MIT runs

TTL trigger from delay box
CH A to syn

No Label was not connected
This Photo shows the previous connection when I did “Manual” Triggering. 
NOT CURRENT CONFIGURATION

When I received it, 
The BNC adaptor was connected to “NO LABELED” SMA connector. 
External Triggering did not work.

CONFIRMATION: 
Currently the BNC adapter is switched to “SYNC”
External Triggering did work.

TTL trigger from delay box
CH A to “SYNC”, NOT “No Label”
Current Configuration in Tunnel

One BNC adaptor to “SYNC”

TTL Module is disconnected
http://www.epixinc.com/products/ttlmod.htm
Converts TTL Trigger to Differential for input into PIXCI Board
Converts PIXCI Board Differential Strobe Output to TTL

We don’t need this TTL module.
So I disconnected the RS-39 cable.
Camera is triggering using BNC input through “SYNC” as we did at MIT.
Lens mount alignment: The gap between camera and objective lens was very small. The focusing adjuster rotated stiff. Camera holding bar and XY stage holding bar were rotated. NOT WELL MOUNTED NOW. IT WAS ASSEMBLED AT BNL. NEVER DISASSEMBLED AFTER IT LEFT BNL.

“pcmerit08” is installed.

- outlet: 3009/15
  (3 outlet left in tunnel)
- IP address: 137.138.184.21
- connected to iboot4
Current Scope Trace

T (Master Triggering) = To from DG535

T (Master Triggering) = To Synchronized Laser Pulse Triggering Signal from GaGe Board Output 17 pulse, 0.1 ms period Delay from To was about 0.005 ms.

Triggered Time

SMD Camera Triggering Signal. A from DG535 A = To + 0.000000000 s

Photodiode signal from scintillating fiber
Viewport 1, Sep. 5, 2007

- Brightness changes suddenly. Possibly optics problem.

Viewport 1, Sep. 13, 2007

- The edge is very sharp. Possibly optics may got damaged.
- Circle is shifted. Alignment is broken. Window is not clear.
Window is not clear. Brightness changes suddenly. No field of view is visible.
Viewport 3, Sep. 5, 2007

Viewport 3, Sep. 13, 2007

Focusing of left side was changed. Alignment changed slightly.

ALMOST SAME
Viewport 4, Sep. 5, 2007

1 ms fps

0.05 ms shutter

1 W laser used. CW pulse for 0.5 s
12db+12db attenuator used
Able to use same control input signal with FV camera.
Viewport 4, Sep. 13, 2007

25 W laser used. 0.1 ms period laser pulse. 17 pulses, total 1.7 ms light.

Laser Intensity is LOW.

17 frames Read Out.
25 W laser used. 0.1 ms period laser pulse 17 pulses, total 1.7 ms light

1.7 ms fps

1 frames Read Out

External Triggering Camera “Trigger IN”

Field of View is visible clearly

OBJECTIVE LENS IS NOT WELL MOUNTED
Viewport 4, Sep. 13, 2007

External Triggering
Camera “Trigger IN”

0.5 ms fps

4 frames Read Out
Frame does read out correctly corresponding to the laser time.

25 W laser used.
0.1 ms period laser pulse
17 pulses, total 1.7 ms light
Viewport 4, Sep. 13, 2007

1W laser, 0.5s CW pulse, 0.5 ms fps

SWITCHED to 1 W Laser CW for 0.5 s

0.5 ms fps

17 frames Read Out
Moving Fan image

Manual triggering
0.1 ms fps.
17 frames.
8, 12(default), 16 bit file save support.
jpg, tif, ...etc support.
Possible to save files
Independently.
Possible to save files in
one file. But the file size
Increases up to 10 Mbyte
because it saves all of the buffer
Images (180EA).

No 14 degree rotation
Different with previous software

Software shows like this.
Not real
CONFIRMATION

- ALL COMPUTERS / EQUIPMENT ARE ABLE TO DO POWER RECYCLE AND CONTROL REMOTELY AND ALL 4 IBOOT IS WORKING
- SMD CAMERA IS WORKING CORRECTLY AND RESPOND CORRECTLY TO THE EXTERNAL TRIGGERING INPUT
- ALL 4 CAMERAS WORK SIMULTANEOUSLY

THINGS TO BE RESOLVED

- SHOULD OPEN THE SNOUT AGAIN AND INSPECT OPTICS STATUS AND THEN REPAIR/REALIGN OPTICS. BE PREPARED FOR THAT.
  → PREREQUISITE : THOMAS SHOULD COME AND COOPERATE WHEN THERE IS A CHANCE TO OPEN THE SNOUT.
  WE HAVE ONE EXTRA OPTICS-FIBER SET. JUST IN CASE, WE CAN REPLACE ONE VIEWPORT.

- SHOULD MOUNT SMD OBJECTIVE LENS AGAIN. THE SPACE WAS VERY TIGHT AND NOT HOLDED TIGHTLY.

- CHECK 25W LASER INTENSITY. HOW? SOFTWARE DIFFERENCE? CONNECTION WAS ALREADY CHECKED AGAIN.
  NOW USED MAXIMUM INPUT VOLTAGE, -20V