Os801u22.doc
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Issue 2.2

PRODUCT – OS801

Miniature Single Channel Video On Fibre Transmitter

USER MANUAL

VERSION 2.2

07 March 2006

Product: OS801		**Model:**	
Serial Number:		**Job No :**	
TEST	**CRITERIA**	**RESULT**	
Power Indicator	Functional		
Video Indicator	Functional		
Input Video Signal	1 Vp-p		
Input Pattern Test	All Patterns		
Supply Current @ 12Vdc	~ 70 mA		
TX optic level	- dBm		

Date: …….. Tested By: ……..

USER MANUAL

1 PRODUCT DESCRIPTION

1.1 General

The OS801 is a miniature single channel video on fibre transmitter unit.

This unit is fully compatible with the OS803R three channel video receiver sub rack system, and the OS802 single channel video on fibre receiver

1.2 Basic System Description

This is a stand-alone unit that plugs directly into a camera.
The unit converts a composite video signal into an optical signal.
This optical signal is then transmitted over a multimode fibre to a receiver, where it is again converted to a composite video signal.

The unit is powered from 10 - 24Vdc, and can be tapped off from the camera supply, if it falls within this spec. If the camera is 24Vac, a separate 24Vac/dc-to-10Vdc converter can be used to power the unit.

Features

- Compact design allows conversion in small camera enclosures..
- Compatible with all standard composite video signals.
- Interfaces directly to the OS802 Single channel video receiver or to the OS803R 3 channel video receiver.

Uses

- Security systems.
- Long distance noise free video transmission.

1.3 Indications

Power	- Indicates that the unit is powered.
Video	- Indicates presence of video signal. (Indicator brightness varies with the intensity of the video signal.)

2 PRODUCT STOCK CODES

OS801AB - Single Channel Video on Fibre Transmitter with 850nm optics and ST optic connector for 3.5km range on multimode fibre.
OS801BB - Single Channel Video on Fibre Transmitter with 1300nm optics and ST optic connector for 12km range on multimode fibre.

2.1 Version History

- Version ‘A’ The original version in the old enclosure.
- Version ‘B’ New enclosure manufactured for the unit.

3 PREPARATION FOR USE

3.1 Unpacking

Unpack the unit and inspect it for any signs of damage.

The manufacturer is not liable for damage during shipment.

3.2 Installation

Connect power to the cables marked 12Vdc on the unit. Check that the cable with the red marker is connected to the positive side of the supply.

Connect the BNC connector at the end of the coax cable to the camera video output connector.

Connect the multimode fibre to the Video Optical Out connector on the unit. Be careful not to bend the fibre to sharp, or to contaminate it with your fingers .

4 OPERATOR’S INSTRUCTION

The unit needs no operator intervention to function.

5 MAINTENANCE INSTRUCTIONS

No routine maintenance is required on this equipment.

5.1 First Line Maintenance

5.1.1 Instrument and tools required

Optic Power Meter
Multi-meter
Oscilloscope

5.1.2 Maintenance Procedure

When arriving at a suspect link, it is always necessary to ensure that all power and video connections have been done correctly. The first course of action is to check the power supply. Observe the power indicator. If it is OFF, take a multimeter and measure across the supply leads to see if the 12Vdc is present. If there is no reading, then there is no power being supplied to the unit, and the power supply must be checked. If there is a reading of 12Vdc, then the unit is faulty and will have to be sent in for repair.

If the power indicator is ON, then the video indicator must be checked for presence of video signal. If the video indicator is OFF then the video signal at the input must be checked with an oscilloscope. If the video signal is not present, then the wiring and signal source (camera) must be checked for functionality. If the signal is present, then the unit is faulty and will have to be returned for repair.

If the video indicator is ON, use the oscilloscope to observe the video signal parameters. The normal size for a video signal is about 1Vp-p, and the sync pulse will measure 300mVp-p.

If all these tests have been done and the unit is still not operational, then the supplier must be notified.

6 Specifications

6.1 Electrical

Input Voltage:	10 - 24Vdc max, unregulated
Supply Current:	~ 70mA @ 12Vdc
Power Consumption:	~ 840mW
Power Connector:	Marked Wires (Red for positive)
Video Input Signal:	1Vp-p (nominal) 300mVp-p sync pulse level
Video Input Termination:	75Ω
Video Input Connector	Male BNC Connector
System Bandwidth:	100Hz to 10MHz
Differential Gain:	2% typical
Differential Phase:	3° typical

6.2 Optical

Option	Description	TX Level	Budget	Distance
OS801AB	850short range ST	-18dBm	12dB	~ 3.5km
OS801BB	1300medium range ST	-20dBm	12dB	~ 12km

Fibre Compatibility:	Multimode (50/125µm) (Can also support 62.5/125µm. Specify when ordering)

6.3 Physical Dimensions

Unit Length (incl. optic connector)	65mm
Unit Height	18mm
Unit Width	31mm
Coax and BNC Length	~ 250mm
Power Cable Length	~ 350mm
Unit Weight	~ 250g (max)

6.4 Environmental Conditions

Temperature:	-10°C to +78°C
Humidity:	0 - 95% non-condensating.

7 Order Information

OS801AB - Single Channel Video on Fibre Transmitter with 850nm optics and ST optic connector for 3.5km range on multimode fibre.
OS801BB - Single Channel Video on Fibre Transmitter with 1300nm optics and ST optic connector for 12km range on multimode fibre.

8 Notes

9 Contact Details

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