

Installation and Operating handbook

D400 Series BDC/LNB Driver Unit

Handbook Issue 1.10, 8th November 2022



EN 55022 CLASS B
EN 50082-1
EN 60950



PEAK COMMUNICATIONS Ltd.
Unit 1, The Woodvale Centre, Woodvale Road,
Brighouse, West Yorkshire
HD6 4AB, England

Phone 01484 714200
Fax 01484 723666



**IMPORTANT NOTE: THE INFORMATION AND SPECIFICATIONS
CONTAINED IN THIS DOCUMENT SUPERCEDE ALL PREVIOUSLY
PUBLISHED INFORMATION CONCERNING THIS PRODUCT**

PEAK COMMUNICATIONS Ltd maintains a continuing programme of product improvement and therefore reserves the right to change specifications without notice

INTRODUCTION

The D400 Driver Series units are designed to supply power to a remote mounted BDC/LNB/TLTR. This unit is ideal in the situation where the connecting modulator cannot supply an external DC supply. The Driver unit is 19 inch rack mounted and can be powered from 230 or 110 volts. A fault alarm signal is available at the rear of the unit

These units can supply up to 17-24 Volts at 500mA (factory settable). The supply to the BDC/LNB/TLTR is DC

SPECIFICATION

DC Drive power	17-24 Volts at 500mA, DC Drive (factory settable)
Alarm	PSU Failure
PSU Fail relay	Closed to GND when good.
Mechanical	1U chassis - 255mm deep, 2.0 kgs (4.5 lbs) weight
Front panel display	1 LED marked 'STATUS'
Environmental	Operating temperature range 0 to 50 ⁰ C
EMC	Compliant to EN 55022 part B and EN 50082-1
Safety	Compliant to EN 60950 safety requirements
Power supply	Switched mode 110 to 240 volts AC 50/60Hz 60watts max

EMC AND SAFETY

EMC

The D400 BDC/LNB/TLTR Driver unit has been designed to comply with the following standards;

Emissions : EN 55022 Class B; Limits and methods of measurement of radio interference characteristics of Information Technology Equipment.

Immunity : EN 50082 Part 1; Generic immunity standard, part 1: Domestic, commercial and light industrial environment.

The equipment must be operated with its lid on at all times. If it is necessary to remove the lid for routine servicing or fault finding then it is essential that the lid is fitted back correctly before normal operation.

For the Alarm and Remote Control data interfaces all 'D' type connectors must have grounding fingers on the plug shell to guarantee continuous shielding. The back-shells must comply to the requirements of VDE 0871 and FCC 20708, providing at least 40 dB of attenuation from 30 MHz to 1 GHz.

Connecting cables must be of the shielded type

Operation of the equipment in a non standard manner will invalidate compliance to these standards.

Safety

To ensure safety of operator the unit has been designed to comply with the following safety standard;

EN 60950 Safety of information technology equipment, including electrical business machines.

Before operation the user must ensure that the installation complies with the information given.

The equipment is designed to operate in a static 19 inch rack system conforming to IEC 297-2. Operation of the equipment in transportable vehicles equipped with the means of providing a stable environment is permissible. Operation of the equipment on board

vehicles, ships or aircraft without means of environmental conditioning will invalidate the safety compliancy; please contact the factory for further advice. Operation of the equipment in an environment other than that stated in the specifications will also invalidate the safety compliancy. The equipment must not be operated above 2000 metre altitude, extremes of temperature; excessive dust, moisture or vibration; flammable gases; corrosive or explosive atmospheres.

Installation

The equipment is classified in EN 60950 as a pluggable equipment class A for connection to the mains supply, as such it is provided with a mains inlet cord suitable for use in the country of operation. In normal circumstances this will be of an adequate length for installation in the rack. If the mains cord proves to be too short then any replacement must have a similar type fuse (if fitted) and be manufactured to similar specification: check for HAR, BASEC or HOXXX-X ratings on the cable. The connector ends should be marked with one of the following : BS1636A (UK free plug 13 amp); BSI, VDE, NF-USE, UL, CSA, OVE, CEBEC, NEMKO, DEMKO, SETI, IMQ, SEV and KEMA-KEUR for the IEC 6 amp free socket. Schuko and North American free plugs must have similar markings.

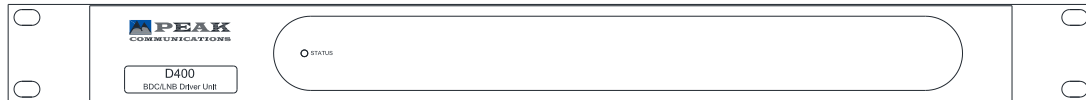
The installation of the equipment and the connection to the mains supply must be made in compliance to local or national wiring regulations for a category II impulse over voltage installation. The positioning of the equipment must be such that the mains supply socket outlet for the equipment should be near the equipment and easily accessible or that there should be another suitable means of disconnection from the mains supply.

The equipment is designed to operate from a TN type power supply system as specified in EN 60950. This is a system that has separate earth, line and neutral conductors. The equipment is not designed to operate with an IT power system which has no direct connection to earth.

UNIT DESCRIPTION

Front panel indicator

The D400 Series BDC/LNB/TLTR Driver unit front panel has one indicator light which is as follows



STATUS GREEN = Both PSU's Good
 AMBER Single flash = PSU 1 Good, PSU 2 Offline/Faulty
 AMBER Double flash = PSU 2 Good, PSU 1 Offline/Faulty

Rear panel connections



Rear panel shown is a D402 layout with DC supply on L-Band Feed

PSU1	IEC fused mains connection
PSU2	IEC fused mains connection
RF IN 1	L-Band input 900-2100MHz & +17-24V DC (Option 2 would also apply reference generation to the L-Band at 0dBm)
FUSE	2 Amp Max (dependant on options ordered)
RF OUT 1	L-Band output 900-2100MHz
DC LED	LED illuminated when DC is present on RF _{IN1}
RF IN 2	L-Band input 900-2100MHz & +17-24V DC (Option 2 would also apply reference generation to the L-Band at 0dBm)
FUSE	2 Amp Max (dependant on options ordered)
RF OUT 2	L-Band output 900-2100MHz
DC LED	LED illuminated when DC is present on RF _{IN2}
RF IN 3	L-Band input 900-2100MHz & +17-24V DC

	(Option 2 would also apply reference generation to the L-Band at 0dBm)
FUSE	2 Amp Max (dependant on options ordered)
RF OUT 3	L-Band output 900-2100MHz
DC LED	LED illuminated when DC is present on RF _{IN2}
RF IN 4	L-Band input 900-2100MHz & +17-24V DC (Option 2 would also apply reference generation to the L-Band at 0dBm)
FUSE	2 Amp Max (dependant on options ordered)
RF OUT 4	L-Band output 900-2100MHz
DC LED	LED illuminated when DC is present on RF _{IN2}
CONTROL	6 way DIP switch. Switch 1 on enables DC on RF _{IN1} connector. Switch 2 on enables DC on RF _{IN2} connector. Switch 3 on enables DC on RF _{IN3} connector. Switch 4 on enables DC on RF _{IN4} connector. Switches 5-6 have no function
Ext Ref (Option 4)	SMA (LHS of DIP switch).

INTERFACE

15 way female D-Type Digital Alarm interface with the following signals

Not used	1	9	PSU 1 N/O
Not used	2	10	PSU 1 COM
Not used	3	11	PSU 1 N/C
Not used	4	12	Not used
Not used	5	13	PSU 2 N/C
Not used	6	14	PSU 2 COM
Not used	7	15	PSU 2 N/O
Not used	8		

OPERATION

The STATUS light should turn GREEN if both mains PSUs are OK.

Input to the unit is from the inputs marked RF In 1 & 2.

Care should be taken as DC may be present.

Output from the unit is from the outputs marked RF Out 1 & 2.

On switching on the unit, the unit will resume its previous state. Both power supplies are monitored and the low voltage DC output of each is diode OR'd to provide DC power if either a mains failure occurs on one side or an internal failure, again an indication of this will be displayed using the Status LED. At all times the dry contact rear panel interface allows the user to monitor the unit.

CUSTOMER CARE

Contact the Peak Communications support department for:

- ✚ Product operation, application support or training requests
- ✚ Information for returning or upgrading a product
- ✚ Comments or suggestions on any supplied literature

Contact Information

Peak Communications Ltd
Attention: Support Department
Unit 1, The Woodvale Centre
Woodvale Road
Brighouse
HD6 4AB
United Kingdom
Tel. +44 (0) 1484 714200
Fax +44 (0) 1484 723666
E-mail support@peakcom.co.uk

You can also contact us via our website at www.peakcom.co.uk

To return a Peak Communications product for repair:

1. Contact the Peak Communications support department and request a Return Material Authorisation (RMA) number.
2. You will be required to provide to our support representative the model number, serial number and a detailed description of the problem.
3. To prevent any damage to the product during shipment we recommend that the unit is returned in its original packaging or if this is not available the packaging used must be of an equal standard.
4. Return the product back to Peak Communications and advise shipment details to support representative for tracking purposes. (Any shipping charges should be prepaid)