

# **EFI** ENGINE CONTROL & DATA SYSTEMS

## 2010 Price Guide



## Winning Edge Electronics

ChampCar.... IRL.... Indy Lights.... Atlantics.... F3.... Sportscars.... GT.... TransAm.... Motorcycles....

[www.efitechnology.com](http://www.efitechnology.com)

## Table of Contents

<u>Products</u>	<u>page</u>
<b>COVER PAGE.....</b>	<b>1</b>
<b>TABLE OF CONTENTS.....</b>	<b>2</b>
<b>DISCLAIMER .....</b>	<b>4</b>
<b>ENGINE CONTROL SYSTEMS .....</b>	<b>5</b>
ENGINE CONTROL UNITS .....	6
INTERNAL ECU OPTIONS.....	6
INTERNAL DATA LOGGING .....	6
ECU SOFTWARE.....	6
CUSTOM ECU SOFTWARE.....	7
<b>IGNITIONS .....</b>	<b>8</b>
CAPACITIVE DISCHARGE IGNITIONS.....	8
PROGRAMMABLE IGNITIONS.....	8
COILS .....	9
BOSCH IGNITORS.....	9
KNOCK SENSORS .....	9
<b>ACCESSORIES.....</b>	<b>10</b>
FUEL INJECTORS .....	10
FLOW TESTING .....	10
FUEL PRESSURE REGULATORS.....	10
FUEL PUMPS .....	10
LAP BEACON .....	11
EXHAUST GAS TEMPERATURE.....	11
MISCELLANEOUS PARTS.....	12
MANUALS.....	12
<b>STANDARD ENGINE SENSORS .....</b>	<b>13</b>
THROTTLE POSITION SENSORS.....	13
TEMPERATURE SENSORS .....	13
MAP PRESSURE SENSORS .....	13
FLUID PRESSURE SENSORS.....	14
CRANK & CAM SENSORS.....	14
LAMBDA SENSORS .....	14
<b>MIL-SPEC ENGINE SENSORS .....</b>	<b>15</b>
THROTTLE POSITION SENSORS.....	15
TEMPERATURE SENSORS .....	15
MAP PRESSURE SENSORS .....	15
FLUID PRESSURE SENSORS.....	16
CRANK & SYNC SENSORS.....	16
MIL-SPEC LAMBDA SENSORS .....	17
<b>ENGINE HARNESSSES.....</b>	<b>18</b>



# EFI Technology 2010 Motorsports Product Catalog

Rev. 1.0

CUSTOM HARNESSSES .....	18
BASIC HARNESSSES .....	18
MIL-SPEC HARNESSSES .....	18
COMMUNICATIONS CABLES.....	18
<b>DATA LOGGER SYSTEMS.....</b>	<b>19</b>
DATA LOGGER UNITS .....	20
LOGGER MEMORY UPGRADES.....	20
INTERNAL CARD OPTIONS .....	20
<b>LOGGER SYSTEM EXPANSION .....</b>	<b>21</b>
JUNCTION BOXES .....	21
JUNCTION BOX HARNESSSES.....	21
STEERING WHEEL DASH .....	21
LCD DASH DISPLAY.....	21
SATELLITE DASH MODULES.....	22
PC SOFTWARE.....	22
MANUALS.....	22
<b>DATA LOGGER HARNESSSES.....</b>	<b>23</b>
CUSTOM HARNESSSES .....	23
STANDARD HARNESSSES .....	23
COMMUNICATIONS CABLES.....	23
<b>CHASSIS SENSORS – LEVEL 1 ONLY.....</b>	<b>24</b>
LINEAR POTENTIOMETERS.....	24
STRING POTENTIOMETERS .....	24
ROTARY POTENTIOMETERS.....	24
TEMPERATURE .....	25
FLUID PRESSURE.....	25
WHEELSPEED SENSORS .....	25
GYRO .....	25
LAP BEACON .....	26
WIDE BAND LAMBDA SENSOR .....	26
<b>CHASSIS SENSORS – LEVEL 2, 3, &amp; 4 .....</b>	<b>27</b>
LINEAR POTENTIOMETERS.....	27
STRING POTENTIOMETERS .....	27
ROTARY POTENTIOMETERS.....	27
TEMPERATURE .....	28
FLUID PRESSURE.....	28
WHEELSPEED SENSORS .....	28
FUEL FLOW.....	29
LAP BEACON .....	29
WIDE BAND LAMBDA SENSORS.....	29
<b>ADVANCED CHASSIS SENSORS .....</b>	<b>30</b>
ACCELEROMETERS.....	30
GYRO .....	30
AERODYNAMIC PRESSURE.....	30
RIDE HEIGHT SENSOR.....	30
AMPLIFIERS.....	30



# EFI Technology 2010 Motorsports Product Catalog

Rev. 1.0

TIRE PRESSURE MONITORING SYSTEM .....	31
<b>TELEMETRY SYSTEMS.....</b>	<b>32</b>
TELEMETRY KIT .....	32
TELEMETRY SOFTWARE.....	32
ACCESSORIES .....	33
<b>TECHNICAL SUPPORT.....</b>	<b>34</b>
<b>REPAIRS.....</b>	<b>35</b>
<b>REFURBISHMENT PROGRAM .....</b>	<b>36</b>
<b>TRACK SUPPORT.....</b>	<b>37</b>
<b>SUPPORT CONTRACTS.....</b>	<b>37</b>

**All prices are quoted F.O.B., EFI Technology Inc., Torrance, CA  
and exclude any applicable sales tax  
Prices subject to change without prior notice**

## **Disclaimer**

*EFI Technology Inc. makes no representation or warranties of any kind whatsoever with respect to the contents hereof and specifically disclaims any implied warranties of merchantability or fitness thereof for any particular purpose. EFI Technology Inc. shall not be liable for any errors contained herein or for incidental or consequential damages in connection with the furnishing, performance or use of the software, associated hardware, or this written material.*

*EFI Technology Inc. reserves the right to revise this publication from time to time, and to make changes in the content hereof without obligation to notify any person of such revision or changes.*

*A copy of the EFI Technology Standard Terms and Conditions is available on request, and includes a declaration of the warranty and limitation of liability that apply to all EFI Technology Inc. products and services.*

## **ENGINE CONTROL SYSTEMS**

*EFI Technology delivers a complete range of high performance Engine Control Systems for any application. Many championship winners have used EFI's ECU Systems to achieve success including IRL, GrandAm, APBA, SCORE, Midgets and Silver Crown.*

*EFI Technology builds custom system solutions to fit each customer's needs. We select only the highest specification components to ensure optimum performance and increased durability. Our Windows®-based software package is packed with features and is very powerful, yet remains easy to learn and use.*

*Through the system design process, we design custom harnesses, select and calibrate sensors, flow test injectors and develop a start-up map specifically for your application so you are ready to start the mapping process. Our self-learning lambda control simplifies the fuel mapping process so you can fully map the engine within hours.*

### **Standard features include:**

- 20 x 40 3D maps for fuel and spark
- Speed/Throttle or Speed/Density modes
- Individual cylinder trims
- Dual map capability
- Closed loop lambda control
- Pitlane speed control
- Gearshift Cut
- User-programmable self-diagnostics
- Sensor calibrations
- Boost control
- Correction tables
- Injection phasing

### **Optional features include:**

- Variable Cam Control
- Traction Control
- 3-stage nitrous control
- Idle Air Control
- Variable intake control
- Internal accelerometer
- User-programmable data logging

*All systems are backed by EFI's Technical Support to ensure that you are always ready to run!*

## ENGINE CONTROL UNITS



**X1 ECU**  
(4 injectors, 1 ignition)

50-023

\$1,495



**Race 1.2 ECU**  
(4 injectors, 4 ignitions)

50-029

\$1,695



**X3 ECU**  
(8 injectors, 4 ignitions)

50-019

\$3,495



**X5 ECU**  
(12 injectors, 12 ignitions)

50-021

\$5,995

## INTERNAL ECU OPTIONS

Internal Lateral G Accelerometer	50-903	\$295
Internal dual K-type amplifiers (4.0 only)	50-908	\$395
Internal dual knock inputs (4.0 only)	50-909	\$395
Internal CAN interface (4.0 only)	50-910	\$295

## INTERNAL DATA LOGGING

Internal 512K data logger	50-901	\$395
Internal 1MB data logger	50-902	\$595
Internal 2MB data logger	50-906	\$995

## ECU SOFTWARE



Note: A license is required for each user of V7.0 Software. Additional licenses may be purchased at a 50% discount.

V7.0 Basic Editor Software License	95-706	\$750
V7.0 Advanced Editor Software License	95-707	\$1595
V7.0 Basic Analysis Software License	95-701	\$750
V7.0 Standard Analysis Software License	95-702	\$1,595

**CUSTOM ECU SOFTWARE**

*EFI Technology Inc offers an in-house software development facility to develop control systems for custom applications. Please call for a quotation.*

<i>Variable Intake Control</i>	<i>95-003</i>	<i>\$395</i>
<i>3 stage Nitrous Control</i>	<i>95-004</i>	<i>\$395</i>
<i>Drive-by-wire Control</i>	<i>95-005</i>	<i>\$595</i>
<i>Single VANOS Control</i>	<i>95-006</i>	<i>\$595</i>
<i>Dual VANOS Control</i>	<i>95-007</i>	<i>\$895</i>



<i>Traction Control Multiplexer</i>	<i>73-001</i>	<i>\$1695</i>
-------------------------------------	---------------	---------------

## IGNITIONS

### CAPACITIVE DISCHARGE IGNITIONS



*EFI Single channel CDI*

51-001

\$695



*EFI Four channel CDI*

51-011

\$1,495



*EFI Eight channel CDI*

51-002

\$2,495



*EFI Ten channel CDI*

51-012

\$2,995



*EFI SuperStock CDI*

51-014

\$795



*EFI VR1 Ignition*  
*(To retrofit into customers housing)*

51-013

\$1,495

### PROGRAMMABLE IGNITIONS









*X/i Ignition*  
*(4 direct coil drives)*

50-023

\$1,295

## COILS

	Single output Bosch	51-201	\$ 75
	Dual output, ND	51-207	\$150
	Single output, ND	51-208	\$95
	Coil termination kit (For dual output ND)	51-356	\$19
	Coil termination kit (For Single output ND)	51-357	\$19
	Plug top Coil	51-260	\$75
<i>Custom Plug top coils</i>		<i>Please call</i>	

## BOSCH IGNITORS

	Bosch Ignitor, 2 coil	51-216	\$152
	Bosch Ignitor, 3 coil	51-214	\$309

## KNOCK SENSORS

	Knock Sensor, 2 pin	60-704	\$90
---	---------------------	--------	------

## ACCESSORIES

### FUEL INJECTORS

*Flows @ 72 psi*



Injector, 31 lb/hr (310 cc/min), 16 $\Omega$ , "223"	58-001	Call for pricing
Injector, 38 lb/hr (380 cc/min), 2.4 $\Omega$ , "357"	58-002	Call for pricing
Injector, 42 lb/hr (420 cc/min), 2.4 $\Omega$ , "810"	58-014	Call for pricing
Injector, 45 lb/hr (450 cc/min), 2.4 $\Omega$ , "402"	58-004	Call for pricing
Injector, 50 lb/hr (500 cc/min), 4.7 $\Omega$ , "803"	58-007	Call for pricing
Injector, 55 lb/hr (550 cc/min), 2.4 $\Omega$ - hose	58-018	Call for pricing
Injector, 58 lb/hr (580 cc/min), 2.4 $\Omega$ , "400"	58-003	Call for pricing
Injector, 66 lb/hr (660 cc/min), 2.4 $\Omega$ - hose	58-019	Call for pricing
Injector, 69 lb/hr (690 cc/min), 2.4 $\Omega$ , "403"	58-005	Call for pricing
Injector, 81 lb/hr (810 cc/min), 0.7 $\Omega$ , "351"	58-016	Call for pricing
Injector, 210 lb/hr (2100 cc/min), 2.6 $\Omega$ , 912"	58-053	Call for pricing
O-ring adapter kit	58-100	Call for pricing

### FLOW TESTING

Clean & Flow test Injector	99-003	\$15
----------------------------	--------	------

### FUEL PRESSURE REGULATORS



EFI Dual inlet #6, vacuum #4 (Adjustable 45-120 psi)	57-003	\$395
---	--------	-------



EFI Single inlet #6, vacuum #4 (Adjustable 45-120 psi)	57-004	\$395
---	--------	-------



EFI Replacement diaphragm assembly	57-910	\$75
------------------------------------	--------	------

### FUEL PUMPS

*All flows @ 72 PSI*



Fuel Pump, 270 lb/hr, hose fitting	66-001	\$255
Fuel Pump, 270 lb/hr, metric fitting	66-002	\$355
Fuel Pump, 180 lb/hr, hose fitting	66-007	\$175

**LAP BEACON**



*Beacon Receiver, 16 channel,  
Lemo connector*

73-051

\$750



*Beacon Transmitter, 16 channel*

73-014

\$650

**EXHAUST GAS TEMPERATURE**



*EGT signal conditioner, 2 channel*

60-651

\$695



*Thermocouple probe, 6"*

22-506










\$75

*Thermocouple probe, 12"*

22-507

\$85

**MISCELLANEOUS PARTS**

	<i>Single pole switch</i>	18-002	\$35
	<i>Double pole switch</i>	18-003	\$45
	<i>Waste gate solenoid (mil-spec)</i>	18-018	\$325
	<i>RPM/Shift lamp</i>	60-801	\$55
	<i>Fuel Mixture switch 5 position (mil-spec)</i>	62-605	\$295
	<i>Boost trim switch 10 turn (mil-spec)</i>	62-603	\$275
	<i>Boost map select switch 5 position (mil-spec)</i>	62-607	\$295
	<i>Traction Control switch 10 position (mil-spec)</i>	62-616	\$295
	<i>ECU 12v power supply (for bench testing / programming)</i>	62-611	\$395
	<i>Hall Effect Pickup tester</i>	61-990	\$265






**MANUALS**

<i>ECU Hardware Reference Manual</i>	95-107	\$35
--------------------------------------	--------	------



## STANDARD ENGINE SENSORS

All Standard sensors provide a cost-effective, reliable solution with automotive spec. connectors.

### THROTTLE POSITION SENSORS

	TPS sensor (CCW)	60-301	\$67.50
	TPS sensor (CW)	60-302	\$85
	TPS sensor, CTS (CW)	60-304	\$65
	TPS sensor, CTS (CCW)	60-306	\$65
	TPS sensor (CW)	60-328	\$65

### TEMPERATURE SENSORS

	Temp sensor, Air (100°C)	60-001	\$45
	Temp sensor, Fluid (100°C)	60-101	\$45

### MAP PRESSURE SENSORS

	MAP, 1 Bar pressure	60-201	\$125
	MAP, 2 Bar pressure	60-202	\$125
	MAP, 3 Bar pressure	60-203	\$155

## FLUID PRESSURE SENSORS



Pressure sensor, 0-75 psi (abs)	60-412	\$295
Pressure sensor, 0-50 psi, 0-5v	60-417	\$295
Pressure sensor, 0-100psi, 0-5v	60-424	\$295
Pressure sensor, 0-150 psi, 0-5v	60-410	\$295
Pressure sensor, 0-500 psi, 0-5v	60-418	\$345
Pressure sensor, 0-1000psi, 0-5v	60-425	\$345
Pressure sensor, 0-3000psi, 0-5v	60-416	\$345

## CRANK & CAM SENSORS



Crank & cam pickup, magnetic	61-415	\$65
------------------------------	--------	------

## LAMBDA SENSORS



Bosch Lambda sensor	60-601	\$295
---------------------	--------	-------



NGK Lambda sensor	60-608	\$275
-------------------	--------	-------



<i>λw</i> Single Lambda Amplifier.	60-655	\$200
<i>λw</i> Dual Lambda Amplifier	60-656	\$300



<i>λw</i> Single Lambda harness	60-629	\$80
<i>λw</i> Dual Lambda harness	60-630	\$125



<i>λw</i> Single Lambda kit	60-657	\$400
<i>λw</i> Dual Lambda kit	60-658	\$675



Exhaust pipe boss for lambda sensor	60-607	\$30
-------------------------------------	--------	------

## MIL-SPEC ENGINE SENSORS

All Mil-Spec sensors are the highest quality available and are fitted with Mil-spec connectors.

### THROTTLE POSITION SENSORS



TPS sensor, flat shaft

60-316

\$275



TPS sensor (CW) CTS round shaft

60-319

\$275



TPS sensor (CCW) CTS

60-313

\$195



TPS sensor (CW) CTS

60-309

\$195

### TEMPERATURE SENSORS



Temp sensor, EFI Air (200°C)

60-002

\$225



Temp sensor, EFI Fluid (200°C)

60-103

\$265

### MAP PRESSURE SENSORS



Pressure sensor, 0-1 Bar MAP

60-207

\$180

Pressure sensor, 0-2 Bar MAP

60-204

\$180

Pressure sensor, 0-3 Bar MAP

60-205

\$180



Pressure sensor, 0-1 Bar MAP

60-211

\$265

Pressure sensor, 0-2 Bar MAP

60-212

\$265

### FLUID PRESSURE SENSORS



<i>Pressure sensor, 0-75 psi (abs)</i>	60-412	\$295
<i>Pressure sensor, 0-50 psi, 0-5v</i>	60-417	\$295
<i>Pressure sensor, 0-100psi, 0-5v</i>	60-424	\$295
<i>Pressure sensor, 0-150 psi, 0-5v</i>	60-410	\$295
<i>Pressure sensor, 0-500 psi, 0-5v</i>	60-418	\$345
<i>Pressure sensor, 0-1000psi, 0-5v</i>	60-425	\$345
<i>Pressure sensor, 0-3000psi, 0-5v</i>	60-416	\$345

### CRANK & SYNC SENSORS



<i>EFI Hall Effect (Atlantic)</i>	61-010	\$285
-----------------------------------	--------	-------



<i>EFI Hall Effect (single)</i>	61-012	\$250
---------------------------------	--------	-------



<i>EFI Hall Effect (dual)</i>	61-016	\$285
-------------------------------	--------	-------



<i>Magnetic, 3/8-24</i>	61-401	\$285
<i>Magnetic, 3/8-24 (24" length)</i>	61-424	\$325
<i>Magnetic, 5/8-18</i>	61-409	\$285



<i>Hall Effect Crank (IRL)</i>	61-422	\$285
--------------------------------	--------	-------



<i>Hall Effect Sync (IRL)</i>	61-423	\$285
-------------------------------	--------	-------

**MIL-SPEC LAMBDA SENSORS**



*Lambda Sensor (mil-spec)*

60-613

\$595



*Lambda Amplifier - single (mil-spec)*

60-615

\$995

*Lambda Amplifier - dual (mil-spec)*

60-612

\$1,695

*Lambda Amplifier - 8 channel (mil-spec)*

60-653

\$5,085



*Lambda Extension harness, 42"*

60-614

\$475

*Lambda Extension harness, 60"*

60-616

\$495

*8 channel Lambda Sensor Harness*

60-623

\$1,750



*Exhaust pipe boss for lambda sensor*

60-607

\$30

## ENGINE HARNESSSES

### CUSTOM HARNESSSES

EFI Technology Inc is pleased to offer a full in-house harness design and manufacturing facility. Our engineers will produce a detailed wiring drawing of the harness to fit your exact specifications. Please call for a price quotation.

### BASIC HARNESSSES

These harnesses are a cost-effective solution for those customers who do not require a full mil-spec harness. They are built to your dimensions and utilize automotive quality connectors. All harness prices are subject to final specifications.

		Prices From
4-Cylinder Basic Engine & Chassis Harness	79-1xx	\$1,250
6-Cylinder Basic Engine & Chassis Harness	79-2xx	\$1,350
8-Cylinder Basic Engine & Chassis Harness	79-3xx	\$1,450
10-Cylinder Basic Engine & Chassis Harness	79-4xx	\$1,750
12-Cylinder Basic Engine & Chassis Harness	79-5xx	\$1,950

### MIL-SPEC HARNESSSES

All Mil-Spec harnesses are custom made to your dimensions using the highest quality wire, Raychem heat shrink, Raychem boots and mil-spec connectors. All harness prices are subject to final specifications.

		Prices From
4-Cylinder Pro Mil-Spec Engine Harness.	52-xxx	\$1,750
6-Cylinder Pro Mil-Spec Engine Harness.	53-xxx	\$1,895
8-Cylinder Pro Mil-Spec Engine Harness.	54-xxx	\$1,995
10-Cylinder Pro Mil-Spec Engine Harness	55-xxx	\$2,150
12-Cylinder Pro Mil-Spec Engine Harness	55-xxx	\$2,350
Pro Mil-Spec Coil harness	65-xxx	\$750
Pro Mil-Spec Dash Switch harness	65-xxx	\$595
Pro Mil-Spec Chassis Harness	56-xxx	\$1,495
Pro Mil-spec Dyno harness	56-xxx	Please call

### COMMUNICATIONS CABLES



6' download cable, 5 pin	62-403	\$275
6' download cable, 19 pin	62-410	\$275
25' download cable, 5 pin	62-404	\$355
25' download cable, 19 pin	62-411	\$395
3' download extension cable	62-513	\$265
6' download extension cable, 5 pin	62-514	\$285
3' download extension cable, 5 pin	62-516	\$285
6' download cable X1 / X1i, 3 pin	62-435	\$175
25' download cable X1 / X1i, 3 pin	62-436	\$225

## **DATA LOGGER SYSTEMS**

*EFI Technology delivers a complete range of high performance Data Logger Systems for any application. Many championship winners have used EFI's Data Logger Systems to achieve success including CART, IRL, Toyota Atlantics, ALMS, GrandAm, and ACRL.*

*EFI Technology builds custom system solutions to fit each customer's needs. We select only the highest specification components to ensure optimum performance and for increased durability. Our Windows®-based software package is packed with features and is so powerful yet remains easy to learn and use.*

*Through the system design process, we design custom harnesses, select and calibrate sensors, and provide extensive training to ensure you are ready to hit the track.*

### **System Features include:**

- 10 to 256 channel systems
- 1Hz to 1000Hz logging rates
- 2MB to 128MB Logging memory
- Ultra-fast USB download
- Bi-directional data links to 3<sup>rd</sup> party ECU's
- CAN data link
- Auxiliary outputs
- Dash Display options
- Real Time Telemetry option
- ADR2 interface
- Digital TMS interface

*All systems are backed by EFI's Technical Support to ensure you are always ready to run!*

## DATA LOGGER UNITS



Level 1 Data Logger  
(10 Analog, 6 Digital, 2MB)

73-015

\$2,995



Level 2 Data Logger  
(18 Analog, 6 Digital, 4MB)

73-018

\$5,000



Level 3 Data Logger  
(20 Analog, 8 Digital, 8MB)

73-048

\$9,000

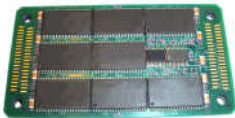


Level 4 Data Logger  
(32 Analog, 8 Digital, 16MB)

73-041

\$12,995

## LOGGER MEMORY UPGRADES



2MB Upgrade, Level 1 and 2

73-021

\$395

4MB Upgrade, Level 2

73-022

\$595

8MB Upgrade, Level 3, and 4

73-023

\$995

16MB Upgrade, Level 3, and 4

73-104

\$1,495

## INTERNAL CARD OPTIONS

Applies to Level 3 and 4 Loggers only



Analog card (8 analog channels)

14-106

\$995

Amplifier card (8 amplified channels)

14-102

\$1,995

Upgrade from analog card to amplifier card

14-108

\$995

## LOGGER SYSTEM EXPANSION

### JUNCTION BOXES



<i>Junction Box, Autosport connectors (8) 0-5v inputs.</i>	73-044	\$1,295
<i>Junction Box, Autosport connectors (4) amplifiers, (4) 0-5v inputs, (2) strain gauges, (2) t/couples.</i>	73-046	\$1,995
<i>Addition of 2 strain gauge amplifiers</i>	73-024	\$500
<i>Addition of 2 thermocouple amplifiers</i>	73-024	\$500

### JUNCTION BOX HARNESSES

<i>Junction box harness, (2) JB's + (1) Exp port.</i>	74-1xx	\$550
<i>Junction box harness, (2) Junction boxes.</i>	74-2xx	\$550
<i>Sensor harness, (4) analog inputs.</i>	74-3xx	\$750
<i>Sensor harness, (4) Ana + (2) wheel speeds.</i>	74-4xx	\$950
<i>Expansion harness, Level 3 only.</i>	74-5xx	\$595

### STEERING WHEEL DASH



<i>Steering Wheel Dash Display</i>	73-003	\$3,500
------------------------------------	--------	---------



<i>Steering Wheel Dash Harness</i>	74-809	\$395
------------------------------------	--------	-------

### LED DASH DISPLAY



<i>LED Dash Display</i>	73-032	\$3,500
-------------------------	--------	---------

### LCD DASH DISPLAY



<i>LCD Dash Display with integral switch harness.</i>	73-007	\$2,295
---	--------	---------



<i>Dash Backlight Kit.</i>	62-614	\$695
----------------------------	--------	-------



<i>Dash Backlight Kit, with dimmer.</i>	73-026	\$895
---	--------	-------

## SATELLITE DASH MODULES



Satellite Module  
numeric 5 digit

73-028

\$825



Satellite Module  
Gear # + (5) shift lamps

73-029

\$825

## PC SOFTWARE



V8.0 Standard Analysis Software License

95-702

\$1,595

V8.0 Telemetry Software License

95-704

\$1,595

V8.0 Fuel Strategy Program

95-713

\$1,595

Note: A license is required for each user of V8.0 Software. Additional licenses may be purchased at a 50% discount.

## MANUALS

Logger Hardware Reference Manual

95-108

\$35

## DATA LOGGER HARNESSES

All harnesses are custom made to your dimensions using the highest quality wire, Raychem heat shrink and mil-spec connectors.

### CUSTOM HARNESSES

EFI Technology Inc is pleased to offer a full in-house harness design and manufacturing facility. Our engineers will produce a detailed wiring drawing of the harness to fit your exact specifications. Please call for a price quotation.

### STANDARD HARNESSES

All prices quoted below are for EFI standard harnesses. These include all the essential connections and the layout may be tailored to suit your particular application. Any additional connectors or significant changes in design will be quoted separately

System harness, Level 1, Expando	74-0xx	\$950
System harness, Level 1, NTFR	74-0xx	\$1,500
System harness, Level 2	74-0xx	\$2,500
System harness, Level 3	74-0xx	\$3,500
System harness, Level 4	74-0xx	\$5,500
Junction Box harness, (2) Junction boxes + (1) expansion connector .	74-1xx	\$650
Junction box harness, (2) Junction boxes.	74-2xx	\$595
Junction Box Sensor harness, (4) analog inputs.	74-3xx	\$750
Junction Box Sensor harness, (4) analog + (2) digital inputs.	74-4xx	\$950
Expansion Harness, Level 3 only.	74-5xx	\$595
Front Sensor Harness.	74-6xx	\$750
Rear Sensor Harness, Level 1.	74-7xx	\$750
Rear Sensor Harness, Level 2.	74-7xx	\$750
Rear sensor Harness, Level 3.	74-7xx	\$950
Adapter Harness, Pressure Sensor.	60-524	\$165

### COMMUNICATIONS CABLES



6' Logger download cable, Level 1 only.	62-421	\$135
6' Logger download cable, 5 pin.	62-413	\$275
22' Logger download cable, 5 pin.	62-414	\$395
6' Logger download cable, 19 pin.	62-418	\$275
22' Logger download cable, 19 pin.	62-419	\$395
50' download cable, Logger & ECU comm's.	62-422	\$1,500

## CHASSIS SENSORS – Level 1 only

*All sensors are fitted with Sure seal style connectors to provide a reliable and cost-effective connection.*

### LINEAR POTENTIOMETERS



<i>Linear, 50mm travel</i>	<i>60-450</i>	<i>\$375</i>
<i>Linear, 75mm travel</i>	<i>60-451</i>	<i>\$375</i>
<i>Linear, 100mm travel</i>	<i>60-452</i>	<i>\$375</i>
<i>Linear, 125mm travel</i>	<i>60-453</i>	<i>\$375</i>
<i>Linear, 150mm travel</i>	<i>60-454</i>	<i>\$395</i>
<i>Linear, 175mm travel</i>	<i>60-455</i>	<i>\$395</i>
<i>Linear, 200mm travel</i>	<i>60-456</i>	<i>\$395</i>
<i>Linear, 250mm travel</i>	<i>60-457</i>	<i>\$395</i>

### STRING POTENTIOMETERS



<i>String pot, 10" travel</i>	<i>60-489</i>	<i>\$295</i>
<i>String pot, 12" travel</i>	<i>60-490</i>	<i>\$295</i>

### ROTARY POTENTIOMETERS



<i>Rotary, flat shaft, 100°</i>	<i>60-465</i>	<i>\$195</i>
---------------------------------	---------------	--------------



<i>Rotary, suspension travel, 300°</i>	<i>60-466</i>	<i>\$195</i>
--	---------------	--------------



<i>Steering angle, round shaft, 3 turn</i>	<i>60-467</i>	<i>\$195</i>
--	---------------	--------------



<i>Rotary pot, flat shaft, gear position, 300°</i>	<i>60-468</i>	<i>\$195</i>
--	---------------	--------------

## TEMPERATURE



*Fluid Temperature*

60-475

\$155



*Air Temperature*

60-476

\$155



*K-Type signal conditioner, 2 channel*

60-651

\$695



*Thermocouple Probe, EGT (K-Type), 6"*

22-506

\$75

*Thermocouple Probe, EGT (K-Type), 12"*

22-507

\$85

## FLUID PRESSURE



*0-50psig Pressure Sensor*

60-417

\$295

*0-100psig Pressure Sensor*

60-424

\$295

*0-150psig Pressure Sensor*

60-410

\$295

*0-500psig Pressure Sensor*

60-418

\$345

*0-1000psig Pressure Sensor*

60-425

\$345

*0-3000psig Pressure Sensor*

60-416

\$345

## WHEELSPEED SENSORS



*Wheelspeed, Hall*

61-445

\$135



*Wheelspeed, Magnetic*

61-447

\$135

## GYRO



*Gyro, motorcycle mapping*

60-483

\$720

**LAP BEACON**



*Beacon Receiver, Lap only* 73-051 \$750



*Beacon Transmitter, Lap & Split* 73-014 \$650

**WIDE BAND LAMBDA SENSOR**



*NGK Lambda sensor* 60-608 \$275



*Single Lambda Amplifier.* 60-655 \$200

*Dual Lambda Amplifier* 60-656 \$300



*Single Lambda harness* 60-629 \$80

*Dual Lambda harness* 60-630 \$125



*λw Single Lambda kit* 60-657 \$400

*λw Dual Lambda kit* 60-658 \$675



*Exhaust pipe boss for lambda sensor* 60-607 \$30

## CHASSIS SENSORS – Level 2, 3, & 4

All sensors are fitted with Autosport connectors for the highest quality and durability.

### LINEAR POTENTIOMETERS



Linear, 50mm travel	60-525	\$395
Linear, 75mm travel	60-526	\$395
Linear, 100mm travel	60-527	\$395
Linear, 125mm travel	60-528	\$395
Linear, 150mm travel	60-529	\$425
Linear, 175mm travel	60-530	\$425
Linear, 200mm travel	60-531	\$425
Linear, 250mm travel	60-532	\$425

### STRING POTENTIOMETERS



String pot, 5" travel	60-536	\$750
String pot, 12" travel	60-534	\$850
String pot, 15" travel	60-535	\$850

### ROTARY POTENTIOMETERS



Rotary, flat shaft, 100° 60-545 \$350



Rotary, suspension travel, 300° 60-546 \$350









Rotary pot, 3 turn 60-547 \$350




Rotary, flat shaft, gear position, 300° 60-548 \$350




## TEMPERATURE

	<i>Fluid Temperature</i>	60-560	\$295
	<i>Air Temperature</i>	60-561	\$295
	<i>K-Type signal conditioner, 2 channel</i>	60-651	\$695
	<i>Thermocouple Probe, EGT (K-Type), 6"</i>	22-506	\$85
	<i>Thermocouple Probe, EGT (K-Type), 12"</i>	22-507	\$85
	<i>Tire Temperature Sensor, infra-red</i>	60-562	\$495

## FLUID PRESSURE

	<i>0-50psig Pressure Sensor</i>	60-501	\$445
	<i>0-75psig Pressure Sensor</i>	60-507	\$445
	<i>0-100psig Pressure Sensor</i>	60-502	\$445
	<i>0-150psig Pressure Sensor</i>	60-503	\$445
	<i>0-500psig Pressure Sensor</i>	60-504	\$495
	<i>0-1000psig Pressure Sensor</i>	60-505	\$495
	<i>0-3000psig Pressure Sensor</i>	60-506	\$495

## WHEELSPEED SENSORS

	<i>Wheelspeed, Hall</i>	61-446	\$295
	<i>Wheelspeed, Magnetic</i>	61-448	\$295
	<i>Wheelspeed, Magnetic, high temperature</i>	61-454	\$375
	<i>Magnetic Wheelspeed Amplifier</i>	60-591	\$395

## FUEL FLOW



<i>Fuel Flow sensor</i>	60-575	\$1250
<i>Various flow rates available</i>		

## LAP BEACON



<i>Beacon Receiver, Lap only</i>	73-051	\$750
<i>16 channel codes, Autosport connector</i>		
<i>Beacon Receiver, Lap &amp; Split</i>	73-052	\$1,450
<i>32 channel codes, Autosport connector</i>		



<i>Beacon Transmitter, Lap &amp; Split</i>	73-014	\$650
<i>32 channel codes</i>		

## WIDE BAND LAMBDA SENSORS



<i>NGK lambda sensor (mil-spec)</i>	60-613	\$595
-------------------------------------	--------	-------



<i>NGK amplifier – single (mil-spec)</i>	60-615	\$995
<i>NGK amplifier - dual (mil-spec)</i>	60-612	\$1,695



<i>NGK extension harness, 42"</i>	60-614	\$475
<i>NGK extension harness, 60"</i>	60-616	\$495



<i>Exhaust pipe boss for lambda sensor</i>	60-607	\$30
--	--------	------

## ADVANCED CHASSIS SENSORS

### ACCELEROMETERS



Single axis accelerometer +/- 5G

60-582

\$895



3-axis accelerometer +/- 5G

60-585

\$1,800

### GYRO



Gyro, motorcycle mapping

60-578

\$750

Gyro, vehicle dynamics

60-579

\$1,800

### AERODYNAMIC PRESSURE



Single channel pitot pressure sensor

60-580

\$550

Dual channel pitot pressure sensor

60-586

\$1,190

8-channel differential pressure sensor

60-581

\$2,750

### RIDE HEIGHT SENSOR



Kit 1, 3 heads, cables

60-570

\$6,750

Kit 2, 4 heads, cables

60-571

\$8,500

Ride Height Sensor

60-572

\$2,250

Ride Height Sensor Extension Harness

74-902

\$395

### AMPLIFIERS



In-Line strain gauge amplifier

60-593

\$695

## TIRE PRESSURE MONITORING SYSTEM



<i>Kit 1, 12 Wheel Transmitters, 1 Receiver</i>	60-901	\$12,995
<i>Kit 2, 24 Wheel Transmitters, 1 Receiver</i>	60-902	\$19,995



<i>TMS Receiver</i>	60-910	\$2,995
---------------------	--------	---------



<i>TMS Wheel Transmitter</i>	60-911	\$850
<i>TMS Bolt</i>	11-901	\$10
<i>TMS Transmitter - Change Battery</i>	60-920	\$125
<i>TMS Transmitter - Full Service</i>	60-921	\$250

## TELEMETRY SYSTEMS



EFI's Telemetry System is an essential tool that provides teams with continuous data from the racecar to monitor critical functions and determine the optimum race strategy. Complex math functions for vehicle dynamics are calculated in real-time to help reduce chassis setup time. Alarms alert the team of any engine parameter out of range and a Fuel Strategy program determines the optimum pit stop sequence.

### Features:

- Send up to 128 channels
- Up to 38400 baud rate
- 902-928 MHz frequency-hopping
- High transmission security
- Multi-Rate transfer
- Real-time math

### Applications:

ChampCar	ALMS
Indy Racing League	GrandAm

## TELEMETRY KIT



Complete Telemetry Kit, including:  
2 radios, antennas, cables, power supply and PC cable

80-102 \$8,495

## TELEMETRY SOFTWARE



V8.0 Telemetry Software	95-704	\$1,595
V8.0 Fuel Strategy Program	95-705	\$1,595

## ACCESSORIES



*Car Transmitter Radio*

80-203

\$3,995

*Pit Receiver Radio*

80-203

\$3,995



*Car Antenna*

80-306

\$25



*Car Antenna Cable, 3ft*

80-315

\$125



*TNC-TNC Bulkhead mount*

22-027

\$25



*Pit Antenna*

80-311

\$195



*Pit Antenna cable, 30ft*

80-315

\$285



*Pit Receiver to PC cable with AC Power supply*

80-309

\$295



## *EFI Technology 2010 Motorsports Product Catalog*

*Rev. 1.0*

### **TECHNICAL SUPPORT**

*EFI Technology provides a full complement of Technical Support services to ensure you get the maximum benefit from your system. Our Support Staff are available to visit your facility to provide assistance with system design, installation, and diagnostics and also provide various in-house services:*

- *System Training*
- *Repairs*
- *Refurbishment Program*
- *Technical Support*

## REPAIRS

The following charges will be applied to all service and repair items. A quotation will be provided following an initial inspection. The minimum charge is applied to all items returned to EFI Technology for test or inspection.

### ENGINE CONTROL SYSTEMS

	<b>Part #</b>	<b>Minor</b>	<b>Standard</b>	<b>Major</b>
Race ECU	R50-001	N/A	\$650	\$950
Performance ECU	R50-003	\$350	\$650	\$950
Race 3.1 ECU	R50-010	\$300	\$900	\$1,500
Race 2.1 ECU	R50-015	\$250	\$750	\$1,200
Race 1.8 ECU	R50-017	\$250	\$500	\$950
Race 2.5 ECU	R50-018	\$250	\$750	\$1,200
Race 1.9 ECU	R50-019	\$250	\$650	\$1,100
1 channel CDI	R51-001	\$120	\$225	\$325
4 channel CDI	R51-011	\$120	\$275	\$350
8 channel CDI	R51-002	\$150	\$325	\$525
LCD Replacement	R63-002	N/A	\$750	N/A
Repair harness	R65-001	\$150	\$350	\$475

### DATA LOGGING SYSTEMS

	<b>Part #</b>	<b>Minor</b>	<b>Standard</b>	<b>Major</b>
Logger, Level 1	R73-015	\$175	\$450	\$950
Logger, Level 2	R73-018	\$250	\$650	\$1,100
Logger, Level 3	R73-019	\$250	\$750	\$1,250
Logger, Level 4	R73-021	\$350	\$850	\$1,500
Junction Box	R73-016	\$125	\$350	\$525
Beacon Receiver, 16	R73-020	\$125	\$250	\$395
Beacon Receiver, 32	R73-013	\$175	\$350	\$525



## REFURBISHMENT PROGRAM

*EFI Technology recommends that all Engine Control Systems and Data Logging Systems are returned for an annual inspection at the end of every season. As with all components on a racing vehicle, the electronic systems are subject to severe thermal and vibration stress. An Annual Refurbishment will ensure that all the components are ready for another season's use.*

### **Included in each Refurbishment package:**

- Full test and inspection of all hardware components
- Repair of any minor damage
- Replacement of internal battery
- Upgrade to latest hardware level
- Upgrade to latest internal software version
- Upgrade to latest PC software version at current level
- Extended manufacturer's warranty for 6 months

### ENGINE CONTROL SYSTEMS

		1-2 Year old	2-3 Year old
Race 1.0 System	S50-023	\$550	\$625
Race 1.8 System	S50-017	\$1200	\$1700
Race 1.9 System	S50-019	\$1500	\$2000
Race 2.1 System	S50-015	\$1800	\$2300
Race 4.0 System	S50-018	\$2250	\$2750

### DATA LOGGING SYSTEMS

		1-2 Year old	2-3 Year old
Logger, Level 1	S73-015	\$1200	\$1700
Logger, Level 2	S73-018	\$1500	\$2000
Logger, Level 3	S73-019	\$2250	\$2750
Logger, Level 4	S73-020	\$2750	\$3250

*Please Note: Any systems over 3 years old can be tested and repaired but no extended warranty will be provided.*

*Harnesses cannot be reliably serviced or guaranteed due to the various forms of stress they endure in a season. Therefore, EFI Technology Inc recommends that all harnesses are visually inspected regularly and replaced every 2 years.*

## **TRACK SUPPORT**

*EFI Technology provides support at both clients' premises and at the track.  
Support charges are based on travel expenses incurred plus the daily flat rate.*

<i>Track Support, per day, exclusive of travel expenses</i>	<i>\$600</i>
<i>Travel Day, per day, exclusive of travel expenses</i>	<i>\$300</i>

## **SUPPORT CONTRACTS**

*Support Contracts are available for customers participating in the following series:*

- **CART**
- **Indy Racing League**
- **Toyota Atlantics**
- **TransAm**
- **ALMS**
- **GrandAm**

*A Support Contract provides the following services:*

- *Support Engineer attendance at race and test events*
- *Continued system training*
- *Assistance with system diagnostics*
- *Access to emergency spare components*
- *Unlimited phone support*
- *Access to restricted area on web site for file downloads*