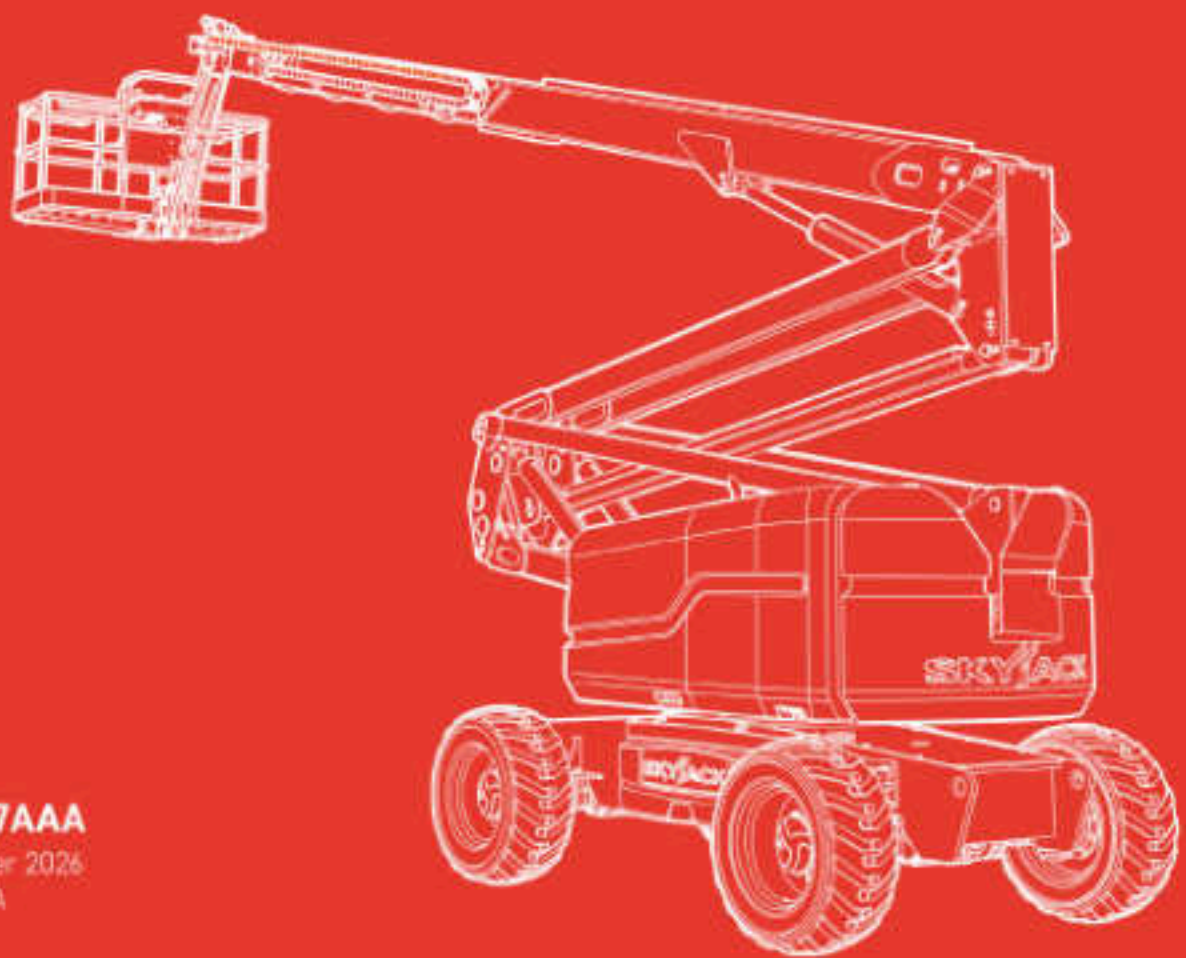
SKYJACK

SERVICE MANUAL

SJ85 AJ

ARTICULATING BOOM



264837AAA

September 2026

ANSI/CSA

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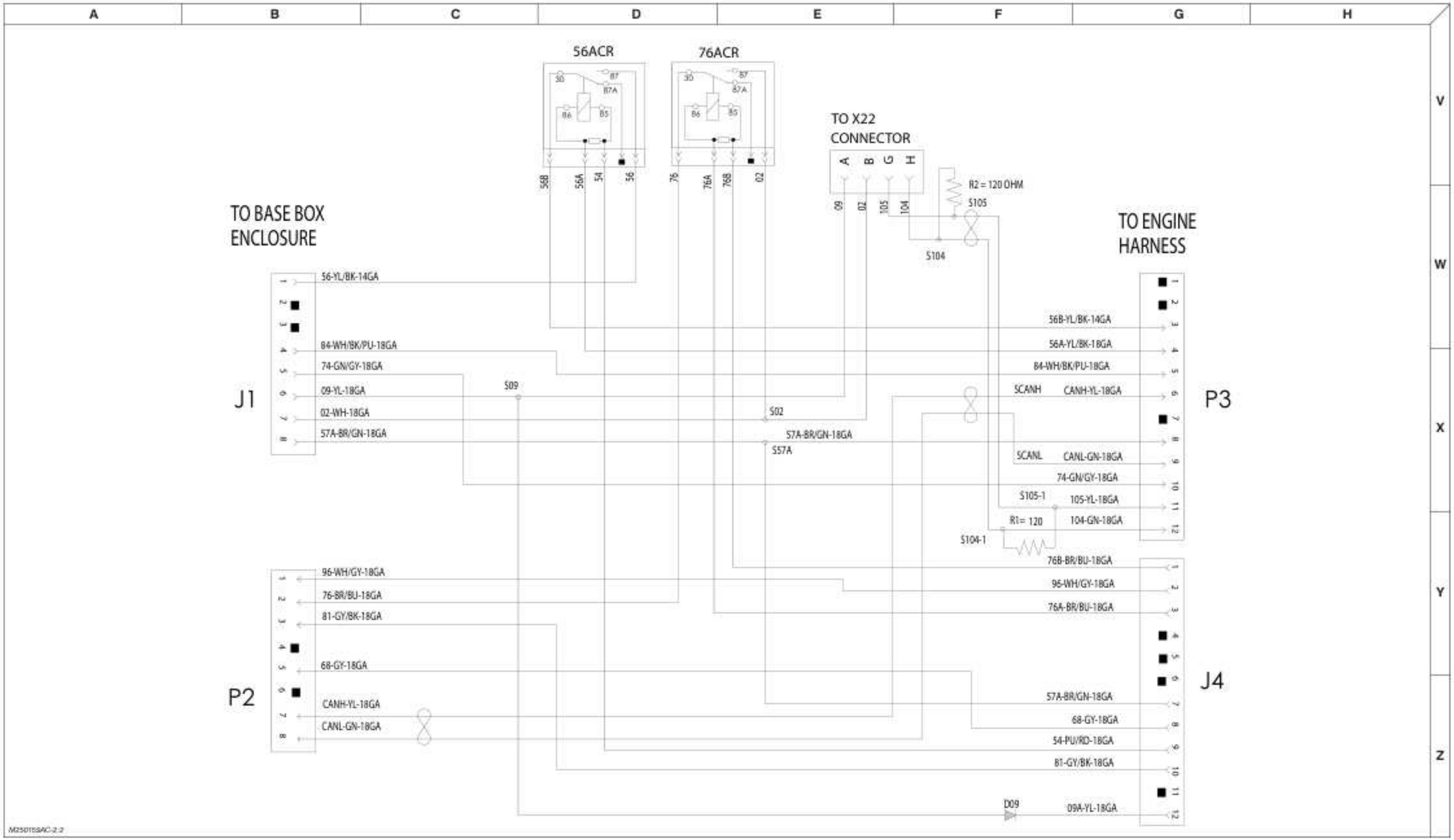
2.9 Specifications and Features - Performance & Speeds

		SJ85 AJ	
Performance and Speeds	Gradeability - maximum	42%	42%
	Drive Speed - stowed / low torque	4.83 km/h	3.0 mph
	Drive Speed - stowed / high torque	1.93 km/h	1.2 mph
	Drive Speed - elevated / low torque	0.80 km/h	0.5 mph
	Drive Speed - elevated / low torque	0.80 km/h	0.5 mph
	Turret Rotation Time - stowed	95 - 130 s	95 - 130 s
	Turret Rotation Time - extended	190 - 220 s	190 - 220 s
	Platform Rotation Time	10 - 20 s	10 - 20 s
	Boom Up Time	85 - 95 s	85 - 95 s
	Boom Down Time	85 - 95 s	85 - 95 s
	Boom Extend Time	45 - 55 s	45 - 55 s
	Boom Retract Time	35 - 45 s	35 - 45 s
	Riser Up	25 - 35 s	25 - 35 s
	Riser Down	25 - 35 s	25 - 35 s
	Jib Up Time	20 - 30 s	20 - 30 s
	Jib Down Time	15 - 25 s	15 - 25 s
	Steer Left Time	5 - 8 s	5 - 8 s
	Steer Right Time	5 - 8 s	5 - 8 s
High Capacity Zone	Capacity	340 kg	750 lb
	Maximum # of Persons	3	3
	Wind Rating	12.5 m/s	28 mph
	Manual Force	400 N	90 lbf
Low Capacity Zone	Capacity	227 kg	500 lb
	Maximum # of Persons	2	2
	Wind Rating	12.5 m/s	28 mph
	Manual Force	400 N	90 lbf
Hydraulic Data	System Pressure	224 bar	3250 psi
Electrical Data	System Voltage	12 V DC	12 V DC
	Battery Type	Lead / Acid	Lead / Acid

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3.22 Engine Interface Harness Schematic - Deutz TD2.9L



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4.2-3 All Functions Inoperative from the Platform Control Console

1. Loose or broken wire 04 from platform e-stop S4. to platform control box terminal strip.	**Check for 12 V on 04 at terminal strip. Repair or replace if defective.**
2. Loose or broken wire 02 from platform control box terminal strip to B- ground.	**Check for ground on 02 at terminal strip. Repair or replace if defective.**
3. CAN comminication error.	**Check CANH and CANL wiring fron platfrom terminal strip to machine controller TTC_510 pins 209 and 222 Check 120 ohm termination resistors. Check CANH and CANL wiring to platform control box joysticks, I/O expander module and load cell. Refer to CAN troubleshooting in section 5.**
4. Loose or broken wire 04 from platform control box terminal strip to boom/turret joystick pin 16 and drive/steer joystick pin 16.	**Check for 12 V on pin 16 at both joysticks. Repair or replace if defective.**
5. Loose or broken wire 04 from platform control box terminal strip to foot switch S11.	**Check for 12 V on wire 04 at foot switch. Repair or replace if defective.**
6. Defective/Open foot switch S11.	**Depress foot switch. Check for 12 V on wire 08A at foot switch. Replace if defective.**
7. Loose or broken wire 08A from foot switch S11 to Boom/Turret joystick pin 19.	**Check for 12 V on wire 08A on pin 19. Repair or replace if defective.**
8. SGE Sensor bar depressed or shorted closed.	**Check that there is no voltage on wire 61 at pin 5 of Drive/Steer joystick**
9. Loose or broken wire 07A between contact blocks on key switch S2.	**Check for 12 V on all 07A wires on S2. Repair or replace if defective.**
10. Defective/Open key switch S2.	**select platform at keyswitch. Check for 12 V on wire 12 at key switch. Replace if defective.**
11. Loose or broken wire 12 from contact block on key switch S2 to machine cotroller TTC_510 pin 147.	**Check for 12 V on pin 147 of machine controller. Repair or replace if defective.**

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Standstill Regeneration Stages

Standstill Lamps ❸ ❹	Engine Lamp ❺	Audible Alarm ❻	Engine Torque	Action Required
Flashes slowly	Off	Pulsates slowly	100%	Perform the standstill operation at the next available opportunity, within 3 to 4 hours.
Flashes slowly	On	Pulsates slowly	75%	The standstill operation must be performed immediately.
Flashes quickly	Flashes	Pulsates quickly	40%	a. The standstill operation is no longer possible with on-machine controls. Contact an authorized repair facility.
				b. Failure to perform the standstill has resulted in the diesel particulate filter failure, and regeneration is no longer possible. Contact an authorized repair facility to replace the filter.

Do the Standstill Regeneration

1. Move the MEWP to an open, well-ventilated area, away from any flammable material. Park it on a firm level surface, and fully stow the MEWP.
2. With the engine running, turn the off/base/platform switch ❼ on the base controls to the base position.
3. Activate the standstill regeneration by moving the standstill switch ❽ on the base controls to the right. Base functions become inoperative when the standstill switch is turned on.
4. On the engine display module ❷ press and hold the middle button ❾ (below the regeneration symbol) for 7 seconds.

⚠ WARNING

Do not touch hot engine components. Touching hot surfaces may cause serious injury.

5. The engine display module changes to the Regeneration Ongoing symbol ❿, the standstill lamps turn solid, and the engine speed may change.
6. Standstill regeneration takes approximately 45 minutes. During this time, the MEWP must not be used.

IMPORTANT

The standstill regeneration must be completed fully. If the process is interrupted, the standstill request continues.

7. When the standstill regeneration is complete, the Regeneration Ongoing symbol changes to Regeneration Complete ⓫, the standstill lamps ❸❹ turn off, and the engine speed returns to normal.
8. Move the standstill switch to the left. The MEWP may now be used normally.

IMPORTANT

The derate override switch ⓬ on the front of the platform control box should only be used when absolutely necessary to move the MEWP to park it in a safe location when the derated engine torque/rpm prevents adequate torque to drive the MEWP.

It will temporarily (for approximately 30 minutes) restore full engine power and speed.

Be aware that use of the derate override switch may result in diesel particulate filter failure.

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5.2-5 NVR display module (base control box)



Maintaining proper calibration is essential for good performance of the MEWP.

The lower main controller is located on the base control box door. Open the platform control box to access the upper secondary controller.

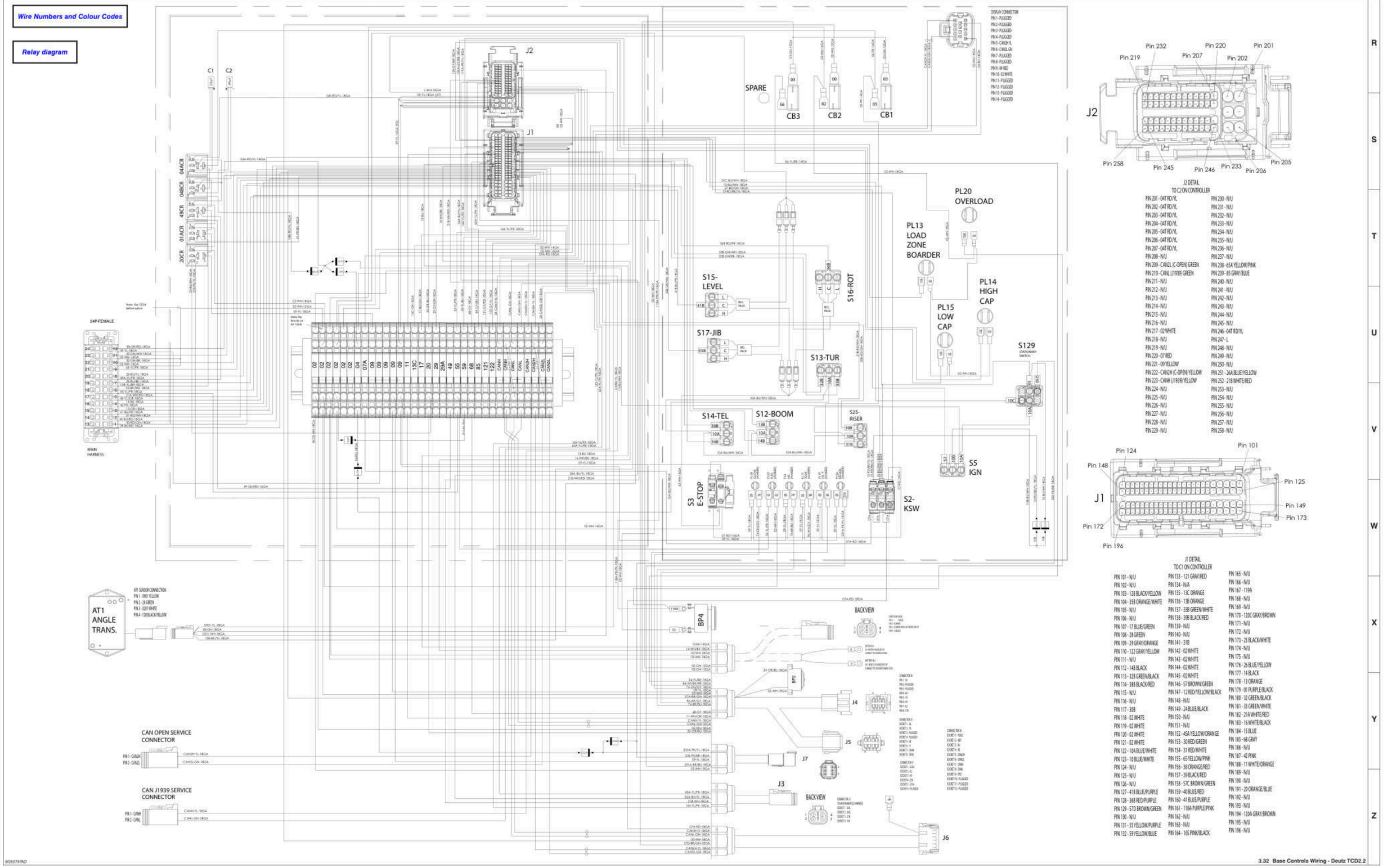
The controller has an integrated multi segment, four line display with membrane keys that allow it to be used as the main interface to system controls and adjustments. The display serves as your window into the application software to allow you to monitor or adjust the following information:

- Active function in use
- Part number and serial number
- Restore the factory default settings
- Output calibrations (Thresh, Max, Ramp.etc)
- I/O status
- CANBus status

5.2-4 NVR display - User interface keys

Button	Function
▲ ▼	**UP** and **DOWN** buttons Select or scroll through through menus.
◀ ▶	**LEFT** and **RIGHT** buttons Change settings and move through menus.
↩	**ESC** button Return to the previous screen.
↵	**ENTER** button Select or save.

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