

### Signal in Connection

1. If supplied bolt the knock sensor the suitable place on the block and torque to 8 to 10 ft-lb
2. Plug in the signal cable and route the shortest path to KnocksenseMS. Avoid ignition cables.
3. Else wire the supplied signal cable directly to the knock signal cable in the harness. Center conductor to center conductor and shield to shield.
4. Trim off the excess cable and connect to KnocksenseMS. Make sure that the braid strands do not short out the signal.

**CHASSIS GROUND**  
(Black)

**SHIELD**  
**SIGNAL**  
(Clear)

Logic signal for timing retard

Optional knock marker -  
Connect to Coolant  
thermistor or datalogger

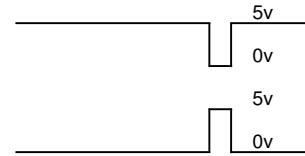
**LED MINUS**  
(Green)

**LED PLUS**  
(Yellow)

**+12V  
POWER**  
(Red)

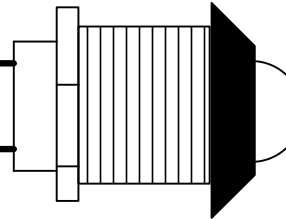
**WIRE  
ENTRY  
DIRECTION**

**SIGNAL CABLE FROM  
THE KNOCK SENSOR**



**LED PLUS**  
(Yellow)

**LED MINUS**  
(Green)



### Signal out Connections

1. For Megasquirt Extra knock control refer to:  
<http://megasquirt.sourceforge.net/extra/index.html>  
<http://megasquirt.sourceforge.net/extra/knock.html>  
Ignore the circuit diagram there and just connect Tim wire to JP1 Pin 5 on MS board.
  2. MegaLogViewer can display knock events in terms of degrees of timing retardation.
  3. For recording knock events on a data logger insert a provided jumper across the two pins on the PC board.
- For testing purposes KnocksenseMS can be powered with a 9V battery.

### HOOKUP - GENERAL

To attach a wire to the terminal block insert flat end of the tool provided or a SMALL (.09") flat screwdriver in the slot above the entry and lift up. The wire entry will open. Insert the wire and release the tool.

### INSTALLATION

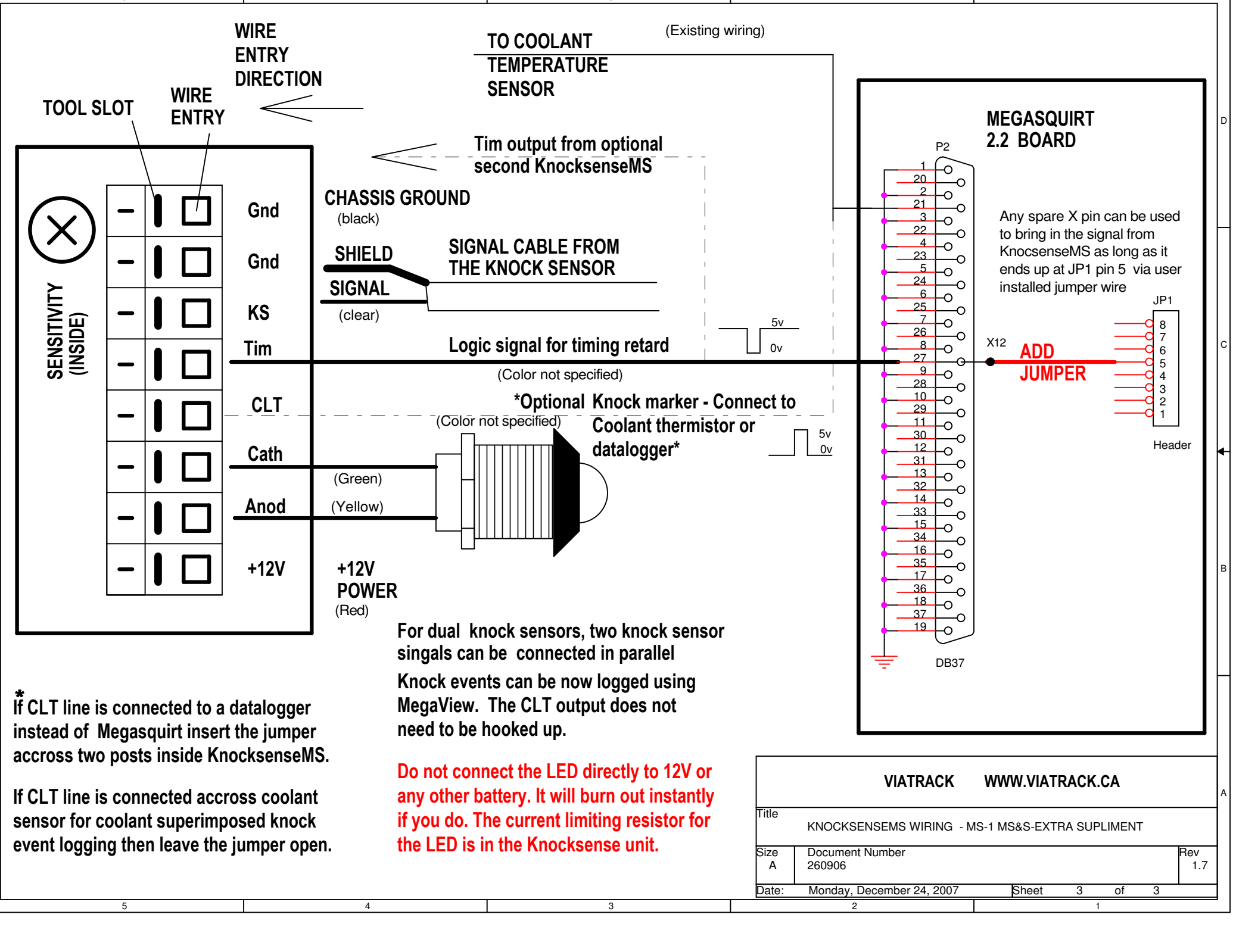
Instal the unit under the dash, never in the engine compartment. Leave the lid off until it is set up. It is light enough to be tied to the harness afterwards.

### SETUP

With engine at idle rotate the blue sensitivity knob CCW until the LED just comes on. You may need to blip the throttle. Rotate CW about 15 to 20 degrees. The LED will be out but will flash if the knock is detected. You can trim the sensitivity to your preference.

**Do not connect the LED directly to 12V or any other battery. It will burn out instantly if you do. The current limiting resistor for the LED is in the Knocksense unit.**

<b>VIATRACK</b>		<b>WWW.VIATRACK.CA</b>	
Title KNOCKSENSEMS WIRING MS-I			
Size A	Document Number 270606		Rev 1.8
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WIRE ENTRY DIRECTION

TO COOLANT TEMPERATURE SENSOR (Existing wiring)

Tim output from optional second KnocksenseMS

CHASSIS GROUND (black)

SHIELD (black)  
SIGNAL (clear)

SIGNAL CABLE FROM THE KNOCK SENSOR

Logic signal for timing retard

(Color not specified)

\*Optional Knock marker - Connect to Coolant thermistor or datalogger\*

(Color not specified)

Coolant thermistor or datalogger\*

+12V POWER (Red)

For dual knock sensors, two knock sensor signals can be connected in parallel. Knock events can be now logged using MegaView. The CLT output does not need to be hooked up.

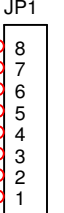
**Do not connect the LED directly to 12V or any other battery. It will burn out instantly if you do. The current limiting resistor for the LED is in the Knocksense unit.**

MEGASQUIRT 2.2 BOARD

Any spare X pin can be used to bring in the signal from KnocsenseMS as long as it ends up at JP1 pin 5 via user installed jumper wire

X12

**ADD JUMPER**



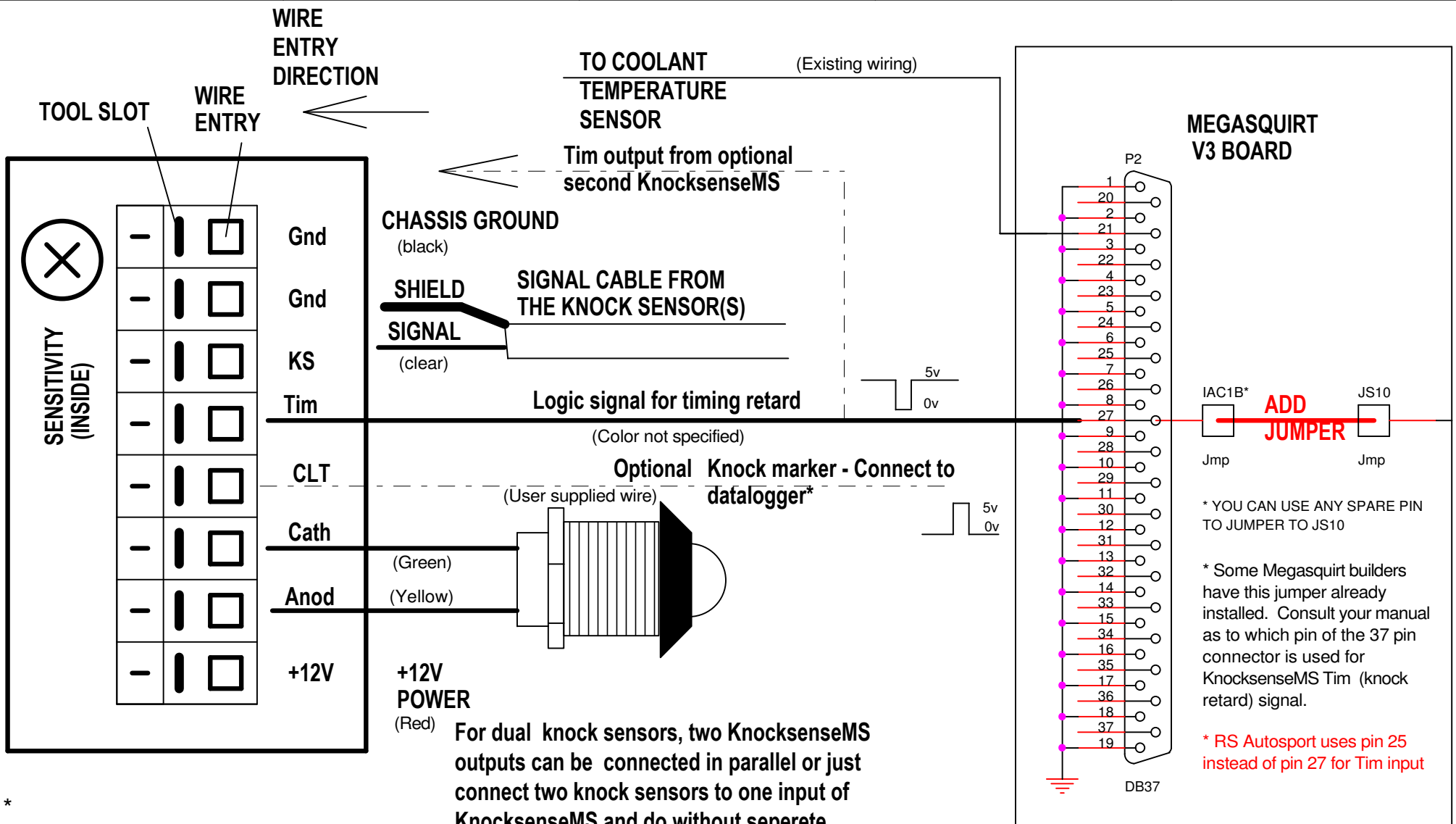
Header

DB37

\* If CLT line is connected to a datalogger instead of Megasquirt insert the jumper across two posts inside KnocksenseMS.  
If CLT line is connected across coolant sensor for coolant superimposed knock event logging then leave the jumper open.

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Title		
KNOCKSENSEMS WIRING - MS-1 MS&S-EXTRA SUPLIMENT		
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\* If CLT line is connected to a datalogger insert the jumper across two posts inside KnocksenseMS.

For dual knock sensors, two KnocksenseMS outputs can be connected in parallel or just connect two knock sensors to one input of KnocksenseMS and do without seperate knock indicating LED.

Knock events can be now logged using MegaView

**Do not connect the LED directly to 12V or any other battery. It will burn out instantly if you do. The current limiting resistor for the LED is in the Knocksense unit.**

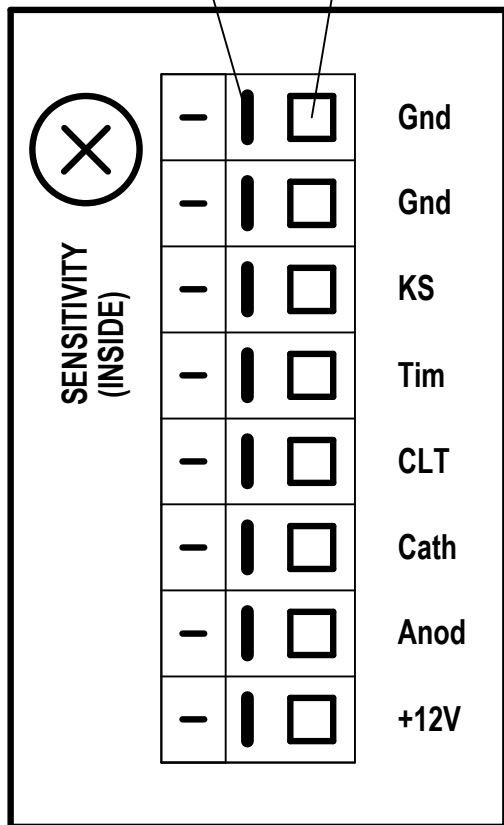
\* YOU CAN USE ANY SPARE PIN TO JUMPER TO JS10

\* Some Megasquirt builders have this jumper already installed. Consult your manual as to which pin of the 37 pin connector is used for KnocksenseMS Tim (knock retard) signal.

\* RS Autosport uses pin 25 instead of pin 27 for Tim input

<b>VIATRACK</b>		<b>WWW.VIATRACK.CA</b>	
Title KNOCKSENSEMS WIRING SUPLIMENT MS-1 V3			
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TOOL SLOT  
WIRE ENTRY



### Signal in Connection

- 1 If supplied bolt the knock sensor the suitable place on the block and torque to 8 to 10 ft-lb
2. Plug in the signal cable and route the shortest path to KnocksenseMS. Avoid ignition cables.
3. Else wire the supplied signal cable directly to the knock signal cable in the harness. Center conductor to center conductor and shield to shield.
4. Trim off the excess cable and connect to KnocksenseMS. Make sure that the braid strands do not short out the signal.

**CHASSIS GROUND**  
(Black)

**SHIELD**  
**SIGNAL**  
(Clear)

**Logic signal for timing retard** (Color not specified)

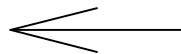
**Optional knock marker - Connect to datalogger** (Color not specified)

**LED MINUS**  
(Green)

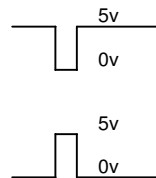
**LED PLUS**  
(Yellow)

**+12V POWER**  
(Red)

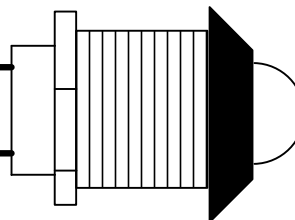
WIRE ENTRY DIRECTION



**SIGNAL CABLE FROM THE KNOCK SENSOR**



**LED PLUS**  
(Yellow)  
**LED MINUS**  
(Green)



### Signal out Connections

1. For Megasquirt Extra knock control refer to:  
<http://megasquirt.sourceforge.net/extra/index.html>  
<http://megasquirt.sourceforge.net/extra/knock.html>  
Ignore the circuit diagram there and just connect Tim wire to JS10 on V3 board.
2. MegaLogViewer can display the action on knock events the MS took in degrees of timing retard. This is the preferred method of logging knock events.

For testing purposes KnocksenseMS can be powered with a 9V battery.

### HOOKUP - GENERAL

To attach a wire to the terminal block insert flat end of the tool provided or a SMALL (.09") flat screwdriver in the slot above the entry and lift up. The wire entry will open. Insert the wire and release the tool.

### INSTALLATION

Instal the unit under the dash, never in the engine compartment. Leave the lid off until it is set up. It is light enough to be tied to the harness afterwards.

### SETUP

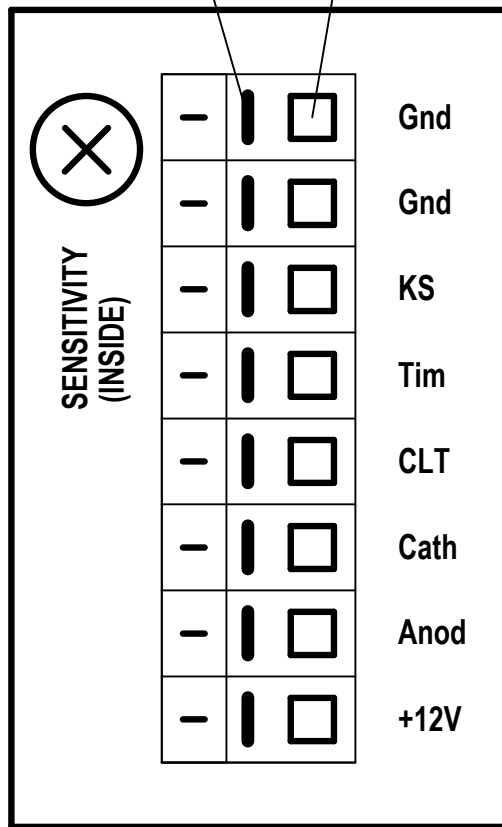
With engine at idle rotate the blue sensitivity knob CCW until the LED just comes on. You may need to blip the throttle. Rotate CW about 15 to 20 degrees. The LED will be out but will flash if the knock is detected. You can trim the sensitivity to your preference.

**Do not connect the LED directly to 12V or any other battery. It will burn out instantly if you do. The current limiting resistor for the LED is in the Knocksense unit.**

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Title KNOCKSENSEMS WIRING MS1 V3		
Size A	Document Number 200206	Rev 1.7
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TOOL SLOT  
WIRE ENTRY



CHASSIS GROUND  
(Black)

SHIELD  
SIGNAL  
(Clear)

SIGNAL CABLE FROM  
THE KNOCK SENSOR

WIRE  
ENTRY  
DIRECTION

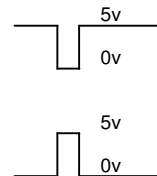
Logic signal for timing retard (Color not specified)

Optional knock marker -  
Connect to Coolant  
thermistor or datalogger (Color not specified)

LED MINUS  
(Green)

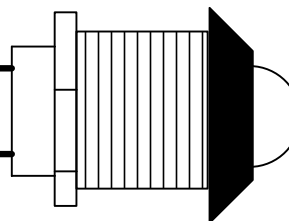
LED PLUS  
(Yellow)

+12V  
POWER  
(Red)



LED PLUS  
(Yellow)

LED MINUS  
(Green)



Signal out Connections

1. For Megasquirt-II knock control refer to <http://www.megamanual.com/ms2/knock.htm> Ignore Knock Sense Module Wiring and refer only to the last drawing . Connect Tim line from KnocksenseMS to the 1K resistor (SPR3)
2. Since KnocksenseMS produces 5V output you can omit the 1K resistor and Zener diode and connect the Tim line from KnocksenseMS directly to JS4.
3. For dual knock sensor two Tim outputs from two KnocksenseMS units can be connected in parallel, or two knock sensors can be connected to the input of one KnocksenseMS.
4. CLT is no longer needed since MegaLogViewer can now record knock events. For testing purposes KnocksenseMS can be powered with a 9V battery.

HOOKUP - GENERAL

To attach a wire to the terminal block insert flat end of the tool provided or a SMALL (.09") flat screwdriver in the slot above the entry and lift up. The wire entry will open. Insert the wire and release the tool.

INSTALLATION

Instal the unit under the dash, never in the engine compartment. Leave the lid off until it is set up. It is light enough to be tied to the harness afterwards.

SETUP

With engine at idle rotate the blue sensitivity knob CCW until the LED just comes on. You may need to blip the throttle. Rotate CW about 15 to 20 degrees. The LED will be out but will flash if the knock is detected. You can trim the sensitivity to your preference.

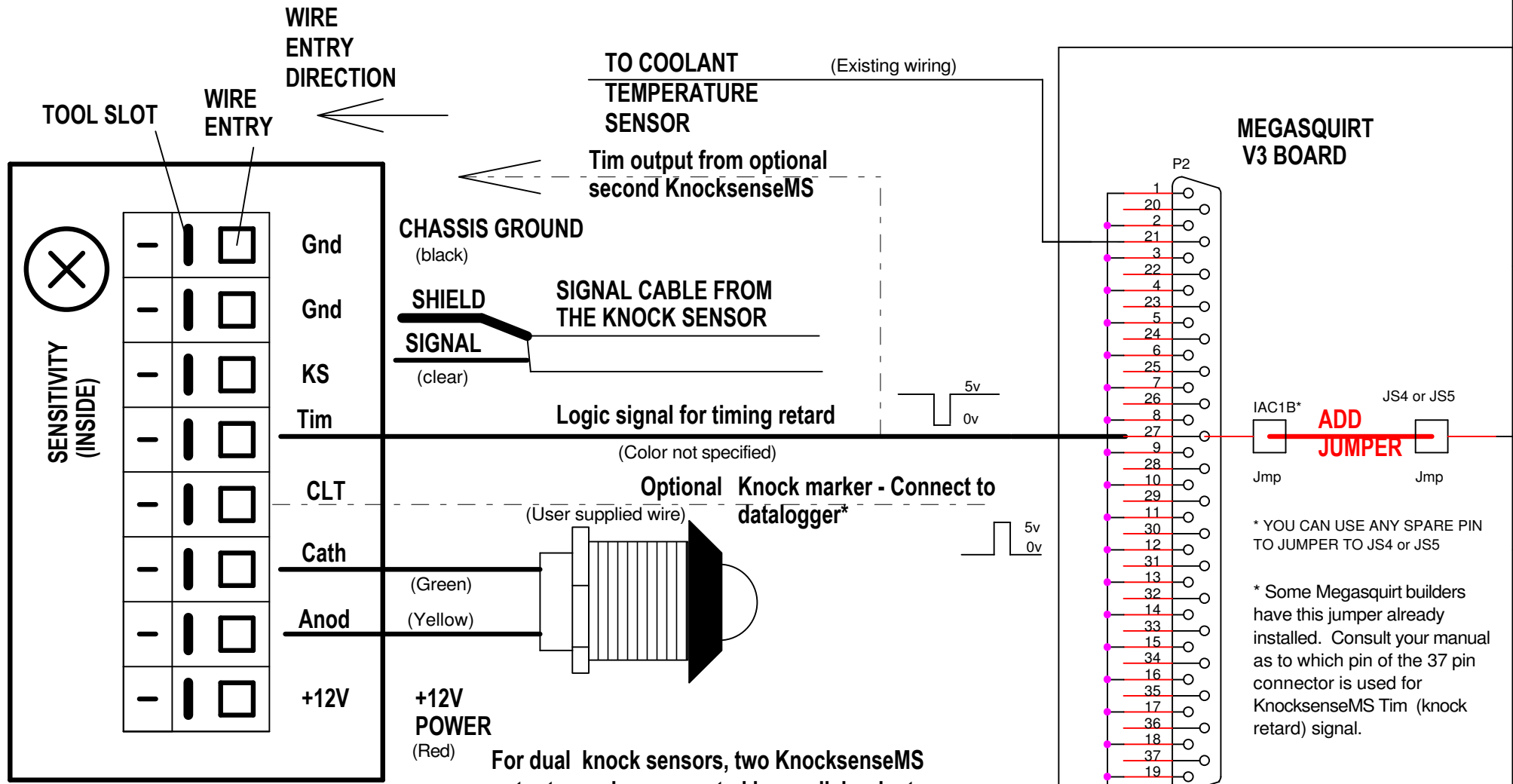
**Do not connect the LED directly to 12V or any other battery. It will burn out instantly if you do. The current limiting resistor for the LED is in the Knocksense unit.**

Signal in Connection

- 1 If supplied bolt the knock sensor the suitable place on the block and torque to 8 to 10 ft-lb
- 2.Plug in the signal cable and route the shortest path to KnocksenseMS. Avoid ignition cables.
3. Else wire the supplied signal cable directly to the knock signal cable in the harness. Center conductor to center conductor and shield to shield.
4. Trim off the excess cable and connect to KnocksenseMS. Make sure that the braid strands do not short out the signal.

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Title KNOCKSENSEMS WIRING - B&G MS-II		
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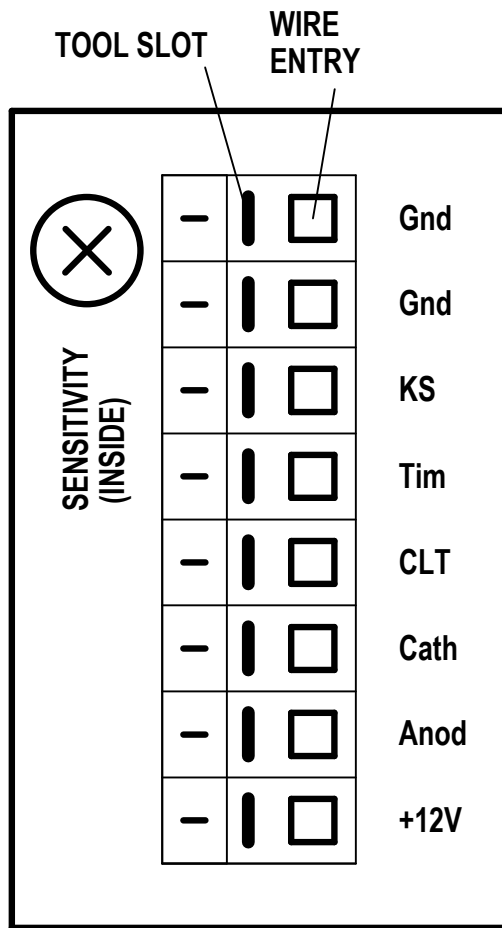
\*  
If CLT line is connected to a datalogger insert the jumper across two posts inside KnocksenseMS.

For dual knock sensors, two KnocksenseMS outputs can be connected in parallel or just connect two knock sensors to one input of KnocksenseMS and do without seperate knock indicating LED.

Knock events can be now logged using MegaView

**Do not connect the LED directly to 12V or any other battery. It will burn out instantly if you do. The current limiting resistor for the LED is in the Knocksense unit.**

<b>VIATRACK</b>		<b>WWW.VIATRACK.CA</b>	
Title KNOCKSENSEMS WIRING SUPPLEMENT MS&S EXTRA MSII- V3			
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### Signal in Connection

- 1 If supplied bolt the knock sensor the suitable place on the block and torque to 8 to 10 ft-lb
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3. Else wire the supplied signal cable directly to the knock signal cable in the harness. Center conductor to center conductor and shield to shield.
4. Trim off the excess cable and connect to KnocksenseMS. Make sure that the braid strands do not short out the signal.

### CHASSIS GROUND

(Black)

### SHIELD

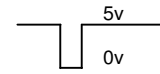
(Clear)

### SIGNAL

(Clear)

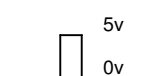
### Logic signal for timing retard

(Color not specified)



### Optional knock marker - Connect to datalogger

(Color not specified)



### LED MINUS

(Green)

### LED PLUS

(Yellow)

### +12V POWER

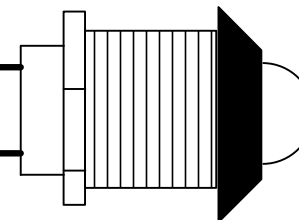
(Red)

### LED PLUS

(Yellow)

### LED MINUS

(Green)



### Signal out Connections

1. For Megasquirt2 Extra V3  
Connect Tim output wire to JS4 or JS5 on V3 board.  
ref:  
[http://www.msextra.com/ms2extra/MS2-Extra\\_general.htm#features](http://www.msextra.com/ms2extra/MS2-Extra_general.htm#features)
2. MegaLogViewer can display the action on knock events the MS took in degrees of timing retard. This is the preferred method of logging knock events.  
  
For testing purposes KnocksenseMS can be powered with a 9V battery.

### HOOKUP - GENERAL

To attach a wire to the terminal block insert flat end of the tool provided or a SMALL (.09") flat screwdriver in the slot above the entry and lift up. The wire entry will open. Insert the wire and release the tool.

### INSTALLATION

Instal the unit under the dash, never in the engine compartment. Leave the lid off until it is set up. It is light enough to be tied to the harness afterwards.

### SETUP

With engine at idle rotate the blue sensitivity knob CCW until the LED just comes on. You may need to blip the throttle. Rotate CW about 15 to 20 degrees. The LED will be out but will flash if the knock is detected. You can trim the sensitivity to your preference.

**Do not connect the LED directly to 12V or any other battery. It will burn out instantly if you do. The current limiting resistor for the LED is in the Knocksense unit.**

<b>VIATRACK</b>		<b>WWW.VIATRACK.CA</b>	
Title KNOCKSENSEMS MS&S EXTRA WIRING MSII-V3			
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