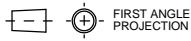


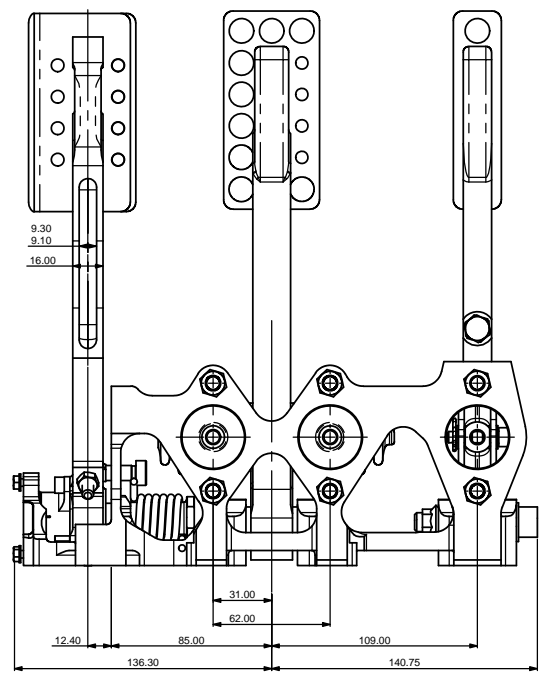
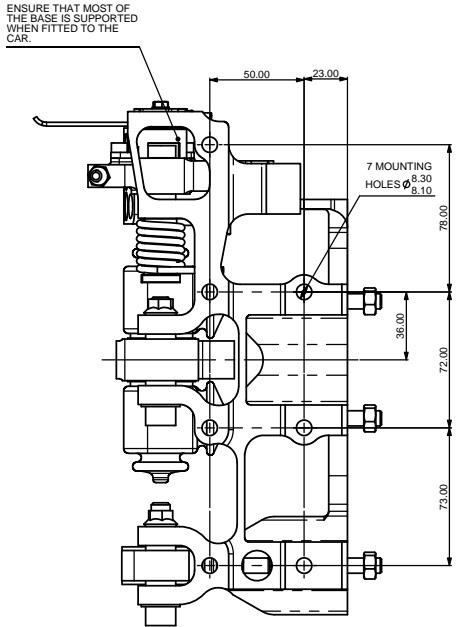
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## GENERAL DESCRIPTION

THIS PEDAL BOX IS A GENERIC RACING PEDAL BOX DESIGN, DESIGNED FOR COMFORT AND CONTROL. THIS UPDATED PEDAL BOX HAS A NEW OPTIMISED MACHINED FROM BILLET BASEPLATE AND PEDALS. THE THROTTLE HAS BEEN UPDATED TO ADD ADDITIONAL FEATURES TO AID CONNECTION TO BELL CRANKS AND CABLES.

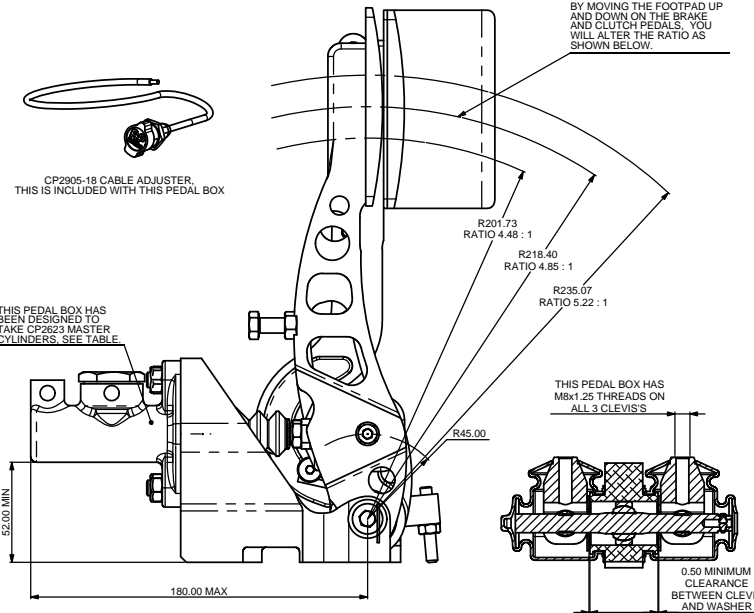
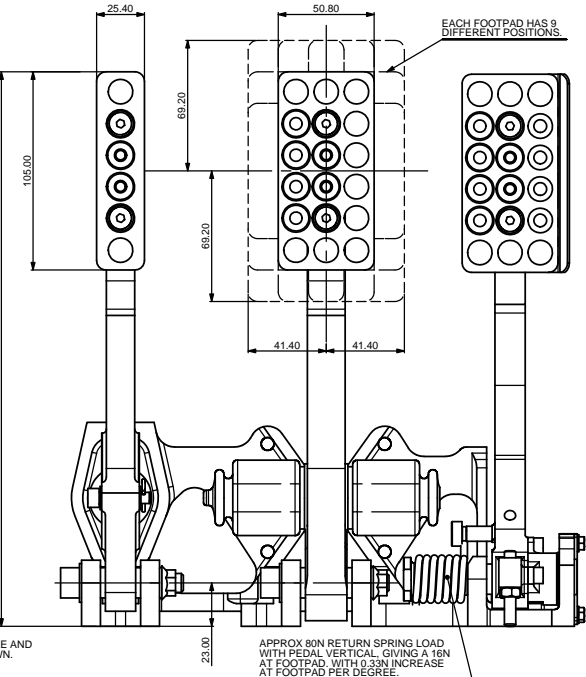
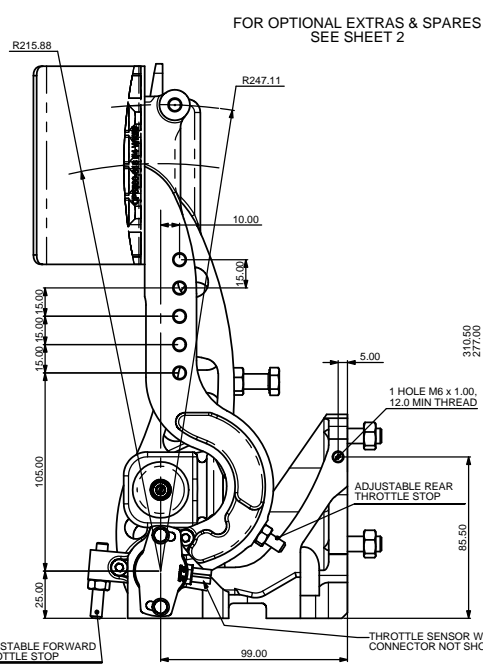
## FEATURES

- OPTIMISED, LIGHTWEIGHT, MACHINED FROM BILLET BASE PLATE.
- OPTIMISED, LIGHTWEIGHT CLUTCH AND BRAKE PEDAL, WITH IMPROVED TWIST DISPLACEMENT.
- NEW THROTTLE PEDAL WITH ADDITIONAL FEATURES.
- ADJUSTABLE RATIO PEDALS.
- ALL THREADS ARE METRIC, EXCEPT THOSE MENTIONED BELOW.
- Ø10 BALANCE BAR
- ADJUSTABLE STOPS ON CLUTCH AND THROTTLE PEDALS.
- PEDAL BOX WEIGHT IS 2.8 Kg  
BALANCE BAR ADJUSTER CABLE WEIGHT 236 g  
(CP2623 MASTER CYLINDERS APPROX 0.31Kg EACH)
- CABLE ADJUSTER INCLUDED.
- ALL PEDALS HAVE BALL BEARING PIVOTS.
- OPTIONAL ROTARY HALL EFFECT SENSOR (WITH PLUG) ON THROTTLE, SEE SHEET 2 FOR DETAILS

PART NUMBERS	CLEVIS THREADS		THROTTLE SENSOR	
	METRIC M8x1.25	IMPERIAL 5/16" UNF	INCLUDED	NOT INCLUDED
CP5500-605MTS	✓	✗	✓	✗
CP5500-605M	✓	✗	✗	✓
CP5500-605UTS	✗	✓	✓	✗
CP5500-605U	✗	✓	✗	✓

BORE SIZE	BRAKE PEDAL	CLUTCH PEDAL
Ø14.0mm (0.551")	CP2623-88PRM088	CP2623-88PRM088
Ø15.0mm (0.591")	CP2623-89PRM088	CP2623-89PRM088
Ø15.9mm (0.625") 5/8"	CP2623-90PRM088	CP2623-90PRM088
Ø16.8mm (0.661")	CP2623-905PRM088	CP2623-905PRM088
Ø17.8mm (0.700")	CP2623-91PRM088	CP2623-91PRM088
Ø19.1mm (0.750") 3/4"	CP2623-92PRM088	CP2623-92PRM088
Ø20.6mm (0.842") 13/16"	CP2623-93PRM088	CP2623-93PRM088
Ø22.2mm (0.875") 7/8"	CP2623-94PRM088	CP2623-94PRM088
Ø23.8mm (0.937") 15/16"	CP2623-95PRM088	CP2623-95PRM088
Ø25.4mm (1.000")	CP2623-96PRM088	CP2623-96PRM088

THIS TABLE SHOWS THE RECOMMENDED PUSHROD LENGTHS FOR CYLINDERS IN THIS BOX.  
 IF YOU ARE ORDERING THE CP5500-505UNF, THEN MAKE SURE YOU ORDER YOUR CYLINDERS WITH THE "FR" EXTENSION AND NOT THE "PRM", eg CP2623-91PRT088.  
 CP2623 CYLINDERS HAVE IMPERIAL THREADS ON THE INLET AND OUTLET. FOR METRIC THREADS ORDER CP5623 VERSIONS INSTEAD.  
 CYLINDERS WITH LONGER PUSHRODS CAN BE CUT DOWN.

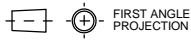


Alterations				
Date & No.	Particulars	By	Checked	Issue
1 18/01/2013 B6637	FIRST ISSUE			# CDA
2 22/01/2013 B6637	CLUTCH FOOTPAD MODIFIED.			# CDA
3 18/02/2013 B6637	BOMS UPDATED ON SHEET 3. PLUGS ADDED TO SENSORS.			# CDA
4 09/04/2013 B6637	SENSOR PIN NUMBERS ADDED SPARES TABLE UPDATED.			# CDA

SCALE 1:1 SHEET 1 OF 3  
 DRAWN: Chris Amosmith  
 APPROVED FROM:  
 DERIVED FROM:  
 TITLE: GENERIC FLOOR MTG PEDAL BOX  
 DRG NO: CP5500-605CD

# A0 INSTALLATION DRAWING

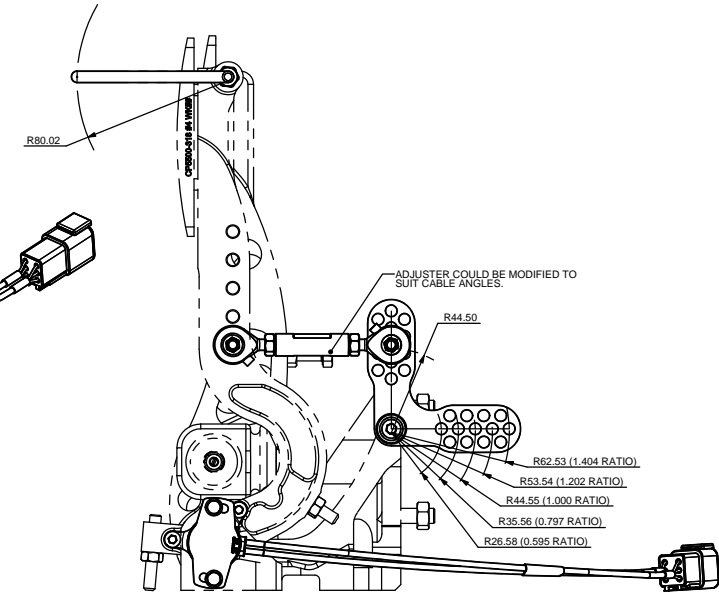
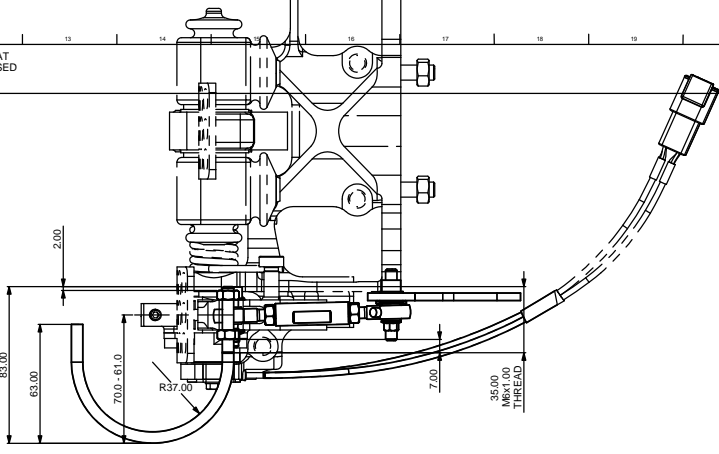
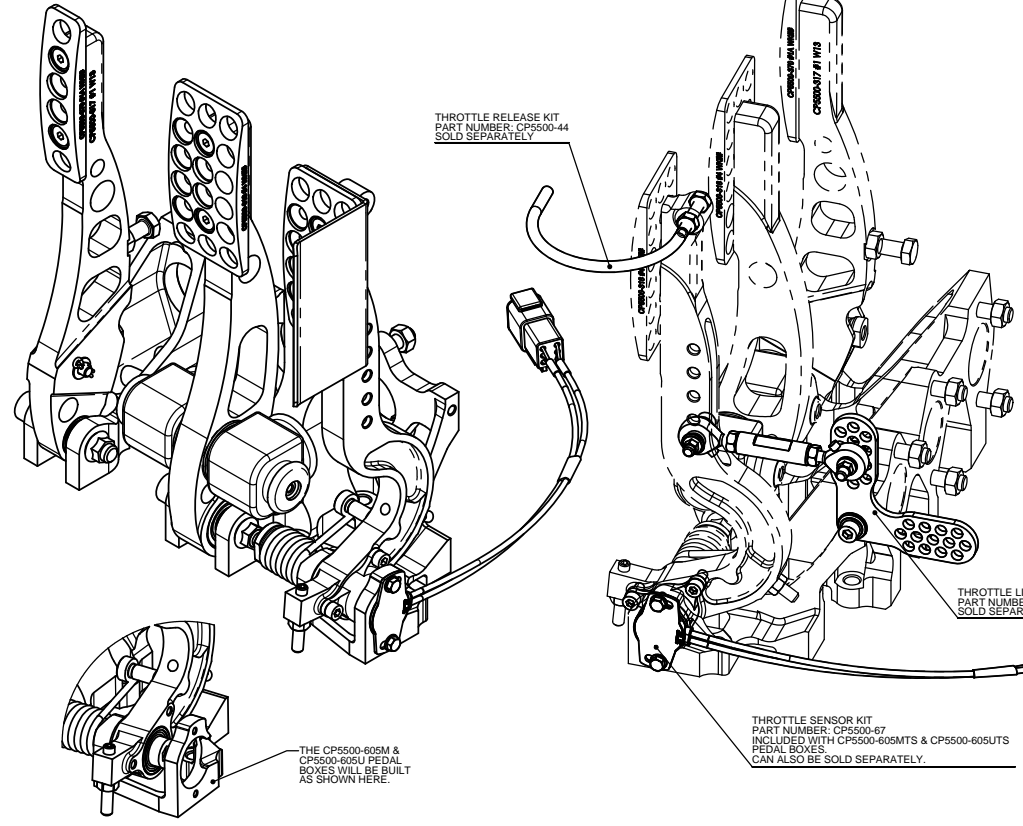
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## OPTIONAL EXTRAS



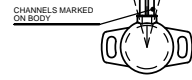
### THROTTLE SENSOR DETAIL NON CONTACT ROTARY HALL EFFECT SENSOR WITH DUAL REDUNDANCY

THE THROTTLE SENSOR HAS A MEASURING RANGE OF 30°. THIS ANGLE WAS SELECTED TO PROVIDE A HIGH RESOLUTION OF DATA FROM THE SENSOR, AND BECAUSE THE TYPICAL TRAVEL OF A THROTTLE PEDAL IS WITHIN THIS, THE PEDAL WITH ITS STOPS ARE CAPABLE OF A MUCH BIGGER RANGE (20° FORWARD FROM VERTICAL, 27.5 BACKWARDS FROM VERTICAL). THE PEDAL BOX AS STANDARD WILL BE SET AT 4° FORWARD, TO 24° BACK. IF YOU NEED A DIFFERENT RANGE, ALTER THE FORWARD STOP, ALTER THE BACK STOP (KEEP THE RANGE TO WITHIN 30°), THEN ROTATE THE SENSOR TO AN ANGLE WHERE IS CAN READ YOUR NEW RANGE.

<b>Electrical</b>	
Measurement range	30° (BOTH CHANNELS)
Supply voltage	5-40.5 Vdc
Over voltage protection	up to 10 Vdc (-40 to 60°C)
Maximum supply current	<12.5 mA each independent supply (<25mA total)
Reverse polarity protection	Yes
Short circuit protection:	
Output to GND	Yes
Output to supply	Yes
Power-on settlement time	<10ms
Resolution	0.025% of measurement range (12 Bit)
Non-linearity	<±0.4 %
Temperature coefficient	<±30 ppm/°C

\* Non-linearity is measured using the Least-Squares method on a computerised calibration system

<b>Analog Output</b>	
Voltage output range Vdc	Ratiometric output voltage - 2 to 98% of V <sub>s</sub> over measurement
Monotonic range Vdc	0.05 (1%) and 4.95 (99%) nominal
Load resistance	10k minimum (resistive to GND)
Output noise	<1 mVrms
Input/output delay	<2 mS
Output direction	Channel 1 - CW, Channel 2 - ACW

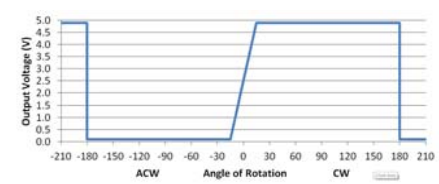


<b>Environmental</b>	
Protection class	IP68 (to 2m depth for 2 hours) and IP69K
Life	This product has no contacting parts.
Dither life	Contactless - no degradation due to shaft dither
Operational temperature #	-40°C to +140°C and +170°C for 72 hours
Storage temperature	-55°C to +140°C
Vibration	BS EN 60068-2-64:1995 Sec 8.4 (31.4gn rms) 20 to 2000Hz Random
Shock	3m drop onto concrete and 2500g
EMC immunity level	BS EN 61000-4-3:1999, to 100V/m, 80MHz to 1GHz and 1.4GHz to 2.7GHz (2004/108/EC)

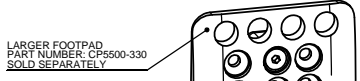
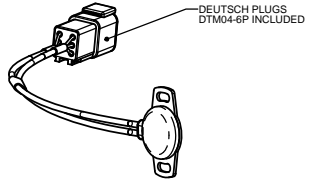
# If the maximum operating temperature is exceeded, the voltage regulator will shut down to protect the device from overheating

<b>OTHER</b>	
Cable length	0.25m
Electrical Connections	2 x 250mm of 3-core cable: FDR-25 sheathed, with 55A spec (24AWG) cores, with 1 x Deutsch DTM04-6P connectors

<b>DTM Plug Pin Arrangement &amp; description</b>	
Pin 1 - Channel 2	+V supply
Pin 2 - Channel 2	Output + 2
Pin 3 - Channel 2	0V Supply (GND)
Pin 4 - Channel 1	+V supply
Pin 5 - Channel 1	Output + 2
Pin 6 - Channel 1	0V Supply (GND)



THE GRAPH DATA IS TBC



ONLY THE BRAKE PEDAL HAS BEEN TESTED WITH THIS ITEM FITTED. IT SHOULD NOT BE FITTED TO THE CLUTCH OR THROTTLE PEDALS.

Alterations	
Date & No.	Particulars
	SEE SHEET 1 FOR ISSUE INFORMATION.

SCALE 1:1	SHEET 2 OF 3
DRAWN	Chris Aromsmith
APPROVED	
DERIVED FROM	
TITLE	GENERIC FLOOR MTG PEDAL BOX
DRG NO.	CP5500-605CD

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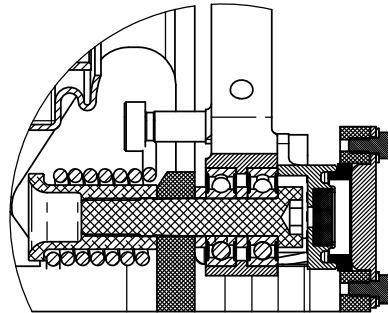


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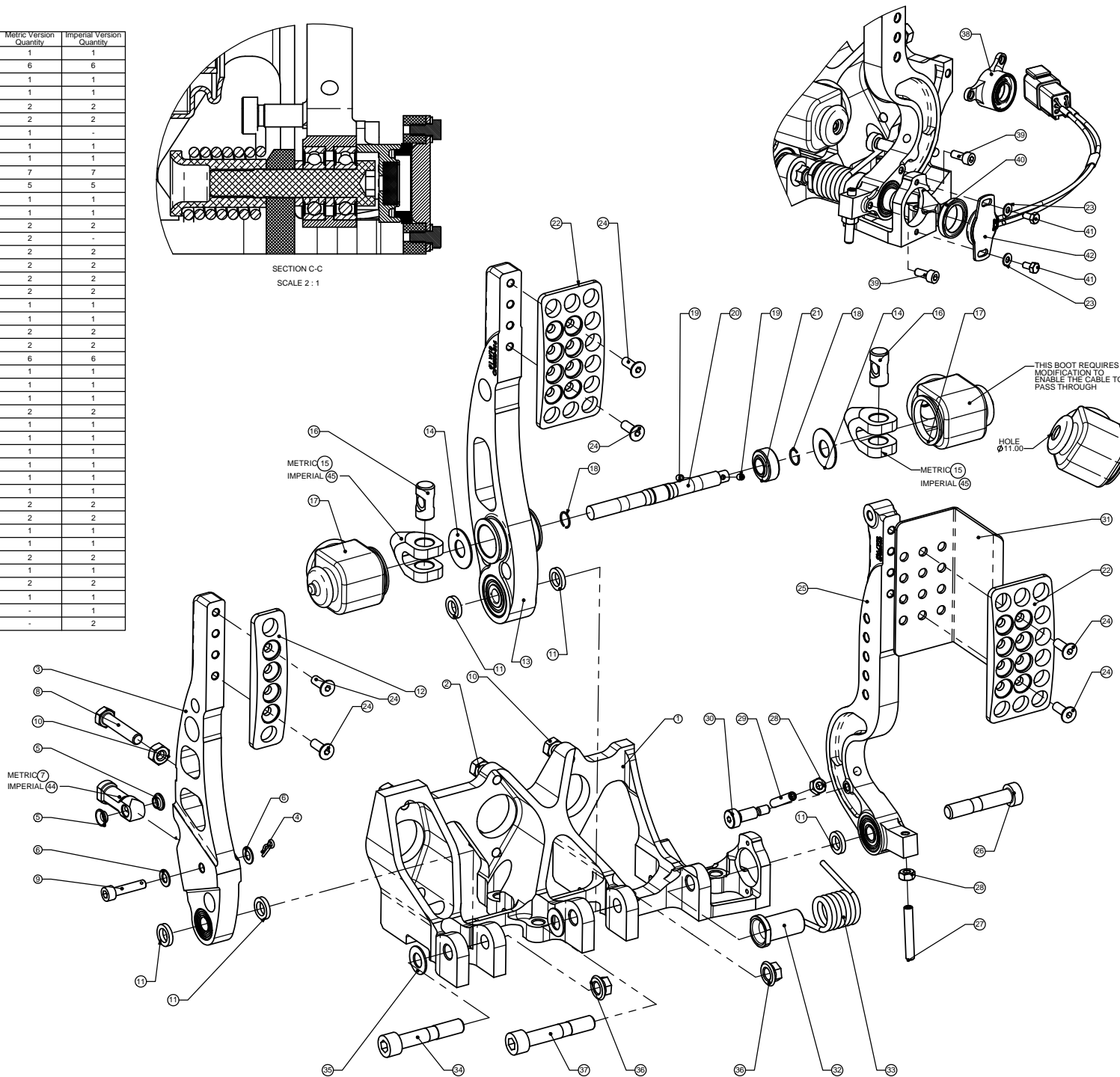
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e-mail: sales@apracings.co.uk  
Web site: HTTP://www.apracings.com

## SPARES LIST

ITEM NO.	PART NUMBER	DESCRIPTION	Metric Version Quantity	Imperial Version Quantity
1	cp5500-360	BASE PLATE	1	1
2	cp5500-133	STUD M8x1.25, 28.0 LONG	6	6
3	CP5500-41	CLUTCH PEDAL SUB-ASSY	1	1
4	cp5119-134	PAD RETAINING R CLIP	1	1
5	CP5507-131	GLYD RING BEARING	2	2
6	CP2494-1305	WASHER	2	2
7	CP5500-314	METRIC CLUTCH CLEVIS	1	-
8	CP5500-134	M8 x 1.50 HEX BOLT	1	1
9	cp5500-323	CLUTCH CLEVIS PIVOT RETAINER	1	1
10	ME21002	M8 LOCK NUT	7	7
11	cp5518-127	SPACER	5	5
12	CP5500-370	FOOTPAD	1	1
13	CP5500-40	BRAKE PEDAL SUB-ASSY	1	1
14	CP5500-124	WASHER	2	2
15	cp5500-312	CLEVIS - METRIC	2	-
16	cp5500-108	BARREL NUT	2	2
17	CP5500-150	RUBBER BOOT	2	2
18	CP5500-148	SNAP RING	2	2
19	cp5500-113at	SCREW M4 x 5	2	2
20	cp5500-105	BALANCE BAR	1	1
21	CP5500-106	SPHERICAL BEARING	1	1
22	CP5500-318	FOOTPAD	2	2
23	CP7000-170	WASHER	2	2
24	CP4350-106	M6 x 14 SCREW, COUNTERSUNK	6	6
25	CP5500-46	THROTTLE PEDAL SUB-ASSY	1	1
26	CP5500-331	M10 x 1.50 SOCKET HEAD CAP SCREW	1	1
27	CP5500-338	M6 SCREW x 40, FLAT GRUB	1	1
28	ME21001	M6 x 1.00 NUT	2	2
29	CP5500-324	M6 SCREW x 30, FLAT GRUB	1	1
30	CP7033-111	M6 SCREW, Ø8 SHOULDER	1	1
31	CP5500-329	THROTTLE GUARD	1	1
32	CP5500-366	SPRING SUPPORT BUSH	1	1
33	CP5500-365	TORSION SPRING	1	1
34	CP5000-425	M10 x 1.50 SOCKET HEAD CAP SCREW	1	1
35	CP5200-150	WASHER	2	2
36	CP5427-101	M10 KAYLOCK NUT	2	2
37	CP5200-173	M10 x 1.50 SOCKET HEAD CAP SCREW	1	1
38	cp5500-363	MAGNET HOLDER	1	1
39	CP4612-109	M5 x 0.80 CAP HEAD	2	2
40	cp5500-364	DEBRIS SLEEVE	1	1
41	cp4028-114	M4 x 0.7 HEX HEAD SCREW, 8.00 LONG	2	2
42	CP5500-369	ROTARY SENSOR	1	1
43	CP5500-336	UNF CLUTCH CLEVIS	-	1
44	cp5500-345	CLEVIS - UNF	-	2



SECTION C-C  
SCALE 2:1



Alterations		Date & No.	Particulars	Drawn	Checked
1			SEE SHEET 1 FOR ISSUE INFORMATION.		

SCALE 1:1	SHEET 3 OF 3
DRAWN	Chris Arowsmith
APPROVED	
DERIVED FROM	
TITLE	
GENERIC FLOOR MTG PEDAL BOX	
DRG NO.	CP5500-605CD