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**Buell®**  
AMERICAN MOTORCYCLES

A Harley-Davidson® Company

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There's no mistaking a Buell®. The blend of individuality, function, aggression and sheer street presence is unique, the towering strength of the muscular V-twin engine astounding. It's deeply animate, breathtakingly compelling.

It's no accident, either. The design of every Buell is led by fundamental engineering principles – the styling follows so it complements, not compromises the machine, and the ride is exceptional as a result.

Those principles are the inspiration of Erik Buell, company founder and both racer and race engineer. Erik has seen and experienced how ideas that work on the race track are just as valid on the road, the ideas behind his mission to create motorcycles which are supreme in real-world, road riding conditions.

Principle One is the centralisation of mass, drawing as much of the bike's weight as possible towards its centre. This sharpens the steering, quickens the response. That's why the shock absorber and silencer are tucked in tight under the engine. Not for looks, not style for its own sake, but for sound engineering reasons. Audacious certainly, yet inherently right, both visually and dynamically.

Principle Two is frame rigidity, the decisive factor behind the taut, controllable feel of every Buell. Buell has the engine helping the frame, the two joined together by Buell's unique Uniplanar™ engine mounting system, which isolates vibration from the rider yet adds stiffness to the frame.

Principle Three is the focus on minimising unsprung weight. The more this is reduced, the better the tyres can track the road surface, the less hard the suspension has to work, the faster the bike can turn, the harder the bike can accelerate and brake. It matters, and to Buell it matters a lot. See that huge single front disc? Powerful certainly, yet up to 2kg lighter than equivalent twin disc set ups.

Ideas are fine, but it's the ride that counts. You've read why a Buell is different, now try one out and feel what we mean.

# 2000 Catalogue



Blue Streak



Carbon Black



Molten Orange



Reactor Yellow



# M2 Cyclone™

The M2 Cyclone™ is the epitome of everything that's right about a Buell® – a real world motorcycle designed to take on whatever the rider demands, whenever it's needed.

Feel an urge to ride fast? Then enjoy the precision of the handling, the sure-footedness on unknown terrain, the satisfaction of sweeping through a difficult turn, motorcycle working with you all the way.

Relish the brakes, thrusting you forward as the front wheel is pinned to the road. And be in awe at the strength of the V-twin engine, blisteringly fast with its colossal torque.

Perfect for a challenging ride, yet just as effective when it's time to relax, the chassis stable and dependable, the engine laid back, easy to use with the trademark Buell torque rush just a twist of the wrist away.

The perfect all-round machine but it's a Buell, so there's more. The looks are lean, simple and purposeful. The Thunderstorm™ engine oozes character like it churns out torque – fast and furious or calm and controlled, but always low-revving and progressive. And rewardingly distinctive.

Sounds good to read about, but that's nothing. Just wait until you've tried it. Get ready to have your motorcycling senses reawakened.



Buell® M2 Cyclone™ in Reactor Yellow



## 2000 Buell M2 Cyclone Specifications

### Engine

- **Type:** Air cooled, four-stroke, 45 degree V-Twin
- **Displacement:** 1203cc
- **Bore and Stroke:** 3.5 x 3.8 in./88.8 x 96.8mm
- **Compression Ratio:** 10:1
- **Valve Train:** OHV, two valves per cylinder, hydraulic adjusters
- **Valve Adjustment:** Self adjusting
- **Fuel Delivery:** 40mm Keihin CV Carburetor
- **Exhaust:** Free-Breathing 2 into 1 collector
- **Air Cleaner:** Helmholtz Volume Power System
- **Torque/HP:** 83 ft-lbs/113Nm @ 5,600 rpm. 93.5 hp/70kW @ 6,100 rpm
- **Lubrication:** Dry sump, 1.89L capacity
- **Oil Filtration:** Screw-on disposable element

### Transmission

- **Type:** Five-speed, constant mesh
- **Ratio:** (1) 2.69, (2) 1.85, (3) 1.43, (4) 1.18, (5) 1.00
- **Primary Drive:** Triplex chain; ratio 1.6:1
- **Clutch:** Wet, multiplate
- **Final Drive:** Kevlar® belt; ratio 1.9:1

### Chassis

- **Frame:** Tubular perimeter chrome-moly with Uniplanar™ powertrain vibration isolation system; black finish
- **Wheelbase:** 55.5 in./141cm
- **Rake:** 24.5 degree
- **Trail:** 3.8 in./9.7cm
- **Front Suspension:** Showa® forks with adjustable rebound damping and preload
- **Rear Suspension:** Aluminum arc swingarm; Showa® extension type damper with adjustable compression damping and spring preload
- **Front Wheel Travel:** 4.7 in./11.9cm
- **Rear Wheel Vertical Travel:** 4.6 in./11.7cm
- **Front Brake:** Six piston caliper; 340mm stainless steel floating rotor

- **Rear Brake:** Single piston caliper; 230mm stainless steel rotor
- **Front Wheel:** 3-spoke cast, 3.5 x 17; black finish
- **Rear Wheel:** 3-spoke cast, 5.0 x 17; black finish
- **Front Tyre:** Dunlop Sportmax Touring Radial, 120/70 ZR17 D205F
- **Rear Tyre:** Dunlop Sportmax Touring Radial, 170/60 ZR17 D205
- **Fuel Capacity:** 20.84 L (2.27 L reserve)
- **Fuel Consumption – EPA Test Reg.:** 54mpg City 64mpg Highway
- **Gross Vehicle Weight Rating:** 830 lbs./376.5 kg
- **Dry Weight:** 435 lbs./197.3 kg
- **Load Capacity:** 395 lbs./179.2 kg
- **Seat Height:** 29.5 in./74.9cm
- **Ground Clearance:** 5.2 in./13.2cm

### Instruments

Electronic speedometer, odometer, tripmeter, warning light for low oil pressure, indicators for high beam, turn signals and neutral

### Electrical

- **Charging System:** 297 watt AC alternator; solid state regulator/rectifier
- **Battery:** 12 volt, 18 amp-hour, SLA (sealed lead acid)
- **Headlight:** 60/55 watts
- **Taillight:** 5/21 watts
- **Turn Signals:** Manual cancelling

### Colours

Blue Streak, Carbon Black, Reactor Yellow, Molten Orange

# X1 Lightning™



Buell® at its baddest! Daring you not to react, not to stare. Just give in – appreciate the extreme style, the take-no-prisoners attitude and, of course, the originality. Forget conventional labels – the Sportfighter is here.

Note how well the X1™ suits the rider, with the natural, commanding riding position. But take a bigger step – test ride one, and discover how the whole bike is designed around you. Not intimidating but compliant, smart and built to be ridden on real roads.

The handling is sharp and agile, the huge torque engine kept in check with eye-watering force by that giant front disc brake.

The mixture is bizarre – a paradox on two wheels. Brutal presence that's awesome to behold, matched to a dynamic precision and ability that make this truly a motorcyclist's machine.

This year it's better than ever, thanks to Buell's policy of constant refinement and testing, upgrading and perfecting. A new muffler and recalibrated fuel injection have given the X1 Lightning's Thunderstorm™ engine stronger mid-range torque than ever, without any sacrifice of peak horsepower. The gear ratios are revised as on the M2™ to take full advantage of the extra muscle.

Better acceleration demands better braking, so the 2000 model year Buell range all use new DOT 4 brake fluid and a new brake rotor to maintain braking power even when the heat is really on.

We don't say "Ride one if you dare". This bike offers such an uncompromising, fun riding attitude we dare you *not* to ride it...



Blue Streak



Carbon Black



Molten Orange



Reactor Yellow



Red Snap



Buell® X1 Lightning™ in Red Snap with optional PM wheels



## 2000 Buell X1 Lightning Specifications

### Engine

- **Type:** Air cooled, four-stroke, 45 degree V-Twin
- **Displacement:** 1203cc
- **Bore and Stroke:** 3.5 x 3.8 in./88.8 x 96.8mm
- **Compression Ratio:** 10:1
- **Valve Train:** OHV, two valves per cylinder, hydraulic adjusters
- **Valve Adjustment:** Self adjusting
- **Fuel Delivery:** Dynamic Digital Fuel Injection™ (DDFI)
- **Exhaust:** Free-Breathing 2 into 1 collector
- **Air Cleaner:** Helmholtz Volume Power System
- **Torque/HP:** 86ft.lbs./116Nm @ 5,600 rpm. 95hp/71kW @ 6,200 rpm
- **Lubrication:** Dry sump, 1.89L capacity
- **Oil Filtration:** Screw-on disposable element

### Transmission

- **Type:** Five-speed, constant mesh
- **Ratio:** (1) 2.69, (2) 1.85, (3) 1.43, (4) 1.18, (5) 1.00
- **Primary Drive:** Triplex chain; ratio 1.6:1
- **Clutch:** Wet, multiplate
- **Final Drive:** Kevlar® belt; ratio 1.9:1

### Chassis

- **Frame:** Tubular perimeter chrome-moly with Uniplanar™ powertrain vibration isolation system. Cast aluminium tail section. Black finish or Nuclear Blue option at extra cost (not available with Blue Streak bodywork)
- **Wheelbase:** 55.5 in./141cm
- **Rake:** 23 degree
- **Trail:** 3.5 in./8.9cm
- **Front Suspension:** Showa® inverted forks with adjustable compression and rebound damping
- **Rear Suspension:** Aluminum arc swingarm; Showa® extension type damper with adjustable compression damping, rebound damping and spring preload
- **Front Wheel Travel:** 4.7 in./11.9cm
- **Rear Wheel Vertical Travel:** 4.6 in./11.7cm
- **Front Brake:** Six piston caliper; 340mm stainless steel floating rotor

- **Rear Brake:** Single piston caliper; 230mm stainless steel rotor
- **Front Wheel:** 3-spoke cast, 3.5 x 17; finish colour matched to frame
- **Rear Wheel:** 3-spoke cast, 5.0 x 17; finish colour matched to frame
- **Front Tyre:** Dunlop, 120/70 ZR17 D207F
- **Rear Tyre:** Dunlop, 170/60 ZR17 D207
- **Fuel Capacity:** 16.33L (low fuel light at 1.9L)
- **Fuel Consumption – EPA Test Reg.:** 54 mpg City 64 mpg Highway
- **Gross Vehicle Weight Rating:** 820 lbs./372 kg
- **Dry Weight:** 440 lbs./200 kg
- **Load Capacity:** 380 lbs./180 kg
- **Seat Height:** 29.5 in./74.9 cm
- **Ground Clearance:** 4.9 in./12.5cm

### Instruments

Electronic speedometer, tachometer, odometer, tripmeter, low fuel light, engine check light, warning light for low oil pressure, indicators for high beam, turn signals and neutral

### Electrical

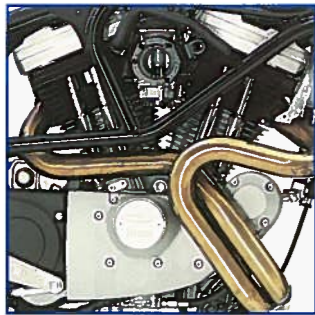
- **Charging System:** 297 watt AC alternator; solid state regulator/rectifier
- **Battery:** 12 volt, 18 amp-hour, SLA (sealed lead acid)
- **Headlight:** 60/55 watts
- **Taillight:** 5/21 watts
- **Turn Signals:** Manual cancelling

### Colours

Carbon Black, Reactor Yellow, Red Snap, Molten Orange, Blue Streak (not available with Nuclear Blue Frame)

### Optional Features (at extra cost and subject to availability)

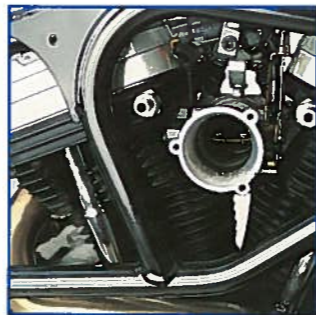
- **Wheels:** Buell P/M 3.5 x 17 front and 5.5 x 17 rear spun polished aluminium wheels
- **Frame and Wheel colour:** Nuclear Blue (not available with Blue Streak bodywork)



Buell's awesome Thunderstorm™ V-twin engine, which is built by Harley-Davidson® to exacting specifications, is honed for peak torque and power. Stunning performance is enabled by longer duration cams, lighter flywheels and high compression cylinder heads with bigger valves and revised ports.



Sinuous, big-bore stainless steel header pipes flow into a tuned large volume muffler. This enables exhaust gases to flow freely but the muffler internals are scientifically tuned to cancel problem noise frequencies whilst generating back pressure to enhance performance.



The X1's Thunderstorm™ engine is fuelled by Buell's unique Dynamic Digital Fuel Injection™ (DDFI) system. Its closed loop design monitors conditions inside and outside the engine, constantly checking fuel to air mixture, ambient air temperature and humidity, engine temperature, barometric pressure and exhaust output to ensure optimum performance. The system has been upgraded for 2000 to improve low and mid-range performance, without sacrificing peak power.



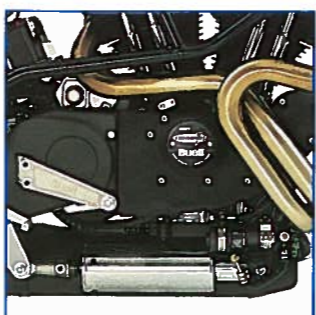
2000 Buell  
M2 Cyclone™ in Reactor Yellow



All Buell models feature a huge 340mm floating front disc brake with a six piston caliper, offering immense braking capability. For 2000, the disc has been upgraded to improve durability and DOT 4 brake fluid has been used to improve braking under the most heated conditions.



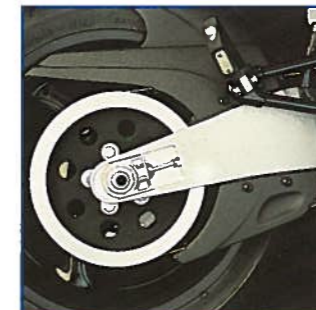
A single disc and one six piston caliper are used to reduce unsprung weight, which improves roadholding and feedback.



All Buell suspension is supplied by Showa®, a renowned suspension specialist with immense expertise, technical resources and GP racing experience. The horizontal rear shock has no maintenance-intensive linkages and allows a short wheelbase. It also aids mass centralisation to improve handling agility.



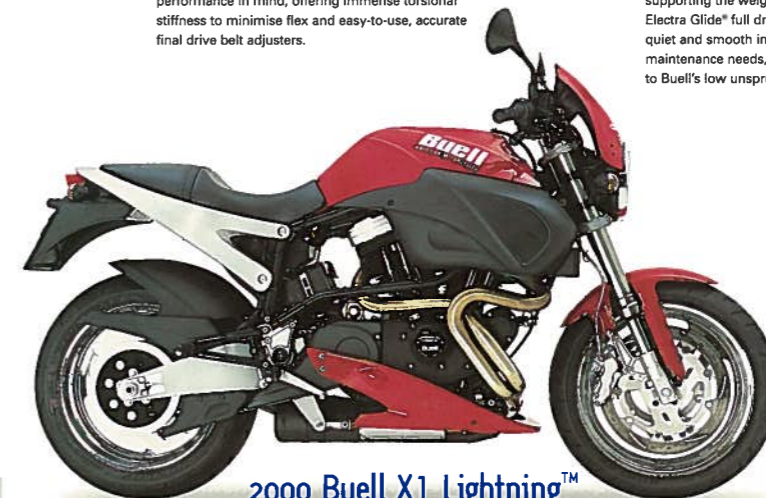
The patented Uniplanar™ engine isolation system uses rubber mounts to isolate vibration from the engine, to which the swingarm assembly is bolted. Rose-jointed tie-rods restrict the movement allowed by the rubber mounts to a vertical plane to ensure constant wheel alignment. The light, triangulated chrome-moly frame is immensely strong to ensure handling integrity.



All models feature a deep-section cast aluminium swingarm which looks outstanding but was designed first and foremost with functional performance in mind, offering immense torsional stiffness to minimise flex and easy-to-use, accurate final drive belt adjusters.



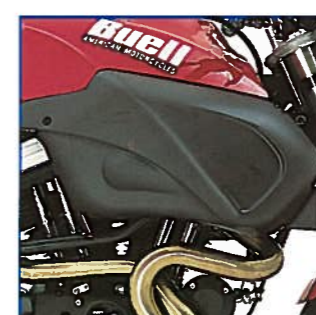
Buell's immensely strong and durable toothed final drive belt is reinforced with twelve or more Kevlar® strands, each of which is capable of supporting the weight of a Harley-Davidson® Electra Glide® full dresser tourer! The belt is clean, quiet and smooth in operation, with low maintenance needs, and its lightness contributes to Buell's low unsprung weight.



2000 Buell X1 Lightning™  
in Red Snap with optional PM wheels



One of Buell's® most distinctive features is the large volume Helmholtz Resonator airbox. It's not just an empty box – inside, tuned ducts and chambers allow free air-flow for instant throttle response and peak performance, but cut down induction noise to meet European noise regulations.



The X1™ features a similar large volume airbox to enable stunning performance, but the design is integrated with the form of the fuel tank cover for improved styling.

# Buell® Components

FREE  
BUELL®  
TEST RIDE  
COUPON

Fill out this coupon and take it to your nearest Buell dealer to arrange a free demonstration ride on a Buell motorcycle\*. Call the appropriate country phone number on the back of this brochure to find your nearest dealer.

\* Demos subject to availability. If you are unable to arrange a test ride on the model of your choice, please call the phone number on the back of this brochure.



**Buell®**  
AMERICAN MOTORCYCLES



A Harley-Davidson® Company



Billy Graef cornering hard on his Buell S1 Lightning™ race bike on his way to winning the 1998 Buell Lightning Race series.



Shawn Higbee, Buell employee and outstanding racer, leads the pack on his Harley-Davidson™ sponsored Buell racer.



Higbee's conclusive victories over race bikes from other world class sports brands have put Buell at the top of the podium in the AMA Pro Thunder series in the States.



Attention to detail - a dedicated Buell employee working by hand to ensure a top quality paint finish.



The Buell assembly line now produces 7,500 bikes a year and counting.



Monumental 1200cc V-Twin engines, produced by Harley-Davidson to Buell's tuned specification, await installation at the Buell factory.



Erik Buell, company founder of Buell American Motorcycles.

## The Buell® Story so far...

Erik Buell rode his first motorcycle at the age of twelve and was instantly hooked. Later, when he took a job at a local motorcycle dealership to pay for night school classes, he rapidly worked his way up from trainee mechanic to service manager.

During that time, he started road racing at amateur level and his dedication and talent soon took him to the highest level of professional racing in the States. In 1978, he recorded the fastest newcomer qualifying time for the Daytona 200 race.

Erik attained his degree in engineering with one intention - he wanted to continue to work with motorcycles. After graduating, he went to work for Harley-Davidson® as a chassis engineer. Through his time with Harley® he holds several motorcycle-related component patents.

Erik left Harley-Davidson in 1982 to pursue the dream of creating his own race bike. He developed the square-four, two-stroke RW750 to compete in the AMA Formula 1 road race series. A rule change rendered the RW750 ineligible for the class so Erik turned his talents to creating an American sportbike for the street. Harley-Davidson supplied Erik with engines for a series of innovative models between 1987 and 1993, each of which incorporated unprecedented features. For example, Buell was the first manufacturer to use upside down front forks and braided steel brake hoses on a production motorcycle.

By 1993, Harley-Davidson had decided to expand its business by attracting new customers in new market segments. Harley had been keeping a close eye on Erik's work and naturally turned to him at this time. In February 1994 the new Buell Motorcycle Company was born, 49% owned by Harley-Davidson. Four years later, Harley purchased a further 49% of the company to become the majority investor, with Erik retaining a 2% share and a long term employment contract to ensure continuity of line in terms of innovation, engineering and styling. The Buell Motorcycle Company was now a subsidiary of Harley-Davidson, Inc.

With the full support and backing of Harley since 1993, Buell has introduced a series of mould-breaking, provocative sport and standard motorcycles for the street. The 2000 model year range represents further refinement of the already proven and acclaimed Buell models.

In the late 1980's, Buell's annual motorcycle production could be counted in hundreds. Today, the purpose built factory in East Troy, Wisconsin has over two hundred dedicated employees, who assemble in excess of 7,500 bikes a year. This aggressive growth is set to continue.

Erik Buell still rides thousands of miles every year with considerable spirit, skill and passion.

## Race Bred

As a former road racer and talented engineer, Erik Buell has been able to incorporate much of what he learned on the track in today's road-going Buell motorcycles. Buell still uses the race track to test and validate technological developments, to improve the production motorcycles. Through competing against other world class sport brands in the AMA Pro Thunder Series and a growing number of factory or dealer supported rides around the world, Buell uses the heat of competition to temper its motorcycles. Racing will continue to play a vital role in Buell's R&D programme.



1984 The very first Buell motorcycle - the square-four, two-stroke RW750 racer - is created.



1987 The RR1000 Battlewin™, powered by the Harley-Davidson® XR1000™ engine and clad in aerodynamic bodywork, is launched.



1989 The RS1200 Westwind™, the first Buell without fully enclosed bodywork, is introduced. © Dave Gess 1989.



1994 The S2 Thunderbolt is the first Buell to be introduced in partnership with the Harley-Davidson® Motor Company.



1995 The "Hooligan Torque Beast" S1 Lightning™ is unleashed and is acclaimed by the worldwide motorcycle press.



1997 The M2 Cyclone™ debuts as a versatile all-rounder and is proclaimed a "Suburban Assault Vehicle".



1998 The S1 White Lightning™, with the high torque Buell Thunderstorm™ engine, redefines the Factory Streetfighter category.



1999 The X1 Lightning™, featuring Dynamic Digital Fuel Injection™ is an instant success.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Postcode: \_\_\_\_\_

Age: \_\_\_\_\_ Male/Female: \_\_\_\_\_

Daytime phone number: \_\_\_\_\_

Evening phone number: \_\_\_\_\_

Make/model/year of current motorcycle: \_\_\_\_\_

Intent to purchase new bike soon? Yes  No