

INSTALLATION/OPERATING INSTRUCTIONS FOR D1205

The D1205 is a twelve channel dimming pack rated at 5 amps per channel, and is suitable for dimming both resistive and inductive loads. It is supplied in the Series 192 format (19" x 2U) rack mounting, and is designed for 3 phase Star or single phase supplies. Channel protection is by 5x20mm fuses with fuse blown indicators.

FRONT PANEL

On the left of the front panel are the 3 phase indicators, phase 1 powers channels 1 > 4 phase 2 channels 5 > 8 phase 3 channels 9 >12 in addition phase 1 powers the electronics so if this phase fails the pack will not function.

Next come the fuse holders with fuse blown indicators above each one. The indicator will light if the fuse has blown but only if the load is good. The fuse used should be a 5 amp H.R.C ceramic slow blow.

To the right of the fuse holders are the monitor LEDs, one for each channel. These are positioned in the circuit at the point where the low voltage section couples to the live electronics, and so provide a useful reference point should a fault occur in any channel of the pack.

Mounted above the monitor and power LEDs is either the rotary test switch or the optional local control board. The rotary switch provides channel selection with the adjacent latching switch selecting on/off to 100%, whereas the local control facility provides individual variable control of each channel from 0 to 100%.

On the right hand side of the front panel is the mounting position for the optional DMX card, if the DMX card is not fitted a blanking panel secured by the front panel mounting screws will cover the DMX address information. (Please note it is possible to retro fit the DMX card if the need arises).

REAR PANEL

Starting from the left hand side of the dimmer are the two 12.5mm holes with grommets fitted, these provide access to the screw terminals for a multi-core cable if required in fixed installations when using analogue signals. Below these are the two ring locking Din sockets, for a removable analogue connection. These both use the more common pin out as used by ourselves and Zero 88 etc. and is detailed on the lid of the dimmer. The lower socket is used for channels 1 > 6 while the upper socket is used for channels 7 > 12. To the right of the Din sockets is a 25 way 'D' connector. This socket is used by both Ryger and Zero 88 on some of their products. The channel pin out is the same for both companies, the only difference being the pin used for the supply, and of course being Anytronics we have made provision for both with a link on the P.C.B.

Above and to the right of this are the holes for the 5 pin XLR sockets, one male one female which will be fitted when the D.M.X decode card is installed in the dimmer. (The lower hole is for the non-unified male socket.)

Finally there is the 32mm hole for the mains cable entry, this is fitted with a cable gland capable of accepting cable diameters from 18mm to 25mm.

The remainder of the rear of the dimmer is taken up by the output plate. There are a range of output plates available, hardwired (six 20mm holes with grommets fitted) twelve IEC sockets, plates with two or four holes to accept the 19 pin socapex socket and a plate which will take two 16 pin harting sockets. We can supply any of these plates should you wish to change the output arrangement at some future time.

MAINS INPUT CONNECTIONS

As mentioned above the mains supply cable enters via the 32mm gland on the rear of the unit. It is connected to the P.C.B via a four way screw clamp connector marked L1, L2, L3 and N, that is the three Lives and a Neutral. The Earth must be made off into the brass earth bar mounted on the chassis above the cable entry point.

If the dimmer is to be run on a Single Phase supply you will need to link the three Live terminals together, this can be done by inserting the bridging bar, which you will find held in one of the spare points in the earth bar, into the other side of the screw clamp connector and tightening down all three screws. The single phase cable can then be attached to any of the three Live terminals, the Neutral and the Earth.

MAINS OUTPUT CONNECTIONS

The Live and Neutral output connections are clearly marked on the P.C.B, the Earth connections must be made off in the Earthing bar above the cable entry point.

DIMMING PACK OPERATION

The dimming pack is designed to operate on either externally generated analogue or D.M.X signals, its own local control or a combination of all three. The D.M.X card can be retro fitted by any fairly competent individual, if however you wish to add local control we would recommend that this should be done either at the factory or by your supplier.

There will come a time when a Triac needs replacing. We fit a non-insulated tab 25Amp device with a surge current of greater than 300A. This provides more than adequate headroom for normal operation. When fitting a new device, whether you got it from us or are fitting one with a similar specification, please ensure that you form the legs in the manner shown on the P.C.B, the fixing is by a single screw into a captive nut on the board, we do recommend the use of heatsink compound.

**MAKE SURE THE PACK IS ISOLATED FROM THE MAINS BEFORE
CHANGING A TRIAC!**

LOW VOLTAGE ANALOGUE INPUTS

These are via either the ring locking Din sockets or screw terminals on the board. The dimming pack will accept incoming analogue levels in the range of +5V to +25V. There are twelve presets, on the P.C.B one per channel, marked MAX LEVEL CONTROLS which, if set fully clockwise will cause the dimmer to give full output for only 5V in, while set fully anticlockwise an input of 25V would be needed to give full output. These will be factory set for a 0-10V input as this is the most common nowadays. Apart from trimming the input level to suit the dimmer they can be used to limit the level reached by any particular channel. No damage would be done to the pack if these controls were set fully clockwise and then driven by a 10V control level, but the top half of the slider would have no effect as the maximum output has already been reached.

There are three other presets on the board, these are marked PREHEAT and there is one per phase. Preheat is used to keep the lamps 'warm' by supplying a trickle voltage even when the control source is off. This has several desirable features: it increases lamp life, it will reduce the surge current normally encountered when turning on high wattage lamps from cold and it can be used to avoid a 'dead spot' at the bottom of the slider on the desk. These controls will be factory set immediately prior to the onset of preheat.

Finally there is an Inhibit input which allows the whole pack to be enabled from a single 10V switched signal. This is selected via the jumper plug on the P.C.B which has the following action.

Jumper in position A = pack works normally.

Jumper in position B = take Inhibit input to +10V to enable the pack.

D.M.X INPUTS (OPTIONAL)

When a D.M.X card is fitted the address switch and status LEDs will be visible through the front panel on the right hand side of the dimmer. The rear panel will have the two 5 pin XLR sockets, one male (input) and one female (through) fitted. The D.M.X card decodes the digital serial data to a 0-10V signal which joins the main P.C.B at the same point as the analogue inputs. The D.M.X card is protected from + going analogue inputs.

The address switches are labelled in binary code 1,2,4,8,16 etc. to 256 and are used to set the start address, so to select start address 25, switches 16, 8 and 1, should be moved to the on position, to select start address 146, switches 128, 16 and 2 should be moved to the on position. The electronics will automatically select the next eleven channels. The data LED should be lit as long as an address has been set and the desk is connected correctly and turned on.

The top switch is marked TEST and if selected will override any incoming data and run a pre-programmed test sequence at a 50% level. The test LED will light and the data LED will be extinguished. Please note that the test sequence is based on the fully loaded P.C.B which has sixteen channels. Therefore there will be a dead spot in the test between channel 12 and channel 1.

When using the D.M.X digital control protocol it is good practise to fit a terminator, which is simply a resistor of between 120R and 180R connected across pins 2 and 3 of the last socket in the line. This should be a female socket, therefore the easiest option is to solder the resistor into a male plug and insert into the socket.

LOCAL CONTROL

The D1205 can be supplied with On Board Level Controls (Local Control.) They allow the dimmer to be used as a stand alone unit without the need for a separate control desk, or they can be used as minimum level controls when the dimmer is being used with another desk.