



## COM01 TESTER USERS GUIDE

The COM01 tester will integrate with most standard alternator and regulator test bench equipment. The tester is a compact electronics device that allows controlling an automotive alternator output with BSS/LIN interface. The COM01 tester will act as the master communication device and the alternator will operate as the slave.

### Setup:

Initial setup is done using the rotary switches SW1, SW2 and SW3 as follows

Switch 2 is for setting LIN baud rate and LIN bytes (no affect on BSS)

Switch 3 is for three different voltage tests during operation (NONE is not used)

The Alternator test bench will supply READ & WRITE protocol for lamp functions.

For example, if the phase signal is lost then the lamp error code on the COM01 TESTER Box will be lit and the lamp on the test bench should be on.

### Input Terminals:

LAMP = Connects test bench lamp to tester box

IG = Connects test bench Ignition to the test box (also supplies positive power input)

GND = Connects test bench ground to tester box

### Output Terminals:

COM = Connects COM01 test lead to regulator

gnd = Connects with regulator to provide small current ground feature

### Error Detections:

E-00 = Communications error, no read/write data between tester box & regulator, LED on

E-01 = Over temperature error, regulator has reached O.T. limit and field has shut down, LED on

E-02 = Mechanical problem (no stator signal, poor connection or no rotation), LED on

E-03 = Electrical problem (open or shorted field circuit) LED on

### Tester Operation:

The COM01 test box does not require an additional power supply. Power for the tester is supplied by the IG input or B+ input from the alternator bench or table top regulator tester.

The COM01 test box is compatible with most alternator load benches whether electronic or battery powered.

1. Use only a 12 volt input, the tester operates in a range of 9 volts to 16 volts, but 12 to 13 volts is preferred.
2. Make sure the input leads from the alternator bench or regulator tester are connected.
3. Connect COM01 test box using the test chart at the end of this guide.
4. Turn COM01 test box on by the switch located at top of of tester.
5. Regulator should turn on and you should be able to change the voltage using Switch 3.
6. The error lamps should be off. You should be able to verify lamp by disconnecting stator/phase from the regulator. This should turn on E-02 LED and the alternator or regulator test bench lamp should come on.

### Troubleshooting:

If the COM01 test box fails to operate correctly, please try the following steps:

1. Ensure the COM01 test box is switched on using the switch located at the top of the tester.
2. No lamp function usually means a communication error or poor/wrong connection between the COM01 test box and the regulator. Please double check the connections.
3. Ensure SW1 and SW2 are in the correct positions.
4. Ensure the correct LIN protocol is selected. Refer to the chart at the end of this guide for more information



## BSS/LIN COM TESTER SETTING GUIDE

Regulators		Control switches											
Series	Item number	SW1:COM Signal				SW2:System				SW3:V setting			
		LIN2 (LIN 2.0)	LIN1-2 (special)	LIN1-1 (LIN 1.3)	BSS	3-BYTES/ 19200	3-BYTES/ 9600	4-BYTES/ 19200	4-BYTES/ 9600	NONE	14.5V	13.5V	15.5V
Bosch	VR-B020			✓				✓		Based on required testing voltage, this voltage value may vary on different items.			
	VR-B021			✓				✓					
	VR-B033				✓								
	VR-B056			✓					✓				
	VR-B057			✓					✓				
	VR-B066				✓								
	VR-B088				✓								
	VR-B092			✓				✓					
	VR-B131				✓								
	VR-B132				✓								
	VR-B135				✓								
	VR-B150			✓				✓					
	VR-B280				✓								
	VR-B285				✓								
	VR-B322				✓								
	VR-B378			✓				✓					
	VR-B379			✓					✓				
	VR-B385				✓								
	VR-B4197			✓				✓					
	VR-B5204				✓								
	VR-B6164			✓				✓	✓				
	VR-B656*				✓								
	VR-B854			✓				✓					
	VR-B880				✓								
	VR-B885			✓				✓					
Denso	VR-F756			✓				✓					
	VR-H2005-171			✓			✓						
	VR-H2005-183				✓								
	VR-H2005-184				✓								
	VR-H2005-189			✓				✓					
	VR-H2005-190	✓						✓					
	VR-H2005-194			✓					✓				
	VR-H2005-198*			✓				✓					
	VR-H2005-202			✓					✓				
	VR-H2005-203*	✓						✓					
Mitsubishi	VR-H2009-160				✓								
	VR-H2009-164				✓								
	VR-H2009-171	✓						✓	✓				
	VR-H2009-184				✓								
	VR-H2009-189				✓								
	VR-H2009-194*				✓								
	VR-H2009-198*			✓				✓	✓				
	VR-H2009-204	✓						✓	✓				
	VR-H2009-208*	✓						✓	✓				
Valeo	VR-V010			✓				✓					
	VR-V2263				✓								
	VR-V2604				✓								
	VR-V2975				✓								
	VR-V3231				✓								
	VR-V3279			✓				✓					
	VR-V3587			✓				✓	✓				
	VR-V3780				✓								
	VR-V3796				✓								
	VR-V4114				✓								
	VR-V4291			✓				✓	✓				
	VR-V7319			✓				✓	✓				
	VR-V8054			✓				✓	✓				
	VR-V8237				✓								

\*Denotes item is still under development