CELCO.

TECHNICAL BROCHURE FOR CONNEXION AND DIMMER SYSTEMS

CONNEXION AND DIMMING SYSTEMS

Launched to wide acclaim, the Celco Series 2 Dimmer Systems and Connexion Digital Communications Networks have now firmly established their superiority in the market following purchases of many of the leading equipment rental companies.

The Series 2 Dimmer System, combined with a Connexion Network, has brought the control of stage lighting out of the dark ages, enabling a far greater degree of flexibility to both the Lighting Designer and the equipment rental company than has previously been possible.

This technical brochure has been produced to describe, in greater detail the many possibilities available to the prospective user briefly outlined in the Celco Brochure.

CONNEXION-DIGITAL PATCHING AND MULTIPLEX SYSTEM

Understanding Control Patching

To describe the operation of a Connexion Network it is important that the reader understands the basics of control patching.

To some users the method of connecting, say, a Sixty channel lighting board to more than sixty dimmer channels may be alien but, in fact, this is the most common practice used by companies working with professional Lighting Designers.

A possible specification from a Lighting Designer might call for the following lighting instruments to be patched to the Celco Series 2 Sixty in the following manner:

31 x Profile/Ellipsoidal Spots	Patched to;	Board Channels 1 - 31
19 x PAR 64 Floods		Board Channels 32 - 50
19 x PAR 64 Narrows		Board Channels 32 - 50
10 x Cyclorama Units (Red)		Board Channel 51
10 x Cyclorama Units (Blue)		Board Channel 52
10 x Cyclorama Units (Green)		Board Channel 53
99 Instruments total		53 Board Channels total

The Rental Company, using one dimmer channel for each lighting instrument would use an analogue control patch to gang, or group, the multiple dimmer channels together.

Whilst this method is adequate in many cases it cannot be ideal for it restricts the Lighting Designer to setting all the Red Cyclorama Units to the same level, for example.

With a Connexion Network the same lighting specification can be patched to the same board channels (as in the previous example) except this time the Lighting Designer has the ability to set each of the Red Cyclorama lights to a different intensity level, thereby creating the illusion of depth and form to the cyclorama cloth.

The same lighting specification written for a company equipped with Connexion Networks might be drafted as below:

31 x Profile/Ellipsoidal Spot		Patched to;	Board Channels 1 - 31
19 x PAR 64 Floods			Board Channels 32 - 50
19 x PAR 64 Narrows			Board Channels 32 - 50
10 x Cyclorama	Units (Red)		Board Channel 51
	Unit #1		Patched @ 50%
	Unit #2		Patched @ 60%
	Unit #3		Patched @ 70%
	Unit #4		Patched @ 80%
	Unit #5		Patched @ 90%
	Unit #6		Patched @ 90%
	Unit #7		Patched @ 80%
	Unit #8		Patched @ 70%
	Unit #9		Patched @ 60%
	Unit #10		Patched @ 50%
10 x Cyclorama	Units (Blue)		Board Channel 52
10 x Cyclorama	Units (Green)		Board Channel 53
99 Instruments total			53 Board Channels total

From the example above we can see that a Connexion based system offers a distinct advantage over the analogue control patch. Using the Connexion system has allowed the equipment rental company to use the same lighting board and dimmer system but has offered the Lighting Designer the ability to program some, or all, of the multiple dimmer channels at individual intensity levels.

Obviously, if the Lighting Designer is considering placing the production with a company selected by their ability to offer the greatest creative potential, then the company that uses a Connexion Network has an instant advantage.

Expanding the possibilities further

The previous two examples show how a Connexion Network can develop the potential of control patching and allow greater flexibility in assigning dimmer channels to lighting board channels. However, this process of assigning dimmer channels can be taken a stage further. Let us consider the following example;

The Lighting Designer, having realised the potential offered by the Connexion Network, has considered utilising more of its' power to enable a complex sequence, or chase, to be programed to run across the cyclorama cloth.

With the analogue control patch the most complex sequence that could be programed would only allow the cyclorama units to chase through their colours in groups;

Sequence step #1	Board Channel #51	Cyclorama color Red.
Sequence step #2	Board Channel #52	Cyclorama color Blue.
Sequence step #3	Board Channel #53	Cyclorama color Green.

With a Connexion Network the Lighting Designer is able to construct a Sequence that is far more dramatic by calling upon Connexions' SoftPatching to allow the programing of a 30 step Sequence.

Let us assume that the SoftPatch Table shown on page 2 is called Patch 1, this SoftPatch might be the basis of the design and be used for the majority of the show for general stage lighting. Now, using Connexions' additional SoftPatch Tables the Lighting Designer is able to create a new SoftPatch Table, SoftPatch 2, to allow programing of a complex Sequence Pattern to be used at a certain point in the show.

10 x Cyclorama Units (Red)	Patched to; Board Channel 1
10 x Cyclorama Units (Blue)	Patched to, Board Channel 2
10 x Cyclorama Units (Green);	
Unit #1	Board Channel 3
Unit #2	Board Channel 4
Unit #3	Board Channel 5
Unit #4	Board Channel 6
Unit #5	Board Channel 7
Unit #6	Board Channel 8
Unit #7	Board Channel 9
Unit #8	Board Channel 10
Unit #9	Board Channel 11
Unit #10	Board Channel 12
31 x Profile/Ellipsoidal Spots	Board Channel 13 - 43
10 x PAR 64 Floods	Board Channels 44 - 54
10 x PAR 64 Narrows	Board Channels 44 - 54
9 x PAR 64 Floods	Board Channel 55
9 x PAR 64 Narrows	Board Channel 56

The above example, SoftPatch 2, shows how the configuration of the board and dimmer channels can be changed to allow, amongst other reasons, a complex Sequence to be constructed. Using the above SoftPatch allows the Lighting Designer to create a Sequence over the cyclorama cloth that actually moves, rather than just changes colour.

Instead of being limited to our three step Sequence, with the analogue control patch, the following Sequence could be constructed using SoftPatch 2;

Sequence step #1	Board Channel #2 (blue) and Board Channel #3 (green unit 1)
Sequence step #2	Board Channel #2 (blue) and Board Channel #4 (green unit 2)
Sequence step #3	Board Channel #2 (blue) and Board Channel #5 (green unit 3)
Sequence step #4	Board Channel #2 (blue) and Board Channel #6 (green unit 4)
Sequence step #5	Board Channel #2 (blue) and Board Channel #7 (green unit 5)
Sequence step #6	Board Channel #2 (blue) and Board Channel #8 (green unit 6)
Sequence step #7	Board Channel #2 (blue) and Board Channel #9 (green unit 7)
Sequence step #8	Board Channel #2 (blue) and Board Channel #10 (green unit 8)
Sequence step #9	Board Channel #2 (blue) and Board Channel #11 (green unit 9)
Sequence step #10	Board Channel #2 (blue) and Board Channel #12 (green unit 10)

The Sequence above would produce the effect of a 'green' band moving across a blue background, far more effective and dramatic than the simple three step red, blue, green chase available with the analogue patch.

In addition, other stage lighting, such as the ellipsoids or the PARS, can still be used from their new channel locations if required.

So, what is Connexion?

Connexion is a digital communications network consisting of three units:

Connexion TxU

In brief, a Connexion TxU is an analogue to digital encoder that would be used alongside the lighting board and into which would be fed the analogue signals, or output, from the lighting board. Up to 90 analogue channels can be fed into any one TxU. Additional analogue channels over the 90 can be fed into a Connexion ExU which 'slaves' to a TxU up to a system maximum of 512 in modules of 90.

A Connexion TxU can accept positive or negative voltages between 0 and 12.5 volts, enabling its' use with the majority of lighting control boards available.

The digital output of the Connexion TxU conforms to USITT DMX512 digital multiplex standard allowing its use with other lighting control boards with DMX512 output. This offers the ability of combining the analogue output of say, a Celco Series 2 Sixty, via a Connexion TxU, with the output of another lighting board with DMX512 output. A combination such as this can offer many possibilities for a television company perhaps who are using their standard studio board linked to a Celco for effects.

Connexion Keypad

A Connexion Keypad is used to store and recall the different SoftPatches used in a show. It connects to the Connexion TxU enabling the SoftPatching to be performed 'front of house'.

Up to five different SoftPatches may be stored and recalled using the connexion system.

A Connexion Keypad also allows the patching of non-dim circuits, whereby specific channels are used to control motors or other inductive type loads – a feature that is very useful, particularly when using the inductive load capabilities of Celco Series 2 Dimmer Systems.

A Connexion Keypad can also be used as a riggers control, when suitably equipped with additional cable, to control any dimmer channel or board channel from on-stage.

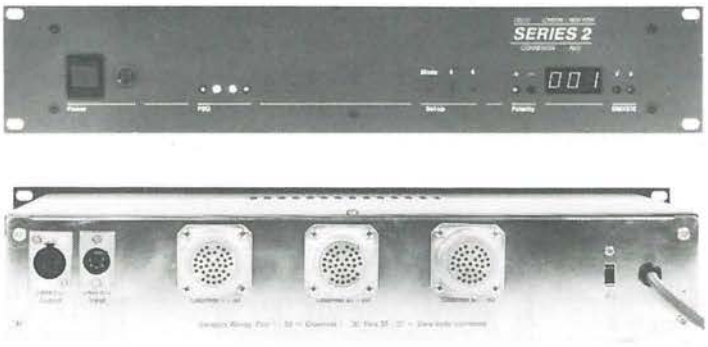
Connexion RxU

A Connexion RxU is a decoder unit that would be situated on or near a dimmer rack. It decodes the digital information sent by the Connexion TxU into analogue voltages used by the dimmers. Up to 90 channels of information can be decoded by one Connexion RxU and Connexion RxU's can be daisy chained together up to a system maximum of 512 circuits.

A Connexion RxU can decode the DMX512 information from any other DMX512 source.

A Connexion RxU can be set to produce any positive or negative voltage up to 12.5 volts, with 0 as off.

It is therefore possible for the Connexion TxU to be fed by a + 10 volt lighting board and the Connexion RxU to supply -12 volts if required. Each Connexion RxU on a daisy chained network can be set to a different voltage if required.



What would I require to connect my Celco Series 2 Gold to two Celco Series 2 72 channel dimmer systems?

All that would be required is one Connexion TxU, one Keypad and two Connexion RxU's. The only additional items required would be three Socapex to Socapex link leads to connect the board to the TxU, one light weight data cable (up to 1000 yards in length!) between the TxU and the first RxU and a short data cable to link the two RxU's together.

Can I connect my Celco Series 2 Gold and Celco Series 2 Sixty together using the Connexion System?

Yes, all that would be required in addition to the MCI unit is one Connexion TxU and one Connexion ExU (slave unit). From the TxU the data would be sent to the dimmers in the same way as described above.

Can I use Connexion's with another touring dimmer rack?

Yes, simply connect the Connexion RxU's output to the control patch of the touring dimmer rack and, after setting the RxU to the correct operating voltage, patch the touring racks control patch 1 - 1, i.e. board channel 1 to dimmer channel 1. Once this process has been carried out you can use the Connexion Network in the same manner as a dedicated system.

Can I create a record of my SoftPatch Tables?

Yes, simply connect a printer to the Connexion TxU's serial port located on the rear panel. You will then be able to print out all or part of the SoftPatch Tables.

What memory system does Connexion adopt?

Connexion uses EE-PROMs for the retention of memory. As EE-PROMs do not use battery backup when not powered up Connexion offers foolproof storage of information.

SoftPatch Tables are stored in the Connexion TxU and dimmer address settings and voltage selections are stored in individual RxU modules.

CELCO SERIES 2 DIMMER SYSTEMS

The Celco Series 2 Dimmer Systems represent the state-of-the-art in high density touring racks.

The following pages clearly describe the many different systems available for the individual requirements of the lighting industry.

Each group of Dimmer Systems has been divided into sections, each section covering a particular application. However, because of the Series 2 Dimmer Systems ability to auto-seek its main voltage any Series 2 Dimmer System will operate in any country on any mains supply covered in the technical appendix. Therefore, a US0036 system could be used in Europe instead of an MPP3600 if the higher rating of Dimmer Channels was a pre-requisite.

Under each Dimmer System is a list of available options, this applies mainly to the different inlet and outlet connectors, offering the client a selection of connectors tailored for individual markets.

Systems Identification

For Connexion RxU units instead of analogue input place on 'X' at the end of the code i.e. MPP4800CX, TV25-18CX etc.

MPP Mains Patch Parallel, allowing up to four circuits to be patched to any one Dimmer Channel, all at the line (mains) voltage.

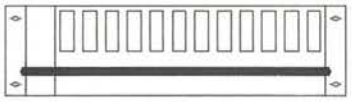
MPS Mains Patch Series, allowing up to two Series Pair circuits to be patched to any one Dimmer Channel, at half the line (mains) voltage.

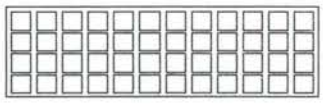
US Dimmer Systems primarily intended for use in North America and Japan where a higher current rating per channel is required for a typical 2kW load. However, when used in Europe these systems offer twice the usual load capability.

SOX Dimmer Systems intended for one lamp per channel configuration. These Systems do not require Mains Patches, all connections to the lighting instruments are made through dual Socapex connectors direct to the Dimmer Packs.

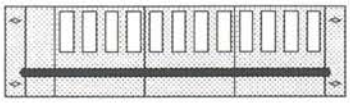
All Dimmer Systems depicted in this brochure are supplied with either the Celco Series 2 Control Patch or a direct-wired Control Input. An alternative to both of these is the Celco Connexion RxU, described in the preceeding chapter.

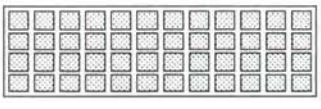
Celco Series 2 Dimmer Packs



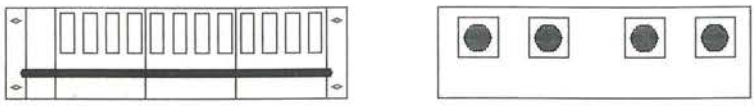


Series 2 Ten
12 channels, 10A per channel
with Mains Patch Outlets





Series 2 Twenty
12 channels, 20A per channel
with Mains Patch Outlets

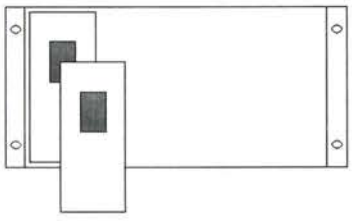


Series 2 Ten/Sox
12 channels, 10A per channel
with 4 Socapex Outlets

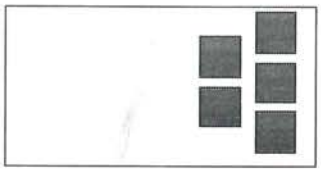
Series 2 TV10
6 channels, 10A per channel
with CEE17 16A Outlets

Series 2 TV25
6 channels, 25A per channel
with CEE17 32A Outlets

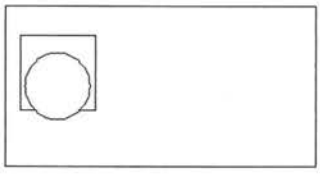
Celco Series 2 Power Distribution Units + Power Inlets



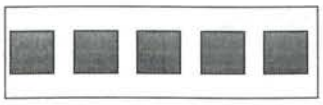
Power Distribution Unit
showing Dimmer Pack circuit breaker



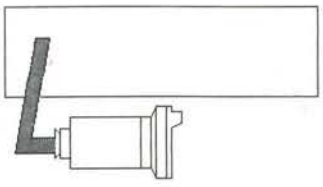
Rear of PDU
showing Camlok Mains Inlet



Rear of PDU
showing CEE17 type connector

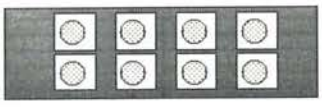


Camlok Power Inlet
showing Socapex Control Input
on front and Camlok Inlets on rear

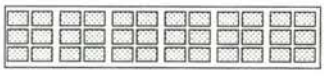


CEE17 Power Inlet
showing Socapex Control Input
on front and CEE17 type Inlet on rear

Celco Series 2 Control Patch



and 36 way Outlet Patch

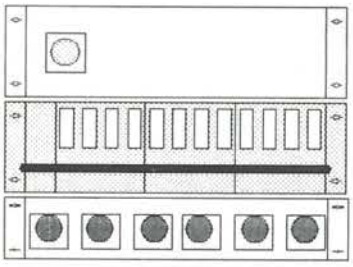


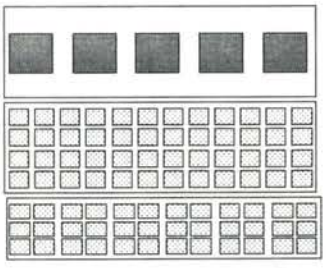
To order a Celco Series 2 Dimmer System please use the correct order code listed in this brochure e.g.

Order Code	Description
MPP3600C	Mains Patch Parallel, 36 Dimmer Channels at 10A per Channel and Camlok Mains Inlets.
MPS2412E	Mains Patch Series, 24 Channels at 10A per Channel, 12 Channels at 20A per Channel and CEE17 125A Mains Inlets.
TV25-30E	TV Dimmer Rack with 30 Channels at 25A per Channel on CEE17 32A Outlets and CEE17 3 Phase Inlets.
TV10-12U	TV Dimmer Rack with 12 Channels at 10A per Channel on CEE17 16A Outlets and CEE17 Single Phase Inlets.
TV25-24C	TV Dimmer Rack with 24 Channels at 25A per Channel on NEMA L5-20 Outlets and Camlok Inlets.

European Touring System

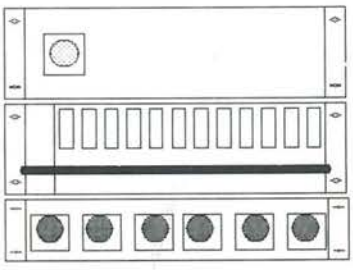
0012 System

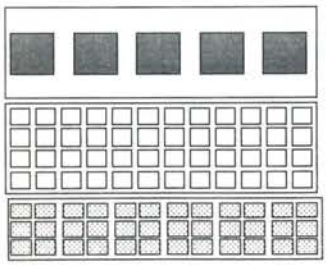




MPP0012C	
Dimmer Channels;	12 Dimmer Channels @ 20A per Channel, 2.0kW @ 100v 2.2kW @ 120v 4.2kW @ 220v 4.4kW @ 240v
Dimmer Type;	1 x Celco Series 2 Twenty
Outlets;	6 Socapex 419AR.
Circuits;	36 Circuits total (Patchable, to 12 Dimmers). 6 Circuits per Socapex.
Control Input;	1 x Socapex 337P.
Power Inlets;	3 Phase, Neutral and Earth on J series Camlok.
Other Versions of 0012 Dimmer System;	
MPS0012C.	As above with Series Mains Patch (MPS).
MPP0012E.	As above but with 1 x CEE17 125A 3 Phase, N & E Power Inlet instead of Camlok.
MPS0012E.	As above with Series Mains Patch (MPS). 1 x CEE17 125A 3 Phase, N & E Power Inlet instead of Camlok.

1200 System

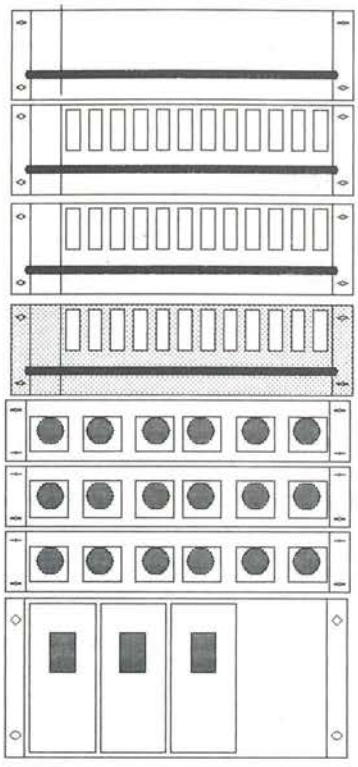


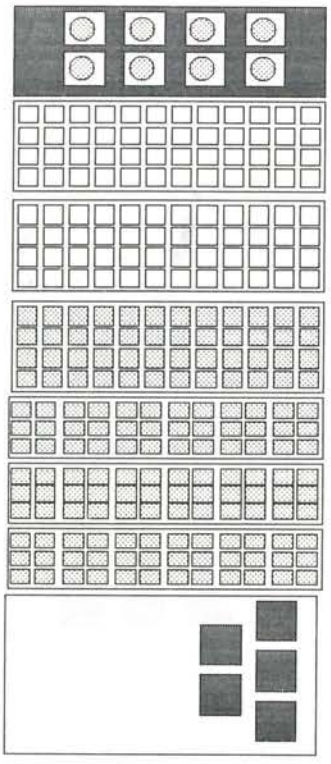


MPP1200C	
Dimmer Channels;	12 Dimmer Channels @ 10A per Channel, 1.0kW @ 100v 1.2kW @ 120v 2.2kW @ 220v 2.4kW @ 240v
Dimmer Type;	1 x Celco Series 2 Ten
Outlets;	6 Socapex 419AR.
Circuits;	36 Circuits total (Patchable, to 12 Dimmers). 6 Circuits per Socapex.
Control Input;	1 x Socapex 337P.
Power Inlets;	3 Phase, Neutral and Earth on J series Camlok.
Other Versions of 1200 Dimmer System;	
MPS1200C.	As above with Series Mains Patch (MPS).
MPP1200E.	As above but with 1 x CEE17 63A 3 Phase, N & E Power Inlet instead of Camlok.
MPP1200U.	As above but with 1 x CEE17 125A Single Phase Power Inlet instead of Camlok.
MPS1200E.	As above with Series Mains Patch (MPS). 1 x CEE17 63A 3 Phase, N & E Power Inlet instead of Camlok.
MPS1200U.	As above with Series Mains Patch (MPS). 1 x CEE17 125A Single Phase Power Inlet instead of Camlok.

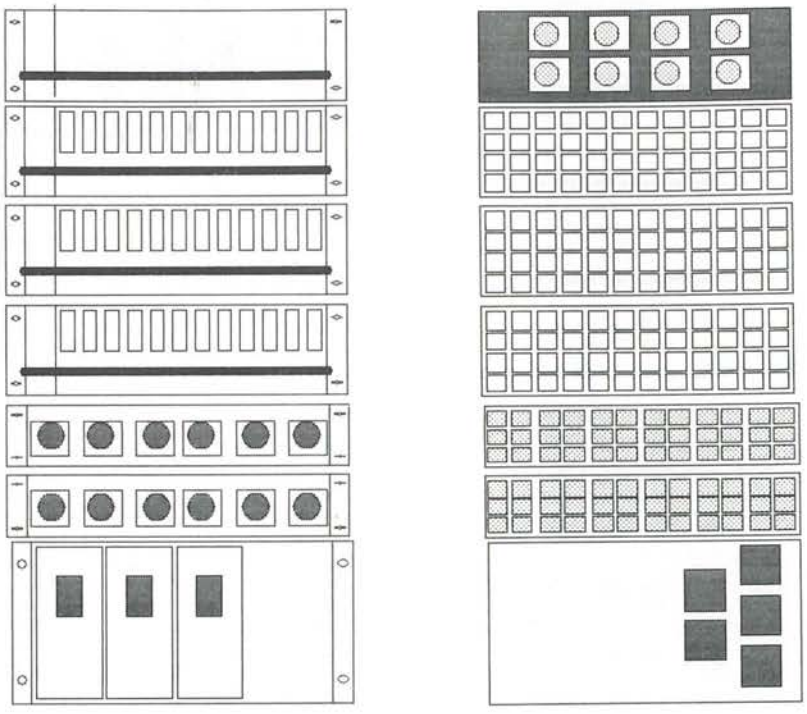
European Touring System

2412 System





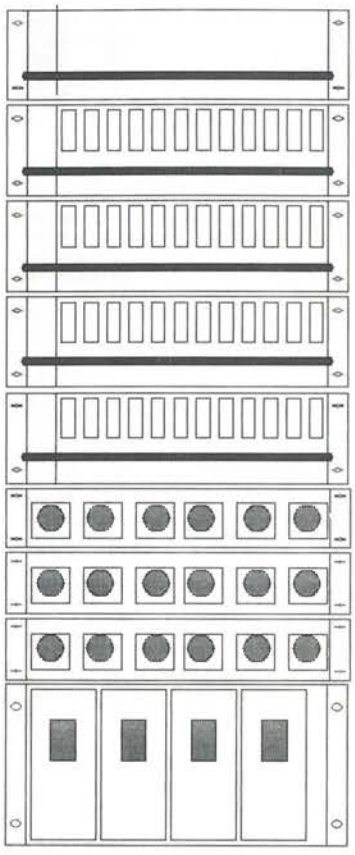
MPP2412C	
Dimmer Channels;	24 Dimmer Channels @ 10A per Channel, 12 Dimmer Channels @ 20A per Channel, 1.0kW @ 100v 1.2kW @ 120v 2.2kW @ 220v 2.4kW @ 240v
Dimmer Type;	2 x Celco Series 2 Ten 1 x Celco Series 2 Twenty
Outlets;	18 Socapex 419AR.
Circuits;	108 Circuits total (Patchable, to 36 Dimmers). 6 Circuits per Socapex.
Control Patching;	Celco Series 2 Control Patch. 120 Board Channels onto 36 Dimmer Channels.
Control Input;	4 x Socapex 337P. 120 Board Channels maximum.
Power Connection;	Celco Power Distribution Unit. 3 x 3 Phase Circuit Breakers.
Power Inlets;	3 Phase, Neutral and Earth on J series Camlok.
Auxiliary Power Outlets;	1 x CEE17 32A 3 Phase, N & E connector (with 3 Phase Breaker) 1 x CEE17 16A Single Phase Connector (with single Phase Breaker).
Other Versions of 2412 Dimmer System;	
MPS2412C.	As above with Series Mains Patch (MPS).
MPP2412E.	As above but with 2 x CEE17 125A 3 Phase, N & E Power Inlet instead of Camlok. Does not include Auxiliary Power Outlets.
MPS2412E.	As above with Series Mains Patch (MPS). 2 x CEE17 125A 3 Phase, N & E Power Inlet instead of Camlok. Does not include Auxiliary Power Outlets.

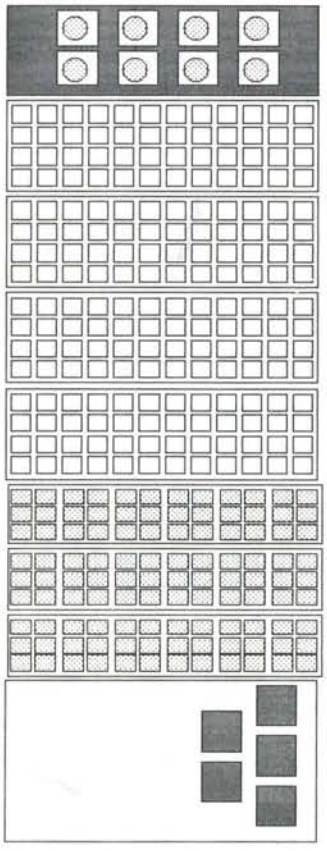


MPP3600C	
Dimmer Channels;	36 Dimmer Channels @ 10A per Channel, 1.0kW @ 100v 1.2kW @ 120v 2.2kW @ 220v 2.4kW @ 240v
Dimmer Type;	3 x Celco Series 2 Ten
Outlets;	12 Socapex 419AR.
Circuits;	72 Circuits total (Patchable, to 36 Dimmers). 6 Circuits per Socapex.
Control Patching;	Celco Series 2 Control Patch. 120 Board Channels onto 36 Dimmer Channels.
Control Input;	4 x Socapex 337P. 120 Board Channels maximum.
Power Connection;	Celco Power Distribution Unit. 3 x 3 Phase Circuit Breakers.
Power Inlets;	3 Phase, Neutral and Earth on J series Camlok.
Auxiliary Power Outlets;	1 x CEE17 32A 3 Phase, N & E connector (with 3 Phase Breaker) 1 x CEE17 16A Single Phase Connector (with single Phase Breaker).
Other Versions of 3600 Dimmer System;	
MPS3600C.	As above with Series Mains Patch (MPS).
MPP3600E.	As above but with 1 x CEE17 125A 3 Phase, N & E Power Inlet instead of Camlok. Does not include Auxiliary Power Outlets.
MPP3600U.	As above but with 3 x CEE17 125A Single Phase Power Inlet instead of Camlok. Does not include Auxiliary Power Outlets.
MPS3600E.	As above with Series Mains Patch (MPS). 1 x CEE17 125A 3 Phase, N & E Power Inlet instead of Camlok. Does not include Auxiliary Power Outlets.
MPS3600U.	As above with Series Mains Patch (MPS). 3 x CEE17 125A Single Phase Power Inlet instead of Camlok. Does not include Auxiliary Power Outlets.

European Touring System

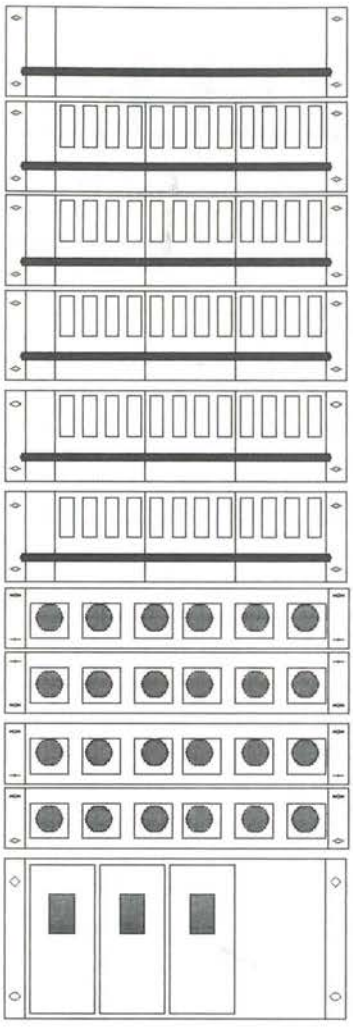
4800 System

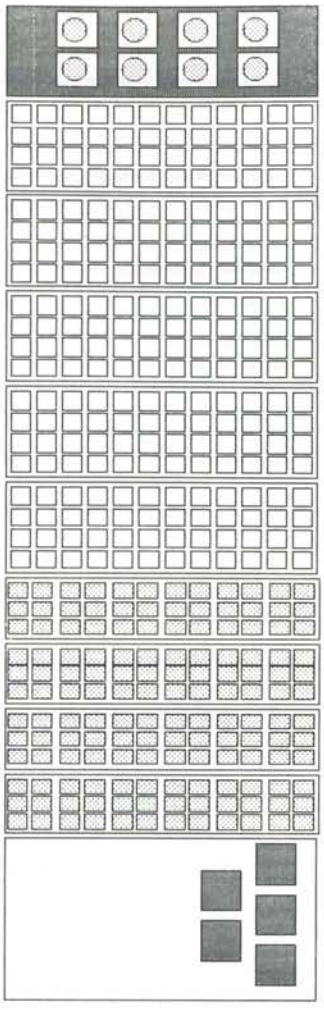




MPP4800C	
Dimmer Channels;	48 Dimmer Channels @ 10A per Channel, 1.0kW @ 100v 1.2kW @ 120v 2.2kW @ 220v 2.4kW @ 240v
Dimmer Type;	4 x Celco Series 2 Ten
Outlets;	18 Socapex 419AR.
Circuits;	108 Circuits total (Patchable, to 48 Dimmers). 6 Circuits per Socapex.
Control Patching;	Celco Series 2 Control Patch. 120 Board Channels onto 48 Dimmer Channels.
Control Input;	4 x Socapex 337P. 120 Board Channels maximum.
Power Connection;	Celco Power Distribution Unit. 4 x 3 Phase Circuit Breakers.
Power Inlets;	3 Phase, Neutral and Earth on J series Camlok.
Auxiliary Power Outlets;	1 x CEE17 32A 3 Phase, N & E connector (with 3 Phase Breaker) 1 x CEE17 16A Single Phase Connector (with single Phase Breaker).

Other Versions of 4800 Dimmer System;	
MPS4800C.	As above with Series Mains Patch (MPS).
MPP4800E.	As above but with 2 x CEE17 125A 3 Phase, N & E Power Inlet instead of Camlok. Does not include Auxiliary Power Outlets.
MPS4800E.	As above with Series Mains Patch (MPS). 2 x CEE17 125A 3 Phase, N & E Power Inlet instead of Camlok. Does not include Auxiliary Power Outlets.





European Touring System

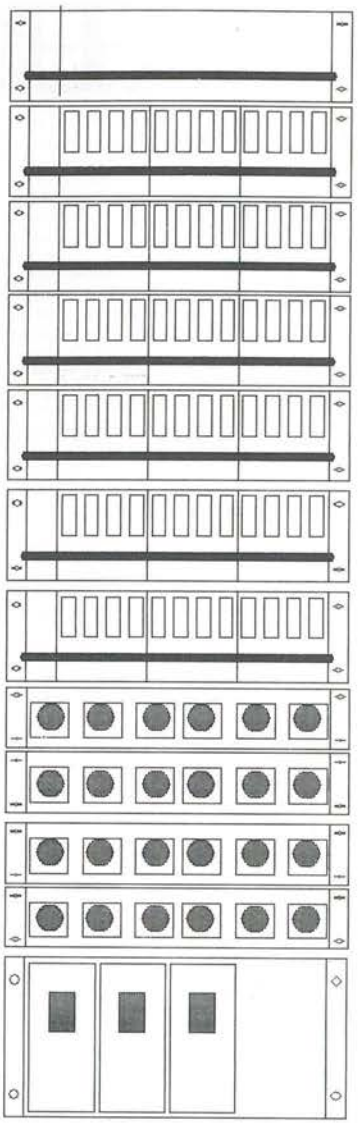
6000 System

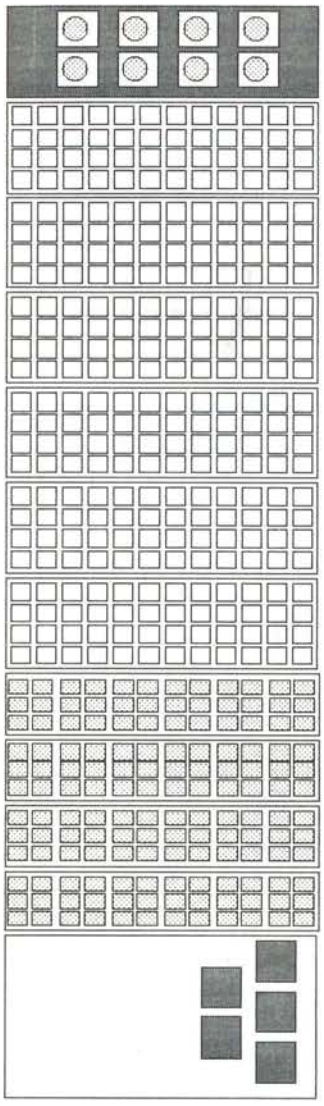
MPP6000C	
Dimmer Channels;	60 Dimmer Channels @ 10A per Channel, 1.0kW @ 100v 1.2kW @ 120v 2.2kW @ 220v 2.4kW @ 240v
Dimmer Type;	5 x Celco Series 2 Ten
Outlets;	24 Socapex 419AR.
Circuits;	144 Circuits total (Patchable, to 60 Dimmers). 6 Circuits per Socapex.
Control Patching;	Celco Series 2 Control Patch. 120 Board Channels onto 60 Dimmer Channels.
Control Input;	4 x Socapex 337P. 120 Board Channels maximum.
Power Connection;	Celco Power Distribution Unit. 3 x 3 Phase Circuit Breakers.
Power Inlets;	3 Phase, Neutral and Earth on J series Camlok.
Auxiliary Power Outlets;	1 x CEE17 32A 3 Phase, N & E connector (with 3 Phase Breaker) 1 x CEE17 16A Single Phase Connector (with single Phase Breaker).

Other Versions of 6000 Dimmer System;	
MPS6000C.	As above with Series Mains Patch (MPS).
MPP6000E.	As above but with 2 x CEE17 125A, N & E Power Inlet instead of Camlok. Does not include Auxiliary Power Outlets.
MPS6000E.	As above with Series Mains Patch (MPS). 2 x CEE17 125A, N & E Power Inlet instead of Camlok. Does not include Auxiliary Power Outlets.

European Touring System

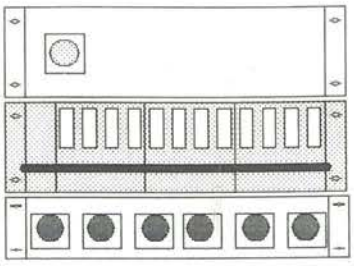
7200 System

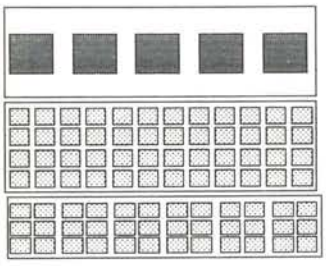




MPP7200C	
Dimmer Channels;	72 Dimmer Channels @ 10A per Channel, 1.0kW @ 100v 1.2kW @ 120v 2.2kW @ 220v 2.4kW @ 240v
Dimmer Type;	6 x Celco Series 2 Ten
Outlets;	24 Socapex 419AR.
Circuits;	144 Circuits total (Patchable, to 72 Dimmers). 6 Circuits per Socapex.
Control Patching;	Celco Series 2 Control Patch. 120 Board Channels onto 72 Dimmer Channels.
Control Input;	4 x Socapex 337P. 120 Board Channels maximum.
Power Connection;	Celco Power Distribution Unit. 3 x 3 Phase Circuit Breakers.
Power Inlets;	3 Phase, Neutral and Earth on J series Camlok.
Auxiliary Power Outlets;	1 x CEE17 32A 3 Phase, N & E connector (with 3 Phase Breaker) 1 x CEE17 16A Single Phase Connector (with single Phase Breaker).

Other Versions of 7200 Dimmer System:	
MPS7200C.	As above with Series Mains Patch (MPS).
MPP7200E.	As above but with 2 x CEE17 125A 3 Phase, N & E Power Inlet instead of Camlok. Does not include Auxiliary Power Outlets.
MPS7200E.	As above with Series Mains Patch (MPS). 2 x CEE17 125A 3 Phase, N & E Power Inlet instead of Camlok. Does not include Auxiliary Power Outlets.



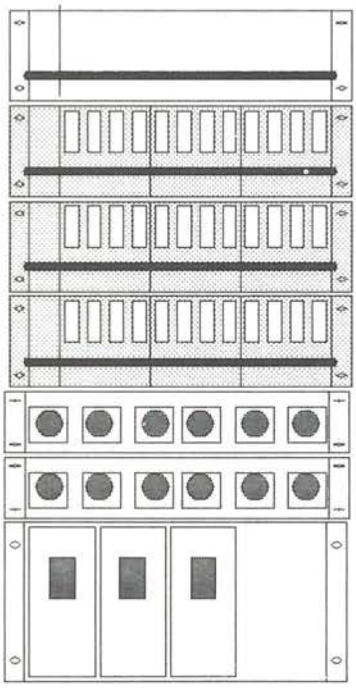


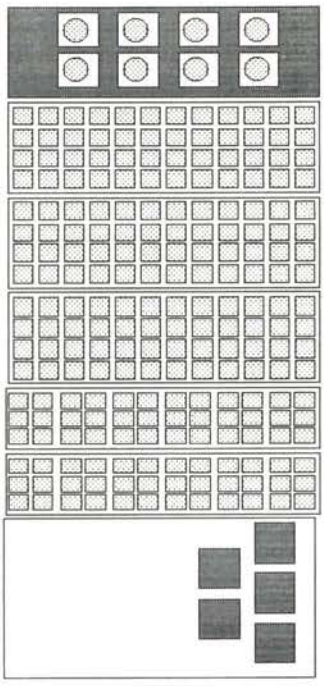
North American Touring Systems

US0012 System

US0012	
Dimmer Channels;	12 Dimmer Channels @ 20A per Channel, 2.0kW @ 100v 2.2kW @ 120v 4.2kW @ 220v 4.4kW @ 240v
Dimmer Type;	1 x Celco Series 2 Twenty
Outlets;	6 Socapex 419AR.
Circuits;	36 Circuits total (Patchable, to 12 Dimmers). 6 Circuits per Socapex.
Control Input;	1 x Socapex 337P.
Power Inlets;	3 Phase, Neutral and Earth on J series Camlok.

US0036 System

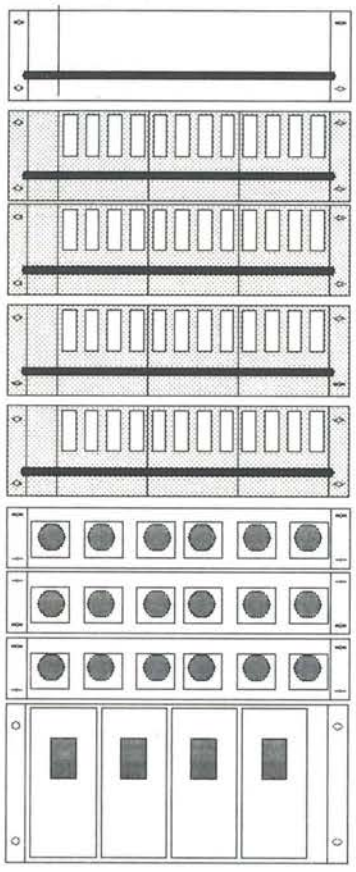


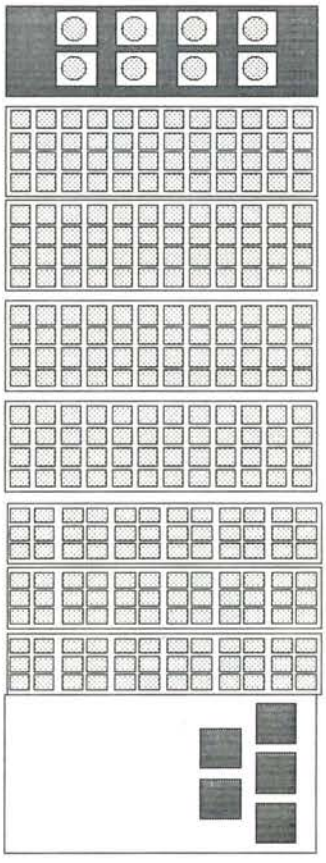


US0036	
Dimmer Channels;	36 Dimmer Channels @ 20A per Channel, 2.0kW @ 100v 2.2kW @ 120v 4.2kW @ 220v 4.4kW @ 240v
Dimmer Type;	3 x Celco Series 2 Twenty
Outlets;	12 Socapex 419AR.
Circuits;	72 Circuits total (Patchable, to 36 Dimmers). 6 Circuits per Socapex.
Control Patching;	Celco Series 2 Control Patch. 120 Board Channels onto 36 Dimmer Channels.
Control Input;	4 x Socapex 337P. 120 Board Channels maximum.
Power Connection;	Celco Power Distribution Unit. 3 x 3 Phase Circuit Breakers.
Power Inlets;	3 Phase, Neutral and Earth on J series Camlok.
Auxiliary Power Outlets;	2 x NEMA L5-20 Twistlocks on 20A Circuit Breaker.

North American Touring Systems

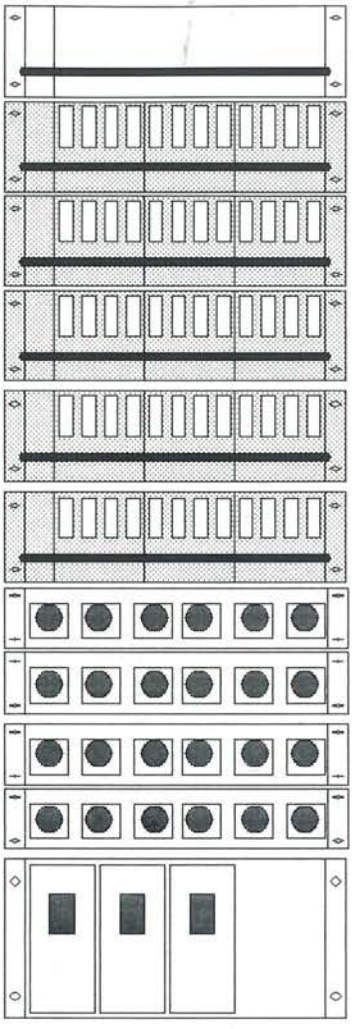
US0048 System

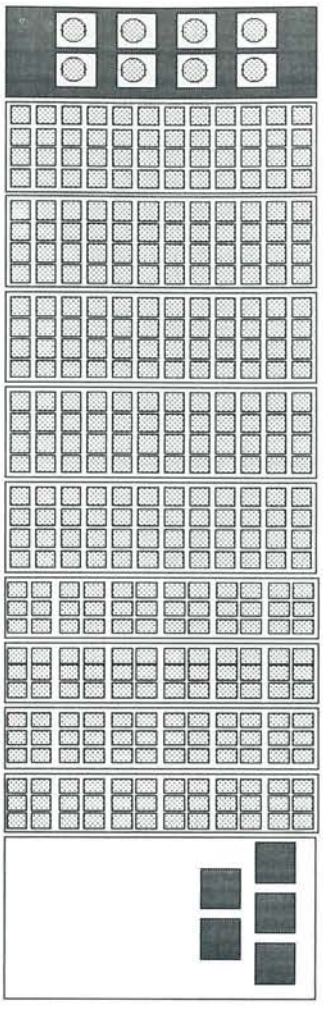




US0048	
Dimmer Channels;	48 Dimmer Channels @ 20A per Channel, 2.0kW @ 100v 2.2kW @ 120v 4.2kW @ 220v 4.4kW @ 240v
Dimmer Type;	4 x Celco Series 2 Twenty
Outlets;	18 Socapex 419AR.
Circuits;	108 Circuits total (Patchable, to 48 Dimmers). 6 Circuits per Socapex.
Control Patching;	Celco Series 2 Control Patch. 120 Board Channels onto 96 Dimmer Channels.
Control Input;	4 x Socapex 337P. 120 Board Channels maximum.
Power Connection;	Celco Power Distribution Unit. 4 x 3 Phase Circuit Breakers.
Power Inlets;	3 Phase, Neutral and Earth on J series Camlok.
Auxiliary Power Outlets;	2 x NEMA L5-20 Twistlocks on 20A Circuit Breaker.

US0060 System

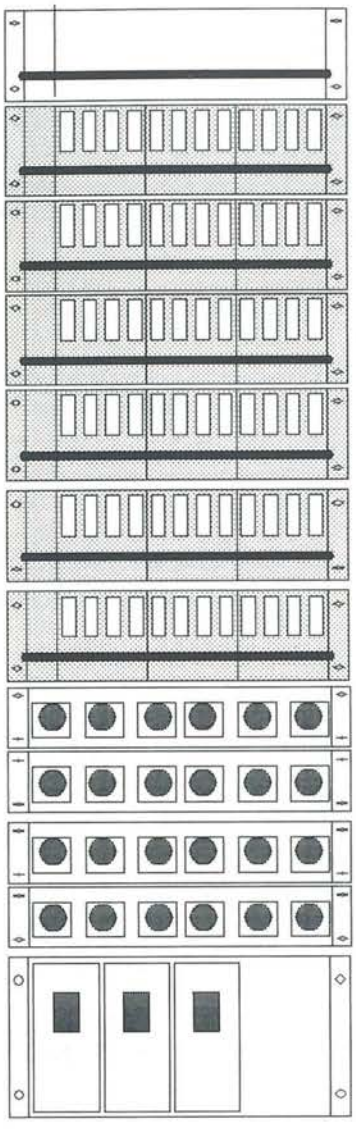


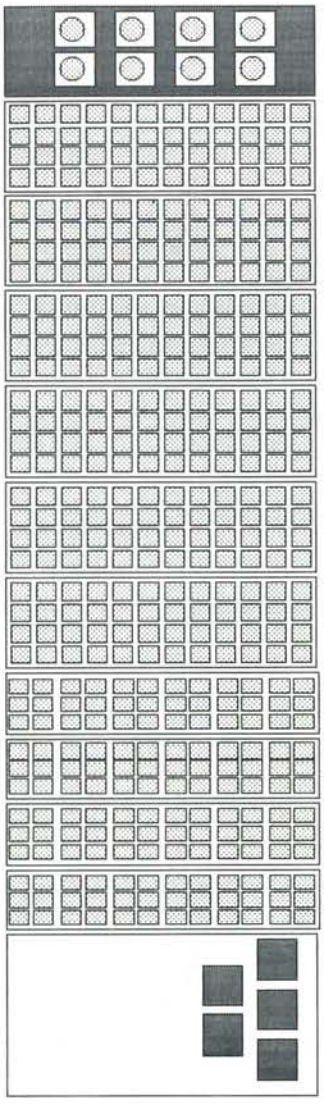


US0060	
Dimmer Channels;	60 Dimmer Channels @ 20A per Channel, 2.0kW @ 100v 2.2kW @ 120v 4.2kW @ 220v 4.4kW @ 240v
Dimmer Type;	5 x Celco Series 2 Twenty
Outlets;	24 Socapex 419AR.
Circuits;	144 Circuits total (Patchable, to 60 Dimmers). 6 Circuits per Socapex.
Control Patching;	Celco Series 2 Control Patch. 120 Board Channels onto 96 Dimmer Channels.
Control Input;	4 x Socapex 337P. 120 Board Channels maximum.
Power Connection;	Celco Power Distribution Unit. 3 x 3 Phase Circuit Breakers.
Power Inlets;	3 Phase, Neutral and Earth on J series Camlok.
Auxiliary Power Outlets;	2 x NEMA L5-20 Twistlocks on 20A Circuit Breaker.

North American Touring Systems

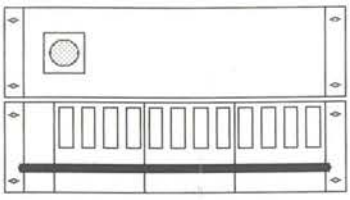
US0072 System

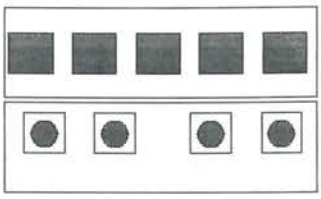




US0072	
Dimmer Channels;	72 Dimmer Channels @ 20A per Channel, 2.0kW @ 100v 2.2kW @ 120v 4.2kW @ 220v 4.4kW @ 240v
Dimmer Type;	6 x Celco Series 2 Twenty
Outlets;	24 Socapex 419AR.
Circuits;	144 Circuits total (Patchable, to 72 Dimmers). 6 Circuits per Socapex.
Control Patching;	Celco Series 2 Control Patch. 120 Board Channels onto 36 Dimmer Channels.
Control Input;	4 x Socapex 337P. 120 Board Channels maximum.
Power Connection;	Celco Power Distribution Unit. 3 x 3 Phase Circuit Breakers.
Power Inlets;	3 Phase, Neutral and Earth on J series Camlok.
Auxiliary Power Outlets;	2 x NEMA L5-20 Twistlocks on 20A Circuit Breaker.

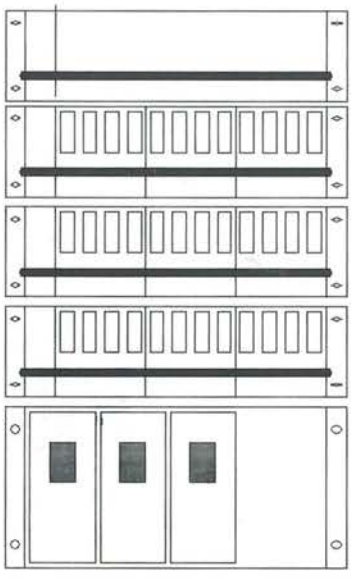
High Density Systems — one lamp per channel

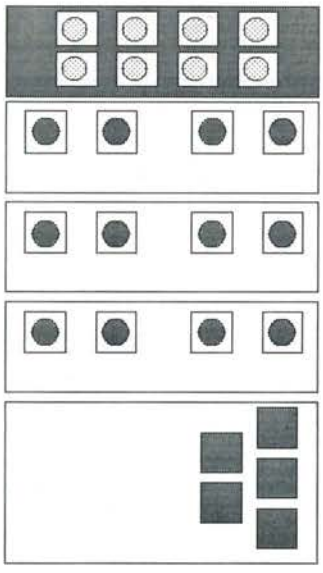




1200SOX	
Dimmer Channels;	12 Dimmer Channels @ 10A per Channel, 1.0kW @ 100v 1.2kW @ 120v 2.2kW @ 220v 2.4kW @ 240v
Dimmer Type;	1 x Celco Series 2 Ten/Sox
Outlets;	4 Socapex 419AR.
Circuits;	24 Circuits total. 6 Circuits per Socapex. 2 Circuits per Dimmer Channel.
Control Input;	1 x Socapex 337P.
Power Inlets;	3 Phase, Neutral and Earth on J series Camlok.

1200SOX System



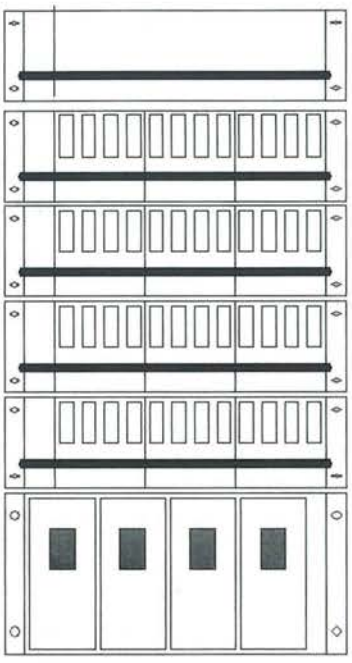


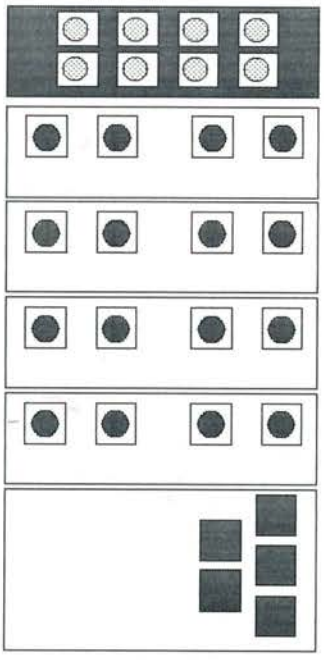
3600SOX	
Dimmer Channels;	36 Dimmer Channels @ 10A per Channel, 1.0kW @ 100v 1.2kW @ 120v 2.2kW @ 220v 2.4kW @ 240v
Dimmer Type;	3 x Celco Series 2 Ten/Sox
Outlets;	12 Socapex 419AR.
Circuits;	72 Circuits total. 6 Circuits per Socapex. 2 Circuits per Dimmer Channel.
Control Patching;	Celco Series 2 Control Patch. 120 Board Channels onto 36 Dimmer Channels.
Control Input;	4 x Socapex 337P. 120 Board Channels maximum.
Power Connection;	Celco Power Distribution Unit. 3 x 3 Phase Circuit Breakers (one per Dimmer Pack).
Power Inlets;	3 Phase, Neutral and Earth on J series Camlok.
Auxiliary Power Outlets;	2 x NEMA L5-20 Twistlocks on 20A Circuit Breaker.

3600SOX System

High Density Systems — one lamp per channel

4800SOX System

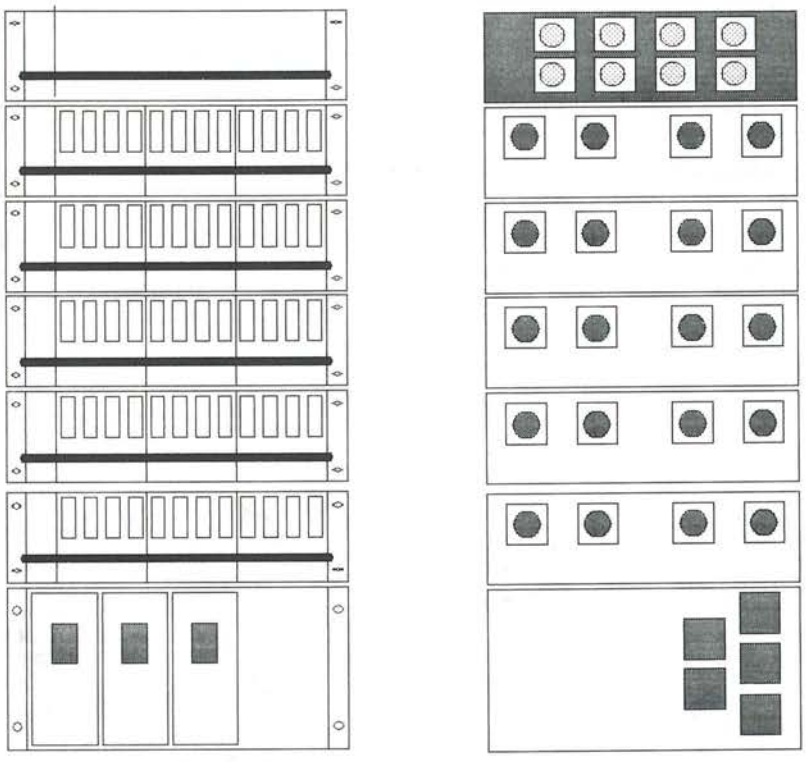




4800SOX	
Dimmer Channels;	48 Dimmer Channels @ 10A per Channel, 1.0kW @ 100v 1.2kW @ 120v 2.2kW @ 220v 2.4kW @ 240v
Dimmer Type;	4 x Celco Series 2 Ten/Sox
Outlets;	16 Socapex 419AR.
Circuits;	96 Circuits total. 6 Circuits per Socapex. 2 Circuits per Dimmer Channel.
Control Patching;	Celco Series 2 Control Patch. 120 Board Channels onto 48 Dimmer Channels.
Control Input;	4 x Socapex 337P. 120 Board Channels maximum.
Power Connection;	Celco Power Distribution Unit. 4 x 3 Phase Circuit Breakers (one per Dimmer Pack).
Power Inlets;	3 Phase, Neutral and Earth on J series Camlok.
Auxiliary Power Outlets;	2 x NEMA L5-20 Twistlocks on 20A Circuit Breaker.

High Density Systems — one lamp per channel

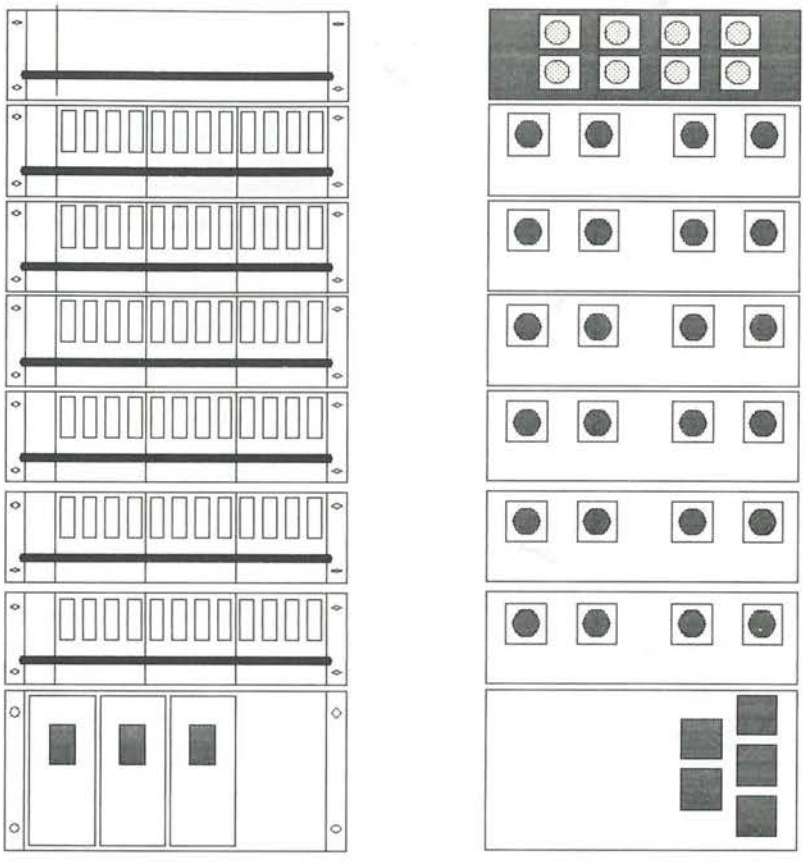
6000SOX System



6000SOX	
Dimmer Channels;	60 Dimmer Channels @ 10A per Channel, 1.0kW @ 100v 1.2kW @ 120v 2.2kW @ 220v 2.4kW @ 240v
Dimmer Type;	5 x Celco Series 2 Ten/Sox
Outlets;	20 Socapex 419AR.
Circuits;	120 Circuits total. 6 Circuits per Socapex. 2 Circuits per Dimmer Channel.
Control Patching;	Celco Series 2 Control Patch. 120 Board Channels onto 60 Dimmer Channels.
Control Input;	4 x Socapex 337P. 120 Board Channels maximum.
Power Connection;	Celco Power Distribution Unit. 3 x 3 Phase Circuit Breakers.
Power Inlets;	3 Phase, Neutral and Earth on J series Camlok.
Auxiliary Power Outlets;	2 x NEMA L5-20 Twistlocks on 20A Circuit Breaker.

High Density Systems — one lamp per channel

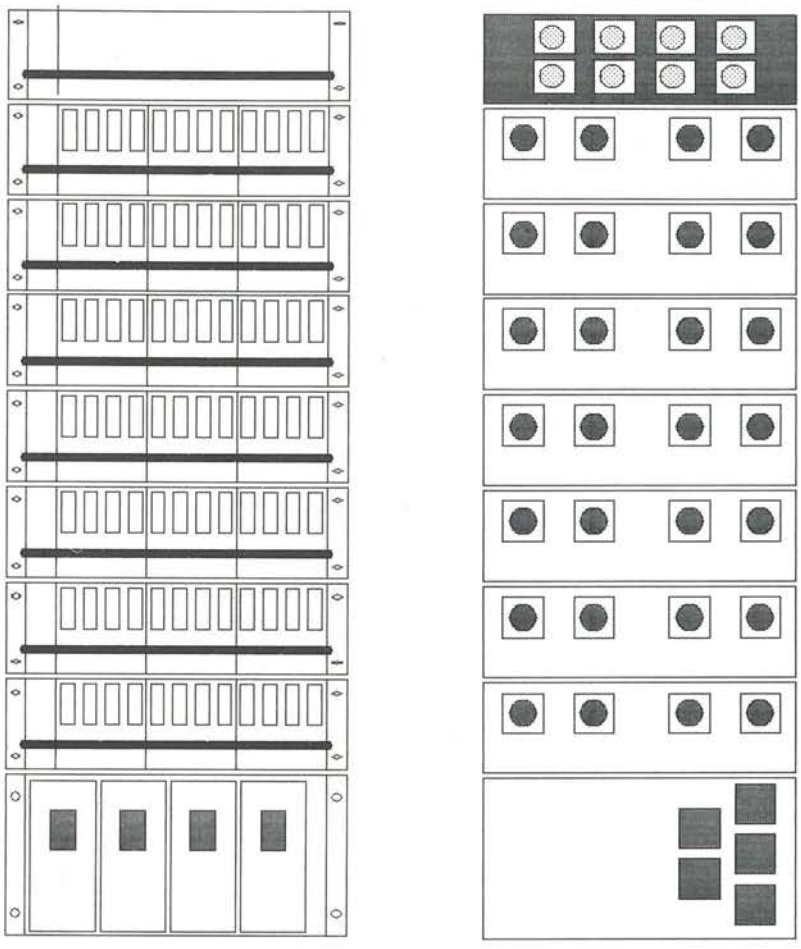
7200SOX System



7200SOX	
Dimmer Channels;	72 Dimmer Channels @ 10A per Channel, 1.0kW @ 100v 1.2kW @ 120v 2.2kW @ 220v 2.4kW @ 240v
Dimmer Type;	6 x Celco Series 2 Ten/Sox
Outlets;	24 Socapex 419AR.
Circuits;	144 Circuits total. 6 Circuits per Socapex. 2 Circuits per Dimmer Channel.
Control Patching;	Celco Series 2 Control Patch. 120 Board Channels onto 72 Dimmer Channels.
Control Input;	4 x Socapex 337P. 120 Board Channels maximum.
Power Connection;	Celco Power Distribution Unit. 3 x 3 Phase Circuit Breakers.
Power Inlets;	3 Phase, Neutral and Earth on J series Camlok.
Auxiliary Power Outlets;	2 x NEMA L5-20 Twistlocks on 20A Circuit Breaker.

High Density Systems — one lamp per channel

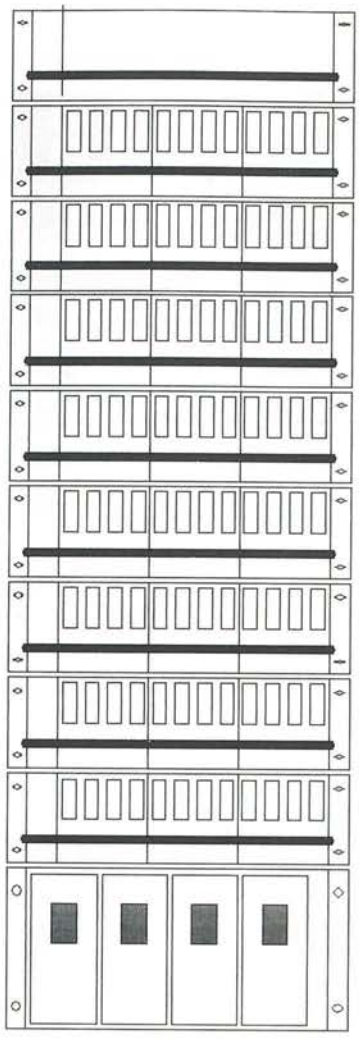
8400SOX System

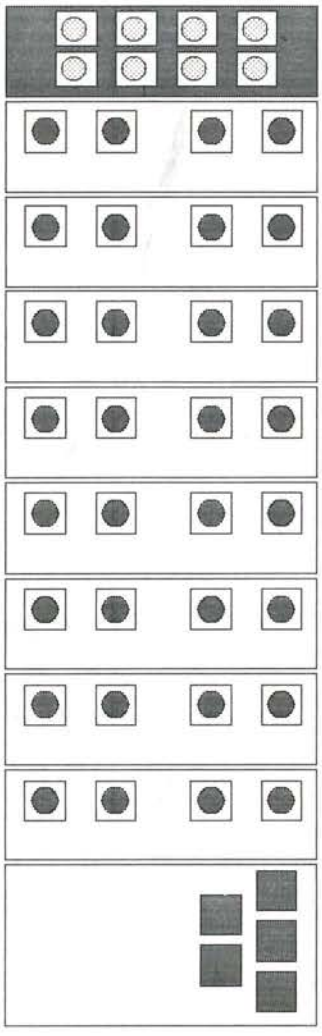


8400SOX	
Dimmer Channels;	84 Dimmer Channels @ 10A per Channel, 1.0kW @ 100v 1.2kW @ 120v 2.2kW @ 220v 2.4kW @ 240v
Dimmer Type;	7 x Celco Series 2 Ten/Sox
Outlets;	28 Socapex 419AR.
Circuits;	168 Circuits total. 6 Circuits per Socapex. 2 Circuits per Dimmer Channel.
Control Patching;	Celco Series 2 Control Patch. 120 Board Channels onto 84 Dimmer Channels.
Control Input;	4 x Socapex 337P. 120 Board Channels maximum.
Power Connection;	Celco Power Distribution Unit. 4 x 3 Phase Circuit Breakers.
Power Inlets;	3 Phase, Neutral and Earth on J series Camlok.
Auxiliary Power Outlets;	2 x NEMA L5-20 Twistlocks on 20A Circuit Breaker.

High Density Systems — one lamp per channel

9600SOX System

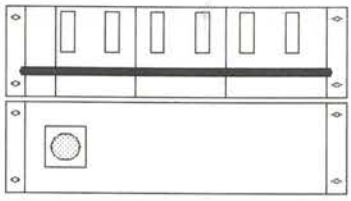


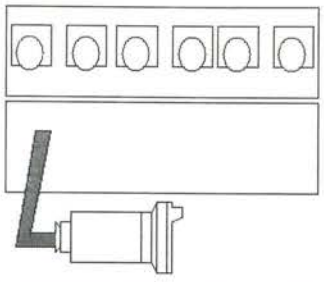


9600SOX	
Dimmer Channels;	96 Dimmer Channels @ 10A per Channel, 1.0kW @ 100v 1.2kW @ 120v 2.2kW @ 220v 2.4kW @ 240v
Dimmer Type;	8 x Celco Series 2 Ten/Sox
Outlets;	32 Socapex 419AR.
Circuits;	192 Circuits total. 6 Circuits per Socapex. 2 Circuits per Dimmer Channel.
Control Patching;	Celco Series 2 Control Patch. 120 Board Channels onto 96 Dimmer Channels.
Control Input;	4 x Socapex 337P. 120 Board Channels maximum.
Power Connection;	Celco Power Distribution Unit. 4 x 3 Phase Circuit Breakers.
Power Inlets;	3 Phase, Neutral and Earth on J series Camlok.
Auxiliary Power Outlets;	2 x NEMA L5-20 Twistlocks on 20A Circuit Breaker.

Television Systems — 10A per channel

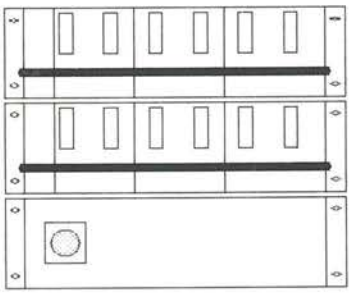
TV10-06 System

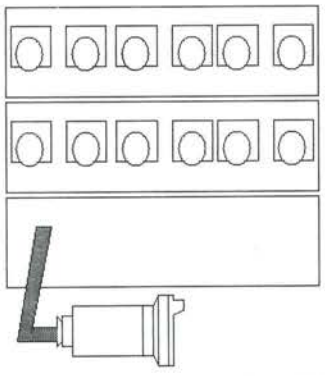




TV10-06	
Dimmer Channels;	6 Dimmer Channels @ 10A per Channel, 1.0kW @ 100v 1.2kW @ 120v 2.2kW @ 220v 2.4kW @ 240v
Dimmer Type;	1 x Celco Series 2 TV10.
Outlets;	6 CEE17 16A connectors.
Control Input;	1 x Socapex 337P.
Power Inlets;	1 x CEE17 63A 3 Phase, N & E connector.
Other Versions of the TV10-06 Dimmer System;	
TV10-06U.	As above with 1 x CEE17 63A Single Phase Power Inlet.
TV10-06C.	As above with NEMA L5-20 Twistlock Outlets. 3 Phase, N & E on Camlok J Series Power Inlet.

TV10-12 System

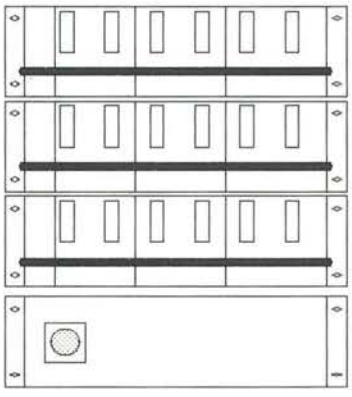


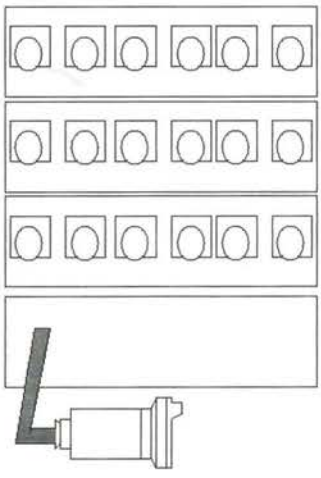


TV10-12	
Dimmer Channels;	12 Dimmer Channels @ 10A per Channel, 1.0kW @ 100v 1.2kW @ 120v 2.2kW @ 220v 2.4kW @ 240v
Dimmer Type;	2 x Celco Series 2 TV10.
Outlets;	12 CEE17 16A connectors.
Control Input;	1 x Socapex 337P.
Power Inlets;	1 x CEE17 63A 3 Phase, N & E connector.
Other Versions of the TV10-12 Dimmer System;	
TV10-12U.	As above with 2 x CEE17 63A Single Phase Power Inlet.
TV10-12C.	As above with NEMA L5-20 Twistlock Outlets. 3 Phase, N & E on Camlok J Series Power Inlet.

Television Systems — 10A per channel

TV10-18 System

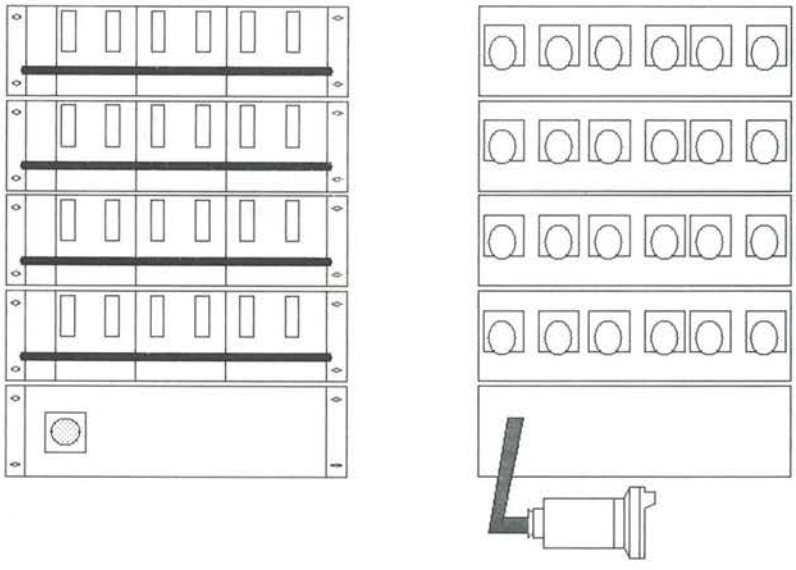




TV10-18	
Dimmer Channels;	18 Dimmer Channels @ 10A per Channel, 1.0kW @ 100v 1.2kW @ 120v 2.2kW @ 220v 2.4kW @ 240v
Dimmer Type;	3 x Celco Series 2 TV10.
Outlets;	18 CEE17 16A connectors.
Control Input;	1 x Socapex 337P.
Power Inlets;	1 x CEE17 63A 3 Phase, N & E connector.
Other Versions of the TV10-18 Dimmer System;	
TV10-18U.	As above with 3 x CEE17 63A Single Phase Power Inlet.
TV10-18C.	As above with NEMA L5-20 Twistlock Outlets. 3 Phase, N & E on Camlok J Series Power Inlet.

Television Systems — 10A per channel

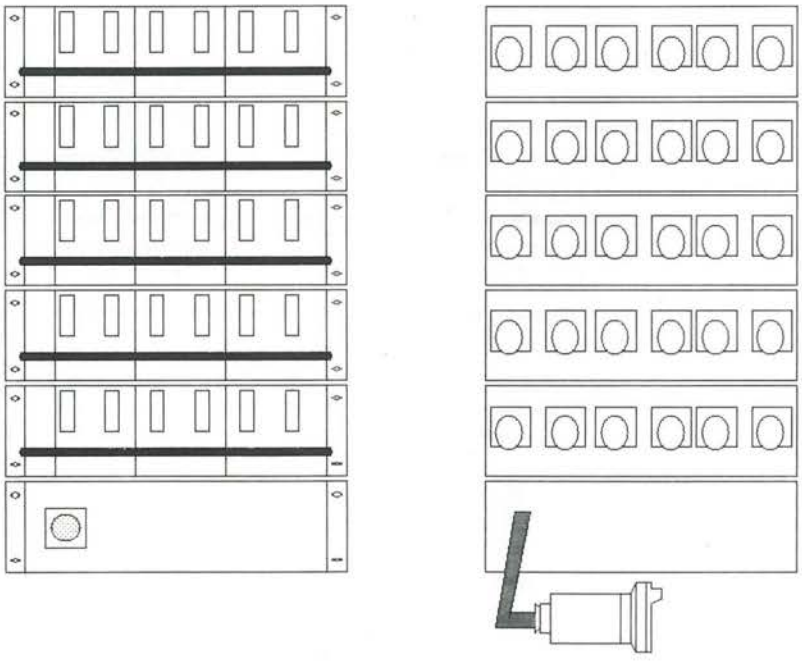
TV10-24 System



TV10-24	
Dimmer Channels;	24 Dimmer Channels @ 10A per Channel, 1.0kW @ 100v 1.2kW @ 120v 2.2kW @ 220v 2.4kW @ 240v
Dimmer Type;	4 x Celco Series 2 TV10.
Outlets;	24 CEE17 16A connectors.
Control Input;	1 x Socapex 337P.
Power Inlets;	1 x CEE17 125A 3 Phase, N & E connector.
Other Versions of the TV10-24 Dimmer System;	
TV10-24U.	As above with 2 x CEE17 125A Single Phase Power Inlet.
TV10-24C.	As above with NEMA L5-20 Twistlock Outlets. 3 Phase, N & E on Camlok J Series Power Inlet.

Television Systems — 10A per channel

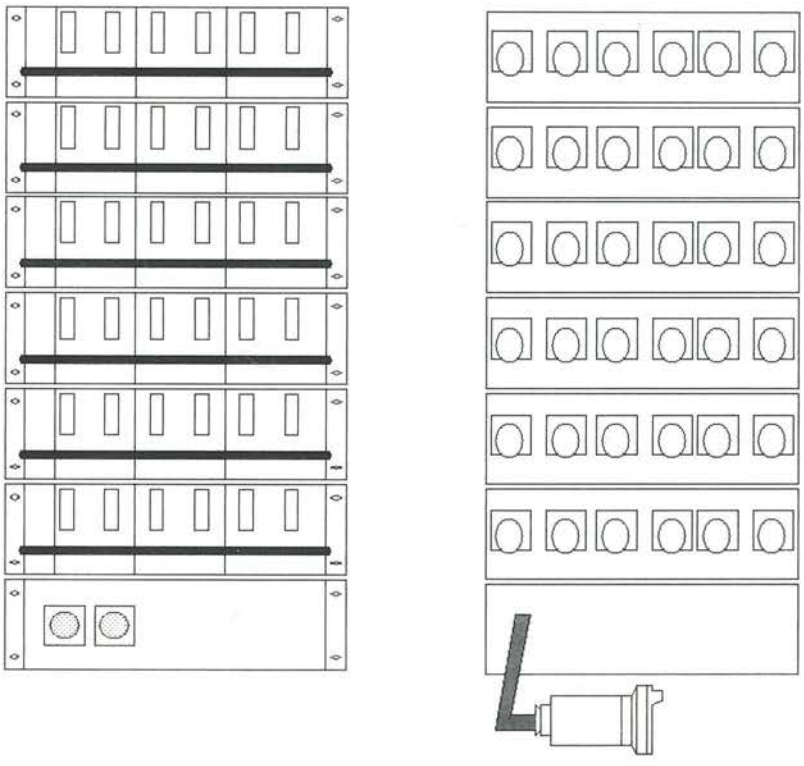
TV10-30 System



TV10-30	
Dimmer Channels;	30 Dimmer Channels @ 10A per Channel, 1.0kW @ 100v 1.2kW @ 120v 2.2kW @ 220v 2.4kW @ 240v
Dimmer Type;	5 x Celco Series 2 TV10.
Outlets;	30 CEE17 16A connectors.
Control Input;	1 x Socapex 337P.
Power Inlets;	1 x CEE17 125A 3 Phase, N & E connector.
Other Versions of the TV10-30 Dimmer System;	
TV10-30U.	As above with 3 x CEE17 125A Single Phase Power Inlet.
TV10-30C.	As above with NEMA L5-20 Twistlock Outlets. 3 Phase, N & E on Camlok J Series Power Inlet.

Television Systems — 10A per channel

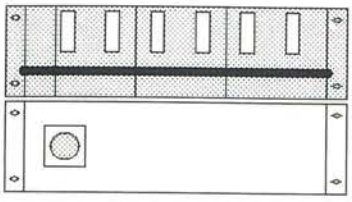
TV10-36 System

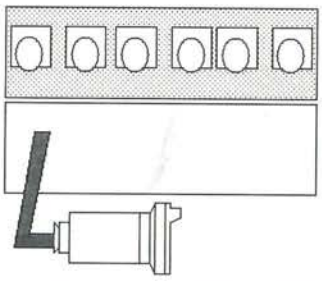


TV10-36	
Dimmer Channels;	36 Dimmer Channels @ 10A per Channel, 1.0kW @ 100v 1.2kW @ 120v 2.2kW @ 220v 2.4kW @ 240v
Dimmer Type;	6 x Celco Series 2 TV10.
Outlets;	36 CEE17 16A connectors.
Control Input;	2 x Socapex 337P.
Power Inlets;	1 x CEE17 125A 3 Phase, N & E connector.
Other Versions of the TV10-36 Dimmer System;	
TV10-36U.	As above with 3 x CEE17 125A Single Phase Power Inlet.
TV10-36C.	As above with NEMA L5-20 Twistlock Outlets. 3 Phase, N & E on Camlok J Series Power Inlet.

Television Systems — 25A per channel

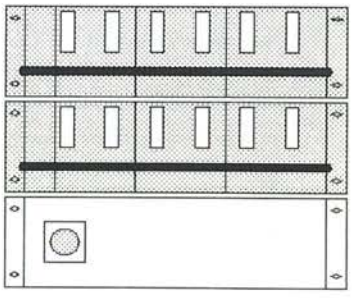
TV25-06 System

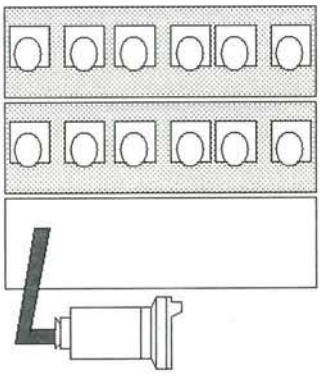




TV25-06	
Dimmer Channels;	6 Dimmer Channels @ 25A per Channel, 2.5kW @ 100v 3.0kW @ 120v 5.5kW @ 220v 6.0kW @ 240v
Dimmer Type;	1 x Celco Series 2 TV25.
Outlets;	6 CEE17 32A connectors.
Control Input;	1 x Socapex 337P.
Power Inlets;	1 x CEE17 63A 3 Phase, N & E connector.
Other Versions of the TV25-06 Dimmer System;	
TV25-06U.	As above with 1 x CEE17 125A Single Phase Power Inlet.
TV25-06C.	As above with NEMA L5-20 Twistlock Outlets. 3 Phase, N & E on Camlok J Series Power Inlet.

TV25-12 System

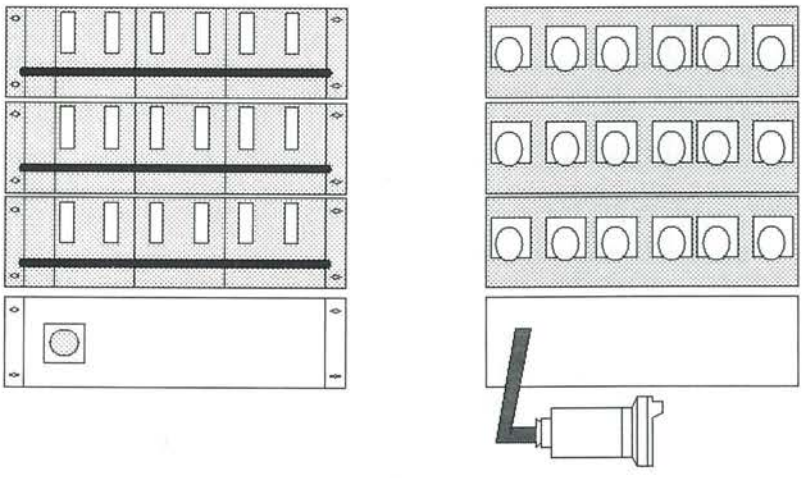




TV25-12	
Dimmer Channels;	12 Dimmer Channels @ 25A per Channel, 2.5kW @ 100v 3.0kW @ 120v 5.5kW @ 220v 6.0kW @ 240v
Dimmer Type;	2 x Celco Series 2 TV25.
Outlets;	12 CEE17 32A connectors.
Control Input;	1 x Socapex 337P.
Power Inlets;	2 x CEE17 63A 3 Phase, N & E connector.
Other Versions of the TV25-12 Dimmer System;	
TV25-12U.	As above with 2 x CEE17 125A Single Phase Power Inlet.
TV25-12C.	As above with NEMA L5-20 Twistlock Outlets. 3 Phase, N & E on Camlok J Series Power Inlet.

Television Systems — 25A per channel

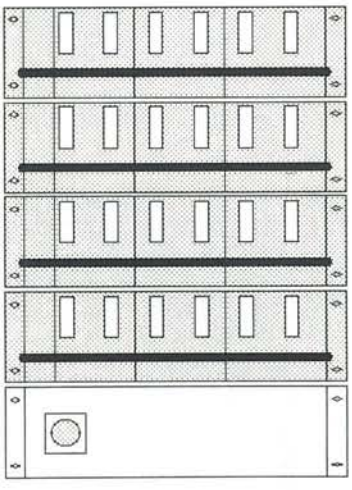
TV25-18 System

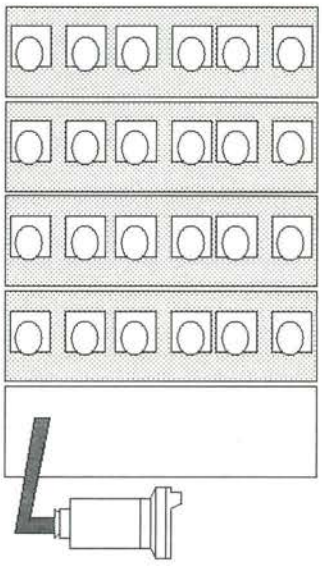


TV25-18	
Dimmer Channels;	18 Dimmer Channels @ 25A per Channel, 2.5kW @ 100v 3.0kW @ 120v 5.5kW @ 220v 6.0kW @ 240v
Dimmer Type;	3 x Celco Series 2 TV25.
Outlets;	18 CEE17 32A connectors.
Control Input;	1 x Socapex 337P.
Power Inlets;	3 x CEE17 63A 3 Phase, N & E connector.
Other Versions of the TV25-18 Dimmer System;	
TV25-18U.	As above with 3 x CEE17 125A Single Phase Power Inlet.
TV25-18C.	As above with NEMA L5-20 Twistlock Outlets. 3 Phase, N & E on Camlok J Series Power Inlet.

Television Systems — 25A per channel

TV25-24 System

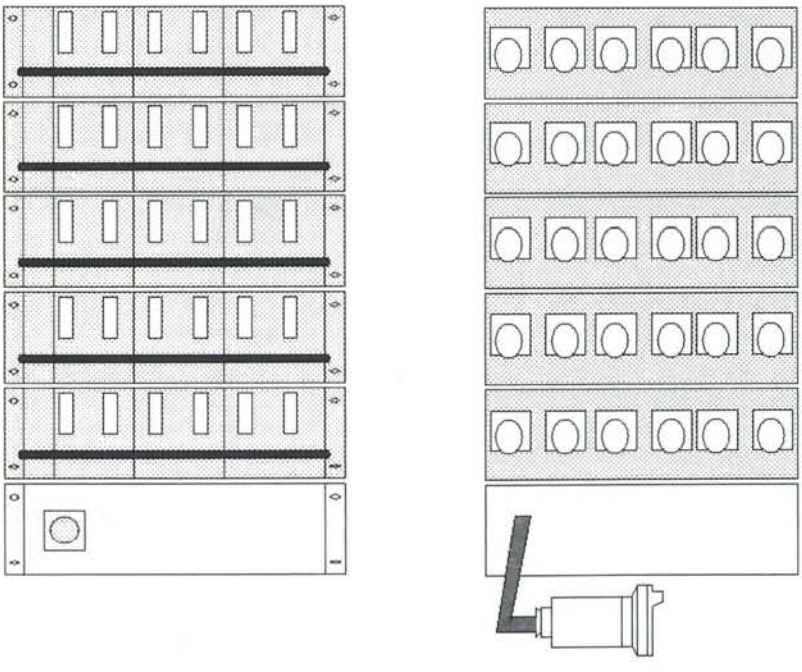




TV25-24	
Dimmer Channels;	24 Dimmer Channels @ 25A per Channel, 2.5kW @ 100v 3.0kW @ 120v 5.5kW @ 220v 6.0kW @ 240v
Dimmer Type;	4 x Celco Series 2 TV25.
Outlets;	24 CEE17 32A connectors.
Control Input;	1 x Socapex 337P.
Power Inlets;	4 x CEE17 63A 3 Phase, N & E connector.
Other Versions of the TV25-24 Dimmer System;	
TV25-24U.	As above with 4 x CEE17 125A Single Phase Power Inlet.
TV25-24C.	As above with NEMA L5-20 Twistlock Outlets. 3 Phase, N & E on Camlok J Series Power Inlet.

Television Systems — 25A per channel

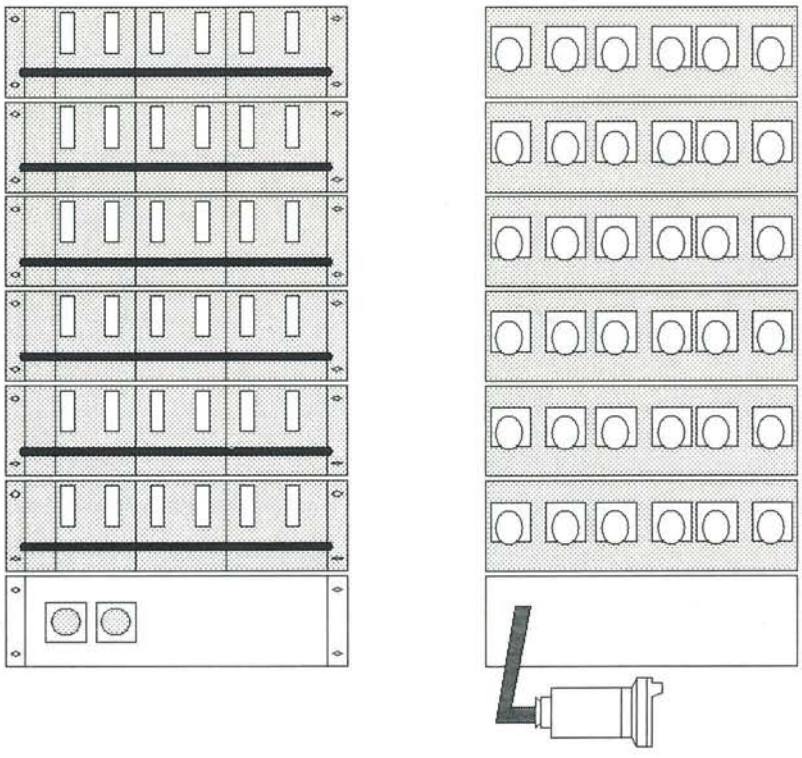
TV25-30 System



TV25-30	
Dimmer Channels;	30 Dimmer Channels @ 25A per Channel, 2.5kW @ 100v 3.0kW @ 120v 5.5kW @ 220v 6.0kW @ 240v
Dimmer Type;	5 x Celco Series 2 TV25.
Outlets;	30 CEE17 32A connectors.
Control Input;	1 x Socapex 337P.
Power Inlets;	5 x CEE17 63A 3 Phase, N & E connector.
Other Versions of the TV25-30 Dimmer System;	
TV25-30U.	As above with 5 x CEE17 125A Single Phase Power Inlet.
TV25-30C.	As above with NEMA L5-20 Twistlock Outlets. 3 Phase, N & E on Camlok J Series Power Inlet.

Television Systems — 25A per channel

TV25-36 System



TV25-36	
Dimmer Channels;	36 Dimmer Channels @ 25A per Channel, 2.5kW @ 100v 3.0kW @ 120v 5.5kW @ 220v 6.0kW @ 240v
Dimmer Type;	6 x Celco Series 2 TV25.
Outlets;	36 CEE17 32A connectors.
Control Input;	2 x Socapex 337P.
Power Inlets;	6 x CEE17 63A 3 Phase, N & E connector.
Other Versions of the TV25-36 Dimmer System;	
TV25-36U.	As above with 6 x CEE17 125A Single Phase Power Inlet.
TV25-36C.	As above with NEMA L5-20 Twistlock Outlets. 3 Phase, N & E on Camlok J Series Power Inlet.

Dimmer Specification

Dimmer Pack — Physical Specifications

The Dimmer Pack shall be 3U high (132mm, 5¼"), 19" Rack Mounting. Dimmer Pack depth shall be 530mm (21"), not including connectors. The Dimmer Pack shall be supported by 4 Support Runners (supplied).
The Power Connections shall be recessed on the left hand side (when viewed from the front) and be made by five terminal block (terminal strip) connections being three phases, neutral and earth (ground).
The Control Input shall be made by a 15 way 'D' type connector (female connector on Dimmer Pack) located in a recess on the left hand side of the Dimmer Pack (as viewed from the front).
The Dimmer Pack shall be made up of a Chassis unit containing all outlet connectors, suppression devices and associated wiring, a Fan Module and three Dimmer Modules containing all electronics, Power and Protection devices.
It shall be possible to remove any of the Dimmer Modules with the Chassis mounted in a rack enclosure (providing the relevant Dimmer Pack has been isolated from the mains power supply).

Electrical Specifications

Control Input;
The Control Input shall withstand external voltages of up to ± 2000V DC.
The common (zero volts) for the Control Input shall *not* be connected to the protective ground (earth).
The Rise Time of the Control Signal, after filtering, shall not exceed 20mS.
Outputs;
The Output of the Dimmer Pack shall be controlled by the Control Input Signal. The response shall be by either Linear, giving a linear response in Vrms output, or, Log Law B (square law B) to meet the requirements of BBC TV304 response specifications.
The response characteristics shall be user selectable by dip switch.
The Output Filtering shall meet the requirements of BS800 (1983), VDE0875 and BBC TV304 for interference suppression.
The Output at full shall be not less than 95% of the incoming mains voltage.
The variation between Channel Outputs for a given input signal shall not be more than ± 2%. The Repeatability on any one Dimmer Channel shall be better than ± 0.5%.

Features

Each Channel of the Dimmer Pack shall be fitted with a Magnetic Circuit Breaker Protection Device. This shall isolate the output if the load exceeds 125% of the rated capacity within 60 seconds or if the current exceeds 200% of rated capacity within 200mS and protect the output device.
Each Dimmer Channel shall have a Lamp OK indicator Neon mounted inside the Circuit Breaker.
Each Dimmer Channel shall have a Control Voltage Indicator to determine whether a Control Signal is present.
Each Dimmer Channel shall have a Test Button. Operation of the Test Button is as follows;
Press Once; To set Dimmer Channel at Half Output.
Press Again; To set Dimmer Channel at Full Output.
Press Again; To set Dimmer Channel off.
Each Test Button shall be equipped with a Test Indicator which shall remain on if the Test Button is selected to half or full power.
Each Dimmer Module in a Dimmer Pack shall be equipped with a Line Voltage Selection Device and a Line Over Voltage Indicator. If the Line Voltage is in the region of 60 - 160 volts the unit will select 120 volt operation. If the Line Voltage is in the region of 160 - 300 volts the unit will select 230 volt operation. If the unit detects a Line Voltage of 300 volts or more the unit will switch off and the Line Over Voltage Indicator illuminate.
Each Dimmer Module shall have an Over Temperature Sensor and Indicator.
Each Dimmer Module shall have an internal Response Selection Switch and Indicator for Linear or Log Law B Control Curves.
Each Dimmer Module shall have a Pre-heat on/off selection switch (internal) with Pre-heat level adjustment (internal) and a Pre-heat on/off Indicator. Pre-heat level is factory set to 15%.
Each Dimmer Pack shall have a Fan Module located on the left hand side (as viewed from the front). This Module shall include a switch circuit to select the Line Voltage to the Fan and to protect the Fan in the event of a cross phasing of the Line Inputs.
The Dimmer Pack shall operate at 100% load on all channels for extended periods in environmental temperatures up to the maximum specified.
The Dimmer Pack shall operate within the range 0 - 50 degrees Centigrade and stored within the range -20 - + 70 degrees Centigrade.
The Dimmer Pack shall operate on either a Single Phase Supply or on a Three Phase Star connected supply.
The Case of the Dimmer Pack shall be connected to Protective Ground (Earth). No part of the internal circuit of the unit shall be connected directly or indirectly to the Case.

Weights and Dimensions

Code	Height	Width	Depth	Weight (approx)
MPP1200 **MPS1200**	9U (18″, 458mm)	23″, 585mm	31″, 788mm	145lbs, 65kg
MPP3600 **MPS3600**	21U (38″, 965mm)	″	″	400lbs, 180kg
MPP2412 **MPS2412**	23U (42″, 1067mm)	″	″	440lbs, 200kg
MPP4800 **MPS4800**	26U (47″, 1194mm)	″	″	530lbs, 240kg
MPP6000 **MPS6000**	32U (58″, 1474mm)	″	″	660lbs, 300kg
MPP7200 **MPS7200**	34U (61″, 1550mm)	″	″	770lbs, 350kg
US0012	9U (18″, 458mm)	″	″	145lbs, 65kg
US0036	21U (38″, 965mm)	″	″	400lbs, 180kg
US0048	26U (47″, 1194mm)	″	″	530lbs, 240kg
US0060	32U (58″, 1474mm)	″	″	660lbs, 300kg
US0072	34U (61″, 1550mm)	″	″	770lbs, 350kg
1200SOX	6U (12″, 305mm)	″	″	130lbs, 60kg
3600SOX	18U (33″, 838mm)	″	″	375lbs, 170kg
4800SOX	21U (38″, 965mm)	″	″	440lbs, 200kg
6000SOX	23U (42″, 1067mm)	″	″	500lbs, 230kg
7200SOX	26U (47″, 1194mm)	″	″	600lbs, 275kg
8400SOX	32U (58″, 1474mm)	″	″	700lbs, 320kg
9600SOX	32U (58″, 1474mm)	″	″	760lbs, 345kg
TV10-06 **TV25-06**	6U (12″, 305mm)	″	″	130lbs, 60kg
TV10-12 **TV25-12**	9U (18″, 458mm)	″	″	200lbs, 90kg
TV10-18 **TV25-18**	12U (23″, 585mm)	″	″	265lbs, 120kg
TV10-24 **TV25-24**	15U (28″, 712mm)	″	″	330lbs, 150kg
TV10-30 **TV25-30**	18U (33″, 838mm)	″	″	400lbs, 180kg
TV10-36 **TV25-36**	21U (38″, 965mm)	″	″	460lbs, 210kg

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