

A0 INSTALLATION DRAWING

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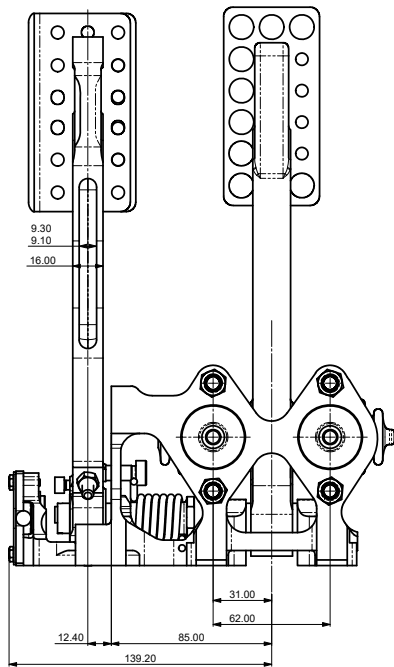
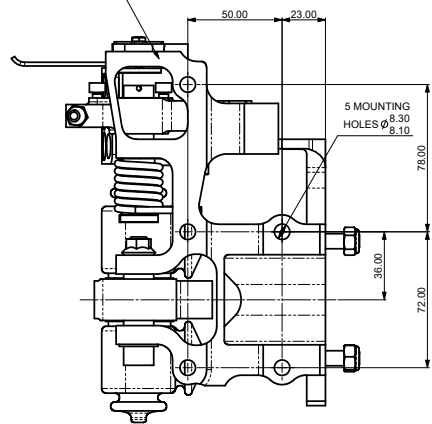


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ENSURE THAT MOST OF THE BASE IS SUPPORTED WHEN FITTED TO THE CAR.



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 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 THROTTLE PEDALS.
- PEDAL BOX WEIGHT IS 1.9Kg
 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 ON THROTTLE, SEE SHEET 2 FOR DETAILS

PART NUMBERS	CLEVIS THREADS		THROTTLE SENSOR	
	METRIC M8x1.25	IMPERIAL 5/16" UNF	INCLUDED	NOT INCLUDED
CP5500-625MTS	✓	✗	✓	✗
CP5500-625M	✓	✗	✗	✓
CP5500-625UTS	✗	✓	✓	✗
CP5500-625U	✗	✓	✗	✓

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

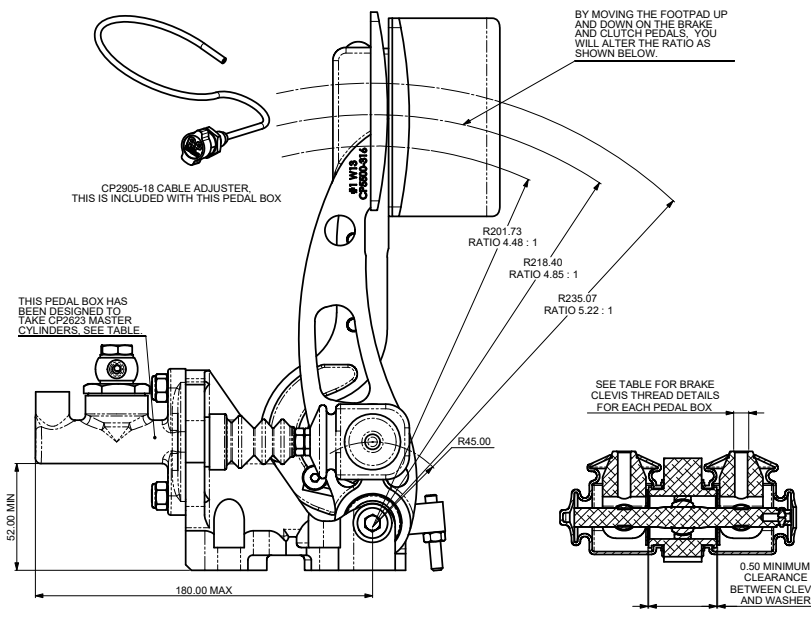
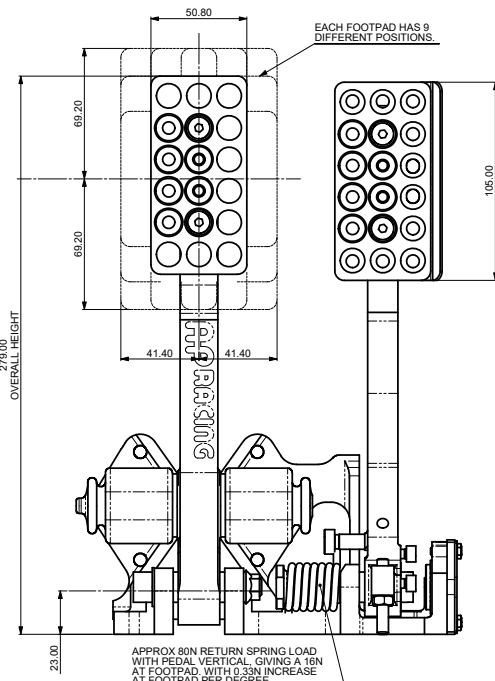
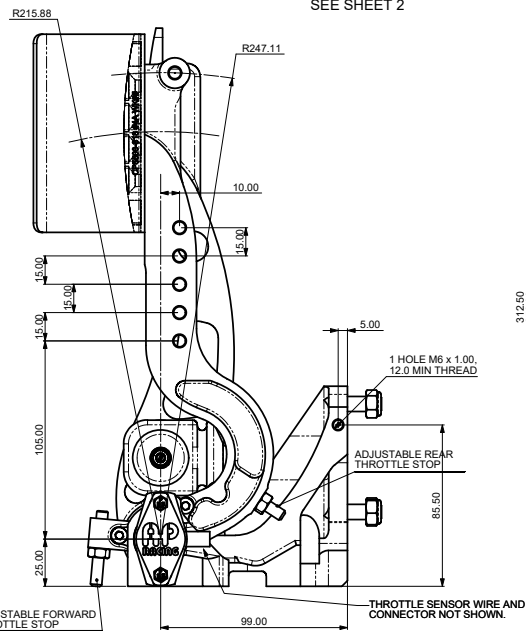
THIS TABLE SHOWS THE RECOMMENDED PUSHROD LENGTHS FOR CYLINDERS IN THIS BOX.

IF YOU ARE ORDERING THE CP5500-505UNF, THEN MAKE SURE YOU ORDER YOUR CYLINDERS WITH THE "PRT" 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.

FOR OPTIONAL EXTRAS & SPARES SEE SHEET 2



Rev	Alterations		Z	Date
	Date & No.	Particulars		
2	05/06/2014	FIRST ISSUE		
3	10/02/16	SHEET 3: ITEM 16 - CP5500-373 WAS CP5500-331 ITEM 22 - CP5500-374 WAS CP5500-336 BOLT AND BUSH NOTE ADDED		
4	14/09/16	SHEET 1: BRAKE CLEVIS THREAD NOTE UPDATED SHEET 3: ITEM 16: CP5500-379 WAS -373		
5	10/08/20	NEW TIPS AND DEBRIS SLEEVE ADDED - VIEWS UPDATED TO REFLECT THIS CHANGE SHEET 3: ITEM 27 - CP5500-383 WAS CP5500-364 ITEM 29 - CP5500-385 WAS CP5500-369		
6	09/05/2022	SHEET 2: ELECTRICAL CONNECTION NOTE UPDATED TO NEW SPEC. GRAPH DATA TO TBC NOTE REMOVED DTM PLUG REMOVED		
7	18/11/2022	SHEET 3: ITEM 13 - 1x CP5500-390 WAS 2x CP7000-110 ITEM 28 - 2x CP4333-148 WAS 2x CP4028-114		

SCALE 1:1	SHEET 1 OF 3
DRAWN Steve Thomas	
APPROVED	
DERIVED FROM	
TITLE	GENERIC FLOOR MTG PEDAL BOX
DRG NO.	CP5500-625CD

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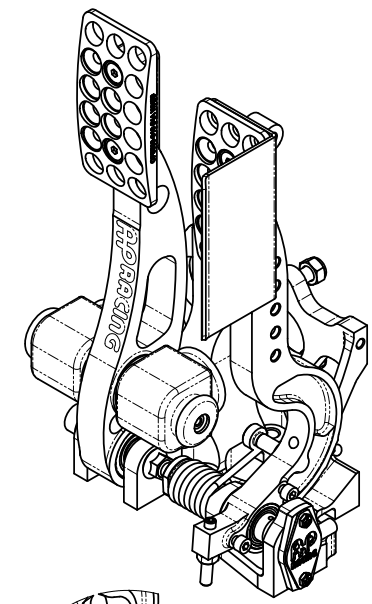
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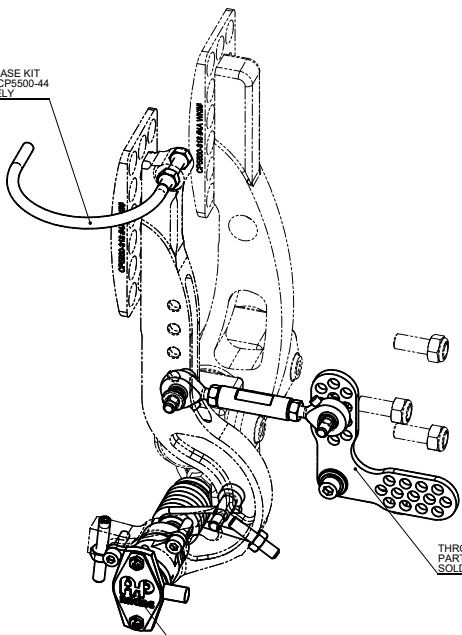
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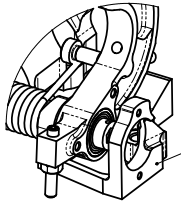
OPTIONAL EXTRAS



THROTTLE RELEASE KIT
 PART NUMBER: CP5500-44
 SOLD SEPARATELY



THROTTLE LINKAGE KIT
 PART NUMBER: CP5500-43
 SOLD SEPARATELY

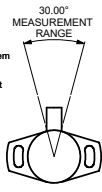


THE CP5500-625M & CP5500-625U PEDAL BOXES WILL BE BUILT AS SHOWN HERE.

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 (20.5° 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.

- Electrical**
- Measurement range: 30° (BOTH CHANNELS)
 - Supply voltage: 5-±0.5 Vdc
 - Over voltage protection: up to 10 Vdc
 - Maximum supply current: <12.5 mA each independent supply (<25mA total)
 - Reverse polarity protection: Yes
 - Short circuit protection: Yes
 - Output to GND: Yes
 - Output to supply: Yes
 - Power-on settlement time: <1 s
 - Resolution: 0.025% of measurement range (12 Bit)
 - Non-linearity: <±0.4 %
 - Temperature coefficient: <±30 ppm/°C



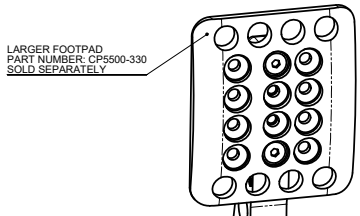
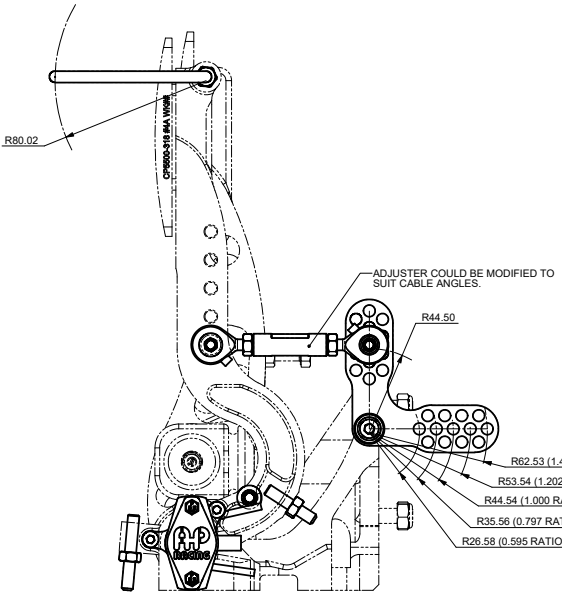
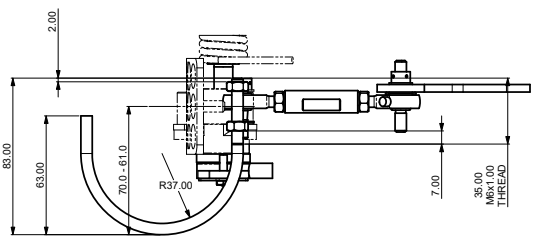
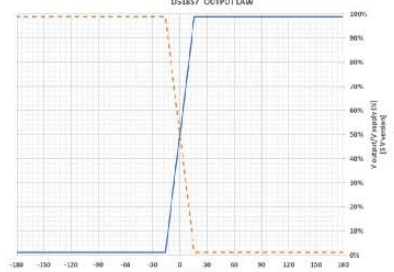
- Analog Output**
- Voltage output range Vdc: Ratiometric output voltage - 4% to 98% of Vs over measurement
 - Monotonic range Vdc: 0.05 (1%) and 4.95 (99%) nominal
 - Load resistance: 10k minimum (resistive to GND)
 - Output noise: <1 mVrms
 - Input/output delay: <2 ms Typ.
 - Output direction: Channel 1 - CW, Channel 2 - ACW

- Mechanical**
- Mechanical angle: 360°, continuous
 - Maximum rotational speed: 3600°/sec
 - Weight: <45 g
 - Mounting: Use 2 x M4 socket head cap screws and M4 washer - maximum tightening torque 2.0Nm.
 - Phasing: When magnet ident mark is facing toward the sensor and cable exit, output is at mid travel. The sensor housing allows for ±10° adjustment via the mounting flange slots.

- Environmental**
- 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 +120°C
 - Storage temperature: -40°C to +120°C
 - Vibration: BS EN 60068-2-64: 2008 Sec 8.4 (31.4gn rms) 20 to 2000Hz Random
 - Shock: 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

- OTHER**
- Cable length: 0.5m
 - Electrical Connections: 6-core cable, DR-25 jacket 28 AWG Spec 44A wires
 - Minimum bend radius is 5x the cable OD for static applications (20.5mm) and 10x the cable OD for dynamic applications (41mm)
- Sensor wire Arrangement & description**
- BLUE - Channel 2
 - WHITE - Channel 2
 - GREEN - Channel 2
 - RED - Channel 1
 - YELLOW - Channel 1
 - BLACK - Channel 1



LARGER FOOTPAD
 PART NUMBER: CP5500-330
 SOLD SEPARATELY

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

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

SCALE 1:1 SHEET 2 OF 3
 DRAWN: Steve Thomas
 APPROVED:
 DERIVED FROM:
 TITLE: GENERIC FLOOR MTG PEDAL BOX
 DRG NO: CP5500-625CD

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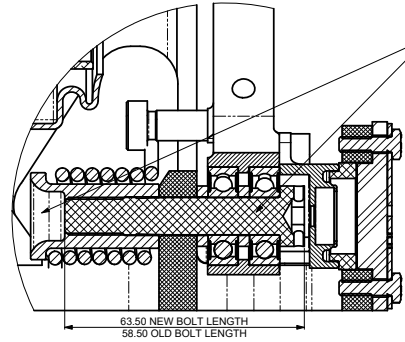


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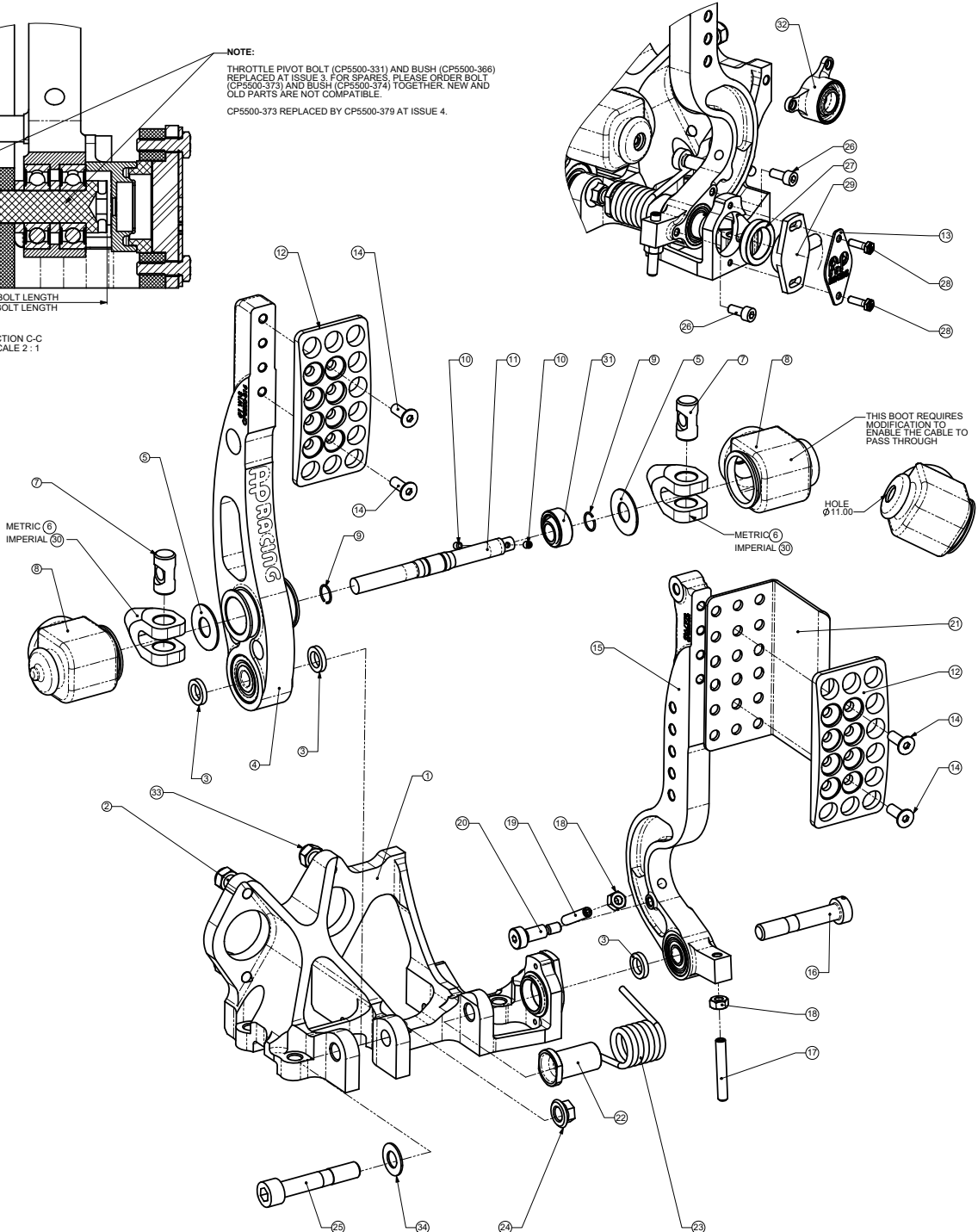
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SPARES LIST

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	4	4
3	CP5518-127	SPACER	3	3
4	CP5500-40	BRAKE PEDAL SUB-ASSY	1	1
5	CP5500-124	WASHER	2	2
6	CP5500-312	CLEVIS - METRIC	2	-
7	CP5500-108	BARREL NUT	2	2
8	CP5500-150	RUBBER BOOT	2	2
9	CP5500-148	SNAP RING 0.4375"	2	2
10	CP5500-113st	SCREW M4 x 5	2	2
11	CP5500-105	BALANCE BAR	1	1
12	CP5500-318	FOOTPAD	2	2
13	CP5500-390	SENSOR BACK PLATE	1	1
14	CP4350-106	M6 x 14 SCREW, COUNTERSUNK	4	4
15	CP5500-46	THROTTLE PEDAL SUB-ASSY	1	1
16	CP5500-379	M10x57x1.50 BOLT	1	1
17	CP5500-338	M6 SCREW x 40, FLAT GRUB	1	1
18	ME21001	M6 x 1.00 NUT	2	2
19	CP5500-324	M6 SCREW x 30, FLAT GRUB	1	1
20	CP7033-111	M6 SCREW, Ø8 SHOULDER	1	1
21	CP5500-329	THROTTLE GUARD	1	1
22	CP5500-374	SPRING SUPPORT BUSH	1	1
23	CP5500-365	TORSION SPRING	1	1
24	CP5427-101	M10 KAYLOCK NUT	1	1
25	CP5200-173	M10x1.50 CAP HEAD BOLT	1	1
26	CP4612-109	M5 x 0.80 CAP HEAD	2	2
27	CP5500-383	DEBRIS SLEEVE	1	1
28	CP4333-148	M4 x 0.7 HEX HEAD SCREW, 14.00 LONG	2	2
29	CP5500-382	ROTARY SENSOR	1	1
30	CP5500-345	CLEVIS - UNF	-	2
31	CP5500-339	SPHERICAL BEARING	1	1
32	CP5500-363	MAGNET HOLDER	1	1
33	CP5500-346	M8 NYLOC NUT	4	4
34	CP5200-150	WASHER	1	1



NOTE:
 THROTTLE PIVOT BOLT (CP5500-331) AND BUSH (CP5500-366) REPLACED AT ISSUE 3. FOR SPARES, PLEASE ORDER BOLT (CP5500-373) AND BUSH (CP5500-374) TOGETHER. NEW AND OLD PARTS ARE NOT COMPATIBLE.
 CP5500-373 REPLACED BY CP5500-379 AT ISSUE 4.



THIS BOOT REQUIRES MODIFICATION TO ENABLE THE CABLE TO PASS THROUGH

HOLE Ø11.00

METRIC Ø
IMPERIAL Ø

METRIC Ø
IMPERIAL Ø

Rev	Date & No.	Alterations	
		Particulars	Drawn
0			
1		SEE SHEET 1 FOR ISSUE INFORMATION.	

SCALE 1:1 SHEET 3 OF 3
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 TITLE
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 PEDAL BOX
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