

COMPOSE

AGFA

PCI Interface Card

Installation Manual

for

Harlequin Level 2 Intel Windows NT RIP

v1.01 1Jul96

COMPOSE

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1. FEATURES

- The Compose Agfa PCI Interface Card is designed for Harlequin level 2 RIPs running on the PC platform. This card allows a PC-PCI system to output data to all Agfa imagesetters. (There are 3 different versions of Agfa Interface Card. The AccuSet/ProSet card can output to all Agfa imagesetters except the SelectSet and Avantra. The SelectSet card can output to all Agfa imagesetters except the Avantra. The Avantra card can output to all Agfa imagesetters.)
- Interface cards can be daisy-chained via the optional Slave Buffer Boards to connect multiple RIPs to an imagesetter.
- For PCI PCs whose BIOS does not allow the user to specify which PCI slot uses which interrupt level, an ISA paddle-card and cable is provided to allow the PCI card to access interrupts using the ISA bus.

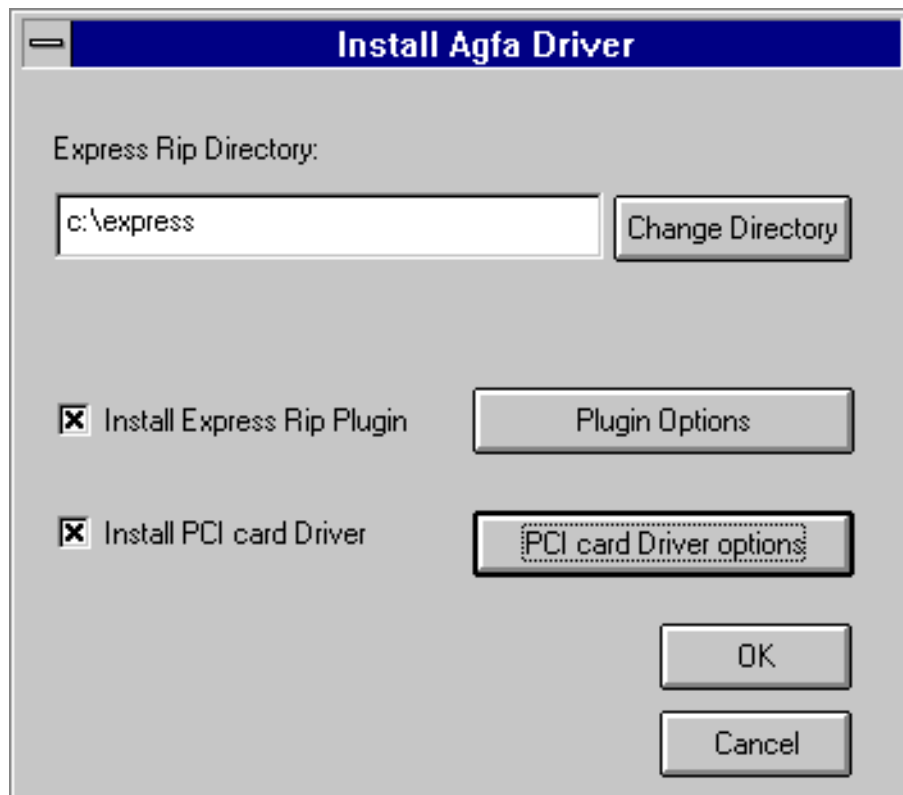
2. INSTALLATION PROCEDURES

Warning:- Please READ ALL of this Manual before proceeding with the following.

1. Install the Express Windows NT (Intel) RIP according to the RIP installation manual.
2. Before installing an interface card, check your machine's warranty and follow any instructions it contains to ensure that you do not invalidate it.

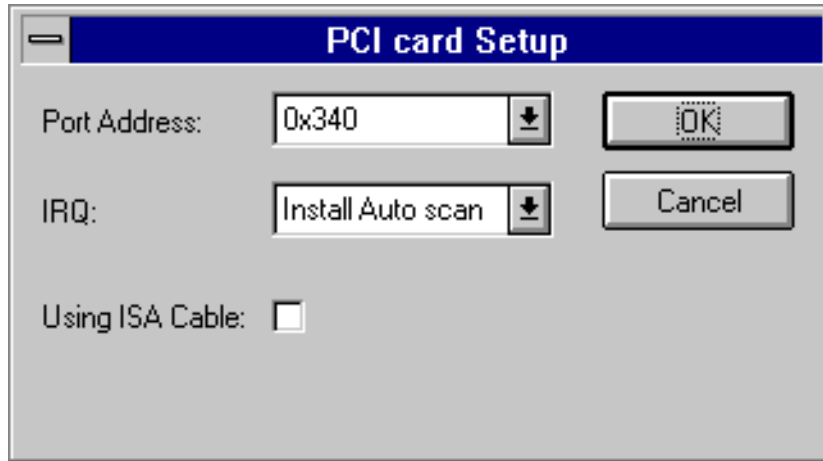
3. Installation of the Agfa Driver

- i. Insert the Driver Installation Disk into Drive A:
- ii. Choose RUN in the File menu in the Windows NT Program Manager.
- iii. Type 'A:\INSTALL' and hit 'enter' to continue. You will see the Install Agfa Driver Window:



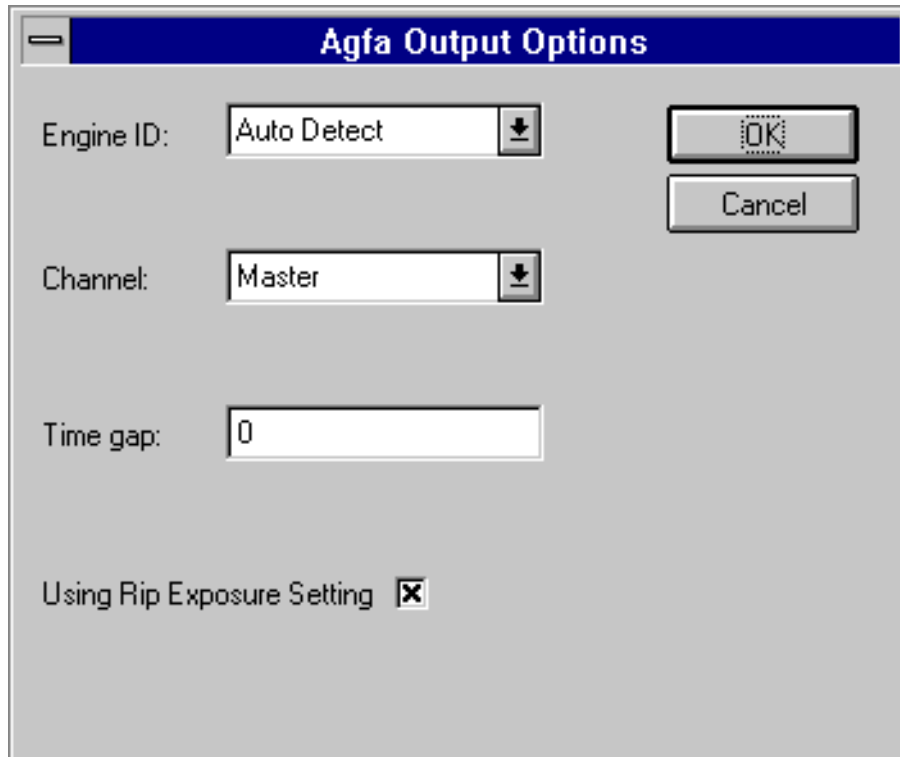
- iv. In the *Express RIP Directory* field, choose the directory where you installed the Express RIP. Click on *Change Directory* to select another directory. For example, for the Compose Express RIP which by default is installed in the EXPRESS directory, you should type in C:\EXPRESS or select the directory by clicking the *Change Directory* button.

- v. If you want to configure the driver to set the PCI card setting, click the *PCI Card Driver Option* button in the *Install Agfa Driver* menu.

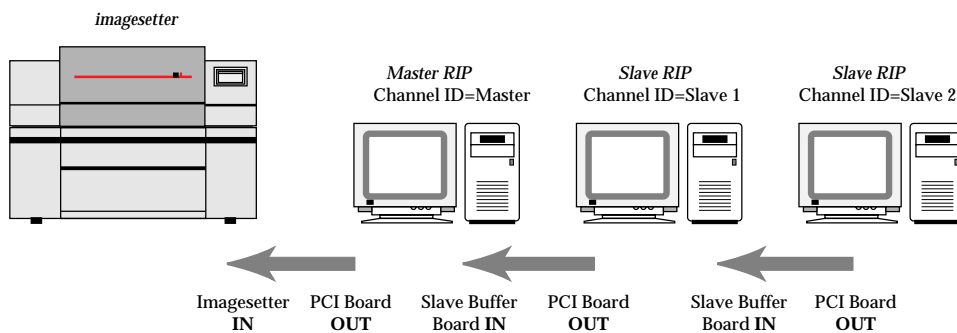


- vi. **Port Address**
Set the correct Port Address. Make sure the Port Address is not conflicting with other devices. All addresses from 0x200 to 0x 3F0 are valid Port Addresses.
- vii. **IRQ (Interrupt Request)**
Using the *Install Auto scan* option will enable the installation software to find the right Interrupt setting for the PCI Card. If auto scan is not successful, please read item xvii- **PCI Configuration for your PC**, of this manual for details on how to set the Interrupt manually.
If you have installed the PCI card on the PC before and you know that a particular IRQ setting will definitely work, then instead of doing an Auto Scan, you can select that IRQ in the *IRQ* field directly.
If Auto Scan fails, you should try to use the ISA Paddle Card supplied with the PCI Card to access Interrupts via the ISA Bus. If you are using the ISA Paddle Card, make sure you check the *Using ISA Cable* option.
Valid Interrupts are 3, 5, 7, 9, 10, 11, 12, 15.
- ix. Click on OK to return to the *Install Agfa Driver* menu. You should now configure the Agfa Output Options.

- x. Click on the Plugin Options button to configure the Express RIP Plugin.



- xi. **Engine ID**
The Agfa Card can detect which Agfa imagesetters you are driving. Choose the appropriate engine type if you don't want to use the *Auto Detect* option.
- xii. **Channel**
The *Channel* field is for setting the Channel ID. You should always use the Master channel if you have only one RIP connected to the Agfa engine. If you have more than one RIP, the RIP that connects directly to the imagesetter will use the Master Channel. Other RIPs that are daisy-chained to the Master Channel RIP will use the Slave Channels 1 to 4.



In a multiple-RIP configuration you can connect one master RIP and up to four slave RIPs to the imagesetter. The master RIP is the only RIP directly connected to the imagesetter. The slave RIPs are daisy-chained to the master RIP using an ISA Slave Buffer Board. This configuration requires both the PCI Board and a Slave Buffer Board in all the RIPs, except the Slave RIP at the end of the chain which requires only a PCI board.

In Multiple RIP configuration an ID mark will be exposed on all output to let the user know which RIP output the film. If you see one dot at the bottom of the film, it is output by the Master RIP. Two dots mean it is output by Slave RIP 1. Three dots mean it is output by Slave RIP 2.

xiii. Time Gap

The *TimeGap* field is for specifying the time delay between jobs. It should only be used in multiple-RIP configurations.

A *TimeGap* of 0 will provide no time delay and the RIP which is currently outputting will occupy the output channel and continue to output until all the jobs in its active queue has been done. A *TimeGap* of anything but 0 will introduce a time delay between jobs so that the other RIP will have a chance of grabbing the output channel during that time delay. Increasing *TimeGap* will increase the possibility of other RIPs taking control of the output channel.

Time Gap should be set to 0 for single RIP installations.

xiv. Using RIP Exposure Setting

If you want the RIP to control the exposure setting, check the Using Rip Exposure Setting option. When RIP Exposure Control is disabled, the setting on the imagesetter is used.

xv. Click on OK after you have finished configuring the Plugin. You can change the settings in the *Agfa Output Options* menu by selecting the *Change Plugin Option* item in the Output Device menu in the RIP.

ScriptWorks	
ScriptWorks	AGFA SelectSet
Advance 1 inch	Ctrl+1
Advance 3 inches	Ctrl+3
Advance 6 inches	Ctrl+3
Cut media with feed	Ctrl+K
Cut media no feed	Ctrl+L
Change Plugin Option	

- xvi. After configuring both the *PCI Card Driver Options* and the *Plugin Options*, you should click on the *OK* button in the *Install Agfa Driver* menu to install the driver. You will then see the following messages indicating that the drivers have been copied to the hard drive.

```
Copy A:\AGFA\agfapci.I32
to c:\express\SW\DEVICES\agfapci.I32.

Copy A:\AGFA\CSLAGFA.SYS
to C:\WINNT35\System32\drivers\CSLAGFA.SYS.
```

- If the Agfa card is inserted and configured properly. You will see the message:

```
scan pci card and set interrupt.
Video card.....found.
CGEN/APIS-PCI ver 1.2.
Serial number.....96120002.

PCI cfg space control.....Plug and Play feature enabled.
PCI cfg int setting.....INTA, IRQ 14.
Interrupt routed to.....IRQ 10.
Interrupt type.....ISA type (edge trigger).
```

The interrupt type is ISA if the ISA paddle card is used. If the ISA paddle card is not used, the interrupt type will be PCI (Level trigger).

- If the Agfa card is not configured properly and the install program cannot find a suitable Interrupt to assign to the Agfa Card, the installation program will indicate that the *Interrupt routed to is not found*.

```
scan pci card and set interrupt.
Video card.....found.
CGEN/APIS-PCI ver 1.2.
Serial number.....96120002.

PCI cfg space control.....Plug and Play feature enabled.
PCI cfg int setting.....INTA, IRQ 14.
Interrupt routed to.....not found.
```

Please read the next section for a guideline on PCI Configuration for your PC.

- If the card is not inserted properly, you will see the following message *cannot scan Agfa PCI Card..*

```
scan pci card and set interrupt.
cannot scan Agfa PCI card!
```

xvii. PCI Configuration for your PC

The Compose Agfa PCI interface card is a fully Plug and Play compatible PCI card. The availability of numerous PCs with numerous versions of BIOS, each with their own implementation of the PCI Plug and Play standard, has made PCI configuration not as 'Plug-and-Play' as it should be. To add to the confusion, most PCI PCs have ISA, VESA or EISA bus and the PCI controller has no idea what resources are occupied by the non-PCI cards.

The Agfa PCI interface card is a PCI IDE device. Some PCs does not allow the existence of more than one PCI IDE device in the same PC. Installation of the Compose card on those PCs using IDE hard disk will not be possible because the Compose card can not share resources with the PCI IDE hard disk controller. On those PCs, you must use SCSI hard disk.

On older PCs, the BIOS may not be fully Plug and Play compatible and it might not be able to assign correct PCI resources to the Compose card. On those PCs, you can use the supplied ISA paddle card to let the Compose card access ISA resources.

Since there are many different brands of PCs with many different kinds of BIOS, it is impossible to write a general guide on PCI configuration that will work with all PCs. The following is a list of things you should observe while you are doing the PCI configuration for your PC.

- Make sure the Agfa PCI Card is set to use INTA. If you can assign a PCI Interrupt Level (A, B, C, or D) to a particular PCI slot in the BIOS, make sure the PCI Slot the Agfa card is in is set to use PCI INTA.
- If the BIOS doesn't work with Auto Configuration and you cannot assign PCI Interrupt Level to ISA Interrupts, then you can try using the ISA paddle card to access Interrupts using the ISA bus.
- If you are using the ISA paddle card, make sure that the ISA Interrupt you want to use is not available to or in used by other PCI cards. Some BIOS will let you assign which interrupts are available to ISA cards and which interrupts are available to PCI cards. If you are using the ISA paddle card, the Interrupt used by the ISA paddle card must be set to be used by ISA card in the BIOS.
- the Interrupt Requests used by the PCI cards in your PC are not used by ISA, VESA, or EISA cards,
- the Interrupt Request used by a PCI card is not used by another PCI card in your PC,
- the memory address needed by some ISA cards are not reserved by the PCI controller. Some BIOS will also let the user reserve a range of memory address to be

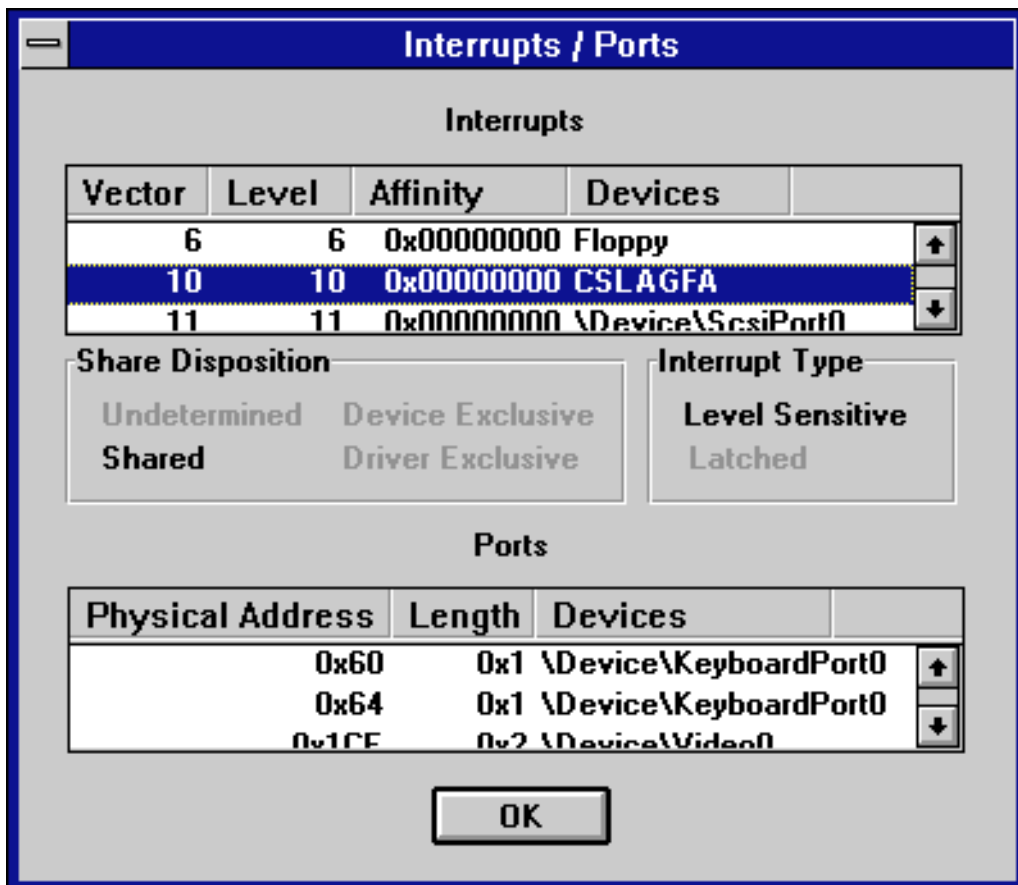
used by an ISA card. If you have an ISA card (e.g. the SMC Elite16Ultra ethernet card) that uses memory address, you must reserve the location it uses or else your ISA card will not be able to access that memory location.

4. Switch OFF the machines and connect the RIP to the imagesetter. The cable required is supplied and is the same for all models of Agfa imagesetters. Ensure that the screwlocks are fully tightened at the Agfa. **Always connect or remove the cable when the machines are switched off**

5. You can use the WINDOWS NT DIAGNOSTICS application to check whether the interface card is able to access the IRQ you have selected. This application can be found in the Group ADMINISTRATIVE TOOLS. Alternatively, you can choose RUN in the FILE menu in the Program Manager and type in WINMSD. When you are in the DIAGNOSTICS application, click on the INTERRUPTS/PORTS button and you will be able to check the interrupts used by all installed devices.

For example, if you are using IRQ 10 for the Agfa interface Card:

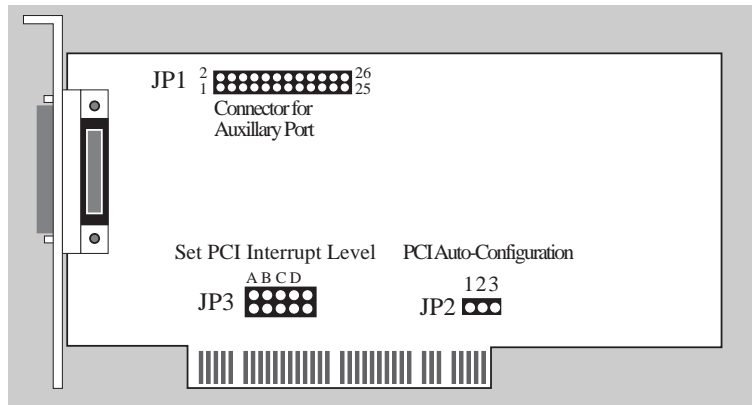
- use the scroll button on the top text box to scroll to the appropriate IRQ Vector. Check that the Device name in the Devices field is CSLAGFA, as shown below.



3. AGFA PCI CARD CONFIGURATION

The Agfa card has two jumper blocks for User configuration. The jumper block **JP3** is used for setting the PCI interrupt level or for connection to the ISA paddle-card. The jumper block **JP2** is for setting the PCI configuration mode.

Compose Agfa PCI Interface card



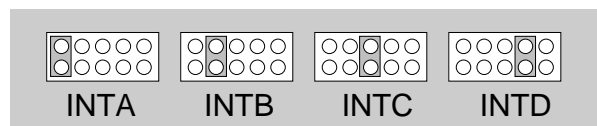
Auxiliary Port (for Multiple-RIP)

The Auxillary Port allows you to connect the Agfa PCI Card to an ISA Slave Buffer Card in a multiple-RIP configuration. In a multiple-RIP configuration you can connect one master RIP and up to three slave RIPs to the imagesetter. The master RIP is the only RIP directly connected to the imagesetter. The slave RIPs are daisy-chained to the master RIP using the ISA Slave Buffer Board. This configuration requires both the PCI Board and a Slave Buffer Board in all the RIPs, except the Slave RIP at the end of the chain which requires only a PCI board.

PCI Interrupt Level

Jumper **JP3** is for setting the PCI Interrupt Level You can set the PCI Interrupt Level manually when you are not using the Auto-Configuration mode. If you are using the Auto-Configuration mode, make sure that **JP3** is set to use INTA.

JP3 Settings

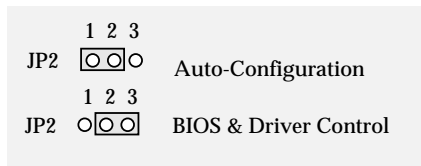


After changing the Interrupt Level on the card, you have to set the correct value in the Configuration file for the driver as mentioned in the previous section. If the ISA Paddle Card is needed, you should use **JP3** to connect the PCI card to the ISA Paddle Card.

PCI Auto Configuration

Jumper **JP2** is for setting the Auto-Configuration mode of the card. The Compose Exxtra-Ultre PCI Interface card is a fully Plug and Play compatible card. To accommodate older PCI controller on some PCs, the jumper **JP2** on the card can be set to let the user configure the PCI setting of the card.

JP2 configuration



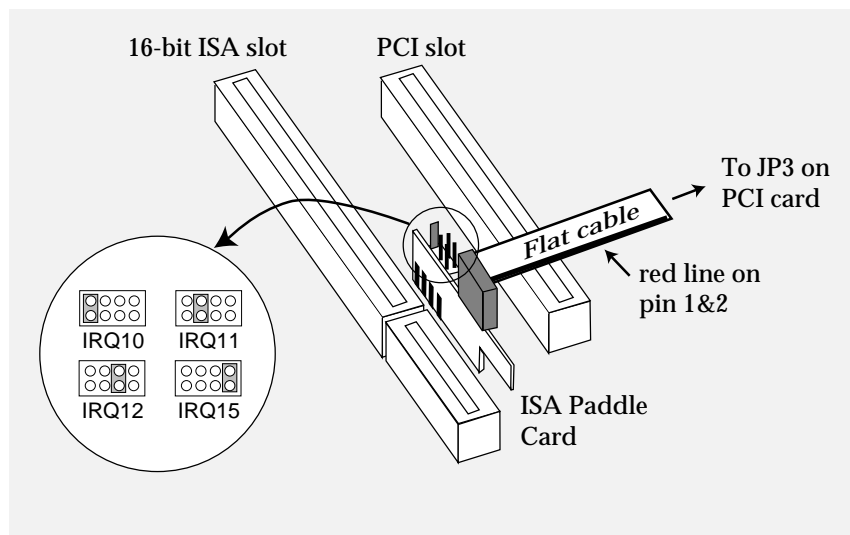
Set the jumper to position 1-2 if you want the PCI controller to configure the card.

Set the jumper to position 2-3 if you want to configure the card manually.

ISA Paddle Card

If the ISA Paddle Card is needed, you should remove the jumper from **JP3**, connect **JP3** to the ISA Paddle Card using the flat cable supplied. Make sure that the Red line on the flat cable is aligned to Pin 1 and 2 on the ISA Paddle Card. The Red line should align with the INTA pins on **JP3**.

Insert the jumper removed from **JP3** onto the ISA Paddle Card to select an appropriate Interrupt Request. The jumper block allows you to set the PCI card to use IRQ 10, 11, 12 or 15.



APPENDIX**1. AGFA PCI CARD VERSIONS**

Please note that there are 3 different versions of Agfa Interface Card. You cannot use the SelectSet card to drive the Avantra. You cannot use the AccuSet card to drive the SelectSet. If you are using the SelectSet card but the RIP is connected to an Avantra, you won't be able to access the device in the Page Setup menu and a message in the System Monitor will tell you that you are using the wrong card.

2. AGFA IMAGESETTER INFORMATION

Agfa Imagesetter Information

	Supply Cassette Width (inch)	Max. Image W x H (inch)	Resolution (dpi)	Media Type	Exposure	Default Exposure
ProSet 9400	13.6	13.6 x 99.0	1200, 2400	Film, Paper	0 - 255	180
ProSet 9600	13.6	13.6 x 99.0	1200, 2400	Film, Paper	0 - 255	180
ProSet 9700	27.3	27.3 x 99.0	1200, 2400	Film, Paper	0 - 255	180
ProSet 9800	13.6	13.6 x 99.0	1200, 2400	Film, Paper	0 - 255	180
ProSet 9550	13.6	13.6 x 99.0	1200, 2400	Film, Paper, Plate	0 - 255	180
ProSet 9836	13.6	13.6 x 99.0	1200, 2400, 3600	Film, Paper, Plate	0 - 255	180
AccuSet 800	14	14 x 99.0	600, 1200, 1800, 2400	Film, Paper, Plate	0 - 255	180
AccuSet 1000	14	14 x 99.0	600, 1200, 1800, 2400, 3000	Film, Paper	0 - 255	180
AccuSet 1400	14	14 x 99.0	600, 1200, 1800, 2400, 3000	Film, Paper	0 - 255	180
AccuSet 1500	14	14 x 99.0	1200, 1800, 2400, 3000	Film, Paper	0 - 255	180
SelectSet 5000	10, 13, 16	22.0 x 16.0	1200, 2400, 3600	Film, Paper,	0 - 999	600
SelectSet 7000	13, 16, 26	22.0 x 26.0	1200, 2400, 3600	Film, Paper, Plate	0 - 999	600
Avantra 20	10,12,13.3,14	20.0 x 13.7	1200, 1800, 2400, 3600	Film, Paper	0 - 1430	600
Avantra 25/25S	10,12,13.3,14,18	25.0 x 17.7	1200, 1800, 2400, 3600	Film, Paper	0 - 1430	600
Avantra 30	14,16,18,20,24,26,28,30	30.0 x 24.7	1200, 1800, 2400, 3600	Film, Paper, Plate	0 - 1430	600
Avantra 36/36S	16,18,20,24,28.5,30,32,36	28.5 x 35.7	1200, 1800, 2400, 3600	Film, Paper, Plate	0 - 1430	600
Avantra 44/44S	16,18,20,24,28.5,30,32,36	44.5 x 35.7	1200, 1800, 2400, 3600	Film, Paper, Plate	0 - 1430	600

- Please set the Cassette width in the Cassette Manager according to the Supply Cassette Width settings.
- The Exposure setting is for adjusting the laser intensity of the imagesetter. To make the image darker, you should increase the Exposure setting.
- For drum models (SelectSet or Avantra), the image height must be 0.3" less than the paper width.
For example, the maximum imaging are of SelectSet 5000 is
22" (Width) x 15.7" (Height).

3. AGFA DRIVER CONFIGURATION FILE

After installation, a Driver Init file AGFAPCI.INI is created in the C:\EXPRESS\SW\DEVICES\CONFIG directory where EXPRESS is the directory you installed the Harlequin RIP. All settings in this Init file can be modified in the *Change Plugin Option* in the RIP.

AGFA PCI Driver Init File (AGFAPCI.INI)

```
[AGFAPCI]
EngineID=0
CHANNEL=0
TIMEGAP=0
EXPOSURE=1
SERIALNUM=0
CASS=0
```

EngineID	0	Auto detect during startup
	1000/1500	AccuSet 1000/1500
	9400/9550/9600/9700	ProSet 9400/9550/9600/9700/
	9800/9836	ProSet 9800/9836
	2400/5000/7000	SelectSet 2400/5000/7000
	20/25/36/44	Avantra 20/25/36/44

This field corresponds to Plugin Option [Engine ID].

CHANNEL	0	Single RIP or Master RIP
	1/2/3/4/5/6/7	Slave 1/2/3/4/5/6/7

This field corresponds to Plugin Option [Channel].

TIMEGAP	0	Time gap between pages
----------------	---	------------------------

This field corresponds to Plugin Option [Time Gap].

EXPOSURE	1	Using RIP exposure setting
	0	Do not use RIP exposure setting

This field corresponds to Plugin Option [Using RIP Exposure Setting].

SERIALNUM	0	Not used in this version
CASS	0	Not used in this version

4. EDGE TO EDGE (ETOE) FEATURE

Compose Agfa Interface Card of version **1.3** onwards will now support the Edge to Edge feature. By the new card, full width will be supported.

5. AGFA DRIVER FILES

After installation, three files will be copied onto your hard drive.

AGFAPCI.I32	RIP output plugin driver. Installed in C:\EXPRESS\DEVICES
AGFAPCL.INI	A configuration file used by the plugin driver. Installed in C:\EXPRESS\DEVICES\CONFIG
CSLAGFA.SYS	NT kernel mode hardware driver for PCI card. Installed in C:\WINNT35\System32\drivers\CSLAGFA.SYS.