Custom Truck One Source
Knuckle Crane Engine Control

Knuckle - Cummins

Batt	0.0 v	Relays		Crane
		Acc	Ign	Hours
		Off	Off	0.0

Outputs Device Inputs Requested

Start	Off	Start	0.00	RPM
		Stop	0.00	0
CAN ERR		Throttle	0.00	Engine RPM
Engine		22345AA 06-28-21		0

PowerCore MPC-10

MURPHY

Wiring to Crane

Deutsch DT 12 Pin

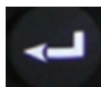| Pin	Color	Desc
1	WH/RD	Master Power
2	WH/GY	
3	OR	
4	BN	Start Signal
5	RD/WH	
6	BK/WH	
7	WH/OR	
8	WT/PK	
9	PK	Bump Throttle
10	WH/BN	Stop Signal
11	WH/BK	
12		

Menu Options

Press Start, Stop, Auto and Alarm Off buttons at the same time to bring up the menu.
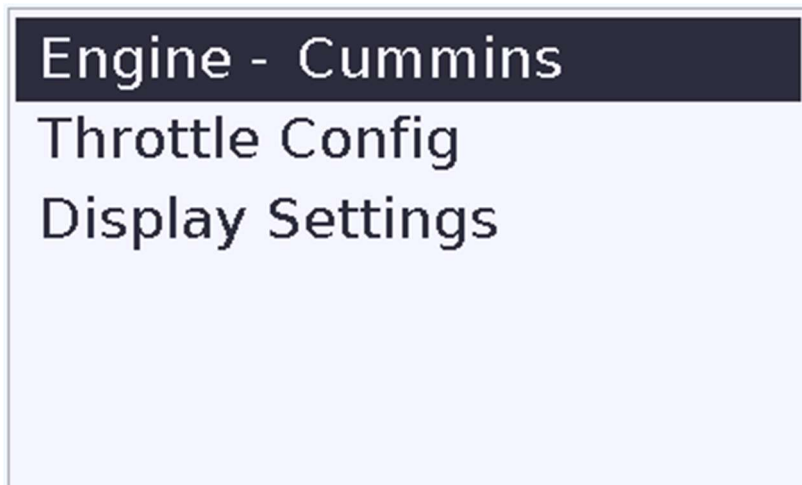
Highlight menu line and press enter

<u>Engine Select</u>

Highlight the engine mfg to select

 To Exit

Throttle Config

Highlight Min to set idle speed
Highlight Bump RPM to set high idle speed

Calibrate Throttle	Cummins
Pedal 0.0 v	
Min 0.0 v	Req RPM 0
Max 0.0 v	
RPM 0	Bump RPM 0
Min 0	
Max 0	

 To increase

 To Decrease

Calibrate Throttle	Cummins
Pedal 0.0 v	
Min 0.0 v	Req RPM 0
Max 0.0 v	
RPM 0	Bump RPM 0
Min 0	
Max 0	

 To increase

 To Decrease

 To Exit

<u>Display Settings</u>

Brightness
Contrast

Highlight menu line and press enter ⏎

Brightness
90 %

Contrast
50 %
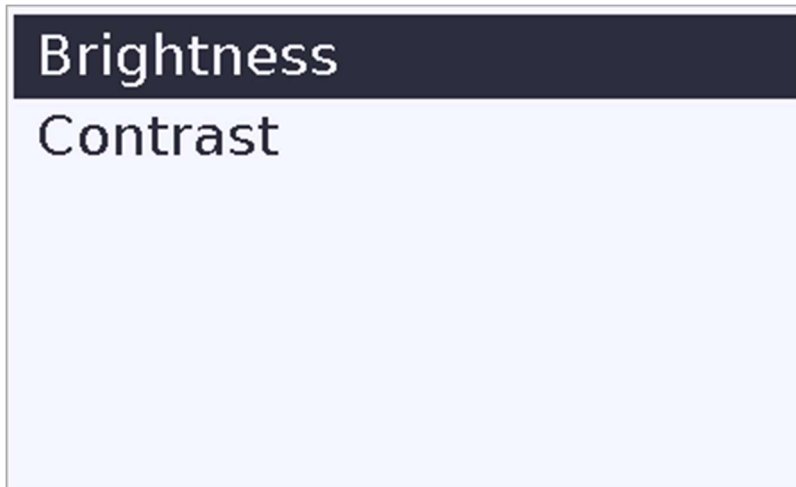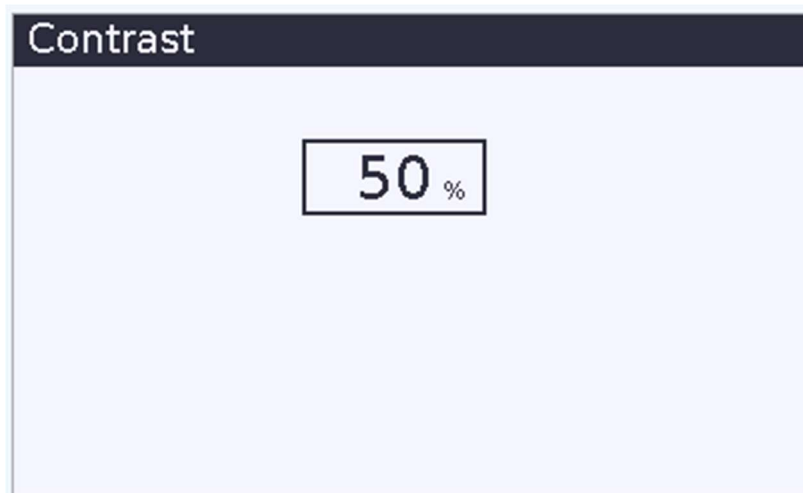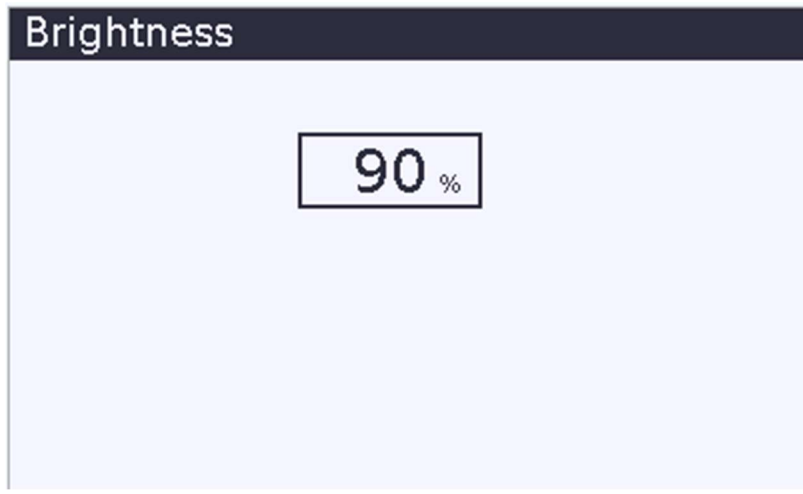
To increase

To Decrease

Operation

Batt – input voltage

Relays

        Acc   Off - Cab key position for Acc active

                  On - Acc off

        Ign   Off – Cab key position for Ign active

                  On – Ign off

Crane Hours - Increment if engine RPM > 500 RPM

Outputs

        Start   On – Sending voltage to start pin in the cab

Device Inputs

Start – Approx 4.68v with start off. Goes to approx 4.95v with start signal on.

Stop– Approx 4.68v with stop off. Goes to approx 4.95v with stop signal on.

Stop– Approx 4.68v with throttle off. Goes to approx 4.95v with throttle signal on.

Requested RPM

Requested engine RPM being sent to the engine via TSC1 CAN message.

Engine RPM

Actual Engine RPM being read from engine CAN message.'

 And Green LED is solid on.

 This is shown when no RPM message is being seen from the engine.

 And Red LED is flashing on.

22345AA 06-28-21   Software number and revision date

Loading software updates

File name is configurationFull.gciBin

Put the file on a USB stick formatted. Install stick in the 6-Pin to USB download cable. Enovation part# 7800668.

Press Exit and Down buttons while unit is powered on.

Release button when all 3 LEDs are lit.

LEDs flash while program is being loaded.

Green LED goes solid when program load is complete.

Remove USB stick and unit reboots to the new software.

Note – if all LEDs flashing continues for more than 30 second there is either an issue with the USB stick or it does not have a correct file on it.