

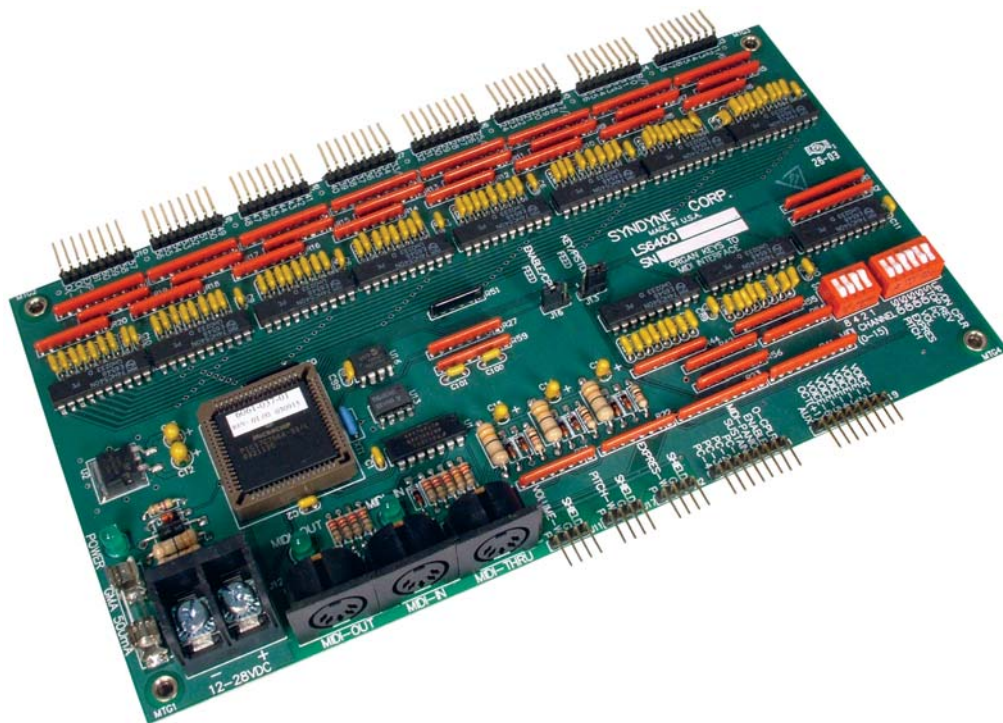
MIDI Accessories

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LS6400 Pipe Organ To MIDI

FEATURES:

- Easy to install in an existing organ
- Allows playing general MIDI sounds from any standard MIDI sound module
- Change from one MIDI sound to another by using organ keys
- Play different MIDI sounds from different keyboards at the same time (requires one LS6400 per keyboard)
- Assignable to all 16 MIDI channels
- Built-in MIDI Merge
- MIDI-In, MIDI-Out, and MIDI Thru
- 6 Settable Reversible Pistons
- +1, -1, and -2 Octave Transposing
- MIDI Sustain
- MIDI Volume, Expression, and Pitch Inputs



Sound Module Interface

SPECIFICATIONS:

SYSTEM DESIGN INTENT:

The LS6400 is a simple, low cost device for adding general MIDI voices from a MIDI sound module to an existing organ. While designed specifically for pipe organs, it can also be used with other electronic instruments. The inputs on an LS6400 Interface are connected to key contacts on a manual or pedal board. These inputs can be directly wired to the keyboard or pedal board contacts or wired at the console junction board. The LS6400 inputs are well buffered so they can be wired to the existing contacts along with other organ electronics. No separate contacts are needed. The LS6400 will accept either positive or negative input signals and will operate directly from the organ rectifier (12 to 28 volts DC).

When MIDI is desired for more than one division, an LS6400 should be connected to each division where MIDI is required. For instruments with

more than one LS6400, "chain" LS6400 interface modules by connecting the output from one module into the input of the next. The last LS6400 module in the chain would then have its output connected to the sound module (synthesizer).

Changing MIDI sounds from the organ is accomplished by holding a "PC" piston, then pressing the appropriate note on the keyboard. Each note on the keyboard has been assigned to a particular General MIDI sound (i.e., piano, strings, harp etc.) on your MIDI sound module. There are several assignment options so you can set any of the 128 General MIDI sounds from either manual or pedal keys.

DIMENSIONAL:

Length: 9"

Width: 5 3/4" including connectors

Height: 1.1"

MECHANICAL:

Mounting: Four built-in standoffs for screw mounting.

Connections: All wires are connected via removable connectors on the board for easy installation.

ELECTRICAL:

Power Supply: Operates on standard organ rectifier power. On-board power supply is provided to operate electronics.

Programming: Provided with all functions included. No programming is necessary. All options are selected by DIP switches.

INPUTS:

Enable Input: Allows operation from either a stop or a reversible piston.

Select Input: Four inputs are provided to select different sets of sounds by pressing the appropriate key.

Pitch Input: Allows tuning a sound module to the pitch of the organ.

Expression Input: Provides expression for the MIDI sound module. The LS6400 can be controlled by an organ expression pedal potentiometer.

Volume Input: Input to control volume of MIDI sounds.

Octave Coupler Input: Provides an octave coupler for MIDI sounds.

MIDI In Connector: Accepts MIDI information from other LS6400 boards and MIDI devices. That MIDI data will be merged with note information from the inputs on board and passed out of the MIDI Out Connector.

MIDI Out Connector: All MIDI data coming in the MIDI In Connector is merged with MIDI data collected from the inputs and sent out this connector.

MIDI Thru Connector: Passes through all "MIDI In" Messages

DIP SWITCHES:

MIDI Channel: Allows selection of MIDI channels 1-16.

UP/DN Coupler: Selects whether coupler shifts keying up or down on octave.

Stop/Rev: Selects whether the enable input reacts to a stop input (continuous) or a reversible input (momentary).

Send PC: A program change

number is assigned to each note input so MIDI sounds can be changed by using keys on the organ keyboard in the set mode. Those numbers will be sent out or not sent out the MIDI Out Connector when a note is depressed, depending on the position of this switch.

Send Volume: This switch determines whether any MIDI volume changes go out the MIDI Out Connector.

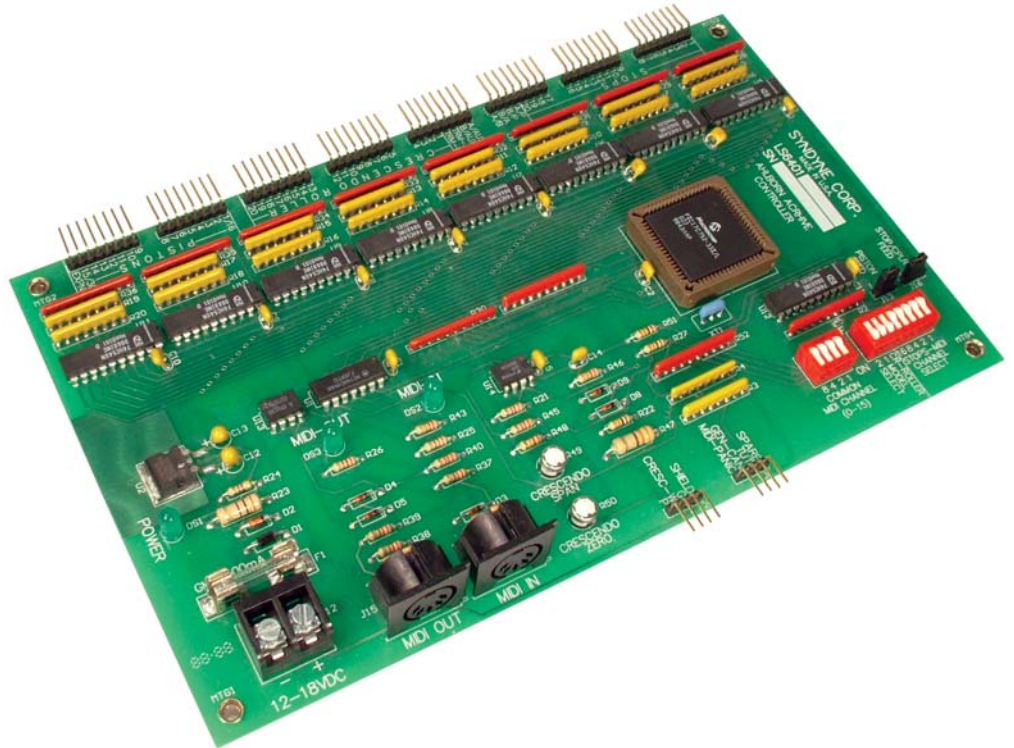
Send Expression: This switch determines whether any MIDI expression changes go out the MIDI Out Connector.

Send Pitch: This switch determines whether any MIDI Pitch changes go out the MIDI Out Connector.

LS6401 Pipe Organ To Ahlborn

FEATURES:

- LS6401 will control any of the four available Ahlborn Archive Modules.
- Set MIDI channel of each division to match your Ahlborn unit.
- Includes inputs for stops, pistons, couplers, general cancel, crescendo, tutti and MIDI panic features available on Archive Modules.
- Crescendo input will accept either roller contacts or potentiometer control.
- Acts as MIDI merge for incoming MIDI signals.
- Operates in conjunction with our LS6400 if MIDI keying signals are needed from the organ.



Sound Module Interface

SPECIFICATIONS:

SYSTEM DESIGN INTENT:

The LS6401 is designed to control Ahlborn Archive Modules with traditional pipe organ controls from the organ bench. Although designed to be used with pipe organs, its inputs can be used with an independent control box. Stop and coupler inputs can be set for either positive or negative signals and piston inputs can also be set for positive or negative signals. The LS6401 will operate directly from the organ rectifier (12 to 16 volts DC).

One LS6401 controller is required for each Archive Module. For instruments where you want to incorporate stops from more than one Archive Module, simply split the MIDI Keying to each LS6401. Each controller includes a MIDI merger, so MIDI data on all 16 channels entering the MIDI

in connector is merged with any MIDI signals generated on the board. The merged signals are sent out the MIDI out connector. Each Archive Module in an instrument must have each of its divisions set to a unique MIDI channel. The LS6401 controlling a module is settable to the same MIDI channels as the module it controls.

DIMENSIONAL:

Length: 9"

Width: 6 1/2" including connectors

Height: 1.1"

MECHANICAL:

Mounting: Four built-in standoffs for screw mounting.

Connections: All wires are connected via removable connectors on the board for easy installation.

ELECTRICAL:

Power Supply: Operates on standard organ rectifier power. On-board power supply is provided to operate electronics.

Programming: Provided with all functions included. No programming is necessary. All options are selected by DIP switches.

INPUTS:

Crescendo Pot Input: A four terminal input is provided to accept the signal from a 5K or 10K potentiometer. Two adjustments associated with this input allow you to set minimum and maximum levels in case the potentiometer does not travel to either end of its range.

Crescendo Roller Inputs: Input terminals to access 20 levels of crescendo, available on Archive Modules, are provided.

Piston Inputs: Input terminals for 30 general pistons, 6 coupler pistons, 2 tremulant pistons, a general cancel piston, a tutti piston, and a MIDI panic piston are provided.

Stop Inputs: Input terminals for the 20 available stops on the Archive Module are provided.

MIDI In Connector: Accepts MIDI information from other LS6401 boards and MIDI devices. That MIDI data will be merged with information from the inputs on board and passed out of the MIDI Out Connector. Data on all 16 MIDI channels is merged.

MIDI Out Connector: All MIDI data entering the MIDI In Connector is merged with MIDI data generated on board and sent out this connector.

DIP SWITCHES:

Stops-MIDI Channel Select:

Assigns each division of the Archive Module to a separate MIDI channel. Various channel combinations can be selected from a list that is provided.

Crescendo Roller: Toggles between potentiometer or roller type inputs to operate the Archive crescendo.

Model Select: Selects which model of Archive Module the LS6401 will control.

Common MIDI channel: Selects on which MIDI channel the common channel of the Archive Module will transmit.

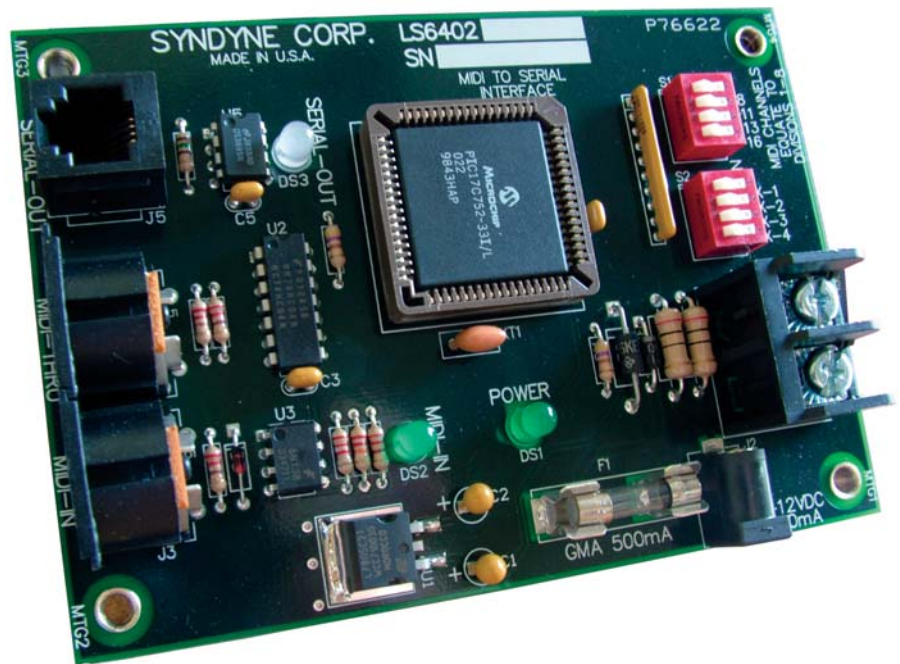
Jumpers: Moving a jumper block will cause all stop, crescendo and coupler input signals to accept either positive or negative feed. Moving a jumper block will cause all piston input signals to accept either positive or negative feed.

Fuse: A replaceable 500 milliamp (½ amp) fuse is provided to protect circuitry on the LS6401.

LS6402 MIDI to Syndyne Serial Data Interface

FEATURES:

The LS6402 board receives General MIDI messages and converts them into divisional keying messages for use with Syndyne keying system pipe, stop and chime driver boards.



SPECIFICATIONS:

DIMENSIONAL:

Length: 5"

Width: 3 1/2" including connectors

Height: 1 1/4"

MECHANICAL

Mounting: Four built-in standoffs for screw mounting.

Connections: A large terminal block is available for connections to organ power or a 2.1mm plug for a 9-12VDC power pack. Standard MIDI and RJ11 (serial data) connectors are provided for input and output connections.

ELECTRICAL

Power Supply: Operates on typical regulated organ power between 12-24VDC or a DC power pack between 9 & 12VDC.