

Failure Mode

- TFT Displays
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TFT Displays








DATA DISPLAY GROUP

Failure Category	Type	Drawing	Description
Display	Abnormal Display		Display is unstable. It shows a distorted image
	Flicker		Image is unstable and shows „vibration effect“. Can be detected only using windows shut down pattern.
	No Display		Only bright screen is observed. No color images.
	Noise		Some interference lines across the screen.
	Image Sticking		After changing to the next image, previous image is still visible.



TFT Displays



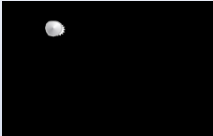
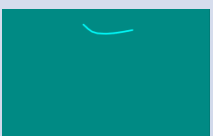
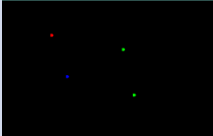
Failure Category	Type	Drawing	Description
Display	Crosstalk		Shadow or gray effect appears vertically or horizontally from the image.
Line	Horizontal line		Colored lines appear horizontal across the screen. Maybe full stretch or partial or broken lines.
	Vertical line		Colored lines appear vertically across the screen. Maybe full stretched or partial or broken lines.
	Horizontal block		Distorted image occurs in a full horizontal block.
	Vertical block		Distorted image occurs in a full vertical block.



TFT Displays



DATA DISPLAY GROUP

Failure Category	Type	Drawing	Description
Uniformity	Ripple		Colored dispersion at the side of the LCD when stress is applied.
	Stain		Colored non-uniformity across the screen over a certain area size.
Pol	Dent		Sink mark on the polarizer surface due to external impact or mishandling. All of these will be re-shipped to customer.
	Scratch		Scratch line on the polarizer surface due to external impact or mishandling. All of these will be re-shipped to customer.
Dot	Defective Dot		Bright, dark or colored dot on the screen. Acceptability depends on LCD model and customer requirement. (Please confirm your specification for judgment.)



TFT Displays



DATA DISPLAY GROUP





Failure Category	Type	Drawing	Description
Backlight (B/L)	No or dim video		Dim image due to spoiled backlight which causes no source of light.
	Particle & wavy sheet		<u>Particles</u> : Dust trapped between backlight foil sheet. (Refer to specification for limit or acceptance.) <u>Wavy sheet</u> : Folded sheet causes wave effect on the backlight unit.
	Screw hole damage		<u>Example</u> : Misalignment of screw hole with chassis, damage screw thread
	BWIR: B/L wire		Deformed or corrupted by external damage, customer's fault or wire burnt, dented. Occurs simultaneously with mold crack.
Inverter	Function		Inverter function failure causing backlight will not turn on.



TFT Displays


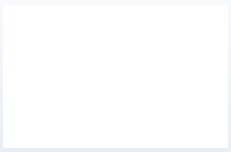



DATA DISPLAY GROUP

Failure Category	Type	Drawing	Description
External	UGAP: Gap		Because of external impact or a long period of applied pressure a cell gap occurs on some parts of the panel -> this causes this kind of failure. All of these will be re-shipped to the customer.
	MCBK: Connector Broken		Connector cover broken, dented, scratched or damaged due to external impact or mishandling. Found in all models.
	GBRK: Glass broken		Glass broken due to external impact or mishandling. Occurs in all models. All of these will be re-shipped to customer.
	UGSP: Glass separate		Air penetrates when the gap between the cells widens by external impact -> this causes the same symptom as broken glass. All of these will be re-shipped to customer.



TFT Controller Boards

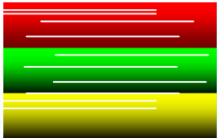
Failure Category	Type	Drawing	Description
Electrical	Black screen		Only black screen is observed. No color images, no OSD
	White screen		Only bright screen is observed. No color images, no OSD
	Dim image		Dim image due to spoilt backlight which causes no source of light.
	Wrong colors		The display has no correct colors, is reddish, greenish or bluish...
	Memory		Uncontrolled artefacts are displayed



TFT Controller Boards



DATA DISPLAY GROUP

Failure Category	Type	Drawing	Description
Electrical	Abnormal display		Display is unstable. Display shows distorted images.
	No RGB signal		Input signal is not detected.
	No s-video		Input signal is not detected.
	No composite video		Input signal is not detected.
	No component video		Input signal is not detected.



TFT Controller Boards



DATA DISPLAY GROUP


Failure Category	Type	Drawing	Description
Electrical	No DVI		Input signal is not detected.
	No OSD		OSD menu does not appear or does not work correctly.
	Artista is not detected		The Artista is not detected by your PC.
	Artista Touch		The ArtistaTouch screen does not work properly.
Mechanical	Connector broken		If a connector is broken by external impact, please advice the connectors number or funcion. <u>Please note:</u> In case of ripped off older joints the board is irreparable.
	Component or PCB track burnt		If single components or conductive tracks are burnt.



Touchscreens



DATA DISPLAY GROUP

Failure Category	Type	Drawing	Description
Touch	Contamination		If liquid penetrated between foil and glass.
	No function		If the touchpanel has no function at all, please make sure that the failure derives from touchscreen but not from touch controller.
	Wrong function		If the touchscreen does not work correctly. Some areas do work well, some are lack of sensibility.
	Defective tail		Tail deformed or damaged by excessive stress. Customer´s fault. Even if wires are burnt or dented.



IPC's



DATA DISPLAY GROUP

Failure Category	Type	Description
		<p>IPC boards could have difficult failures, therefore we do not categorize!</p> <p>Please describe the failure as accurate as possible. Please also add the information how often the failure occurs (always / sometimes / after x hours, etc.) and which operating system you are using.</p> <p>Please understand that „no function“ or „defect“ is not accepted by the manufacturer.</p> <p>Therefore we have to check all boards by ourself if you can not specify the failure. We have to charge these costs to you.</p>



TFT Monitors



DATA DISPLAY GROUP

Failure Category	Type	Drawing	Description
Mechanical	M1		Touch is broken / tail is damaged.
	M2		Scratch or crack on display surface.
	M3		Chassis is damaged.
	M4		Cable is broken or damaged.
	M5		Something else is damaged.



TFT Monitors



DATA DISPLAY GROUP

Failure Category	Type	Drawing	Description
Electrical	E1		Dark screen. No reaction on start up.
	E2		Vertical or horizontal lines on the screen.
	E3		Image shows up on start but then turns to white or black after a short time.
	E4		Only partial image is visible.
	E5		Display is dim on top or bottom of the screen.



TFT Monitors



DATA DISPLAY GROUP

Failure Category	Type	Drawing	Description
Electrical	E6		Touch does not react.
	E7		Touch can't be calibrated.
	E8		Touch does not work correctly.
	E9		RGB board displays failure notice.
	E10		RGB board does not recognize presence of image data i. e. LED is stuck on red without displaying an image.



TFT Monitors



DATA DISPLAY GROUP

Failure Category	Type	Drawing	Description
Others	S1		Touch / glass is not mounted correctly.
	S2		Dust or any other contamination inside the screen.
	S3		Monitor is not assambled with correct components.
	S4		Wrong labelling
	S5		Electrical parameters do not comply to specification.



RMA form



DATA DISPLAY GROUP



Bitte füllen Sie die gelben Pflichtfelder aus ! / The required fields are yellow !

RMA-No.

**IF YOU NEED HELP CLICK
HERE**

Date:	
Contact per:	
E-Mail:	
Phone:	+49(0)89-894363-801

Reported by (company): ①	Customer nr.: ②	Name of contact: ③	Phone of contact:	E-Mail of contact: ④	Fax nr.:
Position 1	Vendor art no.: ⑤	Distec type nr.: ⑥	Replacement ⑦ <input type="checkbox"/>	Credit Note ⑧ <input type="checkbox"/>	received date: ⑫
Reason of reject		Where claim is detected?		Which kind of failure ?	serial number ⑭
1. defect ⑨ <input type="checkbox"/>		1. incoming inspection ⑩ <input type="checkbox"/>		1. electrical damage ⑪ <input type="checkbox"/>	date code ⑮
2. wrong delivery <input type="checkbox"/>		2. assembly line <input type="checkbox"/>		2. mechanical damage <input type="checkbox"/>	revision no ⑯
3. return of borrowing <input type="checkbox"/>		3. start-up <input type="checkbox"/>		Condition of failure detection	
4. custom owned parts for analysis and/or adjustment <input type="checkbox"/>		4. burn In test <input type="checkbox"/>		1. temperature	
		5. end user(field) <input type="checkbox"/>		2. operation hours	
Detailed failure description: ⑰					
Position 2	Vendor art no.:	Distec type nr.:	Replacement <input type="checkbox"/>	Credit Note <input type="checkbox"/>	received date:
Reason of reject		Where claim is detected?		Which kind of failure ?	serial number
1. defect <input type="checkbox"/>		1. incoming inspection <input type="checkbox"/>		1. electrical damage <input type="checkbox"/>	date code
2. wrong delivery <input type="checkbox"/>		2. assembly line <input type="checkbox"/>		2. mechanical damage <input type="checkbox"/>	revision no
3. return of borrowing <input type="checkbox"/>		3. start-up <input type="checkbox"/>		Condition of failure detection	
4. custom owned parts for analysis and/or adjustment <input type="checkbox"/>		4. burn In test <input type="checkbox"/>		1. temperature	
		5. end user(field) <input type="checkbox"/>		2. operation hours	
Express-service ⑱	Treatment of the RMA within 2 days (50,00 € / pcs)		Declaration of consent (only for use EXPRESS-Service)		
	Yes, for Position:		I am informed about the conditions of express service and confirm with my signature		
			Name:	Date:	

Please download the RMA form on www.datadisplay-group.de
Please find the description on the nex page

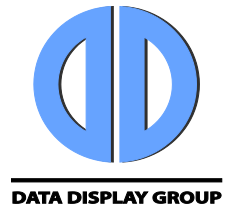


RMA form

- 1) Your company name
- 2) Your account number
- 3) Your contact person
- 4) Your contact E-Mail
- 5) Vendor P/N (e. g. LTM-150XH-L01)
- 6) Distec P/N (e. g. SA-01-142)
- 7) Do you wish a replacement?
- 8) Do you wish a credit note?
- 9) Reason of reject?
- 10) Where was the claim detected?



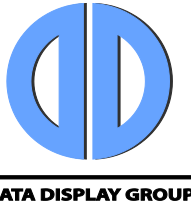
RMA form



- 11) Which kind of failure occurred?
- 12) When have you received the goods (Delivery note / Invoice date)
- 13) Number of Distec´s invoice or delivery note
- 14) Distec or Vendor serial number
- 15) Date code (COMMENT)
- 16) Revision number (COMMENT)
- 17) Failure description (you are kindly requested to use a failure description from above!)
- 18) Express service (additional option if you need RMA treatment within 2 days. 50,- EUR for each item)



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