RV1	Total relief valve	The relief pressure is 235Bar.
RV2	Lifting Relief valve	0807 150Bar; 0808 130Bar; 1008 160Bar; 1012 210Bar; 1212 150Bar; 1412 190Bar; 1612 220Bar.
RV3	Steering Relief valve	0807 80Bar; 0808~1612 120Bar.
CB1	Counter-balance valve	Stabilize the return oil pressure in the driving oil circuit, so that the vehicle can drive stably in different conditions, and there will be no phenomena such as unstable speed, slipping on the slope.
EC1	Flow control valve	When the vehicle is not turning, the valve can lead the hydraulic oil into the drive oil circuit to enable the vehicle to realize its driving function.
CV1	Check valve 1	When the vehicle turns, the outer wheel need faster speed, and CV1 can compensate the oil pressure to outer oil-motor.
CV2	Check valve 2	Used to generate oil return back pressure.
ORF2	Orifice 2	Φ1.3
ORF4	Orifice 4	Φ1.5
ORF5	Orifice 5	Φ0.8

AC Type



Code	Valve	Description
SV1	Steering	Control the left/right turn of the vehicle.
SV2	Lift up	Control the lifting action of the lifting cylinder.
RV1	Total relief valve	0807 150Bar; 0808 130Bar; 1008 160Bar; 1012 210Bar; 1212 150Bar; 1412 190Bar; 1612 220Bar.
RV2	Steering Relief valve	0807 80Bar; 0808~1612 120Bar.
FR1	Flow control valve	Give priority to the oil supply, stabilize the oil pressure, and make the steering more stable.
ORF1	Orifice 1	Φ1.0
ORF2	Orifice 2	Φ1.0