



INSTRUCTIONS

Standalone XIM™

Thank you for choosing FAST™ products; we are proud to be your manufacturer of choice. Please read this instruction sheet carefully before beginning installation, and also take a moment to review the included limited warranty information.

These instructions focus on the Standalone XIM™. Please refer to the original XIM™ instructions (Part #FAST4-101) for general XIM™ information.

Standalone Modes

The XIM™ has three modes of Standalone operation.

1. Onboard – adjustments made with physical switches mounted directly on the XIM™ circuit board.
2. Remote – adjustments made through a small, handheld device intended to be used in the cockpit.
3. PC Software – adjustments made through a software package loaded on a laptop.

Onboard Switch Settings

The XIM™ is configured through a series of DIP switch settings. The switches are located under the back cover of XIM™. To access the switches, simply take the lid off by removing the 5 screws, being careful not to tear the gasket beneath the lid.



Quick Start Guide for Onboard Mode

These example settings can be used to get up and running quickly. They are on the “safe” side. If desired, any of the settings can be adjusted to suit the motor or application. More detail about each switch setting is given on the following page.

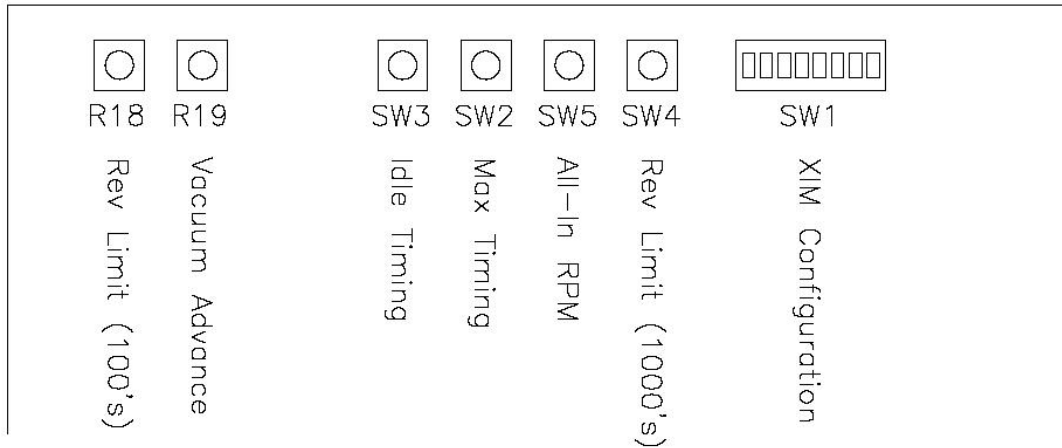
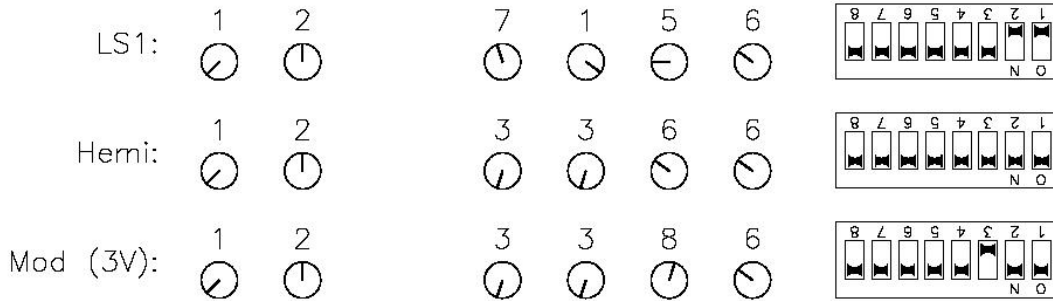


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Part # FAST4-160
 Revised 11/30/09

For reference, these LS1 settings will give you...

Idle timing: 20° (idle timing plus vacuum advance gives 30° at idle)
 Max timing: 24°
 All-in RPM: 2800 rpm
 Vacuum Advance: 10° (added to base timing at low load)
 Rev Limit: 6000 rpm



SW1 (long, 8 DIP switch toggles)

All modes of XIM™ operation require that these be set per application as shown below. Note that #7 needs to be “ON” to operate in any Standalone mode.

XIM™ DIP Switches			
DIP Switch (1-4) [0=OFF, 1=ON]	Ignition Strategy	Crank Input	“Crank Ref. Angle (*BTDC)” setting in C-Com XFI™ software
0 - 0 - 0 - 0	Crank Trigger	1/2/3/4X, 50* BTDC	50
1 - 0 - 0 - 0	OE Crank Trigger	1/2/3/4X, 1-10* BTDC	Actual Crank Position (1-10) + 45
1 - 0 - 1 - 1	Ford Mod, 2 or 4 Valve	36-1 (1 tooth cam)	60
1 - 1 - 0 - 1	Ford Mod, 3 Valve	36-1 (5 tooth cam)	60
1 - 1 - 1 - 1	Chrysler Hemi	36-2-2	50
1 - 1 - 1 - 0	Chrysler Hemi Eagle	60-2	54
0 - 0 - 1 - 1	GM Gen 3 - LS1/LS6	24X (Special)	50
0 - 1 - 1 - 1	GM Gen 4 – LS2/LS7	60-2 (4 pulse cam)	49
0 - 1 - 0 - 1	GM Gen 4 / Gen 3 Cam	60-2 (1 pulse cam)	49
1 - 0 - 0 - 1	24 Pulse Dist. Plug	24X (Even, 1 cam)	50 - 60



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DIP Switch (5-6) [0=OFF, 1=ON]	# of Cylinders
0 - 0	2 Cylinder
1 - 0	4 Cylinder
0 - 1	6 Cylinder
1 - 1	8 Cylinder

DIP Switch (7) [0=OFF, 1=ON]	Operation Mode
1	Standalone
0	CAN Enabled

"CAN Enabled" allows XIM™ to communicate with XFI™

DIP Switch (8) [0=OFF, 1=ON]	Coil Layout
1	Coil per Cylinder
0	Waste Spark

"Waste Spark" – Each coil fires two companion cylinders simultaneously.

SW2 / SW3 / SW4 / SW5 (rotaries with detents)

SW2, SW3 and SW5 settings are only required for Onboard mode. They are not used with the optional Remote or PC software.

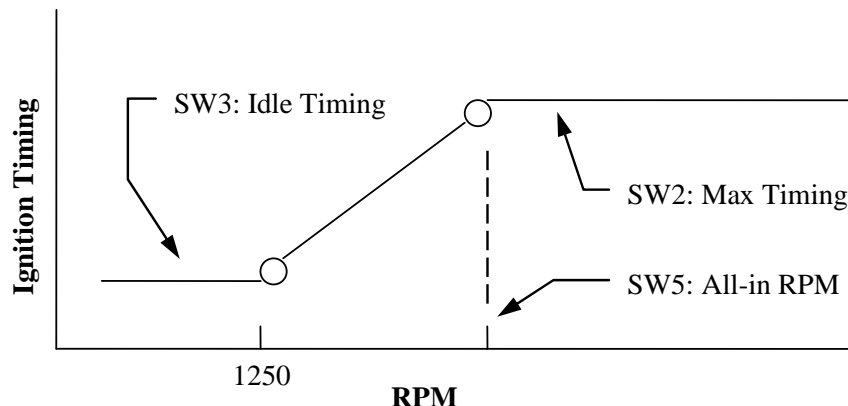
	Setting	Resolution	Min (position 0)	Max (position 9)
SW3	Idle timing (°BTDC)	2	6	24
SW2	Max timing (°BTDC)	2	22	40
SW5	All in (RPM)	200	1800	3600
SW4*	Rev Limit 1000's (RPM)	1000	(position 3) 3000	9000

* SW4 is also used to select between the three modes of Standalone operation. It is set to 0 for PC Software mode, 1 for Remote mode, or 3-9 for Onboard mode.

Switch Position	SW3 Idle Timing (°BTDC)	SW2 Max timing (°BTDC)	SW5 All in (RPM)	SW4*	
				Standalone Mode	Rev Limit 1000's (RPM)
0	6	22	1800	PC Software	n/a
1	8	24	2000	Remote	n/a
2	10	26	2200	n/a	n/a
3	12	28	2400	Onboard	3000
4	14	30	2600	Onboard	4000
5	16	32	2800	Onboard	5000
6	18	34	3000	Onboard	6000
7	20	36	3200	Onboard	7000
8	22	38	3400	Onboard	8000
9	24	40	3600	Onboard	9000

Timing Curve

SW2, SW3 & SW5 are used to construct a base timing curve.



R18 / R19 (rotaries without detents)

R18 and R19 settings are only required for Onboard mode. They are not used with the optional Remote or PC software. These can be set fully counter-clockwise (minimum setting), fully clockwise (maximum setting), or any position in between.

	Setting	Resolution	Min (full ccw) (position 1)	Max (full cw) (position 3)
R18	Rev Limit 100's (RPM)	n/a	0	900
R19	Vacuum advance (°)	n/a	0	20

Rev Limiter

SW4 and R18 are both used to set the rev limiter in Onboard mode. Adding the two settings together gives the rev limit. For example...

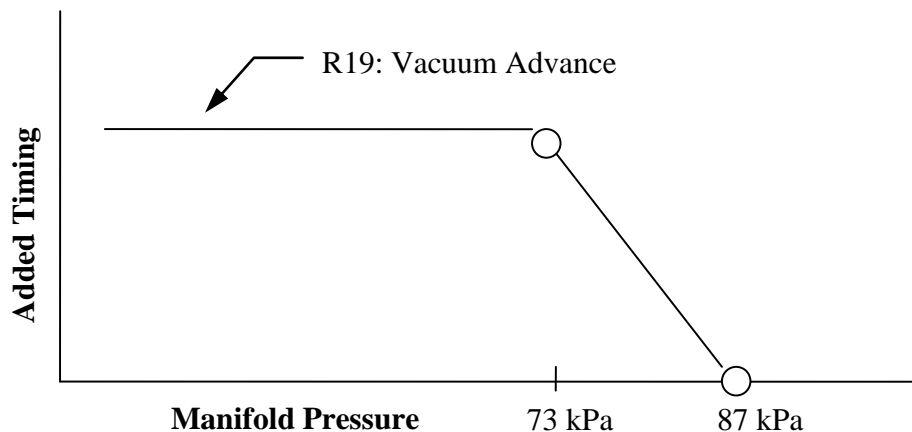
SW4 : position 6 = 6,000 RPM

R18 : center of rotation = 450 RPM.

Together, they set the rev limit to 6,450 RPM.

Vacuum Advance

The vacuum advance feature adds an adjustable amount of timing on top of the base timing curve. The full amount is added at lower load and phased out as load increases. The MAP sensor must be installed (harness plugged into sensor and a vacuum line run from the sensor to the intake manifold) for this feature to work properly. In Onboard mode, R19 can be turned fully counter-clockwise to disable the vacuum advance feature.

**Status LED**

The Status LED on the XIM™ will...

- Flash briefly once a second to confirm XIM™ is set for Standalone operation
- Flash an even on/off pattern when started up in flash mode (blue “Flash” wire grounded at key-on. Used to update firmware in XIM™.)

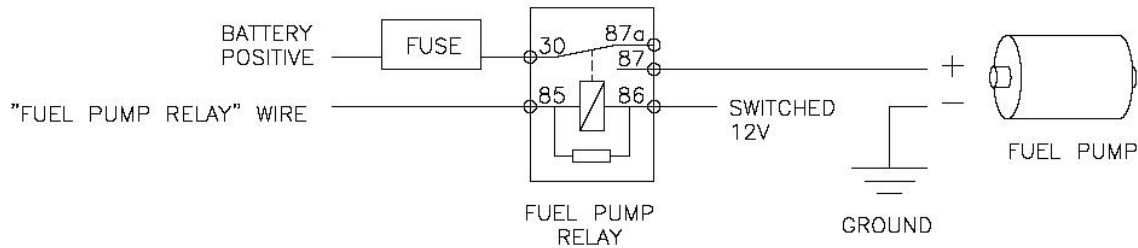
Tach Output

Pin 30-A3 is a 12V square wave tach output. It is available as a loose Brown/white wire and at pin F of the “CAM/HALL EFFECT” connector.

Fuel Pump Relay Control

Pin 18-B3 is a fuel pump relay output. It is available as a loose Green wire. It can be wired to the negative side of a fuel pump relay to control an electric fuel pump. (Do NOT connect it directly to a fuel pump.) The pump will be primed at key-on. And then will run whenever the XIM™ sees an RPM signal.

FUEL PUMP RELAY WIRING



Unused Connectors

When using the XIM™ in one of the Standalone modes, the “CAN LINK” and “TO XFI CAM/HALL EFFECT” connections are not used.

XIM™ Pinout Chart					
XIM™ Pin	Function	Wire Color	XIM™ Pin	Function	Wire Color
30-A1	Inductive Crank Input	Red	18-A1	+12V Switched Input	Pink
30-A2	Discrete Crank Input	Yellow	18-A2	Retard #2 Input	Purple
30-A3	Crank Output / Tach	Brown/White	18-A3	Digital GND	Black/White
30-B1	Digital GND	Black (/White)	18-B1	Battery Input	Red
30-B2	Digital GND	Black/White	18-B2	Retard #1 Input	Gray
30-B3	Cam Output	Yellow/Black	18-B3	Fuel Pump Output	Lt. Green
30-C1	Inductive Cam Input	Red	18-C1	Coil Output A	Orange
30-C2	Discrete Cam Input	Brown	18-C2	Auxiliary Output*	
30-C3	Flash Enable Input	Blue	18-C3	Power GND	Black
30-D1	Digital GND	Black (/White)	18-D1	Coil Output D	Purple
30-D2	Digital GND	Black/White	18-D2	Coil Output C	Gray
30-D3	Load Input	White/Violet	18-D3	Coil Output B	Blue
30-E1	Analog 2 Input*		18-E1	Coil Output E	Black
30-E2	5V Reference	Red/White	18-E2	Power GND	Black
30-E3	Analog GND	Black/Pink	18-E3	Power GND	Black
30-F1	RS-232 RxD	Black	18-F1	Coil Output F	Brown
30-F2	RS-232 TxD	Red	18-F2	Coil Output G	Yellow
30-F3	Dig GND (RS-232)	White	18-F3	Coil Output H	Green
30-G1	CAN_H	Yellow	* Reserved for future use		
30-G2	CAN_L	Green			
30-G3	Digital GND	Black/White			
30-H1	EST Output A	Purple	Notes: See letters and numbers molded into sides of		
30-H2	EST Output B	Purple/White			

30-H3	2-Step Input	Orange	connectors to find pin locations. "30-" and "18-" refer to 30 way and 18 way connector.
30-J1	EST Output C	Red	
30-J2	EST Output E	Blue/White	
30-J3	EST Output G	Green/White	
30-K1	EST Output D	Red/White	
30-K2	EST Output F	Green	
30-K3	EST Output H	Blue	

Limited Warranty

FAST, Inc. warrants that all of its products are free from defects in material and workmanship for a period of 1 year from the date of purchase. This limited warranty shall cover the original purchaser.

FAST, Inc.'s obligation under this warranty is limited to the repair or replacement of its product. To make a warranty claim, the part must be returned within 1 year of purchase to the address listed below, freight prepaid. Items covered under warranty will be returned to you freight collect. It is the responsibility of the installer to ensure that all of the components are correct before installation. We assume no liability for any errors made in tolerances, component selection, or installation.

There is absolutely no warranty on the following:

- Any parts used in racing applications.
- Any product that has been physically altered, improperly installed or maintained.
- Any product used in improper applications, abused, or not used in conjunction with the proper parts.
- Damage due to excessive manifold pressure, i.e. nitrous backfires, engine misfire, etc.

There are no implied warranties of merchantability or fitness for a particular purpose. There are no warranties, which extend beyond the description of the face hereof. FAST, Inc. will not be responsible for incidental and consequential damages, property damage or personal injury damages to the extent permitted by law. Where required by law, implied warranties or merchantability and fitness are limited to a term of 1 year from the date of original purchase.

This warranty gives you specific legal rights and you may also have other legal rights, which vary from state to state.



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