

essex

parts services inc.

2015-16 INDYCAR CATALOG



ADVANCED SUSPENSION TECHNOLOGY

Essex Parts Services Inc.

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EXCLUSIVE
NORTH AMERICAN
DISTRIBUTOR



www.essexparts.com



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CP9800 Clutch Control Unit



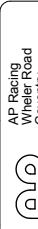
| AP Racing Part Number | Essex Part # | Description |
|-----------------------|--------------|-------------------------------------|
| CP9800-115:IRL | 24.01.00001 | CCU |
| CP9800-102:IRL | 24.01.00002 | CLUTCH PADDLE ASSEMBLY |
| CP9800-10:IRL | 24.01.00003 | BENCH LOOM FOR CCU |
| CP9800-116:IRL | 24.01.00004 | CCU DOWNLOAD CABLE |
| SU47-2 | 24.01.00005 | GOLD MAGNET FOR CLUTCH PADDLE |
| CP9800-118:IRL | 24.01.00006 | POSTION SENSOR ASSEMBLY |
| CP9800-IRL2-RECON | 24.00.00002 | CCU REFURB SERVICE LEVEL 2 (SINGLE) |
| CP9800-IRL2-RECON | 24.00.00003 | CCU REFURB SERVICE LEVEL 2 (GROUP) |



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CP9800 Clutch Control Unit cont'd

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AP Racing Ltd, 2013
AP Racing
Whitler Road
CV3 4LB
Tel: +44 (0)24 7603 0088
Email: info@apracingsport.co.uk
Web site: www.apracingsport.com

| Date & No. | Particulars |
|------------|---|
| 1 19/10/09 | FIRST ISSUE |
| 2 20/12/10 | CP9800-5 AND 6 ADDED. LAYOUT CHANGED TO ADD C4003 |
| 3 23/12/09 | PADDLE WEIGHT CORRECTED |
| 4 14/01/14 | FIN OUT DETAILS AND SPECIFICATIONS OTHER NOTES ADDED. |
| 5 08/05/14 | SHEET 2 SHOWING PIN OUT C4070 |

NOTE:
MASTER CYLINDER AND POSITION SENSORS ARE NOT INCLUDED IN THIS KIT.

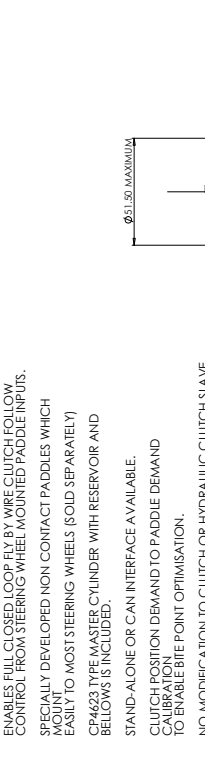
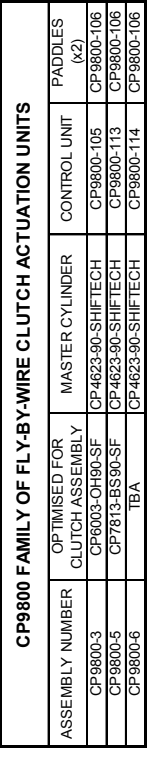
SCALE 1:1 SHEET 1 OF 2
DRAWN: Jeremy Gwent
APPROVED: [Signature]
DERIVED FROM:
TITLE: FLY-BY-WIRE CLUTCH ACTUATION SYSTEM
DRGNO: CP9800-3-CD

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| ASSEMBLY NUMBER | OPTIMISED FOR CLUTCH ASSEMBLY | MASTER CYLINDER | CONTROL UNIT | PADDLES (x2) |
|-----------------|-------------------------------|--------------------|--------------|--------------|
| CP9800-3 | CP6003-OH90-SF | CP4623-90-SHF1TECH | CP9800-105 | CP9800-106 |
| CP9800-5 | CP7813-B590-SF | CP4623-90-SHF1TECH | CP9800-113 | CP9800-106 |
| CP9800-6 | TBA | CP4623-90-SHF1TECH | CP9800-114 | CP9800-106 |

THIS ASSEMBLY HAS NO USER SERVICEABLE PARTS ANNUAL RECONDITIONING RECOMMENDED BY RETURNING TO AP RACING.

FEATURES
ENables FULL CLOSED LOOP FLY BY WIRE CLUTCH FOLLOW CONTROL FROM STEERING WHEEL MOUNTED PADDLE INPUTS. SPECIALLY DEVELOPED NON CONTACT PADDLES WHICH ACQUiRE SIGNAL FROM STEERING WHEEL MOUNTED PADDLES. EASILY TO MOST STEERING WHEELS (SOLD SEPARATELY) CP4623 TYPE MASTER CYLINDER WITH RESERVOIR AND STAND-ALONE OR CAN INTERFACE AVAILABLE. CLUTCH POSITION DEMAND TO PADDLE DEMAND CYLINDER REQUIRED. NO MODIFICATION TO CLUTCH OR HYDRAULIC CLUTCH SLAVE CYLINDER REQUIRED. FULLY FEATURED, SOPHISTICATED FAIL SAFE AND DIAGNOSTICS. SOFTWARE AND BASE CALIBRATION AVAILABLE ON THE AP RACING WEB SITE.
SEE SHEET 2 FOR SPECIFICATION AND REQUIREMENTS



CP9800 Clutch Control Unit cont'd



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A1 INSTALLATION DRAWING

IF THIS DOCUMENT IS PRINTED IN HARD COPY, IT IS FOR INFORMATION USE ONLY AND THEREFORE REFER TO SOLIDWORKS VIEWER FOR LATEST ISSUE

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AP Racing Ltd 2013

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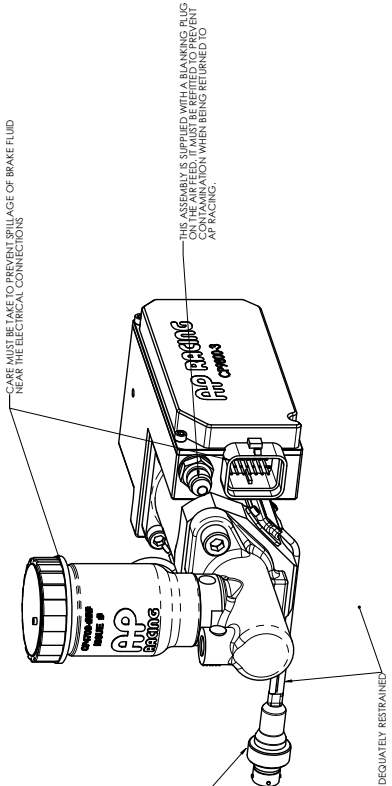
 Tel: +44 (0) 20 7603 9006

 Fax: +44 (0) 20 7603 9005

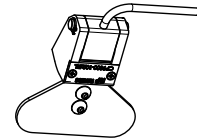
 Email: info@apracingsport.com

 Web site: http://www.apracingsport.com

| Date & No. | Particulars |
|------------|---|
| 08/05/14 | ISSUED SHOWING PIN OUT REQUIREMENTS & SPECIFICATION & REQUIREMENTS ADDED. |
| 08/05/14 | ISSUED SHOWING PIN OUT REQUIREMENTS & SPECIFICATION & REQUIREMENTS ADDED. |



WIRES TO BE ADEQUATELY RESTRAINED



PADDLE WIRE COLOURS:
BLACK - EARTH
WHITE - SIGNAL

AS PUG TO POSITION SENSORS

| AS PUG CONNECTIONS | Plug | AS PUG CONNECTIONS |
|--------------------|-------------------------------|--------------------|
| Plug - AS107-39PN | Plug - AS607-35SN | |
| Boot - 2020A111 | Boot - 2020A111 | |
| PIN 1 - BLACK 1 | PIN1 - Ground - CCU PIN 20 | |
| PIN 2 - WHITE 1 | PIN 2 - Signal 1 - CCU PIN 11 | |
| PIN 3 - RED 1 | PIN 3 - Signal 1 - CCU PIN 19 | |
| PIN 4 - RED 2 | PIN4 - Ground - CCU PIN 20 | |
| PIN 5 - WHITE 2 | PIN 5 - Signal 1 - CCU PIN 20 | |
| PIN 6 - BLACK 2 | PIN 6 - Signal - CCU PIN 19 | |

SPECIFICATION AND REQUIREMENTS
 TOTAL ASSEMBLY WEIGHT INCLUDING MASTER CYLINDER AND RESERVOIR = 1,365 kg
 PADDLE WEIGHT = 0,049 kg
 RESERVOIR CAPACITY = 65.0cc BASIC (50.0cc WITH BELLOWS)
 AIR SUPPLY 8.50 TO 9.50 BAR VIA A-4 AEROCOUP CONNECTION
 (IT IS RECOMMENDED THE AIR SUPPLY IS FILTERED TO 30 MICRONS)
THE PERFORMANCE OF THIS UNIT MAY BE AFFECTED IF THE PRESSURE FALLS BELOW 7.00 BAR
 VOLTAGE 8.00 TO 14.50 VOLTS
ENVIRONMENT
 TEMPERATURE -30 TO 85° C
THIS ASSEMBLY MUST BE PROTECTED FROM DIRECT SOURCES OF HEAT
 THIS ASSEMBLY IS NOT WATER PROOF SO SHOULD BE LOCATED ACCORDINGLY
THIS ASSEMBLY HAS NO USER SERVICEABLE PARTS ANNUAL RECONDITIONING RECOMMENDED BY RETURNING TO AP RACING.

SOFTWARE VERSIONS
 Shiftcal Software - Version 4.1.24
 Shiftcal Software - Version 4.1.24
 Shiftcal GIN File - APCCU00427 Customer.GIN
 Shiftcal CAL File - IRL-Q3.AP.CCU.00x27.CAL
 Shiftcal Job File - Customer V27 Jobs888888

| PIN No. | FUNCTION | DESIGNATION |
|---------|---------------------|---------------------------|
| 1 | EMERGENCY NEUTRAL + | NC |
| 2 | EMERGENCY NEUTRAL - | NC |
| 3 | A4 | Steering Wheel Paddle 2 |
| 4 | A3 | Steering Wheel Paddle 1 |
| 5 | A6 | NC |
| 6 | | NC |
| 7 | | NC |
| 8 | CAN Lo | CAN Bus Lo |
| 9 | CAN Hi | CAN Bus Hi |
| 10 | A2 | CCU External Sensor 2 |
| 11 | A1 | CCU External Sensor 1 |
| 12 | RELAY | NC |
| 13 | | NC |
| 14 | SERIAL Rx | CCU Com's Plug Rx |
| 15 | SERIAL Tx | CCU Com's Plug Tx |
| 16 | A5 -ve | NC |
| 17 | A6 -ve | NC |
| 18 | Gnd | CCU Com's Plug 0v |
| 19 | AN +5V | CCU External Sensor 1 & 2 |
| 20 | AN 0V ref | CCU External Sensor 1 & 2 |
| 21 | GP Out | NC |
| 22 | A5 | NC |
| 23 | Spd 2 | NC |
| 24 | Spd 1 | NC |
| 25 | POWER 0V | Main Power Battery -ve |
| 26 | POWER 12V | Main Power Battery +ve |

SCALE 1:1

 DRAWN: Jeremy Cowan

 APPROVED:

 SHEET 2 OF 2

TITLE
FLY-BY-WIRE CLUTCH ACTUATION SYSTEM

DRG NO. CP9800-3-CD



FEATURES:

- 10 Bolt, One piece cover and lugs.
- Heavy duty carbon.
- Clutch Ratio = EHR (Extra High).
- Stepped Flywheel fixing.
- Inner diameter location.
- Interchangeable with CP6073 Sintered Race clutch.

| AP Racing Part # | Essex Part # | Description |
|-------------------|--------------|--|
| CP8153-DE03-SN | 24.09.00001 | INDYCAR CARBON CLUTCH |
| CP5323-110S | 24.09.00002 | CLUTCH HUB |
| CP8153-15SS | 24.09.00003 | PRESS PLATE KIT LOW |
| CP8153-16SS | 24.09.00004 | PRESS PLATE KIT MED |
| CP8153-17SS | 24.09.00005 | PRESS PLATE KIT HIGH |
| CP8153-IRL1-RECON | 24.00.00010 | STANDARD CARBON CLUTCH RECON |
| CP8153-IRL2-RECON | 24.00.00011 | STANDARD CARBON CLUTCH RECON +CC STACK |



CP8153 Carbon-Carbon Clutch cont'd

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IF YOU REQUIRE A QUOTE FOR THIS PART, PLEASE CONTACT AP RACING LTD. ON 01454 614111

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Email: info@apracingsport.com

CP8153 - Ø115mm (4.5") PUSH TYPE CARBON / CARBON CLUTCH ASSEMBLY.

SECTION OF AN ALUMINUM COVER

SECTION OF A STEEL COVER

FLYWHEEL FRICTION FACE

RECOMMENDED RELEASE BEARING:-
1. 50.00 PLYWOOD
2. 50.00 CARBON
3. 50.00 STEEL
4. 50.00 TITANIUM

HUB PART NO. CP8022-10 (S/T)
SPLINE 1.17" x 26 x 30"
HUB MATERIAL SUFFIX
S = STEEL
T = TITANIUM

HUBS ARE AVAILABLE WITH OTHER SPLINE SIZES. CONTACT AP RACING FOR DETAILS. FOR HUB ENVELOPE SEE SHEET 2.

CP8153 CLUTCH FAMILY

MAXIMUM FLYWHEEL TORQUE CAPACITY

| | |
|----------|-----|
| (Nm) | 548 |
| (ft.lbs) | 625 |

RELEASE LOAD

| | |
|---------------------|------|
| Max. Peak Worm (N) | 5750 |
| Max. Peak Worm (lb) | 4700 |

WEAR IN (See Note)

| | |
|------------------|-------|
| Wear in WAS 0.75 | 40.74 |
| Wear in WAS 0.75 | 39.54 |
| Wear in WAS 0.75 | 42.29 |

Set Up Height (See Note)
Set Up Height is calculated from the flywheel friction face.

| | |
|---------------|------|
| Release Ratio | 3.46 |
|---------------|------|

Assembly Mass
Aluminium Cover 1.60 kg
Flywheel 1.76 kg
Estimated Friction Plate & STL Hub Inertia = 0.00061 kgm²

PERFORMANCE SUFFIX

| | |
|-----|----------------|
| DE | Titanium Cover |
| OLD | Titanium Cover |
| EUR | Titanium Cover |

For Reference

Dynaplug Spring Rate

Clutch Ratio

| MATERIAL SUFFIX | COVER MATERIAL | PRESSURE PLATE MATERIAL | CARBON / CARBON TYPE |
|-----------------|----------------|-------------------------|----------------------|
| 03 | STEEL | STEEL | HEAVY DUTY |

FLYWHEEL TYPE

| FLYWHEEL TYPE | SUFFIX | COMMENTS |
|---------------------------|--------|-------------|
| STANDARD STEPPED FLYWHEEL | SN | SEE SHEET 2 |

Sample AP Racing Part No. **CP8153-0E03-SP**

WEAR IN
THIS CLUTCH HAS BEEN DESIGNED FOR THE WEAR IN INDICATED ABOVE. WHICH MUST BE COMPENSATED FOR BY USING PRESSURE PLATE "SHIMS" FROM THE KITS DETAILED BELOW.
THE MAXIMUM CARBON STACK WEAR FOR THIS ASSEMBLY IS 4.00mm

| DE X SE - "NONE" CLUTCH | STANDARD KIT |
|-------------------------|--------------|
| 0.80 TO 3.50 - 0.50 IN. | CP8153-665 |
| 0.25 TO 3.25 - 0.50 IN. | CP8153-1055 |
| 0.25 TO 3.25 - 0.50 IN. | CP8153-1555 |
| 0.25 TO 3.25 - 0.50 IN. | CP8153-1655 |
| 1.00 TO 2.00 - 0.25 IN. | CP8153-1755 |

RELEASE TRAVEL TO BE LIMITED TO 3.50mm MAXIMUM

SET UP HEIGHT - NEW (FROM THE FRICTION FACE)

SET UP HEIGHT - WORN (FROM THE FRICTION FACE)

FLYWHEEL FRICTION FACE

DIRECTION OF RELEASE TRAVEL

| | |
|----------------------|--------------|
| Scale 1:1 | Sheet 1 of 2 |
| Drawn: Jimmy Claxton | |
| Approved: | |
| Exported From: | |

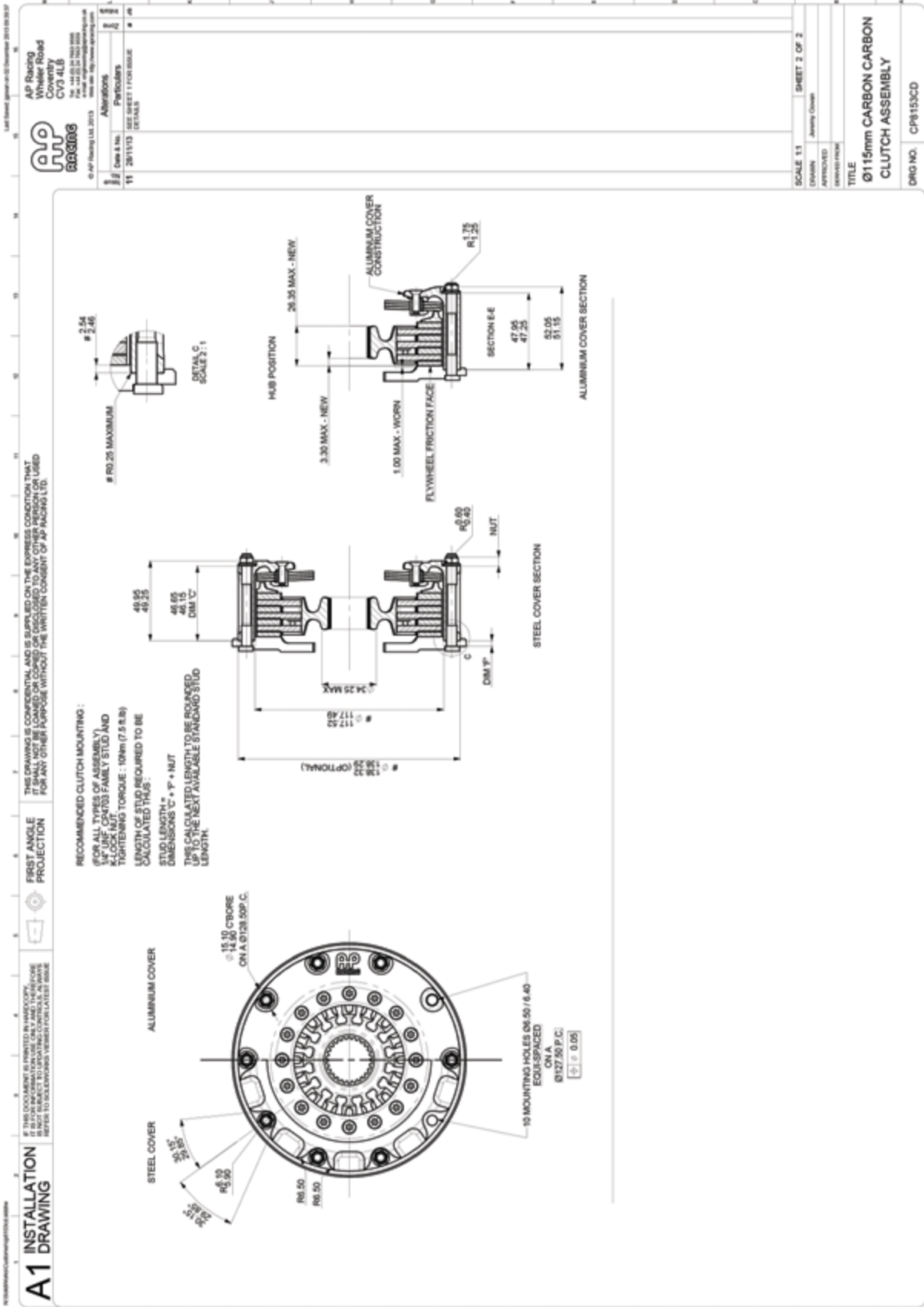
TITLE
Ø115mm CARBON CARBON CLUTCH ASSEMBLY

DRG NO. CP8153CD



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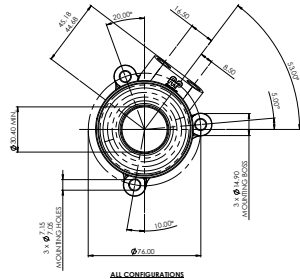
CP8153 Carbon-Carbon Clutch cont'd





Slave Cylinder and Release Bearings

CP6859-50 Slave Cylinder



FEATURES:

- Forged Aluminium Alloy Body.
- Aluminium alloy Piston.
- 18mm Max Stroke.
- Use with PRF660, 600 or other high quality brake fluids.
- Cylinders are supplied with release bearing.
- Hydraulic Fitting kits available for -3 or -4 aeroquip:
 - 7/16" (Aluminium adaptor) for -4 aeroquip - CP3759-6
 - 3/8" (Steel adaptor) for -3 aeroquip - CP3759-5
- Fittings to be tightened to 28Nm (21ft/lb)

DESCRIPTION

THE CP6859 SERIES CONCENTRIC SLAVE CYLINDER IS A LIGHTWEIGHT, HYDRAULICALLY SELF-CONTAINED UNIT WITH HIGH TEMPERATURE SEALS. ALL SEALING SURFACES ARE PROTECTED BY A HARD WEARING / LOW FRICTION COATING WHICH HELPS PROLONG SEAL LIFE.

ENSURE THAT THE UNIT IS INSTALLED AT THE SPECIFIED ANGLE, WITH THE BLEED PORT UPPERMOST. ALL FITTINGS INTENDED TO SEAT AT THE BOTTOM OF THE HYDRAULIC PORTS MUST HAVE AN INCLUDED ANGLE OF 90°

BODY MATERIAL: ALUMINIUM ALLOY (FORGED)
PISTON MATERIAL: ALUMINIUM ALLOY

EFFECTIVE AREA: 920 mm² (1,426 sq. in.)
MAXIMUM STROKE: REFER TO TABLE
MAXIMUM PRESSURE: 8.6 N/mm² (1250 psi)

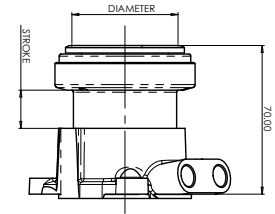
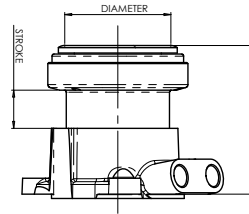
CALCULATED WEIGHTS
CP6859-XX 381 g
CP6859-12XX 257 g
CP6859-12XX-IN 346 g

HYDRAULIC PORTS: M10x1.0x11.5 MIN. FULL THREAD
HYDRAULIC FLUID: APR550 OR 600 BRAKE FLUID

REPLACEMENT SEAL KIT - CP3759-3

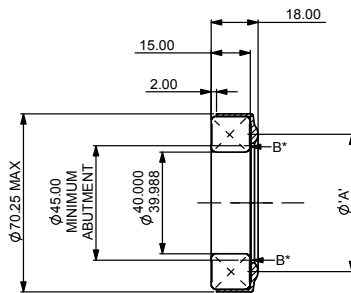
HYDRAULIC FITTING KIT (STEEL ADAPTOR 7/16" - 4) - CP3759-6
HYDRAULIC FITTING KIT (STEEL ADAPTOR 3/8" - 3) - CP3759-5
FITTINGS TO BE TIGHTENED TO 28 Nm (21 ft.lb)

Product Update – CP6859 to replace CP3589 Concentric Push Type Slave Cylinder Assemblies



HIGH SPEED RELEASE BEARING - Inner Race Rotates

- CP3457-11 Release
Fulcrum Dia 'A' = 50mm.



NOTE:

CP6859 supercedes CP3859 Cylinder series BUT IS NOT IDENTICAL.

CP3859 / CP6859 Differences:

- Hydraulic port geometry and thread now M10 was M12.
- Reduced port height, now 44.92mm was 59.12mm

| AP Racing Part # | Essex Part # | Description |
|------------------|--------------|-------------------------|
| CP6859-50 | 24.09.00010 | SLAVE CYLINDER |
| CP3759-3 | 24.02.00000 | SLAVE CYLINDER SEAL KIT |
| CP4900-166 | 08 04 703 | INNER SEAL |
| CP4900-163 | 08 04 706 | OUTER SEAL |
| CP3457-11 | 24.09.00011 | RELEASE BEARING |
| CP3457-107 | 24.09.00012 | RELEASE BEARING FULCRUM |



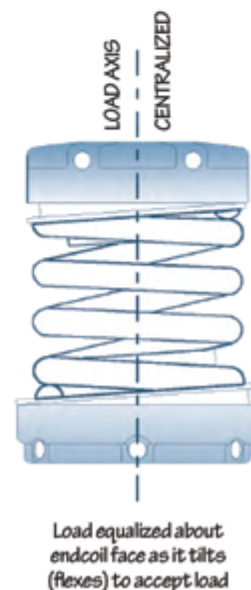
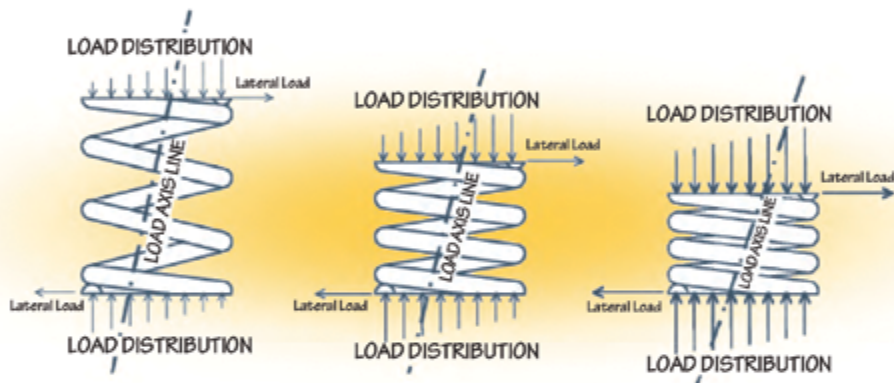
Hydraulic Spring Perches

Hyperco/ICP has made an astounding breakthrough in fire grip enhancement with their load centering Hydraulic Perch. This unique patented device significantly reduces the side loads produced by suspension springs that load the shock body. These bending loads increase friction and wear in your coil-over dampers. Friction in racing suspensions reduces the performance of your race car by decreasing the grip available at the tire contact patch.

The forces in a compressed spring are NOT centered on the spring central axis. Instead, coil over spring designs lead to non-uniform load distributions around the face of the end coil. Typically, the center of that load is located near the tip of the spring. This offset center of pressure, imposes a bending moment on the damper. This moment becomes a lateral force between the damper piston and body, increasing friction within the damper. The more the spring is compressed, the higher the side loads are significant and their effect on suspension behavior has been widely measured and documented. For the springs to center its forces, its endcoils must be allowed to flex as they apply load. It is ONLY through this flexing that the load can be evenly distributed about the face of the end coil.

The Hyperco/ICP Hydraulic Perch consists of an annular piston mated to an annular cylinder, sealed by O-rings, and

filled with hydraulic fluid. As a load is applied to the spring, the perch tilts in response to the uneven load distribution, until the load on the coil face has been balanced. The load on the tilted piston is transferred to oil in the cavity, and is automatically transferred to damper as near the centerline as possible.





Hyperco con't

HYDRAULIC LOAD CENTERING SPRING PERCH HARDWARE

ADD ON/SLIDE
ON PERCH

THREAD ON (O.E. REPLACING)
SHOCK BODY PERCH

THREAD ON (O.E.
REPLACING) TOP PERCH

| Part # | Part # | Part # |
|----------------|-----------------------------|------------------|
| HHPERCH- 2.00 | AST5200BOD-2.25 | HHTOPPENSKE-2.00 |
| HHPERCH- 2.25L | HHBODPENSKE-2.25 | HHTOPPENSKE-2.25 |
| HHPERCH- 2.50 | HHBODOHLINS-2.25 | HHTOPOHLINS-2.00 |
| | HHBODOHLINS-2.00 (TT40/TTX) | HHTOPOHLINS-2.25 |
| | HHBODPENSKE8175-2.25 | HCD-PERCH COVERS |
| | HHBODPENSKE8175-2.50 | |
| | HHBODOHLINS(LMJ)-2.50 | |

SPRINGS



| Part # | Description |
|--|---|
| 184A0300 through 184A3400 | 2.25" I.D. SPRINGS/ 4" FREE LENGTH 2.25/4/300 through 2.25/4/3400 |
| 185A0300 through 185A0950 | 2.25" I.D. SPRINGS/ 5" FREE LENGTH 2.25/5/300 through 2.25/5/950 |
| 185A1000 through 185A2600 | 2.25" I.D. SPRINGS/ 5" FREE LENGTH 2.25/5/1000 through 2.25/5/2600 |
| 185A2700 through 185A3800 | 2.25" I.D. SPRINGS/ 5" FREE LENGTH 2.25/5/2700 through 2.25/5/3800 |
| 186A0200 through 186A0950 | 2.25" I.D. SPRINGS/ 6" FREE LENGTH 2.25/6/200 through 2.25/6/950 |
| 186A1000 through 186A2000 | 2.25" I.D. SPRINGS/ 6" FREE LENGTH 2.25/6/1000 through 2.25/6/2000 |
| 186A2200 through 186A2500 | 2.25" I.D. SPRINGS/ 6" FREE LENGTH 2.25/6/2200 through 2.25/6/2500 |
| 184C0350 through 184C3600 | 2" I.D. SPRINGS/ 4" FREE LENGTH 2.00/4/350 through 2.00/4/3600 |
| 185C0250 through 185C3000 | 2" I.D. SPRINGS/ 5" FREE LENGTH 2.00/5/250 through 2.00/5/3000 |
| 186C0350 through 186C2000 | 2" I.D. SPRINGS/ 6" FREE LENGTH 2.00/6/350 through 2.00/6/2000 |
| 181-0300-HT through 181-4500-HT | DALLARA - HT PARTS/1.417" I.D. DALLARA FRONT 36MM ID / 300 Through 4500 |
| 181-0800-HT-4 through 181-2000-HT-4 | DALLARA - HT PARTS/1.417" I.D./4.00" FREE LENGTH DALLARA FRONT 36MM / 4 / 800 through 2000 |



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Öhlins Suspension



ADVANCED SUSPENSION TECHNOLOGY

Essex offers the full line of Öhlins parts and services. Please contact Joey Petree (joey.petree@essexparts.com) for more information or technical assistance.





GWC Inerters



| Essex Part # | Description | Quantity per Unit |
|------------------|----------------------------------|-------------------|
| 23.G-N300T-36 | COMPLETE INERTER ASSEMBLY (36mm) | - |
| 23.G-N300T-40 | COMPLETE INERTER ASSEMBLY (40mm) | - |
| 23.G-N3T-101 | DRIVE GEAR | 3 |
| 23.G-N3T-102 | IDLER GEAR | 3 |
| 23.G-N3T-901T | WEIGHT, TUNGSTEN | 3 |
| 23.G-N3T-121 | TOP CAP | 1 |
| 23.G-N3T-122 | WEIGHT HOUSING | 1 |
| 23.G-N3-103 | PUMP PLATE | 1 |
| 23.G-N3-105 | BOTTOM PLATE | 1 |
| 23.G-N336-104 | SEALING PLATE, 36MM | 1 |
| 23.G-N9206-033 | 36MM SEALING O-RING | 1 |
| 23.G-N340-104 | SEALING PLATE, 40MM | 1 |
| 23.G-N9206-037 | 40MM SEALING O-RING | 1 |
| 23.G-N91985A105 | BEARING RETAINING RING | 3 |
| 23.G-NS5-40-1.45 | COVER SCREW | 3 |
| 23.G-N9262K441 | SCREW O-RING | 3 |
| 23.G-N2154 | SEALING SCREW | 3 |
| 23.G-N30-98 | SEALING SCREW O-RING | 3 |
| 23.G-N9262K693 | CAP O-RING | 1 |
| 23.G-N91251A102 | INTERNAL SCREW | 3 |
| 23.G-N98381A441 | DOWEL PIN | 3 |
| 23.G-HA5P58L02 | BEARING | 12 |
| 23.00110-05 | SHAFT BEARING | 1 |
| 23.01027-05 | SHAFT SEAL, X-RING | 1 |
| 23.01032-05 | SHAFT SEAL BACKUP RING | 1 |



AP Racing's established range of brake & clutch fluids have been refreshed and re-branded to embrace our Radi-CAL™ philosophy. Following last years successful launch of Radi-CAL™ R4 racing fluid, AP Racing has chosen to re-align its full range of fluids by renaming PRF660, 600, 551 and Formula Dot 5.1, changing the bottle and caps.

AP Racing Brake Fluids have been developed specifically for use under the arduous conditions encountered at the highest levels of motorsport. All AP Racing Brake Fluids with the exception of R4 are compatible with all hydraulic brake systems designed to conform to S.A.E. J1703 requirements.

- Radi-CAL™ R4 has been designed to perform better than any other product at the extremes of heavy duty braking performance in the top levels of racing. With the highest dry boiling point of any racing brake fluid currently available at 340°C, R4 stands alone.

- PRF 660, Re-branded as Radi-CAL™ R3 - Silver Bottle with Yellow cap. R3 developed for use in high temperature racing conditions . Conforms to and exceeds FMVSS 116 DOT 4 and SAE J1703 and J1704.

- AP 600, Re-branded as Radi-CAL™ R2 - Silver Bottle with Blue cap.

R2 Brake Fluid is intended for competition use only.

- AP 551, Re-branded as Radi-CAL™ R1 - Silver Bottle with Black cap.

R1 can be used for either competition or road use.

- Formula DOT 5.1, Re-branded as Factory R Dot 5.1 - Yellow Bottle with Yellow cap Brake Fluid conforms to S.A.E. J1703 specifications and is ideal for High Performance Road Applications, Competition and Track Days.

All AP Racing Brake Fluids are Polyalkalene Glycol Ether based and are not a silicone based fluid.

AP Racing do not sell and do not recommend using a silicone based brake fluid with any of its products.

Colour variations may occur in AP 600 / R2 brake fluids due to its manufactured process.

This has no effect on the quality and the performance of this product.



Brake Dyno and Burnishing Services



"I had a vibration" is something you never want to hear from your driver. The root of the problem is typically the brakes, tires, or suspension, but is often tough to isolate. A simple and inexpensive preparation step can often eliminate the brakes as a potential culprit, and you won't have to cringe so much when the driver is on the radio screaming about the dreaded thump, thump, thump he's feeling. If your rotors aren't being properly prepared for driver abuse by experienced technicians, you're not only leaving performance on the table, you're exposing yourself to potential judder, vibration, and rotor cracking issues.

You're also wasting time and money. Track time is expensive. The more time your driver spends behind the wheel performing an elaborate pad and rotor break-in procedure, the less time you'll spend gathering real data and preparing for the race.

Finally, your driver will be frustrated. He'll be ready to fire off some hot laps, and you'll be telling him to take it easy and cool his brakes, putting your team members at odds.

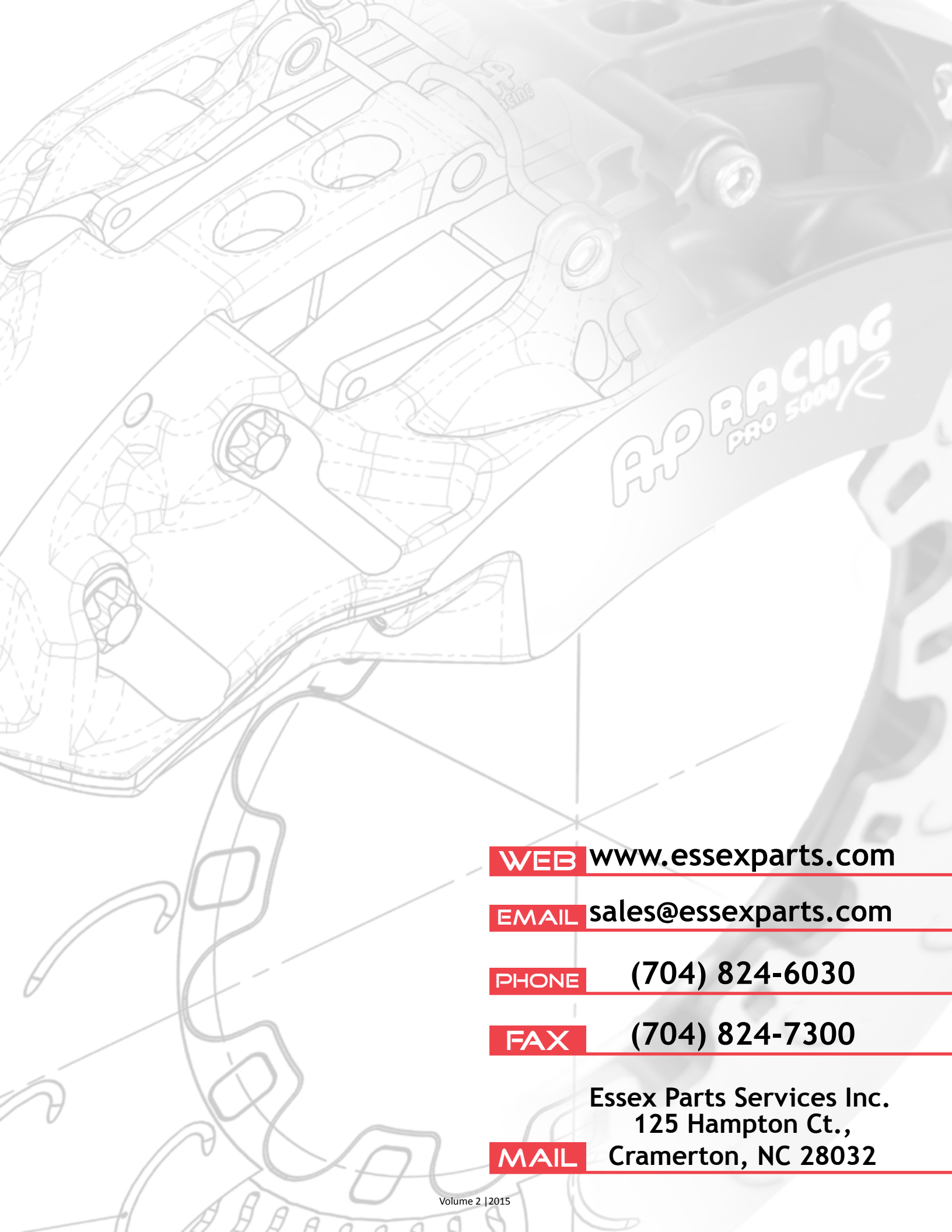
These are all serious and costly problems that can quickly turn a potential win into a very long weekend for the entire team. Fortunately, this scenario can be avoided.

The answer is to have Essex Dyno Burnish your brake pads and discs at the time of order. They'll arrive in matched sets, ready to drop on the car for instant combat.

Essex burnishes thousands of discs for the top teams each year, and we're intimately familiar with all of the available pad and rotor combos. After countless hours of experimentation, and extensive feedback from the top drivers and teams, we can squeeze the most reliable performance out of each setup on the market.

Give us a call today. We'll work with you to develop a custom burnishing procedure for your specific setup. With competitive rates, quick turnaround times, and delivery service, we'll put something in your hands that can help turn your next driver complaint into your next win.





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