

# CI-1100-A2

1. Introducing the CI-1100-A2
2. Using the CI-1100-A2
3. Accessories



# CI-1100-A2 Specifications

The CI-1100-A2 package includes the CI-1100 probe, a 3.5" fold-up LCD monitor, AC adapter/battery charger, case and 4 standard tips.

## Specifications

### Probe

Magnification	400X (w/ 9" monitor)
Field of View	~ 400µm x 300µm
Resolution	0.5µm detectable
Focus	Manual adjustment, 2mm max travel
Light source	Blue LED
Dimensions	35mm diameter x 175mm length (without cap)
Weight	200g

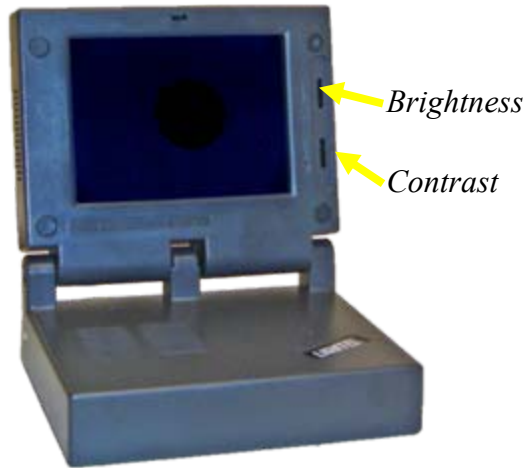
### Monitor

Display	3.5" TFT-LCD, 960 x 240 pixels
Controls	Adjustable brightness and contrast
Dimensions	105mm x 90mm x 45mm (folded)
Weight	255g (without battery)
Power supply	9.6V battery pack or AC power supply
Battery life	4 hours
Charger/AC adapter	US, EU, UK and Australian versions available

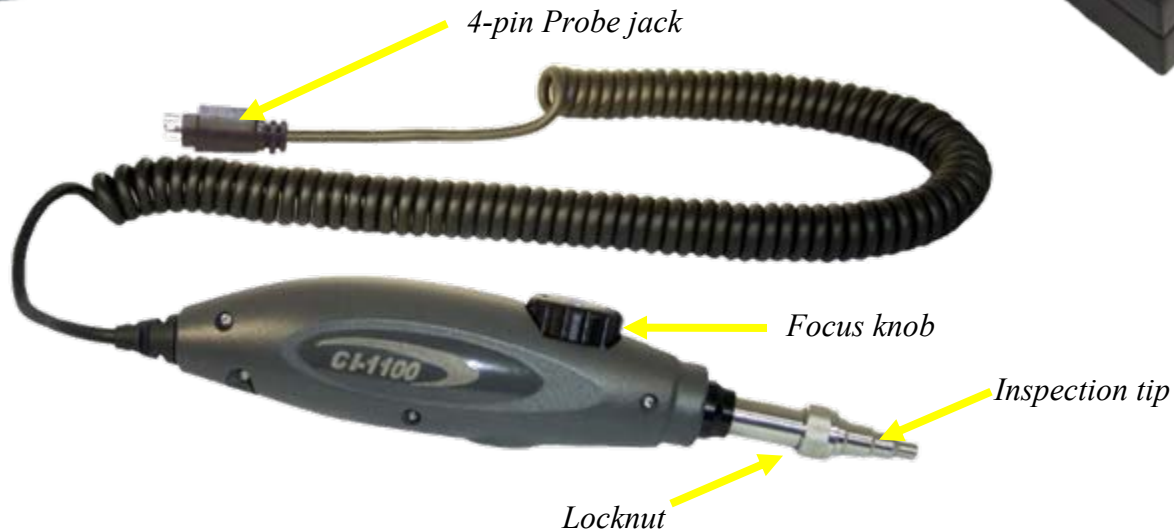
Operating Temperature	0° C to 50° C
Storage Temperature	-20° C to 70° C



# CI-1100-A2

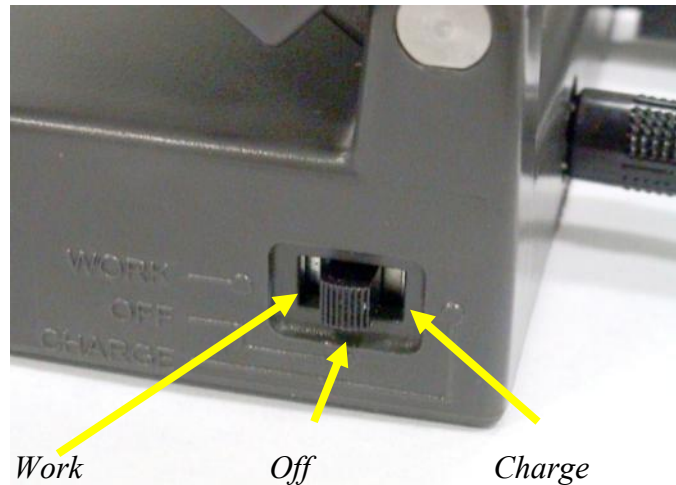


The CI-1100MS display folds shut for protection and easy storage.

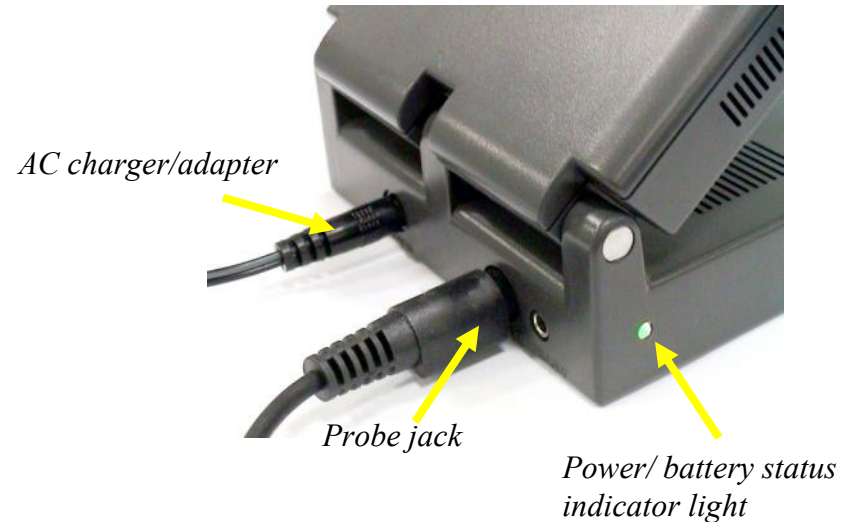


# CI-1100-A2 Display

The CI-1100 display is designed to run on battery power or its AC charger/adaptor.



The Power Switch is located on the right side of the monitor's base. It is a 3-position switch. "Work" turns the power on.



To use AC power, plug the cable connector of the AC charger/adaptor into the socket. The Power Indicator light will be green when the unit is turned on.

# CI-1100-A2 Battery Power

Before the CI-1100 can be used with battery power the battery must be charged. Set the On/Off switch to the “Charge” position. (The monitor can not be turned on or run while the switch is in the Charge position.)

When the charger /adapter is plugged in to an AC outlet, the light on the charger will be red until the battery is fully charged. It will then turn green.



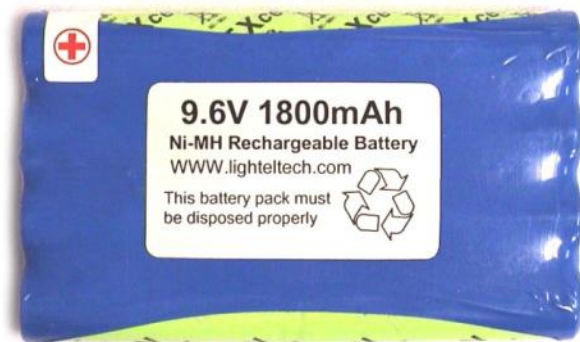
The Battery Status Indicator Light on the left side of the monitor will turn red when it is time to recharge the battery.

**Use only a Lightel charger/adapter to charge your unit. Other 12V adapters will damage the CI-1100 if they are used to charge the battery.\***

\*Charger/adapters are available with US, European, UK or Australian style plugs.

# CI-1100-A2 Battery

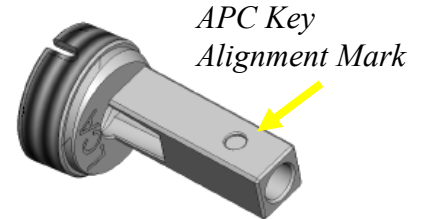
The CI-1100 battery will normally not need to be removed from the monitor. The battery is clearly marked to indicate the proper orientation. If it is removed, it must be replaced with the polarity in the correct direction.



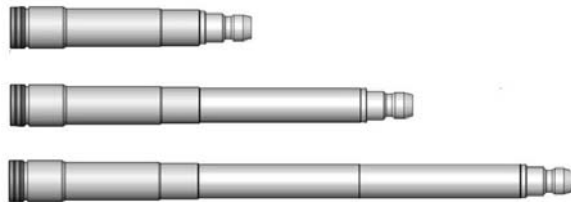
**Attempting to charge the CI-1100 with the battery polarity reversed will damage the device.**

# CI-1100 Tips

Male connectors need universal tips based upon connector ferrule size. Different types of female connectors will usually require a tip designed specifically for that connector type. For both male and female, PC and APC versions will be different, and APC tips will have a mark to match the APC connector's key.



In addition to standard tips Lightel offers a wide variety of specialty tips to accommodate special situations.



Extended tips



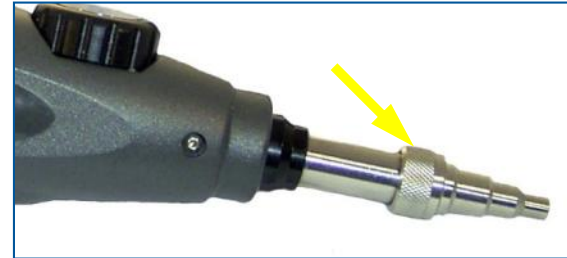
Angled tips



Ribbon fiber tips

# Changing CI-1100 Tips

CI-1100 tips are held in place with a lock nut.



Holding the probe, turn the lock nut counter-clockwise to loosen it fully, and then remove the tip.

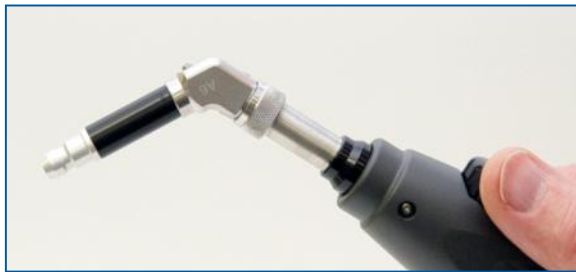


All tips have a slot and fit into the key at the top of the probe. Slide the new tip in place and slip the lock nut over the tip. (You may want to use a finger to hold the tip in place until the lock nut has started threading.) Tighten the nut snugly – if the tip is loose, it may not focus properly.



# CI-1100 Tips

60° angled tips have two key slots at top and bottom to allow use from two different directions.



The front end of the MTP/APC tip can be set in two positions in a similar fashion.



# CI-1000 and CI-1100 Tips

CI-1000 tips (Series 1 tips) and CI-1100 tips (Series 2 tips) are clearly distinct.

Series 1 tips have an inside thread. Series 2 tips have a key slot and are threaded on the outside.

Series 2 tips can only be used with the Series 2 probes (CI-1100 and DI-1000). They are not compatible with the Series 1 probe (VC-6100-PL and CI-1000). All CI-1100 tips start with the part number "PT2-"

An adapter is available for Series 1 tips allowing them to be used with the Series 2 probes ( CI-1100 and DI-1000). This adapter can be used with any Series 1 tip.



PT2-CI/ADAPT

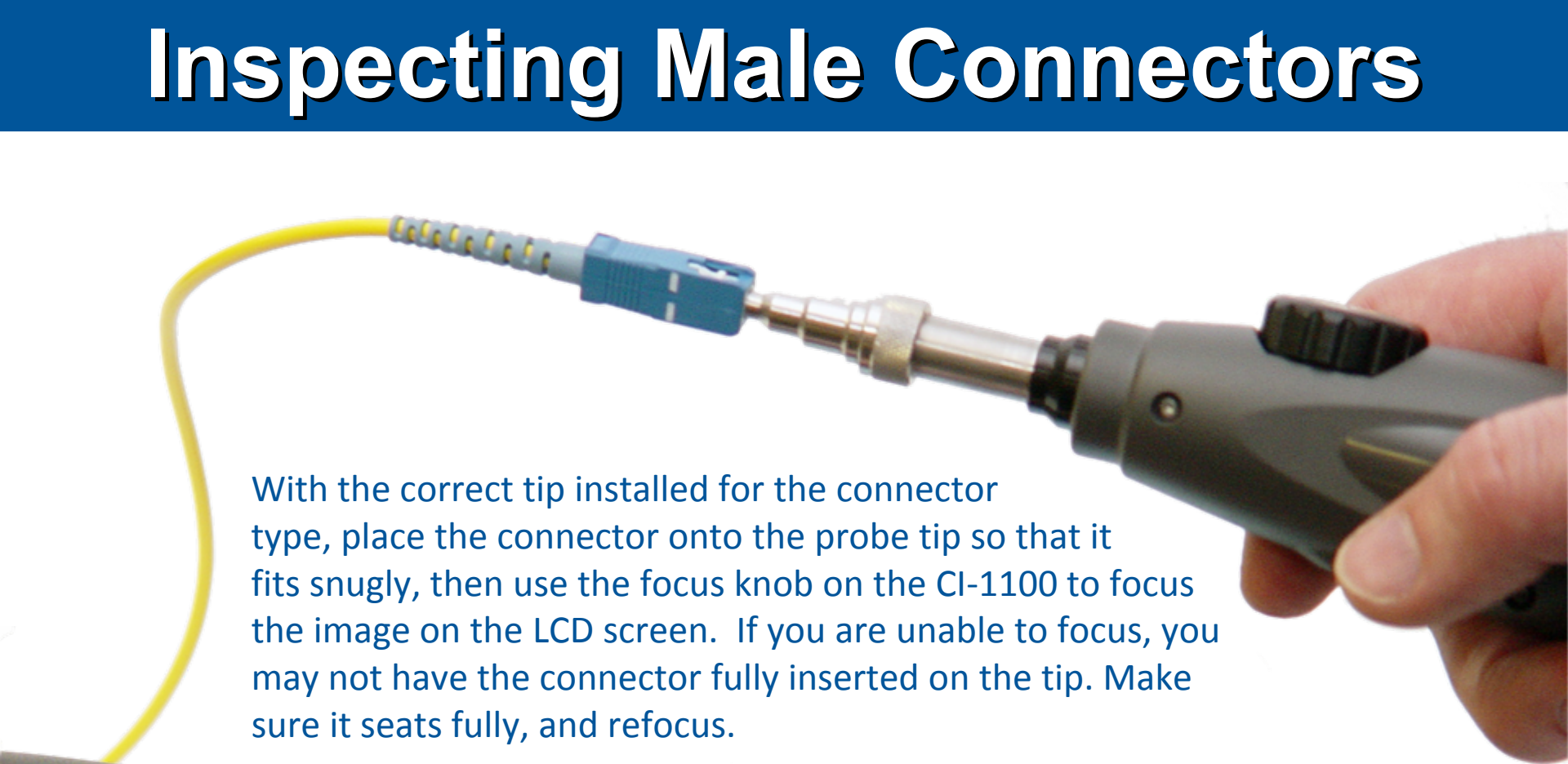


**CI-1000 tip**  
(Series 1)  
CI-1000-LC/F

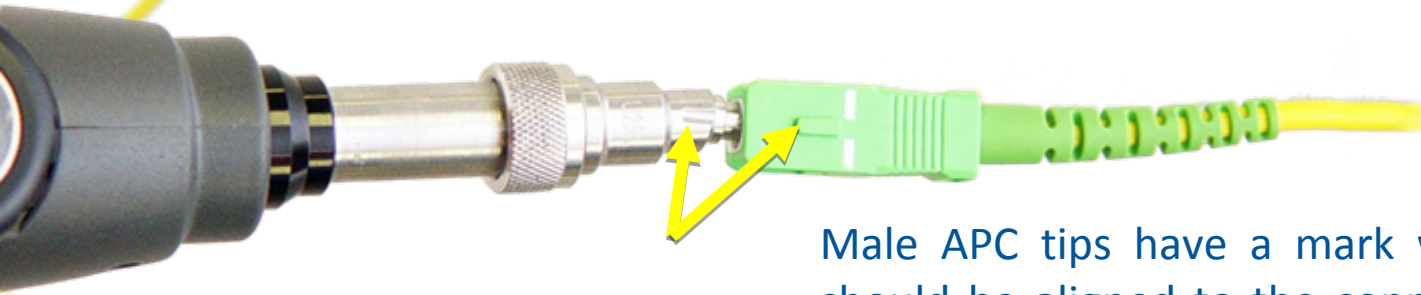


**CI-1100 tip**  
(Series 2)  
PT2-LC/PC/F

# Inspecting Male Connectors



With the correct tip installed for the connector type, place the connector onto the probe tip so that it fits snugly, then use the focus knob on the CI-1100 to focus the image on the LCD screen. If you are unable to focus, you may not have the connector fully inserted on the tip. Make sure it seats fully, and refocus.



Male APC tips have a mark which should be aligned to the connector key for proper viewing.

# Inspecting Female Connectors



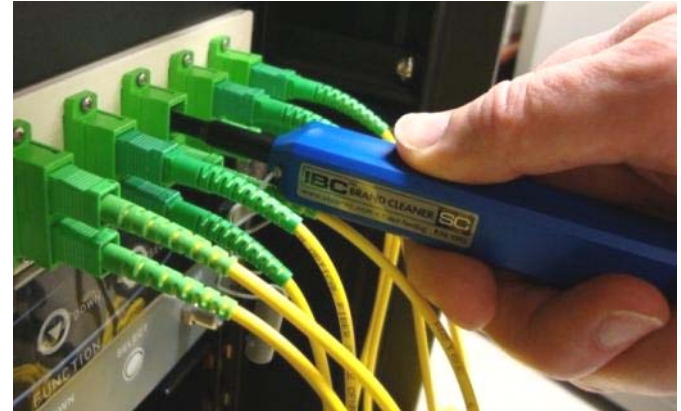
With the correct tip installed for the connector type, place the tip of the probe into the adapter and use the focus knob on the CI-1100 to focus the image. If you are unable to focus, you may not have the probe tip fully inserted. Make sure it seats fully, and refocus.

If you are inspecting female APC connectors, make sure the tip's alignment mark matches the connector's key.

When inspecting in-adapter connectors (female), access problems may require specialty tips. The Lightel website lists more than 50 Series 2 tips available for the CI-1100.

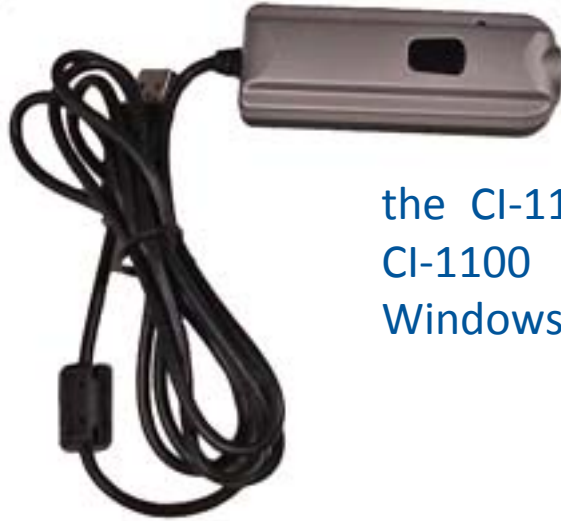
# Cleaning Connectors

After inspecting, you can use the Fujikura One-Click Cleaner or FerruleMate™ to clean in the adapter. Insert the cleaner and push until it clicks. Remove and be sure to reinspect to ensure the female connector is clean before re-mating the connectors.



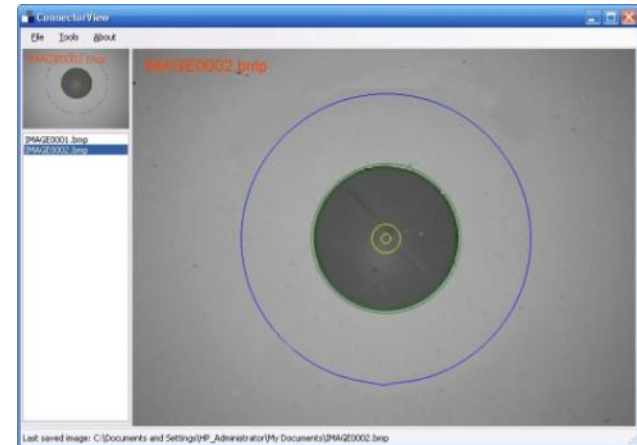
These cleaners can also be used to clean male connectors. Lightel has cleaners for 1.25mm, 2.0mm, 2.5mm and MTP connectors. Cleaners can be used for both PC and APC type connectors.

# USB for the CI-1100



The CI-1000-USB2 adapter is available for use with the CI-1100-A2 package. This will enable you to use the CI-1100 probe either with its LCD monitor or with your Windows® based computer.\*

Included with each adapter is Lightel's free ConnectorView image capture software which enables easy viewing and documentation.



\*For use with 32-bit Windows XP, Vista or Windows 7 PCs with a USB2.0 port.

# ConnectorView Plus

Lightel's ConnectorView Plus software is our optional Pass/Fail analytical software available for the CI-1100 with our USB adapter and with other Lightel video microscopes.

ConnectorView Plus will automatically analyze the connector condition and provide a report. It can be used with single mode and multimode, male and female, PC and APC connectors.

Summary reports can also be generated.

Filename	Test Time	Pass/Fail	Fiber Type	Zone A				Zone B				Zone C			
				Scratches		Defects		Scratches		Defects		Scratches		Defects	
				Any	Any	Any	Any	Any	Any	Any	Any	Any	Any	Any	
				width < 5µm	dia < 5µm	width > 5µm	dia > 5µm	width < 5µm	dia < 5µm	width > 5µm	dia > 5µm	width < 5µm	dia < 5µm	width > 5µm	dia > 5µm
Criteria				0	0	0	0	0	0	0	0	0	0	0	0
				0	0	0	0	0	0	0	0	0	0	0	0
				0	4	0	0	0	0	0	0	0	0	0	0
CON0001.jpg	4/14/2009 10:56	PASS	SM	0	0	0	0	0	0	0	0	0	0	0	0
CON0002.jpg	4/14/2009 10:57	FAIL	SM	0	0	23	5	0	0	187	146	85	0	429	63
CON0003.jpg	4/14/2009 11:00	FAIL	SM	0	0	0	0	0	0	1	1	0	0	29	3
CON0004.jpg	4/14/2009 11:02	PASS	SM	0	0	0	0	0	0	0	0	0	0	2	0
CON0005.jpg	4/14/2009 11:03	PASS	SM	0	0	0	0	0	0	0	1	0	0	0	0
CON0006.jpg	4/14/2009 11:04	FAIL	SM	0	0	0	0	0	0	28	18	4	0	145	5
CON0007.jpg	4/14/2009 11:05	PASS	SM	0	0	0	0	0	0	0	0	0	0	0	0
CON0008.jpg	4/14/2009 11:06	PASS	SM	0	0	0	0	0	0	3	0	0	0	3	0
CON0009.jpg	4/14/2009 11:07	PASS	SM	0	0	0	0	0	0	0	0	0	0	2	0
CON0010.jpg	4/14/2009 11:07	PASS	SM	0	0	0	0	0	0	0	0	0	0	3	0
CON0011.jpg	4/14/2009 11:10	PASS	SM	0	0	0	0	0	0	0	1	0	0	8	0
CON0012.jpg	4/14/2009 11:11	PASS	SM	0	0	0	0	0	0	3	3	0	0	8	0
CON0013.jpg	4/14/2009 11:30	FAIL	SM	0	0	8	0	0	0	2	4	0	0	0	0

