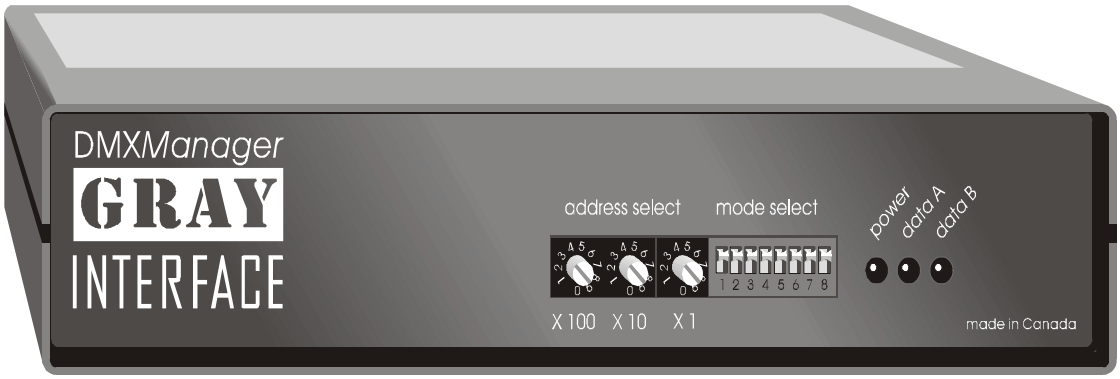
DMX*Manager* *User Guide*

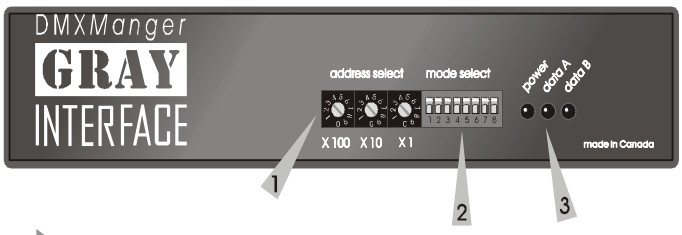


Operational Philosophy

DMXManager combines, merges and converts two separate data sources into a single output. Alternatively, it can be used as an automatic soft switch between two data sources.

Features

- Combines two inputs on a highest takes precedence basis
- Automatically switches from one input to another upon loss of signal
- High performance processor
- Output address selection
- “Status Quo” feature maintains last output level when input signal stops
- Input/output diagnostic functions
- Direct pass-thru connectors
- Sturdy all metal construction
- Optional 19” rack mount kit



1. Address select rotary switches
2. Mode select DIP switches
3. LED indicators: power, data A and data B

Indicators

Three LEDs are used to indicate, from left to right, power supply / processor run status, data A receive detect, and data B receive detect. In test mode the receive detect LEDs will flash if the input signal is not as selected by the I/O mode switches or if the signal is unrecognizable.

POWER: Glowing solidly indicates power supply and processor OK; off indicates no power, and flashing indicates defective processor or control logic.

DATA A: Glowing solidly indicates data signal A received; off indicates no input signal present.

DATA B: Glowing solidly indicates data signal B received; off indicates no input

Address Selection

Three rotary switches select the offset start address for the unit in most configurations. For dual AMX output, the address switches select the starting dimmer number for the second AMX output line. In merge mode, the switches set the starting address for the second input data line. In test mode, the switches set dimmers to full one at a time. From left to right the switches are set as hundreds, tens, and ones.

Setup Instructions

The Gray Interfaces Protocol Manager is designed to permit easy, trouble free conversion between standard USITT DMX512 and AMX192 lighting control signals. The unit's main feature is its ability to manage two separate lines of input data.

A few simple steps are required to prepare your interface unit for operation. First, assemble your mating cables and ensure that they conform to the connector pinouts as shown on page 3. Plug the cable or cables from your lighting control console into the input connector on the rear panel of the protocol manager. The output connector of the converter box goes to your dimmer rack or other devices, such as color scrollers.

Next set the rotary address select switches according to the instructions on page 4. In most applications this will be the factory default 000 or 001.

Set the first two positions of the 8-position DIP switch according to the operating mode required. In BACKUP mode, one or two input data lines may be active, but the unit will read only the first. If that line should become disabled, the Protocol Manager automatically switches over to read the second line.

In PILE-ON mode, one or two input data lines may be active, and the unit's output will be determined by

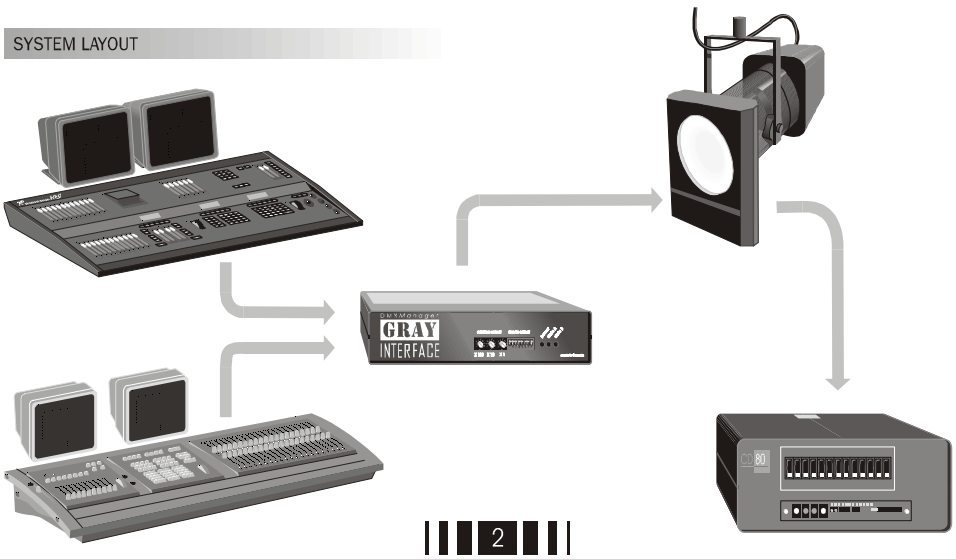
MERGE mode provides a means of connecting two input signals "end to end" to create one output signal consisting of the total number of channels on both inputs. The most common application of this is for two AMX192 inputs and one DMX512 output. Another common use for merge mode is to create an address offset between input and output DMX data. Simply connect the input line to Input #2 and set the rotary address switches to the desired offset.

TEST mode is a useful diagnostic tool which enables the user to verify Protocol Manager input/output connections and signal integrity. The unit will analyze the selected input protocol and generate the selected output protocol to assist in pinpointing network problems. More details on test mode can be found on page 4.

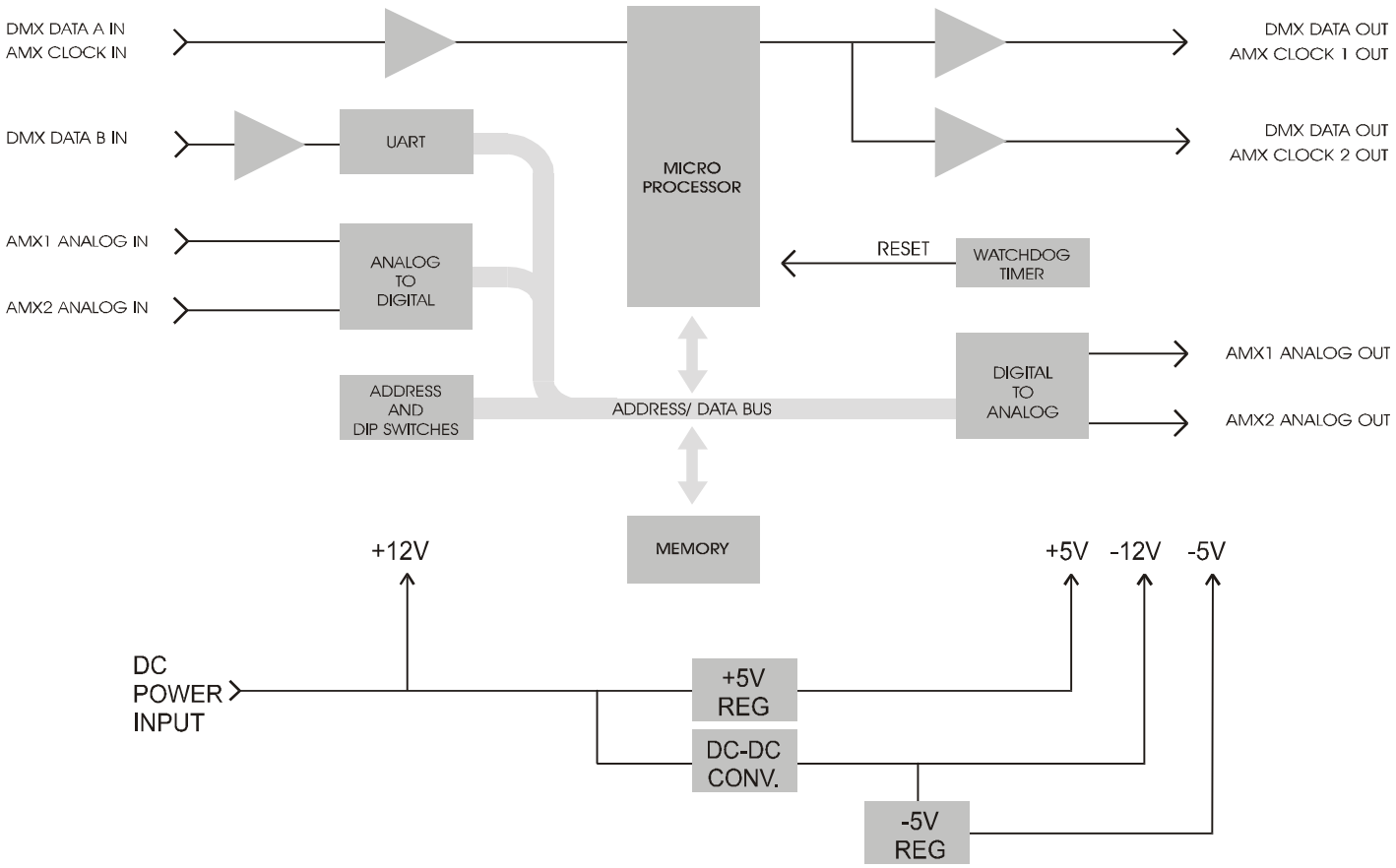
Next determine the I/O (input/output) mode, eg. DMX-in / AMX-out, and set DIP switches 3 and 4 accordingly. If two AMX outputs are required, turn on switch 7. Note that not all I/O applications are available on any one model of Protocol Manager. The options available on your particular model are listed on the label on the top of your unit.

Finally, set the desired status quo timeout with DIP switch 5. Status quo maintains the last valid channel levels in the event of loss of input data.

System Layout



Block Diagram



DIP SWITCH SETTINGS

OPERATING MODE	S1-1	S1-2
BACKUP	ON	ON
A signal present on input A will have full control of the output, and any signal at input B will be ignored. If the A signal is lost, the output will be controlled by input B. The address switches will offset both inputs.		
PILE-ON	OFF	ON
Signals present at both inputs will have control of the output. The highest level on any individual device channel on either input will be in control of the output level. The address switches will offset input B only.		
MERGE	ON	OFF
Input B is appended to input A to create one continuous output consisting of the total number of device channels on both inputs. The address switches will offset input B only.		
TEST MODES (determined by I/O mode)	OFF	OFF
Input Test: Receive data LEDs indicate correct data signal (on steady), faulty or incorrect signal (flashing), or absence of any signal (off). **Output Test**: The selected protocol is transmitted and the device channel assigned by the address switches is set to full or cycled as per switch S1-8.		

I/O MODE	S1-3	S1-4
DMX INPUT – DMX OUTPUT	ON	ON
DMX INPUT – AMX OUTPUT	OFF	ON
AMX INPUT – AMX OUTPUT	ON	OFF
AMX INPUT – DMX OUTPUT	OFF	OFF

STATUS QUO OPTION		S1-5
STATUS QUO ENABLED		ON
Output data remains active at last valid levels for 5 min.		
STATUS QUO DISABLED		OFF
Output data fails 2 seconds after loss of input data		

CALIBRATE MODE		S1-6
D/A OUTPUT ENABLED		ON
Analog output level (5.0V) can be tested at the AMX output (pin 3) using a DC voltmeter: no other functions are active		
D/A OUTPUT CHECK DISABLED		OFF

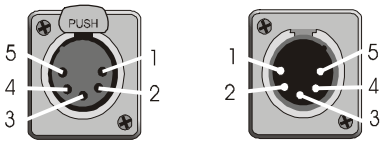
DUAL AMX OUTPUT		S1-7
DUAL AMX OUTPUT ENABLED		ON
DUAL AMX OUTPUT DISABLED		OFF

TEST CYCLE MODE		S1-8
TEST CYCLE ENABLED		ON
Ramps the selected dimmer up and down continuously between zero and full when in test mode.		
TEST CYCLE DISABLED		OFF
The selected dimmer is set to full when in test mode.		

Connector Pinouts

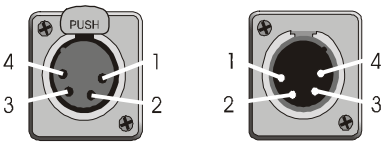
DMX - 512

1 - COMMON
2 - DATA-
3 - DATA+
4 - NC
5 - NC



AMX - 192

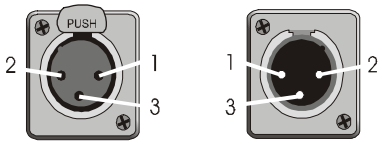
1 - COMMON
2 - CLOCK+
3 - ANALOG
4 - CLOCK-



IN (F) OUT (M)

STRAND D54 (384)

1 - COMMON
2 - NC
3 - ANALOG



OUT (F) IN (M)

Model Description

8603	2 x DMX inputs / 1 x DMX output
8605	3 x DMX inputs / 1 x DMX output
8600	19" rack mount bracket kit
AC	Included 115/230VAC power supply, installed

Specifications

Power Supply:	**USA & Canada**: 9VDC external adaptor included. **Export**: 9VDC 200mA external adaptor required **Included AC version**: 115/230VAC 50/60Hz
Weight:	3 lbs (1.3 kg)
Size:	8 x 1.75 x 6.5" (203 x 44 x 165mm)
Protocols:	DMX512 or any RS422 or RS485 based protocol

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