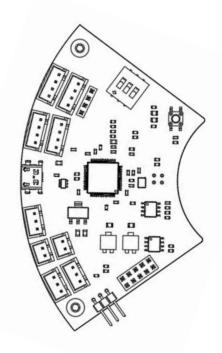
MINIPRO® DYNO BOARD V3.0

INSTALLATION GUIDE

REVISION 1.0



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SAFETY PRECAUTIONS

- 1. Make sure that dynamometers and motors under test are equipped with appropriate safety guards.
- 2. Make sure that all electronic products are earth grounded.
- 3. Do not exceed dynamometer and sensor specifications.



DYNO BOARD DIAGRAM – V3.0

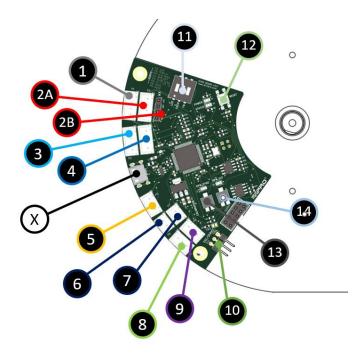


Figure 1: Dyno Controller Board V3.0 Diagram

ITEM	FUNCTION			
1	Port #1 used for LCD Screen.			
2A	Port #2A used for I.R. Temp. sensor.			
	IMPORTANT: Only one sensor in Port #2 can be used at the time.			
2B	Port #2B used for All-Weather Temp. sensor.			
	IMPORTANT: Only one sensor in Port #2 can be used at the time.			
3	Port #3 connects to the H1 or A1 Voltage and Current sensor. The Dyno controller			
	board might be equipped with a 3 pin or 4 Pin connector.			
4	Port #4 connects to External RPM sensor.			
5	Port #5 connects to Flow sensor.			
6	Port #6 connects to Motor Loop. Temp. sensor.			
7	Port #7 connects to Motor Loop. Temp. sensor.			
8	Port #8 is Auxiliary port used for custom sensor designed by MINIPRO.			
9	Port #9 is Auxiliary port used for custom sensor designed by MINIPRO.			
10	Servo or ESC connection. This feature is not enabled and is subject to license fee.			
11	Programable Switches.			
	Pin #1 is to enable LCD Screen; Pin #2 is for custom programing; Pin #3 is for Firmware			
	Update.			
12	Reset Button. Only used during Firmware Update			
13	Dyno RPM Signal tuning.			
14	External RPM Signal tuning.			
Х	Micro USB Cable connects to a Windows PC.			

DYNO BOARD WIRING DIAGRAM – V3.0

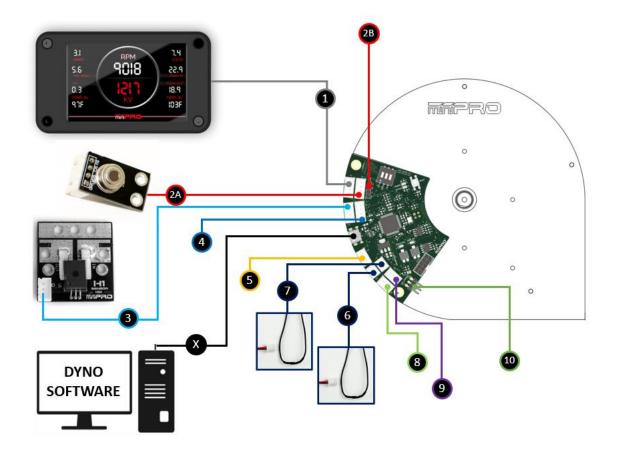


Figure 2: Dyno Controller Board V3.0 – Sensors Connection Diagram

ITEM	FUNCTION	
1	Port #1 connects to LCD Screen.	
2A	Port #2 connects to I.R. Temp. sensor <i>or</i> All-Weather Temp. sensor.	
2B		
3	Port #3 connects to the H1 or A1 Voltage and Current sensor. The Dyno controller board might be equipped with a 3 pin or 4 Pin connector.	
4	Port #4 connects to External RPM sensor.	
5	Port #5 connects to Flow sensor.	
б	Port #6 connects to Motor Loop. Temp. sensor.	
7	Port #7 connects to Motor Loop. Temp. sensor.	
8	Port #8 is Auxiliary port used for custom sensor designed by MINIPRO.	
9	Port #9 is Auxiliary port used for custom sensor designed by MINIPRO.	
10	Servo or ESC connection. This feature is not enabled and is subject to license fee.	
X	Micro USB Cable connects to a Windows PC.	



Warranty voided if it's not installed according to Figure 2.

SOFTWARE CONFIGURATION – V5.0 and later

INSTRUCTIONS:

- 1. Open the MINIPRO Testing Software and Connect the dynamometer to the program.
- 2. Go-to Configure Hardware -> I/O Hobby Grade tab.
- 3. Connect all necessary sensors.
- 4. Select the installed sensors from the drop-down (i.e. for voltage and current sensor see *Figure 3*).
- 5. Press the Apply Settings button. If the software cursor stays busy for longer than 1 min; press Apply again.
- 6. Press the Save Setup button, and your configuration is completed.

Configure Hardware Configure Test Run a Test Test Results Compare Test Results					
Connections Dynamometer	r Hardware	Units I/O - Hobby Grade			
		Apply Settings			
UART Type (P1)	Port #1:	None •			
Auxilary / Custom (P2)	Port #2:				
Voltage / Current Sensor (P3)	Port #3:	DC - 200A/13V MINIPRO H1 Sensor P2 P3			
RPM External Sensor (P4)	Port #4:				
Flow Sensor (P5)	Port #5:				
Temp. Sensor #1 (P6)	Port #6:				
Temp. Sensor #2 (P7)	Port #7:	None P6 P7			
AUX #1 (P8)	Port #8:	None P8			
AUX #2 (P9)	Port #9:	None P9			
Enable Built-in Servo/ESC Controller	Servo/ESC:	No •			

Figure 3: I/O Configuration