

INSTRUCTION SHEET

Buell
AMERICAN MOTORCYCLES

-J03035

Kit Numbers 82004-03Y

REV. 06-20-03

BUELL PRO SERIES RACE KIT

General

This race Kit fits the Buell 2004 and later XB12 models. This instruction sheet covers the following components: muffler, ECM, and air cleaner.

NOTES

A Service Manual for your vehicle is available at your local Buell Dealer.

There are no Service Parts available for this kit.

The following kit contains:

Qty	Kit Contents
1	ECM, XB Lightning/Firebolt
1	Muffler
1	Air Cleaner

WARNING

A Service Manual is necessary for installation of this kit. The rider's safety depends upon the correct installation of this kit. If the procedure is not within your capabilities or you do not have the correct tools, have your Harley-Davidson dealer perform the installation. Improper installation of this kit could result in death or serious injury.

CAUTION

This Race Kit is intended for racing applications only. Buell motorcycles modified with some performance engine parts must not be used on public roads and in some cases may be restricted to closed course competition. This kit is intended for racing applications only and is not legal for sale or use in California on pollution controlled vehicles. Alterations of emission-related components constitutes tampering under the US EPA guidelines and can lead to substantial fines and penalties.

CAUTION

This engine related performance part is intended for high performance and racing applications and is not legal for sale or use on pollution controlled motor vehicle warranty. Engine related performance parts are intended for the experience rider only

Removing Original Equipment

Air Cleaner

Refer to the applicable Buell service manual for removal of original air cleaner.

See Figure 1. When removing air cleaner, also remove air box snorkel. Air cleaner snorkel should only be removed if installing the muffler and ECM included in this kit.

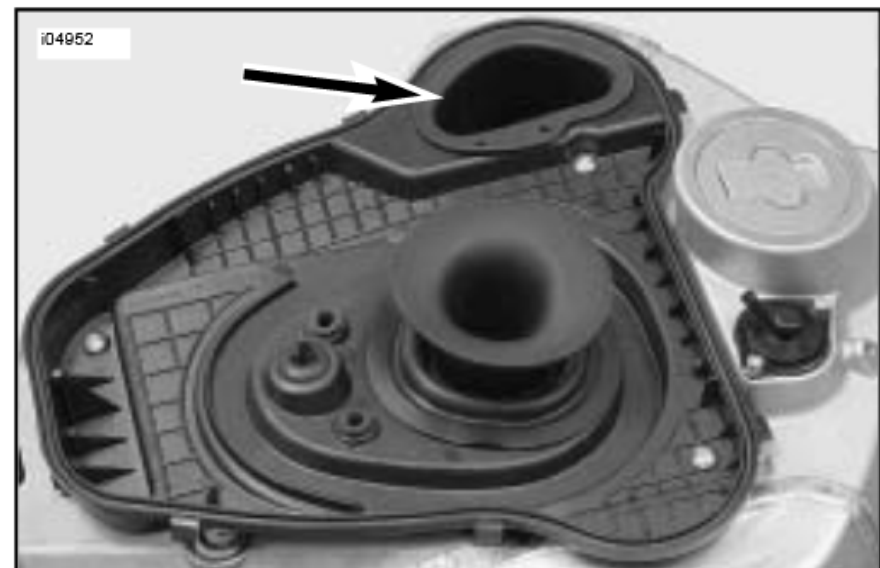
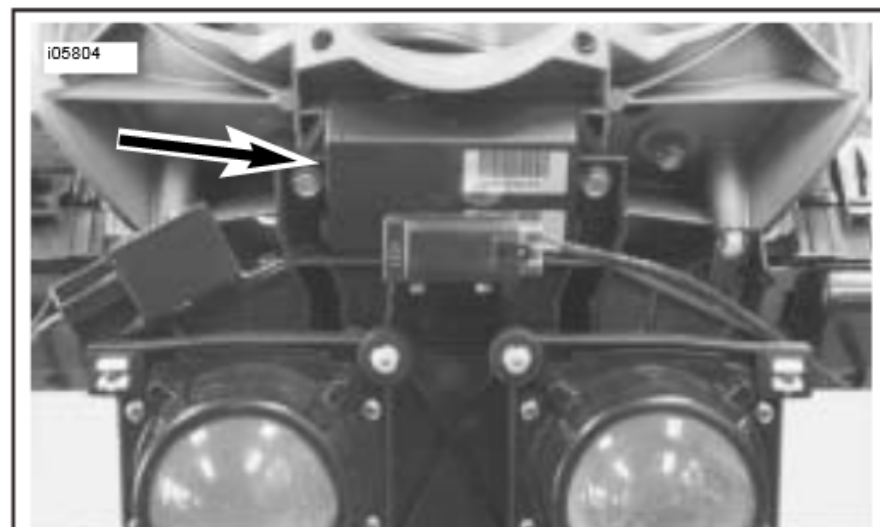
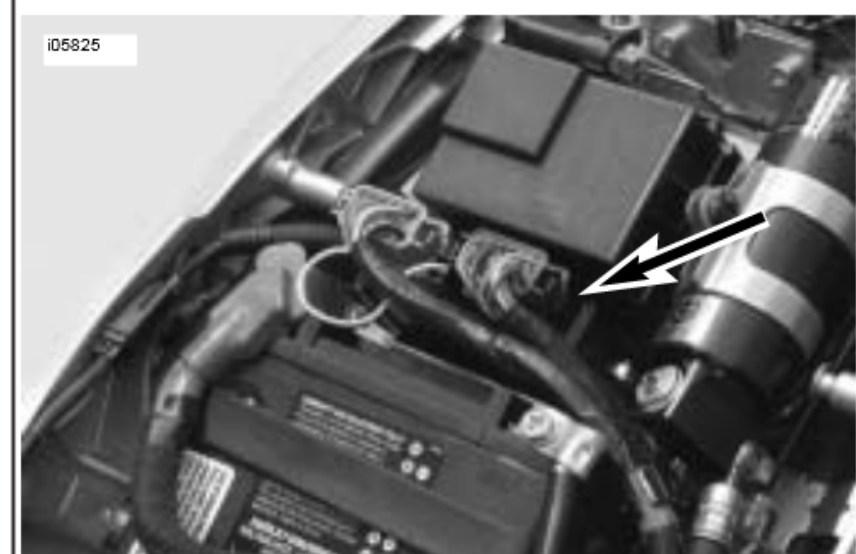


Figure 1. Air Box Snorkel



XB12R



XB12S

Figure 2. ECM XB12 Models

ECM

See Figure 2. Refer to the applicable Buell service manual for removal of original ECM.

Muffler

1. See Figure 3. Remove active muffler. Refer to the muffler removal procedure in the appropriate service manual.
2. Remove active muffler cable. Refer to the cable removal procedure in the appropriate service manual.

Installation of Kit Components

Air Cleaner

Refer to the applicable Buell Service Manual for installation of air cleaner.

See Figure 1. Before reassembling airbox with new air cleaner, make sure air box snorkel is removed.

ECM

See Figure 2. Refer to the applicable Buell Service Manual for installation of new ECM.

NOTE

Installing the new ECM will require re-calibration of the throttle-position sensor. Re-calibration of the throttle-position sensor can only be done using DIGITAL TECHNICIAN (Part Number H-D-44750).

Muffler

NOTES

Torca muffler clamps have eliminated the need for silicone or graphite tape during assembly. To ensure sealing integrity of muffler clamps and prevent the possibility of leakage, Buell recommends that muffler clamp assemblies be discarded and replaced each time they are removed.

1. Install muffler and new Torca clamp onto header.

NOTE

If necessary, use a fiber hammer to fit muffler on header.

WARNING

Never reuse front muffler strap. Always replace front muffler strap with a new strap when removed from system.

2. See Figure 3. Loosely install new front and rear muffler straps (2, 5).

WARNING

Muffler straps must be tightened in steps to keep from over tightening or muffler will be crushed.

WARNING

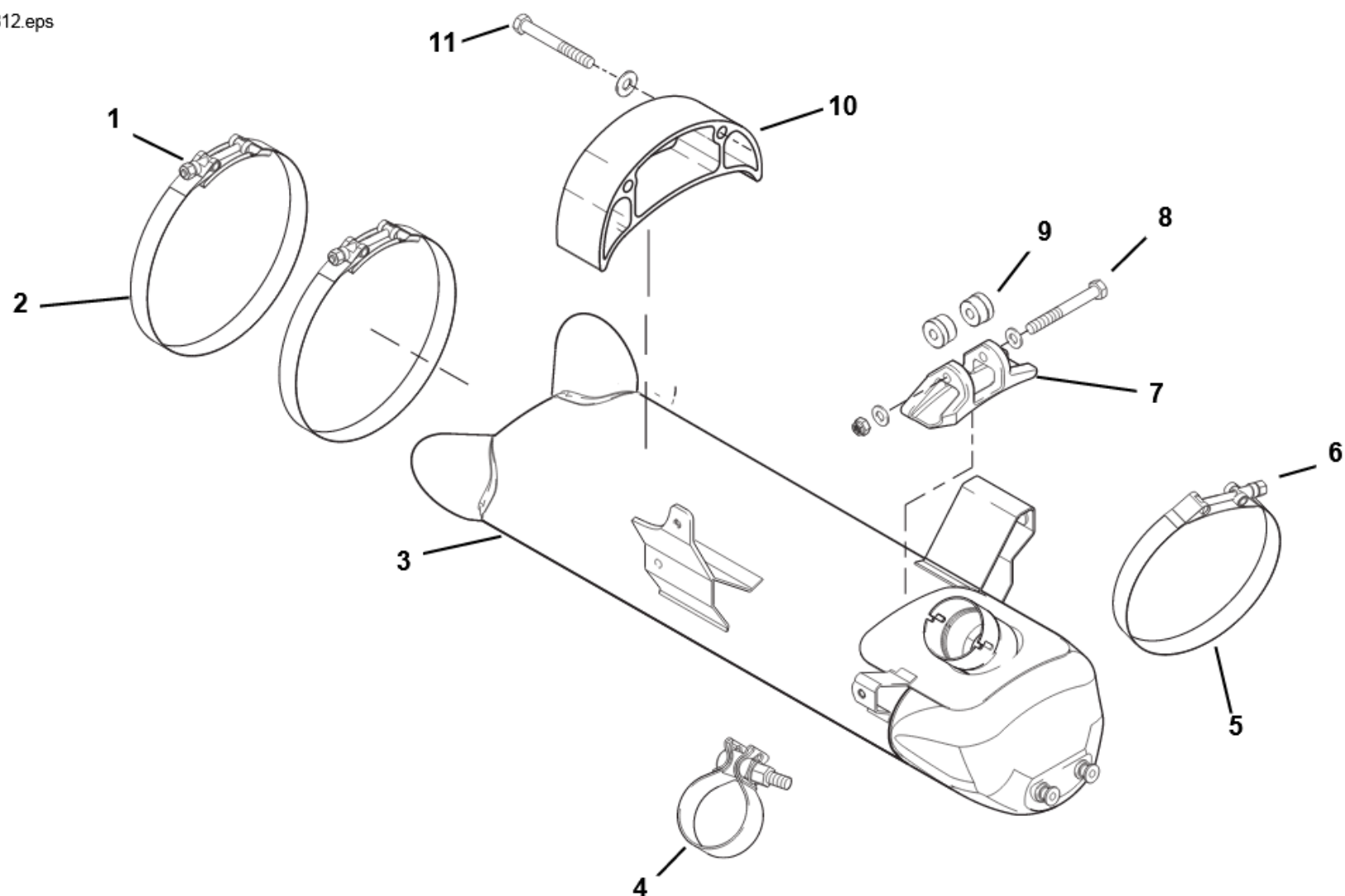
Always ensure that straps do not contact the chin fairing or the idler pulley assembly.

3. Tighten front strap fastener and alternately tighten rear muffler strap fasteners evenly till fasteners are tightened to:

Front: 108-120 in-lbs (12-14 Nm).

Rear: 48-60 in-lbs (5-7 Nm).

4. Tighten front muffler mount fastener (8) to 16-18 ft-lbs (21.7-24.4 Nm).
5. Tighten the Torca clamp (4) to 40-45 ft-lbs (54-61 Nm).
6. Install idler pulley. Refer to the DRIVE BELT installation in appropriate Service Manual.
7. Install front sprocket cover. Refer to the SPROCKET COVER installation in appropriate Service Manual.
8. Install chin fairing. Refer to the CHIN FAIRING installation in appropriate Service Manual.



Item	Description	Item	Description
1.	Rear muffer strap fastener	7.	Front muffer strap mount
2.	Rear muffer strap	8.	Front muffer strap mount fastener
3.	Race muffer	9.	Front muffer strap mount bushings
4.	Torca clamp	10.	Rear muffer strap mount block
5.	Front muffer strap	11.	Rear muffer strap mount fasteners
6.	Front muffer strap fastener		

Figure 3. Muffer Assembly