



**MANIC**  
MOTORSPORT

# **ECU REFLASH FOR MINI COOPER 1.6 TURBO VIA OBDII**

**1 Business Day Turnaround for Most Stage 1 & Stage 2 Tunes**





# MANIC TUNES FOR GEN 2 MINI COOPER

## FEATURES & BENIFITS

- Software is uploaded to the ECU through the OBDII diagnostics port. NO NEED TO BREAK OPEN YOUR MINI's ECU.
- Manic is the ONLY system in the world that can flash MINI ECU's through OBDII. Avoid risky ECU disassembly and hacking.
- Developed for over 4 years.
- Tested worldwide on 1000's of MINIs running on the street and track.
- Dyno verified performance.
- Octane choices (91 or 93)
- Reliable and conservative increased power levels for long term engine reliability and great on-road drivability.(Stage 1 & Stage 2)
- Instant SPS switching between performance maps.
- Every Manic Tune comes with 4 unique maps\*
  - Stock
  - Performance A
  - Performance B
  - Performance C
  - \*Requires optional SPS Switch to switch between tunes
- Options available at additional cost: (stage 3 & higher)
  - Water/methanol injection\*
  - NOS Injection\*
  - BBQ Mode (enhanced pops and flames)
  - Custom features on request.
  - Larger Turbos
  - Built "race" engines

**MANIC IS THE MOST ADVANCED TUNE PACKAGE  
AVAILABLE FOR YOUR MINI....PERIOD!**

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## MANIC ECU TUNING

The following information is applicable to all MINI Cooper models using the BMW/PSA 1.6L turbo engines. (Engine designations N14B & N18B manufactured 2007-2016)

After 2 years of extensive research & development at Manic European and Asian HQs, coupled with real world data from dynamometer centers in the UK, Europe, Africa, the Middle East, Asia and Australia Manic now offers the most advanced ECU Tuning software available for the Gen 2 turbocharged MINIs. Two years fully deployed into the world market and installed in thousands of MINIs, Manic Stage Tuning has proven it can deliver extreme performance with great reliability and is the **ONLY** choice for true ECU reflash tuning.

### Manic Broke the Code!

Manic is the first company in the world to be able to directly upload software to the Bosch MEVD17x series of tuning protected (encrypted or locked) ECUs via the factory diagnostic interface (OBDII port).

Four levels of tuning are offered. Three for street driven MINIs and one for serious track competitors with professionally race built engines.

- Stage 1 | Daily driver use. For unmodified or lightly modified MINIs with perhaps a high flow intake and full emissions systems in place. Adds 20-35 wheel HP.
- Stage 2 | Street use. For modified MINIs with stock turbo, aftermarket intake, exhaust, intercooler system. Requires installation of a high flow aftermarket catalytic converter or catalytic converter removal.
- Stage 3 | Street & Track use. Same as Stage 2 plus a modified/larger turbo.
- Stage 4 | For internally modified professionally built high RPM race engines.

With every Stage 1 or higher Manic Tune you get four performance maps; a stock map and three performance maps in one! No need to connect to your laptop and reprogram the ECU. Just select the desired performance map setting on the optional SPS switch, plug in the switch into your car's OBDII port located under the dash next to the left kick panel, wait 3 seconds, unplug and you have changed the map. It requires no cables, computers, chargers, etc. Pocket sized and ready to go! It's switching not uploading.

Tuning options on Stage 3 & above are available for an additional cost. Some options available are:

- 91 or 93 Octane Gasoline (Stage 1-4)
- 100+ Octane Racing Gasoline (Stage 3 & 4 only)
- Water/methanol injection\*
- NOS Injection\*
- BBQ Mode (enhanced pops and flames)
- Custom features on request.



## **M7 SPEED**

M7 Speed & Performance is the world leader in MINI Cooper Performance and Tuning. We tune more MINIs and manufacture more MINI Performance Parts than most any other company on the Planet. In business for over 15 years M7 Speed & Performance focuses everyday on MINI Cooper performance and satisfied customers. We have seen it...done it...and know it!

***5 STAR RATINGS FOR QUALITY PRODUCTS,  
CUSTOMER SERVICE AND TECH SUPPORT***

### **WARNING Please Read This**

In todays world of computer controlled engines, sophisticated materials, advanced engineering simulation and BOOST, making big horsepower from most any modern production engine has become easier than ever before. All you need to do is add more air (via boost pressure) and more fuel (via injection control), light it off and wala ...MORE POWER. Todays modern engines can make twice or more horsepower then they come from the factory with. So why is it detuned. Because of government regulation, emissions and fuel mileage rules along with safety, reliability, weight, cost and warranty considerations. The factory will only give you just enough. In theory the 1.6 liter (97 cubic inches.....really?) engine in your Gen 2 MINI can make 300+ horsepower as it sits in your car. All it would need is a better breathing intake, intercooler and exhaust, high octane gasoline and the ECU adding a few extra PSI of boost pressure (approximately 25 psi [1.7 bar]) and a little more fuel to the system. It will make big power but it will not live for very long.

At these higher horsepower numbers (I.E. higher cylinder pressures and more frequent detonation events) the mechanical parts within the engine will fail in a hurry. Pistons, connecting rods and crankshafts will break, the oil system will struggle to keep adequate oil flowing to the bearings under the extreme pressures, the head bolts will stretch causing the head gasket seal to fail and the cooling system will not keep up with the heat rejection demands. Finally if everything else survives the turbo will meltdown. Not a pretty picture. You will have a pile of junk in a very short time. Why doesn't the factory make the parts stronger? Cost. Remember they only give you just enough. They didn't expect MINI owners to want 300+ HP so they didn't design for it.

Unless you are prepared to spend thousands of dollars and build a proper high horsepower engine with proper internals, cooling and oiling systems.....

**Do not exceed 265 HP from a stock 1.6L MINI Turbo engine.**

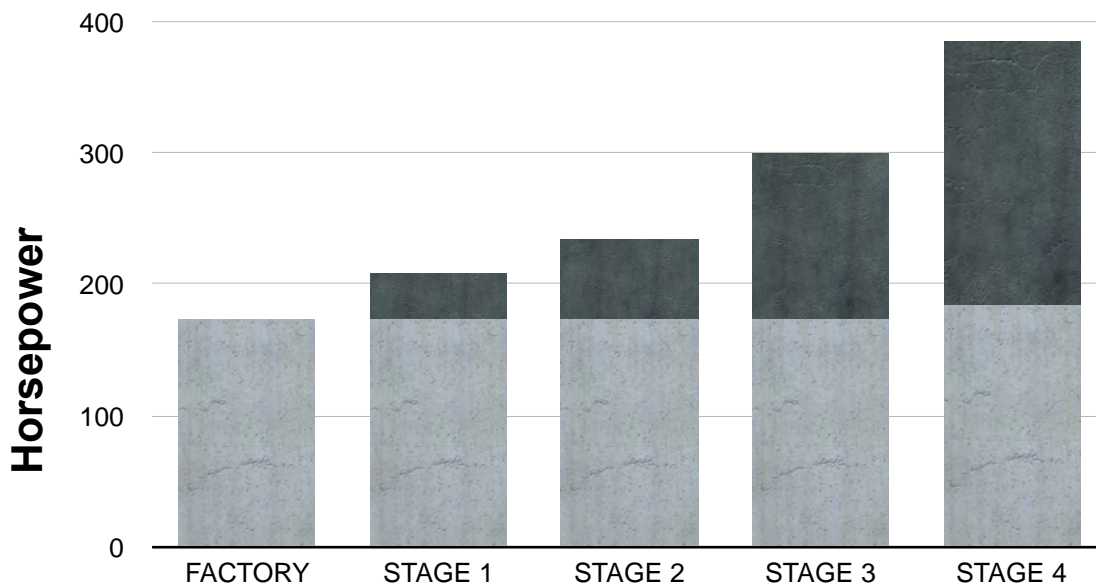
**It will BLOW UP!**

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**1 Business Day Turnaround for Most Stage 1 & Stage 2 Tunes**



## MANIC TUNE STAGES



### Stage 1

Designed for unmodified factory standard cars. Improves Power and Torque across the whole rev range giving your Mini the ability to outperform any Stock Hot Hatch currently on the road today. Coupled with the MINI's capable chassis, its Ideal for everyday use. A free flowing aftermarket intake intake system is recommended.

### Stage 2

Designed for cars running an upgraded intake, exhaust and intercooler systems, Stage 2 is for the more serious enthusiast. Great for everyday use on faster roads and Weekend track days, Stage 2 will find you matching higher powered American Muscle & German Touring cars... Turns your MINI into a street warrior and Porsche hunter. requires elimination of the factory catalytic converter or installation of a high flow aftermarket catalytic converter/downpipe.

### Stage 3

Stage 3 builds on the Stage 2 software platform. Adding a HYBRID or larger KO4 Turbo to the mix will turn the tables on most any performance road car or weekend warrior at the track. Now they will be chasing you. Ideal for Faster Road use, track days, sprint events and flexible enough to put a massive smile on any face, in any situation.

**EXPECT EVERYDAY DRIVABILITY TO BE DEGRADED. RECOMMENDED FOR WEEKEND WORRIER USE AND ON-TRACK EVENTS!**

### Stage 4

The Ultimate MINI upgrade program. Add the Manic Stage 4 tune to a race built engine and you can expect well north of 350HP under the hood of your MINI. Requires a fully forged and balanced rotating assembly, ported cylinder head with bigger valves, high-lift camshafts and upgraded fuel and oil systems. Producing more power than the MINI WRC car, this is not for the driver who scares easy!

**NOT RECOMMENDED FOR STREET USE.**



## HOW THE PROCESS WORKS

### THE PROCESS

Installing a MANIC Flash Tune is a two-step process and must be done by M7 Speed at our facility. Remote flashing is not available at this time.

1. Reading of unique software codes from your ECU
  - a. Once we capture the necessary codes we search our data base for the appropriate tune file.
2. Upload the Manic Tune File into your ECU.
  - a. For Stage 1 & 2 without custom options is typically completed within 1 business day.
  - b. Stage 3 & 4 custom tunes and custom options can take up to 4 weeks get the file from Manic.

### METHOD 1

Drive your car to M7 Speed in Mooresville, NC

If you do not live locally plan on visiting beautiful NC while for a day while the process outlined above is completed.

STEP 1: Purchase the Manic Tune on our website at:

<https://www.m7tuning.com/manic-motorsports-ecu-flash-tuning-for-all-r56-turbo-minis.html>

STEP 2: ECU code download |15 minutes. A scheduled appointment is highly recommended.

STEP 3: Manic Tune upload | 2-3 Hours.

### METHOD 2

Ship your ECU to M7 Speed. We tune it and ship it back within one business day.\*\*\*

1. Purchase the Manic Tune on our website at:  
<https://www.m7tuning.com/manic-motorsports-ecu-flash-tuning-for-all-r56-turbo-minis.html>
2. Download, fill out and sign these two documents.
  - a. [ECU RE-FLASH DISCLAIMER AND RELEASE OF LIABILITY CLICK HERE](#)
  - b. [PRE-TUNE QUESTIONNAIRE-CLICK HERE](#)  
Click on the links above or download them on the Manic Tune product page where you purchased the tune.
3. Remove your ECU from your car.  
[Complete how-to instructions can be downloaded on the M7 Speed Manic Tune Product Page where you purchased your tune or CLICK HERE](#)
4. Pack and ship your ECU and the 2 required forms to:  
M7 Speed  
149 Byers Creek Rd., Unit 103  
Mooresville, NC 28117
5. We complete the tune process and ship your ECU back to you.
6. Reinstall in your car and HANG ON for the ride of your life!  
\*\*\*Plan on 1 business day turn around for Stage 1 & Stage 2 Tunes PLUS shipping transit time to M7 Speed and back to you.



## SPS SWITCH\*\*

\*\*Purchased separately



INSTANTLY SWITCH BETWEEN STOCK MAP AND 3 AVAILABLE PERFORMANCE MAPS VIA OBDII

- STOCK MAP
- PERFORMANCE MAP A
- PERFORMANCE MAP B
- PERFORMANCE MAP C

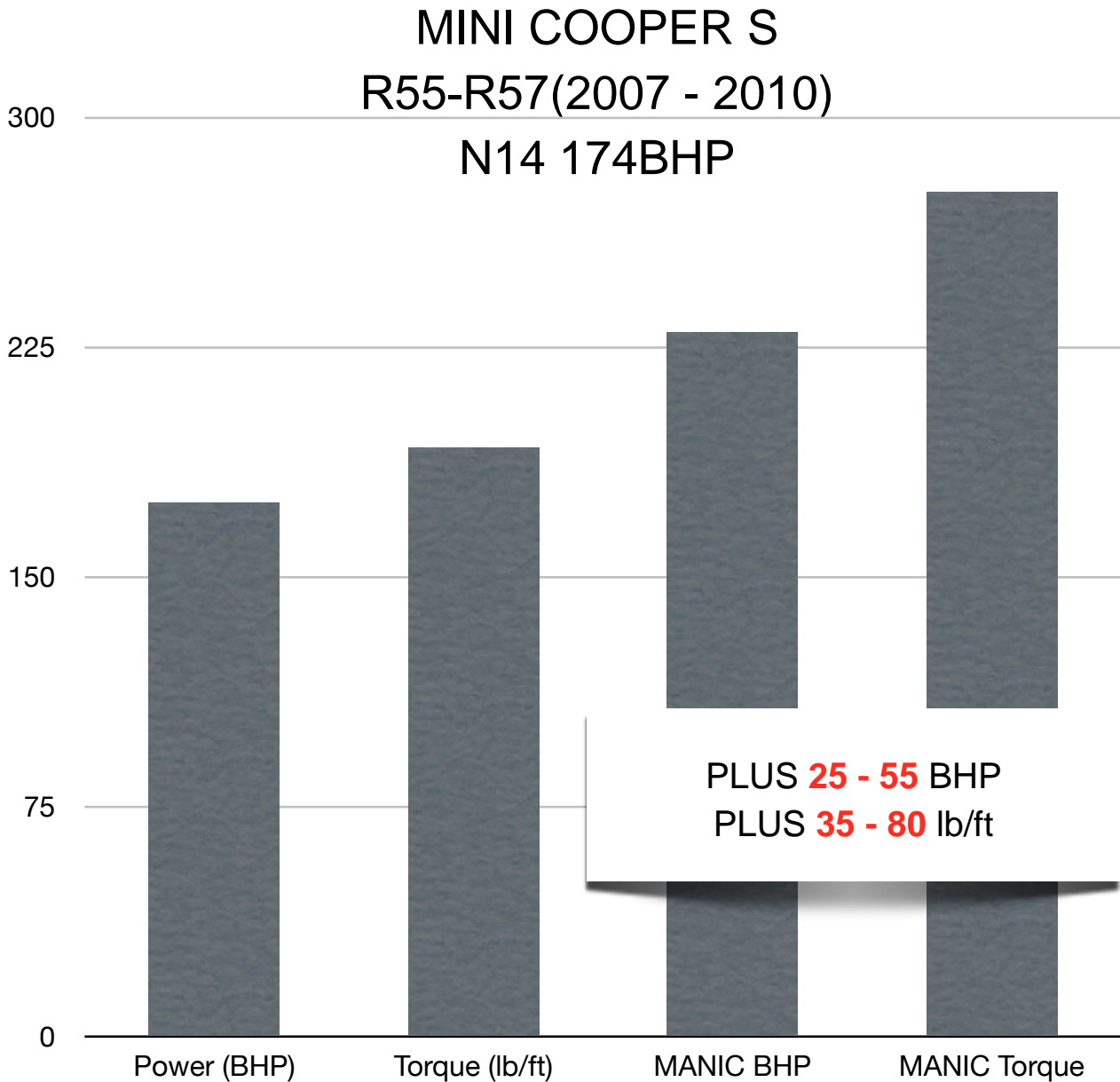
With a pocket sized hand held SPS switch, you can select the desired performance map and change as often as you like. There are no limits to switching. No increase in re-flash counters to alert your dealer either! You don't even need to recharge the Manic SPS switch, it powers itself automatically from your cars power supply via the OBDII diagnostic port. Another first from the new global leaders in mini tuning!

The SPS Switch is an additional purchase. Required for switching between performance maps and activation of power adder options such as E85, race fuel, water/methanol injection, etc.

**1 Business Day Turnaround for Most Stage 1 & Stage 2 Tunes**



# STAGE 1 TYPICAL POWER GAINS



The above performance gains are representative of what can be achieved with a Manic Stage 1 tune. The actual performance gains you achieve are dependent on vehicle condition, modifications, lubricants, aftermarket parts, performance map selected, fuel quality & octane, air temperature, atmospheric pressure (altitude) and other regional factors. Dynamometer type, condition, calibration and correction factors will also effect performance test results!

The gains quoted is an average range based on the above variables and multiple vehicle testing!

A Manic Stage 1 can be upgraded to Manic Stage 2 with the addition of a high flow catalytic converter or no cat downpipe, large bore turbo back exhaust, high flow air intake, aftermarket intercooler and spark plug/ignition upgrades. Stage 2 also has 3 performance maps to choose from. Optional SPS switch is required to switch between performance maps.

M7 Speed & Performance offers matched upgrade kits that include all the above mentioned parts.

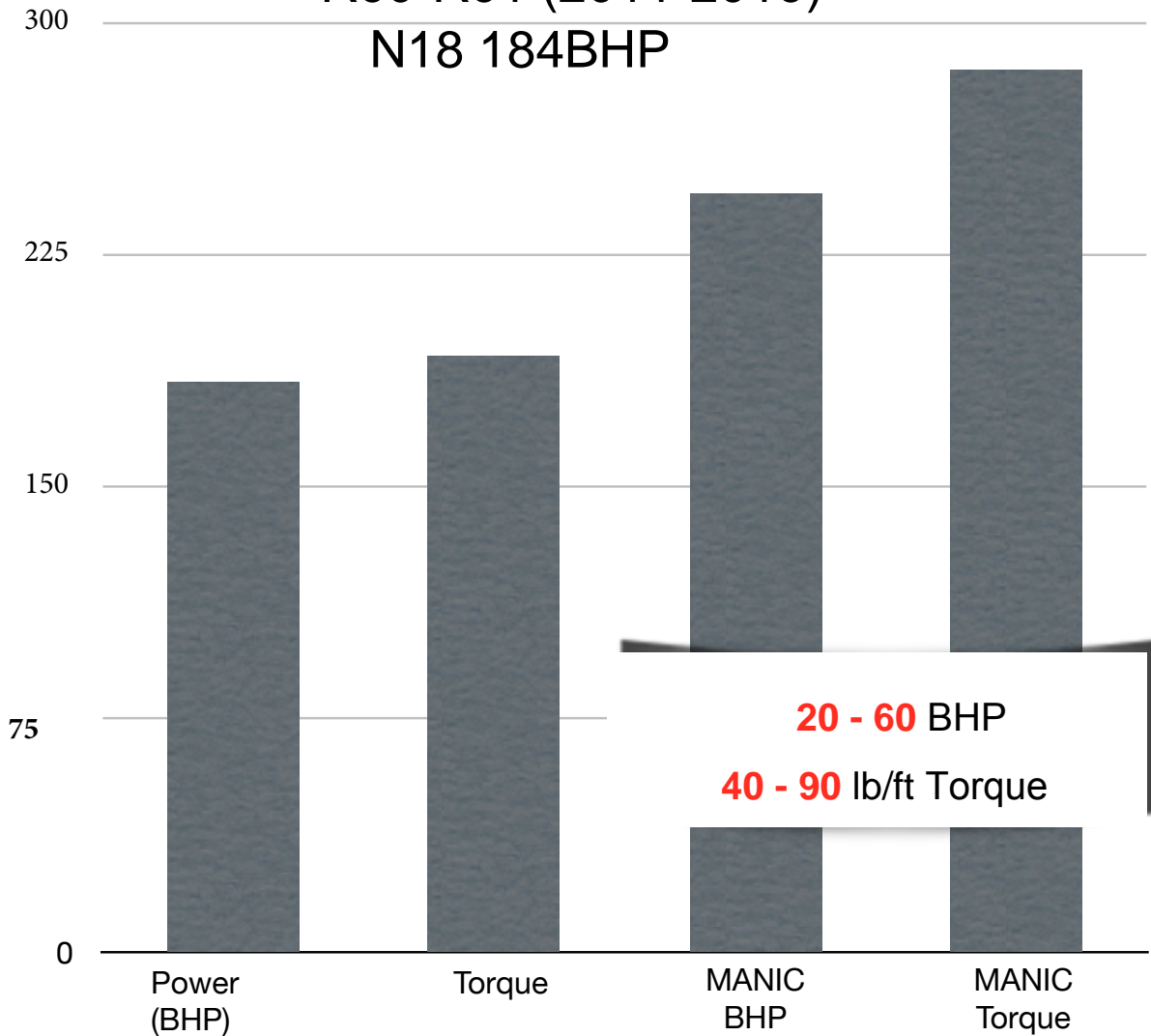




# STAGE 1 TYPICAL POWER GAINS

MINI COOPER S

R55-R59 (2010-2013)  
R60-R61 (2011-2016)



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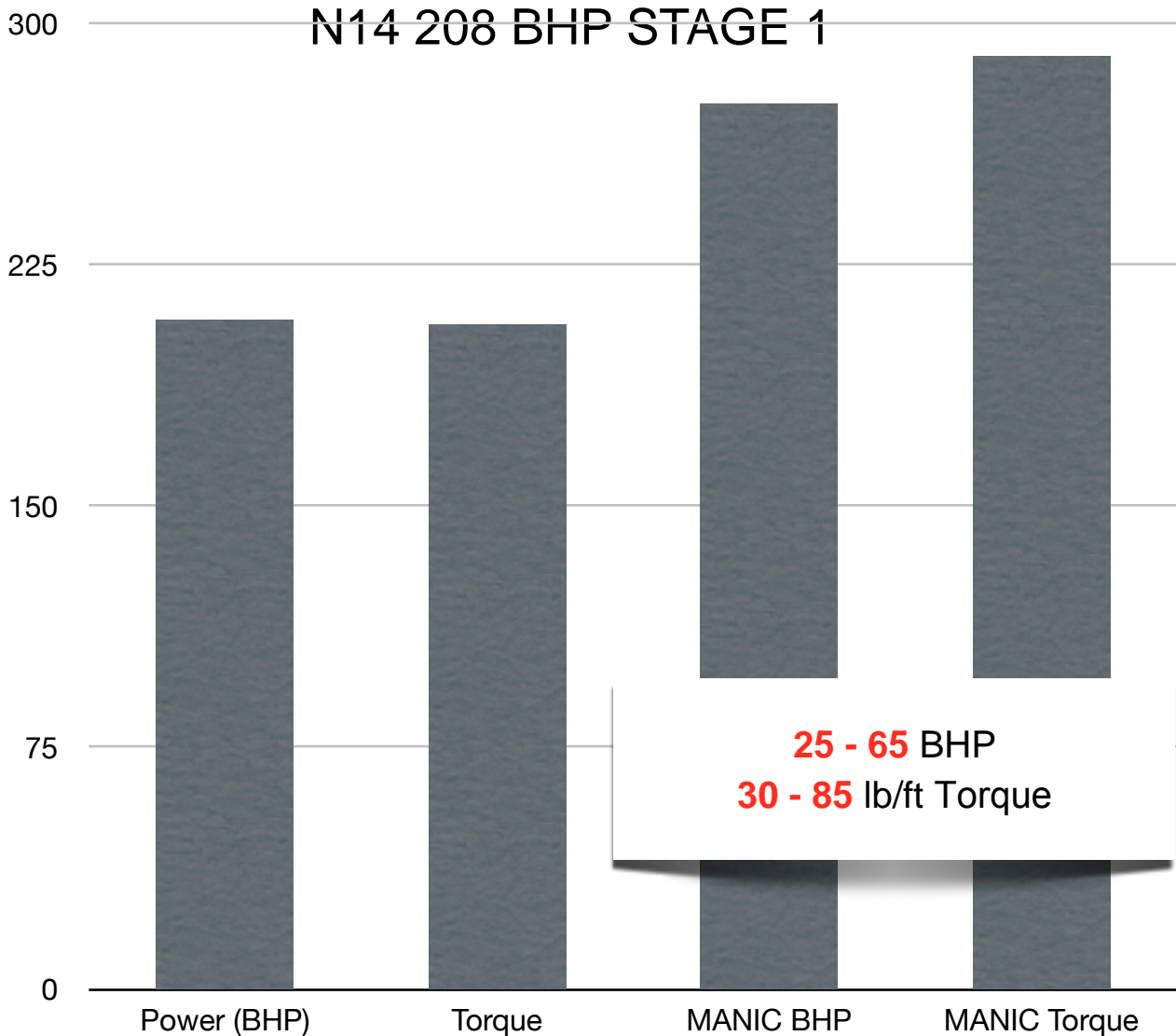
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# STAGE 1 TYPICAL POWER GAINS

MINI JCW (2008 - 2012)



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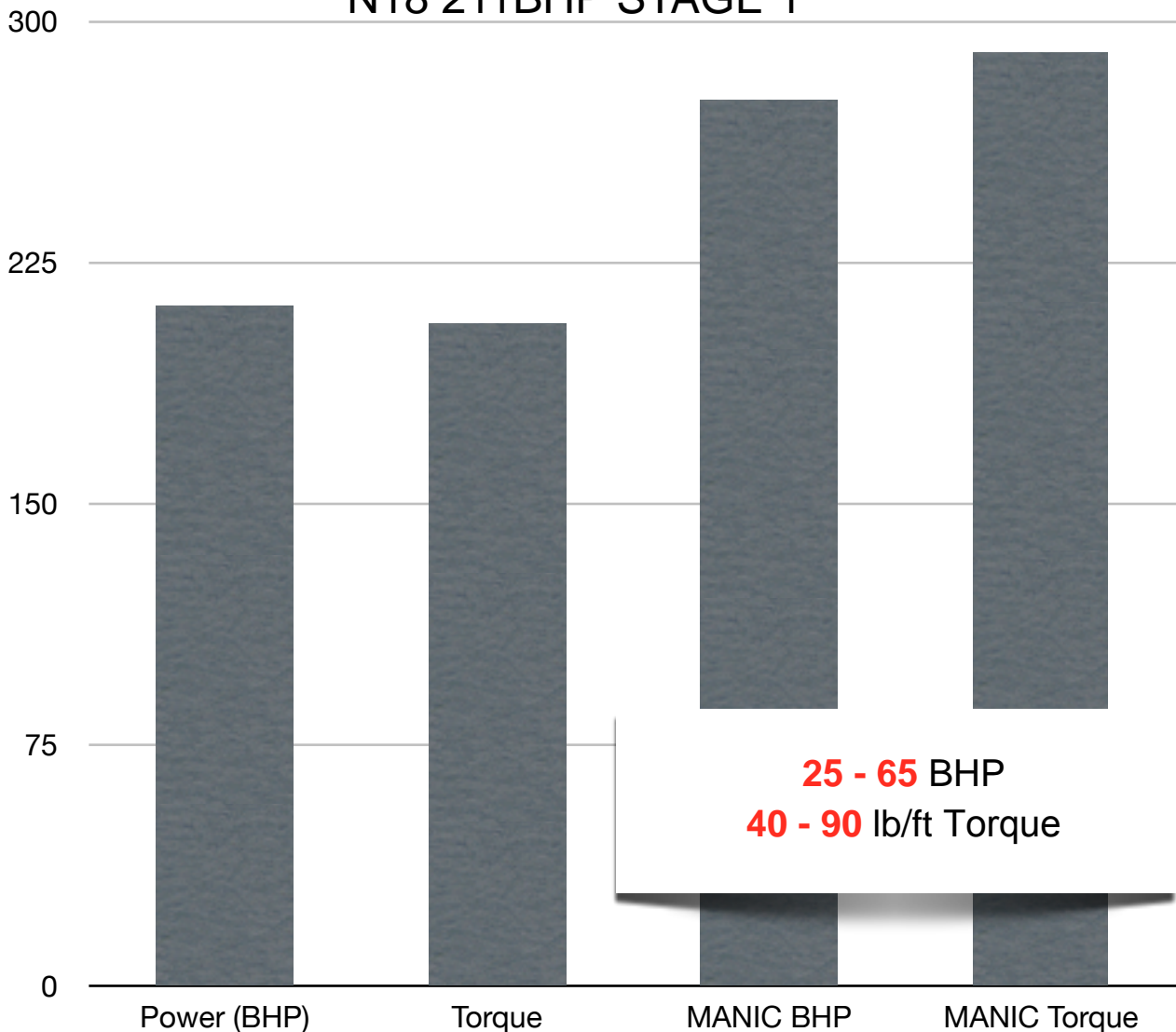
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# STAGE 1 TYPICAL POWER GAINS

JCW ( 2013-ONWARD)

N18 211BHP STAGE 1



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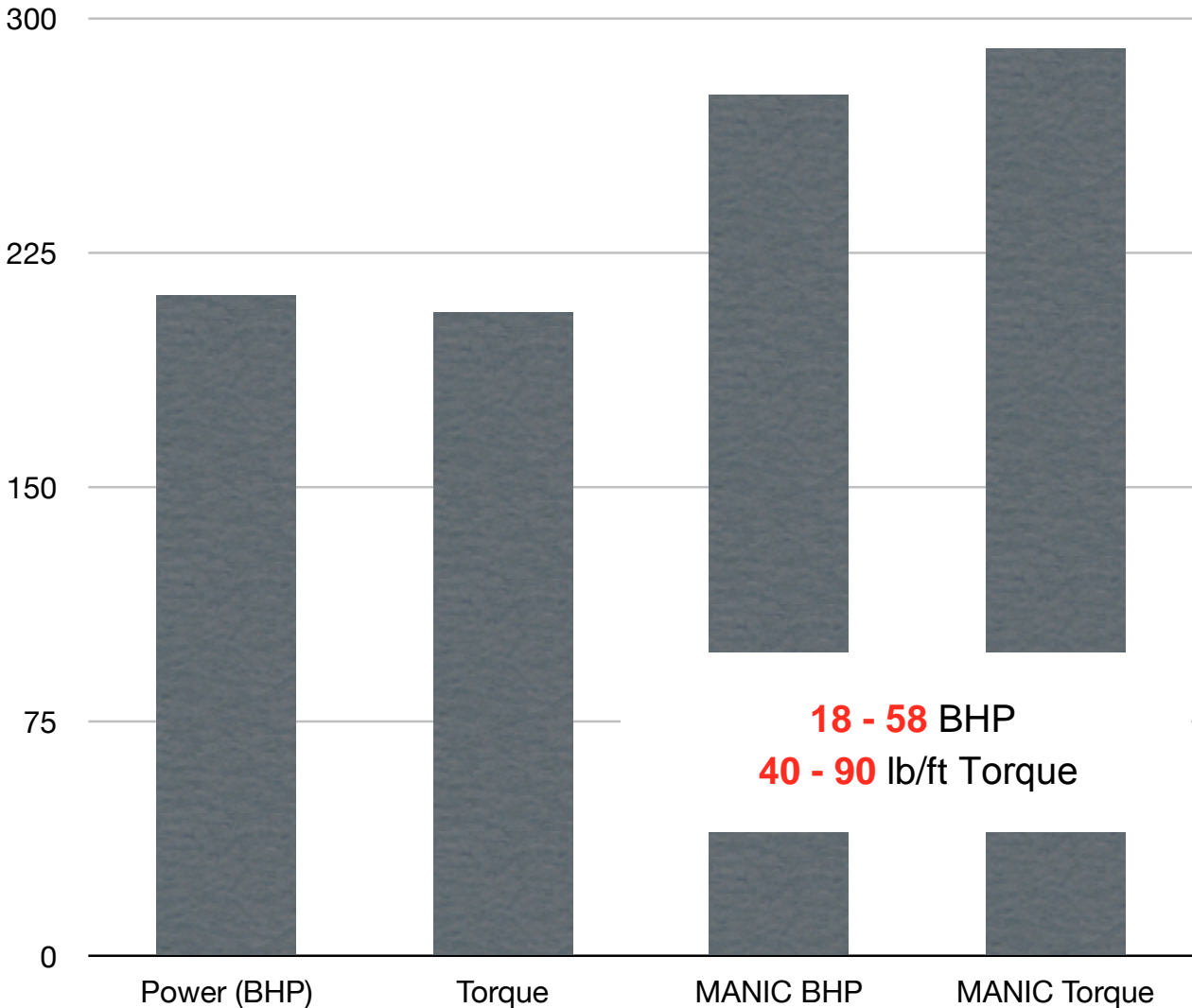
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# STAGE 1 TYPICAL POWER GAINS

GP + COUNTRYMAN/PACEMAN JCW (2013-ON)

N18 JCW 218 BHP



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