



## INSTALLATION INSTRUCTIONS

FOR DSMS-2, DSM-2, DSMS-4, DSM-4  
DSMS-2H, DSM-2H DSMS-4H & DSM-4H  
DYNA SHIFT MINDER SYSTEM

### INTRODUCTION

The Dyna Shift Minder System is designed to work on a broad range of vehicles. However, you will need to make sure that the version of the Shift Minder you have is right for your application. There are two standard versions of the DSM, The DSM-2, and the DSM-4. The DSM-2 is designed to work with an input that triggers one time an engine revolution, like a coil on a typical 2 cylinder engine. The DSM-4 is designed to work with an input that triggers twice per engine revolution, like the coils on a typical 4 cylinder engine. On newer sportbikes, we recommend that you hook the DSM up to the Tach signal instead of the coils. In many of these cases, this Tach signal triggers one time per engine rev, meaning that you need to use a DSM-2. If you are unsure of which application you need, please consult with your Dynatek dealer, or check the Dynatek website for a list of bikes that have been tested.

The Shift Minder is available in a few RPM ranges. If the standard ranges (4000-11,875 RPM for the DSM-2 and 6000-13,875 RPM for the DSM-4) are not adequate, there is a high RPM version of both the DSM-2 and DSM-4. The base RPM on these units have been changed to 8000 RPM, giving them a range of 8000-15,785 RPM. These units are the DSM-2H and DSM-4H respectively.

### INSTALLATION

Mount the shift light using the supplied bracket or some other flexible material. Due to vibration, the shift light should not be hard mounted as this will shorten bulb life.  
Connect the red wire to switched +12 volts, and black to ground. Plug the connector into the light.

If you are wiring the shift minder to a coil, connect one leg of the T-101 Tach adapter (included with this kit) to each of the coil (-) terminals. This is the same terminal the ignition module is connected. (Note: If installed with a single coil, T-101 Tach adapter MUST be used.) Plug the opposite end of the Tach adapter into the green wire.

If you are wiring the shift minder to your Tach signal, simply connect the green wire on the Shift Minder to the Tach signal wire. In many cases, the Tach will also have a power and ground wire, so you can wire all 3 of the Shift Minder wires directly into the Tach.

### FOR DSMS-4 AND DSM-4

The Shift Minder can be set to activate the Shift Light at any RPM from 6000 RPM to 13,875 RPM in 125 RPM increments. When all 6 switches on the front of the Shift Minder are down (off), the Shift Light will come on at 6000 RPM (base RPM). Turning a switch up (on) will add more RPM to the base RPM.

For example: If Switch 1 (4000 RPM) and Switch 5 (250 RPM) are on and the rest of the switches are off, the light will come on at: 6000 (base RPM) + 4000 (Switch 1) + 250 (Switch 5) = 10,250 Total RPM.

### FOR DSMS-2 AND DSM-2

The Shift Minder can be set to activate the Shift Light at any RPM from 4,000 RPM to 11,875 RPM in 125 RPM increments. When all 6 switches on the front of the Shift Minder are down (off), the Shift Light will come on at 4,000 RPM (base RPM). Turning a switch up (on) will add more RPM to the base RPM.

For example: If Switch 1 (4000 RPM) and Switch 5 (250 RPM) are on and the rest of the switches are off, the light will come on at: 4000 (base RPM) + 4000 (Switch 1) + 250 (Switch 5) = **8,250 Total RPM**.

### FOR DSMS-2H, DSMS-4H, DSM-2H AND DSM-4H

The Shift Minder can be set to activate the Shift Light at any RPM from 8,000 RPM to 15,875 RPM in 125 RPM increments for both the -2H and -4H. When all 6 switches on the front of the Shift Minder are down, the Shift Light will come on at 8,000 RPM (base RPM). Turning a switch up (on) will add more RPM to the base RPM.

For example: If Switch 1 (4000 RPM) and Switch 5 (250 RPM) are on and the rest are off, the light will come on at: 8000 (base RPM) + 4000 (Switch 1) + 250 (Switch 5) = **12,250 Total RPM**.

### FOR ALL

	<u>Switch 1</u>	<u>Switch 2</u>	<u>Switch 3</u>	<u>Switch 4</u>	<u>Switch 5</u>	<u>Switch 6</u>
ADD:	4000 RPM	2000 RPM	1000 RPM	500 RPM	250 RPM	125 RPM

### INSTALLATION WITH DATALOG (DCPU-1, DCPU-1CS)

Shift Minder must be wired to the coils using T-101 Tach adapter. Signal cannot be split between the Tach output of the ignition module and Datalog.

### BULB TEST

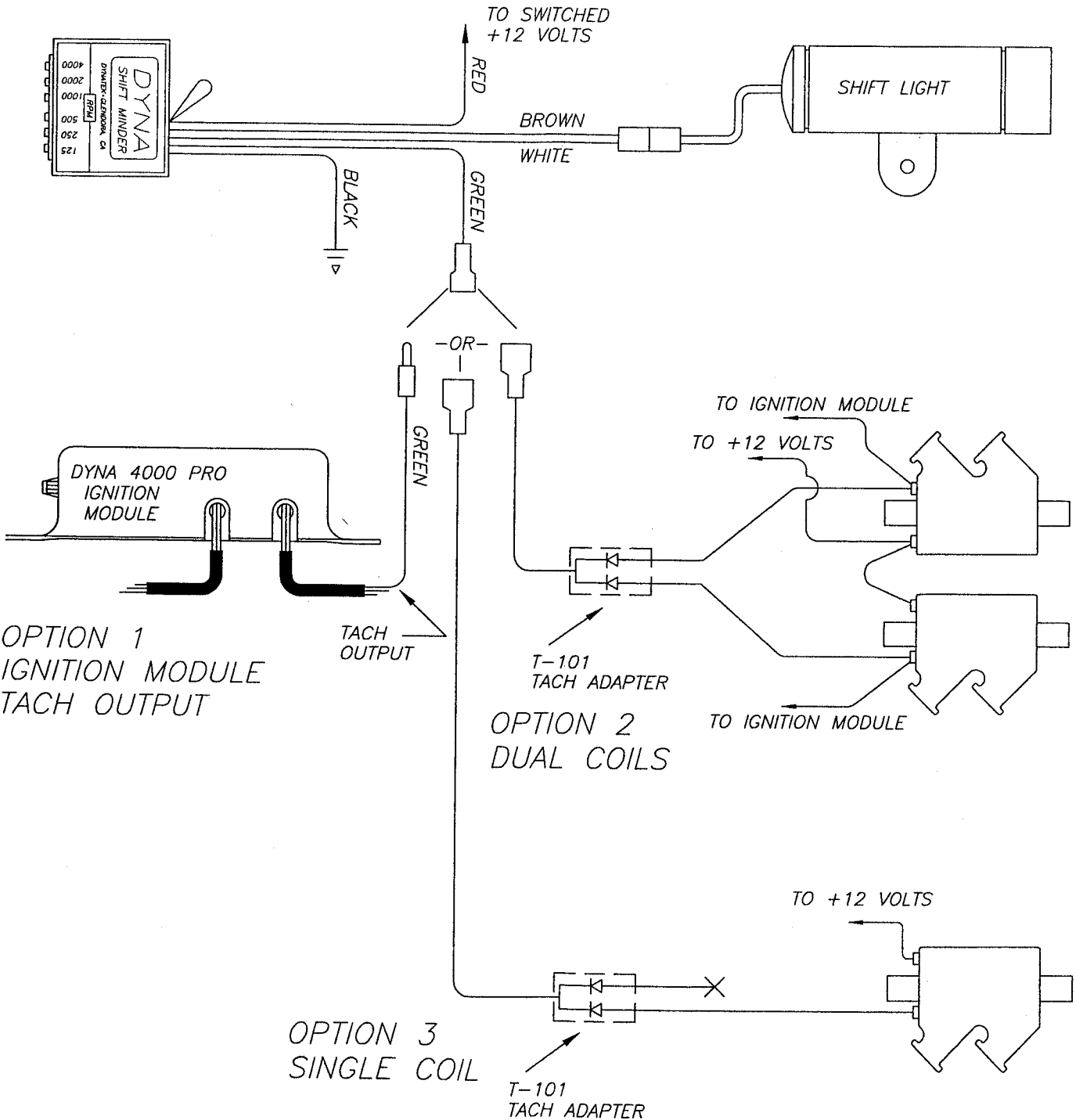
The Shift Minder will flash the Shift light for 1/4 second each time the power is turned on. This verifies there is power to the Minder and the bulb is OK. This feature can be disabled by cutting the loop of green wire on the back of the Shift Minder.

### TROUBLE SHOOTING

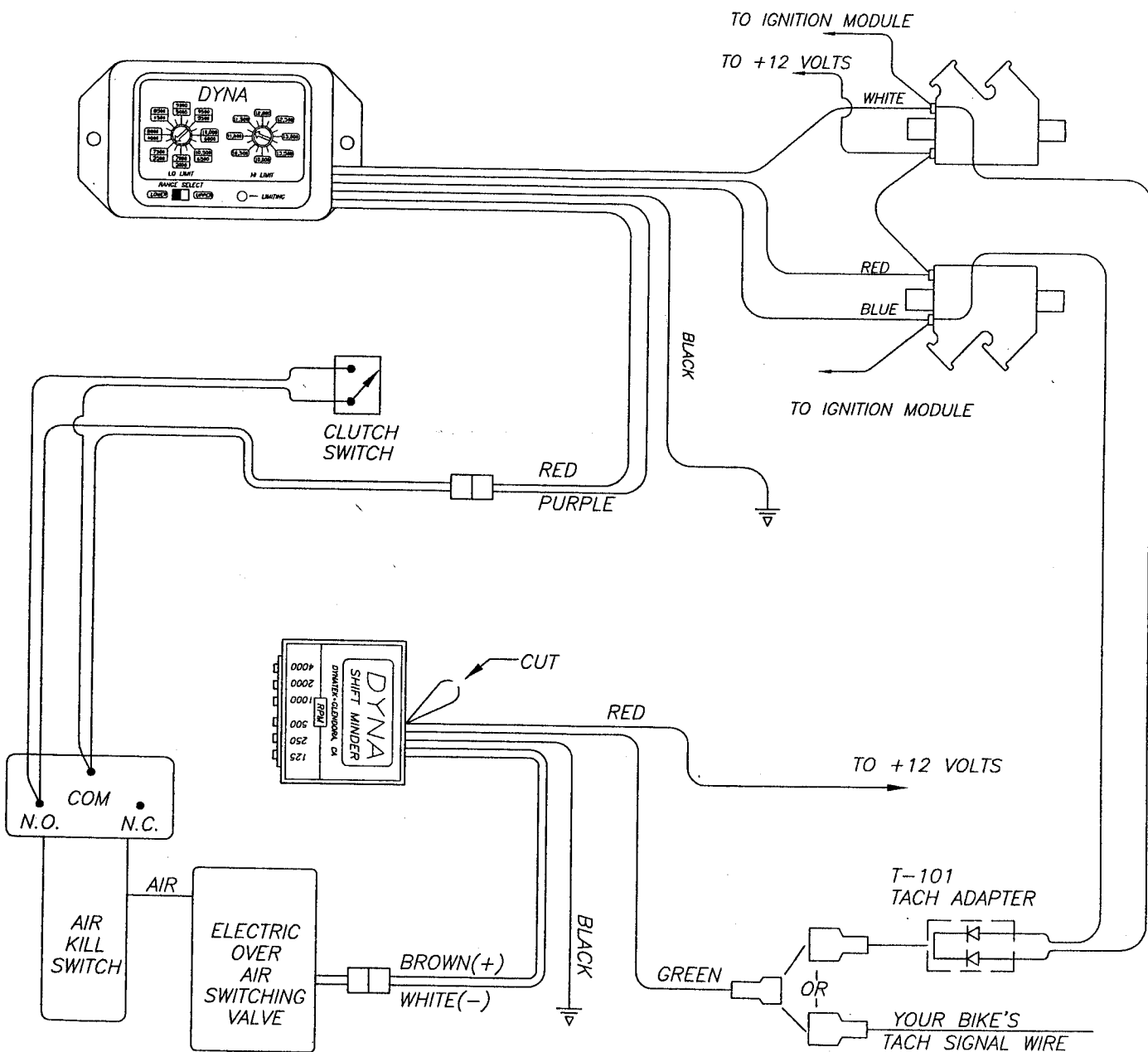
If you have a DSM-4, and it seems to turn on at double the RPM you selected (i.e. if you selected 6000, but it activates at 12,000), then you need to use a DSM-2. Similarly, if you have a DSM-2, and it turns on at half the RPM you selected, then you need to use a DSM-4.

If the bulb test works, but the Shift Minder does not activate at all, you may need to adjust your wiring. The Tach signal triggering is a more reliable method for newer bikes.

# DYNA SHIFT LIGHT WIRING DIAGRAM



AUTO SHIFT CONFIGURATION  
USING STANDARD IGNITION  
WITH DRL-400 & DSM



## DSM AUTO SHIFT WIRING CONFIGURATIONS

The Shift Minder can be used to trigger an air shifter solenoid to achieve automatic shifting of manual transmissions. Shown below are two methods. Keep in mind the following important points:

Power to the Shift minder, coils, and ignition must not be interrupted during the shift or else the system will get "lost". The Dyna 4000 or DRL-400 will take care of the spark kill during the shift.

The kill time may need to be adjusted. This is done by changing the air bleed in the Air Kill Switch or by altering the lengths of the air lines. Contact your switch manufacturer for information on this adjustment.

The Brown wire is the +12 volt output. **DO NOT SHORT TO GROUND!** The shift minder will be permanently damaged if this happens. Check that the solenoid has at least 12 ohms of resistance **before** connecting the Shift Minder.

Cut the loop of green wire to disable the bulb test. This will prevent the shifter from activating when the power is switched on.

### AUTO SHIFT CONFIGURATION USING DYNA 4000 & DSM

