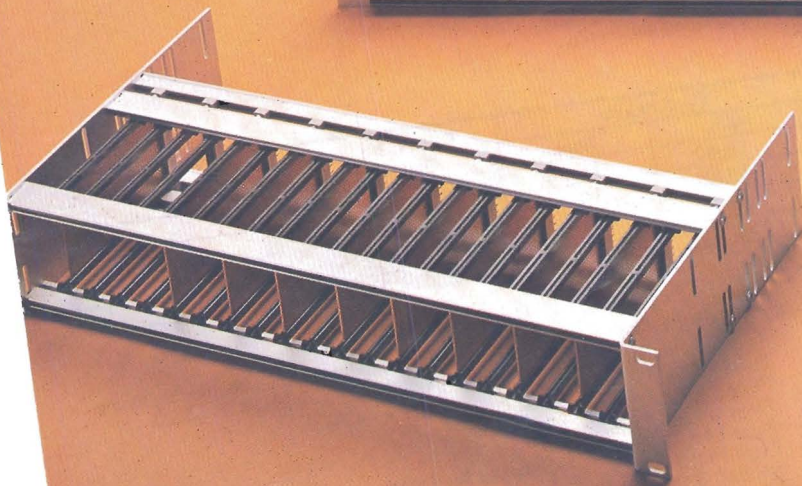
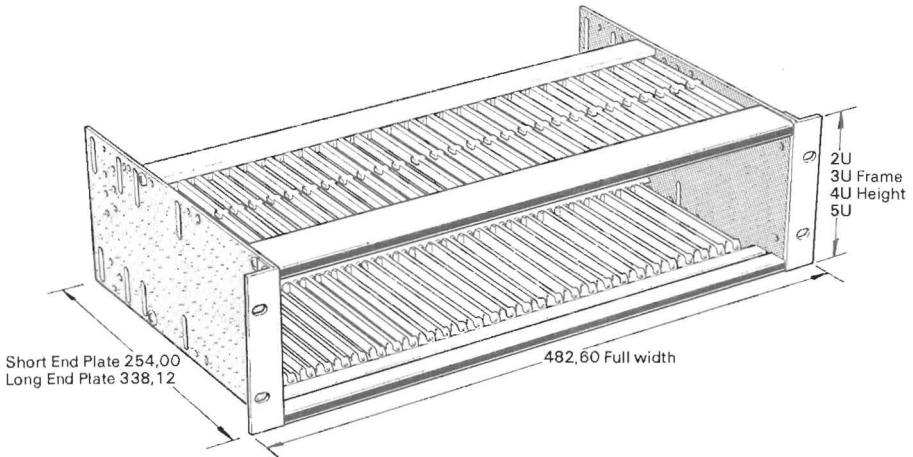


Card Frames for other card sizes



Card Frame System 3C

482,60 (19") Full Width



- International rack mounting 482,60mm (19") wide
- Available in 2U, 3U, 4U and 5U heights
- Various card pitches and lengths
- Various connector mounting styles
- Two frame depths
- Half shears ensure accurate alignment and easy assembly (except 2U high)
- Front and rear identification available
- Full width hinged front panels
- Supplied packed flat (unassembled)

Ordering Information

For basic frames consisting of:- 2 end plates, 2 end plate angles, 4 guide mounting extrusions, 2 connector mounting extrusions and necessary fastenings. Connector mounting facilities must be ordered separately.

	Frame Height	Card Height	Order Code	
			Short End Plate 254,00	Long End Plate 338,12
Without hinged front panel	2U	69,85	35-2204H C	—
	3U	114,30	35-2205C C	35-2212A C
	4U	158,75	35-2206J C	35-2213G C
	5U	203,20	35-2207D C	35-2214B C
With hinged front panel	2U	69,85	35-2208K C	—
	3U	114,30	35-2209E C	35-2215H C
	4U	158,75	35-2210L C	35-2216C C
	5U	203,20	35-2211F C	35-2217J C

Compatible Items

The following compatible products should be ordered separately: —

Guides	Page 14.16
Guide spacer strips	Page 14.17
Connector mounting	Page 14.19
Front Panels	Page 14.12
Identification Strips	Page 14.13
Circuit boards	Section 3
Connectors	Section 8

Half Width Frames C

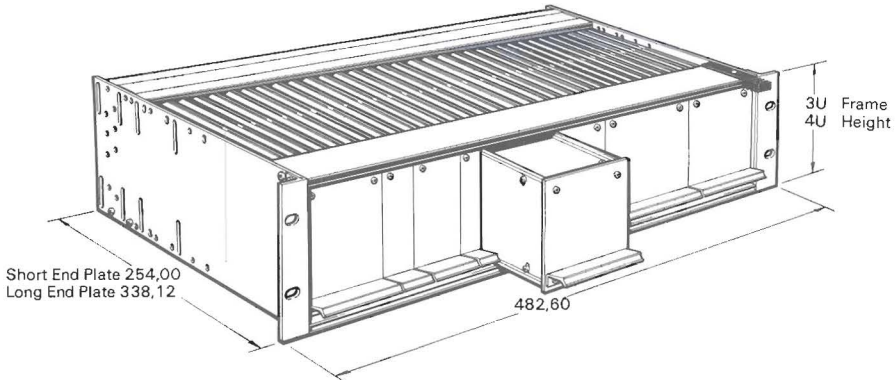
½ width frames can be ordered by referring to piece parts listed on pages 14.14 to 14.20.

Frame Height

Note: — Frame heights are measured as multiples of 'U'. 1U = 44,45mm (1¾")

Card Frame System 3E

482,60 (19") Full Width



- International rack mounting 482,60mm (19") wide
- Available in 3U and 4U heights
- Card pitch 12,70mm
- Standard plug-in card length 203,20mm
- Modules available in 3U and 4U heights
- Various connector mounting styles
- Modules designed to accept McMurdo plugs
- Two frame depths
- Half shears to ensure accurate alignment and easy assembly
- All cards, front panels and modules locked by one push/pull Verolock® fitted as standard
- Supplied packed flat (unassembled)

Ordering Information

For basic frames consisting of 2 end plates, 2 end plate angles, 4 guide mounting extrusions including Verolock® assembly, 4 guide spacer strips and necessary fastenings. Connector mounting facilities must be ordered separately.

14

Frame Height	Card Height	Order Code	
		Short End Plate 254,00	Long End Plate 338,12
3U	114,30	37-2224L	37-2226A
4U	158,75	37-2225F	37-2227G

Compatible Items

The following compatible products should be ordered separately: —

Modules	See page 14.6
Guides	See page 14.16
Connector mounting	See page 14.20
Front panels	See page 14.13
Identification strips	See page 14.13
Circuit boards	Section 3
Connectors	Section 8

Frame Height

Note: — Frame heights are measured as multiples of 'U'. 1U = 44,45mm (1¾")

Modules

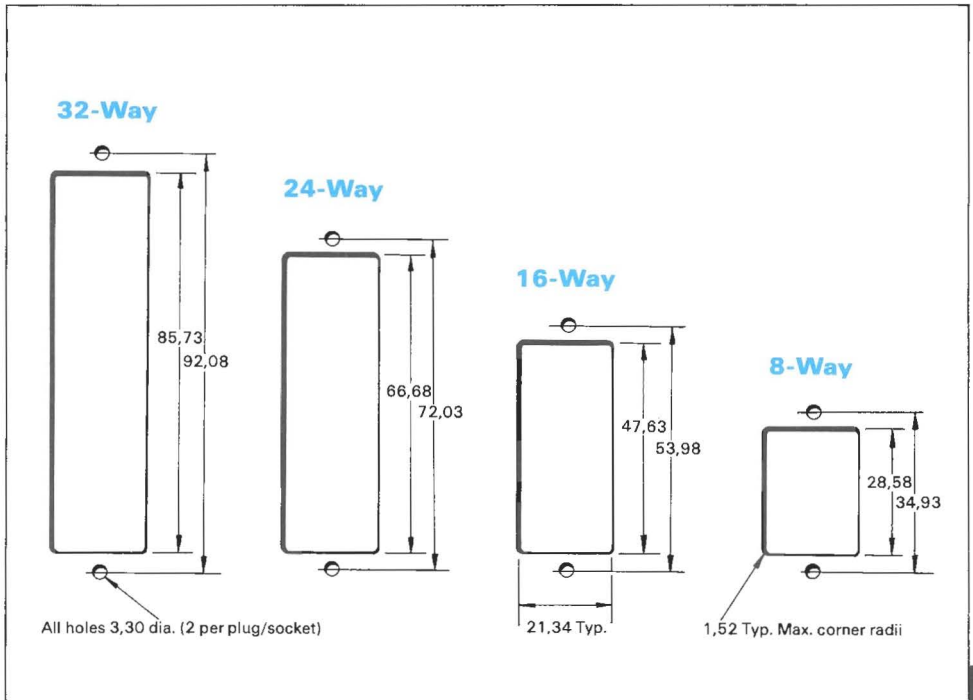
for Card Frame System 3E

Order Code specifying basic module

Module Width	Module Height	Nominal Frame Depth	Dimensions								Order Code
			A	B	C	D	F	G	H	J	
5E	3U	254,00	115,67	193,80	89,41	114,30	25,15	-	16,31	18,42	37-2937G
	4U		160,12		133,86	158,75					37-2938B
5E	3U	338,12	115,67	277,88	89,41	114,30	25,15	-	16,31	18,42	37-2940C
	4U		160,12		133,86	158,75					37-2941J
10E	3U	254,00	115,67	193,80	89,41	114,30	50,55	-	41,71	43,82	37-2949B
	4U		160,12		133,86	158,75					37-2950H
10E	3U	338,12	115,67	277,88	89,41	114,30	50,55	-	41,71	43,82	37-2952J
	4U		160,12		133,86	158,75					37-2953D
15E	3U	254,00	115,67	193,80	89,41	114,30	75,95	54,86	61,72	63,50	37-2955E
	4U		160,12		133,86	158,75					37-2956L
15E	3U	338,12	115,67	277,88	89,41	114,30	75,95	54,86	61,72	63,50	37-2958A
	4U		160,12		133,86	158,75					37-2959G
20E	3U	254,00	115,67	193,80	89,41	114,30	101,35	80,26	87,12	88,90	37-2961H
	4U		160,12		133,86	158,75					37-2962C
20E	3U	338,12	115,67	277,88	89,41	114,30	101,35	80,26	87,12	88,90	37-2964D
	4U		160,12		133,86	158,75					37-2965K
25E	3U	254,00	115,67	193,80	89,41	114,30	126,75	105,66	112,52	114,30	37-2967L
	4U		160,12		133,86	158,75					37-2968F
25E	3U	338,12	115,67	277,88	89,41	114,30	126,75	105,66	112,52	114,30	37-2970G
	4U		160,12		133,86	158,75					37-2971B
40E	3U	254,00	115,67	193,80	89,41	114,30	202,95	181,86	188,72	190,50	37-2979F
	4U		160,12		133,86	158,75					37-2980A
40E	3U	338,12	115,67	277,88	89,41	114,30	202,95	181,86	188,72	190,50	37-2982B
	4U		160,12		133,86	158,75					37-2983H

Rear Panel Cut-outs

Cut-out Details and Location



14

To Order

Select the Order Code for the cut-out location required from the following table and add this to the module or panel order code.

Follow with a further location code for a second plug if required. It is recommended that a maximum of two plugs only are fitted to a single panel. A 32-way plug cannot be fitted to a panel 3U high.

Cut-out Position	Plug Code & Number of Contacts				
	27-0384E 32-way	27-0382D 24-way	27-0380C 16-way	27-0378B 8-way	
LC	37-6029A	37-6032H	37-6035D	37-6038L	
C	37-6030G	37-6033C	37-6036K	37-6039F	
RC	37-6031B	37-6034J	37-6037E	37-6040A	

Note: McMurdo plugs and sockets must be ordered separately.
See Section 8.

Side, Screening and Base Plates

for System 3E Modules

Side or Screening Plates

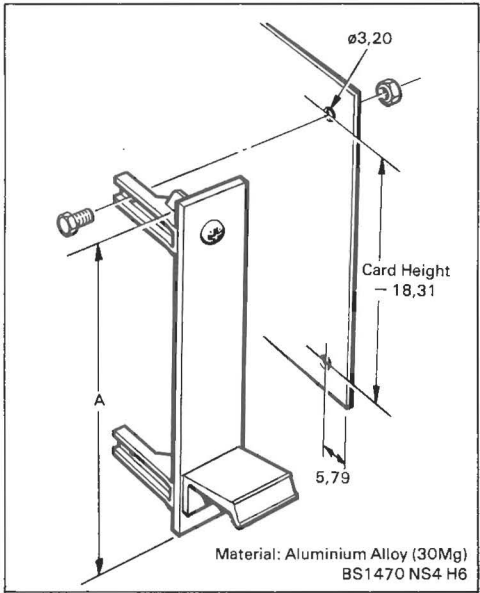
Frame Height	Nominal Module Width	Nominal Frame Depth	Plate Dimensions			Order Code
			A	B	C	
3U	All	254,00	103,23	195,91	147,88	37-0664H
4U	All		147,68			37-0665C
3U	All	338,12	103,23	279,9	231,96	37-0667D
4U	All		147,68			37-0668K

Wrap Round Covers

Frame Height	Nominal Module Width	Nominal Frame Depth	Plate Dimensions			Order Code
			A	B	C	
3U	10E 50,80	254,00	102,29	193,42	168,20	37-1275F
4U			146,74			37-1276A
3U	10E 50,80	338,12	102,29	279,50	252,28	37-1278B
4U			146,74			37-1279H

Base Plates

Frame Height	Nominal Module Width	Nominal Frame Depth	Plate Dimensions			Order Code
			A	B	C	
All Sizes	15E 76,20	254,00	60,83	193,42	168,20	37-2799H
		338,12		277,50	252,28	37-2800A
	20E 101,60	254,00	86,23	193,42	168,20	37-0656D
		338,12		277,50	252,88	37-0660F
	25E 127,00	254,00	111,63	193,42	168,20	37-0657K
		338,12		277,50	252,88	37-0661A
	40E 203,20	254,00	187,83	193,42	168,20	37-0659L
		338,12		277,50	252,28	37-0663B



Front Panels and Identification Strips

Card Mounting Front Panels

For System 3D and 3E

Front panels, with handles and card mounting brackets, for mounting maximum height circuit boards.

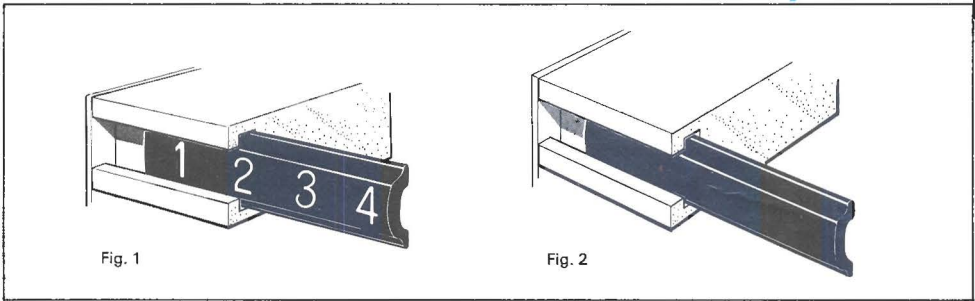
Supplied as a kit comprising panel, handle, brackets and fixings.

Note: When using recommended length cards, there is a gap of 17,27mm between card and front panel.

Frame Height	Panel Height	Nominal Panel Width		
		5E	10E	
3U	115,57	37-7773D	37-7846L	
4U	160,02	37-7774K	37-7847F	
5U	204,47	37-7775E	37-7848A	

Connector, Card & Panel Identification Strip

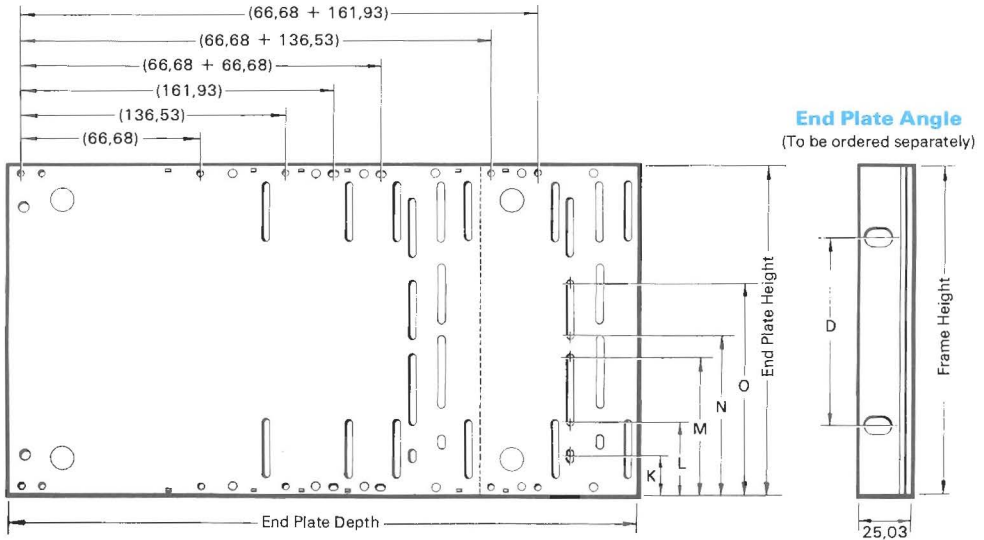
14



Symbol Spacing	Symbol	Front or Rear	Fig.	Order Code
12,70	1-32	Front	Fig. 1	41-1658H
	32-1	Rear		41-1662K
15,24	1-28	Front		41-1666A
	28-1	Rear		41-1667G
20,32	1-21	Front		41-1663E
	21-1	Rear		41-1925J
—	Blank	Front	Fig. 2	41-1660J

End Plates for Systems 3C, 3D, 3E Card Frames

Dimensions in brackets indicate guide lengths.



Material: Aluminium Alloy (25Mg)
BS1470 NS4 H6

System	Frame Height	Card Height	Nominal End Plate Height	Nominal End Plate Depth	Order Code
3C	2U	69,85	88,90	250,83	35-0466H
	3U	114,30	133,35		35-2471L
	4U	158,75	177,80		35-2473A
3D	5U	203,20	222,25	335,00	35-2475B
3E	3U	114,30	133,35		35-2472F
	4U	158,75	177,80		35-2474G
	5U	203,20	222,25		35-2476H

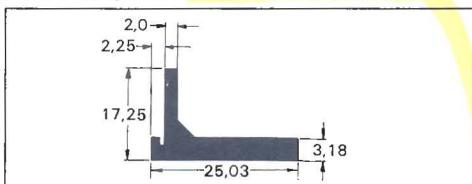
These holes are provided as standard on System 3C and 3D above, but are only used on System 3E when McMurdo sockets are mounted. Table shows fixing positions for standard sockets. Note: Dimension O does not apply to 3U height.

K	L	M	N	O
Bottom Fixing	Top Fixing			
	8-way	16-way	24-way	32-way

Note: 2U end plates do not have half shears.

End Plate Angle Section

In 1,8m lengths (no protective finish) may be ordered by quoting **Order Code 12-1081L**



Minimum order quantity 3.6m.

End Plate Angle

System	Frame Height	Dimension 'D'	Order Code
3C	2U	76,20	35-0470K
3D	3U	57,15	35-0471E
3E	4U	101,60	35-0472L
	5U	146,05	35-0473F

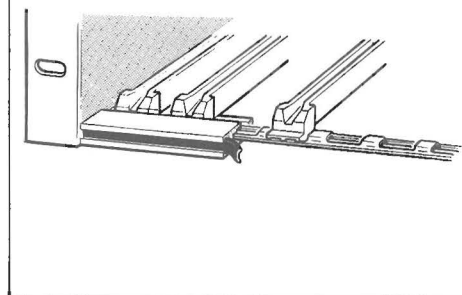
Guide Spacing Systems

Spacer Strip

for Single Snap-in Guides

These spacer systems are designed for use with single snap-in guides 66,68, 111,13, 136,53 and 161,93 long.

They are made of formed stainless steel blanked with guide location apertures, is used to locate single snap-in guides providing card spacing as shown.

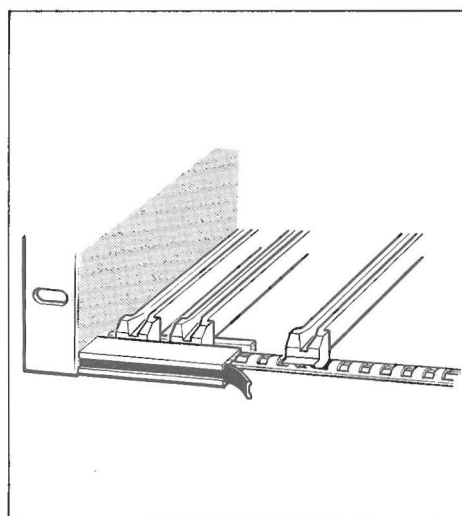


System	Frame width and Nominal Strip length	Number of Guides (Pair)	Card Pitch	Order Code	
3A & 3C	Full Width Frame 431,80	28	15,24	35-0481K	
		21	20,32	35-0479J	
	Half Width Frame 215,90	14	15,24	35-1004H	
		10	20,32	35-1009E	
3D & 3E	Full Width 431,80	33	12,70	37-1665F	

Spacer Strip

for Single Guides on 5,08mm pitch

This spacer strip is fitted in the extrusions during assembly and the guides can then be snapped into the assembled frame in any position on a multiples of 5,08 pitch. Guides can also be removed if their position requires changing.



14

System	Frame width and Nominal Strip length	Number of Guides	Order Code	
3A & 3C	Full Width 431,80	As Required	33-1679E	
	Half Width 215,90		35-3776A	

Connector Mounting

System 3A and 3C

Closed End Connector Mounting

Fig. 1

For mounting standard closed end connectors individually, hexagon headed screws are used in a 'T' slot extruded into the mounting rail. This enables the connectors to be mounted at any position along the length of the rail.

Modular Connector Mounting

Fig. 2

For mounting modular connectors individually, hexagon headed screws are used, as above.

Connector Mounting Rail

(included as standard item in card frame kits)

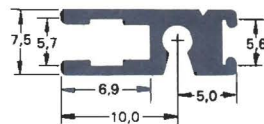
Full Width Frame	Half Width Frame	
431,80	215,90	
35-2152F	35-2153A	

Fastenings

Connector Ear Maximum Thickness	Screw		Order Code
	Fig	Length	
7,00	2	8,00	27-3070F
3,00	1	12,00	41-1376E
Compatible Items	Nut		41-0505B
	Washer		41-3048C

Supplied in packets of 100.

Connector Mounting Rail Section



In 1,8m lengths (no protective finish) may be ordered by quoting **Order Code 12-3391A**.

Minimum order quantity 3.6m.

State total length required when ordering.

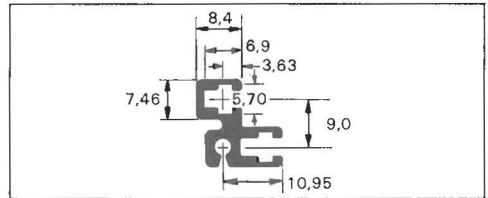
Connector Mounting

McMurdo Type Socket Mounting Rail

Where only McMurdo type sockets are required no castellated strip is necessary, but a separate pair of full width socket mounting rails must be fitted.

Rail Length	Order Code
85E (431,80)	37-0404C

McMurdo Socket Mounting Rail in 1,8m lengths (no protective finish) may be ordered by quoting **Order Code 12-1223A**



Minimum order quantity 3.6m.
State total length required when ordering.

Connector Mounting Plate

This connector mounting plate, 421,64mm long, has been designed for use with any full width System 3 card frame. It is attached to the connector mounting rail using M3 cheese head screws.

Precise alignment of connectors with cards is achieved by using end foot 166-2724E, which snaps into the mounting plate. For end foot see page 14.23.

Supplied as a kit consisting of 1 pair of connector mounting plates and 10 M3 cheese head screws.

Order Code	Description
37-0928B	Connector Mounting Plate

Accessories



Fig. 1



Fig. 2

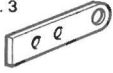


Fig. 3

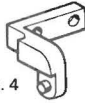


Fig. 4

(The above items are used on hinged front panels, see page 14.12)

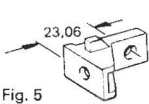


Fig. 5

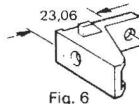


Fig. 6

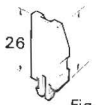


Fig. 7

Material: Fig. 1 Lexan 2014, Black
Figs. 4, 5, 6 and 7 Noryl SE1, Black

Hinged Panel Bolt (Fig. 1)

Supplied in packets of 10.

Order Code 33-0502J

Hinged Panel Spring (Fig. 2)

Supplied in packets of 10.

Order Code 33-0503D

Hinged Panel Hinge Plate (Fig. 3)

Supplied in packets of 10.

Order Code 35-0501G

Hinged Panel Hinge Bracket (Fig. 4)

Supplied in packets comprising 5 each hand.

Order Code 35-0500A

Front Panel Card Mounting Brackets

(Figs. 5 & 6) Supplied in packets comprising 5 each hand.

For 5E width (Fig. 5)

Order Code 36-0590D

For 10E width (Fig. 6)

Order Code 35-0589J

Modular Connector End Foot (Fig. 7)

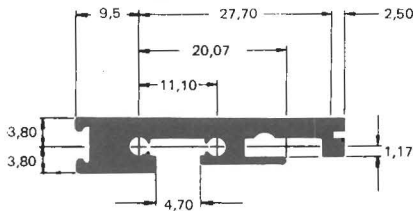
Supplied in packets of 10.

Order Code 166-2724E

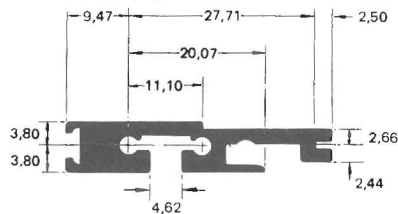
Extruded Sections

14

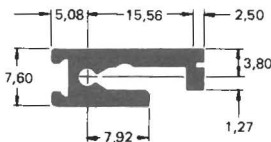
Guide Mounting Rail 3C, 3D & 3E



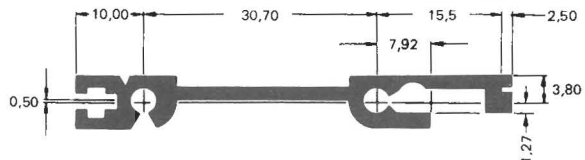
Material: Aluminium Alloy to BS1474 'High Tensile' HE9TF or equivalent.



Guide Mounting Rail 3A, 3C & 3D



Guide & Connector Mounting Rail 3E



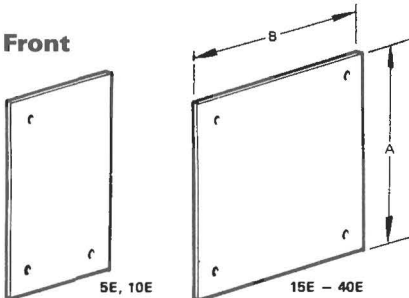
Hardware

The screws and nuts listed below may be ordered separately. Supplied in packets of 100.

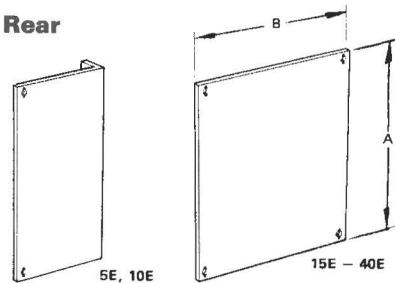
Where Used	Fastener		Order Code
Divider plate mounting and McMurdo plug mounting to module Connector mounting Connector and McMurdo mounting Circuit board to mounting bracket		M3 x 8mm Hex Head Screw M3 x 12mm " " " M3 x 10mm " " " M3 x 6mm " " "	41-1376E 27-3070F 41-1374D 41-0599E
2 rail module card mounting bracket to front panel Card mounting bracket to front panel and handle Hinged front panel (System 3A)		M3 x 8mm Pan Head (Pozi) Screw M3 x 10mm " " " " M3 x 8mm " " " "	41-3047A 41-1370B 27-1318H
Module base plate		No. 4 x 5/16" Pan Head (Pozi) Self- Tap Screw	27-3042C
Module side and screening plates Module front and rear panels to rails Frame tie bars to end plate (3C, 3D, 3E) Frame tie bars to end plate (3D, 3E)		No. 4 x 1/4" " " " " No. 4 x 1/2" " " " " No. 6 x 1/2" " " " " No. 6 x 1" " " " "	27-3041H 27-3043J 27-1293F 41-1378F
Frame tie bars to end plate (3A) Divider plate to individual McMurdo socket mounting rails		No. 6 x 1/2" Flanged Head (Pozi) Self-Tap Screw	27-1294J
Connector mounting		M2,5 x 18mm M2,5 x 24mm M2,5 x 16mm Special Metric Screw	41-0494D 41-2298D 41-2299K
Hinged front panel (3A, 3C)		M3 x 8mm Raised CSK Screw	27-1314F
Used with screws above		M2,5 x 0,45 M3 Hex Nut	27-1319C 41-0505B
Used with screws above	 	M3 Washer M3 Shakeproof Washer	41-3048G 41-0600J

Module Front and Rear Panels

Front

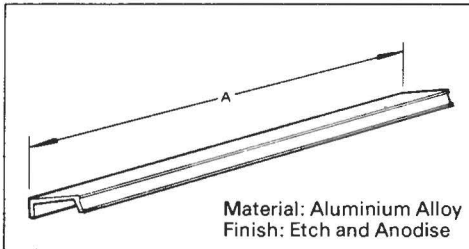


Rear



Material: Aluminium Alloy
Finish: Etch and Anodise

	Module Height	Panel Height A	Nominal Panel Width B					
			5E	10E	15E	20E	25E	40E
Front Panel	3U	115,57	37-0605F	37-0607G	37-3780G	37-0608B	37-0609H	37-0611J
	4U	160,02	37-0612D	37-0614E	37-3781B	37-0615L	37-0616F	37-0618G
	5U	204,47	37-0619B	37-0621C	37-3782H	37-0622J	37-0623D	37-0625E
Rear Panel	3U	105,97	37-0633J	37-0635K	37-3777L	37-0636E	37-0637L	37-0639A
	4U	150,42	37-0640G	37-0642H	37-3778F	37-0643C	37-0644J	37-0646K
	5U	194,87	37-0647E	37-0649F	37-3779A	37-0550A	37-0651G	37-0653H

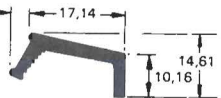


Module Handles

For hole positions see page 14.6.

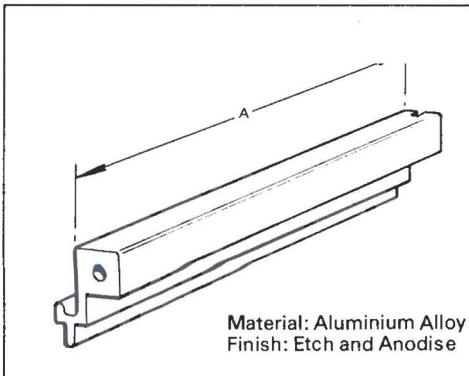
Handle Section in 1,8m lengths (no protective finish) may be ordered by quoting

Order Code 12-1088J.



State total length required when ordering. Minimum order quantity 3,6m.

Nominal Handle Width A						
	5E	10E	15E	20E	25E	40E
Order Code	37-0626L	37-0628A	37-3357G	37-0629G	37-0630B	37-0632C



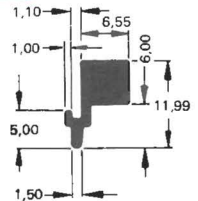
Module Guide Rails

Supplied as kit comprising one each left and right handed rail.

Module Guide Rail Section in 1,8m lengths (no protective finish) may be ordered by quoting

Order Code 12-1240D.

State total length required when ordering. Minimum order quantity 3,6m



	Frame Depth	
	254,00mm	338,12mm
Dim. A	193,90	277,88
Order Code	37-7776L	37-7777F

Connector Mounting

System 3A, 3C and 3D

(Fig 1)

To further simplify assembly and alignment of connectors, a castellated strip to match card pitch selection is used to locate connectors. The tail of the connector drops over one of the projections on the castellated strip and is then retained by the special clamping channel. Since the projections fall on a set pitch corresponding with standard guide pitches it is merely necessary to align the centre connector with its circuit board for the remaining connectors to be similarly aligned. In full width frames connectors are retained with only twelve screws, and in half width frames with only six screws. A castellated strip is available in a pitch to match the frame selected. This application is for use with standard modular connectors.

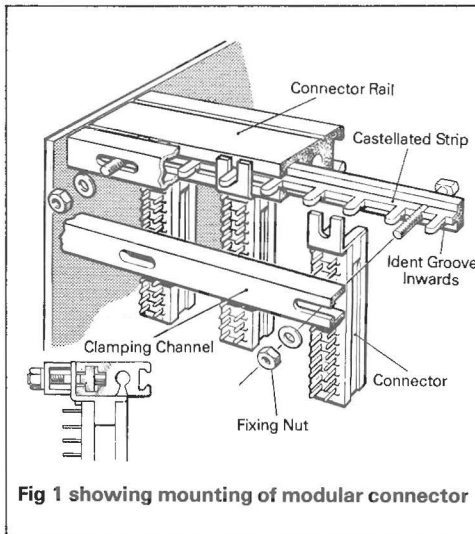


Fig 1 showing mounting of modular connector

System 3E

(Fig 2)

This system employs castellated strips and clamping channels for mounting full width modular connectors. This arrangement is used in a frame with edge connectors or McMurdo sockets for modules.

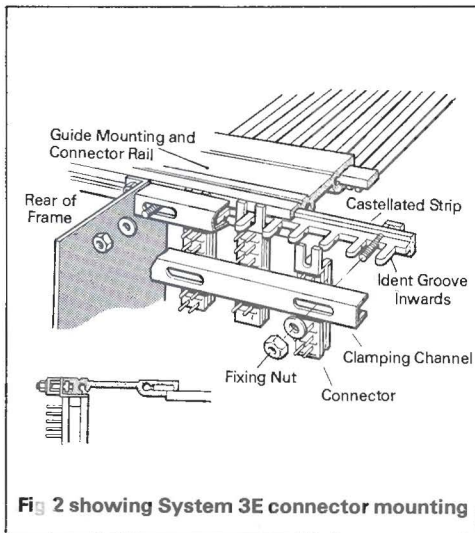
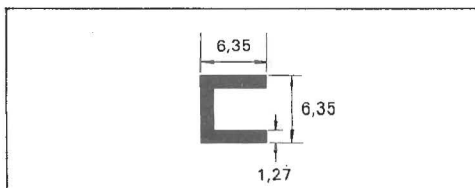


Fig 2 showing System 3E connector mounting

Clamping Channel Section

in 1,8m lengths (no protective finish) may be ordered by quoting **Order Code 12-1214B**.



State total length required when ordering.

Castellated Strips

Frame Width	Pitch	Top	Bottom
Full System 3A, 3C	12,70	35-0492K	35-0492K
	15,24	35-0489C	35-0490J
	20,32	35-0485A	35-0486G
Half System 3A, 3C	12,70	35-1011F	35-1010L
	15,24	35-1013G	35-1012A
	20,32	35-1021L	35-1020E
Full System 3D, 3E	12,70	36-1634E	36-1633K

Clamping Channel

Full Width	Half Width	
35-0986E	35-1024G	

For Connector Mounting Rail Order Codes:
See page 14.19.

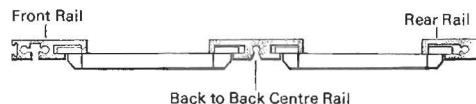
Order Code Specifying Guide Mounting Rails and where used

Card Guide Mounting

System	Rail Section Back	Rail Section Front	With or Without Front Panel	Frame Width and Nominal Rail Length	Order Code and Position of Rail			
					Back		Front	
					Top	Bottom	Top	Bottom
3A Standard Card Height	 12-1226H	 12-1226H	Not Applicable	Full Width 431,80 Half Width 215,90	33-0429B	33-0429B	33-0429B	33-0429B
					35-1033F	35-1033F	35-1033F	35-1033F
3C Standard Card Height See Page 10.23	 12-1226H	 12-3150L	Without	Full Width 431,80 Half Width 215,90	33-0429B	33-0429B	35-0792L	35-0792L
					35-1033F	35-1033F	35-1029D	35-1029D
	 12-1226H	 12-3150L	With	Full Width 431,80 Half Width 215,90	33-0429B	33-0429B	35-0792L	35-0793F*
					35-1033F	35-1033F	35-1029D	35-1030K*
3D	 12-1226H	 12-3150L	Not Applicable	Full Width 431,80	33-0429B	33-0429B	41-0596J	35-0792L
3E	 12-1296K	 12-3150L	Not Applicable	Full Width 431,80	37-0676C	37-0676C	41-0596J	35-0792L

Non Standard Guide Mounting Arrangement

Extra long cards can be accommodated in system 3C Frames by using a 'back to back' guide mounting rail and two rows of guides. These frames must be ordered specially, but the long end plates are pre-pierced to accept the additional guide mounting rail in the combinations of 66,68 + 136,53 and 66,68 + 161,93 long guides only.



Back to Back centre rail supplied for standard frame width 431,80mm.

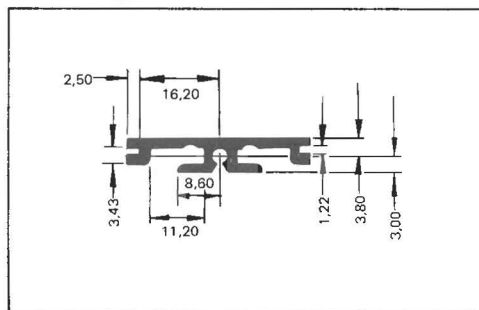
Possible Combination Of Guide Lengths	Total Guide Length	Recom. Card Length ..	Centre Rail Order Code
66,68 + 66,68	150,56	192,02	35-0463A
66,68 + 136,53	220,41	248,97	
66,68 + 161,93	245,81	287,27	
136,53 + 136,53	290,26	331,72	
136,53 + 161,93	315,66	357,20	
161,93 + 161,93	341,06	382,52	

**To special order only.

Note: The four items marked * are short bottom front guide mounting rails required when a horizontally hinged front panel is to be fitted. 3D and 3E top front extrusions are supplied as an assembly containing extrusion and locking device.

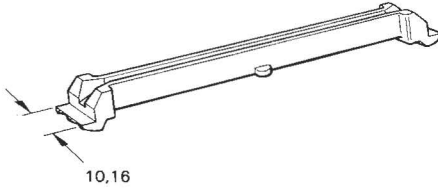
Note: The above sections are also available in 1,8m lengths (no protective finish). To order quote the Order Code shown beneath each section drawing and state total length required. Minimum order quantity 3.6m. For dimensional information see page 14.23.

Back to Back Guide Mounting Rail Section

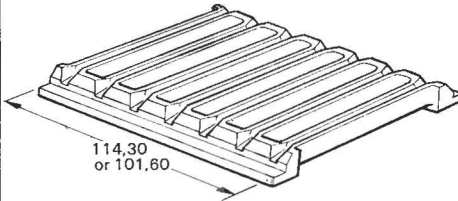


In 1,8m lengths (no protective finish) may be ordered by quoting **Order Code 12-1140L**. Minimum order quantity 3.6m. State total length required when ordering.

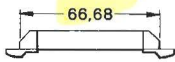
Snap in Guides



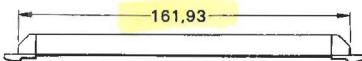
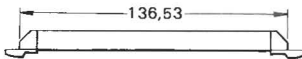
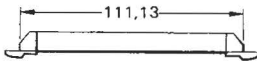
Slab Guides



Guide Lengths



Dimensions
shown
indicate
guide lengths



Card Guides

Single Snap-in Guides

These guides are available in four lengths for use in Card Frame Systems 3A, 3C, 3D and 3E.

Guides can be 'snapped' into the assembled frame in any position, also removed and relocated as required.

Slab Guides

These consist of blocks of eight or nine guide slots on 12,70 pitch.

They are available in four lengths for use in Card Frame Systems 3A and 3C.

Material: Noryl SE1, Black.

System	Guide Type & Length	Standard Card Length	Card Pitch
3A 3C 3D	Single Snap In Guides		Variable
	66,68	96,5	
	11,13	139,7	
	136,53	165,1	
3E	161,93	203,2	12,70
3A 3C	Slab Guides		12,70
	66,68	96,5	
	111,13	139,7	
	136,53	165,1	
	161,93	203,2	

How to Order

Select guide required from table below. Snap-in guides are sold in packets of 10.

Slab guides are sold singly.

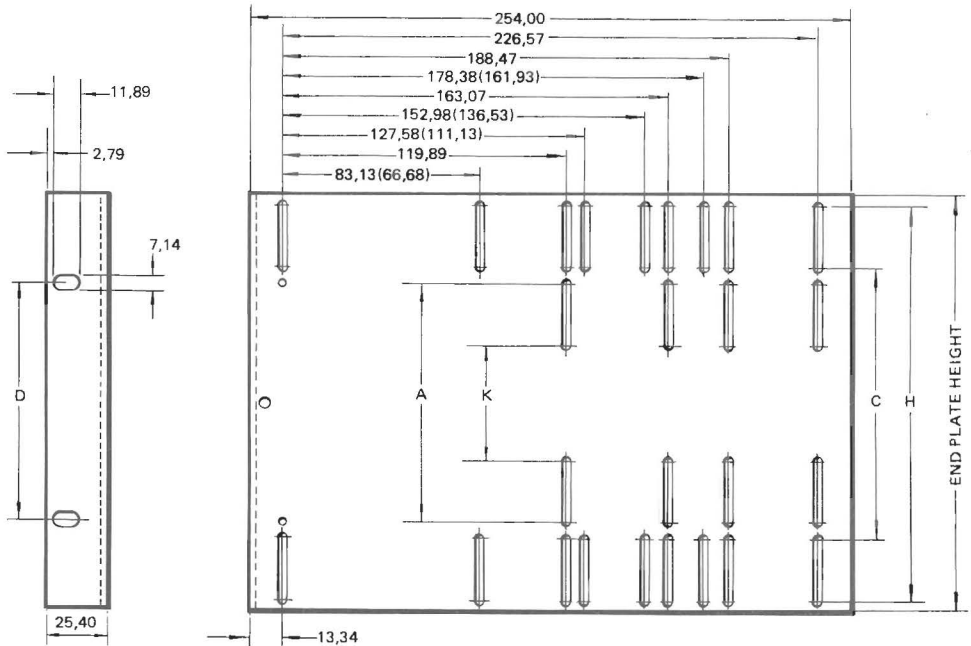
Guide Type	Guide Length			
	66,68	111,13	136,53	161,93
Snap-in Guide	35-0465B	35-0456C	35-0455H	35-1321A
Slab Guide 114,30 Wide	33-0436L	35-0984D	33-0438A	33-0440B
Slab Guide 101,60 Wide	33-0435E	35-0983J	33-0437F	33-0439G

End Plates

for System 3A Card Frames

On system 3A, formed end plates 2U to 5U high by 254,00 deep are provided with slotted holes for adjustment of mounting extrusions. This allows a range of card sizes to be accommodated in a standard frame.

For production applications End Plates can be fabricated and pierced with holes at fixed centres to meet your exact requirements.



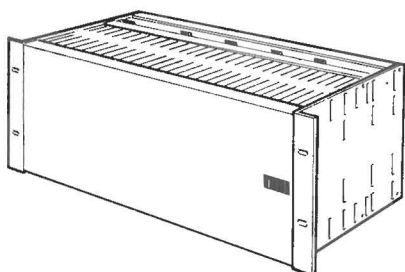
Note: Figures in brackets refer to appropriate guide lengths. See page 14.16.

Material: Aluminium Alloy (25Mg) BS1470 NS4 H6

Frame Height	Card Height		Nominal End Plate Height	End Plate Depth						Order Code
	Max.	Min.			A	C	D	H	K	
2U	69,85	25,40	88,90	254,00	—	27,25	76,20	80,04	—	33-0425L
3U	114,30	69,85	133,35		—	71,70	57,15	124,49	—	33-0426F
4U	158,75	114,30	177,80		102,26	116,15	101,60	168,94	49,48	33-0427A
5U	203,20	158,75	222,25		146,74	160,60	146,05	213,39	93,96	33-0428G

Hinged Front Panels

System 3A and 3C



Material: Aluminium Alloy (30Mg)
BS1470 NS4 H6.

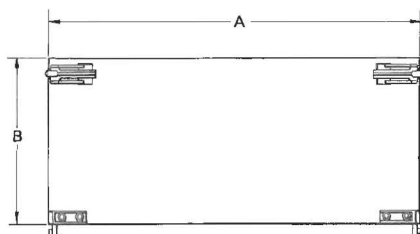
Vertically Hinged Front Panels

For System 3A

The panel can be fitted to either end plate thus allowing the panel to be hinged to either the left or right hand edge.

The kit is complete with fixing screws, catch and hinges.

Frame Height	Front Panel Height	Order Code
3U	132,84	33-1268L
4U	177,29	33-1269F
5U	221,74	33-1270A



Material: Aluminium Alloy (30Mg)
BS1470 NS4 H6.

Horizontally Hinged Front Panels

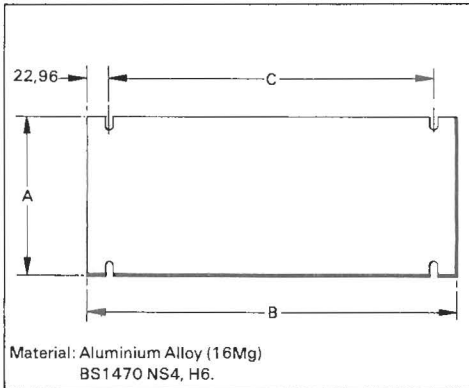
For System 3C

When assembled, hinged points are fitted between the ends of a shortened bottom extrusion and end plate. The front panel can then be clipped in and is capable of movement through 180° of travel. The panel is retained by moulded catches near the top left and right hand corners.

Supplied as a kit comprising panel plus bolts, springs, hinge brackets and fixings.

Frame Height	Dimensions		Order Code
	A	B	
2U	431,17	71,50	35-7908G
3U		115,95	35-7909B
4U		160,40	35-7910H
5U		204,85	35-7911C

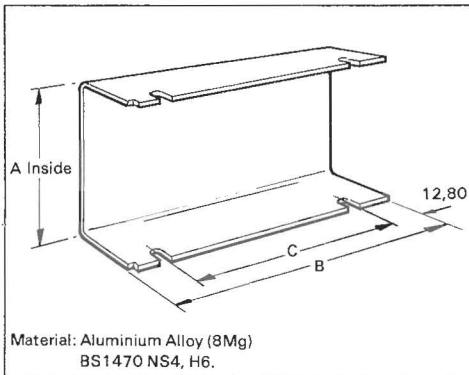
Side, Screening and Base Plates



Side and/or Screening Plates

For the mounting of components in a vertical plane, side plates can be fitted to any size of module. They are available in two depths and three heights corresponding to standard modules and are attached to the vertical surface of a pair of guide rails. Side plates are also designed for use as vertical screening plates.

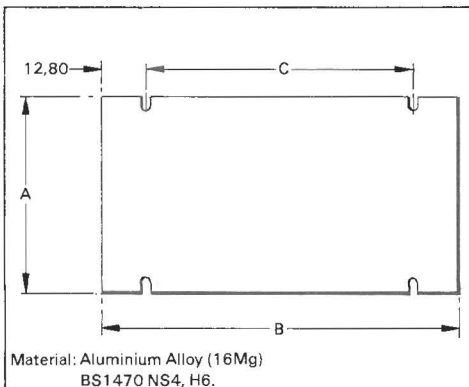
Fix with self-tap Pozidriv screws, supplied in multiples of 100 to **Order Code 27-3041H**



Wrap Round Screening Covers

For module width 10E.

Fix with self-tap Pozidriv screws, supplied in multiples of 100 to **Order Code 27-3041H**

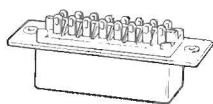


Base Plates

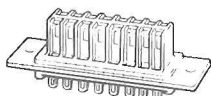
For the mounting of components in four rail modules base plates can be attached to the horizontal surface of the bottom guide rails. These are available in two depths, for module widths 15E, 20E, 25E and 40E.

Fix with self-tap Pozidriv screws, supplied in multiples of 100 to **Order Code 27-3042C**.

McMurdo Red Range Plugs and Sockets



Socket



Plug

Rear Panel Cut-outs For McMurdo Plugs and Sockets

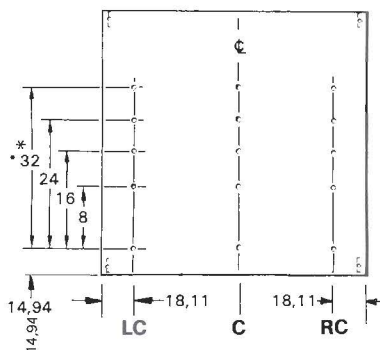
The standard positions of panel cut-outs for plugs and sockets are dimensioned in the diagrams below. The symbols LC, C and RC indicate 'left of centre', 'centre' and 'right of centre' when the rear panel is viewed from the front of the module.

McMurdo Red Range plugs and sockets cannot be used on 5E wide modules.

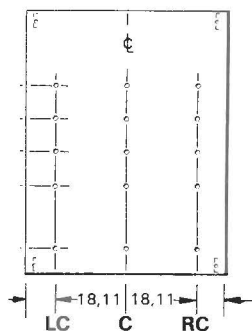
Only 8, 16 and 24-way plugs can be used on 3U rear panels.

Specials: Vero will be pleased to supply modules, cut-out in alternative positions on receipt of customer's drawings.

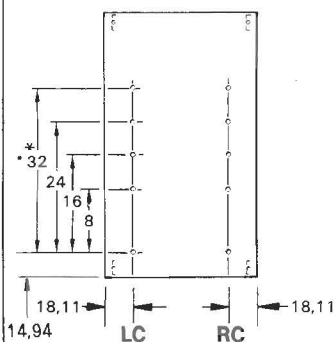
Module Width 40E (203,20)



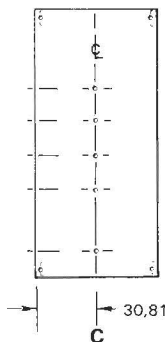
Module Width 25E (127,00)



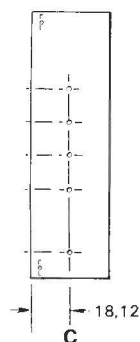
Module Width 20E (101,60)



Module Width 15E (76,20)



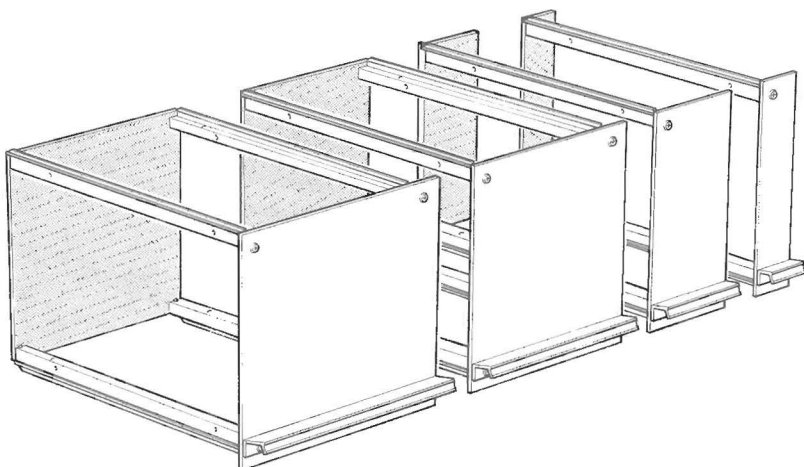
Module Width 10E (50,80)



*Number of contacts on plug

The above diagrams apply to 3U (106,07mm), 4U (150,52mm) height module rear panels.

Modules for Card Frame System 3E

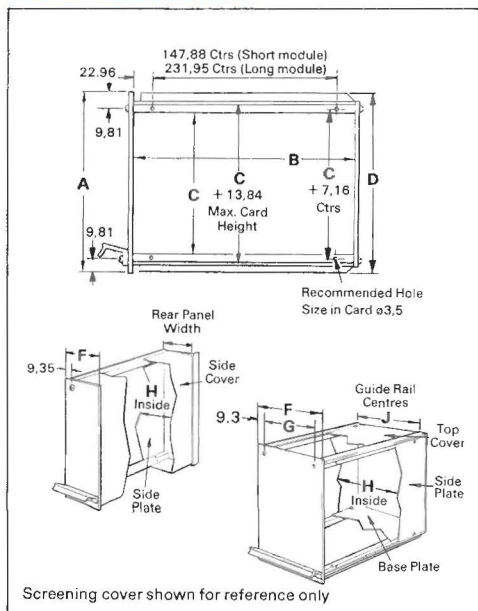


Standard Modules

- Modules — 3U and 4U height, available in widths of 5E, 10E, 15E, 20E, 25E and 40E. Two standard module depths — 199,30 and 283,38.
- Supplied unassembled
- Side plates, and screening plates available for all module sizes.
Base plates, for mounting components, available on modules 15E wide and greater.
- Front panels 5E and 10E wide, with handles, for use with maximum height cards can also be supplied. Cards are attached to the front panel by two mounting brackets.
- All Modules and panels are retained by one push/pull Verolock®
- For cut outs in rear panels, for the mounting of plugs — see overleaf.

Note: In this system frame and module widths are designated in multiples of E. 1E is equal to 5,08mm
The nominal frame aperture width can be divided into combinations of front panels and/or modules of a variety of E widths up to the maximum capacity of the unit.

Module Dimensions



To Order

Simply quote the Order Code specifying the basic module from the table on the opposite page.

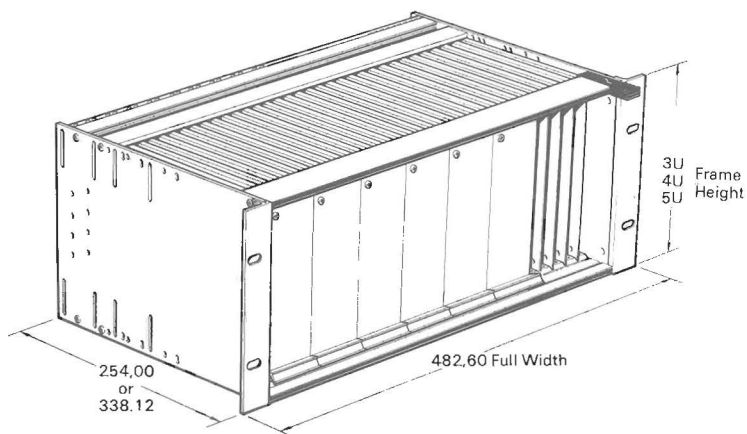
For detailed information on Module piece parts see page 14.22.

Compatible Items — order separately

McMurdo Plugs and Mounting information	See page 14.9
Base Plates, Side Plates and Screening Covers	See page 14.10
Front Panel and Card Mounting	See page 14.13

system 3D

482,60 (19") Full Width



- International rack mounting 482,60mm wide
- Available in 3U, 4U and 5U heights
- Card pitch 12,70mm
- Various card lengths
- Various connector mounting styles
- Two frame depths
- Half shears to ensure accurate alignment and easy assembly
- All cards and front panels locked by one push/pull Verolock® fitted as standard
- Supplied packed flat (unassembled)

Ordering Information

For basic frames consisting of:- 2 end plates, 2 end plate angles, 4 guide mounting extrusions including Verolock® assembly, 4 guide spacer strips, 2 connector mounting extrusions and necessary fastenings. Connector mounting facilities must be ordered separately.

Frame Height	Card Height	Order Code	
		Short End Plate 254,00	Long End Plate 338,12
3U	114,30	36-2218F	36-2221B
4U	158,75	36-2219A	36-2222H
5U	203,20	36-2220G	36-2223C

Compatible Items

The following compatible products should be ordered separately: —

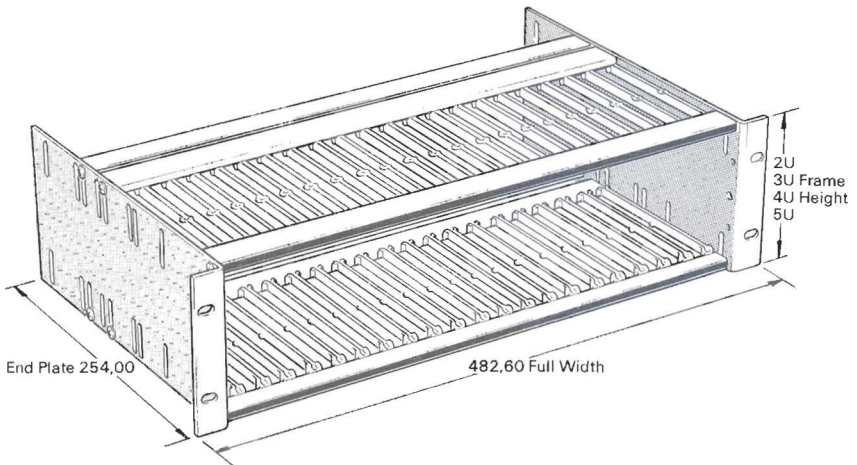
Guides	See page 14.16
Connector mounting	See page 14.20
Front panels	See page 14.13
Identification strips	See page 14.13
Circuit Boards	Section 3
Connectors	Section 8

Frame Height

Note: — Frame heights are measured as multiples of 'U'. 1U = 44,45 (1¾").

Card Frame System 3A

482,60 (19") Full Width



- International Rack mounting 482,60mm wide
- Available in 2U, 3U, 4U and 5U heights
- Various card heights and pitches
- Vertically hinged front panels for 3U, 4U and 5U heights
- Front and rear identification
- Will suit card heights from 25,40mm to 203,20 high
- Supplied packed flat (unassembled)

Ordering Information

Basic Frames consist of: -- 2 endplates, 4 Guide mounting extrusions, 2 connector mounting extrusions and necessary fastenings. Connector mounting facilities must be ordered separately.

Frame Height	Card Height		Full Width Frame Order Code
	Min.	Max.	
2U (88,90)	25,40	69,85	33-2200B
3U (133,35)	69,85	114,30	33-2201H
4U (177,80)	114,30	158,75	33-2202C
5U (222,25)	158,75	203,20	33-2203J

Compatible Items

The following compatible products should be ordered separately: —

Guides	Page 14.16
Guide spacer strips	Page 14.17
Connector mounting	Page 14.19
Front Panels	Page 14.12
Identification Strips	Page 14.13
Circuit Boards	Section 3
Connectors	Section 8

Half Width Frames

½ width frames can be ordered by referring to the piece parts listed on pages 14.14 to 14.20.

Frame Height

Note: — Frame heights are measured as multiples of 'U' 1U = 44,45mm (1¾")

Card Frames *for other card sizes*

