CAN GAUGE

USER MANUAL

Part No. 101–0226

linkecu.com

LINK
ENGINE MANAGEMENT

BOX CONTENTS

- 1 x Link 52mm CAN Gauge
- 1 x Mounting bracket with thumb screws
- 1 x 5' (152cm) Connection Cable Terminated to DTM–4
- 1 x DTM–4 Mating Connector Kit
- 2 x Link Stickers

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INTRO TO THE 52MM CAN GAUGE

The Link CAN Gauge is a compact 52mm OLED gauge that connects to Link G4+/G4X ECUs* to display real–time data from CAN broadcasts. No sensors are added to the gauge — all gauge data is sent from the ECU over the CAN network. The gauge is wirelessly configurable using an Android or Apple iOS mobile device through Wifi. Gauge channels, bar graphs, warning points, and custom gauge labels can be configured using the CAN Gauge App.

Works with any CAN enabled Link ECU. Check with Link Tech Support team if you are unsure of compatibility.

REQUIREMENTS

- **Smartphone or Tablet:** Smartphone or tablet with Apple iOS or Android v4.4 or later.

- **CAN Enabled Link ECU (G4+ onwards).**

GAUGE MOUNTING & CABLE INSTALLATION:

- Remove the supplied mounting bracket from the rear of the gauge by unscrewing the two thumb screws from the rear of the gauge.

- The gauge is sized for a 2–1/16" or 52mm mounting hole. Use the mounting bracket to secure the gauge in place.

- Plug in the supplied cable to the rear of the gauge. Either one of the two connectors may be used.

- If using more than one Link CAN Gauge, join the two gauges using the optional daisy chain cable (part no. 101–0227). The last gauge in the chain will only be connected with the daisy chain cable.

LINK CAN BUS CONNECTION

The Link CAN Gauge includes a CAN connection cable that is pre-terminated to a DTM-4 connector. There is also a mating DTM-4 connector kit included in the box. Use this connector kit to wire into your vehicles CAN bus Pin out is shown below.

DTM-4 Mating
Connector Kit Pinout

CAN Gauge Side
DTM-4
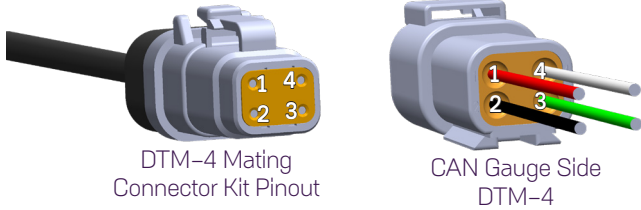
| Pin Number	Colour	Typical Application
Pin 1	Red	Ignition switched +12v (5 amp fused)
Pin 2	Black	Chassis Ground
Pin 3	Green	CAN Low
Pin 4	White	CAN High
Flying Lead	Orange	+12V Illumination Power

TERMINATING RESISTOR CONFIGURATION:

- The Link CAN Gauge includes a user-configurable 120 ohm terminating resistor jumper. The resistor is enabled when the jumper is in place.
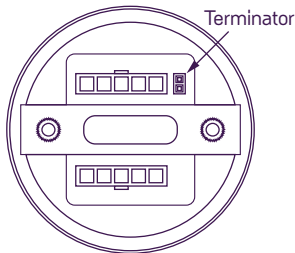
Terminator

Rear of Gauge

- CAN networks require a 120 ohm resistor on the ends of the network – one at the ECU, and one on the last device in the network (see image below for an example). Leave the terminating resistor jumper in place if the CAN Gauge is the last device in the chain of CAN devices. Remove the jumper if there are already two terminating resistors at the ends of the network (see below for an example).

- All Link G4+/G4X ECU's have a 120 ohm terminating resistor fitted

- Having too many or not enough resistors can cause the gauge or other devices to malfunction.

ECU with built in 120 ohm Resistor

120 ohm Resistor

CAN GAUGE

ECU with built in 120 ohm Resistor

120 ohm Resistor
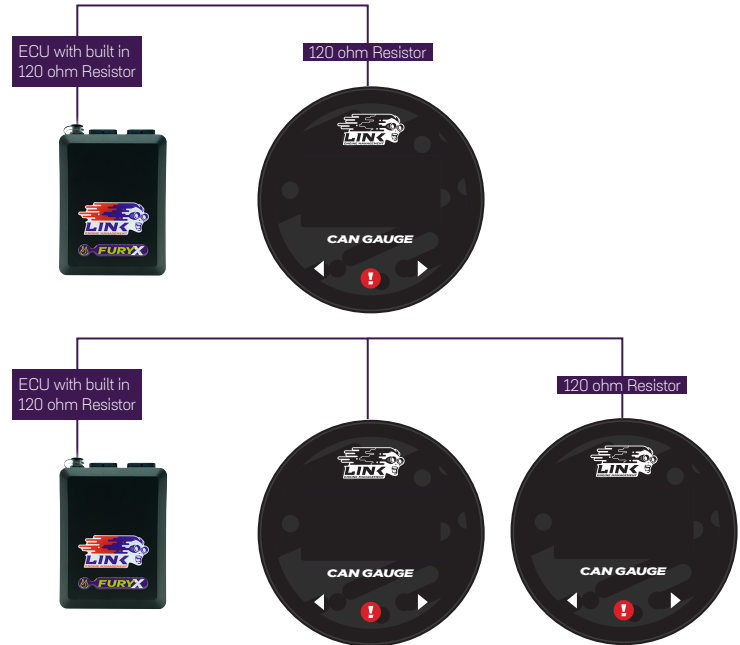
CAN GAUGE

CAN GAUGE

Example of two CAN networks – 120 ohm resistor must be on the last device in the chain.

ILLUMINATION SIGNAL WIRING:

· The Link CAN Gauge can dim illumination during night when the parking lights are on. Using the factory service manual, find a wire in the interior that switches to +12V power when the parking lights are on. Verify with a voltmeter or test light that the wire receives +12V when the parking lights are turned on.

· The connection cable provides a separate orange unterminated wire for +12V illumination power

· Note that some vehicles, including many Hondas, have an illumination switched connector in the interior fuse box.

· Depending on access to the wire – use a wire tap or splice the factory wire to connect the gaugeART CAN Gauge orange wire.

CONNECT TO CAN GAUGE APP:

· Search "gaugeART" and download the gaugeART CAN Gauge App from your device's app store.

· If you have two Link CAN Gauges, they can be programmed separately.

· Turn on your ignition to turn on Link CAN Gauge. The welcome screen will be shown.

· Connect to the gauge via Wi-Fi by tapping on settings > Wi-Fi.

· Tap on gaugeART and enter the default password "12345678". Allow the gauge to connect. If prompted with a message that internet is not available with this device, tap ok.

· You may now open the gaugeART CAN Gauge App.

CREATE CONFIGURATION:

· Tap *Create Configuration*. Select ECU type and tap *Next*.

· The gaugeART CAN Gauge allows you to create up to 10 pages of gauge layouts in 1, 2, or 4 gauge layouts. Tap the center of the screen for Gauge Screen Setup. On this screen, select a channel, configure graph range, update speed, warnings, and gauge labels (e.g. rename "MAP" to "BOOST").

· Tap *Previous Page* to return.

· Tap the left side to change the configuration between 1, 2, or 4 gauge layout.

· Tap *Next Page* to add a new page or delete to remove a page.

SAVE & SEND CONFIGURATION:

· Tap the icon in the top right and tap Save.

· Enter a name under **"Enter Save File Name"** and tap Save.

· To program, tap Send Configuration. The gauge will be programmed and will show your configuration. Programming takes anywhere from 10–60 seconds and will update the gauge's firmware automatically if an update is available.
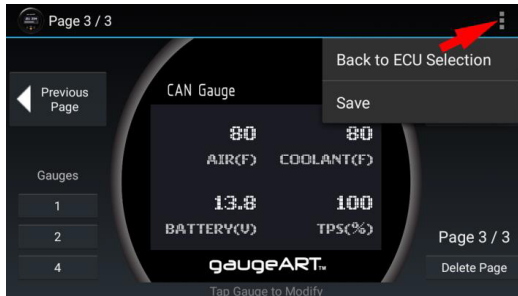

LOAD CONFIGURATION:

· Select the ECU you are working with.

· Previously saved files will be shown in the second drop down. Click load to open the file.

· To Edit your saved configuration, tap edit once loaded.

· To program, tap Send Configuration.
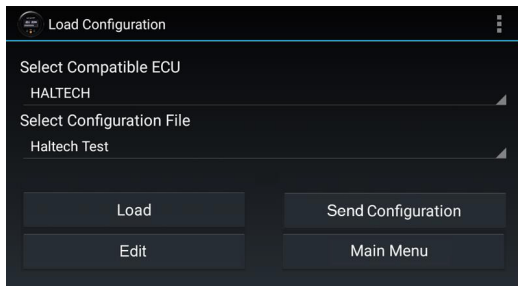

PCLINK CAN STREAM CONFIGURATION:

· Open PCLink

· Open the CAN Setup window > ECU Controls > CAN Setup).

· Select the CAN module to be used.

· Set the Mode to 'User Defined'.

· Configure the Bit Rate to 1 Mbit/s

· Select a spare CAN channel.

· Select 'Transmit Generic Dash' from the Mode drop–down menu.

· Set the CAN ID to 56.

· Set the Transmit Rate to 20Hz.

· Set the Format to Normal.

· Click Apply and then OK.

· Make sure a Store (F4) is performed.
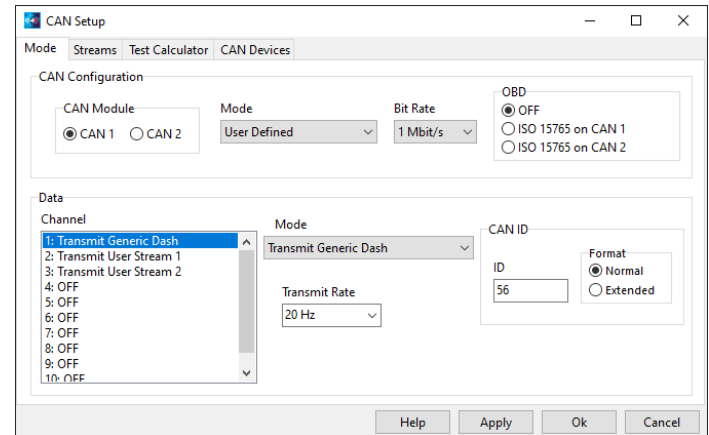
FOR EXTENDED CHANNELS:

- Select another spare CAN channel.
- Set Mode to **"Transmit User Stream X"** (Where X is the next unused transmit or receive user stream number).
- Set CAN ID to 50.
- Set Transmit Rate to 20Hz.
- Set Format to Normal.
- Change to the Streams tab of the CAN Setup window.
- Select Stream X and then click Load Stream.
- Select 'GaugeART_CAN_Gauge_Extra_ID50.lcs' and click the Open button (find this in the CAN folder of your PCLink install).
- Change back to the Mode tab, select the next spare CAN channel.
- Repeat steps 1–7 for the 'GaugeART_CAN_Gauge_Extra_ID51.lcs' file, this time using the CAN ID 51.
- Click Apply and then OK.
- Make sure a Store (F4) is performed.

PCLink Extended CAN Channels 1
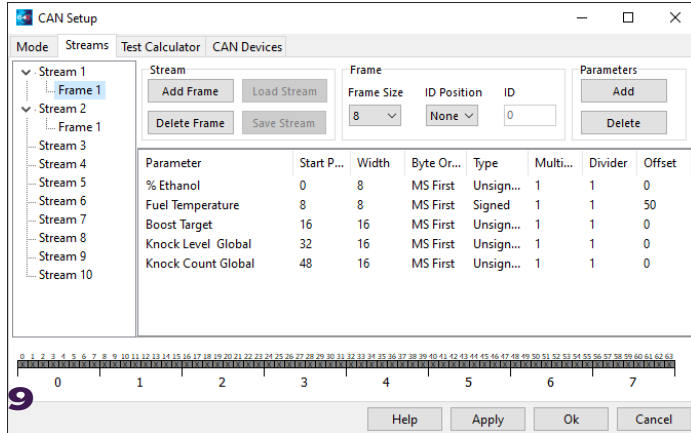
PCLink Extended CAN Channels 2
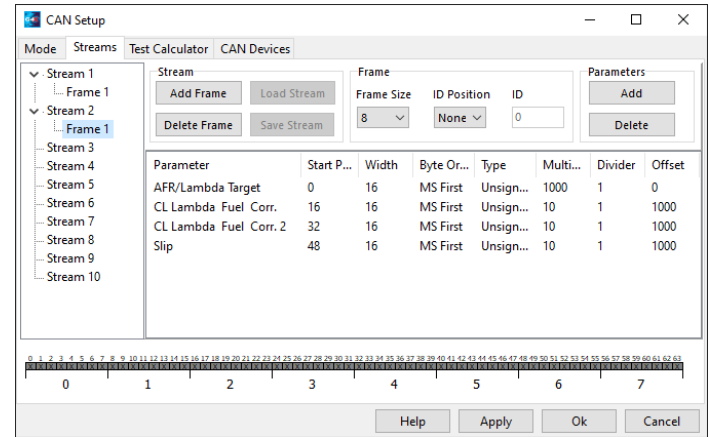
TROUBLESHOOTING:

- **App says gauge is not connected:** connect gauge in Wi-Fi settings before opening app. Make sure Wi-Fi is connected (a checkmark appears when connected). Make sure to give app permission to use Wi-Fi if prompted.

- **Gauge stays in Programming Mode:** the gauge will stay in programming mode until a configuration is sent.

CONTACT US:

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ENGINE MANAGEMENT

EXHILARATION STARTS HERE

LINK ENGINE MANAGEMENT HAVE A RANGE OF ACCESSORIES TO HELP YOU TRUELY UNLEASH THE POTENTIAL OF YOUR ENGINE!