

SERIES -1 DRAWINGS

TERMINAL CONNECTIONS, APPLICATIONS, DESCRIPTIONS
TIMING CONTROL INTERFACE
CRANKSHAFT TRIGGER TIMING SIGNAL

GENERATION 3 IGNITION



SERIES –1:

MAGNETIC CRANKSHAFT TRIGGER SENSOR SOURCE:

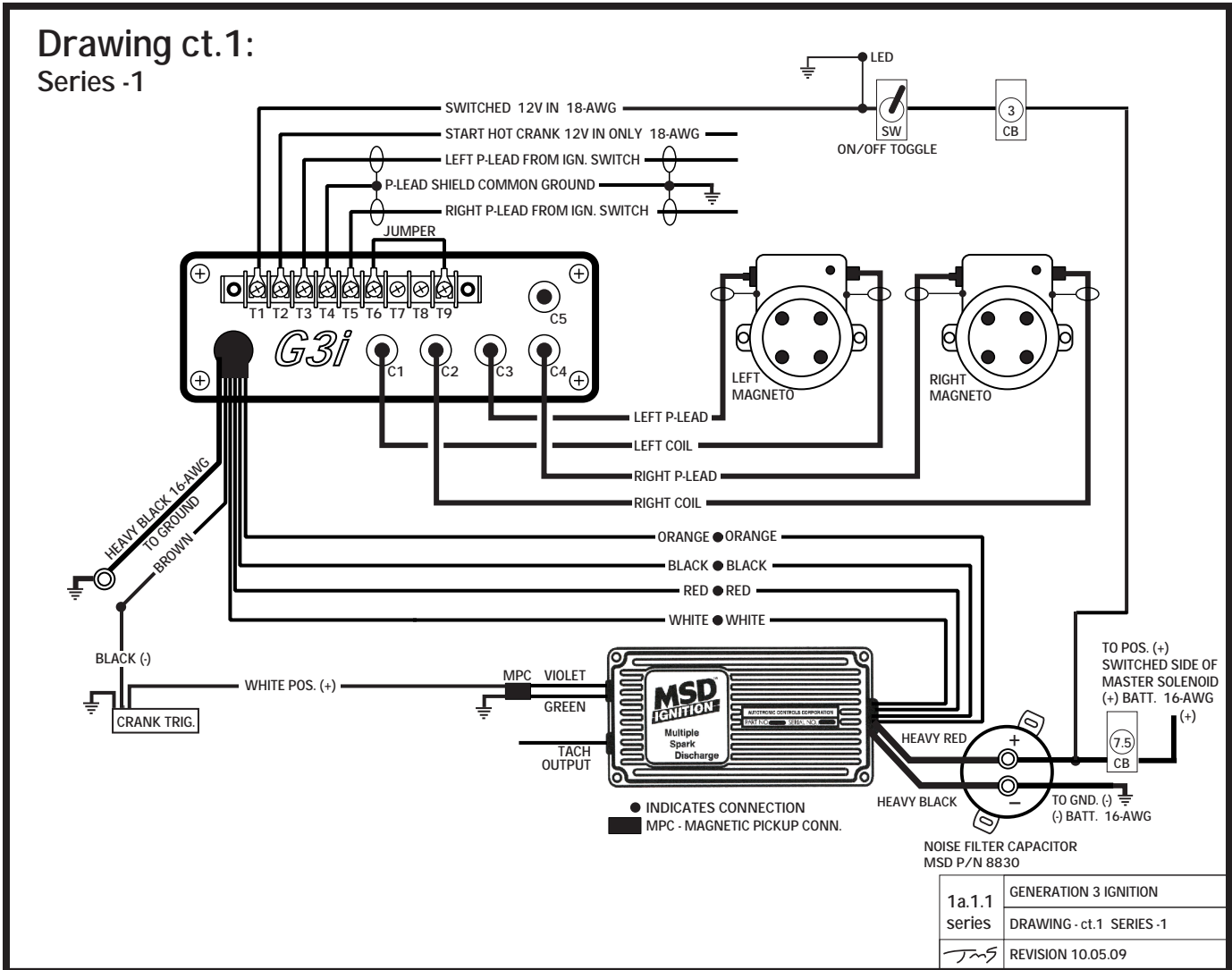
Note: *All configurations will provide a signal to G3i Series –1 module that will excite the MSD amplifier to fire both magnetos at start up. There is no for need Slick Start or Shower of Sparks. The G3i Series –1 module and MSD amplifier will provide the synchronized Multiple Discharge Spark when starting.*

Following drawings (ct.1 thru ct.5) are the different configurations using a Crankshaft Trigger Sensor as the signal source to excite both magnetos. See drawings for further explanation, description and detailed terminal connections.

The Crankshaft Pickup Sensors used are the Magnetic type that requires ferrous studs mounted in the flywheel for the trigger signal. Most flywheels have machined holes every 30° that can be used for proper timing stud locations. The 4-cylinder engine requires 2 timing studs opposed at 180° from each another and the 6-cylinder requires 3 timing studs at 120° from each another.

The left and right magneto contacts are timed as normal (25° etc.). Depending on the application the Crank Trigger must be within specified degrees of synchronization / phase with the magneto timing. This ensures proper rotor phasing.

Generation 3 Ignition does provide Magnetic Pickup Sensors in different sizes. Generation 3 Ignition does NOT provide a Magnetic Crankshaft Trigger Sensor mounting installation hardware kit. Due to the many different mounting locations and hardware configurations, only consulting and custom fabrication is available at this time.



Crankshaft Trigger Signal

Left Magneto Lag – Retard Impulse Coupler

Left Magneto Normal Contacts are Trigger Source on Starting

Bridge (T6 -T9)

G3i Brown lead to Black (-) lead on Crank Trigger

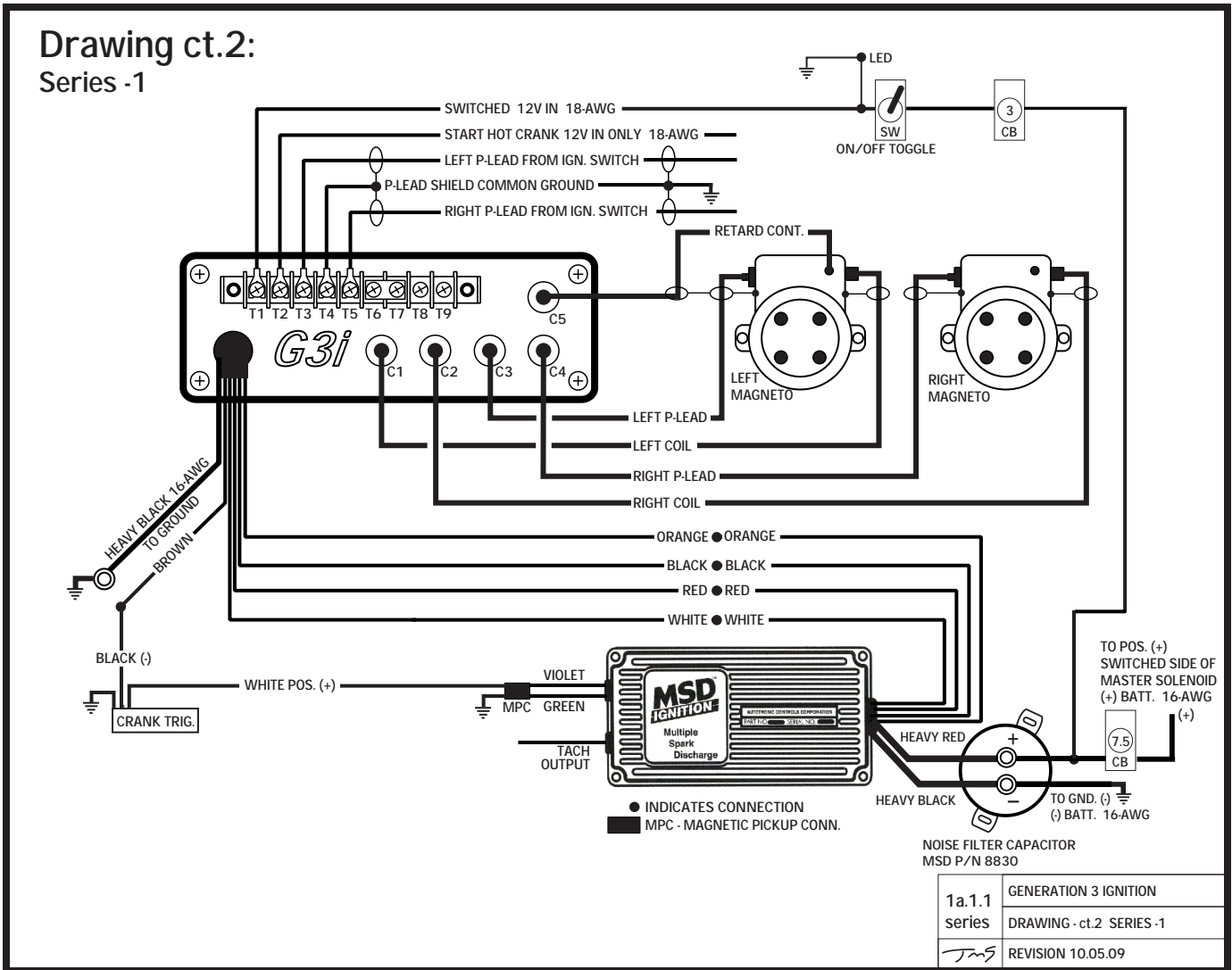
White (+) on Crank Trigger to Violet (+) on MSD amplifier Magnetic Pickup Connector

Bare lead on Crank Trigger connector to common ground (-)

Green lead on MSD amplifier Magnetic Pickup connector to common ground (-)

This option allows the use of a Magnetic Pickup Sensor on the Crankshaft/Flywheel for the timing signal in run mode. The left and right magneto contacts are timed as normal (25° etc.). The Crank Trigger must be within 2° of synchronization / phase with the magneto timing. This ensures proper rotor phasing. The left magneto normal contact set (points) and impulse coupler will serve as the retard signal on start up. This will provide the retard signal to G3i Series -1 module that will excite the MSD amplifier to fire both magnetos in a synchronized multiple spark discharge during start up.

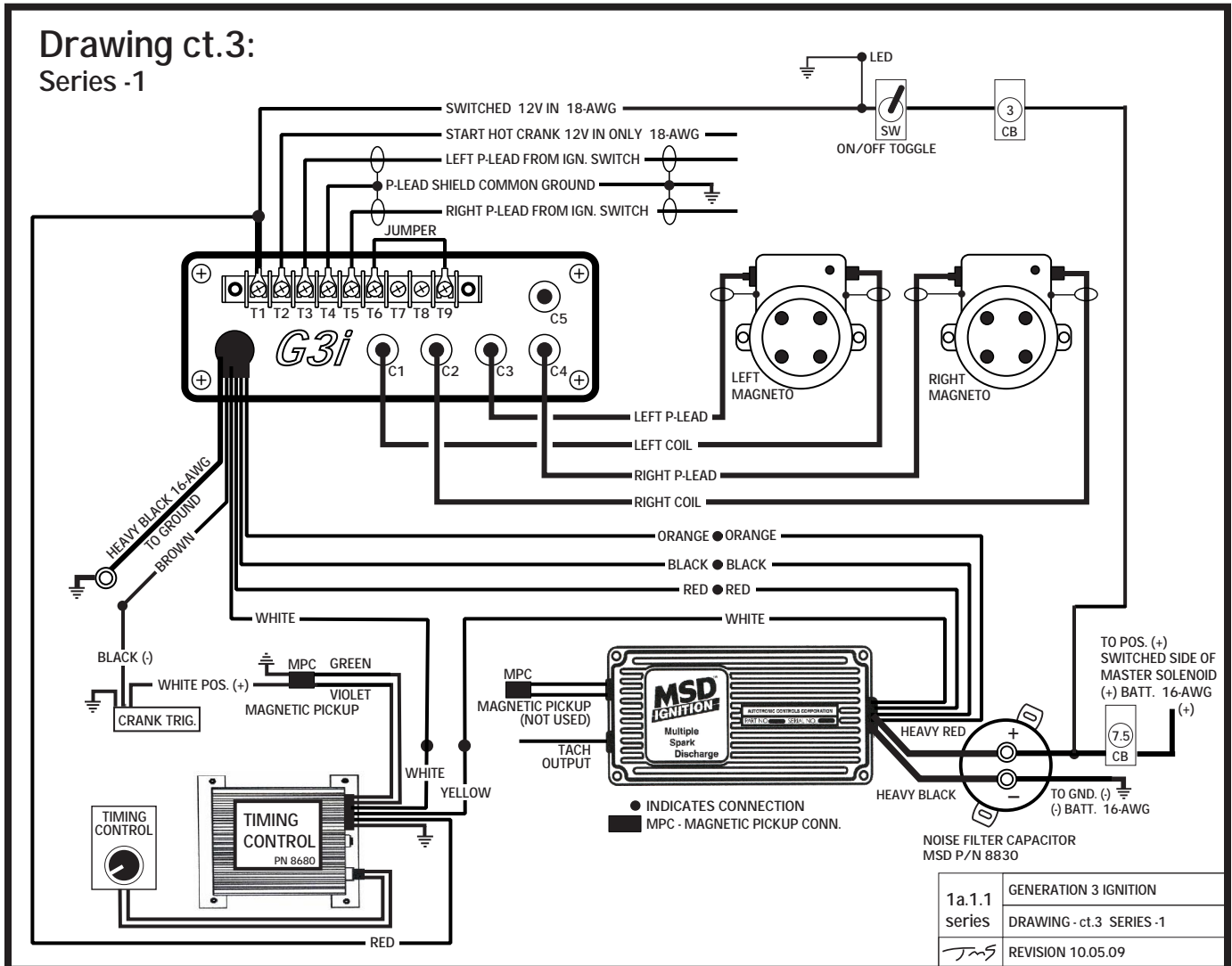
Note: An extended jumper lead will be needed for the (T6 –T9) bridge.



- ODrawing ct.2: Crankshaft Trigger Signal**
- Left Magneto Retard Contacts are Trigger Source on Starting Bridge (T6-T7)**
- Retard Contact P-Lead to BNC (C5)**
- G3i Brown lead to Black (-) lead on Crank Trigger**
- White (+) on Crank Trigger to Violet (+) on MSD amplifier Magnetic Pickup Connector**
- Bare lead on Crank Trigger to common ground (-)**
- Green lead on MSD amplifier Magnetic Pickup connector to common ground (-)**

This option allows the use of a Magnetic Pickup Sensor on the Crankshaft/Flywheel for the timing signal in run mode. The left and right magneto contacts are timed as normal (25° etc.). The Crank Trigger must be within 2° of synchronization / phase with the magneto timing. This ensures proper rotor phasing. The left magneto retard contact set (points) will serve as the retard signal on start up. This will provide the retard signal to G3i Series -1 module that will excite the MSD amplifier to fire both magnetos in a synchronized multiple spark discharge during start up.

Drawing ct.3:
Series -1



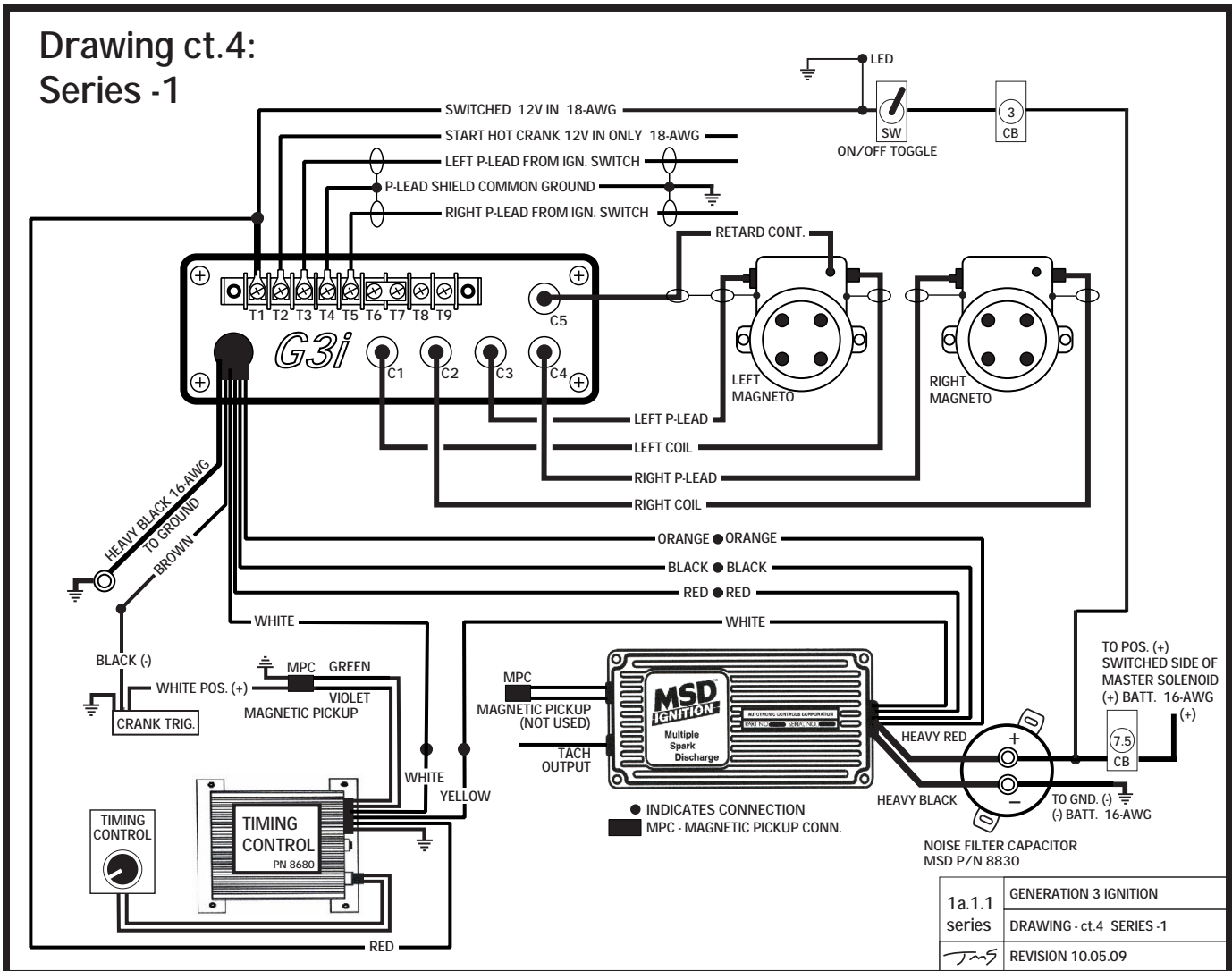
- Crankshaft Trigger Signal**
- Left Magneto Lag – Retard Impulse Coupler**
- Left Magneto Normal Contacts are Trigger Source on Starting**
- MSD 8680 Adjustable Timing Control**
- Bridge (T6 -T9)**
- G3i White lead is routed to White lead on MSD 8680 Adjustable Timing Control**
- G3i Brown lead to Black (-) lead on Crank Trigger**
- White (+) on Crank Trigger to Violet (+) on MSD 8680 Timing Control Magnetic Pickup Connector**
- Bare lead on Crank Trigger to common ground (-)**
- Green lead on MSD 8680 Timing Control Magnetic Pickup connector to common ground (-)**

This option allows the use of the MSD P/N 8680 Adjustable Timing Control Module with a Magnetic Pickup Sensor on the Crankshaft/Flywheel for the timing signal in run mode. The left and right magneto contacts are timed as normal (25° etc.). With ZERO -0° advance set on the control knob, the Crank Trigger must be minus -5° of synchronization / phase with the magneto timing. This ensures proper rotor phasing during timing changes. The left magneto normal contact set (points) and impulse coupler will serve as the retard signal on start up. This will provide the retard signal to G3i Series -1 module that will excite the MSD amplifier to fire both magnetos in a synchronized multiple spark discharge during start up.

- Note:** An extended jumper lead will be needed for the (T6 –T9) bridge.
- Note:** Refer to the MSD 8680 Adjustable Timing Control installation instructions for your specific timing requirements and connections.

1a.1.1	GENERATION 3 IGNITION
Series	DRAWING - ct.3 SERIES -1
JMS	REVISION 10.05.09

**Drawing ct.4:
Series -1**



Crankshaft Trigger Signal

Left Magneto Retard Contacts are Trigger Source on Starting

MSD 8680 Adjustable Timing Control

Bridge (T6 –T7)

Retard Contact P-Lead to BNC (C5)

G3i White lead is routed to White lead on MSD 8680 Adjustable Timing Control

G3i Brown lead to Black (-) lead on Crank Trigger

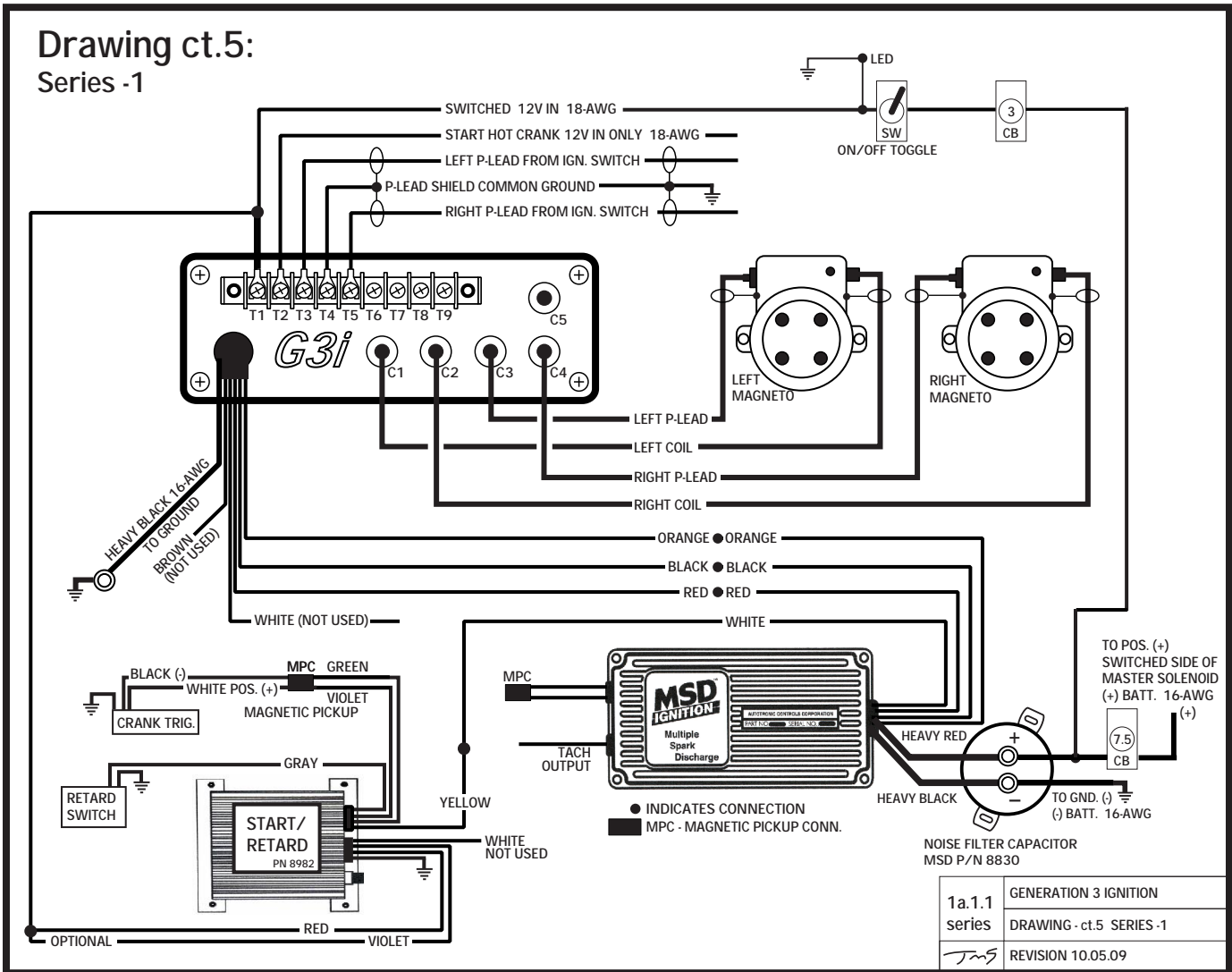
White (+) on Crank Trigger to Violet (+) on MSD 8680 Timing Control Magnetic Pickup Connector

Bare lead on Crank Trigger to common ground (-)

Green lead on MSD 8680 Timing Control Magnetic Pickup connector to common ground (-)

This option allows the use of the MSD P/N 8680 Adjustable Timing Control Module with a Magnetic Pickup Sensor on the Crankshaft/Flywheel for the timing signal in run mode. The left and right magneto contacts are timed as normal (25° etc.). With ZERO -0° advance set on the control knob, the Crank Trigger must be minus -5° of synchronization / phase with the magneto timing. This ensures proper rotor phasing during timing changes. The left magneto retard contact set (points) will serve as the retard signal on start up. This will provide the retard signal to G3i Series -1 module that will excite the MSD amplifier to fire both magnetos in a synchronized multiple spark discharge during start up.

Note: Refer to the MSD 8680 Adjustable Timing Control installation instructions for your specific timing requirements and connections.



**Crankshaft Trigger Signal on Start Up and Run
Bridge (All Open)**

MSD 8982 Start/Retard Control

G3i Brown lead to Black (-) lead on Crank Trigger

White (+) on Crank Trigger to Violet (+) on MSD amplifier Magnetic Pickup Connector

Bare lead on Crank Trigger to common ground (-)

Green lead on MSD amplifier Magnetic Pickup connector to common ground (-)

This option allows the use of the MSD 8982 Start/Retard Control with a Magnetic Pickup Sensor on the Crankshaft/Flywheel for the timing signal. This provides the timing signal in all modes of electronic ignition operation (Starting and Run). The left and right magneto contacts are timed as normal (25° etc.). The Crank Trigger must be within 2° of synchronization / phase with the magneto timing. This ensures proper rotor phasing. The MSD 8982 Start/Retard Control will provide the retard signal to G3i Series -1 module that will excite the MSD amplifier to fire both magnetos in a synchronized multiple spark discharge during start up. The MSD Start/Retard Control can provide a second retard signal when switched activated (boost retard etc.).

Note: Refer to the MSD 8982 Start/Retard Control installation instructions for your specific timing requirements and connections.