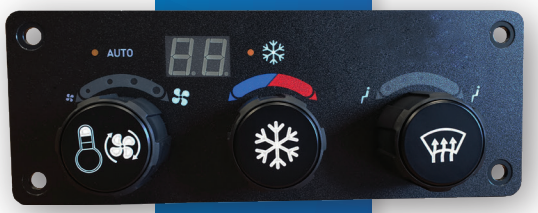
HVAC Control Panel

Designed for rugged applications, HED's HVAC Control Panel is used to control and adjust temperature effectively inside the vehicle. Made of high-quality PC/ABS (Polycarbonate and ABS) , the CL-640 is lightweight, fade-resistant and long-lasting.



8 - 16 VDC Operating Voltage

Shock & Vibration Resistant

Front: IP54
Back: IP41

-40C to +70C

Three Independent Controls

The three control knobs control Fan Speed, AC or Heat Temperature, and Air Vent Distribution. Outside of knob rotates, while center with icon stays static. Center of knob is a pushbutton.

LED Displays

The two-digit LED display shows the current Temperature Setting while the two indicator LED lights show mode selection (Auto or AC/ Heat).

Heavy-Duty Haptics

Provide easy control with haptics that provide clear operator feedback in the harshest of operational environments. Allows use with gloves and intentional changes while operating.

Customizable

All wording and artwork can be modified per customer requirements. Keep your brand front and center by adding your logo to the panel above 3rd dial.

HED® Intelligent Vehicle Controls

HED specializes in the design, manufacture, and application of innovative controls and telematics systems for on- and off-highway OEMs. We provide a complete line of controllers, displays, keypads, and telematics solutions.

HVAC Control Panel | CL-640 Specifications

GENERAL	
Overview	Designed for rugged applications, HED's HVAC Control Panel is used to control and adjust temperature effectively inside the vehicle.
Material	Polycarbonate and ABS (PC/ABS)

OPERATIONAL	
Control Setting	3x knobs (fan speed, AC & AC/heat, air vent distribution)
LED Indicators	2x (auto and AC/heat)
Knob Operation	Non-rotational, center push Continuous outside rotation 16 position detents

GRAPHICS	
Custom Options	Branding and customized graphics options

MECHANICAL	
Sealing	Front: IP54 Back: IP41
Operating Temp	-40C to +70C
Connector	20-pin Molex (not a sealed connector)
Dimensions	8" x 3" x 1" (approximate)

ENVIRONMENTAL SPECIFICATIONS	
EMC Conformity	FCC Part 15 (b) and ISED Canada (exempted) Radiated Emissions: ISO 13766-1, EN 13309, ISO 14982 Radiated Immunity: ISO 11452-2 Conducted Immunity: ISO 11452-4 (BCI method), 20-200MHz at 100mA ESD: ISO 10605, IEC 61000-4-2
Shock	IEC 60068-2-27 Mechanical Shock Level: 500 m/s2- 6ms, Shape: Half-sinusoidal # Pulses: 100 per direction/axis (600 total shock pulses) Level: 500 m/s2- 11ms, Shape: Half-sinusoidal # Pulses: 6,000 per direction/axis (18,000 total shock pulses)
Vibration	IEC 60068-2-64 Random Vibration Test VII Test: Random Vibe, Freq. Range: 10-2000Hz, Level: 57.9m/s2 per Figure 11 / Table 12 Duration/axis: 8hrs (32Hrs total exposure)

ELECTRICAL	
Communication	1 CAN bus port / 3 LIN port
Operating Voltage	8-16VDC
Conducted Transient Immunity	ISO 7637-2, Pulse 1, 2a, 2b, 3a, 3b
Starting Profile	ISO 16750-2, Section 4.6.3
Load Dump	ISO 16750-2, Section 4.6.4, 35V clamped
Inputs	2x RTD(4.7K ohm) 1x Tri-State Digital 2x STG/VTD(0-5.5V) 1x PWM/VTD(0-Battery)
Outputs	1x Digital/PWM Sourcing (150mA) 3x Analog (0-Battery) 2x 5VDC Sensor Supply

CONNECTOR: 20-PIN MOLEX (MINI-FIT JR)

Molex PN on HVAC Panel: 0039289208
Mate PN: 39012200 or 39012205 or equivalent

Pin 1	Battery(+) / Analog Voltage Monitor
Pin 2	5VDC Sensor Supply
Pin 3	Battery (-)
Pin 4	Not Used
Pin 5	Output Digital / PWM (+) 150mA
Pin 6	Output Analog (0-Battery)
Pin 7	Output Analog (0-Battery)
Pin 8	Output Analog (0-Battery)
Pin 9	CAN1-H
Pin 10	CAN1-L
Pin 11	Input RTD (4.7K ohm)
Pin 12	5VDC Sensor Supply
Pin 13	Input RTD (4.7K ohm)
Pin 14	Input Tri-State
Pin 15	Input STG/VTD(0-5.5V)
Pin 16	Input STG/VTD(0-5.5V)
Pin 17	Input PWM/VTD(0-Battery)
Pin 18	LIN1
Pin 19	LIN2
Pin 20	LIN3