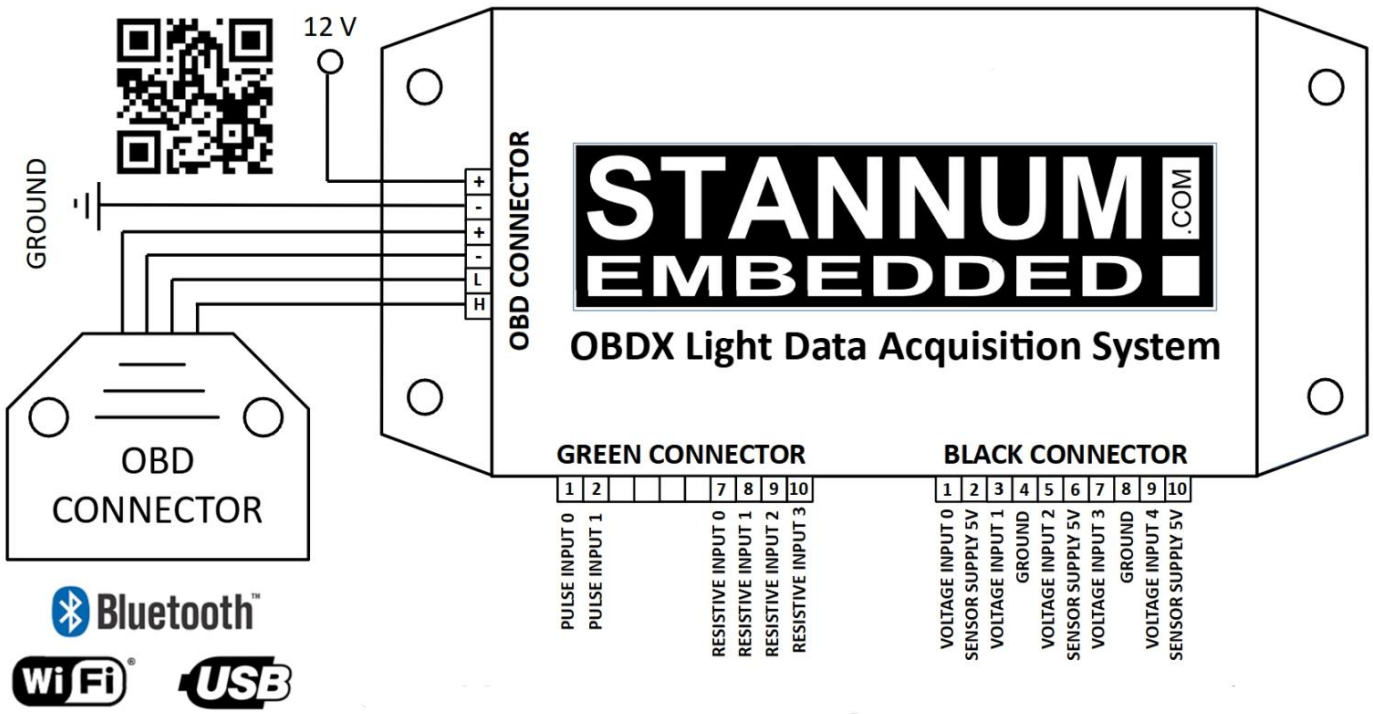

Configuration via OBD Torque (available for android)		Configuration via OBD Fusion (available for android and iphone/ipad)	
1	Press gear wheel symbol in main menu lower left corner => Manage extra PIDs/Sensors	1	Go to Settings => Preferences => Advanced
2	In top right corner, select "Add Custom PID"	2	Enter data as described in following pages (on format AAXXXX) at "Commands" under "INTERFACE INITIALIZATION"
3	Enter data according to last column in Proprietary PID configuration tables below		
4	Enter "OBD2 Mode and PID" data as described in following pages (on format AAXXXX)	3	Go back to main menu and press "DISCONNECT" and then "CONNECT"
5	Scroll down and press "Test"	4	Remove configuration code from "Commands" under "INTERFACE INITIALIZATION"
	Now byte/word is configured (written to NVM memory)		Now data byte/word is configured (written to NVM memory)

OBD Torque App Proprietary PID Configuration

OBD2 Mode	Long Name	Short Name	Min Value	Max Value	Scale Factor	Unit Type	Equation
01AA	Engine Oil Pressure MECH	Eng Oil Pres	0	765	X1	kPa	A * 3
01A8	Config Information	Config Info	0	16777216	X1	-	(A * 65536) + (B * 256) + C
01A9	Transmission Oil Temperature	Trans Temp	0	210	X1	DegC	A - 40
01AB	Proprietary Analog Input A	User Defined	0	255	X1	User Defined	User Defined (Min 0, Max 255)
01AC	Proprietary Analog Input B	User Defined	0	255	X1	User Defined	User Defined (Min 0, Max 255)
01AD	Proprietary Analog Input C	User Defined	0	255	X1	User Defined	User Defined (Min 0, Max 255)
01B1	Proprietary Analog Input D	User Defined	0	255	X1	User Defined	User Defined (Min 0, Max 255)
01AE	Proprietary Digital Input A	User Defined	0	1	X1	User Defined	User Defined (Min 0, Max 1)
01AF	Proprietary Digital Input B	User Defined	0	1	X1	User Defined	User Defined (Min 0, Max 1)
01B0	Proprietary Digital input C	User Defined	0	1	X1	User Defined	User Defined (Min 0, Max 1)
01B2	Engine Oil Pressure PIEZO	Eng Oil Pres	0	765	X1	kPa	A * 3
01B8	Proprietary Analog Input E	User Defined	0	255	X1	User Defined	User Defined (Min 0, Max 255)
01BA	Proprietary Analog Input F	User Defined	0	255	X1	User Defined	User Defined (Min 0, Max 255)
01BB	Proprietary Analog Input G	User Defined	0	255	X1	User Defined	User Defined (Min 0, Max 255)
01BC	Proprietary Frequency A	User Defined	0	65535	X1	User Defined	User Defined (Min 0, Max 65535)
01BD	Proprietary Frequency B	User Defined	0	65535	X1	User Defined	User Defined (Min 0, Max 65535)
01BE	Proprietary Period A	User Defined	0	65535	X1	User Defined	User Defined (Min 0, Max 65535)
01BF	Proprietary Period B	User Defined	0	65535	X1	User Defined	User Defined (Min 0, Max 65535)

OBD Fusion App Proprietary PID Configuration

Name	Description	Category	Metric Units	Min Value	Max Value	Module Header	OBD Mode	PID Number	Priority	Equation
Eng Oil Pres	Engine Oil Pressure MECH	Engine	kPa	0	765	ALL	01	AA	Medium	A * 3
Config Info	Config Information	Engine	-	0	16777216	ALL	01	A8	Low	(A * 65536) + (B * 256) + C
Trans Temp	Transmission Oil Temperature	Engine	DegC	0	210	ALL	01	A9	Low	A - 40
User Defined	Proprietary Analog Input A	Engine	User Defined	0	255	ALL	01	AB	Medium	User Defined (Min 0, Max 255)
User Defined	Proprietary Analog Input B	Engine	User Defined	0	255	ALL	01	AC	Medium	User Defined (Min 0, Max 255)
User Defined	Proprietary Analog Input C	Engine	User Defined	0	255	ALL	01	AD	Medium	User Defined (Min 0, Max 255)
User Defined	Proprietary Analog Input D	Engine	User Defined	0	255	ALL	01	B1	Medium	User Defined (Min 0, Max 255)
User Defined	Proprietary Digital Input A	Engine	User Defined	0	1	ALL	01	B2	Medium	User Defined (Min 0, Max 1)
User Defined	Proprietary Digital Input B	Engine	User Defined	0	1	ALL	01	AE	Medium	User Defined (Min 0, Max 1)
User Defined	Proprietary Digital input C	Engine	User Defined	0	1	ALL	01	AF	Medium	User Defined (Min 0, Max 1)
Eng Oil Pres	Engine Oil Pressure PIEZO	Engine	kPa	0	765	ALL	01	B0	Medium	A * 3
User Defined	Proprietary Analog Input E	Engine	User Defined	0	255	ALL	01	B8	Medium	User Defined (Min 0, Max 255)
User Defined	Proprietary Analog Input F	Engine	User Defined	0	255	ALL	01	BA	Medium	User Defined (Min 0, Max 255)
User Defined	Proprietary Analog Input G	Engine	User Defined	0	255	ALL	01	BB	Medium	User Defined (Min 0, Max 255)
User Defined	Proprietary Frequency A	Engine	User Defined	0	65535	ALL	01	BC	Medium	User Defined (Min 0, Max 65535)
User Defined	Proprietary Frequency B	Engine	User Defined	0	65535	ALL	01	BD	Medium	User Defined (Min 0, Max 65535)
User Defined	Proprietary Period A	Engine	User Defined	0	65535	ALL	01	BE	Medium	User Defined (Min 0, Max 65535)
User Defined	Proprietary Period B	Engine	User Defined	0	65535	ALL	01	BF	Medium	User Defined (Min 0, Max 65535)

OBDX LIGHT INPUT CONFIGURATION CODES

Pull-Up Inputs: There are 4 inputs that are pulled up to internal 5 Volt via a 820 Ω resistor. The inputs are located on the green connector on positions 7, 8, 9 and 10 counting from left. Which signal and sensor type each input shall connect to is configured by replacing X for signal type and Y for sensor type in the tables 1 and 2 below. Signal 0: Code AA00XY, Signal 1: AA01XY, Signal 2: AA02XY and Signal 3: AA03XY

Table 1

X codes	Pull-Up Input Signal Type
0	Engine Oil Pressure (mechanical) (PID AA)
1	Engine Coolant Temperature (PID 05)
2	Intake Air Temperature (PID 0F)
3	Ambient Air Temperature (PID 46)
4	Engine Oil Temperature (PID 5C)
5	Transmission Oil Temperature (PID A9)
6	Proprietary Analog Input A (PID AB)
7	Proprietary Analog Input B (PID AC)
8	Proprietary Analog Input C (PID AD)
9	Proprietary Analog Input D (PID B1)
A	Fuel Level (PID 2F)
B	Proprietary Digital Input A (PID AE)
C	Proprietary Digital Input B (PID AF)
D	Proprietary Digital input C (PID B0)

Table 2

Y codes	Pull-Up Input Sensor Type (X codes 0-9)
0	One Wire Fluid Temperature Sensor
1	Two Wire Fluid Temperature Sensor
2	Mechanical Pressure Sensor
3	User Defined Linear Resistive Pull-Up Sensor (see Table 5)
4	Two Wire Air Temperature Sensor

Y codes	Pull-Up Input Sensor Type (X codes B-D)
0	FALSE < 1.5 Volt, TRUE > 3.0 Volt
1	TRUE < 1.5 Volt, FALSE > 3.0 Volt

Table 3

Y codes	Fuel Level Sensor Type (X code A)
0	Ford < 1987, Mopar < 1987, AMC < 1978 (73 Ω - 10 Ω)
1	VDO aftermarket (10 Ω - 180 Ω)
2	Autometer/Classic Instruments aftermarket (240 Ω - 33 Ω)
3	GM < 1965 (0 Ω - 30 Ω)
4	GM 1965 - 1997 (0 Ω - 90 Ω)
5	Ford > 1987 (16 Ω - 158 Ω)
6	GM > 1997 (40 Ω - 250 Ω)
7	User Defined (see Table 4)

Table 4

Code	User Defined Fuel Level Setting
AA0EXXXX	XXXX = resistance in Ω (hexadecimal) when fuel level is full
AA10XXXX	XXXX = resistance in Ω (hexadecimal) when fuel level is empty

Table 5

Code	User Defined Linear Resistive Sensor Setting
AA12XXXX	XXXX = resistance in Ω (hexadecimal) when high
AA14XXXX	XXXX = resistance in Ω (hexadecimal) when low

Pull-Down Inputs: There are 5 inputs that are pulled down to ground via a 2700 Ω resistor. The inputs are located on the black connector on positions 1, 3, 5, 7 and 9 counting from left. Which signal and sensor type each input shall connect to is configured by replacing X for signal type and Y for sensor type in the tables 6 and 7 below. Signal 4: Code AA04XY, Signal 5: AA05XY, Signal 6: AA06XY, Signal 7: AA07XY and Signal 8: AA08XY.

Table 6

X codes	Pull-Down Input Signal Type
0	Engine Oil Pressure PIEZO (PID B2)
1	Throttle Position (PID 11)
2	Ethanol Fuel Ratio (PID 52)
3	Exhaust Pressure (PID 73)
4	Fuel Pressure (PID 0A)
5	Proprietary Analog Input E (PID B8)
6	Proprietary Analog Input F (PID BA)
7	Proprietary Analog Input G (PID BB)
8	Absolute Barometric Pressure (PID 33)
9	Intake Manifold Absolute Pressure (PID 0B)

Table 7

Y codes	Pull-Down Input Sensor Type
0	User defined linear voltage A (See Table 8)
1	Piezoelectric Pressure Sensor 30psi (scale: 3 kPa/bit)
2	Piezoelectric Pressure Sensor 100psi (scale: 3 kPa/bit)
3	Piezoelectric Pressure Sensor 1600psi (scale: 50 kPa/bit)
4	User defined linear voltage B (see Table 9)

Table 8

Code	User Defined Linear Voltage A Setting
AA16XXXX	XXXX = voltage in millivolts (hexadecimal) when high
AA18XXXX	XXXX = voltage in millivolts (hexadecimal) when low

Table 9

Code	User Defined Linear Voltage B Setting
AA1AXXXX	XXXX = voltage in millivolts (hexadecimal) when high
AA1CXXXX	XXXX = voltage in millivolts (hexadecimal) when low

Pulse Inputs: There are 2 pulse inputs. The inputs are located on the green connector on positions 1 and 2 counting from left. Which signal and sensor type each input shall connect to is configured by replacing X for signal type and Y for sensor type in the tables 10 and 11 below. Signal A: Code AA0AXY and Signal B: AA0BXY. Only use signal A (pin 1 on green connector) if engine speed shall be measured with wire connected directly to the ignition coil.

Table 10

X codes	Pulse Input Signal Type
0	Engine Speed (PID 0C) (see Table 12)
1	Vehicle Speed (PID 0D) (see Table 13)
2	Proprietary Frequency A (PID BC)
3	Proprietary Frequency B (PID BD)
4	Proprietary Period A (PID BE)
5	Proprietary Period B (PID BF)

Table 11

Y codes	Period Range (milliseconds)	Frequency Range (Hz)
0	0 – 1 (1 us/bit)	763 and above (1 Hz/bit)
1	1 – 10 (1 us/bit)	95 – 763 (0.1 Hz/bit)
2	10 – 84 (10 us/bit)	12 – 95 (0.01 Hz/bit)
3	84 – 335 (10 us/bit)	3 – 12 (0.01 Hz/bit)

Table 12

Y codes	Number of cylinders
1	1
2	2
3	3
4	4
5	5
6	6
8	8

Table 13

Code	Vehicle Speed Calibration
AA0CFFFF	Sets Vehicle Speed in calibration mode.
AA0CXXXX	XXXX = recorded data from PID A8 @ 100 km/h

How to calibrate Vehicle Speed: Send AA0CFFFF to set vehicle speed in calibration mode. Run vehicle in 100 km/h and record the value in OBDXProReport (PID A8). Make a note of the data displayed at index '12' and convert data to hexadecimal (with help of calculator or on-line dec to hex converter) and replace XXXX in AA0CXXXX with the data. Do this with the vehicle in stand-still (for safety).