

Trendsetter AL, CL, and NEWS

Processor Interface Guide

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Revision History

Revision	Date	Author	Comments
A	May 25, 2006	Ray Levasseur	First release. Replaces obsolete document 73-0663A-B, Trendsetter NEWS Processor Interface Installation Guide (MPE-only).
B	Aug 30, 2007	Frank van Eerdt	For safety purposes, added instructions to turn off device power before attaching cables in the power box.

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1. SCOPE

This document describes the processor interface from the following output devices to either a *Glunz & Jensen* or an *Agfa* Lithostar processor.

- *Kodak Trendsetter* Autoloader (MCE)
- *Trendsetter* ContinousLoad (MCE)
- *Trendsetter* NEWS (MCE or MPE)

Note that other manufacturers may be qualified if they follow the electrical specifications for the processor interface.

In particular, this document contains the following major sections:

- Processor Interface Electrical Specifications (page 1)
- Firmware Requirements (page 4)
- Connecting a Processor to the Trendsetter Output Device (page 4)
- Operation (page 7)

2. PROCESSOR INTERFACE ELECTRICAL SPECIFICATIONS

Kodak does *not* provide the cabling required to connect the processor directly to the *Trendsetter* output device. A qualified service engineer is required to connect the device to the processor. The cable will be provided by the processor supplier and will be connected to the bulkhead plate on the rear-left panel. Figure 1 shows a schematic of the electrical interface.

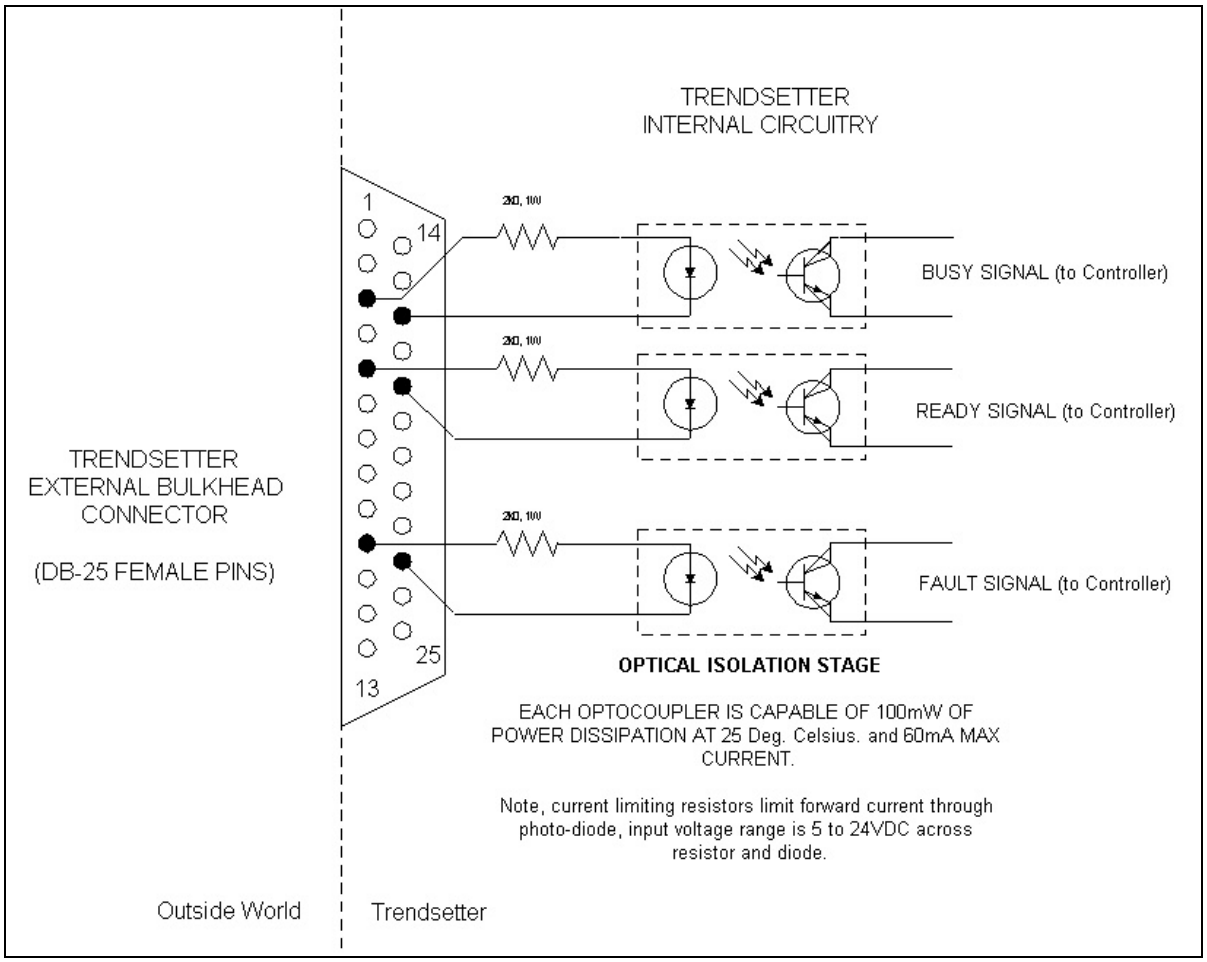


Figure 1: Trendsetter processor interface connector wiring

All digital inputs from external devices are isolated through optical isolators. The working voltage of the interface is 5 VDC ± 0.5 VDC. Each input requires a forward current drive equal to or greater than 1.5 mA but less than 60 mA. Note that the diode input is current-protected with a 2000 ohm resistor, so it should not be possible to exceed 12 mA per input at 24 VDC.

Note: This document can not identify all models or makes of processors that support the *Trendsetter* interface. Consult processor vendor's representative to see whether the interface is supported. If you need further details or support, contact your Kodak representative.

2.1 Glunz & Jensen Processor Wiring Connections

Figure 2 shows the wiring connections for *Glunz & Jensen* processors. Note that the *Glunz & Jensen InterPlater* 85HD or 135HD processors are provided with the electrical interface as a standard feature. For information on any other models of Glunz & Jensen processors that provide the interface as standard or as an option, consult your Glunz & Jensen representative.

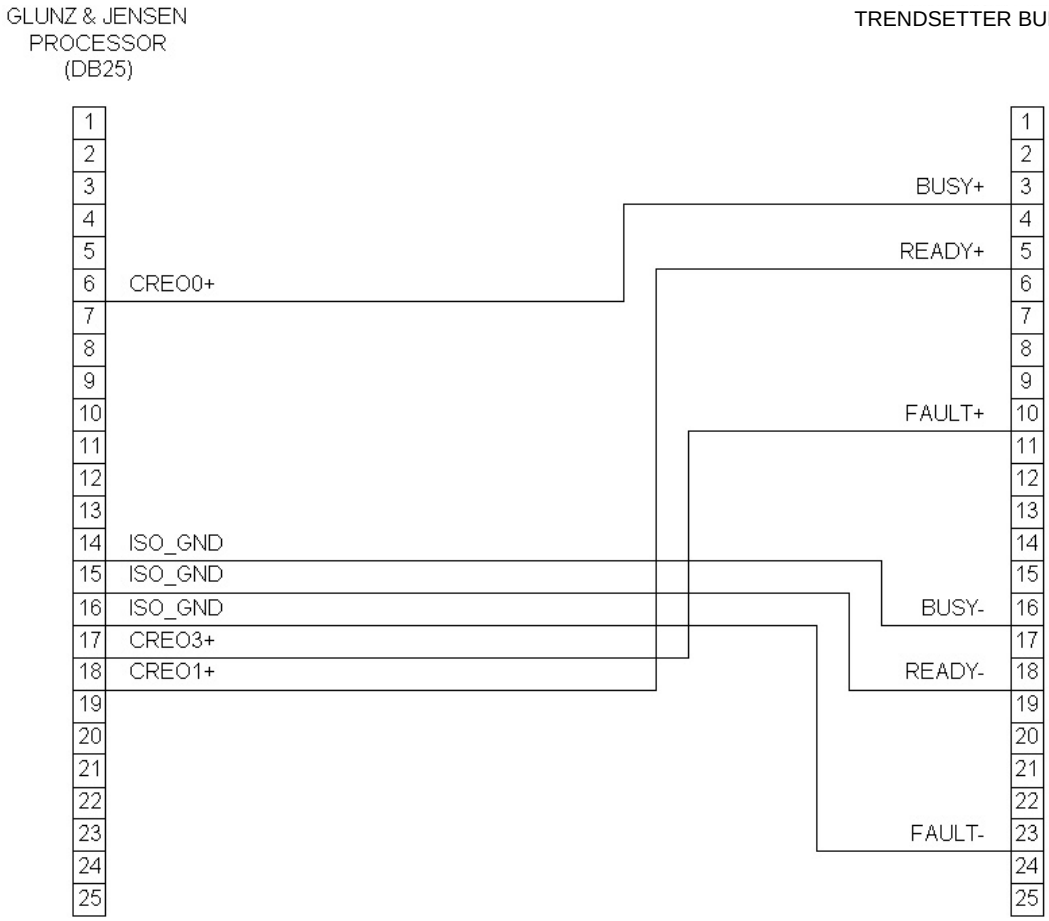


Figure 2: Glunz & Jensen processor wiring connections

2.2 Agfa Lithostar Processor Wiring Connections

Figure 3 shows the suggested wiring connections to the following *Agfa* Lithostar processor models: LP150, LP82 Ultra, Autolith 2000 T85, Autolith 2000 T105, and TP105. For additional information, consult the *Agfa* OnLine Statical Interface documentation.

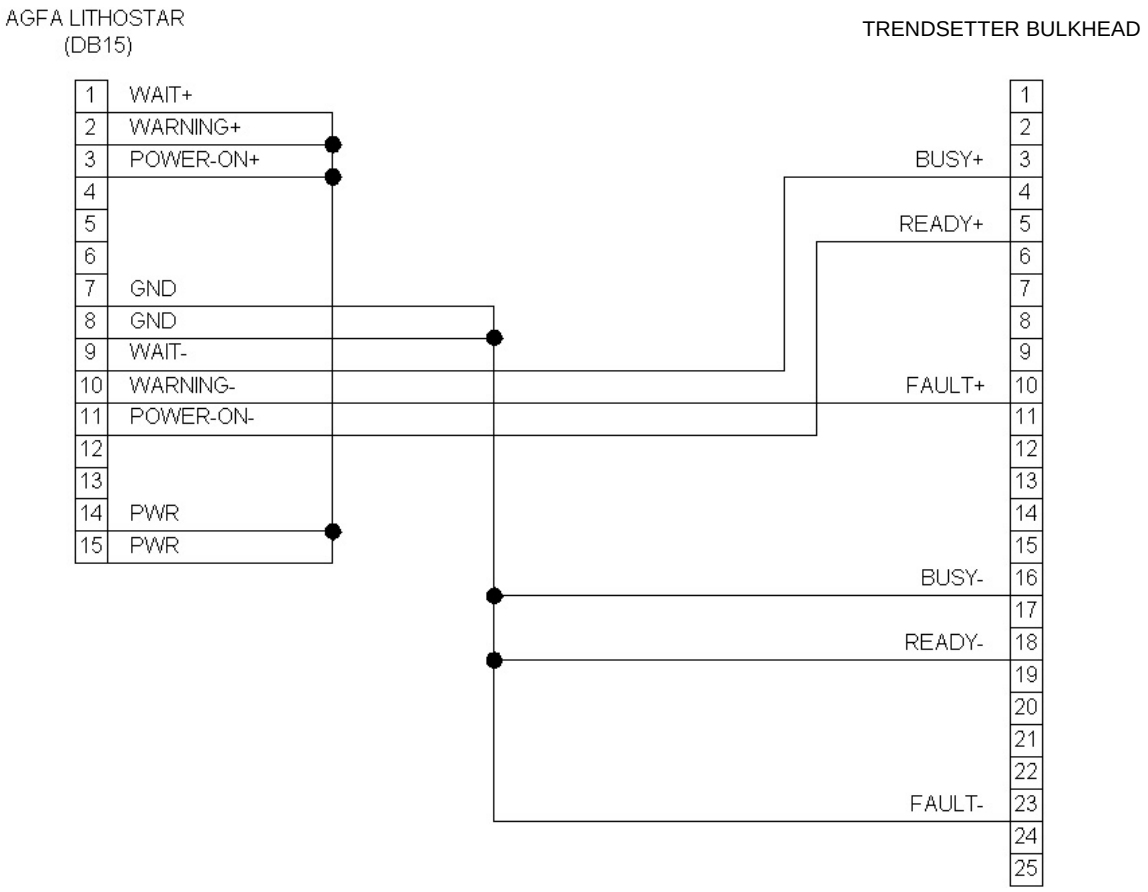


Figure 3: Agfa processor wiring connections

3. FIRMWARE REQUIREMENTS

The following are the minimum firmware requirements for using the processor interface with the *Trendsetter* AL, CL, or NEWS output devices:

Model	**Firmware Requirement**
Trendsetter AL	Controlled Release 2.0 (MCE firmware 1.14)
Trendsetter CL	Controlled Release 1.0 (MCE firmware 1.20)
Trendsetter NEWS (MCE)	Controlled Release 1.0 (MCE main firmware 1.06)
Trendsetter NEWS (MPE)	MPE main firmware 1.14

4. CONNECTING A PROCESSOR TO THE TRENDSETTER OUTPUT DEVICE

4.1 MCE Trendsetter AL/CL/NEWS

Connect the DB25 cable from the processor to the bulkhead plate located on the rear-left side of the *Trendsetter* device and secure it by the jack screws. Ensure that the cable is protected from accidental damage and run through a cable guide. If the processor does not have a cable included for this interface, you may use any standard 1-1 DB25 computer-grade cable.

The Trendsetter AL, CL, and NEWS MCE devices are equipped with the processor interface wiring standard from the factory. The parts required to support the interface are:

- 10-5072A: Optical I/O board (same board as used for the preloader interface)
- 220-00447A: Cable from optical I/O board connector J3 to GENINE board connector J10
- 10-5159A: Cable from processor to optical I/O board connector J1

The cables can be added in the field if required. The optical I/O board is located in the power box's upper-left side, near the GENINE board.

Remember to turn off the power to the ouput device before connecting cables in the power box.

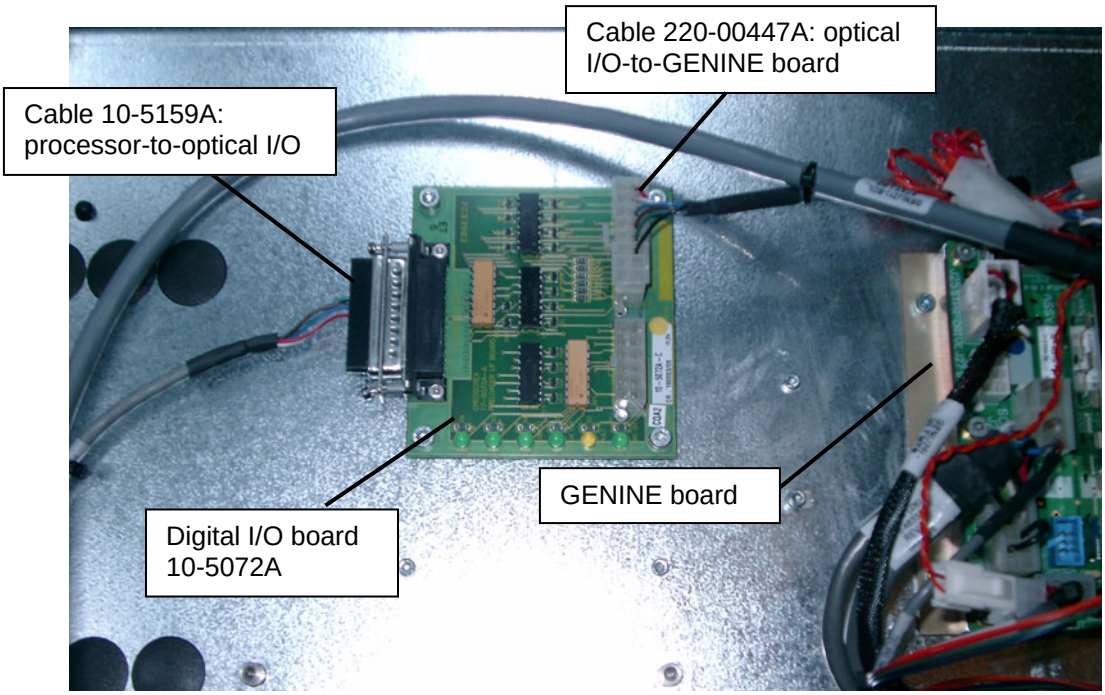


Figure 4: Interface board located in power box

4.2 MPE Trendsetter NEWS

MPE *Trendsetter* NEWS with serial numbers TN030 and higher have the bulkhead plate (part number 57-9042A) at the rear of the fan box and the processor interface cable (part number 10-4955A) connected from the TEE board to the DB25 connector on the bulkhead plate.

Connect the cable provided by the processor manufacturer from the processor to the DB25 connector on the bulkhead plate.

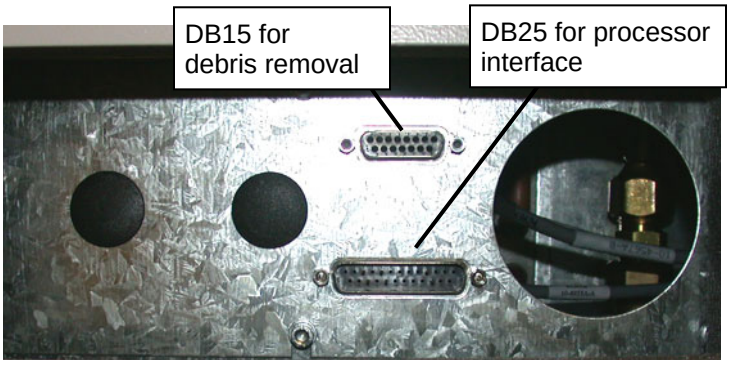


Figure 5: MPE Trendsetter NEWS processor interface connection on bulkhead plate

Earlier MPE Trendsetter NEWS machines (serial number TN029 or lower)

To install the processor interface:

Order kit 05-2025, which contains the following parts:

Part Number	Description	Quantity
57-9042A-A	Bulkhead plate	1
10-4955A-A	Processor interface cable	1
52-3059	Split lock washer, M4, steel-plated	6
52-4054	Flat washer, M4, steel-plated	6
52-4459	Screw, M4 x 8, socket-cap, steel-plated	6

1. Turn off the power to the output device.
2. Replace the bulkhead plate at the rear of the fan box.
3. Route the processor interface cable (part number 10-4955) from connection J9 on the TEE board through the cable track to the bulkhead plate in the fan box.

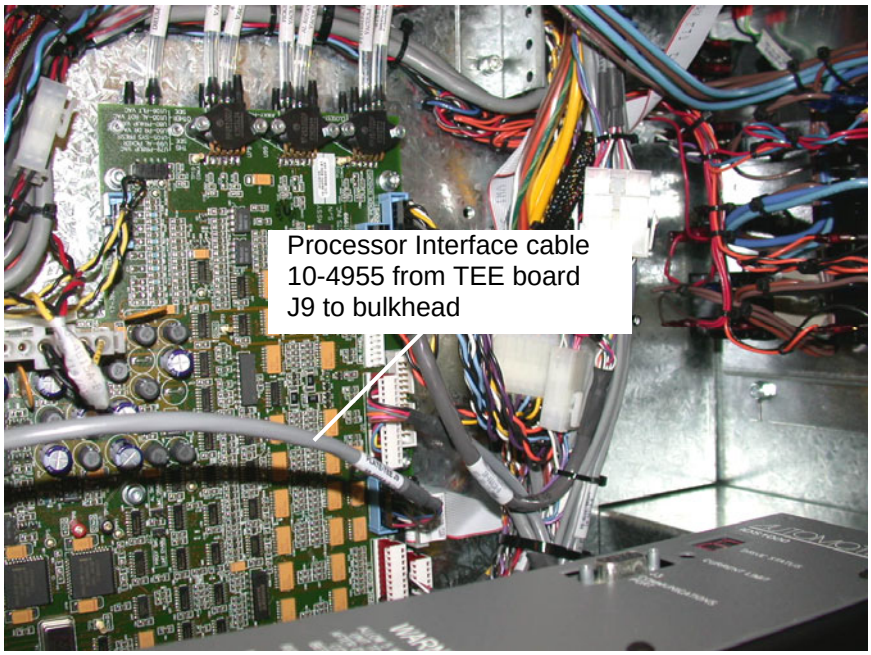


Figure 6: TEE board connections in the MPE power box

5. OPERATION

5.1 MCE configuration

The MCE *Trendsetter* AL, CL, and NEWS devices do not provide any output signals to mode-select the processor.

In simple input mode (SIM), the *Trendsetter* output device monitors three state conditions from the processor: Busy, Fault, and Ready. (Processor manufacturers have given other names to these signals.).

To enable SIM, the NVS parameter `processorinterface` must be set to `enable`. This assumes that the firmware version supports the processor interface option. See "Firmware Requirements" on page 4 for details.

To display the available options for the *Trendsetter* device, enter the **`option`** command. Note that you may have to enter the command **`access dev`** to allow the options to be displayed.

If the processor interface option is enabled, it will be shown as enabled under the Available Options heading:

```
ProcessorInterface option is enabled    <licensed>
```

If the option is not enabled, enter command: **`option processorinterface enable`**

To display the status of the processor signals, enter command: **`processor`**

The status will change when the cable is connected to the processor and the signals are sent to the *Trendsetter*. Table 1 shows the firmware's behavior in response to signal changes from the processor at two different points in the load/unload sequence: first, when imaging completes, and second, just before pushing the plate into the processor.

Table 1: MCE Trendsetter AL/CL/NEWS processor interface state conditions

Ready	Fault	Busy	When Imaging Completes	Before Pushing Plate Into the Processor
OFF	X	X	Suspends. Does not unload.	Suspends
ON	ON	X	Suspends. Does not unload.	Suspends
ON	OFF	OFF	*Trendsetter* runs normally.	*Trendsetter* runs normally.
ON	OFF	ON	*Trendsetter* runs normally.	*Trendsetter* waits for Busy signal to change states. See Note.

Note: The MCE parameter to adjust for the wait time is `mhauto processorbusywait`. This parameter has a default setting of 90 seconds with the maximum point set to 600 seconds. The default setting allows the plate to stay on the unload table for up to 90 seconds while it waits for the processor Busy signal to change states. If, after the wait time has passed and there is no change to the Busy signal, the Print Console user interface displays a suspend dialog box. This requires the operator to clear the suspend condition before the plate is pushed off the table.

5.2 MPE configuration

The MPE *Trendsetter* NEWS does not provide any output signals to mode-select the processor.

In simple input mode (SIM), the *Trendsetter* NEWS monitors three state conditions from the processor: Busy, Fault, and Ready. (Processor manufacturers have given other names to these signals.)

To enable SIM, the NVS parameter `al proc` must be set to `1`. This assumes that the firmware version supports the processor interface option. See "Firmware Requirements" on page 4 for details.

Table 2 shows the firmware's behavior in response to signal changes from the processor at two different points in the load/unload sequence: first, when imaging completes, and second, just before pushing the plate into the processor.

Table 2: MPE Trendsetter NEWS processor interface state conditions

Ready	Fault	Busy	When Imaging Completes	Before Pushing Plate Into the Processor
OFF	X	X	Suspends. Does not unload.	Suspends
ON	ON	X	Suspends. Does not unload.	Suspends
ON	OFF	OFF	*Trendsetter* runs normally.	*Trendsetter* runs normally.
ON	OFF	ON	*Trendsetter* runs normally.	*Trendsetter* waits for Busy signal to change states. See Note.

Note: Wait time is controlled by value of NVS parameter `altim pht` (processor_handoff_timeout).