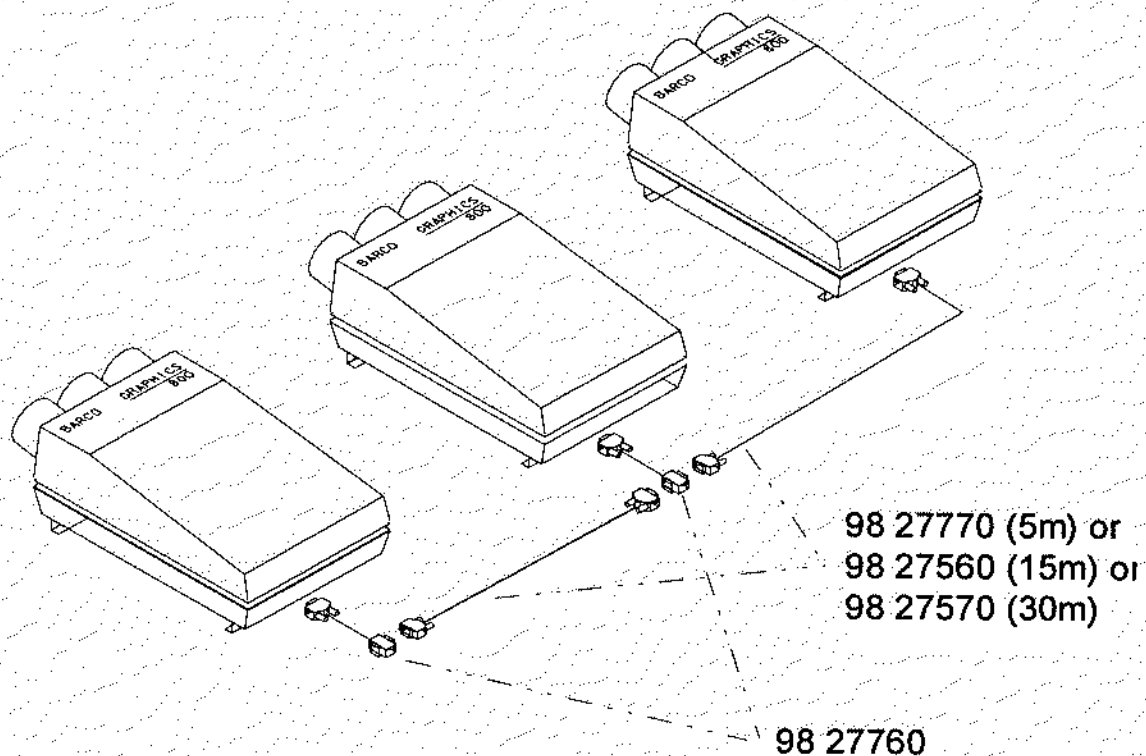
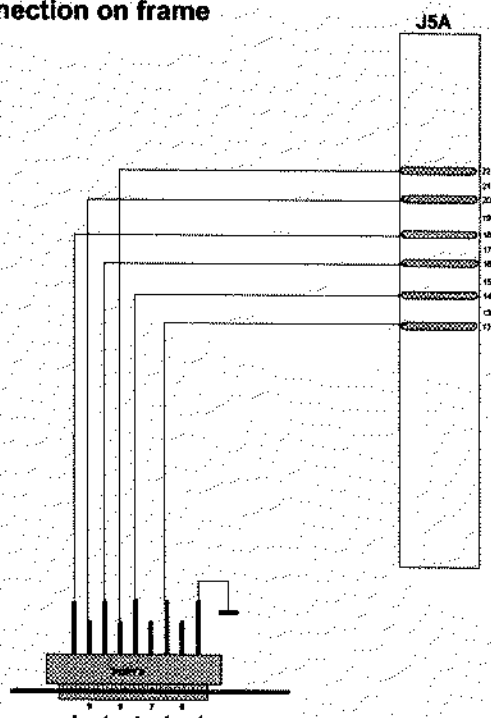


## IBCL linked projectors



### Interconnection on frame



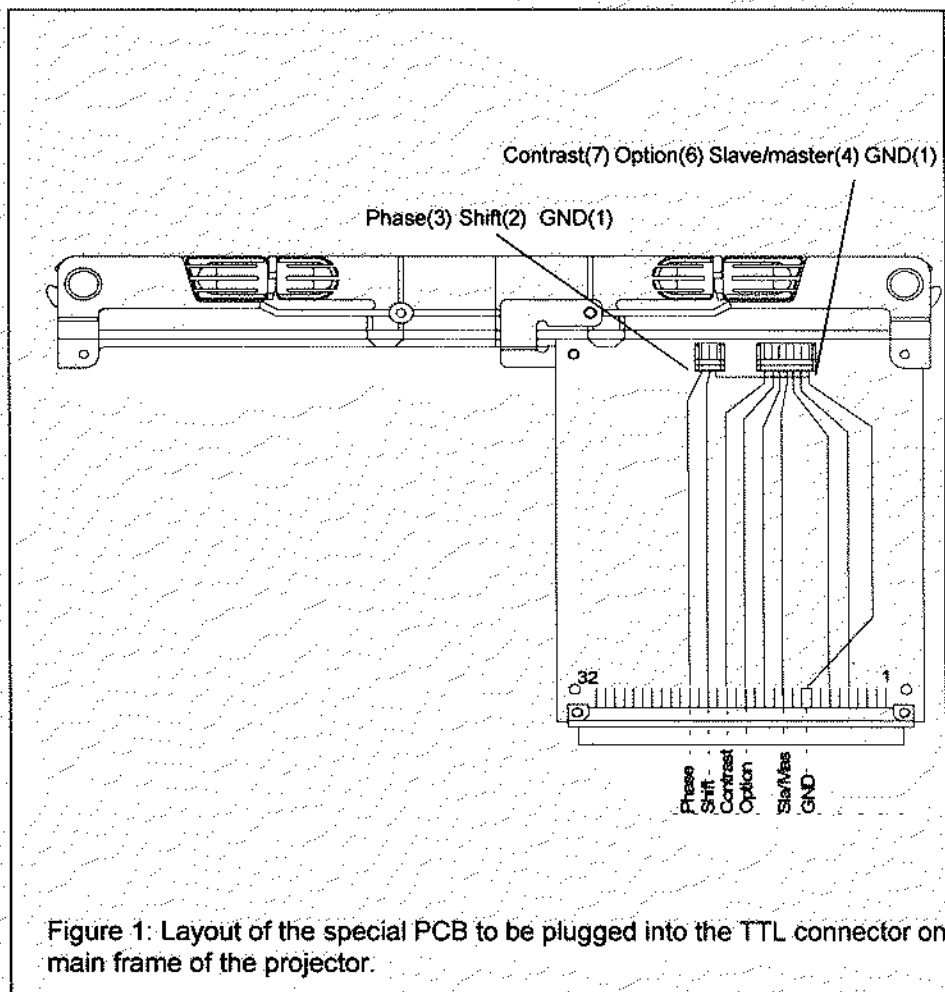


Figure 1: Layout of the special PCB to be plugged into the TTL connector on main frame of the projector.

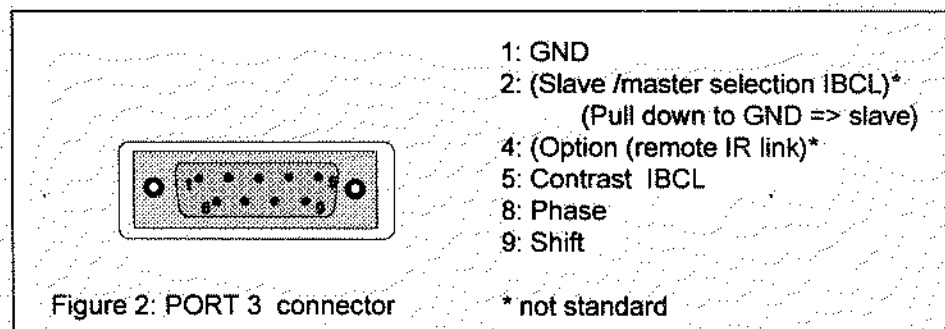


Figure 2: PORT 3 connector

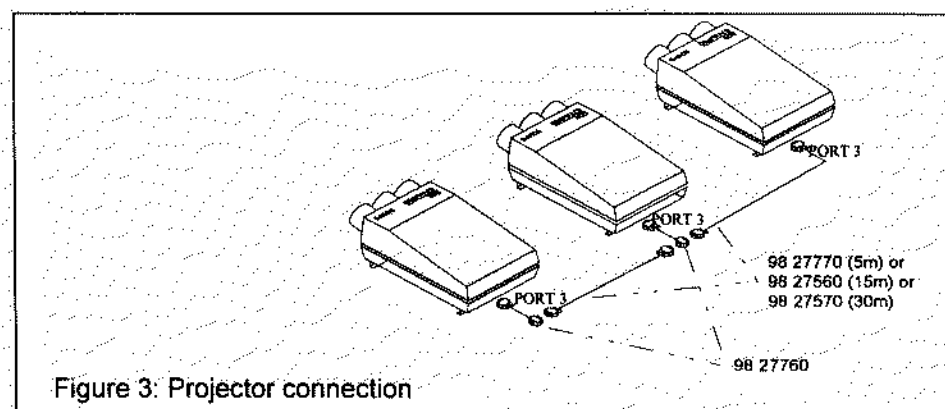


Figure 3: Projector connection

## SPECIAL GAIN CONTROL MODULE

The object of the modification on the GAIN CONTROL IBCL board 7618375, is to control the light output of nine projectors.

Each projector normally owns an IBCL beam current limiter circuit. It cuts down the cathode current when it exceeds a limit, which may damage the CRT tube. Unfortunately, this limiter changes the contrast of the shown picture. To prevent each projector of having its own contrast level, we configured one projector as 'master'. The master controls the contrast for all nine projectors by using a common contrast line.

### 1) The special board in the second RGB slot.

For this special configuration, we used the PORT3 output connector to link the nine projectors. (see figure 3)

**WARNING!** Don't connect a 2nd RGB source to the PORT3 connector, it doesn't work at all!

As you can see, we made a special link PCB (761838) to plug into the 2nd RGB slot (inside the projector). The 3 pins connector can be used to link orbiting signals through. The 7 pins connector passes the contrast signal from the decoder module to the PORT3 connector. The special PCB can always be removed and replaced by a 2nd RGB board.

The contrast lines of all nine projectors are connected together through a 470 ohm resistance. (J8) and protected by a diode D50. R250 and C140 determine the time constant of the contrast adjustment.

One projector is used as master. The strap S3 connects in this case, the internal contrast line from the projector to the common contrast line J8(2). (The red jumper is in the 'master' position)

The other projectors must be in the 'slave' mode by plugging the strap S3 in the slave position. The internal contrast signal is neglected.

### 2) Switching between stand alone and linked projector.

- Disconnect the wires on the PORT3 input when you were using it.
- Plug the special link PCB 761838 in the 2nd RGB slot.
- Connect the 7 pins connector (from the decoder subunit) to the link PCB.
- Put the red S3 jumper on the decoder subunit in the 'slave' position
- Connect the special loop through wire on the PORT3 connector to link the projector

### 3) Switching between linked and stand alone projector. (SLAVE->MASTER)

- Disconnect the wires on the PORT3 connector.
- Put the red jumper(S3) on the decoder subunit in the master position.

The special link PCB in the 2nd RGB slot can be replaced by a normal 2nd RGB board. In this case, connect the 7 pins connector J3 of the 2nd RGB board to the RGB switch board J3. The 7 pins connector J8 coming from the decoder is now unused.

## 4) Installation of linked projectors.

- Switch 1 projector to the 'master' mode.
- Switch the other projectors to the slave mode.
- Connect the loop through wire to the PORT3 connector of the 8 projectors.
- Adjust the contrast level of the master and the slaves will follow.
- Adjust the different lenses
- Start with the focus adjustment of each projector.
- Adjust the geometry of each projector
- Match the 8 green pictures to each other by using the green convergence control
- Adjust the geometry for RED and BLUE for each projector.
- Adjust the convergence for RED and BLUE.
- Adjust the black level of all projectors.
- Put the brightness control on 50% and adjust the highlights.

Remark: It's possible that the picture flickers. Change C140 to 10  $\mu$ F to increase the time constant.