ECU Block Diagram　　SW Version

POWER COIL

| 1 – 1 | PWR1 |
| 1 – 2 | PWR2 |

12V

Vcc

Power Circuit

NE detection

For Operation Mode Switch

SW1

SW2

B – 5	SW1	Filter Circuit
B – 6	SW2	Filter Circuit
B – 2	GND	

For Auto Choke Control

TE Sensor1

TE Sensor2

EEP-ROM

CPU

Throttle Motor Driver

| M1_OUT1 |
| M1_OUT2 |
| M1_OUT3 |
| M1_OUT4 |

12V

A – 1	M1_COM1
A – 2	
A – 3	
A – 4	
A – 5	M1_COM2
A – 6	

Throttle Motor

A
COM1
Ā

B
COM2
B̄

12V

Heater_+

Heater_–

| A – 7 |
| A – 8 |

Heater for Wax(Auto Chole)

Detection Circuit

| CPU_VPP | C – 1 |
| CPU_GND | C – 2 |

To be abolished

| LAMP_OUT | B – 1 |

Complete Explosion Signal

12V

| 12V | B – 4 |

Buffer Circuit | COM_TX | B – 8 |
Buffer Circuit | COM_RX | B – 7 |

Terminal for factory default Diagnostic connection

ECU Block Diagram　　Volume Version

POWER COIL

1 – 1　PWR1

1 – 2　PWR2

12V

Vcc

Power Circuit

NE detection

5V

For Operation Mode Switch

Volume

B – 6　DC5V

B– 3　SET_NE　Filter Circuit

SW1

B – 5　SW1　Filter Circuit

B – 2　GND

For Auto Choke Control

TE Sensor1

TE Sensor2

EEP–ROM

CPU

12V

A – 1　M1_COM1

A – 2

Throttle Motor Driver

M1_OUT1　A – 3

M1_OUT2　A – 4

M1_OUT3　A – 5

M1_OUT4　A – 6　M1_COM2

Throttle Motor

A　COM1　A̅

B　COM2　B̅

12V

Heater_+　A – 7

Heater_–　A – 8

Detection Circuit

Heater for Wax(Auto Chole)

CPU_VPP　C – 1

CPU_GND　C – 2

To be abolished

LAMP_OUT　B – 1

Complete Explosion Signal

12V

B – 4

Buffer Circuit　COM_TX　B – 8

Buffer Circuit　COM_RX　B – 7

Terminal for factory default
Diagnostic connection

(4) Self-tuning auto throttle mode 1 ··· New

■Features

· Engine itself detects load , then after it changes over to targeted rotation.

· Load detection is effective when SW1 is on, when SW1 is off, engine runs at operation rotation.

· 2 different operation rotation and idling rotation can be set respectively and selected by SW2.

· No need to set load detection conditions

· It is necessary to run at idling rotation and operation rotation w/o load before shipment.

■Set items

Items	Descriptions
SW2 OFF idle[rpm]	Rotation without load when SW2 is off.
SW2 OFF operation[rpm]	Rotation with load when SW2 is off.
SW2 ON idle[rpm]	Rotation without load when SW2 is on.
SW2 ON operation[rpm]	Rotation with load when SW2 is on.
Increase decrease volume[rpm/sec]	Amount of change in targeted rotation
Off state duration time[sec]	Delayed duration time to idling rpm after detecting no load Attention : Set more than 5[sec] (※ 1)
Auto throttle type	Alternates, depending on engine application · Generator Type(Cylindrical Generators) · P/Wタ Type(P/W、Water Pump etc)
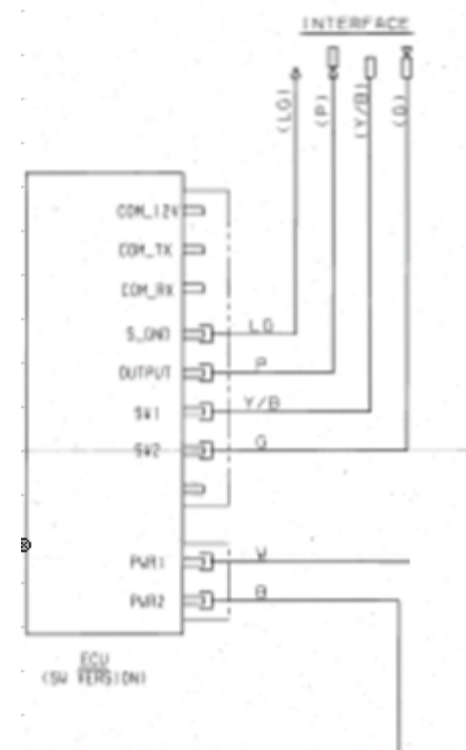
●Pressure Washer(P/W) Package
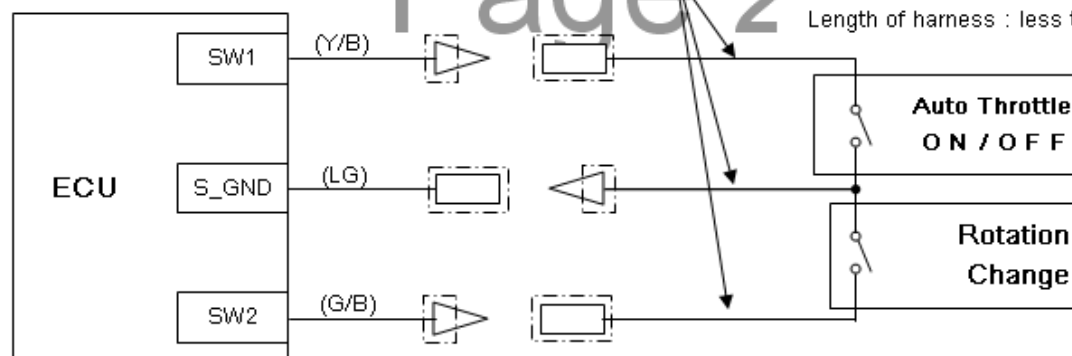
Inside of ( ) indicate color of code

※Recommended Harness Specs

Line type : Equivalent to ＡＶ０．５ｓｑ

Length of harness : less than 5 m

- Output terminal
  - Output : Start Signal

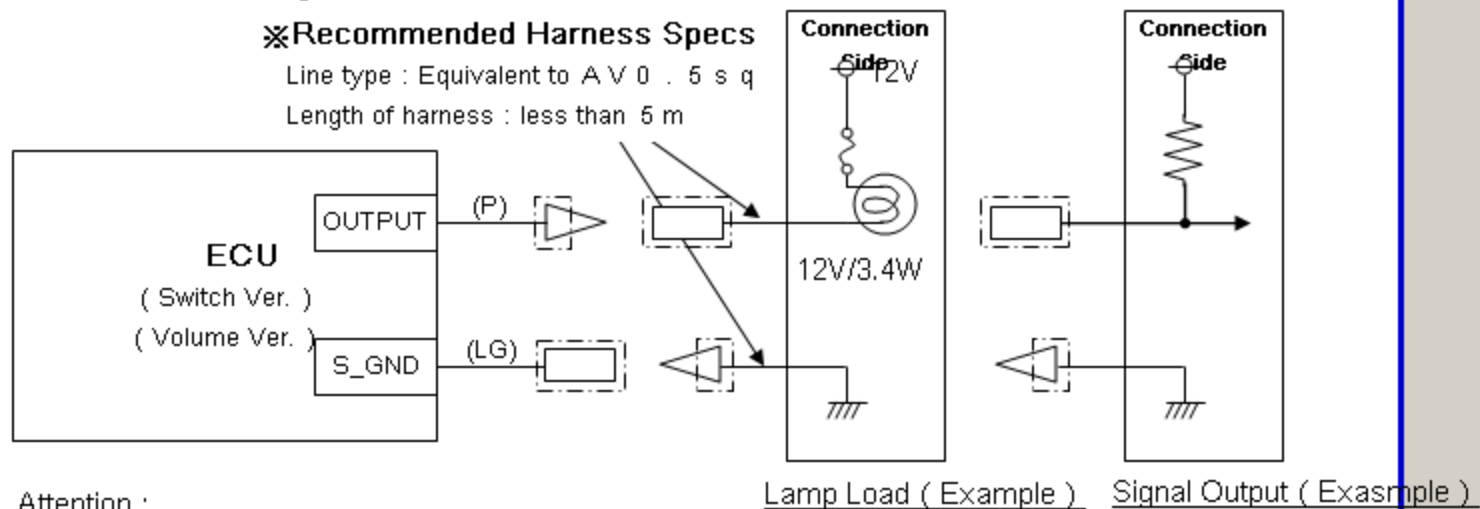   (Complete explosion RPM : In case of 1000rpm、FET inside ECU becomes On)
  - Load :　Connecting with lamp load・・・　less than 12V/3.4W

    Using as signal outpu　・・・　less than 0.5A (continous energization)
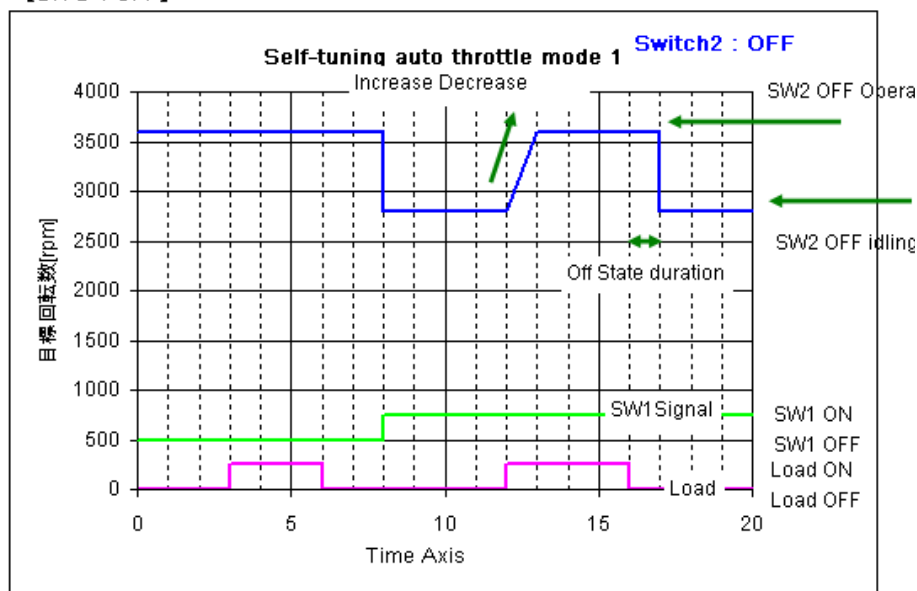
    (参考：1msパルス通電時　3A以下)

【Connection with engine】

※Recommended Harness Specs

Line type : Equivalent to ＡＶ０．５ｓｑ

Length of harness : less than 5 m

ECU

(Switch Ver.)

(Volume Ver.)

OUTPUT — (P)

S_GND — (LG)

Connection Side 12V

12V/3.4W

Lamp Load (Example)

Connection Side

Signal Output (Exasmple)

Attention :

Fen on ＥＣＵ side may drop to Max1.5V (Continuos energization at 0.5A)

Page 3

【SW 2 ：OFF】

Self-tuning auto throttle mode 1 — Switch2 : OFF

Increase Decrease

SW2 OFF Opera

SW2 OFF idling

Off State duration

SW1 Signal — SW1 ON / SW1 OFF

Load — Load ON / Load OFF

目標回転数[rpm]

Time Axis

【Switch 2 ：ON】

Self-tuning auto throttle mode 1 — Switch2 : ON

Increase Decrease volume

SW2 ON Operation Rotation

SW2 ON Idle Rotation

Off status duration

SW1 Signal — SW1 ON / SW1 OFF

Load — Load ON / Load OFF

目標回転数[rpm]

Time Axis

Items		Washer (P/W
	34750-Z5TZ	-W710-M1
SW2 OFF idle[rpm]		2000
SW2 OFF operation[rpm]		3600
SW2 ON idle [rpm]		2000
SW2 ON operation[rpm]		2800
Increase decrease volume[rpm/sec]		0
Off state duration time[sec]		3 (※2)
Auto throttle type		P/W Type
utput signal (Please refer to below		Complete Explosion Judgement Signal
[pulse/round]		8 (Multi Pole Alt)
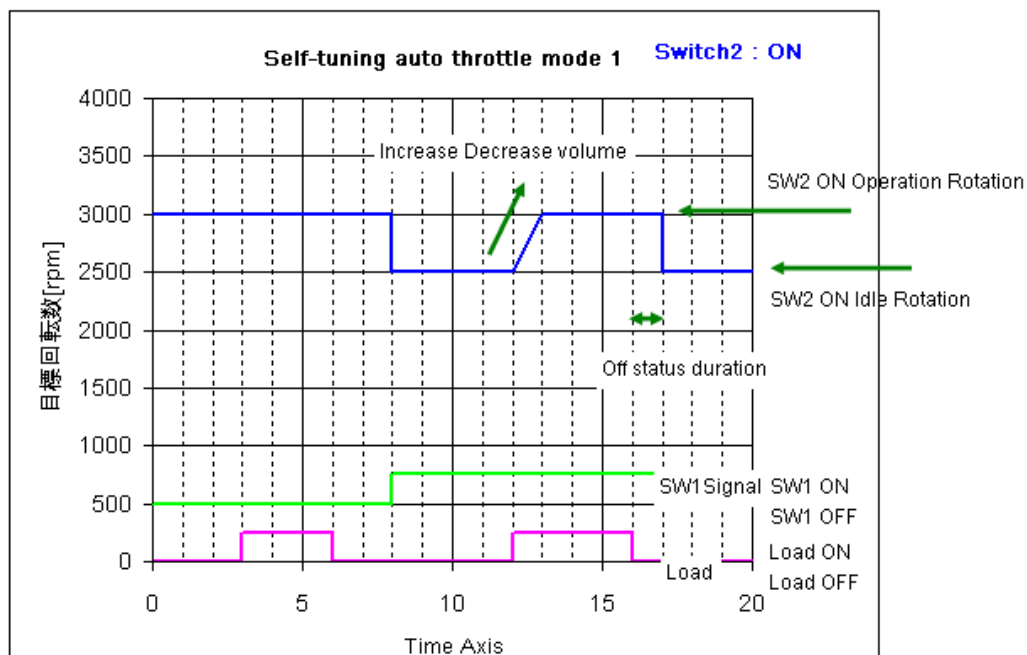
■Output Signal (OUTPUT)

Start Signal ・・・ Standard setting

■Features

・ When engine rotation reach more than 1000rpm, out output terminal becomes on. Less than 1000rpm, output becomes off.
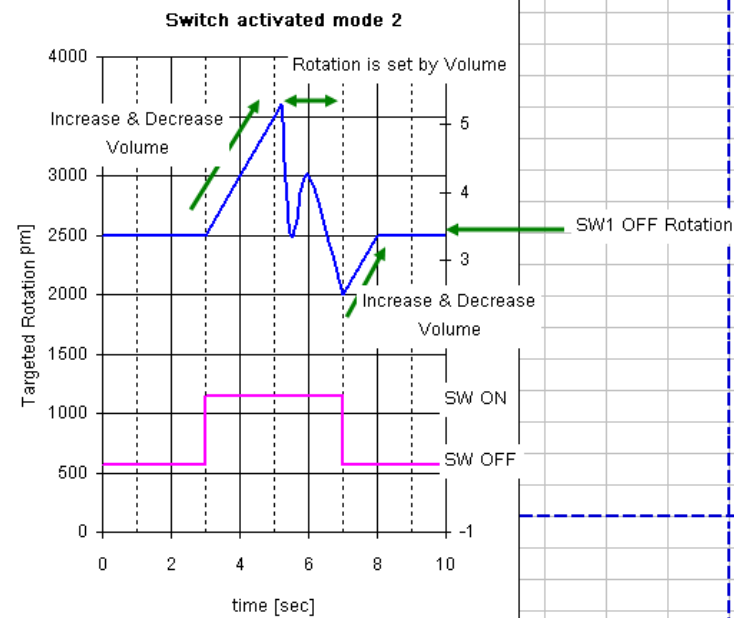
■Set up items

No

Complete explosion judgement signal

1000[rpm]

Engine Rotation[rpm]

Outer output terminal — ON / OFF

Time Axis
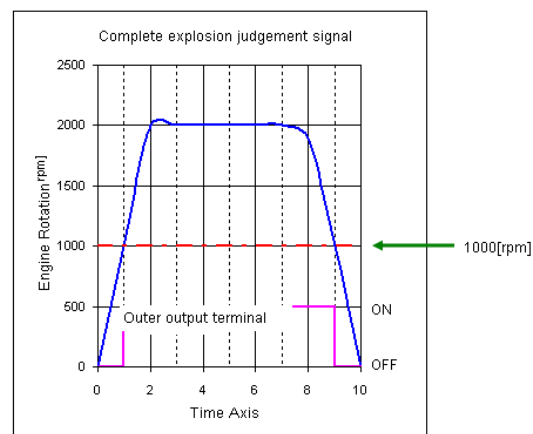
(2) Switch activated mode 2

■Features

· Fixed RPM or arbitray RPM to be changed by Switch (×1)

· RPM can be adjusted freely by Volume (×1)

■Set items

| Items	Descriptions
Volume Min[rpm]	Targeted RPM when volume becomes Min
Volume Max[rpm]	Targed RPM when volume becomes Max
SW1 OFF [rpm]	Targeted RPM when SW 1 is off
Increase decrease volume[rpm/sec]	Amount of change of targeted Rotation

Switch activated mode 2
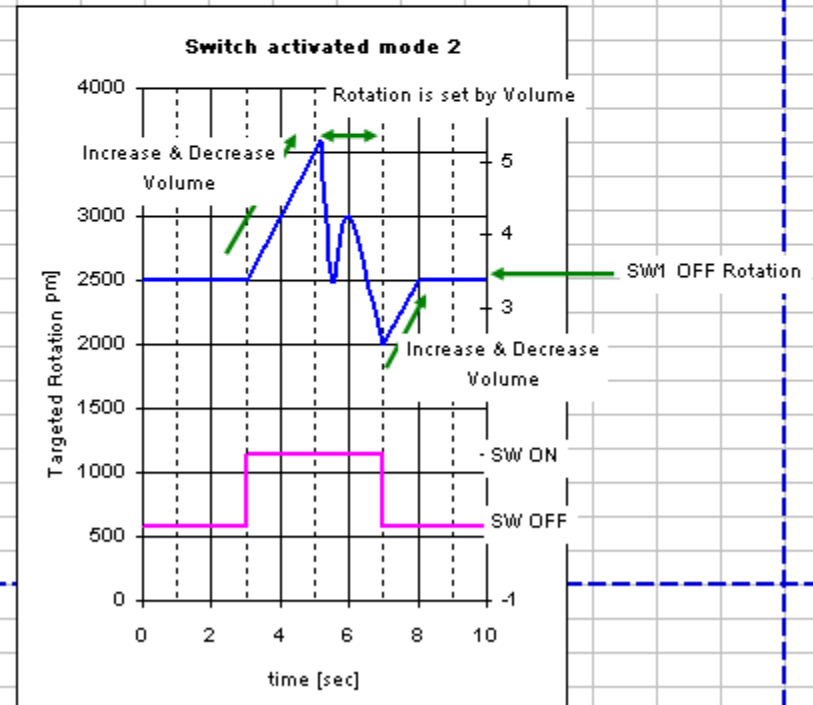
(5) Standard plus mode

■Features

・ It is possible to change Rotation by volume (× 1) arbitrarily.

■Set up items

Items	Descriptions
Volume Min[rpm]	Targeted rotation when volume becomes min.
Volume Max[rpm]	Targeted rotation when volume becomes max.

【General ＥＣＵ Parameter】

Items		
34750-Z5TZ	-W110-M1	N.A
Volume Min [rpm]	1400	1400
Volume Max[rpm]	3600	3600
put Signal (Refer to the following	Complete Explosion Judgement Signal	
[pulse/round]	2(Powercoil)	8 (Multipole Alt)
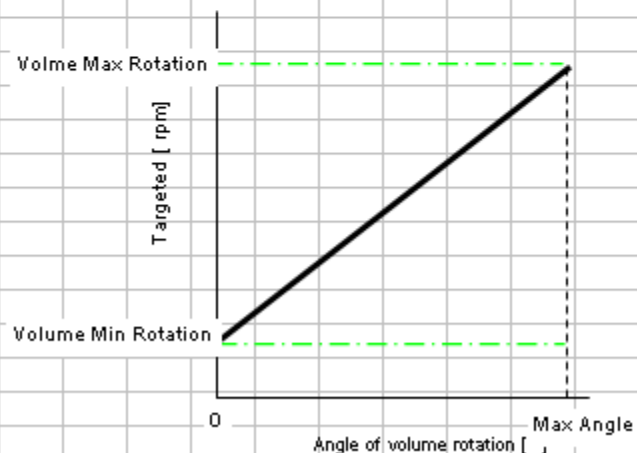
(1) As for user set-up switch , volume etc, please select part which can meet recommended specs.

※Basic specs are same with iGX440.

■ Volume (Potentiometer)

・ Total resistance : 5kΩ±20%

・ Rated voltage : DC5V

・ DC5V output current : 1.3mA MAX
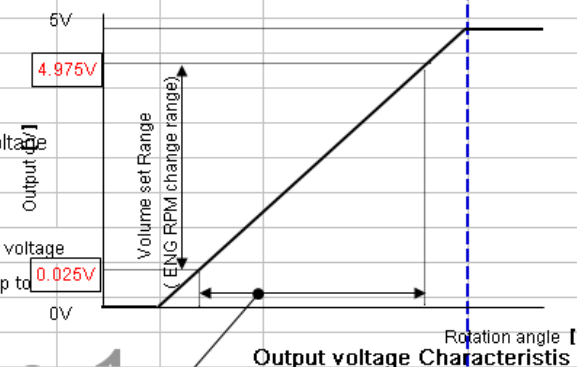
【Volume set Range】

Range of Max/Min of 0.5% cut from Input Voltage

※Please set the voltage range, which is output

from potentiometer, can meet the this graph.

For example, potentiometer output lower bound voltage

is more than 0.025V、Eng rotation may not drop to
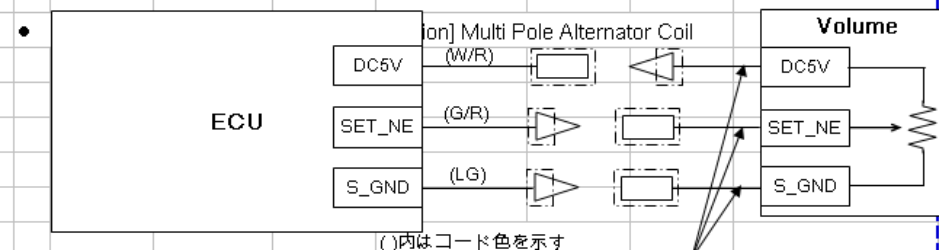
set lower bound rotation.

Output voltage Characteristis

It is necessary for rotation angle of potention meter

to cover this range.

*Attention: ECU Number to be changed , if coupled with multi pole alternator (10A/17A Charge Coil)

【Connection with engine】

Applicable harness : 32110-Z5TZ-W500/32110-Z5KZ-W500

ECU — DC5V (W/R) ... Volume DC5V

SET_NE (G/R) ... SET_NE

S_GND (LG) ... S_GND

[ion] Multi Pole Alternator Coil

( )内はコード色を示す

※Recommended Harness Specs

Line type : Equivalent to ＡＶ０．５ｓｑ

Length of harness : less than 5 m

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