



TECHNOLOGY MANAGEMENT

MATERIAL LIST

VOICE OVER RS232: TELEPHONE INTERFACE

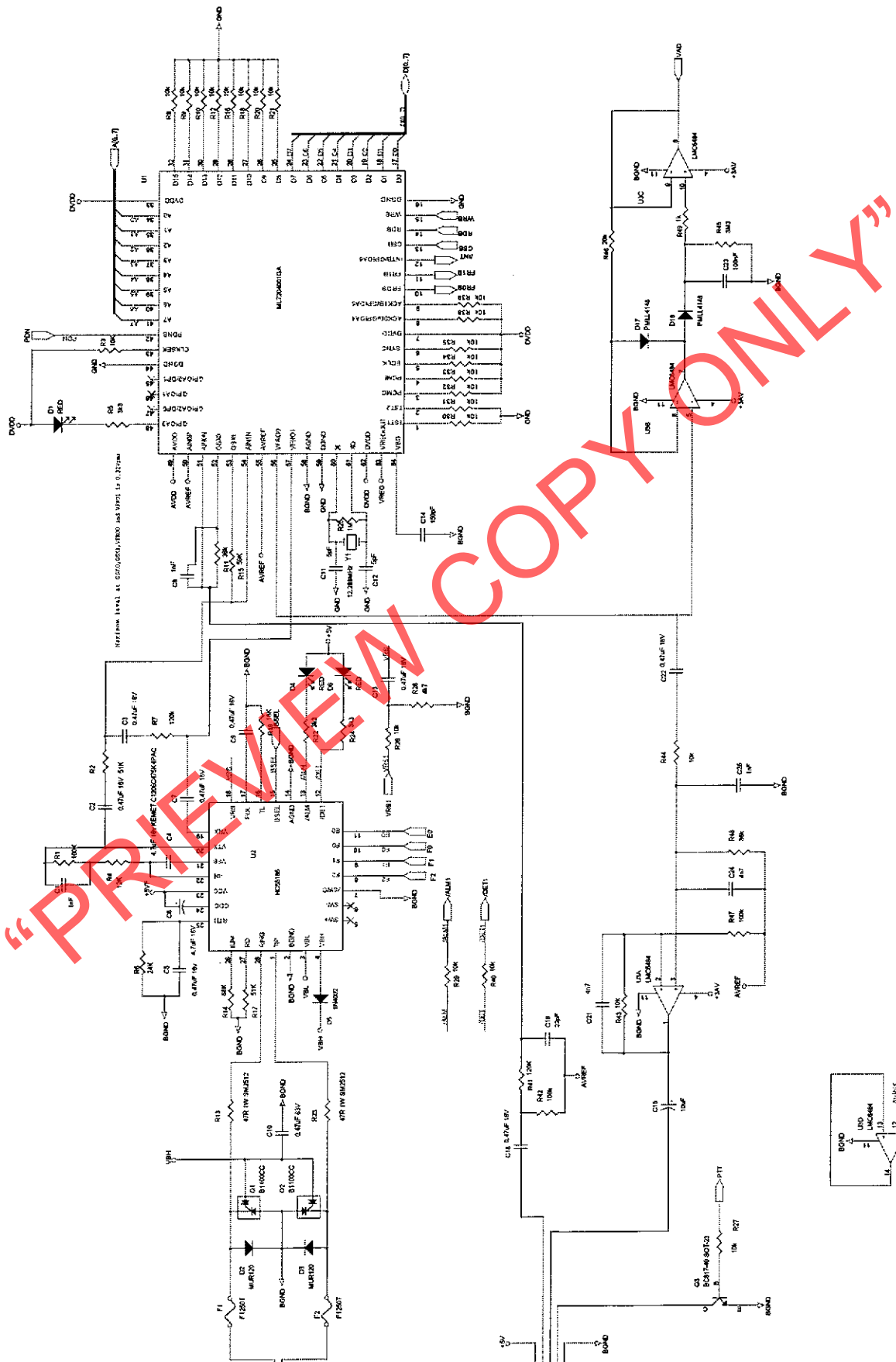
Author:	Senior Engineer	WJ Bloem
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Authorised:	Principal Engineer	J Kannemeyer

Date: July 2008

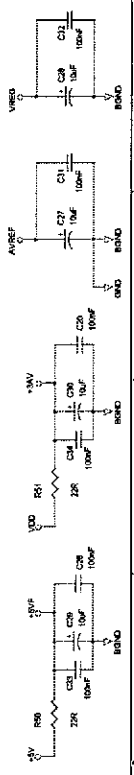
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Reference	Description	Part Number	Quantity
	Empty printed circuit board	BBC1740 Issue 2.1	1
C25	1nF 50V ceramic capacitor - SM 0805		1
C1, C8	1nF 50V ceramic capacitor - SM 1206		2
C2, C3, C5, C7, C9, C13, C18, C22	0.47uF 50V ceramic capacitor - SM 1206		8
C4	4.7uF 16V ceramic capacitor - SM 1206	KEMET C1206C475K4PAC	1
C6	4.7uF 16V tantalum capacitor - SM 1206		1
C10	0.47uF 63V polyester capacitor – lead pitch 5mm		1
C11, C12	5pF 50V ceramic capacitor - SM 0805		2
C14	150pF 50V ceramic capacitor - SM 0805		1
C15, C27, C28, C29, C30	10uF 10V Tantalum capacitor - SM 1206		5
C16, C17, C20, C23, C26, C31, C32, C33, C34, C37, C38, C39, C40, C41, C42, C48, C49, C51, C52, C53, C54, C55, C56, C58	100nF 50V ceramic capacitor - SM 0805		24
C19	22pF 50V ceramic capacitor - SM 0805		1
C21, C24	4.7nF 50V ceramic capacitor - SM 0805		2
C35, C36	15pF 50V ceramic capacitor - SM 0805		2
C43, C45, C47, C50	100uF 16V electrolytic capacitor radial – lead pitch 2.5mm		4
C44, C57	22uF 100V electrolytic capacitor radial – lead pitch 2.5mm		2
C46	100nF 100V ceramic capacitor - SM 1206		1
R1, R42, R47	100k resistor 1% – SM 0805		3
R2, R17	51k resistor 1% – SM 0805		2
R3, R8, R9, R10, R12, R16, R18, R20, R21, R26, R27, R29, R30, R31, R32, R33, R34, R35, R38, R39, R40, R43, R44, R54, R57	10k resistor 1% – SM 0805		25
R4	12k resistor 1% – SM 0805		1
R5, R22, R24	3K3 resistor 1% – SM 0805		3
R6	24k resistor 1% – SM 0805		1
R7, R41	120k resistor 1% – SM 0805		2
R11, R48	36k resistor 1% – SM 0805		2
R23, R13	47R resistor 1W 1% – SM 2512		2
R14	68k resistor 1% – SM 0805		1
R15	59k resistor 1% – SM 0805		1
R19	18k resistor 1% – SM 0805		1
R25, R53	1M resistor 1% – SM 0805		2
R28	4K7 resistor 1% – SM 0805		1
R45	3M3 resistor 1% – SM 0805		1
R46	20k resistor 1% – SM 0805		1
R49, R52, R56, R58, R67, R68, R69, R70, R72	1k resistor 1% – SM 0805		9
R50, R51, R73	22R resistor 1% – SM 0805		3
R55, R60, R64, R66	1K8 resistor 1% – SM 0805		4
R59, R62, R63, R65, R71	2K2 resistor 1% – SM 0805		5
R61	33k resistor 1% – SM 0805		1
R75	100R resistor 1W 1% – SM 2512		1
U1	Codec for VoIP – SM 64 pin QFP package	ML7204-001GA (OKI)	1
U2	Rslic – 28 pin PLCC	HC55185ECM	1
U3	Rail to rail Opamp – SM 14 pin SOIC narrow	LMC6484AIM	1



DATE	APPROVED	Technology Management
DESIGNED BY DAMIEN AB	CHECKED BY T.M. SHERIDAN	Version Over RESEZ: Telephone Interface
SPOORNET BIC1728 REV. 1 / 2		



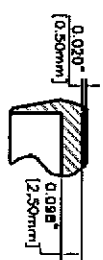
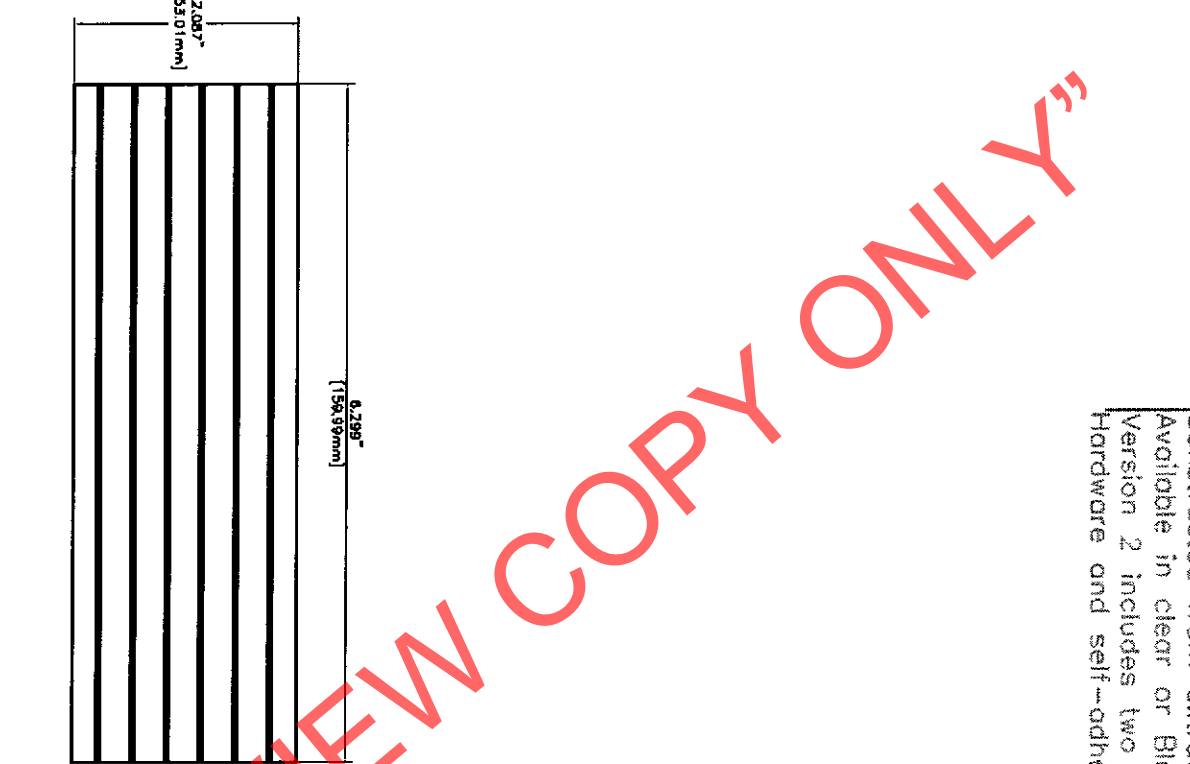
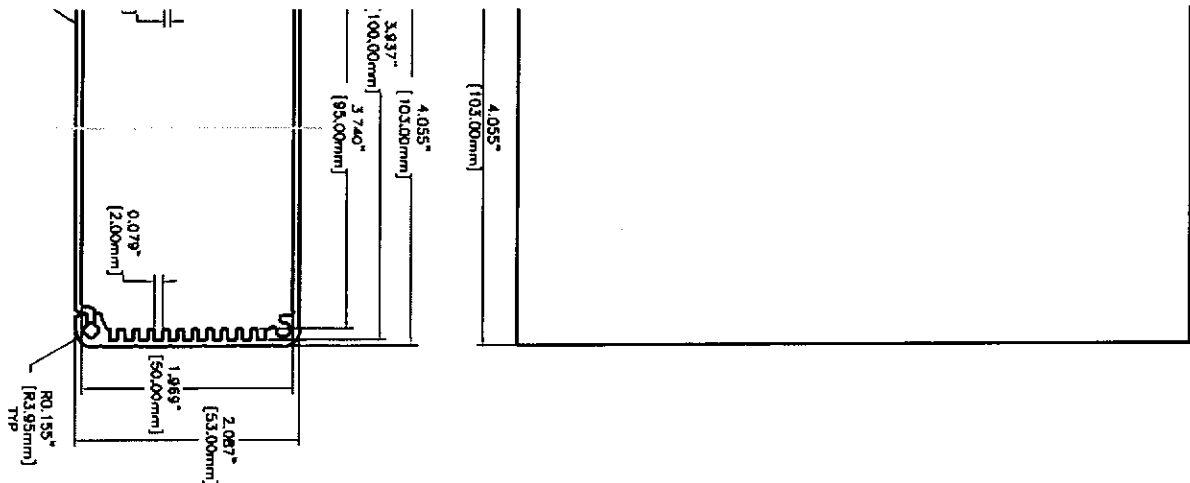


DATE	DESIGNED A.B. DRAWN A.B. CHECKED A.B.	"APPROVED" AUTUMBER	Version Management Value Over REUSE: Telephone Interface
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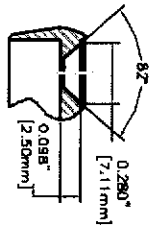
SPORNET	BBCT28	TABLE 1	REV. 1 / 1
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NOTES

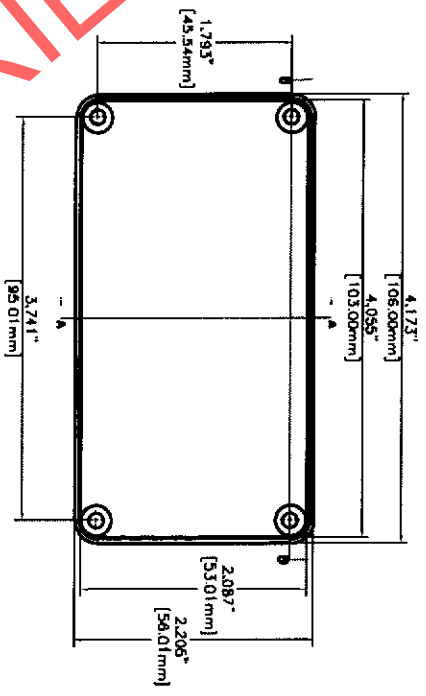
Constructed from extruded Al with a minimum thickness of 0.06" (1.5mm)
 Available in clear or Black anodized finish
 Version 2 includes two Black plastic one piece bezel/panels,
 Hardware and self-adhesive rubber feet included.



SECTION A-A
SCALE 2:1



SECTION B-B
SCALE 2:1



PANEL

EXTRUSION

Use Note is removable.

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Rev	ECN	Description	Date	By
1	100	REVISED	01 15 02	ML

Units: dimensions specified
 dimensions are in inches
 Tolerances are:
 .X .1
 .XX .02
 .XXX .010
 .XXXX .0005
 Holes .0050
 Angles 2 5

Den	Dr	Date
ML	ML	01 15 02

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 Electronics Group, Waterloo, Ont. - Chesham, NY

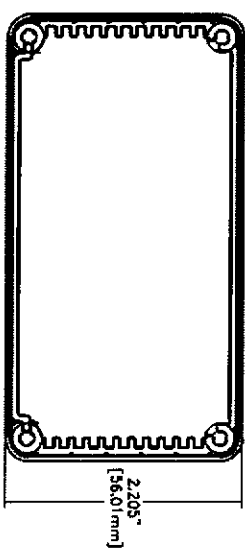
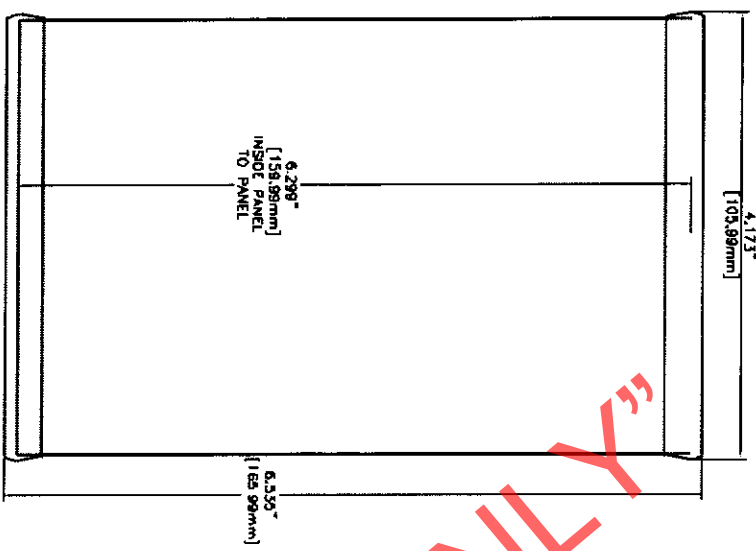
HAMMOND 1455 SERIES
EXTRUDED ALUMINUM

Part#: 1455N1502 Dwg: 1455N1502

For the best fit print
 on legal size paper.

NOTES

Constructed from extruded Al with a minimum thickness of 0.06" (1.5mm)
 Available in clear or Black anodized finish
 Version 2 includes two Black plastic one piece bezel/panels.
 Hardware and self-adhesive rubber feet included.



ASSEMBLED



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Rev	ECN	Description	Date	By
Δ			01 15 02	AW

UNLESS OTHERWISE SPEC'D	Den	SA	DATE
Dimensions are in inches	1/4	10/15/02	10/15/02
Tolerances over	0.005	0.005	0.005
XXX	0.010	0.010	0.010
XXX	0.015	0.015	0.015
Angles	± 0.05	± 0.05	± 0.05
	± 0.05	± 0.05	± 0.05

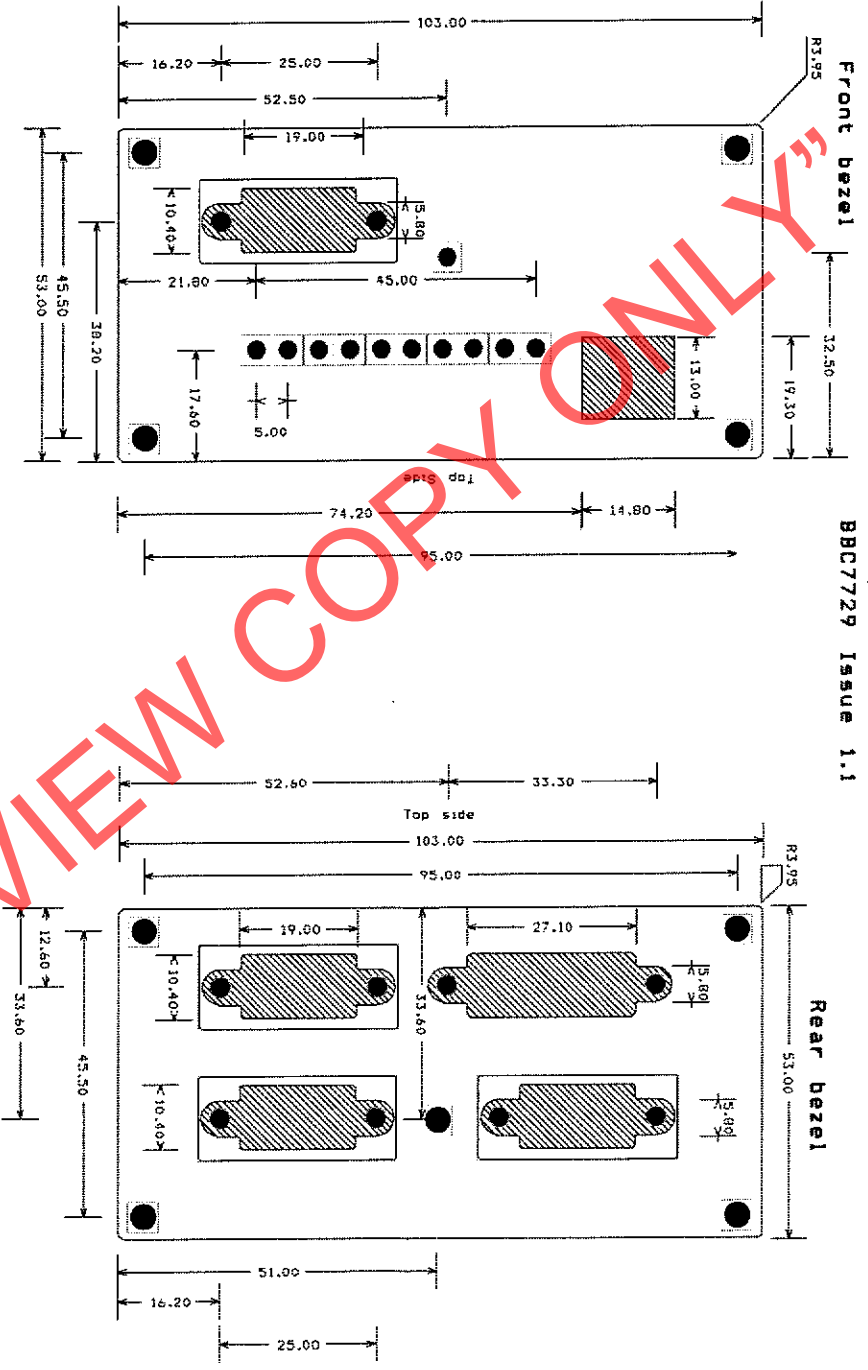
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HAMMOND 1455 SERIES
 EXTRUDED ALUMINUM

Part#: 455M1502 Dwg: 1455M1502A

RS232 Telephone Front and Rear Bezels
 BBC7729 Issue 1.1

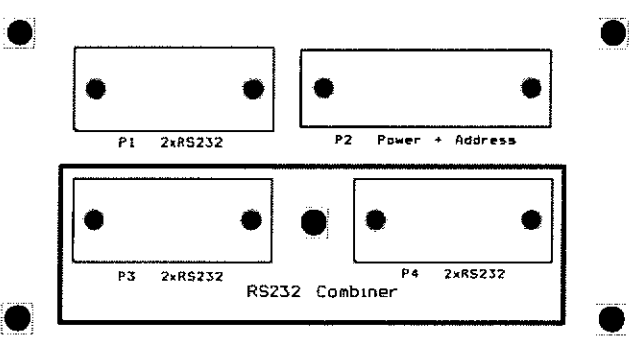
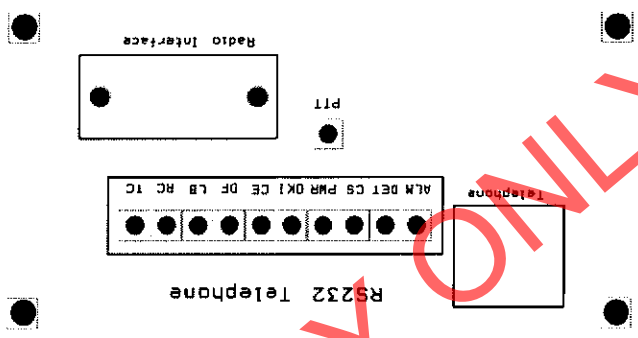


Notes:

- 1) The front and rear plates can be manufactured using 1.5mm thick aluminium or the plastic bezels supplied with the enclosure
- 2) If aluminium is used then the outer dimensions of the plates shall be 53mm±0.03mm. The aluminium shall be black anodised
- 3) Deburred after drilling and machining
- 4) All silk-screening to be done in white on black
- 5) Tolerances: -0.0/+0.1 mm
- 6) All measurements for the plastic bezel are taken from the inside edge of the bezel

HOLE LEGEND			
SYM	DIAM	TOL	QTY
X	5.000 mm		11
o	3.200 mm		10
+	4.000 mm		9
TOTAL			30

“PREVIEW COPY ONLY”



HOLE LEGEND			
SYM	DIAM	TOL	QTY
X	3.000 mm		11
∞	3.200 mm		10
∞	4.000 mm		9
TOTAL			30

NOTE